

*New Zealand Talisman Mine* (New Zealand Talisman Gold-mining Company, Limited, owners).—The land occupied consists of a special claim of 60 acres, a machine-site on which the crushing plant is erected, and a special site on which a building has been erected containing a number of the vats used for the cyanide process. The reef, which hitherto has yielded the chief gold-producing quartz, has been well developed; six different levels have been driven, and communication effected by winzes and uprisings, which open up the various blocks of reef between No. 6 level and No. 1 level, and a fresh adit is being driven 120 ft. below No. 6. The situation of the claim is most favourable for economical working, the precipitous character of the country affording the opportunity of working from the surface by a succession of adit levels. The No. 7 level, which is the deepest, is 120 ft. below No. 6, the height of the others being—from No. 6 to No. 5, 115 ft.; No. 5 to No. 4, 104 ft.; No. 4 to No. 3, 80 ft.; No. 3 to No. 2, 290 ft.; No. 2 to No. 1, 70 ft.; and the average depth of the No. 1 level is 215 ft. from the surface. The height of No. 7 level above the level of Waitawheta Stream is about 600 ft., and there is therefore a total height of nearly 1,400 ft. from datum to the surface above No. 1 level. The reef, which averages 3 ft. 6 in. in width, consists of quartz having a wavy appearance, flinty and crystalline in character, and of a hard nature. Considerable difficulty was at first experienced in obtaining a satisfactory extraction of the gold contained. There is every indication of the reef extending downwards, and this will shortly be proved as far as No. 7 level is concerned. The entrance to No. 7 is in the Woodstock Company's ground, and 750 ft. must be driven before the boundary of the Talisman is reached; this, it is anticipated, will take 200 ft. further driving to complete. The quartz is conveyed from the mine to the battery by a wire tramway across the Waitawheta Gorge. At the mill a new revolving ore-drying furnace, capable of drying 40 tons per day, has been erected, and is now used in place of the kilns. The crushing plant consists of two stone-breakers, twenty head of stamps, and a No. 5 Krupp ball-mill, and six berdans and amalgamating-tables. The cyanide plant includes fourteen vats, twelve 22 ft. and two 18 ft. in diameter, with vacuum pumps, zinc filters, &c. The motive-power for the machinery is furnished by two Victor turbines of the respective diameters of 21 in. and 12 in., the latter being used for driving a dynamo for lighting and power purposes. The water is conveyed from the Waitawheta Stream through a tunnel 95 ft. in length, connecting with a wrought-iron pipe 4 ft. in diameter and 925 ft. in length, and delivered into the concrete-walled turbine-pit, 28 ft. in depth. In the building on the special site water necessary for sluicing out the vats is conveyed in a 3 in. pipe from the Hauraki Creek, and the power for the pumps is transmitted to the electric motor from the dynamo at the machine-site, which also produces electric light for both plants. During the year 4,194 tons of quartz was crushed and treated for a yield of gold valued at £13,681 7s. 3d. Seventy-five men were employed in the mine and at the mill.

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