

then to tunnel into the cement and break it down by blasting. After being broken up and reduced it is sluiced down several hundred yards of tail-race, fitted with cocoanut-matting and ripples in one section and cobblestone in the other. There was no one in the claim on the date of my last visit. Four men employed.

Quilter and Sons, Waitahuna Gully.—Since my previous visit very little material had been shifted, chiefly on account of the water-supply being poor and unreliable. Two heads are brought into a storage-dam, allowing about four heads to be available on the claim for a short day's work. The plant consists of 500 ft. of pressure-pipes; pressure, 75 ft. The material is elevated 20 ft., and then passes over a short run of boxes fitted with ripples and cocoanut-matting. Two men employed.

Thompson and Party (Norwegian Company), Waitahuna Gully (C. Thomson, manager).—This party have still a small area of unworked ground up the middle of the flat. Until quite recently a second elevator was in position, working out a piece of ground at the head of the claim. The ground is shallow, varying from 10 ft. to 12 ft. in depth, and the material is elevated 26 ft. The splendid pressure available—fully 300 ft.—has enabled a large quantity of material to be elevated. The gold-saving appliances are angle-iron ripples, perforated plates, and cocoanut-matting.

Sailors' Gully Hydraulic Sluicing Company, Waitahuna Gully (A. Barr, manager).—The main body of tailings in the gully having been worked, the adjoining terrace is receiving attention. The recent deposit overlying the cement is being elevated, the water-power not being adequate to attack the body of cement. The water-supply is also unreliable, as the country through which the race is cut is very broken. The face of the claim is 10 ft. high, consisting of clays and gravels. This is sluiced down to the elevator and elevated 24 ft., and then passes over 120 ft. of boxes fitted with ripples and matting. Sluicing is only carried on during the day.

WETHERSTONE'S.

Golden Crescent Hydraulic Elevating Company, Wetherstone's (W. Smythe, manager).—During the past year a large area of shallow ground and the adjoining spurs had been worked with highly payable results. The winter having been a fairly open one for sluicing, there has not been much time lost, but some trouble was experienced in keeping the races clear from snow. Present operations are confined to the foot of Post-office Gully. Some years ago several shafts were sunk in this gully into the conglomerate. At the last inspection the company intended to cut their race on to Ballarat Hill. A pressure of 260 ft. will then be available, and this will serve for the life of the claim. With the present available 200 ft. of pressure the material was being elevated 15 ft. The clay boulders require to be broken up, and the stones are picked out by hand. The terraces comprised in this claim were the scene of great mining activity in the early days, and had all been worked, the wash being driven out. Eight men employed.

Golden Rise Hydraulic Elevating Company, Wetherstone's (F. Whelan, manager).—During the year operations have been mostly confined to ground skirting the foot of the hill. An additional 500 ft. of pressure-pipes have been added to the plant to enable the lower end of the claim to be worked. The material is fairly easy to shift, and good paddocks are taken out, the work being carried on under careful management. The bottom consists of a sandy pipeclay overlying the conglomerate. The back face of the present paddock is 26 ft. in depth. The material is lifted 26 ft. and passed over a run of boxes 60 ft. in length, provided with angle-iron ripples and perforated plates. Four men are employed in the claim and one raceman. Operations have been highly successful this year.

TUAPEKA.

Blue Spur and Gabriel's Gully Consolidated Gold-mining Company (J. H. Jackson, general manager; J. Uren, mine-manager).—During the past year sluicing has been fairly steady. At the time of my visit there were three elevators in position, lifting 69 ft. 5 in., 75 ft., and 45 ft. respectively. Twenty-eight men are generally employed in the claim, and four as caretakers of the various races. The upper seams, which have been worked continuously for many years, are fast working back to the boundaries. An attempt is now to be made to take up the deeper ground to a depth of 30 ft., whereby the life of the claim will be considerably lengthened.

Excerpt from the report of the manager (Mr J. Howard Jackson) furnished to his London board, dated the 23rd March, 1903: "The output of the mine is, I regret to say, smaller than during any year in the history of the company. The quality of the cement shows a serious falling-off all round. The total gold won in 1902-3 was 1,536 oz. 7 dwt., at £3 19s. = £6,070 0s. 1d. The total expenditure was £5,218 2s. 4d.; and the total wages paid £3,521 14s. 7d., an increase of £282 2s. 8d. over last year. The explosives used amounted to £318 0s. 6d., a decrease of £309 16s. 1d. as compared with last year. Owing to the poverty of the cement worked during the year the cost of production has increased from 63 per cent. in 1901-2 to 85·9 per cent. this year of the value of the gold won, leaving an infinitesimal margin of profit. Put in other words, it has cost £3 7s. 11d. to win each ounce of gold, worth (approximately) £3 19s. 6d. The head-races and dams are in good repair, and have provided water for sluicing 937·8 eight-hour days. Statement of work and values for the year 1902-3: No. 1 division—Hours sluicing, 3,075·5; cement, 71,658 cubic yards; gold, 385·86 oz.; value per cubic yard, 2·584 gr. = 5·095d. No. 1b division—Hours sluicing, 554·5; cement, 13,862·55 cubic yards; gold, 154·92 oz.; value per cubic yard, 5·356 gr. = 10·773d. No. 2 division—Hours sluicing, 1,197·5; cement, 39,876·75 cubic yards; gold, 281·14 oz.; value per cubic yard, 3·408 gr. = 6·734d. No. 2b division—Hours sluicing, 2,676; cement, 80,200 cubic yards; gold, 714·79 oz.; value per cubic yard, 4·273 gr. = 8·433d. Total hours sluicing, 7,503·5; cement, 205,325·25 cubic yards; gold, 1,536·74 oz. Mean value, 3·59 gr., or 7·09d. per cubic yard.