

MANY OLD SMELTERS IN THESE GOLD FIELDS

"The statement has frequently been published," said an old pioneer of the Sumpter district the other day, "that the Sumpter smelter is the first matting plant of its character to be successfully operated in this district. This is incorrect. Within my recollection there have been at least six successful smelters in eastern Oregon. They were small ones, of course, and long ago lapsed into idleness—not because they were not successful from a metallurgical standpoint, but because at the time of their erection mining development in this region had not reached such a stage as to furnish a steady ore supply.

"The first smelter ever known in this country was a little two-by-four affair, built by a couple of Frenchmen during Civil war times, on what is now the famous Standard mine at Quartzburg. This plant was necessarily very primitive, but it turned out quite a bit of copper matte, which the Frenchmen shipped to The Dalles by pack train, thence by water around the Horn to France for refining.

"Sometime in the late sixties, W. B. Craze and a company of Columbia river steamboat men built a small furnace on their copper mine near where Burkesmont is now located. One smelting was made and 4½ tons of copper pigs resulted. One of these pigs for many years was a desk ornament at the First National bank of Baker City, when Virtue, then owner of the famous mine of that name, was president. Those were great old times for cleanup displays—a whole lot different from the secrecy which surrounds bullion transactions today. At that time the Virtue was pounding out close to \$50,000 a month. The gold bars were brought to the Baker City bank and displayed on a big counter, where everybody could see 'em, handle 'em, 'heft' 'em and long for possession.

"Probably the next smelter erected in this camp was a furnace built on the Copper Queen mine, near Copper Butte, about 30 miles north east of Baker City. Something like 100 tons of 12 per cent copper ore were said to have been treated very successfully.

"A long time ago—I don't recall just when—a furnace was built at the E. & E. mine for experimental purposes. The experiment, whatever its nature, was evidently a failure, as the furnace was soon dismantled.

"Everyone in Sumpter recalls the miserable fiasco which followed the attempt of St. Louis men to operate a small pyritic smelter in this city four years ago. The plant was all right, even if it was of limited capacity; but the people back of the enterprise hadn't a cent of ready money with which to buy ore, or even pay its workmen. The result was that after a successful blowing-in on ore purchased on credit from Greenhorn mines, (and never paid for) the company went bump with a sickening financial thud, and in due time the little plant was sold by the sheriff to satisfy a big lot of judgments. It was purchased by Zeeth Houser, then controlling owner of the Standard

mine, and removed to Quartzburg. Probably because no one at the Standard knew how to run the little smelter, it froze up the first day, and was abandoned for all time.

"A 60 ton smelter was built at Mineral City, Idaho, just across Snake river from the Connor Creek mine, in 1900, by A. J. Crook, to treat ore from the silver mines of that camp. The total output of this plant, up to the time it passed into the hands of the Ladd Metals company, of Portland, is roughly estimated at 600,000 ounces of silver.

"A 250-ton smelting plant, very modern and up-to-date, was built in 1902 on the Weiser river, above the town of Weiser, Idaho, on the line of the P. & I. N. road to Council, to handle ore from Seven Devils copper mines. Just about the time the plant was ready to blow in, the Seven Devils mines shut down, the P. & I. N. reconsidered its decision to build an extension from Council on in to the mines, and the smelter company went into bankruptcy. The plant was later dismantled and sold piecemeal to Salt Lake parties.

"Then followed the building of the Sumpter smelter. The enterprise was promoted by the Killen, Warner, Stewart company, the most successful and enterprising firm of fiscal agents that ever hung out its shingle in eastern Oregon. Everybody hereabouts knows of the remarkable success which has attended the operations of the Sumpter plant, particularly during the last year, under the management of that strenuous hustler and prince of good fellows, Fred D. Fuller. A big share of credit is also due Charles Kirchen, the superintendent, who is one of the best metallurgists and practical smelting men in the west.

"The Ladd Metals company, after its purchase of the Mineral smelter, began the erection of a 75-ton plant at Homestead, to treat the product of the Iron Dyke mine at that place. A portion of the machinery was delivered on the ground at tremendous expense, owing to the almost impassable road down Snake river from Huntington. Finally the Ladd people were forced to attempt water transportation. A couple of barges were loaded with fire brick and extra heavy machinery and started down the turgid stream. The barges banged into a rock and sank in midstream, their cargoes being a total loss. Then the Ladd management shipped its machinery from Weiser on the 'Piu' railway to Council, thence by wagon over the dizzy Kleinschmidt grade to Ballard's landing a wide detour through a rough mountainous country. Just about the time the machinery was finally delivered, the Iron Dyke mine became tied up by litigation and has been shut down ever since. Of course, the Homestead smelter was abandoned. It now looks as though the Iron Dyke litigation will be straightened out, a railway built from Huntington down the Snake, and the Ladd company's smelter built eventually.

"When the Homestead smelting project got punctured, the Ladd company headed its machinery back to Landore, Idaho, and built a smelter

at that point. Only a couple of runs have been made, the plant persisting in freezing up, for some reason, but improvements have been made, and success will undoubtedly attend future operations.

"While, as I have shown, there have been other smelters in this region prior to the erection of the big Sumpter plant, all of the others are lost sight of in contemplating the magnificent success of the local institution, which is doing more to build up the mining industry of eastern Oregon than any other one influence in the world."

SAVES THE VALUES AT TOO HIGH COST

The Elmore oil concentration process, of which so much was expected when it was introduced by the Le Roi No. 2 mine at Roseland, B. C., in October, 1903, has proven a metallurgical success and a financial failure, and the Le Roi mill is now running on straight water concentration. The Le Roi No. 2 is making a profit of 50 cents a ton with water concentration alone, whereas there was a loss of \$1.30 a ton when the oil process was used.

During the seven months test run, the oil process treated 4578 tons of Wilfley tailings, which averaged .107 ounces in gold, .227 ounces in silver and .394 per cent copper, or a gross assay value of \$3.32 a ton. The final tailing after treatment with oil contained .076 ounces gold, .135 ounces silver and .076 per cent copper, or \$2.10 a ton. That meant an extraction of of \$1.13 a ton through the Elmore section of the mill. The total milling operations showed a loss of \$1.03 a ton. In fairness to the Elmore process, however, it should be explained that oil at first cost 40 cents a gallon, and the consumption was three gallons to the ton; while later the cost was cut to 29 cents a gallon and the consumption to 1.3 gallons a ton. Even with these changes, however, the Le Roi No. 2 management decided that the system is not a commercial success, since extra fine crushing is demanded by the Elmore process.

By careful water concentration the grade of the tailings on the Wilfley tables has been cut to \$2.20 a ton, and there is no room for the profitable operation of the oil system.

The Roseland Power company, of Trail, B. C., at first planned to use the Elmore system, but finally cut it out. Now the White Bear mine at Roseland is trying the Elmore process.

On the whole the showing for the Le Roi No. 2 for the year ended September 30, is excellent. The net smelter returns, plus a small interest item, were £76,311. The total expenses were £50,492. The net profits for the year were £25,819. The average value of the shipping ore was \$24.80 a ton, made up as follows: gold .909 ounces; silver, 1.426 ounces, and copper, 2.37 per cent.

Thoughtful men interested in mining, who do not want to be fooled by preposterously low estimates of mine costs put forth by inexperienced promoters, will appreciate the figures on cost of producing shipping ore at the Le Roi No. 2. Those costs reached \$4.22 a ton, including sorting, and they covered a production of 23,320 tons of shipping ore, 10,331 tons of milling ore, and 17,151

tons of waste. By allowing for depreciation of plant, and adding the cost of development, which included 1556 feet of drifting, 135 feet of raise and winze, and 3617 feet of diamond drilling (the last cost \$2.22 a foot), the cost of production was brought up to \$6.28 a ton. And this was in a well equipped and well developed mine. It shows the absurdity of claims that ore can be mined in such camps as Roseland for \$1 or so a ton. Such estimates are either foolish or criminal.—Spokane-Manu-Review.

What John Hays Hammond Says.

In an interview in a New York paper, John Hays Hammond says: "The possibilities of the mining industry are better appreciated every year, as the actual returns secured from prior operations demonstrate the profitability of the venture. Today greater care than was formerly the case is exercised in choosing properties for development, so that the risk involved may be reduced to a minimum; and mining engineers have more regard for the commercial aspects of mining than heretofore. They are learning to discriminate between the so called 'gilt-edge' mining propositions and one of a more speculative character. In the former class of mining, the expert aims to be assured of the certainty of the capital invested being returned with a reasonable rate of interest. In mines belonging to the speculative class there is, of course, greater risk of losing the capital invested, but far greater returns in the way of profit in case the investment turns out favorably. Either of these classes of mining is perfectly legitimate, but in the prospectuses of the company, the category under which the investment is made should be fully stated to the investor." This eminent authority very properly points out the fact that the commercial side of mining is coming to be of more consideration with the mining engineer, and that the public is looking for reasonable security in mining investments, as in other investments. The result of these conditions will be to place the mining industry on a more legitimate and certain basis and hence to increase its operations and profits.

Executor's Notice.

Notice is hereby given that the undersigned has been duly appointed by the County Judge of Baker County, Oregon, executor of the last will and testament of Michael Lyuch, deceased.

All persons having claims against said estate are hereby notified to present the same to me, properly verified, as by law required, within six months from the date hereof, at the office of Charles H. Chance, attorney-at-law, First National Bank building, Sumpter, Oregon.

Dated at Sumpter, Baker County, Oregon, this 25th day of January, 1905.

J. B. FRYER,

Executor of the Estate of Michael Lyuch, Deceased.

ESTRAY NOTICE.

Taken up, at the ranch of Henry Panning, near Whitney, last spring, two 2-year-old colts, one grey branded "C" on left shoulder, and one bay branded "S". Owner may regain property by paying expense of their keeping since the date of their taking up.

HENRY PANNING,
Whitney Ore.

December 30, 1904.