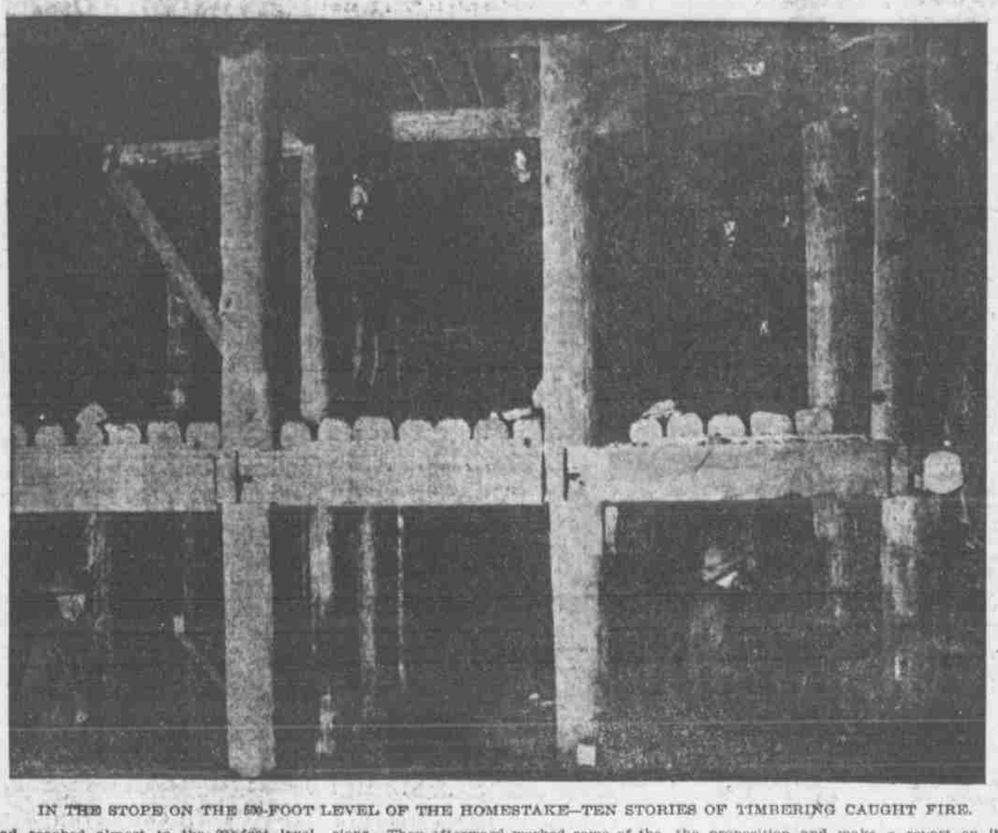
Great Homestake Mine Into Which Rivers Are Turned to Quench Fire



IN THE STOPE ON THE 550-FOOT LEVEL OF THE HOMESTAKE—TEN STORIES OF TIMBERING CAUGHT FIRE.

WORKING A MACHINE DRILL UNDERGROUND AT THE HOMESTAKE.

LEAD, S. D., May 4.—(Special.)—On March 24 last, fire was discovered on the 550-foot level of the Homestake mine, in stope No. 4 north. When the fire was discovered among the timbers it had gained such headway that it was deemed advisable to hoist the men from the lower workings to the surface, and this was done. Arrangements were made to fight the flames, but, despite all that could be done, there appeared to be no headway made against them. On the third day a heavy gas was generated, deadly in its effects upon those coming in contact with it. Many of the men were overcome and it was then seen that the ordinary methods would not prevail or be effective. Steam was turned into the burning stope, but that seemed to make conditions even worse than before and did not do anything toward putting out the fire. All the science could devise and practical mining men suggest was tried, but the fire burned on. After a while the gas became less troublesome and the fire was attacked with renewed energy. Several times it was believed to have been extinguished, but would again break out with renewed violence, the gas and smoke again accumulated, driving the fighters away from the fire and to places of safety. On Monday last Superintendent Grier gave up all hope of putting out the fire by the usual method and decided to flood the workings as a last resort, and operations were begun looking to turning the full volume of water running in Whitewood and Deadwood creeks into the mine. This work has been completed and the full flow of both streams, together with over 1,000,000 gallons a day from Spearfish creek, are being emptied into the workings of the property.

Miner's Neglect the Cause.

It is said on the very best of authority that the fire originated from a blast set off in the stope by one of the workmen, a foreigner, who fired his holes close to where the timbers in the stope are the thickest. It is usually the custom after firing a round of holes for the miner to return and see what his shots have done. In fact it is demanded that he do so, so should there be dangerous ground he can warn the shift that is to follow of the conditions, and put out any fire or smudge which may have been left from the burning fuse or particles of unexploded powder. The fellow who fired the shots failed to do, and it was an hour or two after the blast had been exploded that the fire was discovered, and then it was too late to do more than to warn the men working on the lower levels and in other parts of the mine, rescue the horses and mules and get them to the surface and safety.

Material for the Fire.

Some idea of the magnitude of the undertaking to fill the mine with water may be had from the fact that there are over fifty miles of railroad track laid in the various tunnels and drifts of the mine; that for twenty years a line of narrow gauge railroad has been hauling timbers to Lead, and all of that timber has been placed in the mine; that some of the stopes, which do not include the fifty miles of tunnels and drifts, are big enough to take in The Bee building and have room for other smaller buildings. Many of the stopes are so closely filled with timbers that it is almost impossible to pass through them, and were all of the lumber in the houses of Lead placed in the mine, it would not be a quarter of the amount that is in the mine, so the fire, should it spread from its present place, has an unlimited amount of material to work on.

It is estimated with Whitewood creek and Deadwood creek, the natural flow of water into the mine (1,000 gallons a minute), and the water from Spearfish creek that it will take forty-seven days to flood the mine to a point above the 300-foot level, two levels above the present location of the fire. It is said that the mine can be pumped out within sixty days and that the workings can be put in shape again within three months from the time the mine has been drained. During the time that the mine is being filled the fire will be fought until the men can no longer remain in the workings. This will be done in the hope that it can be corralled and that it will not be necessary to flood the mine above the 600-foot level.

At the present time nothing is being done around the property except fighting the fire and watching the water raise in the workings. On Saturday night the water had reached almost to the 300-foot level, but after it has passed that level the raise will be slow, as the 800-foot levels above are the largest in the mines.

Story of the Homestake.

In the summer of 1876 the Manuel brothers, prospectors, discovered the original Homestake mine, on the divide between Gold Run and Bobtail creeks. On the surface the ore was very rich, and, for a time, the Manuels worked the ore which they took from the openings made on the property in an arastra, a primitive mill, such as was used centuries ago in Mexico, and by the Spaniards in their American possessions. They afterward worked some of the ore in a small stamp mill which had been erected on the present site of Lead. By both of these methods the ore paid, although a close saving of the gold could not be made. The richness of the ore attracted considerable attention from miners, especially from those who came from the quartz districts of California, a number of capitalists from that state having representatives in the Black Hills looking up good propositions, J. B. Haggin being among that number. Reports of the richness of the Homestake claims coming to his attention, he sent the late Senator George H. Hearst to the Black Hills to look into the proposition and make a report on it. The report made by Mr. Hearst was satisfactory and he was instructed to secure the mine if possible for Haggin and his associates. This Mr. Hearst did, securing the property for about $100,000.

First Forty-Stamp Mill.

In November, 1877, the Homestake Mining company was incorporated with a capital of $16,000,000, divided into 160,000 shares. At this time $100,000 was paid in to pay for the property, and afterward two assessments of $1 per share were levied upon the capital stock, realizing $200,000. This money was utilized to build the first mill upon the ground, an eighty-stamp plant, which cost, including transportation, $140,000. It was completed in July, 1878, being supplied with ore from an open cut on the Homestake claims. At this time no attempt was made to treat the tailings from the mill nor from the mills erected later, and it was not done until the property had been working for several years, after which it was commenced, and then it was confined to running the tailings over Brussels carpets and saving the concentrates, which later were smelted, but at so high a cost that little profit was obtained from them. Although, when compared with present methods in use by the company, its first attempts at milling and gold saving were crude, the property paid from the first time its milling plant was cleaned up, and from October, 1878, has continued paying dividends, ranging from 10 cents to 50 cents per share, not missing a month. In round numbers, since October, 1878, the mine has produced in the neighborhood of $85,000,000 in gold, more than three-fourths of which has been paid out for labor, the making of improvements and the purchase of water rights and additional ground, including adjoining incorporations, paying during that time something in excess of $15,000,000 in dividends.

From time to time the original eight acres (the original Homestake claim) has been added to, until at the present time the company's holdings in the immediate vicinity of Lead amount to 2,600 acres, mostly all of it valuable mining property, upon which workings have been established.

Immense Plants in Operation.

Year by year the company has been improving its property and its milling and treatment plants, and from the first eighty-stamp there has grown up a system of mills and cyanide plants and slime treatment plants that cannot be equalled by any other in the world, and the mills having a daily capacity for treating 4,000 tons of ore, the cyanide plants a capacity for retreating the tailings from all of the 1,000 stamps' dropping and the slime plant a capacity of 1,500 tons a day. All of the company's six mills have been until the fire in daily operation, three of these being located in Lead, two in Terraville and one in Central City, and all of them connected with a network of railroad lines, underground and surface, operated by steam and compressed air. The cyanide plants of the company, the largest in the world, are located in Gayville and Lead, being connected with the mills by pipe lines which convey the tailings to them for retreatment.

A year ago the company began the construction of a slime plant above the city of Deadwood and it is now running, but will close down in a day or so, the company having expended about $600,000 upon it.

Established upon its different properties ore hoisting works capable of caring for and handling all of the ore mined daily in its underground workings, the largest of the hoists, the Ellison, being next to the largest in the world and costing with its equipment in the neighborhood of $700,000.

Railways and Other Works.

In the first years of its operation the company built a system of narrow gauge railroad lines, radiating from Lead through the wooded sections of the Black Hills and connecting with the Northwestern system at Piedmont, forty miles distant, in all a trackage of about fifty miles. Over this system of roads the company hauled its fuel, mining timbers and other supplies until a few years ago, when it sold this system of roads to the Chicago, Burlington & Quincy, which company is now operating it at a profit, the company receiving for the same a handsome compensation.

It has but recently completed a system of water works, taking water from the Spearfish river twenty miles distant. At the town of Hanna, fifteen miles distant, the company has established a pumping station, which lifts this water over a divide of 500 feet, where it is delivered into a tiled ditch and conveyed to reservoirs in Lead and distributed to the company's mills and the cities of Lead, Terraville and Central. This is but one of the company's water systems, costing for the installation of pumping machinery, construction of ditch and labor $1,000,000.

On the line of the new water system the company has recently completed and placed in operation a power plant for the generation of electricity at a cost of about $300,000, from which power is furnished for two of its mills.

On the company's grounds in Lead are machine shops capable of making any necessary repairs to the machinery in operation; a foundry, in which castings to the weight of ten or twelve tons, can be made; carpenter shops, repair shops of all kinds and department buildings in which the business of the corporation is transacted, all connected with a private telephone system, which includes in its ramifications the most distant parts of the underground and surface workings of the company, its wood and timber camps, its lime and other camps. In fact, it is as complete and extensive as that of a good sized city.

It would be a small estimate to place the cost of the improvements, the buildings, the milling plants and their contents, owned by the company at $20,000,000.

In the employ of the Homestake company up to the time of the fire were 2,500 men, who received an average wage of $3.25.

Lead and the Homestake.

Lead is not a mining camp in one sense of the word, for it would be difficult to find in an eastern city of the same population the same facilities. Its public school system is without an equal, its school children have greater facilities, are more comfortably housed and cared for, than in any city of the same population in the east. Its streets are paved, it is lighted by electricity, connected by telegraph and telephone lines with the outside world, has handsome and substantial business blocks, one of the largest banks in the west, a splendid water system and many other conveniences not enjoyed by cities nearer the seaboards. It is substantially a city of homes and handsome residences, which are owned and occupied by employes of the Homestake company or those who derive indirect support from the working of its mines. All of the advantages and improvements, all of this substantiality has been made possible by the operations of the Homestake Mining company, which had distributed something like $220,000 a month in wages to its peoples until a few weeks ago. Lead had a population of between 7,000 and 8,000, but it is estimated that at least 2,000 have left in the last year, and of this population 2,000 were

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Cadet Battalion of the Omaha High School Makes Fine Appearance

SALUTE DURING BATTALION DRESS PARADE.

Fruit Trees Are Apparently Caught by a Second Winter

THEODORE WILLIAMS, the Burbank of Nebraska, who has done more to improve the fruit and make the orchards of Nebraska than any other one man in the state, says we will have plenty of fruit yet. He gives as his reason the fact that the trees went into winter quarters in April and will emerge again in such time as the warm days of spring finally come. Mr. Williams furnished The Bee with the following statement, and photographs from which the accompanying pictures are made:

Present Condition of '07 Fruit Crop.

"Oh, dear! dear! what can the matter be? Matter be!" Oh, why does nature, that erratic and wonderful wizard, raise our hopes on high, only to blast with a blizzard.

Never before has there been such peculiar, ill-defined interest and aggressive curiosity about the fruit crop from all parties and in all callings, for nature's high kicking in her operatic tableau of March and April, 1907, has caused it.

She has dangled us on the torrid line of the equator. She has regaled us from the ice chest of the northwest passage. She has plunged her poignant dagger of frost deeper into the tender fescudating organs of the fuit buds and blossoms of this year's crop and has kept more persistently at it than ever before. It has been a freeze or blizzard every day or night since the first week in April, until April 23, the first day without a frost and warm enough for pollenation and procreation.

Generally two to four degrees of frost ruins the stone fruits, and five or six is dangerous to pears and apples, when near the blooming time. Night after night it has been from ten to fourteen degrees below freezing, without any apparent injury to our fruit crop until the morning of April 19. Then the demon of the north took new tactics. On the 17th snow fell all day. About seven inches covered the trees and all the fruit buds and blossoms with snow, and then on the 17th and 18th it slowly melted, saturating, soaking all fruit buds and blossoms, and then on the night of the 18th and morning of the 19th all the thermometer fell to eighteen degrees—fourteen degrees below freezing at 2 to 3 a. m., and at twenty-two at 7 to 8 a. m., still ten degrees of freezing. This unprecedented cold was accompanied by a freezing white frost deposit as dense and wet as a rain. This encased every fruit stem, bud and blossom, and every organ of procreation was frozen into solid, brittle icicles.

Looking at those icicles I made up my mind that within there was still left a life longing to get out, and with favorable days from then on for their fecundation, were still able to greet us with nearly a full fruit crop.

The reason why freezing has not appeared to have its usual effect is simply this: The fruit felt the influence of that hot summer weather for a long time in March and early blooming sorts came out with their blossoms. This was followed by winter conditions in April. These trees, buds, blossoms and all, simply concluded their season was over and tried to go into winter quarters. The sap stopped circulating, the bark on tree and fruit stem became dry and adhering. Some plants on ours and neighboring places took on the changing hues as in the fall. Noticing what the trees were doing I made the claim to friends that we would not lose our fruit prospects this year unless the mercury fell lower than fifteen degress above zero. And they practically did even better, for on the 19th when soaked, they stood fourteen degrees below freezing down to eighteen above zero. All fruits are practically in good condition now but apricots.

THEODORE WILLIAMS.

ROW OF JAPAN PLUMS IN BLOOM IN THE SNOW.

STELLA APRICOT, LOADED WITH FRUIT AND SNOW—STILL HAS FRUIT AFTER GREAT FREEZE OF APRIL 19.