

of the stream every year with profit. They stand in the water up to their waists and scrape the gravel together with their feet until they have made a little pile. They then dive down and gather a panful, often getting 25 or 50 cents out of a panful of gravel. Just the other day a nugget of the shape of a pear, weighing two and one-half ounces, was taken out. There was a Spaniard who worked the bed of the river to a slight extent years ago. He had a bucket brigade of Indians, who, equipped with rude cowskin buckets and standing on notched poles that served as ladders, passed the gravel and water from one to the other until they reached the top. It took two years of such work to get to bed rock, and it is said that the man took out during four years \$140,000 in gold. Another story, which is questioned, is that he took out 900 pounds of gold in a single year, and another is that he panned out 463 pounds in five hours. The pit where this Spaniard worked was about seven miles above the claims owned by the Denver men. It was, it is said, only twenty feet square. Gold is also found upon the Yaní river, which is not far from the Tipuani and in southern Bolivia.

The Peruvian gold field that is now attracting the most attention is the Carabaya district. This is not a great distance from Cuzco, and can be reached by five days' travel on mules and on foot from the branch of the Arequipa Puno railroad, which is extended toward that city. You have the railroad for the Carabaya on a mule and go two days down hill, then two days up hill and during the last day, you go down again for a distance of about 12,000 feet. This last journey is made on foot, and it takes about eight hours. You then find yourself in a region that is covered with trees and one where the vegetation is almost tropical. A river runs through it, and in this the Indians have been washing gold for centuries. These Indians are the descendants, it is supposed, of the Incas. They are semi-civilized, and can be got to work for you for 20 cents a day. Up until recently all of the gold from this part of Peru was from placer washings. The chief work today is in the quartz mines of Santo Domingo. Out of this mine 30,000 ounces of gold were taken in eighteen months, and it was later on sold to an American syndicate for \$285,000. Whether the mine is only a pocket or not is not yet known. The ore, I am told, runs very pocketly, though some of the quartz has run as high as \$130,000 to the ton. The ore that is now being worked turns out about \$500 to the ton. This is being put through a ten-stamp-mill. This mine was bought for the syndicate by a California man named Hardison, who came to South America to investigate the rubber business and got into mining. He managed the property for a while, but not successfully. He bought a lot of expensive machinery without considering how he could get it to the mine. It was in too heavy pieces to be carried there, and some of it is now lying along the road. The syndicate has now a new management, with Mr. V. K. Speare, a well-known mining man of Colorado, as its Peruvian head. I understand that the prospects of the mine are good, although as yet no large amounts of gold have been taken out.

Just above Lake Titicaca, near the Bolivian boundary at Poto, Peru, there are gold mines which are doing well. My information concerning this region is from Mr. Charles W. Bellows, an American prospector who is now in the employ of the Santo Domingo mine. Mr. Bellows has recently prospected in this part of Peru. Said he:

"There are at Poto placer diggings 16,700 feet up in the Andes, which are now turning out \$50,000 worth of gold every three months. The gold is 937 fine, some of the purest gold of the world. They are working the mine with one hydraulic, but they could, I think, use thirty with profit.

"There are other valuable gold mines," continued Mr. Bellows, "just across the line in Bolivia. At Suhez, just east of Poto, and at the same altitude, there are placers which at times pay \$20,000 a month and produce gold that is 963 fine, supposed to be the finest gold of the world. These mines were worked for 150 years by the Spaniards, but they are now in the hands of Messrs. Penie and Gibson, two young Englishmen who are developing it. They have a river with 130-foot fall, which gives them force for their hydraulic. In their sluice boxes are pavements of cobble stones, in which the gold falls, and they collect the fine gold with quicksilver. They have got some nuggets weighing as much as three ounces. Above Poto there is another good mine. It is known as the Potorosa. It is situated on the side of a mountain 22,000 feet high. It is now in litigation, but the people who have possession have been making a good thing out of it, and they ship a great deal of gold to Europe to be smelted.

I fear that some of the statements in this letter may lead Americans without capital to come to South America to prospect. I should most earnestly advise such to stay at home. This is not a poor man's country in any sense of the word. There is no chance at all for the man without capital, and there is no chance for the man out of money to make money by his muscle in competition with these Indians, who live like dogs and will work for about twenty cents of our money per day. Many of them are good mechanics, and as to bookkeepers and clerks the markets are overstocked. It takes a large amount of money to travel here and without proper supplies the hardships are inconceivable. I met last week two Americans who had been prospecting in the Beni region of Bolivia and in the Carabaya district of Peru. They were the hardest looking Yankees I have seen and their story was harder than their looks. They had attempted to live off the country, and had little more than cornmeal mush for three months. Some of the time they were almost starving, notwithstanding the fact that they had plenty of money with them. For weeks they had to walk through the rain and sleep at night without a fire in rude Indian huts, where at times they were only admitted because they forced their way in. There is absolutely no chance for a man to make his expenses as he goes along, and as for trying to wash enough gold out of the streams to support him, this is an impossibility, for the surface washings, and, in fact, all gold-bearing gravels that could be easily gotten at have been worked over and over by the Indians, first in the days of the Incas, later on when they were under their Spanish taskmasters, and since then from year to year for themselves. The gold regions on the eastern sides of the Andes are in many cases malarious, and those about here are so high that many cannot stand the rarified air and have soroche. No American can work here as he can at home, and most of those who attempt to do so soon give it up. As to the roughness of travel here and in the Rockies there is no comparison. The passes of the Andes are over the ridges of the mountains rather than through valleys, and passes of 16,000 and 17,000 feet are common. Mr. Bellows told me he crossed the mountains in one place at 19,000 feet, and that when he got to the top the other side seemed straight down, and his trip from there on was

like climbing down the side of a wall. Some of the roads over the mountains are by a series of steps, and mules are trained to climb and jump up from step to step. In some places the mules will sit down upon their hind legs and slide down the mountains, and you are often in such a situation that if you or your mule makes a misstep you are lost.

Let us look at what it will cost the ordinary American to come here to mine. We will suppose that his purse is lean and that he travels in the cheapest way. If he goes by steamerage from New York to Panama it will cost him \$30, and he will need \$35 more for his steamerage passage to Mollendo. It will cost him \$22 for actual expenses from Mollendo to La Paz, and so far nothing, whatever has been allowed for extras. At La Paz he must outfit, and here everything is high. A sack of flour will cost him \$11. He will find no baking powder and no bacon, and he will have to stock up with such canned goods as he can find at the highest prices. The chances are that he will decide to live off the country, and that his stomach will be turned upside down as soon as he gets outside of the settled regions. What he will have to eat if he can buy it will be cholona. This is a sheep, split and dried whole in the sun. He packs this on his mule or burrow, and it forms his staple food. It is exposed to the rain and then becomes soft. A terrible stench rises from it, and it looks like putrid meat, as it really is. Another food that is a staple is chuno, or frozen potatoes dried. These are much liked by the Indians, but are not relished by foreigners. Outside of these two articles you can buy nothing on the road. At the Indian villages you may sometimes be able to get vegetables, but no meats. Game is very scarce, and there is little wood for cooking except in the regions on the eastern slopes of the mountains. There is absolutely no fuel for warmth in what are some of the coldest of climates. If you carry an oil stove you will have to pack along kerosene for it, and this will cost you for the Peruvian variety more than \$1 per gallon. Many people cannot realize that it is cold in South America. I am wearing two suits of underclothing at this moment, and my feet are in a fur foot-warmer like that we sometimes use when out sleighing. I am only a little over 12,000 feet above the sea, in a hotel built of sun-dried brick. Many of the mining regions are 14,000 and more feet above the sea; there are no houses whatever, and at certain seasons the winds of the Andes are damp, cold and bonebreaking. The wind and sun tan you, and as a result of my rides in the highlands my face and neck are now the color of a boiled lobster, while my rosy nose is peeling off in scales. I now wear the knit mask which the natives wear on cold journeys. It is of brown yarn and so made that it covers the whole head, leaving holes for the eyes, nose and mouth. It serves its purpose, but it makes one look a very Mephistopheles.

The rainy season is a serious time for the American prospector. The grass on these high pampas is of a soft, spongy nature. It holds the water, so that going over it is like walking on wet sponges, and no boots can keep your feet dry. Rubber cracks and peels when exposed to it. In the gold region of the Beni river, where it is warmer, the rains are heavier, and the vegetation is so dense that at times you have to cut your way through with machetes. Sometimes it is impossible to make more than two or three miles a day, and in some re-