



WILL START MILL

THE report comes from the Oregon Securities at Bohemia to Manager Wood that the ore shoot in the west level, being driven from the main tunnel has been reached while the ore shows well and is of good size, it is not yet sufficiently developed to determine its full value and extent.

Preparations for starting the mill are about completed and it will soon be started on ore.

IS SAWING LUMBER

F. D. Wheeler came from the Crystal Consolidated property on Saturday and reports the saw mill in full operation in getting out lumber for buildings and mine timbers.

Mr. and Mrs. George Knowles arrived from Bohemia Monday and went to Eugene in the afternoon. George says mining matters in the district are looking better than ever and he anticipates quite a lively time after the mills are all at work which will be but a short time.

E. M. Hoffman of Eugene, who was formerly employed at the Helena mill, went up to the Oregon Securities Monday, for the purpose of assuming the position of amalgamator at the mill which will soon be put into commission.

Word from the Vauvius is to the effect that the ore is still holding out in the upper tunnel and the lower tunnel is being driven rapidly with good results.

BLUE RIVER MINING DISTRICT

HERBERT Leigh, the assayer, returned last evening from the Blue River mines, where he has been for the past week, to make a report on some properties.

In conversation with a Guard reporter today Mr. Leigh stated that the district has a very busy appearance. All the camps are being operated with full forces of men and a general air of prosperity pervades the district.

One improvement about which very little has been heard, but an important one, is the new stamp mill now about ready for operation at the Union mine, owned by Wagner and Coffin. It is a quadruple three-stamp machine, equal in capacity to a ten-stamp mill of the ordinary pattern.

The Lucky Boy plant, Mr. Leigh said, will be ready to resume operations, just as soon as the new transformers arrive, the old one having been ruined by the recent fire there.

Mr. Leigh reports that numerous logging camps have started up on the McKenzie river and all the

settlers long the valley were busy and seemed happy and prosperous. —Eugene Guard.

From metallic and non-metallic minerals are extracted chemicals of vast importance, the following table showing the raw materials and their more important derivatives used in chemical manufacture:

- Barytes—paints.
- Chalk—whiting.
- Limestone—lime, carbonic acid.
- Magnesia—carbonate and sulphate of magnesia.
- Ochres—paints.
- Crude phosphate—phosphorus.
- Clays—alum.
- Corundum—aluminum.
- Cryolite—alum, soda.
- Silica or sand—silicate of soda, glass.
- Tin—tin salts for dyeing purposes.
- Coal (bituminous)—ammonia, coal tar colors, cyanide of potash.
- Iron pyrites or brimstone—sulphuric acid.
- Salt (common)—soda and muriatic acid.
- Potash salts—bichromate of potash, prussiate of potash.
- Nickel ores—salts of nickel for plating.
- Chrome iron ores—chromates of potash and soda.
- Antimony ores—medicinal salts.
- Bismuth ores—medicinal salts.
- Copper ores—sulphate of copper or blue vitriol.
- Cobalt ores—oxide of cobalt.
- Iron ores—sulphate of iron or coppers.
- Lead ores—white and red lead, litharge.
- Manganese ores—disinfectants, chloride.
- Mercury ores—calomel, white and red precipitate, vermilion.
- Zinc ores—oxide of zinc.
- Gold—chlorine of gold.
- Silver—nitrate of silver. —Mining World.

HIGH GRADE VERSUS LOW GRADE.

THE question of low grade versus high grade mine is given discussion in the professional papers on the northern Black Hills by J. D. Irving (U. S. Geo. Sur.), recently issued. As a basis of the comparison the results of the Homestake in the Black Hills and for the Portland mine of Cripple Creek are chosen. The Homestake data covers 22 years and five months and that of the Portland only seven years and nine months. The gross yield of gold for the Homestake is \$31,190,143 and for the Portland \$13,138,525. Dividends paid: Homestake, \$8,668,754; Portland, \$1,027,089. Range in value of ore: Homestake, \$2 to

\$16; Portland \$5 to \$100. Average yield: Homestake, \$5.48; Portland, \$22. Dividends to gross product: Homestake, 27.7 per cent; Portland 30 per cent. These figures are of interest to investors, who are apt to be altogether carried away by high assays and samplings, when as the results above show, the low grade proportion is very nearly equal to the other kind in the matter of per cent of profits, which is the measure of the continued value of a mining property, considering always that it can be extensively operated and that the ore body is large enough to make the operations continue for a considerable term of years, as is the case with each of the properties used in the above comparison. In this connection the character of the ore is to be considered, of course, and this is in favor of free milling proposition—the Homestake. The comparison, though interesting, is not conclusive, as there are so many outside considerations that enter into the result, not the least of these being the question of management. In the low grade mine, management is everything; in the high grade it may not be so essential to profit, although it will certainly determine the extent of profit. The low grade proposition ordinarily takes more capital to develop, and, if located remote from transportation, is often entirely unavailable for the time. So the argument is not particularly a conclusive one, nor practical, as each mine is a problem unto itself and its success or failure due to conditions which perhaps do not exist in connection with some other mine. —Mining World.

MILL WILL START UP.

THE four-stamp mine at the Great Northern mine, Blue River district, will be placed in operation next Monday, and it is expected that \$1000 per week will be ground out after the mill starts to operate. This will be the only mill in operation in the district for some time.

The snow is all off at the mines and the Great Northern people are now sending up teams to haul the ore. The rest of the machinery for the 60-ton plant will soon be received and placed in position.

The work of pushing the tunnel work at the mine has been continued all winter and there has been no cessation of development operations on account of the bad weather.

Gold mining was first begun in 1502 on the island of St. Domingo. Gold was discovered there in 1501 by Miguel Diaz, a Spanish colonist, and who through his enterprise was made governor of the island in 1509.

ONE MORE GOOD COUGAR

J. E. Damewood on Sunday Morning Kills Big Cougar.

The readers of the Nugget will remember last May an account of the killing of a cougar by Mr. J. E. Damewood, who lives up Sharps Creek on the Bohemia road was published.

At that time his two boys, aged 9 and 12 respectively, while on their way to school following a trail along the side of a mountain, the boys were telling the father of seeing a fawn the night before as they were on their way home. He knowing it was too early for fawns was wondering what they could have seen. The boys were walking ahead when suddenly a cougar sprang from the bush just ahead of Mr. Damewood, and with hair bristling, teeth snapping and tail lashing, crouched to spring at the boy just in front. The father was unarmed, but did not hesitate to jump to the side of the animal and with a tremendous kick just back of the shoulder, sent it into the brush.

Hurrying home with the boys he secured his dog and gun and followed the cougar, which was treed in a short time and killed.

On last Sunday morning he learned another cougar had killed a sheep for his neighbor Hawley. With a small hound and two shepherd pups he went to the place the sheep was killed and the dogs took up the scent and in a mile or so had the animal up a tree. A well directed shot brought him to the ground. He measured seven feet and weighed 130 pounds. Mr. Damewood brought him to town and gave him to R. M. Veatch who will have the skin mounted.

Mr. Hawley has lost 15 sheep during the winter, all of which he charges to the account of this cougar.

THE ERASING OF BOUNDARIES.

THERE is small chance of provincialism among the mining districts of the West. One will encounter few sections of a strictly mining character where the citizens boast of their "oldest inhabitants," but where such places are found today it is usually where other industries and commercial pursuits have been built up around them—industries and pursuits that depend upon steady markets and incomes from year to year.

The same may be said of the typical mining man. You find him where you find the gold. This fact impresses itself upon one who goes into a new mining camp, where old highways of acquaintanceship meet again, after having diverged for a season. One of the first-comers at Creede may, perchance get into Cripple Creek on an early stage, and the first man he meets is an old acquaintance from the Comstock lode. One goes to the Klondike in 1897 and the other to Thunder Mountain in 1901. In 1904 they both meet again at Goldfield.

The mining industry of the West comprises one grand domain. There is little to be said, after all, about state boundaries and county lines. The mining man's local pride is expressed in terms of ounces fine—in the colors that his pan reveals. It is usually the citizens of a state who really have nothing to do with mining, except in the matter of owning the stock tokens of the business, that love to tell about their state's resources as against those of a rival state. There are no state jealousies in the active mining man's makeup, when once he starts on the road. All mining states are good states to live in, and the mining industry is the realm to which he owes allegiance.

Sectionalism is not measured by geographical lines, but by common interests. A few years ago, when the "silver" question was alive in politics the West was accused of sectionalism—with some justice, perhaps. The tendency now is for the sectionalism of the mining industry to widen its bounds and take in a good part of the United States. This is because of the special interest that the East is taking in the resources of the West. The mining industry is bringing the East and the West together, instead of separating them, as it did in 1896. In fact, the whole tendency toward an investment basis of commercial and industrial dealings tends to unify the nation according to a rule in which politics has little concern. Indeed: politics is itself building upon industrial and commercial questions, and nationalization, for this very reason, is the order of the day.

In the investment world the mining man has spread out his own domain until it comprehends the country from west to east. It is one of the signs of the times that eastern capital is more than ever reaching out to command the opportunities that present themselves in the undeveloped mineral resources of the Mountain region. There are no state and sectional lines when it comes to industry and finance. —Daily Mining Record.

All kinds of engraving at H. C. Madens.

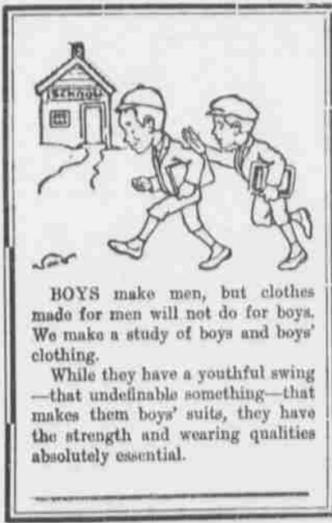
ALASKA PLACER IN MINATURE.

IT would take time and money, to say nothing of the perils attending the change of climate, to go to Alaska and the Klondike to witness a placer mine in actual operation, and it would need a magician's wand to bring such a placer mine from the Frozen North and stick it in the ground within the city limits of Portland. But such an every day magician is George E. Ames, who has just obtained a large expense a concession from the Lewis and Clark Corporation granting him the right to erect and exhibit a large-size placer mine at the Exposition. Mr. Ames' home is at Dawson City, Yukon Territory, and for the past six years he has personally operated some of the largest mining properties in Alaska and the Klondike.

Mr. Ames' exhibit will be in the nature of a cyclorama, illustrated by means of paintings, actual mining machinery and gold dust. His concession measures 150 by 100 feet, and is 50 feet high, on one of the best locations found on the Exposition grounds. In buildings and painting he will spend \$12,000, and he will exhibit gold dust valued at \$10,000, and specimens and nuggets valued at \$5000. His exhibit will represent a money value of about \$30,000, and will be one of the great attractions of the Exposition. Pumping machinery will be installed to produce 2000 gallons of water per minute, for the creek and sluicing plant, and along the creek will be a rocker which will clean up \$10,000 worth of gold dust an hour. Water managed by the pumping plant can also be instantly turned on for fire protection. The exhibit will be so arranged in cyclorama effect that the visitor on first going upstairs will find himself in a valley with real gold on all sides apparently being washed out of Portland gravel. A lecturer will be engaged to give descriptions of the principles of placer mining, and an old miner—a regular forty-niner—will operate the rocker on the creek. Pamphlets will be ready describing the different American and British-Canadian mining laws, and also exploiting Alaska.

Contracts will be let for the buildings, which will be of timber, Wednesday.

The first railroad locomotive ever run in Oregon will form an interesting exhibit in the transportation Building at the Lewis and Clarke Exposition. The locomotive is the property of David Hewes of San Francisco, who has had it for thirty years.



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