

Dickson's Battery.—This battery is erected at the side of Tararu Creek, about one mile up from the Norfolk Battery. It consists of twenty heads of stamps, ten of which are said to be 700lb. each, and ten of 500lb. each, having a drop of Sin., and making seventy-five blows per minute. There are also seven berdans and two Watson-Denny pans. These are driven by a Pelton water-wheel, 6ft. in diameter; but the diameter of jet and pressure was not accurately ascertained, so as to make a comparison of the power required to work the plant.

Sylvia Battery.—This battery was at the time of my visit closed up, as well as the mine, the ore being of too low-grade to pay the expense of treatment. This is to be regretted, as there has been a large expenditure on this plant; and it can truly be said to be the most complete concentrating-plant that has yet been erected in the Thames District; but it is questionable if the ore could be so cheaply concentrated as by the Lührig vanners. A detailed description of this plant was given two years ago, and there is no further need to recapitulate it here; suffice it to say that the material, from the time that it went to the stamps, passed down step by step through the jiggers, convex- and concave-buddles, by gravitation, no manual labour being required until the concentrates had to be removed to the different positions where they were stacked.

Waiotahi Battery.—This is the only crushing-battery on the Thames which is driven by steam-power. It consists of twenty heads of stamps, ten of which are 600lb. in weight and ten of 700lb. each, with a very light stamp for crushing specimens. There are also three berdans 3ft. 6in., and one berdan 4ft. in diameter, making twenty-three revolutions per minute. The stamps have a drop of 7in., and make about sixty blows per minute. The gratings have 240 holes to the square inch, and the capacity of the stamps is about 30cwt. a day for each stamp. The gold is saved on the ordinary quicksilver- and blanket-tables, there being two sheets of copper coated with mercury on the first tables before the pulp gets on to the blanket-tables.

Brown's Tailings Plant.—This plant is erected at the lower end of Terrace Creek, and has been kept steadily at work for the last fifteen or sixteen years. It consists of McKay pans and settlers. It is fully acknowledged by all mining men that the McKay-pan is one of the most effective grinding-pans yet made, and it is really a question whether these pans when properly worked are not equal, if not superior, to the Watson-Denny, Price Brothers, and J. C. Fraser's, or any other pan having a continuous discharge, for extracting the bullion from the tailings. My own opinion is that they are equally as good as any pan yet in use on the Thames for saving gold, and far superior to any pan in use as a grinder. The disadvantage these pans have is, that the ore has to be worked in charges, and they flour the mercury considerably, if grinding and amalgamating are carried on simultaneously. The grinding has to be done prior to the mercury being added to the charge, and then the muller lifted before amalgamation is commenced. No amalgamating-pan yet tried in the Thames District extracts a large percentage of the bullion from the ore, the combinations of metallic sulphides together with the gold being in an extremely fine divided state in the ore, it requires special treatment to effect a large saving.

OHINEMURI DISTRICT.

Mining operations in this district were more vigorously carried on last year than they have been for several years previously, and some fresh discoveries have been made between Waitekauri and Marototo, which prove that large auriferous lodes exist which are likely to prove remunerative for working. There is a large extent of country between Waitekauri and Marototo, and also between Waihi and Whangamata, where in some instances large lodes are known to contain gold, but never have been properly prospected. The most part of this locality is covered with heavy forest and dense undergrowth, so that, unless the lodes actually project above the surface, or can be seen in the beds of streams, it is by a mere chance that any one discovers them. It is a part of the district where there are no roads or tracks, and there is great difficulty in carrying provisions and swags through the bush to carry on prospecting operations. This, together with a very rough, broken country, precludes the miners from venturing far away from any known workings, as it is a very easy matter, when turning and twisting about in the bush, to lose their way, unless they systematically blaze a track as they go on. The same thing can be said about the country up towards the head of the branches of the Waitawheta Creek, where lodes exist carrying gold, silver, and other minerals. A good deal of prospecting has been done from time to time near the workings at Karangahake, Waitekauri, Owharo, and Waihi. The latter places being on a plain, destitute of timber, prospecting is a comparatively easy undertaking. The mines at Karangahake and Waihi, and in the vicinity of Waitekauri, are looking much better than they were a few years ago, and several of them promises to be good properties, which will repay the proprietors good interest on the capital expended on them.

During last year there was 22,771 tons of quartz crushed, which yielded 1,722oz. of gold, and in addition bullion to the value of £61,117 13s. 4d.; while ore was sold to the value of £2,221 10s.; thus making the value of the mining produce last year to be about £67,544, as against £31,111 as the value of the produce for the former year; while last year there were 380 men employed in and about the mines.

Karangahake.

This was the first place where gold was discovered in the Ohinemuri District. A rush took place about eighteen years ago, and the field was proclaimed in March, 1875, when arrangements were made with the Natives to throw open the land for mining; but the returns from the field were so small that very soon the most of the miners left Karangahake to seek their fortunes elsewhere. Indeed it may be said the field was almost deserted for some years, until a revival in mining took place in 1882, about the same time as the Te Aroha field was opened, and a number of claims and licensed holdings were taken up, some of which were partially prospected, and some of the ground was held as a mere speculation in the hope that someone with capital would come along and purchase the holders' interests. The gold in the lodes at Karangahake is in a very finely-divided state, and always in combination with silver, so that only a very small percentage of the precious metals can be recovered by the ordinary crushing-battery treatment. At the time the second rush took place