

546 oz. 5 dwt. 21 gr. of gold, valued at £2,247 3s. 4d. The coarse sands cyanided, amounting to 1,044 tons, yielded gold to the value of £1,089 8s. 9d. During October, the whole mine and plant were let on tribute to O'Leary and party who up to the end of the year had mined and milled 185 tons of quartz for a return of 271 oz. 8 dwt. 21 gr. valued at £1,097 7s. The sands discharged to the cyanide plant were still under treatment at the end of the year. The Welcome Company has been absorbed by the present company, the Consolidated Goldfields of New Zealand (Limited), so that the former has now ceased to exist. The tributers will continue mining and reduction operations as heretofore.

REEFTON.

Wealth of Nations.—Practically there has been no development-work of any description done on this property during the period under review, owing to the unsatisfactory conditions under which material is raised and lowered on the inclined winding-shaft, as the power of the old overshot water-wheel having attained its maximum hoisting-capacity in depth, future developments will be maintained from the Energetic shaft. Stopping has been carried out 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 £1,094 9s. 4d. were sold to the smelter. At the cyanide-works 8,645 tons of sands, representing 69.8 per cent. of the tonnage milled, was treated, and yielded 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; office and general expenses including bullion and assay charges, 1s. 4.479d. per ton. Battery and mining equipment remain unaltered. Energetic shaft: 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 ninth October. Since then the brace of the shaft has been raised 8½ ft. to its permanent level: making the actual winding-depth 1,377.5 ft. Directly sinking operations were completed, driving was commenced to cut out a chamber at a vertical depth of 125 ft. below the bottom level (No. 6) of the Wealth of Nations, when crosscutting was continued 126 ft.; but the computed distance to strike the reef will probably not be less than 220 ft. Considerable alterations and improvements have been effected on the surface, and good headway made with the permanent equipment. An exterior-fired multitubular boiler, 5 ft. diameter, by 16 ft. long with steam-pressure of 140 lb. has been suitably installed. The winding-engine is horizontal with two high-pressure cylinders—18 in. in diameter with 36 in. stroke—and is built on the direct coupled Tangye girder principle with parallel drums. The poppet-head gear, 37 ft. 6 in. in height, is also substantially erected. The Hirnant air-compressor, designed for rock-drilling purposes, is a horizontal single cylinder, 13 in. in diameter, with air-cylinder 14 in. diameter. The whole plant is spaciouly and comfortably housed. 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 further continued 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, as the future prospects of the Wealth of Nations Mine will depend 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 levels Nos. 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. These sudden changes of formation necessitate the removal of a considerable quantity of barren ground to avoid missing small blocks of quartz, and to provide ventilation requirements. During the year 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. were 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-costs, leaving a profit of 4s. 8.789d. per ton. The total working-cost of this property amounts to £1 5s. 7.942d. per ton milled. This high cost is accounted for by the very mean width of quartz stoped. No alteration of importance has been made in the surface equipment of this mine during the last twelve months.

Progress Mines.—Development has been actively pushed on in levels Nos. 3, 4, 5, 6, 7, 8, 9, and 10, resulting in the opening-up of large ore-bodies on Nos. 3, 4, 6, 7, and 9 levels in the eastern portion of the mine. The total distance driven, &c., during the year is as follows: Driving and crosscutting, 3,672 ft.; raising and sinking, 927 ft.: Total, 4,599 ft. Stopping has been carried out from No. 3 level down to No. 9 in a general manner, and the yields obtained therefrom are fully up to expectations, so far as tonnage is concerned. In the eastern section of the mine large bodies of low-grade ore, which cannot be worked to a profit under existing conditions, are used as filling-in material. To ascertain the dimensions of the reef on Nos. 6 and 7 levels, east, the continuation of the north-east ore-body has been located, and the stone on both levels extracted. A valuable ore-body recently discovered on No. 9 level, east, has partly enabled the management to locate the same line of reef on No. 10 level. This discovery, if permanent, will greatly enhance values on the deep levels, as considerable work has been undertaken to locate the existence of the main lodes at this depth. Diamond-drill borings, actuated by compressed air, have been actively pushed on in No. 10 level for the last three months, resulting in two blocks of