

PROGRESS IN MINING.

Application of Windlass of Comparatively Recent Date.

One of the most important eras in the history of mining for the precious metals was the application of gunpowder to the purpose. This took place in Hungary or Germany about 1620, and was followed by the use of explosives in England in 1670, when some German miners introduced its use in a copper mine operated at Ecton, Staffordshire.

Many mines could not possibly have been worked without the aid of gunpowder, and until it was used subterranean operations must have been difficult and very uncertain. The use of explosives with the adoption of mechanical hoisting apparatus, may be said to have been the beginning of deep mining.

The hammer and wedges were probably the first means employed for splitting rocks. These were followed by the pick, which is used both as a hammer and wedge. In the mines of southern England many tools of oak have been met with, which, according to the traditions of the Cornish miners, were used by the Saxons or Danes. Wedges of dry wood were used by driving them into clefts of the rock, and then wetting them so as to cause them to swell, and thus, by repeated similar insertions, to force the rock asunder. Fire and water were sometimes employed for a like splitting purpose. This was the universal practice in ancient times.

The use of a windlass and bucket, simple as it is, must be reckoned as an improvement of comparatively late date, though now superseded largely by more effective machinery, rendered possible by the invention of the steam engine, of still later date. In parts of South America and other parts of the world, where foreign capital has not made its appearance, the windlass is even yet hardly known. The ores are still either packed up on natives' backs, or where the situation admits of sloping roads to the bottom of the mines, are conveyed to the surface on the backs of animals.

The mining industry, like every other occupation to which man turns his hand, has advanced by slow and uncertain steps, and it is within the memory of many men yet living since it has become truly established upon a scientific basis. With this effected, however, as it now is, mining is the world's surest and greatest avenue of wealth production, and the nations which are most actively interested in the business are those which lead in wealth and influence.—Exchange.

ORE SHIPMENT COMPETITION.

Results in Lower Rail Rates to Coast Smelters.

J. P. Kennedy, manager of the Badger mine, at Susanville, has written several letters to Pendleton men, among them R. Alexander and Leon Cohen, asking that Pendleton business men endeavor to secure a lower freight rate over the W. & C. R. and N. P. to Tacoma for ore and concentrates. The subject was discussed at the recent meeting of the commercial association, but no definite action taken by the association, though a number of the members will attempt to secure these rates.

Some weeks ago the Northern Pacific and W. & C. R. reduced the rate from \$7 to \$5.50 and heavy freight wagon loads of concentrates began coming this way from Susanville. The shipping point for the Badger and other mines was thus transferred from Whitney and Sumpter to Pendleton, the O. R. & N. company losing the haul. The O. R. & N., to retaliate, made the same rate from Whitney and the old fight was again opened. The \$1.50 difference in railroad rate was sufficient to cause the teamsters to haul

to Pendleton.

Though the distance is farther than to Whitney, the roads are better and greater loads can be hauled. Expenses are also cheaper on the Pendleton route. Since the action of the O. R. & N., the freighters can make more by going to Whitney.

Now the Badger mine owners want a \$4.50 rate from Pendleton to Tacoma, preferring to come here, if it can be secured, for all their supplies, to do their banking business here and to haul their ores to this place for shipment to smelters.

R. Alexander at the meeting of the Pendleton commercial association made a pointed speech on the value of securing the Susanville and northern Grant county trade and he was very much in favor of the association taking some action in the matter. He incidentally remarked that such work should be the real purpose of the association; that it was doing nothing in that line and that Pendleton business men should begin to reach out for other business. He stated that the trade from northern Grant county was enormous and should be favored as much as possible.—Pendleton Tribune.

Experts Sample the Ornament.

J. B. Fryer, the mining man, spent several days last week in the Greenhorns, in company with two experts for Jonathan Bourne, Charles Janin and Thomas Burns. Their trip was for the purpose of examining the Ornament property, which was thoroughly sampled by the experts, for what purpose will probably transpire later. The Ornament is owned by Thomas McEwen, of this city, and Fred Warren, the pioneer mining man, who has spent nine years developing the mine. It is under bond to Killen, Warner & Stewart. The development work consists of about 1400 feet of drifts on the vein, which is from three to six feet in width.

Golconda Workings Near Climax's.

Phil R. Bishop was down from the Climax mine, Cracker Creek district, last week. He said he has a force of five men now at work running the upraise through the 300 feet between the upper and lower tunnels, 700 feet in. Air is pumped in through power furnished by a water wheel. Mr. Bishop says the workings of the Climax and Golconda are in such close proximity that the concussion of the blasts in the latter mine knocks down candles in the Climax tunnel.

Use Giant powder, fuse and caps.

Timber and Homestead Filings.

Timber and homestead filings, as well as final proofs, can be made before Charles H. Chance, United States commissioner, office in First Bank of Sumpter building, Sumpter, thus saving applicants expense of a trip to La Grande.

All the ladies of Sumpter and vicinity are invited to call at Mrs. Chipp's Millinery Parlors, opposite Basche's, and inspect her new line of fall and winter hats, opening beginning September 17.

Harrison, the Giant Powder man wants every miner to make his office headquarters when in Sumpter.

All the latest novelties in hats at Neill Mercantile company's.

TIMBER LAND, ACT JUNE 3, 1898—NOTICE FOR PUBLICATION.

United States Land Office, La Grande, Oregon, October 21, 1902. Notice is hereby given that in compliance with the provisions of the act of Congress of June 3, 1898, entitled "An act for the sale of timber lands in the States of California, Oregon, Nevada and Washington Territory" as extended to all the Public Land States by act of August 4, 1892, WILLIAM E. HIATT, of Baker City, county of Baker, state of Oregon, has this day filed in this office his sworn statement No. 1626, for the purchase of the $\frac{1}{2}$ sec. 10, $\frac{1}{4}$ sec. 10, $\frac{1}{4}$ sec. 10, $\frac{1}{4}$ sec. 10, $\frac{1}{4}$ sec. 10, township No. 10 south, range No. 36 E.W.M., and will offer proof to show that the land sought is more valuable for its timber or stone than for agricultural purposes, and to establish his claim to said land before the Register and Receiver of this office at La Grande, Oregon, on Saturday, the 17th day of January, 1903. He names as witnesses: P. A. Larsen, Mark W. Calder, Casper Gattiker, James Hunt, all of Baker City, Oregon. Any and all persons claiming adversely the above described lands are requested to file their claims in this office on or before said 17th day of January, 1903. E. W. BARTLETT, Register.

NOTICE FOR PUBLICATION.

Department of the Interior, United States Land Office, La Grande, Oregon, Oct. 20, 1902. Notice is hereby given that the following named settler has filed notice of his intention to make final proof in support of his claim, and that said proof will be made before Charles H. Chance, U. S. Commissioner, at Sumpter, Oregon, on January 8, 1903, viz: H. E. No. 1686, ERWIN D. GATEWOOD, of McEwen, Oregon, for the $\frac{1}{2}$ sec. 10, $\frac{1}{4}$ sec. 10, $\frac{1}{4}$ sec. 10, township 10 S., R. 36 E.W.M. He names the following witnesses to prove his continuous residence upon and cultivation of said land, viz: Isaac Williamson, Van Rennsler Mead, of Sumpter, Oregon; Albert Weiss and Ansel Cook, of McEwen, Oregon. E. W. BARTLETT, Register.

NOTICE FOR PUBLICATION.

Department of the Interior, Land Office at La Grande, Oregon, October 22, 1902. Notice is hereby given that the following named settler has filed notice of his intention to make final proof in support of his claim, and that said proof will be made before Charles H. Chance, U. S. Commissioner at Sumpter, Oregon, on December 16, 1902, viz: H. E. No. 16038, ERNEST CADAU, of Sumpter, Oregon, for the $\frac{1}{2}$ sec. 10 and $\frac{1}{4}$ sec. 10, Twp. 10 S., R. 36 E.W.M. He names the following witnesses to prove his continuous residence upon and cultivation of said land, viz: John Thompson, William Green, William Baker and Julius B. Ball, all of Sumpter, Oregon. E. W. BARTLETT, Register.

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