

The claim known as *Jackson's* has also remained idle during the year, but now I hear three men have taken it over, and are repairing the head-race and cleaning up the face for a start.

MOTUEKA, MOUNT ARTHUR TABLELAND.—I have nothing to report from this locality.

WANGAPEKA.—The dredge on this river has at length got to work, being worked with coal mined at their own mine in the vicinity.

THE SHERRY.—One claim on private land is being worked industriously, and with good results.

TADMOR and BATON are not now being worked.

I have, &c.,

WILSON HEAPS, Warden.

The Under-Secretary, Mines Department, Wellington.

Mr. Warden KENRICK, Greymouth, to the UNDER-SECRETARY, Mines Department, Wellington.

SIR,—

Warden's Office, Greymouth, 29th March, 1904.

Herewith I have the honour to forward Statistical returns for the year ended December, 1903, also detailed reports on the several subdivisions of the mining district under my charge.

#### REEFTON-INANGAHUA DISTRICT.

Mr. E. W. Spencer, general manager for the Consolidated Goldfields of New Zealand (Limited), the Progress Mines of New Zealand (Limited), and the Welcome Gold-mining Company (Limited)—furnishes the following reports on the operations of the various companies under his control during the year 1903 :—

*Consolidated Goldfields of New Zealand (Limited).*—Wealth of Nations : Practically no development-work of any description has been carried out on this property during the period under review, owing to the conditions under which we are working. For the maximum capacity in depth of the old overshot water-wheel used for hoisting has been reached and developments in future will be conducted from the Energetic shaft. Stopping has been carried out in a general manner from the 350 ft. (No. 2) level down to the 800 ft. (No. 6) level producing 12,385 tons of quartz, which when crushed, yielded bullion to the value of £14,296 7s. 3d. by amalgamation, and concentrates to the value of £1,034 9s. 4d. were sold to the smelter. At the cyanide-works 8,645 tons of sands, representing 69·802 per cent. of the tonnage milled was treated, yielding bullion to the value of £5,061 3s. 11d. or 11s. 8·508d. per ton. Of this amount 2s. 11·047d. was absorbed in working-costs, leaving a profit per ton treated of 8s. 9·461d. The working-costs of this mine, amounting to 17s. 8·456d. per ton treated are made up as follows : Mining, 11s. 9·766d. per ton ; Milling and concentrating, 2s. 6·507d. per ton ; Cyaniding, 1s. 11·704d. per ton ; Offices and general expenses, including bullion and assay charges, 1s. 4·479d. per ton. There have been no alterations in the surface equipment at this mine during the year 1903.

*Energetic shaft :* During the year the shaft has been sunk from a depth of 831 ft. to 1,369 ft., at which point the last set was placed in position on the 9th October. Since then the brace of the shaft has been raised a height of 8½ ft. which brings it up to the level of the permanent brace. Hence the shaft at present is actually 1,377·5 ft. deep. As soon as the shaft-sinking was finished, a start was made to open out for the new level (No. 7) at a point 125 ft. vertically below the bottom level (No. 6) of the Wealth of Nations. Here a chamber has been cut, and the crosscut at the end of 1903 was out 126 ft. from the shaft. It will probably have to go 220 ft. before striking the reef. On the surface very considerable alterations have been carried out and good headway made with the permanent equipment. An exterior-fired multitubular boiler has been erected and bricked in, the dimensions of which are as follows : Diameter of shell, 60 in., length, 16 ft., working-pressure, 140 lb. per square inch. A compressor 13 in. by 24 in. by Hirnant has also been erected, and it is intended to supply air for the rock-drills. A gallows-frame 37 ft. 6 in. in height has been erected for use with the large permanent winding-engine which is an 18 in. by 36 in. direct coupled Tangye girder winding-engine, the foundations for which are ready to receive the plant. The engine-house measures 45 ft. by 26 ft. 6 in. by 19 ft. 6 in. in height, whilst the boiler and compressor house measures 34 ft. by 22 ft. 6 in. by 15 ft. 6 in. in height. At the end of the year the new boiler was ready to connect up to the temporary hoist, thereby throwing the small boiler out of commission. Future operations at this shaft will be as follows : When the reef is encountered on No. 7 level it will be driven on in a southerly direction towards the present Wealth of Nations incline shaft, and as soon as possible the shaft will be continued on down another lift of 125 ft. to No. 8 level. The development-work throughout will, as far as possible, be conducted by rock-drills so as to hasten the developments ; for the future of the Wealth of Nations Mine depends entirely upon the manner in which the next levels open up. Should they turn out well the surface reduction-works will have to be altered to suit.

*Golden Fleece :* During the period under review a large amount of development-work has been carried out, principally on levels Nos. 11 and 13 comprising driving and crosscutting 1,392 ft., raising and sinking 678 ft., besides which the main shaft was sunk from No. 12 to No. 13 level, and the necessary connections made. Stopping has been carried out in a very general manner from the following levels : 13, 12, 11, 7, 6, 5, 4, and 3, a very large amount of ground having been gone over to provide the tonnage milled. The quartz has maintained its characteristic irregularity during the year, the stone cutting out and coming in both horizontally and vertically with great rapidity. This necessitates the removal of a considerable quantity of blank ground to avoid missing small blocks of quartz. During 1903, 14,133 tons of quartz was crushed, yielding bullion to the value of £21,978 3s. 5d., besides which sulphurets to the value of £1,436 14s. 7d. was sold to the smelter. At the cyanide-works 9,580 tons of coarse sands was cyanided, representing 67·785 per cent. of the total crushed. This yielded bullion to the value of £3,381 19s. 6d.—of this amount 2s. 3·937d. per ton was absorbed in working-