

most approved construction. At the Try Fluke Company's plant they save the whole of the tailings, and grind and amalgamate it in pans, but there is a large percentage of the gold carried away in muddy water from the buddles. The average return of gold from the ordinary battery process of treatment is about 12dwt. per ton. About an equal quantity can be got by regrinding and amalgamating the tailings, and recently a test was made of the sediment obtained from twenty gallons of muddy water boiled down, which gave about 10dwt. of gold per ton, thus showing that with the ordinary process of treatment not more than about 36 per cent. of the gold in the stone is saved. The owners of mining properties on this field are beginning to see the advantages of treating the tailings, and are more careful about saving the gold than they were when the field was first opened. During last year 10,872 tons of stone were crushed, which yielded 8,331oz. of gold. There are several auriferous lodes on this field on which a large amount of work has been done in constructing adits and carrying on prospecting operations, and from the appearance of these lodes and the average returns of gold in the stone, the field, although not a rich one, is likely to afford permanent employment to a considerable population for many years.

THAMES.

One of the principal gold-producing mines at the Thames having suspended operations at the deep levels, and discharged about ninety wages-men, has cast a gloom on this place for a time, but, notwithstanding this, there has been 781oz. more gold obtained in the district last year than for the previous one. There was a falling-off to the extent of 1,199oz. in the Thames Borough, but this was compensated by an increased yield of 1,980oz. within the Thames County. The whole of the mines within the Thames Borough are depending on the drainage of the ground by the Big Pump, and as the drainage-rates form a considerable element in the weekly expenditure of each of the holders of these mines, the Saxon Company, who had to pay £97 10s. a month for drainage, suspended operations at the deep levels in order to get their rates reduced. The principal gold-producing mines in this locality last year, and the quantity of gold obtained, were the Moanataiari, 5,132oz.; Saxon, 4,765oz.; Sylvia, 1,152oz. gold and bullion to the value of £7,874; Waitotahi, 2,859oz.; Hazelbank, 2,213oz.; May Queen, 2,068oz.; Cambria, 1,565oz.; Comers, 1,073oz.; and Fame and Fortune, 1,035oz. During last year 47,197 tons of stone and 21,953 tons of mullock were crushed, and 17,000 tons of tailings treated, which yielded 35,871oz. of gold. The mullock is merely material quarried in a face from the Kurunui Hill, which yielded 1,170oz. of gold, being an average of about 1dwt. 1½gr. per ton, which is said to pay all expenses in connection with quarrying and treating this class of material.

OHINEMURI.

The mines in the Ohinemuri District are looking very promising. There are large lodes containing auriferous and argentiferous ores in this district, but until within the last four years they were looked upon as being of too low a grade to pay for working, but since the principle of assaying and sampling the ores has come into general use at the mines, it is found that there are very rich ores in this district, and that with a proper method of treatment many of the mines are likely to contribute largely to the production of gold in future.

At Karangahake the Crown Company have succeeded in opening up a valuable property. They discovered a lode in the Waitewheta Gorge, which varies from 4ft. to 8ft. in thickness, but where the lode is wide only about 4ft. of it is taken at the present time, and this has averaged in value about £15 per ton. This lode has been prospected on both sides of the creek, and at different levels, and the whole of the lode stuff will pay for working when the large plant which is now in course of erection is completed.

At Waihi, extensive mining operations are being carried on by the Waihi Company, who are working the Martha, Union, and Rosemont lodes, the former lode being about 24ft. in thickness, all of which is taken out and sent to the crushing-plant for treatment. This company has erected one of the largest and most complete crushing-plants in the colony. There are thirty heads of stamps employed in dry-crushing and thirty heads in wet-crushing, the water from the wet-crushing battery being used over and over again, so that no fine gold or silver can be carried away with the muddy water. They have also large and efficient amalgamating appliances, and they are now erecting a plant to treat the pulverised ore with a solution of potassium cyanide on the Bohm process.

At Waitekauri Mr. T. H. Russell took up the ground comprising the old workings, where a large main lode of low-grade ore exists, and erected a crushing-plant similar to the one recently erected by the Waihi Company for wet-crushing; but the ore from this main lode