ment, it can safely be asserted that not more than about 36 per cent. of the gold is extracted by the ordinary battery process.

In regard to their mining operations, they have driven along the lode on the No. 2 level for a distance of 420ft., and stoped about 130ft. in length to a height of 60ft. on north end, and for a length of 90ft. and a height of 70ft. on the south end, leaving a block of 200ft. in length between, with about 150ft. of backs. The No. 3 level is 130ft. below No. 2, and the lode has been driven on here for a distance of about 420ft., and stoped out to an average height of 30ft. The lode varies in thickness from 2ft. to 12ft., but where the lode is wide there is only from 3ft. to 4ft. of it sent to the crushing-battery, the rest being considered too low-grade to pay with their present appliances. The above remarks refer to the Try Fluke Lode, which is easily distinguished from all the other lodes on the field, the quartz being very soft and friable, mixed with the oxides of iron and manganese. In the north end of the Try Fluke Mine another lode branches off, and is termed the Kuaotunu. It varies from 6in. to 9ft. wide, and the whole of the ore is payable for working. During the year ending the 31st March last 5,032 tons of quartz were crushed, which yielded 3,172oz. 10dwt. of gold, and 120 tons of tailings, which yielded 42oz. of gold; making a total of 5,152 tons treated for 3,214oz. of gold, being an average of over 12¾dwt. of gold per ton. The average number of men employed by the company last year was thirty-one.

Red Mercury Company.—This company's mine is situated to the north of the Try Fluke, on the same line or belt of country; but the two mines are a considerable distance apart, there being three claims between them—namely, the Carbine, Mariposa, and John Bull. The manager of the Red Mercury Company states that the lode he is working on is the same that branches from the main lode in the Try Fluke Mine; but this is very questionable, as the character of the stone appears to be different, and the lode is more compact and much harder than the lode known as the Kuaotunu in the Try Fluke ground. The lode varies from 4in. to 3ft. in width, and has been driven on for a distance of 440ft., carrying good ore. Recently they have purchased a crushing-battery of ten heads of stamps, also some of Price's pans and settlers that formerly belonged to the Public Crushing Company. During the last year they crushed 1,249 tons of quartz, which yielded 1,826oz. 10dwt. of gold, being an average of over 1oz. 9dwt. gold per ton. The returns given the department are, however, slightly different from those in their balance-sheet, as published in the *Mining Journal* of the 1st June for year ending 31st March last, which shows 1,267 tons of quartz crushed, yielding 1,730oz. 18dwt. gold, and that the cost of getting this quantity of ore at the mine was £2,700 16s. 9d., which is returned as wages and mine requisites. This shows that it cost £1 11s. 2d. per ton to get the stone out of the mine, and that crushing alone cost £948 19s., which is equal to about 11s. per ton; and cartage cost £226 5s., another 2s. 4d. per ton; so that the total cost of getting and crushing their quartz last year was £2 4s. 6d. per ton.

Great Mercury Company.—This company's claim adjoins the northern boundary of the Red Mercury, having the same lodes passing through it. They have been working the same lode that is worked in the Red Mercury Mine, but the ore appears to be of less value. However, this is not certain, as the present manager, who has only recently taken charge, states that he is now getting very good returns from the same ore which the two former managers could not make pay. This company have erected a crushing-battery of ten heads of stamps, with two of Fraser's and two of Price's pans, and two settlers. They have also recently erected a set of settling-boxes for tailings and slimes, and are lifting the water with an elevator-belt and using it again in the battery. The latter appliance was not being used on the day of my visit, the water from the settling-pits flowing into the creek. The tailings are fed into the pans in charges of 1,500lb.; this is ground for three hours and then the muller is lifted, and the pulp amalgamated for two hours with 115lb. of mercury in each pan, the pulp being kept at a temperature of 110°. The manager, Mr. Pettigrew, states that by this process of treatment he gets about 87 per cent. of the gold, which is an exceedingly high percentage, if the assay-value be correctly ascertained. The system of treatment is similar to that adopted by the Waihi Company; but the plant is greatly inferior to that of the latter company, which does not get above 70 per cent. of the assay-value by the wet-crushing process. Any one inspecting the plant used by the Great Mercury Company would hardly think that more than 65 per cent. of the assay-value of the ore was saved. During the last year 2,693 tons of ore was crushed, which yielded 1,469oz. gold, being an average of 10·9dwts. per ton.

Other Companies and Claims.—There are thirteen mining companies on this field, which have been getting less or more gold last year, with numerous lodes of an auriferous character passing through their ground. No doubt some of them may not prove payable, but the majority of the present claims will be found to give fair returns for working, and new claims will from time to time be taken up as the country gets better prospected. There are at the present time 276 acres held in mining claims, on which 135 men are employed, and during the past year 11,228 tons of quartz was crushed, which yielded 8,792oz. of gold, being an average yield of 15⅝dwt. of gold per ton. There was also 235 tons of tailings treated, which yielded 90oz. of gold per ton.

Gold-saving Appliances.—The claimholders on this field are becoming more alive to the necessity of adopting different appliances for saving gold, but each is waiting on the other to see who will try the first experiment. They all agree that the loss of gold is considerable, and some of them fortify themselves with the belief that they cannot be losing more than 50 per cent. of the gold, while some of the managers state they are saving 87 per cent. of the assay-value; but if the ore were carefully sampled for assay purposes it would very probably be found that nothing like this high percentage of gold was obtained from the ore. The appliances at the Great Mercury Company's crushing-plant for the extraction of gold is the best at present on the field; but even this is greatly behind the appliances adopted by the Waihi Company, who have by far the best amalgamating plant in the colony, and, taking into consideration that this company only gets about 70 per cent. of