

The Princess lode has been driven on to Empire junction, a distance of 284 ft. from No. 2 shaft, south-east crosscut; the average width is about $3\frac{1}{2}$ ft. The south-east crosscut, No. 4 shaft, was driven from No. 4 to No. 5 shaft, a distance of 375 ft., and connected with crosscut coming from No. 2 shaft. At 79 ft. from starting-point the Empire lode was met. The No. 1 shaft, north-west crosscut, was driven 123 ft. At 24 ft. the Magazine lode, 12 ft. wide, was cut; at 48 ft. in Regina lode 9 ft. wide, and again at 90 ft. the Martha lode came to hand. At the beginning of year the level on the Magazine lode stood at 455 ft. east of No. 2 shaft; it has since been extended 148 ft., or 25 ft. east of No. 1 shaft. The average width along this distance is 8 ft. On the Regina lode 248 ft. has been driven; that is 200 ft. west and 48 ft. east of No. 1 shaft, north-west crosscut. Owing to the lode being wider in many places than the level could command, it was cut through as follows: No. 1 shaft—North-west crosscut, 9 ft. wide; distance west, 51 ft., 6 ft. wide; 100 ft., 10 ft. wide; 150 ft., $9\frac{1}{2}$ ft. wide; 199 ft., 8 ft. wide.

No. 4 Level.—In the Prince lode a distance of 102 ft. was driven west of old south-east crosscut. At the starting-point it was 5 ft. wide, but proved to be very irregular as the level advanced west. On the Princess lode the level was only extended 40 ft. during the year, which makes 338 ft. west on course of reef from old south-east crosscut. On the Royal lode 306 ft. was driven early in the year. The old south-east crosscut was advanced during year 240 ft., making the total length from No. 2 shaft 1,633 ft.

Surface-works.—Driving through country, in connection with the drainage and facilitating filling-in material, 1,557 ft. have been cut. On the Martha lode the surface cutting on new intermediate level has been extended from 20 ft. west of Bull's Pass to 139 ft. The lode at starting-point was about 9 ft. wide; at present face it is 22 ft. wide and 40 ft. in height. From this cut 4,797 tons of a fair class of free-milling ore have been supplied.

Mine-developments and Dead-work Footage.—The following figures show the amount of shaft-sinking that has been done: No. 1 was 410 $\frac{1}{2}$ ft. at beginning of the year; sinking was stopped in March last and resumed on the 9th December, making the total depth 478 ft., 67 $\frac{1}{2}$ ft. having been sunk during the year. The depth last year of No. 2 was 534 $\frac{1}{2}$ ft.; sinking was commenced on the 25th March and stopped on the 16th July, 108 $\frac{1}{2}$ ft. having been sunk: total depth, 643 ft. In No. 4 sinking was stopped on the 25th April at a total depth of 450 ft., 97 ft. having been sunk. In No. 5 sinking was stopped on the 20th July at a total depth of 456 ft., 192 $\frac{1}{2}$ ft. having been sunk during the year. The filling-shaft was sunk from No. 4 to No. 5 level, a depth altogether of 574 ft., 89 ft. having been sunk during the year. The total sunk in all shafts during the year was 554 $\frac{3}{4}$ ft. 4,766 ft. was driven in country; 6,447 ft. was driven in course of lode; 1,618 ft. crosscut in lodes; and winzes sunk, 3,737 ft.: making a total of 16,568 ft., which, added to the shafts sunk (554 $\frac{3}{4}$ ft.), makes a total of 17,122 $\frac{3}{4}$ ft. The total depths of the five shafts are as follows: No. 1 shaft, 478 ft.; No. 2 shaft, 643 ft.; No. 3 shaft, 343 ft.; No. 4 shaft, 450 ft.; No. 5 shaft, 456 ft. The filling-shaft has also been deepened 89 ft. during the year, making a total depth of 574 ft. from the surface. At the No. 5 shaft the new Hathorn-Davey pump and two Babcock and Wilcox boilers have been erected, and the necessary building, flue, and chimney and pump column obtained. Two safety-cages and poppet-head pullies have also been procured, and are in use. A capstan engine was obtained for this shaft from Messrs. A. and G. Price, Thames. A change-house has been erected between the No. 4 and No. 5 shafts.

Product.*—A total of 159,325 tons (dry weight) has been treated during the year, being 47,313 tons in excess of the total of 112,012 tons which was treated during the preceding year. Of this total, 95,829 tons has been dry-crushed, and 63,496 tons wet-crushed. A considerably larger tonnage as compared with last year has been obtained from the Empire reef, and a somewhat greater tonnage from the Martha, Welcome, and Regina reefs. On the other hand, a smaller tonnage has been supplied from the Victoria reef. The product has been 483,113 oz. of bullion, exclusive of concentrates and pan-tailings shipped to Australia. The value of the product, computed on the usual basis of gold valued at £4 4s. and silver at 2s. per ounce, was as follows: 483,113 oz. bullion (excluding concentrates), £431,601 0s. 8d.; 356,851 tons of concentrates (assay-value), £20,825 14s. 4d.; net out-turn of pan-tailings, £704 17s. 6d.: total, £453,131 12s. 6d.

Reduction-works, &c.—The respective tonnages crushed at the mills were as follows: Waihi mill (dry crushing), 45,389 tons; Victoria mill (dry crushing), 50,440 tons; wet crushing, 63,496 tons: total, 159,325 tons. The total average number of stamps running during the year, exclusive of Sundays and the period at Christmas during which the mills were closed down, was 276,710. The total average duty per stamp per diem was 1.96 tons. Wet crushing, Victoria mill (100 stamps): Eighty-five stamps were started on the 11th January, the remaining fifteen stamps being got to work on the 15th January. Early in the year twenty head of stamps were put on to mineralised ore, the product passing over six Union vanners. Later on in the year two more Union vanners were erected, and an additional ten heads of stamps were employed in crushing mineralised ore. A Blake-Marsden stone-breaker which was in stock was erected in the wet-crushing stone-breaker building, in addition to the two Gates's crushers already erected. A small Dehne press was obtained from the Sulphide Corporation (Limited), New South Wales, and one was ordered and obtained from J. Martin and Co., of Gawler, South Australia, fitted with fifty frames, 36 in. square; cakes, 3 in. thick. This has proved satisfactory. An order was placed with J. Martin and Co., of Gawler, for three new filter-presses, which have now come to hand. A contract was let to A. and G. Price for six agitators, a collecting-vat, and a sump, all of which have been delivered and erected. A second pressure-tank was also obtained from R. H. Yeoman. A chain elevator for raising the ore from the stone-breakers to the mill ore-bins was obtained from England. A con-

*There is a crushing included in the above product sent in in the month of January, and does not appear in the returns.—J. Courts.