

MINES AND MINING IN THE NORTHWEST

EDITED BY B. E. St. Charles

BONANZA HAS A FREAKY HOIST

TWO SHAFTS ARE WORKED ON THIS CLAIM WEST OF TOWN.

Curious Contrivance for Bringing Up Ore—Ingenious Device for Handling Water—Plans for a Crosscut to Reach Rich Silver Ore—Lessees Who Have Long Heads Work Two Shafts With One Engine.

Thomas Wright, Thomas Parker and John Haines are working the Bonanza claim under lease and are doing fairly well with it. The property is located in the southwestern part of the city, a few hundred yards west of Missoula gulch, and is owned by A. W. Barnard. The lessees are working two shafts on it, and when it comes to ingenuity in the way of economic operation they cannot be beaten. They are doing something which probably no other mine workers in the state have ever attempted—they are hoisting from both shafts with one engine and doing it easy. The shafts are about 190 feet apart and midway between them stands the hoisting apparatus. One side of the cable drum faces the east shaft and the other side the west shaft. In the center of the drum is a wooden partition. On one side of this partition the cable operates in the east shaft and at the other side the west shaft, one playing out and in while the other plays in and out, the attachment being so arranged that while one bucket is ascending the shaft the other is descending. The contrivance has excited the curiosity and admiration of a large number of Butte mining men, who have recently visited the mine to see it work. The west shaft is 60 feet deep and is yielding considerable oxidized ore that averages about 75 ounces of silver per ton and from \$1.50 to \$2.40 in gold. Several shipments have been made. The east shaft contains water, which is being raised with a large tank. In connection with the handling of the water after it reaches the surface it may be stated that the lessees have another de-

vice on the ingenious order. Near the collar of the shaft is a large trough, to which is attached two ropes, one at either side. These ropes pass through pulleys at opposite sides of the shaft, and then extend into the hoisting works. After raising the tank the engineer simply stands at his post of duty, pulls one of the ropes, and the trough slides under the tank. He then lowers the tank until the valve stem in the bottom strikes the bottom of the trough and releases the water. When the tank is empty he raises it a few inches, pulls the other rope—and the trough slides out from under it.

The depth of the east shaft is not known, as the work was done in it many years ago. It might be wondered why the present lessees are taking the water from it, but it is easily explained. Not many feet southeast of it there is a third shaft about 35 feet deep. In it a short time ago a shoot of ore that assayed 60 ounces in silver was found, but the air in the bottom was so bad the men could not work, and there was no way of getting the bad air out. When the other shaft is clear of water the bottom will be considerably lower than the bottom of the bad air chamber and a crosscut will be driven from it to tap the rich ore shoot of shaft No. 3. Then an upraise will be made and both shafts connected.

The ore of the veins on the Bonanza do not contain as large a percentage of gold as the ore found in the veins a few hundred yards north, but it is all rich in silver.

ORE FROM GARNET DISTRICT

A Carload Brought to the City by Charles Smith—Much Work Being Done.

Charles Smith, who, with Messrs. Baggs and Royal, is working the extension of the Lead King mine at Garnet, is in the city with a carload of ore from the property. He says there is considerable work being done in and around the Garnet district and some good ore is being taken out of the various properties. The Mussibrod mill is pounding away on good gold ore and the returns are very satisfactory.

Montana State School of Mines.

The second school year of this institution will open Sept. 10, 1901. Important additions are now being made to its cabinets and equipment. Four year courses are offered in mining and in electrical engineering. Tuition free to residents of Montana. For further information call on or address N. R. Leonard, President, Butte, Montana.

ANNUAL REPORT OF B. & M. CO.

MANAGER KLEPETKO'S YEARLY STATEMENT SHOWS UP WELL.

Review of Construction Work and Operations for the Year—Improvements Made and Changes Contemplated—Graceful Thanks to Fellow Officers—Report of Directors Show Prosperous Conditions.

That the mines of the Boston & Montana company are good providers of that which maketh the mare go is evidenced by the report of General Manager Klepetko for last year made to the president and directors of the company. In the report Mr. Klepetko says: "Regardless of the fact that extraction this year has been the largest in the history of the mines, the ore reserves have been increased by 200,000 tons and aggregated January 1, 1901, 2,700,000 tons.

"Having the requisite capacity to treat low grade ores, and the price of copper being at a point to allow the mining of these low grade ores profitably, it is the intention to make our product, as far as possible, from these lower grade ores, reserving the higher grade ores for future mining and treatment, when the price of copper may not be so favorable.

"The hoisting engine at the Mountain View is getting too small for the work and we must therefore order a new and larger one—an engine capable of hoisting from a depth of at least 3,500 feet. A part of the construction incident to the installing of this engine will probably be undertaken this year. We are now ready to install the new pump at the Leonard mine. This pump will have a maximum capacity of 1,200 gallons per minute.

"The construction work at Great Falls, which was started in the fall of 1899, with a view of increasing the capacity of the plant, has been pushed vigorously throughout the year.

"The work is nearly finished in all departments and we are now ready to treat 2,000 tons of concentrating ore, and from 300 to 400 tons of smelting ore, daily. When everything is finished, we will have nearly double the former capacity of the plant.

"This year, besides finishing work already laid out, we must install engines and boiler plants, to supplement to a certain extent our water power. We intend to install engines to drive our concentrators, blast-furnace blowers and electric power generators. This will amount to about 2,000 engine horsepower. We expect to have this installed by August. This has been necessitated by our experience last summer and this winter. Shortage of snow and rain fall during the past year made the water very low in all Montana streams and rivers, and has occasioned, in our case, actual stoppage in certain parts of our plant for days at a time, on account of lack of water to drive the machinery. The installation of the supplemental steam plants will obviate such occasional stoppages in the future, should there be a repetition of such climatic conditions.

"Our costs this year, as heretofore, have been very satisfactory. We wish to mention especially the calcining cost, which has been reduced by McDougall furnaces, as modified by ourselves, to less than one-third of the Brueckner cost.

"In conclusion I wish to thank all my fellow officers, employees of yours, who have co-operated with me in the management of your properties, and to whom, in the greatest extent, the excellent results obtained are due."

Report of the Directors.

The report of the directors shows that during last year the total receipts of the company were \$13,242,576.64, all from the output of copper, silver, gold and bluestone. The net income aggregated \$3,161,333.99, and the total expenses \$5,049,724.46. These expenses were divided as follows: At Great Falls and Butte, including the electrolytic refining, \$4,241,895.84; handling copper, such as freight, copper charges and commissions, \$307,828.62. The interest on the bonded debt amounted to \$42,804.54 less interest receipts of \$11,336.35. For bonds which matured February 1, 1900, \$48,089.31, and for special construction at Great Falls, \$1,093,513.41, making a total of \$1,141,602.72, leaving \$7,019,781.27 applicable to dividends. Dividends paid during the year, \$43 per share, a total of \$6,450,000. Surplus for the year, \$569,781.27. Balance of assets at the end of the year 1899, \$5,695,691.64, and at the end of 1900, \$5,665,872.91. The dividends paid were \$7 per share greater than during the previous year. The bonded debt was reduced from \$738,000 to \$600,000, which indebtedness will mature \$100,000 annually beginning November 1, 1902.

The assets were as follows:

Cash on accounts receivable at Boston, and copper, silver, gold and bluestone sold but not paid for.....	\$5,639,704.45
Cash and accounts receivable at Butte.....	28,110.15
Supplies on hand at Butte.....	197,826.96
Cash and accounts receivable at Great Falls.....	37,651.51
Supplies on hand at Great Falls.....	309,894.94
Total assets.....	\$6,212,887.71

The liabilities were:

Accounts payable at Boston.....	122,252.25
Accounts payable at Butte.....	295,845.45
Accounts payable at Great Falls.....	211,717.10
Accrued interest on bonded debt.....	7,000.00
Total liabilities.....	\$546,814.80

TRACTION ENGINE TO BE USED

Tailings From the Comet Mill Will Be Hauled to East Helena.

A new method has been adopted by the Helena & Livingston Smelting & Refining company, whereby 100,000 tons of tailings at the Comet mine in Jefferson county can be profitably treated, says the Helena Record. The Comet was at one time one of the large producers of that section of the country and was exceedingly rich. An effort was made some time ago by the Helena & Livingston company to treat the tailings, but owing to the expense involved in hauling them to the railroad and then shipping them to the concentrator, considerable money was lost.

A new method has been devised to haul the concentrates to the railroad, and do away with a great deal of expense, that is the use of a traction engine which will haul several cars of ore. Concessions by the railroad company and the concentrator at East Helena, together with the reduction in the cost of hauling, will make it profitable to ship the tailings; in fact, they will net the company from 30 to 35 cents a ton. When the attempt was made to haul them by wagon, the loss was from 75 cents to \$1 a ton.

Now that a way has been devised whereby tailings can be hauled with profit to the owner, the company will also haul low grade ore to the railroad and ship it, which was impossible before except at a loss owing to the cost of hauling.

F. W. Rossberg, manager of the Peck concentrator, a short time ago went to California for the purpose of inspecting a traction engine which the company purchased there. The engine was being used to haul timber from a point in Placer county to Towle station, a distance of eight miles from the railroad, and was a great success. It drew five cars loaded high with timber each day and it was thought that it could be utilized to haul ore as well. Mr. Rossberg made an examination with the result that the engine will be shipped to Basin, the nearest point to the mine, which is between Boulder and Basin, Sept. 1, and will arrive soon after. It will be given a fair trial and, if it will do the work, will be used permanently.

The tailings from the mine will be hauled four miles from the mine to High Ore spur, a siding between Boulder and Basin, where they will be loaded on cars and shipped to the Peck Montana concentrator at East Helena.

A road is now under construction from the mine to the railroad. When completed it will be ten feet wide. There is a six per cent grade, but the engine has been well tested and will easily mount a twenty per cent grade. It will be 50-horse power and is said to be the first of its kind used for the purpose of hauling ore in Montana. Three men will be required to run it.

"It is the calculation," said Mr. Rossberg yesterday, "to have the engine in operation by about Sept. 20. Though the engine has hauled five cars, we only expect it to draw three cars of ore and make two trips a day between the mine and the railroad. The capacity of the train will be in the vicinity of 50 tons of tailings a day."

"Will the engine operate in wet weather?" Mr. Rossberg was asked. "No, I do not think it will," he replied. "We do not calculate to operate it either in wet or muddy weather or in the winter time. The road will be made to suit the engine, but it cannot run in the mud or snow."

"The cost of the engine, together with the expense of repairing the road and other expenses, will be between \$10,000 and \$12,000," said former governor S. T. Hauser last evening. "However, with the aid of the engine and with concessions made by the railroad and concentrator, we expect to be able to ship the tailings with profit. We also hope to be able to haul low grade ores and ship them, which before was impossible owing to the heavy expense attached to having them transported to the shipping point."

J. D. Mc GREGOR

VETERINARY SURGEON.

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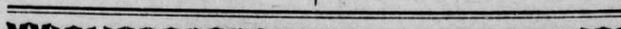
Treasury Department, Office Supervising Architect, Washington, D. C., August 9, 1901.

Sealed proposals will be received at this office until 2 o'clock p. m. on the 16th day of September, 1901, and then opened, for the construction (except heating apparatus, electric wiring and

conducts) of the U. S. postoffice at Butte, Montana, in accordance with drawings and specifications, copies of which may be had at this office, or at the office of the Postmaster at Butte, Montana, at the discretion of the Supervising Architect, James Knox Taylor, Supervising Architect.

No Questions Will be Asked and \$400 Reward

Will be paid for the return to this office of a diamond sunburst pin, lost between the corner of Granite and Wyoming streets and the Thornton hotel, or in said hotel, about 7 p. m., August 8, 1901.



PRIZES

For This Week's

Carpet Buyers

This week we offer a prize with every carpet we sell, the value of the prize depending on the size of the carpet and the amount you pay for it. Read with care the descriptions and prices, select the carpet suited to your wants, and by deducting this week's price from our regular price as given below, you will see at a glance just the amount of the prize you have gained by patronizing this special sale.

CARPETS

Ingrain carpets—Cotton mixed, close woven, clear colors and serviceable goods, our regular 40c grade. This sale, 25c a yard.

Your Prize on each Yard 15c

Ingrain carpet—Extra heavy wool mixed, spring 1901 patterns, guaranteed fast colors, our regular 50c grade. This sale, 35c a yard.

Your Prize on each Yard 15c

Ingrain carpet—Strictly all wool filled, fine patterns, colors guaranteed fast, our regular 60c grade. This sale, 45c a yard.

Your Prize on each Yard 15c

Ingrain carpet—All wool, medium weight, very close weave, serviceable carpets, our regular 75c grade. This sale, 50c a yard.

Your Prize on each Yard 25c

Ingrain carpet—Best quality, extra heavy, wool filled, choice of choicest patterns, our regular 87½c grade. This sale, 67½c a yard.

Your Prize on each Yard 20c

Brussels carpet—Good quality tapestry, prettiest of spring patterns, our regular 70c grade. This sale, 47½c a yard.

Your Prize on each Yard 22½c

Brussels carpet—Superb quality, exquisite patterns, our very desirable \$1.00 grade. This sale, 77½c a yard.

Your Prize on each Yard 22½c

CARPETS

Brussels carpet—Our standard 85c grade, the perfection of weave, coupled with the choicest colorings, specially suited to rooming houses. This sale, 65c a yard.

Your Prize on each Yard 20c

Velvet carpet—In patterns that disarm criticism, qualities that win confidence and colors that blend most harmoniously, our regular \$1.20 grade. This sale, 87½c a yard.

Your Prize on each Yard 32½c

Wilton velvet—Carpets as richly beautiful as skill and money can produce, in colors that rival rainbow hues, our regular \$1.35 grade. This sale, 95c a yard.

Your Prize on each Yard 40c

Moquette carpets—Heavy, soft pile, elegant color blending, rich designs and marked individuality of pattern, many to select from, all our regular \$1.40 grade. This sale, \$1.00 a yard.

Your Prize on each Yard 40c

Axminster carpets—Exquisitely soft, close weave, in lovely subdued colors, combining light and shade in artistic conceptions of rare beauty, our regular \$1.75 grade. This sale, \$1.25 a yard.

Your Prize on each Yard 50c

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