

THE MINING INDUSTRY of IDAHO

By Ex-State Mine
Inspector R. N. Bell

In common with other neighboring western states, the mining industry of Idaho, during 1909, has experienced a very dry year. The wild debacle of wild cat mining speculation, that afflicted the several western states prior to the panic year of 1907, has had the effect of queering the industry, and has given it a shock from which it seems slow to recover, in spite of the numerous admirable new laws that have been passed since 1907 by the several mining states, looking to the protection of investors, and which were largely brought about by the efforts of the American Mining congress. These new statutes, however, have not had time to soak in and a lack of confidence

lead and 6,000,000 ounces of silver for the year, while the other districts of the state will add about 10 per cent more to that total.

IN SHOSHONE COUNTY.

In the Shoshone county field, the splendid new mill of the Hercules Mining company was destroyed by fire during the summer, but the mine has continued a good production of crude shipping ore, for which it has always been noted, and the old mill of the Tiger Footman property at Burke has been leased to take care of the milling product of the mine, as it is conveniently situated to and can be connected up very readily with the company's system of tramways.

At the Morning mill, owned by the Federal company, the Hancock jig has been introduced during the year and is giving excellent satisfaction. This

belt conveyor to 20 mm. trummels, then to 10 mm. trummels, with improved Hartz jig intervening, the middlings are re-ground in three 6-foot Huntington mills of the Standard Anaconda pattern, running at 65 revolutions per minute, and this product is elevated to four Bunker Hill conical screens, which were invented by the mechanics of this plant and have replaced the Callow screens, proving very much cheaper and more efficient, both as to first cost and subsequent operation. These screens form a gateway between the coarse and fine end of the mill. The lower floor carries about an acre of card concentrating tables and fruevanners, the card table being exceptionally adapted for this ore, as it gives such a wide discharge of concentrates it is possible to split the product and set almost any grade of concentrates desired. A considerable yield of 78 per cent lead mineral is being made in this department. This new plant is designed so that an additional unit of 250 tons can be added at any time. It is especially adapted to the hard ore of the Bunker Hill mine, which is a quartz-siderite gangue.

The plant is the result of several years experiment in the old mill with the different machines employed. It is extremely simple in its arrangement, and is largely the result in design and adjustment of the efforts of Mr. G. C. Chetani, the chief engineer of the company's milling department, who has developed quite a genius for concentration methods, and the radical departure he makes will likely be followed by other new milling installations of the district—for like the farmer who makes two blades of grass

grow where one grew before, the metallurgist who saves an additional grain of mineral adds largely to the profit of a mining operation, and is a benefactor to the mining industry.

COPPER PRODUCTION.

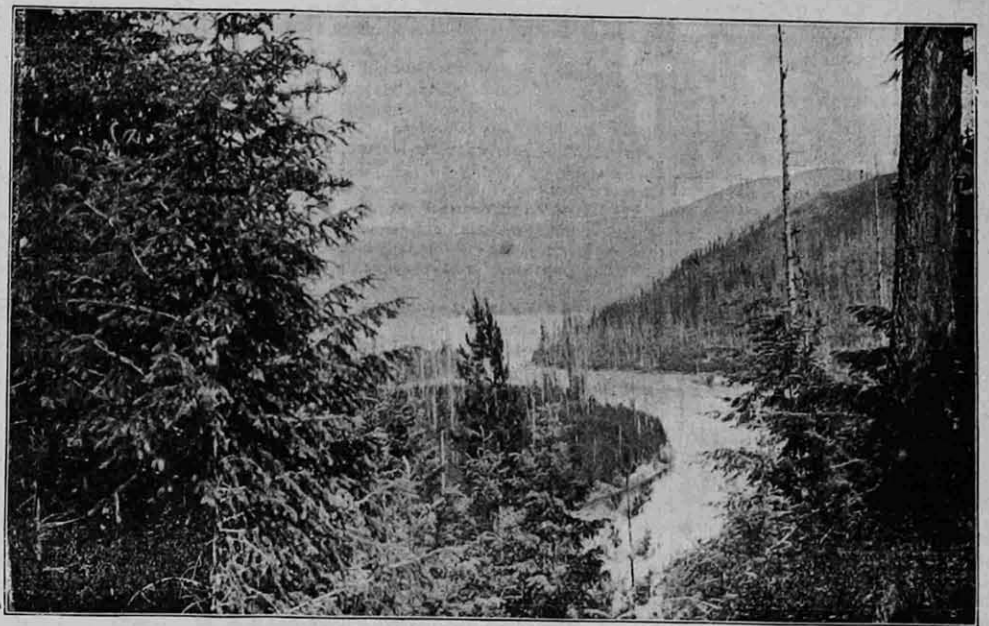
The principal source of the copper production of the year will be from the Snowstorm mine at Mullan, which has carried a large crew of men throughout most of the year, and will show a total yield of over 6,000,000 pounds of copper, together with several hundred thousand ounces of silver.

The extension of the Short Line railway down the Snake river canyon from Huntington has resulted in some activity in the neighborhood of the Seven Devils copper district, and also in the new copper deposits on the Oregon side of the canyon, where extensive plants of milling and smelting equipment are under way at the Iron Dyke mine, whose developed resources are extensive and important.

The McDougal group at this point is being operated under bond by some prominent eastern copper people, who are also developing the Iron Mountain mine in Washington county, Idaho, a short distance north of Weiser, where immense deposits of high-grade iron-oxide ore, carrying low values in copper, are in evidence and at the surface promise something of the magnitude of the big low-grade porphyry deposits of Nevada, Utah and Arizona.

GOLD PRODUCTION.

The most noted advance in the gold



A PICTURESQUE MINING DISTRICT IN NORTH IDAHO.



ROBERT N. BELL.

Former Idaho Mine Inspector.

is shown by the investing public who formerly patronized mining development, which will probably take some time to overcome.

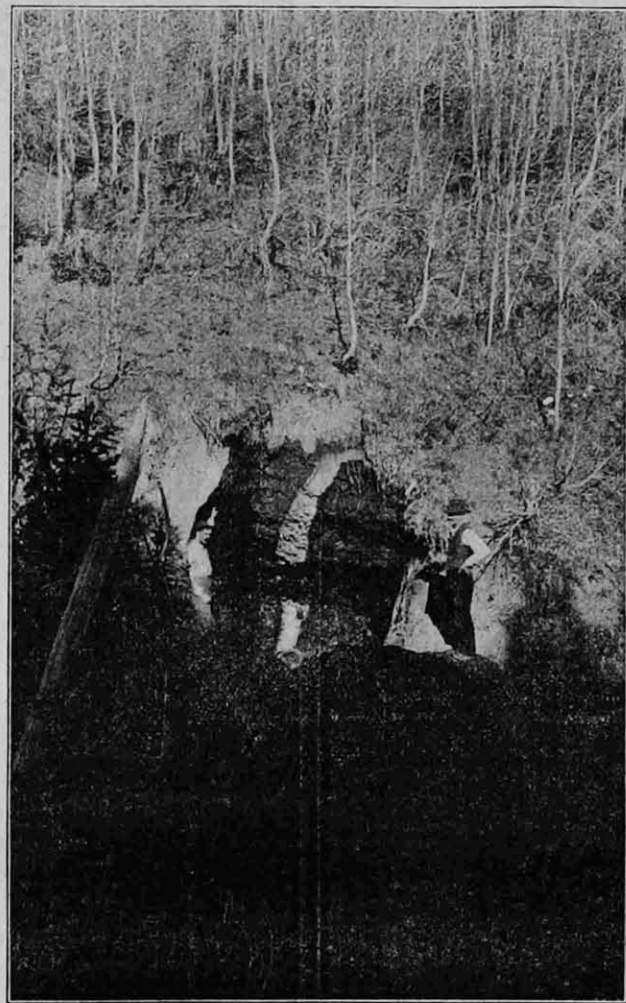
There has been very little new money brought into Idaho during the past year for new mining development, and while the principal old producers have continued in steady and successful operation throughout the year, there has been very little new blood or enthusiasm brought into the business, and it has seemed exceedingly dull in consequence, with the result that perfectly legitimate and very promising mining enterprises have gone begging for capital with which to operate, and the net results of new ore development, outside of the established properties, is unimportant.

In the Coeur d'Alene district, the principal producing mines have continued in steady operation throughout the year and will show a total yield of something like 200,000,000 pounds of

is a machine that handles coarse mill feed at the rate of 400 or 500 tons a day and seems to be adapted to this ore.

The greatest advance in the milling practice of this district has been made by the Bunker Hill and Sullivan company at Kellogg, where a radical new departure has been established in concentrating methods. The new mill of this company, consisting of a unit with a capacity of 500 tons per day, was placed in commission in October and has given most gratifying results, amounting to something like 10 per cent increase saving, which, on the front end of such a large enterprise, means a great deal. This plant has reversed the former method of close sizing, which seemed so essential to the successful separation of the finer grain of lead in wet concentration, and reduces the mine production to only three sizes.

As it leaves a rock breaker and roughing rolls the feed is carried on a



10 FOOT COAL VEIN, HORSESHOE MINE, FREMONT COUNTY, IDAHO

production of the state, during 1909, has been the successful operation of the large new bucket elevator dredge, owned by the Boston and Idaho company, at Idaho City, in the Boise basin. This company has been successfully operating its large 2,000 yard dredge for the past six months, at a very handsome margin of profit, and is now installing an additional machine of still larger capacity.

At the Alanta district, on the Middle Boise river, 80 miles above Boise City, the Bagdad-Chase Gold Mining company completed a \$200,000 milling plant last winter, which has been in successful operation during the year, employing a large force of men and making a good margin of profit on a rather low-grade ore.

At Pine Grove, in Elmore county, the Franklin mine has developed a handsome new shoot of high-grade milling ore and has been equipped with a new milling plant at a cost of \$35,000, which is now in successful operation. The new vein on this property is five feet wide, and affords free milling values of \$25.00 gold per ton.

In Custer county an extensive consolidation was successfully completed during the summer by the Golden Sunbeam Mining company, with a large area of adjoining territory, and the installation of a 3,000 horse power hydro-electric plant, undertaken on the Salmon river, 12 miles distant from the mine, which is situated on Jordan creek, near Custer City, this new electric plant is designed to supply power for the operation of the Sunbeam Consolidated mines and other properties of the Yankee Fork district, and is rapidly nearing completion.

A new Manadock mill has been added to the old plant of the Sunbeam company, and the consolidation gives it an immense resource of low-grade milling ore, with important streaks of richer mineral running through it.

The operations of the old Sunbeam company have demonstrated that this is about the freest milling proposition in existence. It consists of a whole mountain side of igneous tuff, embracing millions of tons of gold-bearing material that it is believed, after numerous tests, will average something like \$2 per ton in free gold, and will warrant the continued increase in the milling capacity of the property to 1,000 tons a day or over. It is a steam shovel or "glory hole" quarrying proposition, and can be very cheaply mined and milled, and should afford handsome dividends, when a reduction plant of sufficient capacity has been installed.

An important discovery of high-grade lead-silver ore was recorded during the summer at Bellevue, Idaho, in the Wood river district, where shipping values of 60 per cent lead and 120 ounces of silver per ton were found in an ore body of considerable length and width on one of the old claims, that has been carried by assessment for a number of years, near the Minnie Moore.

New railroad construction towards the upper Lemhi lead-silver belt has attracted some attention to that section, which embraces a very extensive area of lead-silver and copper bearing formations, with an important past history of production, and is well worthy of the attention of mining development capital.

COAL MINING.

The progress of the coal mining development of this state, during the year just closed, has been rather slow on account of the abundant supply of fuel from the Wyoming mines. The rapidly advancing progress of general industrial conditions over the country and the consequent glut of freight traffic on the railroads is having its effect on the coal haulage at this date, with the result that supplies are not so easily obtained, and this condition will doubtless result in more attention being given to the development of local deposits, with a view of permanent relief.

At the Fremont county mines, near St. Anthony, the Brown Bear company is the only coal mining enterprise which has continued in operation with a light crew development and production. This property carries a series of pitching veins of good size, varying from two to 10 feet in thickness, that occur in a tongue of the crystalline formation, extending over the Idaho line for a few miles from Wyoming, and produces a very superior article of high-grade bituminous coal, equal in steaming qualities to the coals of Cumberland and Kemmerer, Wyo.

The property is situated 30 miles from railroad transportation, and its principal market is confined to the local farmers of that neighborhood, extending as far as St. Anthony and other neighboring towns on the Park branch of the Oregon Short Line railroad. The principal operation at this property is on the Brown Bear vein, which is five feet wide and has now been developed to a depth of 200 feet by a cross-cut tunnel, with entries driven north and south on the vein for several hundred feet, and a large supply of clean high-grade coal is undercut.

This property carries a number of closely parallel veins, and with proper development is capable of supplying the total fuel requirements of this state. The population of the adjacent Snake river valley is increasing so rapidly that the extensive development of this property is well warranted, and would supply a long felt want in the matter of high-grade fuel at reasonable prices.

FOOM IN LEMHI.

In Lemhi county, the construction of the new railroad to Salmon City from Homestead, Montana, which is being pushed by a very large force of men, and is supposed to be a link in a transcontinental route, has resulted in a business boom to Salmon City, the metropolis of Lemhi county, and a consequent increased demand for fuel from the King Coal mine, situated two miles west of the town, where some important deposits of excellent fuel have been opened and are now producing a considerable tonnage for local requirements.

Another interesting development has been made at Horseshoe Bend, in Boise county, 30 miles north of Boise City, where the Hi Henry mines have been undergoing development during the past season, and are said to be showing an excellent reserve of marketable coal. In the territory plateaus that border the Snake river, Malheur county, Or., about 30 miles south of Payette, an extensive plan of development is being carried on by tunneling on a series of veins of coal that contain some fuel of excellent quality, including narrow seams of pure anthracite. These properties are owned by Caldwell and Boise people, and a good deal is expected of them with further development at depth.

Some work was carried on in the lignite deposits of Cassia county, near Oakley, Idaho, where extensive beds of low grade lignite occur, which, with sufficient development, may become a valuable resource of local fuel.

WHAT HE DIDN'T MEAN.

A young member of Congress was insisting upon recognition for the delivery of a speech, and the speaker gave him multiples of reasons for declining to grant recognition, finally saying, "Young man, you seem to be incorruptible." "Maybe I am incorruptible," exclaimed the young man hotly, "but I'll have you to understand, Mr. Speaker, that I'm not incorruptible!"

PRESTON, THE QUEEN OF UPPER CACHE VALLEY

PRESTON, the metropolis of northern Cache valley, is situated 28 miles northwest of Logan. It has an elevation of 4,721 feet above sea level, possesses an ideal climate; is the center of a rich and productive agricultural district, and has a population of about 2,600 souls. It is one of the busiest and most progressive towns in the great northwest.

Preston was founded in 1872 and was named out of respect to and in memory of Presiding Bishop William B. Preston. It maintains a central school, employing 13 teachers with 700 pupils enrolled, and a state academy with a faculty of 10 members and an annual enrollment of nearly 300 students. Both institutions are calling for more room.

For 25 years President George C. Parkinson has been in the presidency of the Oneida stake of Zion—three years as counselor and 22 years as president, and under his able direction the stake and city have grown wonderfully. In the last year more than 30 new homes as well as some business buildings, have been built in Preston.

The municipality now boasts of two banks, 16 mercantile institutions, two candy kitchens, three millinery shops, two drug stores, three furniture and one music store, six implement houses and two lumber companies, which have shipped into Preston more than 100 cars of building material this year; two livery stables, three blacksmith shops and a machine shop on which the surrounding 15 wards are dependent for their machine work; three hotels, three restaurants, five produce dealers, a \$25,000 opera house, a central school and

the Oneida Stake academy, and no saloons.

Primarily, agriculture is the leading industry, while mining, stockraising and manufacturing are indulged in quite extensively. During the last season the produce dealers of Preston have shipped out more than \$300,000 worth of wheat and oats, potatoes and apples in proportion. Several carloads of hogs have also been shipped to other markets. The sugar beet crop this year is not so great in comparison to

other years, but the receipts for beets shipped from Preston is about \$40,000.

The prospects for a bountiful crop next year are good. Several thousands of acres have been planted and show a nice stand for fall grain. Preston is destined to become a greater city in the near future. The people are industrious, prosperous, progressive and well-to-do, and deserve every bit of the success they enjoy. They are smiling and happy at the outlook for the future.

Did you ever stop to think that the world's population doubles every 27 years? Have you thought that with the increase in population there is also an increased demand for land? In short; the inevitable law of supply and demand is just applicable to the sale of land as to the sale of any other commodity.

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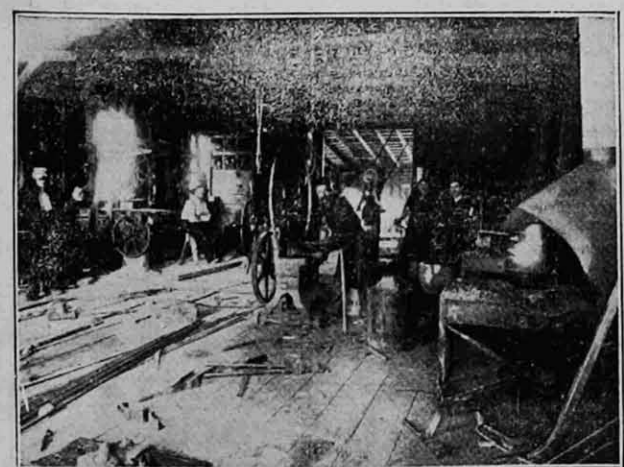
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