

been opened up both north and south of the crosscut, and a limited amount of stoping done. The country is considerably tighter than in Nos. 1 and 2 levels. The reef is of a harder nature and is split up in places, the country-rock intervening. Prospecting operations are proceeding on the eastern section of the property, where a small reef from 4 in. to 5 in. in thickness was discovered near the surface, and from which good payable stone was obtained. A drive is now being put in from this side of the hill to cut it at depth. The length of the tramway between the mine and battery is 37 chains, 10 chains of which is worked by hand-power at a higher level, and from here it is passed down a short shoot to a hopper on the horse-tram, which is 27 chains long. The battery comprises two Krupp mills and a third in course of construction, twelve large percolating-vats 20 ft. diameter and 4 ft. deep, two solution-vats, and one mixing-tank, two rotary furnaces, two stone-breakers, four automatic feeders, six berdans, table, and copper plates, &c. The mill is driven by a 6 ft. diameter Pelton wheel, and a 3 ft. diameter Pelton wheel for the electric plant to supply light for the mill. Water is used as a motive-power to drive the machinery. A water-race (most of which is wooden fluming) has been constructed for a mile and a quarter in length, 4 ft. by $2\frac{1}{2}$ ft. deep. During the year 5,495 tons has been crushed for a yield of 8,605 oz. of gold, valued at £10,610 13s. 4d. There were 115 men employed.

Newton Mine.—Prospecting operations have been carried on for some time in this ground, and the outcrop of a reef discovered in the surface-workings, some of which (it is stated) gave encouraging prospects. Two men are employed on behalf of Mr. H. D. Abbott in driving a level from the side of the hill to intersect the lode at a depth.

OHUI DISTRICT.

Mining on this part of the field is at present at a standstill. A little work was carried on in the beginning of the year on the Mercia Claim by T. P. Seaver, but nothing of a payable character was discovered. Prospecting operations were also carried on by E. Ryan and others around this locality, but with little success.

WHANGAMATA DISTRICT.

Wentworth Mine.—This mine is owned by the Hauraki Peninsula Exploration Company, who have done a good deal of work during the year in opening up the mine and carrying on necessary outside work. In the mine the reef has been opened up in four different levels, and it varies in size from a few inches to 4 ft., giving an average width of about 20 in. In the No. 1 level the reef has been driven on from the one side of the spur to the other side, a distance of 420 ft. A winze has also been sunk on the reef from this level to the No. 2 level, a depth of 80 ft., where the reef has also been opened up to a fair extent. Through the block being too big to conveniently work between this level and the present low level, an intermediate or No. 3 level was put in to split the block which intersected the reef, and a rise was put up on the reef to the No. 2 level, a height of 76 ft., so that all the ore coming from the mine for some time will pass through the No. 3 level, which is connected by a wooden shoot with the tramway-hopper erected at the low level. In the No. 4 level the reef has also been intersected and driven on some distance, it being intended to make a connection between this level and the No. 3 as soon as possible, so that it can be used as the permanent outlet for conveying the ore from the mine to the battery, this being on the same level as the horse-tram. The battery which is being erected by the company is drawing towards completion, and it is expected that crushing will be started in the course of a few weeks. For crushing purposes a Lamington ball-mill, which the company have had on hand for some time, is to be tried as an experimental plant, but provision has been made in the erection of the building and foundations for the adoption of stamps should the ball-mill not prove a success. The water-race, which is completed 67 chains in length, has an effective fall of 285 ft., pressure-pipes being 14 in. in diameter. The tramway is also completed from the mine to a spur on the opposite side of the creek to the battery, a distance of about 23 chains, where a hopper is erected, in which the ore will be tipped and sent over the creek to the battery by a short wire tramway.

MARATOTO DISTRICT.

Hikutaia Gold Syndicate.—The work in the mine has been limited for the greater part of the year, the company's operations being directed more in the treatment of the ore that had been won from the mine and stacked on the surface. A No. 5 Dodge crushing plant (equal to five stamps), cyanide-vats, &c., was constructed, and 1,739 tons of ore treated for 570 oz. of bullion, valued at £650 13s. 5d. As there is abundance of quartz in sight, the ore referred to was treated without selection, the object being to ascertain the average value of the ore in the winze with a view to erecting a large crushing plant. The quantity of ore that was to be treated on this small scale having been put through, the plant is stopped pending instructions from the directors. An average of eleven men were employed.

Maratoto Gold-mining Company.—In the Pay Rock section of this mine the No. 1 level has been driven northwards a distance of 100 ft. along the hanging-wall of the lode, which has been broken out to an average width of 5 ft. without any sign of the foot-wall. For the first 30 ft. of driving, ore very rich in gold and silver was met with, and beyond that point, so far as the exploration has gone, the ore is all payable. Below this level, No. 1 winze has been sunk to a depth of 85 ft., where it connected with the No. 2 level workings. This winze went down on the hanging portion of the lode, which was taken out to an average width of 3 ft. The rich ore-shoot was followed to a depth of 20 ft., when it dipped out of the winze to the southward. Over the back of this level a rise has been put up to a height of 90 ft. on the hanging-wall portion of the lode, and another 10 ft. of rising will hole through to the surface. Beneath the floor of this level, No. 2 winze has been sunk to a depth of 55 ft. Here the lode has been broken out to a width of 4 ft.