

winding-gear, and a centrifugal-pump. A scoop travelling on a wire-rope is worked from the winch, and when filled, is raised to the run of boxes and the contents tipped therein and passed through ordinary sluice-boxes, water being supplied from the centrifugal pump. The ground is 10 ft. in depth having a lignite "bottom" and carrying fine gold. At the time of my visit alterations were being made to the machinery.

ROUND HILL.

Round Hill Gold-mining Company, Hydraulic Sluicing and Elevating Claims (Frederick Hart, manager; A. Reynolds, secretary).—No. 1 elevator: Lifting 35 ft.; seventeen and a half heads of water used under a pressure of 300 ft. Elevator-jet requiring ten heads and seven and a half heads for the breaking-down nozzles, of which there are two used alternately as required. A large paddock opened on what was formerly known as Booth's Claim, Canton Hill, is being cleaned up to the diorite "bottom." Occasional rich patches were struck in the inequalities of the rising bottom which the early miners in driving had been unable to clean up carefully owing to the large stones and heavy nature of the ground generally. Stones ranging in size up to 29 tons in weight, also large tree-stumps and forest-trees lying buried in the overburden, have been successfully handled by the aid of the hydraulic hauling plant, without which the paddock could not have been profitably worked. Perforated plates are laid in the run of intake-boxes where one-third of the gold is recovered. As indicating the fineness of Round Hill gold, Mr. Reynolds showed me seven "nuggets" selected from the season's gold, value £11,000. The "nuggets" weighed 6 gr., one piece weighing 2 gr. being the largest Mr. Reynolds had seen coming from the company's claims. No. 2 elevator: Paddock sunk on new ground on the western bank of Ourawera Creek. This area had not been considered payable auriferous, but a series of bores put down had proved a large area of payable ground which may be expected to last many years. The run of gold appears to be making in the direction of Pont's Gully on the Pahia side. Face, 35 ft., elevating 64 ft. vertical; sixteen heads of water used. Between 50 and 60 acres of ground running from 30 ft. to 80 ft. in depth has been worked by this company since commencing work in the year 1892. Thirty-five men are employed. Platinum occurs in the wash and is obtained in the proportion of about 1 oz. of platinum to each 100 oz. of gold recovered. A prepared test resulted in 569 measured tons of fine sandy material being elevated by No. 1 elevator in one hour, but the average quantity of dirt per elevator treated, runs between 50 and 60 tons per hour; value, 2d. per ton; working expenses, $\frac{1}{4}$ d. per ton. An experiment made of running old tailings over again for one week resulted in less gold being obtained than paid wages. The substitution of malleable cast-steel in place of cast-metal for working-parts of the elevators has proved successful. Deflectors, straight and curved, in use in the elevators have the effect of economizing power and increasing effect. The deflectors which are placed in the last piece of the pipe-line above the T-piece to the jet are 2 ft. 10 in. in length, and divide the pipe into two equal sections longitudinally. The straight deflector was Mr. Hart's own idea, the curved deflector having been evolved by the company's managers' and leading men. Both Mr. Reynolds and his mine-manager, Mr. Hart, are more than ever convinced that the Round Hill gold is derived from the diorite as further proved (they hold) by the work done on the Rip and Tear claim. When this claim was sluiced three years ago the bottom was cleaned until scarcely a speck of gold could be found in a prospect. The surface of the diorite bottom having weathered during the interval, prospects of two hundred colours to the shovel of dirt can now be obtained; and this result is also obtainable from the vertical faces of diorite in that claim, and in other places where tail-races had been cut in the diorite and weathering or oxidization had subsequently taken place.

Ourawera Gold-mining Company (James Coulling, manager).—Sluicing and elevating, 61 ft.; ten heads of water; pressure, 280 ft. vertical. Face 50 ft. in height, carrying two beds of lignite, tree-roots, buried timber, and heavy stones, handling of latter being facilitated by the use of hydraulically driven log-hauler. Twelve to fifteen years' work ahead cleaning up old bottom and stripping main bottom (where solid) left by old diggers, owing to shortage of water for treating such hard ground. About 15 acres have been worked. Twelve men are employed.

Smith Gold-mining Company (David Smith, manager).—Cleaning up and elevating the bed and banks of Ourawera Creek. Not more than 5 acres of ground have been worked. Six heads of water in use under a pressure of 150 ft. The plant will shortly be shifted to the terrace on Meldrum's Gully, the site of an old diggings. On the 3rd June, 1903, Edward Deegan, nozzle-man, slipped and fell in front of the nozzle, the water-flow dashing him against a tree-stump. Deegan sustained fracture of three ribs.

O'Brien's Claim (Thomas O'Brien).—Ground-sluicing in Italian Gully. Two men.

Fitzmaurice and Birkenhall.—Ground-sluicing in Italian Gully. Water picked up from Round Hill Company's overflow. Two men.

Arthur Dandy.—Elevating at head of Jewett's Gully. Using Moffatt's race; water partly overflows from Ourawera and Round Hill Company's races, also own race brought in from a side creek.

H. Driver.—Ground-sluicing at Lake George.

There are about twelve Chinese, two of whom are steadily employed, the remainder engaged fossicking on the diggings.

The season having been a good one for water, the claims have consequently done very well.

OREPUKI GOLDFIELD.

The western side of the field being practically worked out, attention is being directed to the considerable area of bush land lying in the direction of Round Hill and Pahia. A strong party of Chinese, fully alive to the situation, having acquired valuable water-rights, are now engaged cutting a water-race to command ground held by them on Falls Creek. About 130 European and thirty Chinese miners are engaged on the field. Water is in fair supply this season, and almost all the claims are fully employed.

Tuanoa Creek Sludge-channel.

Messrs. Hennessey are engaged ground-sluicing; two men employed. Reichel Bros., two claims, ground-sluicing; three men employed. Clyme, ground-sluicing; one man employed. M. and B. Reid,