

Fortunes Made in Andean Tin



Typical tin miners

(Copyright, 1914, by Frank G. Carpenter.)

TORURO, Bolivia.—Tin is now king in Bolivia. This country once produced one-third of all the silver mined in the world. It is now turning out more than one-fourth of all the tin, and it has such vast deposits of that mineral that it will some day drive the mines of Malaysia and Cornwall out of existence. Tin is found almost everywhere in the western chain of the Andes. It is mined on the high slopes about Lake Titicaca, and there are great tin deposits in the main ranges of the Cordillera Real and its numerous spurs. Right here in the heart of the Bolivian plateau, eight hours' ride by train from La Paz, is a tin mine, out of which they have been taking ore for generations. The mine has a tunnel that starts into it out of the very heart of the city, and one has to walk through this less than half a mile before he comes to the workings. These have been extended to a depth of 700 feet, with solid tin all the way. No one knows how far down the ore goes. The mine was worked by the Spaniards for silver, but later on changed from silver to tin and the bulk of the product is now in that metal.

The tin ore lies in veins between layers of rock. It is the meat of a mighty stone sandwich that has to be blasted out and carried to the surface. There the great chunks of tin and rock are broken to pieces and sorted over by Indian women, who pick out all the ore that will pay to be sent away for reduction.

During my stay here I visited this mine. Back of the buildings containing the machinery of its main works are mounds of broken stone and piles of valuable ore. The mounds look like gravel. They are the waste of the mine, having only about 1 per cent of the metal. The good ore looks like that of silver or lead. It is so dull in color that no one would imagine that it could produce the shine one finds on a new dishpan or wash boiler.

Ore Comes in Chunks.
I spent some time watching the Indian women at work. The ore comes out in chunks, some of which are ten times as big as your head. The women break the chunks into pieces with heavy steel hammers and pick out the bits that contain tin and silver. They have faces the color of copper, and as they sit on the ground pounding away their black bare feet and rosy bare calves can be seen showing out from under their very full skirts. They are dirty and frowny and their hair and bodies form the homes of unmentionable insects. They are muscular. Their continual pounding gives them large arms and they are noted for the size of their biceps. They keep at the job from daylight to dark, and their earnings are about 50 cents of our money. They are paid by the amount that they do, and it was with difficulty that I got them to stop work and pose for my picture.

Nearly all of these girls were chewing coca and their cheeks were swelled out by the fat quids inside them. While I waited some of the miners came out and I photographed them. I asked as to wages and they told me they were paid about 50 cents for ten or eleven hours' work underground. The men are brought up in the mines and are skilled in the handling of ore.

The mining company that owns this mountain of minerals has three different properties, all of which are producing silver and tin. It has hundreds of miners and keeps 200 women at work. The Oruro mines have always paid well, and today they are producing good dividends. I visited them when I was here some years ago, and before the railroad to La Paz had yet been constructed. The fuel then used was the llama manure, brought in by caravans from all over the country. It took four tons of that stuff to run the forty-horsepower engine twenty-four hours, and I remember going with one of the managers of the mine into the pit where the fuel was stored. It then contained 150,000 pounds of llama droppings. The stuff looked like gray bullets or gravel, and it was as dry as a bone and gave forth no smell.

Coal Fifty Dollars Per Ton.
Today the company is using coal at a cost of about \$50 a ton. It has installed the most modern machinery, and it is saving money by employing anthracite engines that give a 75 per cent fuel efficiency, using one pound and a half of anthracite per horsepower per hour. This saves a great deal in a region where the coal freights from the sea coast are from \$25 to \$30 per ton.

I have already written of the mines of Potosi that were opened up by the Spaniards. Since their beginning they have produced three or four billion dollars' worth of silver, and it is now thought millions of dollars more were thrown away in the tin which was mixed with the silver. The people did not understand the value of the baser metal. They could not realize that it might some day be worth \$1,100 a ton, which has been its selling price within the last year, although it is now very much less. So they took out the silver and left the tin on the dumps, whence it has been washed away by the streams. All this is changed and the great profit is now in the tin, the Potosi owners having originated a syndicate to operate the property on a silver basis. They will work the mines almost solely for tin and will capitalize them largely on their fame in the past as silver producers.

There are other tin mines of enormous value in the Potosi district. La Salvadora has produced as much as 1,000,000 pounds of pure tin in a month and the Uncia mines are now yielding more than a half million pounds of that mineral



Tunneling tin ore for blasting

every twelve hours.) The Uncia mines are the property of Simon I. Patino, who might be called the tin king of the world. He is worth many millions, and it all comes from tin.

From Poverty to Riches.
It is only a few years ago that Patino was a poor clerk, working for a few dollars a month. He had Indian blood in his veins, and no one supposed he would ever be more than a hireling. Then he found this prospect and tried to get his employers to work it. They had no faith in him or his property, and so he denounced the claim for himself. In some way he managed to get a small capital. At first he practically lived in the mine, laboring there with the few Indians he could hire at low wages. He finally struck a rich vein and since then the mine has paid as high as \$5,000,000 a year. It sometimes yields as much as \$200,000 a month. Patino has suddenly jumped from poverty to extravagant riches and he has hard work to invest the surplus. He is interested in banks and he has bought houses and haciendas and mines of various kinds. He has built a railroad from the Antofagasta line to Uncia, to get his ore out to the seacoast, and is installing the best machinery. Of late years he has been living in Paris and his properties are now managed by agents. I have already referred to the great blocks of tin from the Patino mines that will be shown at the world's fair at San Francisco.

Another Tin Romance.
I hear other romances of tin fortunes made on these Bolivian highlands. One relates to a German mechanic named Kemp, who opened a mine when tin was selling for \$1,100 a ton. He had no trouble in disposing of the property to a Chilean syndicate, which paid him \$100,000 in cash and an equal amount in the shares of the mines, which were then estimated at par. Kemp had no knowledge of the value of money, and he supposed that his \$100,000 would last him forever. He took it and went off to Europe. He spent right and left and within less than two years his fortune was gone. He then came back to Chile, expecting to get another \$100,000 by the sale of his stock. In the meantime the price of tin had fallen, and the shares that Kemp took at par were each worth 15 cents instead of \$5. He thought he had been tricked and threatened the company with a lawsuit. The officials replied that there was now no money in mining and that he could have the property back as a gift. He took it and for a time almost starved. He could not get enough food for his Indian laborers. Then the price of tin rose and he was able to recapitalize the mine. He organized a new company and the shares are now above par. Those which Kemp has, at their face value, are worth at least \$125,000.

I have already written of the Bolivian Exploitation and Development company, the president of which is Mr. Horace G. Knowles, our former minister to Bolivia. Mr. Knowles tells me that his prospectors have recently discovered a wonderful deposit of stream tin in one of the Bolivian rivers. The most of the tin now mined here is in quartz, but this stream tin is in nuggets and lumps from the size of an egg to that of your two fists or larger. It is said to be very rich, containing 55 per cent of oxide of tin. The deposit runs through the bed of a river for a distance of twenty-six miles.

Deposits Scarcely Touched.
Mr. Knowles thinks that the tin of Bolivia has scarcely been touched; he says that his engineers are sending in reports of many finds that promise to pay big dividends upon their development. He believes that when our canal is completed the tin ores of Bolivia will go to the United States rather than to Europe. We are now using 90 or 95 per cent of all the

tin mined, and the tin we get from Bolivia is taken down to the seacoast in the ore and shipped off to England, where it is smelted and then carried across the Atlantic to be used in our factories. Mr. Knowles thinks that the enormous canning industry of California should establish its own tin plate mills, and that the tin ore should go north along the Pacific coast from the mines to the mills.

At present it costs about \$20 to get tin from these mines to Liverpool, and, of this, \$15 covers the freight to the seacoast. The other \$5 is taken up in various charges, including \$13 for carrying the ore from Antofagasta to Liverpool. The distance to San Francisco, Los Angeles or Puget sound is very much less, and the great saving in the charges of the go-betweens who handle the tin between England and the United States would make a fine profit for the American factories. We are now using almost \$50,000,000 worth of tin bars and blocks every year. The export of Bolivia is worth much less than this, and the United States could take all of its product and still not have enough to satisfy its demands.

In the meantime tin prospecting is going on in many parts of this country, and the new railroads, now building, will open up highly mineralized territories that will probably increase the tin product. The old mines are being re-equipped with modern machinery, and many think that the future output will be such that it will drive the more expensive Malaysian tin out of the market. At present they are using 1,200-pound stamps to crush the richest ore, which is then run through screens of from six to sixteen meshes per inch. After that the tin is concentrated and shipped off to England. In the past the ore has been taken out of the earth in the most wasteful ways. Much of it was carried out of the mines in buckets of rawhide, up ladders, on the backs of Indians. Thousands of tons of the richest ore were crushed between stones and then washed out in streams of water by the Indian women. Much of this ore so treated carried from 40 to 50 per cent of metallic tin; the lower grades were rejected because they would not pay for the labor.

Titles Are Not Secure.
Before leaving the subject of Bolivian mining I would say that the future of the country depends largely upon the passage of the laws advocated by the president and congress. Just now the protection of mining investments in Bolivia is not so good as in Peru. There is a regular business in the contesting of titles by the lawyers, and in fighting for mines that other men own. I am told that there are many shyster lawyers and others who make a practice of laying claim to every mine supposed to be good and of contesting its title as soon as it is denounced. Said one of the leading railroad men of Bolivia to me yesterday: "I might go to the heart of the backwoods in the eastern part of this country and lay claim to a mine a hundred miles from where any white man ever trod. If I did so I venture that within two days after that mine was a matter of record there would be a half dozen applications filed, disputing my title and swearing that the contestant had record proof that he owned it. This is especially so of any mine, thought to be good, and that even long after the mine has been profitably worked. Not long ago the engineers of the largest American copper syndicate came to La Paz and spent six months looking over the ground. They found plenty of good prospects, but refused to invest under the present laws and went over the border to Chile, where they could be sure of their titles."

Lawyers Must Be Watched.
"One has also to watch the papers that his own lawyers prepare making his claim," this man continued. "I know of one case in which a big proposition was almost lost by an error in the description. The lawyer in giving the feet or meters from a certain point used the word 'northeast' where he should have used the word 'north.' When the error was called to his attention he said it was a slip of the pen, but had it been so recorded it would have resulted in withdrawing the title to a property worth hundreds of thousands of dollars. I have no doubt that that error was intentional and that with a view to a lawsuit in the future."

Moreover, any large property taken up by a Gringo is sure to have four or five contests filed against it by people who wish to embarrass the owner, and who expect to be bought off before they will relinquish their suit. I know of a case in which a Bolivian, who has been successfully operating a mining property for years, went to London and sold his mine to a British syndicate on the basis that the title was clear. When he returned he found that five different suits had been filed, claiming the mine, and it cost him \$200,000 to settle them."

Such things are injurious to the development of Bolivia, but I hear of other cases even worse. I am told, for instance, that the notaries public sometimes issue papers to themselves for the same properties concerning which they are paid to get titles for others, and antedate their own claims. If the mines turn out good, they can then claim prior titles. Another method is to leave some important clause out so as to furnish ground for a suit as to defect of title, and a third way is to forge false papers and claims. I know of many mines of value in Bolivia now in the hands of foreigners that are costing their owners much to defend them, and it certainly behooves all Americans counting here to invest in mineral prop-

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To the wife of the man who does not own his home

To you, a house and lot means far more than a real estate investment. It means a *home*—a place where you must spend the greater part of your life—an influence which shapes the lives of your children and lends to your own comfort and happiness.

How much more pride you would take in caring for a house that was your very own! The furnishings, decorations, etc., would be of your own choosing. The little improvements that you could make from year to year to suit your own comfort and taste would add interest and zest to life,

And then, the inevitable visit of the landlord around the first of the month, the steady drain on the family resources with nothing to show but a bundle of rent receipts, would be things of the past.

Perhaps you don't know that you can actually buy a home by paying just about the same amount monthly that you would pay for rent. You have got to pay out this money anyway and what a satisfaction it would be after a few years to possess the title to the place you live in rather than—nothing.

By this plan you would not only have a real home in every sense of the word, but the yearly increase in value of the property. Omaha real estate is a splendid investment and those people with foresight are taking advantage of the great opportunities now.

Talk this over with your husband today. Open the paper to the real estate advertisements in the classified section and place them before him. Suggest to him that he owes it to you and to his children, if you have any, to take this step. No doubt he has already given the matter a great deal of thought, but make your interest a little plainer to him.

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