

the Spirit of God to me that I should recover. I bear testimony to you that God lives, and I know it. I bear testimony to you that Jesus is the Christ, the Redeemer of the world. I bear testimony to you that Joseph Smith was a Prophet of God. I pray that God may lead us one and all by the light and inspiration of His Spirit, and I ask it in the name of Jesus. Amen.

### MILLIONS IN MANGANESE.

Panama, March 10, 1898.

The biggest enterprise on the isthmus of Panama, outside of the canal and the Panama railroad, is the manganese mine which has been lately opened up by Baltimore parties on the Atlantic coast about forty miles above Colon. This company is now shipping from 2,000 to 3,000 tons of manganese a month, and they have, I am told, over 100,000 tons in sight, and are discovering new deposits right along. At the present cost of working their mine, a hundred thousand tons will net them more than a million dollars, and this is, it is said, just the beginning of their work. Manganese is, you know, one of the rarest of metals. It is used in making fine steel and is needed in the manufacture of armor plate and gun forgings, as it makes the metal tougher and more flexible. There is a little manganese found in Virginia, Georgia and Arkansas, but Mr. J. M. Hyatt, the assistant superintendent of the mines here, tells me that we annually produce only about 15,000 tons, while our consumption is 150,000 tons. The remainder we buy from Russia and elsewhere. Manganese costs, according to quality, from \$14 to \$15 per ton. It lies here in a great lump or deposit on the top of a mountain, and is mined much like iron. Mr. Hyatt says it costs the company only about \$4 per ton to get out the ore and land it in Baltimore, so that there is a clear profit of \$9 or \$10 a ton, or, at the present shipments, of from \$27,000 to \$30,000 a month. Within the past year and a half this company has shipped 24,000 tons, and it is now only two years since it got possession of the property. The company is capitalized at \$200,000, and the chief stockholders are John K. Cowen of the Baltimore and Ohio railroad, Mr. Woods, the president of the Maryland Steel company, and Henry Parr of Baltimore.

The story of the mine as told to me today is as follows:

"It was discovered," said Mr. Hyatt, "by a Spaniard, who showed specimens of the ore to a man named Popham, who was a United States inspector of customs at Colon. Popham went to see it. He did not then know manganese from stove blacking, and had no idea whether the stuff was worth anything or not. He took specimens, however, to New York and every one told him that if there was much of the stuff it was better than a gold mine. He interested the Baltimore parties, and they sent experts down to examine the property. Their report was that there were several thousand tons in sight, and a company was at once formed to buy the mine and develop it. This was two years ago. We now have nine miles of railroad running from the port Nombre de Dios, where our wharves are, to the mines. We have put up works and are now employing about 300 men. The superintendent of the mine is E. B. Williams of Connecticut. He has charge of the works and I attend to the railroad and shipping."

"How did it come that the mine was not discovered sooner?" I asked.

"I don't know," was the reply. "There were great boulders of manganese lying on the top of the ground, but I suppose such prospectors as saw them were looking for gold and had no idea that the stuff was of value."

"Is the mining very difficult?"

"No," was the reply. "We blast down the ore with dynamite and load it into buckets which run by gravity on an overhead cable line down to the cars at the foot of the mountain, the loaded buckets carrying back the empties as they go down. The ore sells in the shape that we take it out without smelting or any other treatment."

"Are there other deposits in the same region?"

"I think there are," said Mr. Hyatt. "We have bought all the land in sight and have prospectors out all the time. We have discovered some new deposits, but nothing like the first one. In this deposit we have already gone down 140 feet and are not yet at the bottom. At the top of the mountain the body of ore is about 150 feet thick, but it widens as it goes down and we don't know how thick it is."

I took a ride with the superintendent over the Panama railroad yesterday. This road is one of the best paying pieces of property in the world. It has made big fortunes for its owners in the past and today its receipts are far in excess of its expenditures. What would you think of paying \$200 to ride from New York to Boston, or \$450 for a first-class railroad ticket from New York to Chicago, \$1,000 to go from the Atlantic to Salt Lake City, or \$1,500 to be carried over the iron tracks across the continent to San Francisco? Such a rate would be about 50 cents per mile, and this is just what the Panama Railroad company received for every passenger it carried for more than thirty years of its existence. The length of the road is forty-seven miles, and the fare up until 1893 was \$25 in gold. All through passengers on the New York steamers who have tickets for Panama are now charged \$10 in gold for this railroad trip, and the local fare from Colon to Panama is \$4 in gold, but the baggage rates of 3 cents a pound make this much higher, as only fifteen pounds are allowed free.

The Panama railroad is emphatically an American institution, though the majority of the stock is now in the hands of the Panama Canal company, being, in fact, about the only valuable asset the company has. The road was built by Americans and today all of its officials, including the ticket agents, conductors and engineers, come from the United States. It is a golden monument to American pluck and energy. The concession for it was granted to an American syndicate in 1850, and this included all the rights of way across the Isthmus of Panama, which is, as I told you, 400 miles long. No one can make even a wagon road across the isthmus without this company's permission, and so far no road of any kind has been attempted. As we went over the railroad Colonel Shaler, the superintendent, told me that the natives whom we found walking or riding on the edge of the track, were able to do so only by the sufferance of the company. The original grant gave the company all the public lands on the line of the track, and provided that the ports of Panama and Colon were to be free ports. This last is the case today. The original concession was for only forty-nine years, but it has since been extended, with some modifications, to ninety-nine years, during which the company pays the government \$250,000 a year for the privilege.

It took five years to build the road. When it was begun the isthmus was a miasmatic wilderness, and the line ran through the swamps and along the valleys of the Chagres and Rio Grande rivers, crossing the mountain range at an elevation of 268 feet. Forty-seven miles of such road could be easily and comparatively cheaply built in the United States. Here it cost, by the time it was completed, \$8,000,000. It began to earn money as soon as the first few miles of track were laid, and when the

road was opened for traffic, in 1855, it had already received over \$2,000,000 for transportation, and within four years its earnings were more than its original cost, and the owners were walking on velvet. During one year it carried 1,200,000 passengers, receiving \$30,000,000 from that source alone. It has carried as much as 500,000 tons of freight in a year, and within twelve years after it was finished \$750,000,000 worth of specie passed over it on its way from San Francisco to New York. It got all the gold passengers of the early '50s who crossed the isthmus, and made them pay heavily for carrying their gold mining outfits in addition to the \$25 fare.

Even at these rates the trip was a cheap one, for it shortened the danger of the fevers which often caught these gold hunters who crossed on foot. The ride by rail is less than four hours. By mule or on foot it took two or more days. The health of the isthmus was then worse than it is now. During the building of the road the company ran a funeral train, and it is said that there were more deaths than there are ties in the entire line. I was talking yesterday with an American who ran the funeral train. He says they put the dead in rows, piling one row crosswise on the top of that beneath it, until the big hole made for the day's burial was nearly filled, when earth was thrown in to fill up. One thousand Chinamen were imported for the work. Within a month a number of them had died, and hundreds of the remainder committed suicide, so that the station where they worked is now called Matochine, which means Kill-Chinaman. We brought down a Brooklyn boy with us who has the job of station agent at this place. I would not take the place for the isthmus. I met yesterday a graduate of the Boston school of technology, who has come here to work on the railroad. He told me he received \$150 a month, which was better than he could do in the states, but that he had just gotten up from an attack of malarial fever. I met a Baltimore man—a Mr. Hodges—who is employed in the general offices, who told me he had had a siege of yellow fever last year, and, in short, I have found but few Americans who have not been fever-stricken at some time or other during their stay here. Many of them say, however, that the isthmus is no worse than some of our southern ports, and that if one takes good care of himself there is not much danger. I am told that of all the foreigners, Americans stand the climate best, English next, then French, and then Italians.

The ride across the isthmus is a delightful one. The country after you pass the few miles of lowland on the Atlantic side rises into many wooded hills, and the distant views make you think of the forest-covered rolling lands of the United States rather than of the tropics. There are few palm trees, though you now and then pass a banana plantation. You go by villages of thatched huts and the buildings of the canal people are everywhere to be seen. The road runs very smoothly and the track is well kept. It is a five-foot gauge equipped with lignum vitae ties, and fifty-six pound rails. These ties are about the only ones, except iron, which will withstand the attack of the wood-eating ants which are found here. They are from trees so small that a tree seldom furnishes more than one tie, and the wood is so hard that spikes cannot be driven into it. Holes have to be bored for every bolt, and this extra work makes the ties expensive. Each one costs about \$1.80 in silver. The telegraph poles are of iron. All of the rolling stock comes from the United States. The superintendent's private observation car, in which we rode, was made in Wilmington and some of the locomotives came from Philadelphia. The first-class cars have