

still contains a deal of gold. The crushing-battery is situated about one mile from the mine, and it costs 2s. 6d. per ton to cart the quartz this distance. The number of men employed on this company's works is thirty-two, exclusive of men getting mining timber, &c.

This district, until about eighteen months ago, was very heavily handicapped, as no dray or wagon could be brought within about twelve miles of the mines. All mining-timber, tools, machinery, and provisions had to be packed by horses over the top of a high range, which was not accessible during the winter months. However, this is now mended, and things can be carted to the mines. Mining-timber that formerly cost 10s. per prop can be now delivered for 3s. Laths are now got at £3 7s. per 100 for 5-feet lengths, and sawn timber 17s. 6d. per 100ft. superficial.

*Head of Lake Wakatipu.—Invincible Company.*—This company's mine is situated on the face of the range on the east side of Rees River, about fifteen miles up the river from the head of Lake Wakatipu. The main reef that the company have been working averages about 12ft. wide. This has been stoped out to a depth of 60ft. below the surface, and 250ft. in length. A branch-lode has recently been discovered going away from the main reef at an angle of about 45°, and at the time of my visit a commencement was made to get a few tons from this reef to test its value. There is a peculiarity about the main lode in this company's mine which does not occur in any other quartz-lode in the colony, that being the extremely loose nature of the quartz compels the stopes to be close-lathed overhead, and in many places face-boards have to be used, which necessitates a large amount of mining-timber. The whole of the lode is highly impregnated with iron pyrites, which is found to contain from nine to ten ounces of gold per ton, and until recently no attempts have been made to save it. The company are engaged in driving a lower level, which will, when it strikes the reef, give about 180ft. of backs. They have also discovered a quartz lode containing gold at about 1,000ft. under the present workings, so that the future of this mine at the present time looks very promising. The company have a crushing-machine consisting of ten heads of stamps, driven by an overshot water-wheel; and they were, at the time of my visit, erecting seven Berdans. Heretofore the stamping-battery was only used, and the gold collected on blanket-tables, the pyrites being allowed to run away among the tailings. The manager, to ascertain whether the pyrites were as rich in gold as that shown by analyses made by Professor Black, collected 11½ tons of pyrites and ground it in a Berdan, and got 108oz. of retorted gold. This led to the erection of more Berdans, in order to treat the quartz more fully before allowing the tailings to run to waste. They likewise entered into a contract with a Pyrites Company that has been formed, to give the latter company all the tailings as they come from the battery, and to receive from the Pyrites Company 15 per cent. of the gross yield of gold that they obtained from the pyrites. This Pyrites Company have erected two classifiers, three pyramidal boxes, and two jiggers to save the pyrites, and were making a commencement to work them at the time of my visit; but the jiggers did not act so well as was anticipated. The company are, however, erecting a rotating convex table 24ft. in diameter, which they anticipate will save any residue of pyrites that gets away from the jiggers. The whole of the machinery used is similar to that employed in the dressing-works. The jiggers are driven by a Little Giant turbine water-wheel 10in. in diameter. The Invincible Company have sixteen men employed underground, and eight men on the surface. Since November, 1882, the date of commencing operations, to the 22nd July, 1885, they have crushed 7,224 tons of quartz, 11½ tons of pyrites, and obtained therefrom 3,800oz. 14dwt. of gold. Besides paying for the machinery out of the proceeds from the mine, this company have paid £2,975 in dividends, and carried £508 to the reserve fund. The average yield of gold per ton has been about 10dwt. 12gr. The returns from this company during the year ending the 31st March last show that 2,602 tons of stone were crushed, which yielded about 1,131oz. of gold, besides 109oz. got from tailings, making the yield for the year 1,240oz. The total quantity of stone crushed from the mine to this date was 8,730 tons, yielding 4,448oz. of gold.

A little further up the range, and extending up the Rees River Valley from the Invincible Company's mine, another quartz lode has been discovered, which promises to be of a highly-payable nature; but as there is not much work yet done it would be premature to say whether it will continue to give such high expectations when properly prospected.

The direction of these quartz reefs corresponds with the reefs at Skipper's, and they are apparently in the same belt of country; but the formation of the lodes is entirely different.

Before concluding with quartz-workings in the Lake District, the whole of the mines may only yet be said to be in their infancy. The great drawback to contend with by want of roads has prevented men with means from embarking capital in mining operations. Hence men with little or no means have been working the ground for a mere livelihood, with the expectations of finding some very rich deposits to enable them to open up the ground in a systematic manner or to sell shares at a high price. The great want is men with capital to go into mining as a commercial venture, not merely holding shares, waiting until some rich patch is struck to raise their value, so that they can be disposed of at a profit, but to open up the mines systematically, employ improved machinery, so that dividends accruing from the working may be a source of income to be depended on.

*Lake District.—Skipper's.—J. Aspinall's Claim.*—This claim is situated on the point at the junction of Skipper's Creek and the Shotover River. Mr. Aspinall was the first man who took up a mining-lease in this locality. He has been working on this point—principally