

	£	s.	d.
Bullion extracted from 383 tons 16cwt. of ore: Gold, 1,126oz. 16dwt. 15gr.; silver, 1,171oz. 10dwt. 5gr.: value	4,720	7	8
Expenditure—			
Mining, crushing, and ore treatment	3,928	15	1
Transport charges, freight, insurance, rent, and taxes	162	8	7
Management, travelling expenses, and employes' passage-money to colony	750	3	11
Expenses of Glasgow office	231	6	7
Total	£5,072	14	2

This shows a loss on the working for the year of £352 6s. 6d., a loss which is entirely due to extra expense incurred in working with a defective plant, and in sending men out from Europe to work the cyanide plant.

According to this balance-sheet the cost of crushing 384 tons of ore by the Lamberton mills was £484 2s. 11d., which is equal to £1 5s. 3d. per ton, and the cost of treatment of the pulverised ore was £1,253 13s. 1d., being equal to £3 5s. 3d. per ton; while the cost of mining, including surface labour and stores, is set down at £2,190 19s. 1d, which is equal to £5 14s. 1d. per ton. This would make the total cost of mining, pulverising, and treatment equal to £10 4s. 7d. per ton, which would clearly show that unless very rich ore was obtained it would be impossible to carry on operations. The manager, however, informed me that the statement is very misleading, inasmuch that during the year a large quantity of cyanide was purchased, which is at the present time in stock. On my calling Mr. McConnell's attention to the statement in the balance-sheet and the heavy cost of working a cyanide plant, he wrote me as follows: "The statement you refer to in the balance-sheet is extremely misleading. There is no doubt the cost at the old site was excessive, but that was certainly not the fault of the process, but owing rather to the unhandy way our plant was constructed, and also to the fact that though our output never exceeded 30 tons per week a full staff had to be employed. Then, again, immediately before the date of the statement referred to a quantity of cyanide was bought from the Cassel Company, and has evidently been charged by the head office, Glasgow, under the heading 'Treatment of Ores,' whereas this cyanide was actually used in the treatment of ore after the 31st May." He further states that "the actual average consumption of cyanide amounted to 0·2 per cent., equal to 9s. per ton, reckoning 70 per cent. cyanide, as supplied by the Cassel Company, at 1s. 5d. per pound. The labour in a well-constructed plant would not amount to more than 2s. or 2s. 6d. per ton at the most. He estimates that with the new plant the whole expense of drying, pulverising, and treatment will be not more than 20s. per ton."

Unless an explanation of the balance-sheet were given it would show that the use of the cyanide process was prohibitive, except the ore was extremely rich. No company would think of going to the expense of erecting a plant and paying royalty if the actual expense in treating the pulverised ore was £3 5s. 3d. per ton. This company deserves every encouragement. They have expended about £15,000 in plant and machinery; and from the appearance of their mine, the quantity of ore in sight ought to recoup all their expenditure within the next twelve months. During the year ending the 31st March last they crushed 349 tons of stone, which yielded 45oz. gold and 3,266oz. bullion, worth £2 per oz. The average number of men employed by this company last year at their mine, and in connection with the construction and erection of their works, was 112.

*Plant.*—Included under the head of plant may be classed a water-race and tramway. The water-race is taken from the Ohinemuri River in the Karangahake Gorge, about one mile above the battery-site. The water is taken from the river by means of a short tunnel through a rocky point. The bottom of the tunnel being a little below the bed of the river there is no need for any dam or weir to turn the water into the race. From the end of this tunnel the water is conveyed in a wooden flume 4ft. wide and 2ft. deep, having a carrying capacity of twenty-four sluice-heads of water. At the upper end of the flume it is covered over on the top, and is secured to the rock, so that in time of freshes or floods in the river the water flows over the top of the fluming. This top covering is carried down to such a distance as to admit of the flume being a sufficient height above flood-level before the boxing is left open on top. The boxing is laid along the face of the hill for the whole of the distance, on stringers laid on the ground, with the exception of trestle-work where the flume crosses the Waitawheta Creek. The actual head of water at the battery-site on the jets of the Pelton wheels is 69ft.

*Tramway.*—A narrow-gauge tramway was constructed by the Woodstock Company some years ago up the gorge of the Waitawheta Creek, from the Ivanhoe Battery, for some distance. The Crown Mines Company arranged with the Woodstock Company for the use of this tramway, and extended it up the Waitawheta Gorge for a distance of 30 chains—namely, 13 chains on the south side of the creek, thence by a bridge across the creek, and 17 chains of tramway on the north side to their mine; again on the lower end of the Woodstock tramway they extended it for 30 chains, to the site where their crushing-plant is erected. This tramway, for a portion of the distance up the Waitawheta Gorge, is cut out of a perpendicular rocky cliff, having the rock overhanging the tramway, but at a sufficient height above the line to admit of a horse being used, if necessary, to haul the trucks from the mine to the battery. The expenditure on this tramway is said to be about £1,300.

*Battery Site.*—The battery-site is situated on the side of the terrace on the south side of the Ohinemuri River, about 30 chains below the junction of the Waitawheta Creek. The foundations are cut out on the slope of the side of the hill, so that all the material is passed down stage after stage by gravitation as it is dealt with.

*Crushing-battery.*—The crushing-battery consists of a Lamberton rock-breaker, and twenty heads of stamps of the American pattern, 900lb. each stamp. The building where the rock-breaker is placed is on trestle-work 45ft. in height, strongly braced together. The ore as it is brought into the building is first dumped on to a grizzly, and what will not go through the bars of