

width. It is supposed to be much larger, and claims have been taken up and holes have been sunk for miles around. One man, a well-known miner of Leadville, Major Bohn, believes that the blankets extend more than seven miles in width, and he is sinking a shaft away over the mountain, almost a half mile further down in altitude and seven miles away, in the Utah valley, on a sage brush prairie. He says he will go down at least 1,000 feet, and then he expects to strike the golden blanket. Many of the miners are, however, skeptical as to his success, but should his theory prove correct the riches of this district will be beyond human conception and the relations of gold and silver the world over may be changed by the result. As it is, at the most conservative estimate, the probabilities are enormous. Three blankets of gold ore eight miles long and 3,000 feet wide will turn out riches hitherto unknown in gold mining. The ore seems to grow richer as the blankets dip down into the earth, and the Golden Gate mine, which begin in the valley in which the town of Mercur is situated, Utah miners say are to be the biggest mines of the world. Already \$5,000,000 worth of ore has been blocked out within them, and within a short time their mills will be reducing this to bullion.

But let us pay a visit to Mercur. It is only fifty-five miles by rail from Salt Lake City, and we may ride down the Utah valley either over the Union Pacific or the Denver and Rio Grande Western railroads to Fairfield, where we get the wonderful standard gauge which by many loops and winding turns drags us up the mountains and lands us in the little nest in the hills where the mining town of Mercur lies. We are now a mile and half above the sea, and surrounded by some of the most beautiful scenery of the United States. The mountains are as gray and silvery as the hills of Greece. The sage brush on their sides seems to be covered with frost, and the hills are dotted with flowers of all colors. Above us shines a sky as clear as that of Italy, and all about us rise the great shaft houses of the working mines. In the nest or valley, winding about in the shape of a horseshoe, is the town of Mercur. It contains 2,000 people, and it consists of shanties running along one street which skirts the gully. The street is filled with men, the most of whom have their pants in their boots and who wear no coats, their flannel shirts being stuck into their trousers. At first you think they are lazy, but you soon learn that they are miners, and that the mines work day and night, in eight-hour shifts, so that there are always men off duty waiting for their turn to work. About Mercur the mines are to be seen on all sides. At one end of the horseshoe are the Golden Gate mines. Those rude, factory-like buildings with what seem to be gravel banks beside them are they.

The gravel banks are piles of ore, and that dust is worth \$75 a ton as it lies out there under the sky. Back and to the left of the Golden Gate is the great Marion mine, whose mill has been grinding up fifty tons of rock a day since 1893, and which has three miles of tunnels through solid ore, with 200,000 tons of gold-bearing ore in sight. Further on is the Geyser mine, which is now producing fifty tons of ore a day at a cost of

\$177 a ton, and adjoining them is the Brickyard shaft houses, so called because the mines connected with them are under the site of an old brickyard. Facing the Golden Gate mine behind you, several miles down the canyon, are the great Sunshine works, where the golden blankets are said to be seventy feet thick, and where the miners work right into the ore from the start. In these mines 300,000 tons of ore are blocked out, and some parts of the gold bearing rock can be reduced for less than a dollar a ton. Near this is the Overland property, which is largely owned by ex Congressman George W. Dorsey, who, by the way, is one of the shrewd investors here; and to the right of you, away up the side of the mountain, you see the shaft houses and dumps of the great Mercur mine, one of the first gold mines which was opened up, and probably the largest producer of all in the camp today. Out of it has already been taken more than a million dollars' worth of gold, and it has paid its stockholders more than \$500,000 in dividends.

The story of the Mercur is as romantic as that of the treasures of Monte Christo. Six years ago its chief owners were comparatively poor men in the little town of Freemont, Nebraska. Its president, Mr. John Dern, about a score of years ago, was driving a team for a lumber yard. He was a poor German, but he saved his money and at the time he invested in this mine he was, I venture, worth not more than \$40,000 or \$50,000. Today his income runs into the thousands a month, and I doubt whether he would sell his interest in this mine alone for a million. It was with him that I went through the mine, and from him I got the story of its development. One of the Freemont men knew that the Mercur rock contained gold. He got up a company of Nebraskans and they bought the property for about \$10,000. They worked it with experienced miners, but though the assayers told them there was gold in the rock they could not get it out. They wasted thousands of dollars in trying to reduce the ore by quicksilver, but failed. Then they tried the cyanide process and again failed. The rock when reduced to flour became pasty and dough-like and the solution of cyanide and water would not percolate through it. At last as an experiment, instead of crushing the rock to flour they put it into the pans in lumps of about the size of a pea and in this shape run the cyanide solution over it. This solved the problem. The cyanide solution soaked into the crushed gravel and carried away the gold. They have now here one of the biggest cyanide mills in existence, and though they still lose about 17 per cent of the gold they get enough out of the rock to give them an enormous profit.

The ore as it is taken from the earth has no sign of gold about it. Such of it as is ground into a powder looks not much different from the dust of a limestone road, and after it has gone through the cyanide solution the gold which is taken out is mixed up with a lot of dust, which looks for all the world like the scrapings of soapstone. After going through the mill I was shown a lot of this golden dust. If the same material was in your back yard and you did not know what it was you would probably want to sell it for ashes. It looks not unlike ashes. It is, however, the heaviest

dust in the world, and when I was given a long-handled shovel and asked to lift a shovelful I anticipated no trouble. I drove the shovel easily into the dust, but lifting it was like lifting so much lead. I found that there were twenty pounds of weight at the other end of the handle, and upon asking, was told that there were about \$250 worth of gold in that which I raised from the ground. The ore is so reduced, and this dust is then sent to the refining furnaces to be turned into pure gold.

The Mercur Mining Company owns 160 acres of land on the side of the mountain above the town, and it is believed that there is gold under the whole 160 acre farm. Think of a quarter section of land underlaid with three blankets of gold-bearing rock lying one on top of the other. Let each blanket run from five to thirty feet in thickness, and let there be a blanket of shale or limestone between the golden blankets and you have some idea of the Mercur mine. So far, wherever the ground has been pierced it has struck the gold, and this is the same with nearly every other piece of mining property in the eight mile stretch which I have described. The upper blanket is not quite so thick nor does it average quite as much gold as the two below and still it carries about five dollars' worth of gold to the ton. In one place they have gone through the blanket lengthwise 4,000 feet, and at others they have run out into the blanket at right angles a distance of 1,000 feet. I was shown places in which the gold crops out in the side of the mountain, and I walked into a tunnel which had begun thus at the surface, and which went down, down, down for 1,000 feet. The blankets of ore dip at an angle of 60 degrees and they spread out in a wavy shape over the territory.

The tunnel which we entered was high and wide. It was cut, as I have said, right out of the ore, and as we went down into the earth we found on each side of us great chambers reached by other tunnels, the whole making me think of the catacombs near Rome. Some of these chambers were so large you might put the Capitol at Washington inside of them. Some have many stories, the floors being upheld by great timbers, the structure being built upward as the gold ore is taken out. The tunnels were so high that we could walk through them without stooping, and so wide that we appeared at times to be passing through vaulted corridors. Every few yards we passed openings where other tunnels quite as wide jutted off, and in many places there were spouts or chutes down which the ore was rolled and loaded into the cars by gravity. Every tunnel has its railroad track within it, and here and there we found cars loaded with ore. There were hundreds of miners at work dressed in blue overalls, blue shirts and slouch hats. Each man had a pick with him, and each carried a curious candlestick of steel, which looked like a ring fastened to what looked to be an immense knitting needle and of such a nature that a man could stick the handle of the candlestick into the earth. In some places men were drilling, and in others they were getting ready to blast with dynamite.

In all of the tunnels and in every room the gold-bearing rock was pointed out to us. As we looked we could see how easily and how cheaply it could be