

Prospecting Drift Mines by Boring.

Mention was recently made in the Mining and Scientific Press that at the May Flower drift mine, on the Forest Hill Divide, Placer county, they were prospecting a cross-channel to find its center by means of a boring outfit. Since then we have learned some of the particulars from Mr. Felix Chappelet, manager of the mine. The boring is done by means of an ordinary artesian well outfit, the tools for which were made in this city. In addition to the derrick there are auger stems, sinker bars, bits, reamers, sand pumps, etc. The holes bored are six inches in diameter. One of them is 176 feet deep, passing through 26 feet of auriferous gravel, and a new one started is expected to go down 415 feet. This fourth hole is now down 120 feet and is progressing at a rate of over 10 feet per day. In one of the holes they made 25 feet a day for the first two days and sometimes go from 15 to 18 feet a day. The upper lava through which they are working is, however, rather hard.

This work is being done to find the center of a side channel. The 415-foot hole now being bored is intended for ventilation purposes in the Orono channel of the May Flower mine. The pipe will be left in, and at the bottom an elbow will be put in and the pipe led off 1000 feet to get an up-draught. It is an experiment, but they have great hopes of success. In this work double shifts of two men each are worked day and night, and it is not found to be at all expensive.

The May Flower mine is now quite profitable and is paying dividends. The last returns were \$17,583 from 14 days' run, representing gravel worth \$15.80 per ton—one of their carloads representing a ton. The tunnel is in 13,500 feet. There is then a raise of 45 feet from the tunnel to the gravel. The channel is worked from five to seven feet in height and 100 feet in width. The cars are run by horses, and there are two stations.

The May Flower is one of the principal drift mines in this State, and one in which there are very extensive developments. While the tunnel was being run, the assessments and expenses were very heavy, but that period has long passed, and they are now reaping their reward on the investment and labor.

The Eureka Consolidated is another drift mine, 13 miles above the May Flower, on the same Divide. It has a tunnel in 1645 feet and 210 feet in the channel running from the east stream to the west stream. This is under the same management as the May Flower, Mr. Chappelet being superintendent. The Board of Directors, organized a few weeks since, consists of Col. Herman Bendel, Felix Chappelet, Rudolf Herold, Daniel Hayes and D. M. Kent. Some of the shares are to be sold for working capital. This gravel can be washed, and no mill will be needed to prepare it.

Boring in the way described to find the channel center greatly simplifies the drift mining problems, for the miner can then tell exactly how and where to run, and there is no danger of getting a tunnel or drift too high for the best gravel, as has often happened. So far the experience has been favorable, the cost of the holes being low and the work being carried on quickly.

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Boring Machinery for Prospecting Gravel Mines.

In the Press of last week mention was made of the method of prospecting drift claims on the Forest Hill divide with an artesian well boring apparatus. We have since been informed by Mr. Chappelet,

president of the Mayflower Mining Company, that the fourth hole is run down 250 feet and is being sunk at the rate of 10 feet per day. During this sinking the drill has passed through considerable "nigger head," what all miners know is difficult to bore through. There has been no trouble with this, however. The expense of this boring is a trifle less than \$2 a foot with four men working two shafts. It is proportionately less for deep than for shallow holes on account of less frequent occasion for moving the derrick, tools, etc. Mr. J. O. Jones, the superintendent of the Mayflower mine, under whom this work is being done, is an experienced miner, having formerly held a similar position in the famous Bald Mountain drift mine in Sierra county and the Morning Star mine in Placer county.

In this connection it may be stated that the American Well Works of Aurora, 111., who make a specialty of artesian well apparatus, have lately issued a large catalogue illustrating and describing the various forms of apparatus used for different conditions of work. It will surprise one not familiar with the subject to see to what extent this branch of manufacture has grown. The catalogue is practically an encyclopedia of well boring apparatus, with descriptions and instructions for operating. There is a great variety of "rigs" adapted for all kinds of work, large and small. They make not only drilling machinery, but steam pumps and valves, windmills and farm pumps, ditching machinery, etc., and have such a variety that they have four complete and separate exhibits at the World's Fair.

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