

Pine Creek for power purposes. It will require a lot of money to develop the limit that may be required, but it is available.

From a dredging point of view the outlook in that country is very promising. It is expressed in local mining parlance as essentially a dredging "proposition." The values are evenly distributed, and, by the modern devices employed for saving gold gravel assaying 20 cents a yard can be made to pay. The country is more or less auriferous over an area, taking Atlin as a centre, having a radius of at least 25 miles.

The output of the district as obtained through the banks and express companies for the past season is estimated at \$430,000, to which may be fairly added \$75,000.

Labour conditions are now stable. A strike occurred in the spring, which was, however, of short duration. Labour is fairly plentiful, with prospects of a fair demand for good men in the spring. Miners now receive \$3.00 a day of eight hours and board; or \$3.50 a day of 10 hours and board.

Quartz mining is being developed with good prospects of success. A ten-stamp mill has been installed on the Yellow Jacket, on Pine Creek. The Beavis property near Atlin is also a free milling prospect; also the Imperial group, owned by Seattle men, on Monroe Mountain. All these properties are well spoken of. The White Moose on Taku Arm has afforded rich assays in silver and copper. The Lavadere group, a gold-copper property, is situated at the south end of Atlin Lake. It has been bonded for a considerable sum, but on the expiry of the bond the owner refused to extend it. There are many other claims recorded, and there is every reason to believe that the district will be a large quartz, as well as placer producer.

GOLD MINING IN WESTERN AUSTRALIA.

IN the course of a speech made about three months ago before the Legislative Assembly of Western

Australia the Minister for Mines, in moving the second reading of a Bill for the Amendment and Consolidation of the Law of Mining in that State, made the following remarks relative to gold mining in Western Australia: "I want to point out what the great mining industry does for a State such as Western Australia. In 1890 the population of Western Australia was 44,000 people; now it is about 225,000 people. In 1890 the reported gold value was £86,000; in 1902 it was nearly £8,000,000. In 1893 the shipping, in and out, was less than 1,000,000 tons; to-day it is more than 3,500,000 tons. In 1891 dividends were declared to the amount of £1,875; in 1902 the declared dividends amounted to \$1,424,272. Our output of gold up to July of 1903 was 11,408,723 ounces, of the value of more than £42,000,000, and the estimated gold production for 1903 is something like 2,500,000 ounces, of the value of about £9,000,000. We have paid in dividends to date \$8,588,977, and for the first seven months of this year we have paid £1,112,115. Taking

the nominal capital of all the companies at present working in Western Australia, which is supposed to be a fraction over £30,000,000, the dividends we are paying this year on all the mining—I refer to the nominal capital of gold mining companies—is 6½ per cent. interest. I think that a wonderful record, and it shows that the industry in Western Australia predominates over the same industry in any other part of the world. In 1902 for every man employed above and underground there was produced 117 ounces of gold, of the value of £427 per man, and this year it is estimated that each man will produce 136 ounces, of the value, for every man employed above or underground in the mines of this State, of £490 per man. That is a really wonderful record, and I do not think it can be spoken of too often; because the more we impress outsiders with the enormous resources of the gold-mining industry, the more likely we are to induce foreign investors to expend money in exploiting the industry. Last year, from every acre held under gold-mining lease from the Crown in this State, gold to the value of £234 was taken. I know that in the rich belt of Kalgoorlie the average was larger; but the general average return from the State speaks well for the industry."

ELECTRIC FIRING IN SHAFT SINKING.

FROM an account of the use of electricity for various purposes at the Sherwood colliery, Nottingham, England, the following is taken: The whole of the shot firing required during the sinking operations at this colliery was done by electricity. A shaft-sinking frame was employed, suspended from the surface, on which the compressed air rock drills that were employed were carried. Twenty-two holes were drilled at the same time in the bottom of the shaft, vertically downward, six in a circle of four feet radius, and sixteen outside of these, in a circle of nine feet radius, all the holes being six feet deep and two inches in diameter. All the twenty-two shots were fired together, and twenty-four horizontal holes in the side of the shaft were then drilled, in a circle of eleven feet radius. These were all fired together, and it is stated that the blasting left the shaft quite clean, no dressing having to be done afterwards by the pick. The total sinking to 1,400 yards only occupied fifty-four weeks, a very creditable performance indeed, and a great advance upon the previous records, due evidently to the intelligent use of the electric shot firing. The shaft bottom was lighted, during the sinking, by six incandescent lamps of thirty-two candle-power each, held in a special fitting, and suspended in the shaft by an armoured cable.

LILLOOET AND BRIDGE RIVER.

During the season of 1903, placer mining was carried on at the South Fork of Bridge River in a small way. On the North Fork the Bridge River Development Company made a large expenditure last year in the installation of machinery. Quartz mining has