

through was 90,000 yards, for a yield of 1.63 gr. per cubic yard. Ten men were employed at the claim and fourteen at race-cutting.

Long Gully Claim (Area, 6 acres).—This claim is worked by the owners, five in number. They use a hydraulic elevator, with four sluice-heads of water, having a pressure of 130 ft. There are 60 ft. of boxes, 3 ft. wide, fitted with Venetian ripples. The wash-dirt is elevated from 15 ft. to 19 ft.

Bakery Flat Claim (Area, 84 acres).—This claim is owned by the Bakery Flat Sluicing Company. The manager, Mr. J. T. Johnson, informs me that the company has only been in existence a few months, and work is not sufficiently developed to warrant a report.

Waikaia.

The Argyle Hydraulic Company, of Waikaia, is in possession of a special claim of 74 acres in Winding Creek Flat, and an extended claim of 6 acres at Frenchman's Hill; also a water-race 11 miles in length, and a right to twenty-four sluice-heads of water, twelve of which are used in carrying on ground-sluicing operations at the extended claim. The pipe line is over 600 ft. in length, giving at the working-face a fall of about 80 ft. The wash is of a very light character, and is treated at the rate of about 60 tons per hour. The other twelve heads of water are used for hydraulic elevating on the special claim, the main pipe line in this case being a mile in length, giving a vertical fall of 315 ft. from the race to the claim. The ground is 40 ft. in depth, consisting of a heavy schist boulder wash lying on a bottom of soft sandstone. The material requires to be elevated to a height of 55 ft. in order to give room for stacking tailings. The power obtained from twelve heads having a fall of 315 ft. is sufficient to elevate the stuff to a height of 60 ft., or 65 ft. if necessary. Though only a prospecting paddock has been opened the ground is proved to be payable, and rich prospects were obtained from the bottom layer of wash. Twelve men were employed.

Kennedy's Claim (Area, 4 acres).—The wash is from 60 ft. to 100 ft. in thickness, but only 6 ft. to 7 ft. of the bottom layer is taken out. This is done by driving, and the wash-dirt taken out and sluiced, the yield being from $2\frac{1}{2}$ dwt. to 3 dwt. per yard. Four men were employed.

The Break-'em-All Claim is again taken up, after the ground had been comparatively idle for fifteen years. An Otago syndicate are about to provide funds for the erection of an elevator and construction of water-races.

The Panama Water-supply and Gold-mining Company (Limited) has taken up a claim on the banks of the Mataura River, and is constructing a race to bring in water from Fiery Creek. It will yet be some time before sluicing operations are commenced.

Nokomai.

The Sew Hoy Nokomai Hydraulic Gold-mining Company's claim, of 128 acres, is owned by Sew Hoy, a Dunedin merchant. Of the water-race, six miles and a quarter was constructed, the total length being now twenty miles, having two siphon crossings of 3,400 ft. and 720 ft. respectively, the pipes being $18\frac{1}{2}$ in. in diameter, made of 8 to 16 gauge of steel. The race is capable of carrying fifteen to twenty sluice-heads of water, with 550 ft. pressure. Two sets of elevators working in connection with 2,050 ft. main line steel pipes and 1,335 ft. service pipes are used for elevating and sluicing the drift, and a 3-horse-power motor for driving the dynamo for the electric light. No account was kept of the quantity treated, nor has any return of gold obtained been furnished. Fifteen men are employed.

Golden Terrace Hydraulic-sluicing Company's Claim (Area, 100 acres; situated about a mile below the junction of the Nokomai and Mataura Rivers).—The Golden Terrace Company, a private company of fifteen shareholders, was formed on the 5th August, 1896, with a capital of £3,000, to take over and develop a claim and water right held by a party of five working miners who did not possess the necessary capital requisite for such development. Immediately on becoming possessed of the property the company set to work in a systematic manner to develop it by constructing a water-race 5 ft. in width and 2 ft. in depth, capable of carrying twenty-five Government heads of water, the total length of which is two miles; also by placing on the ground a thoroughly efficient hydraulic-sluicing plant. The main pipe line is 12 B.W.G. steel, 18 in. diameter, double riveted; and its total length is 1,400 ft., and it gives from the race to the working-face a total fall of 300 ft. vertical, or a water-pressure equal to 128 lb. per square inch. The total depth of the gold-bearing drift is about 280 ft., largely mixed with schist and quartz boulders, some of the latter being very large. Some of the layers of wash through the face carry gold in quantities equal to 2 dwt. of gold per cubic yard. The average quantity of gold per cubic yard from the face, 280 ft. in height, from prospects obtained, appears to be from 4 gr. to 6 gr. The material is treated by ground-sluicing in the ordinary manner, the face being brought down by streams of water from two nozzles, one 3 in. diameter the other $2\frac{1}{2}$ in., and is then run through boxes 3 ft. in width, which are lined in the bottom with angle-iron bottoms, with cocoanut-matting underneath; and thence over a system of concentrating-boxes, they being lined with steel plates $\frac{1}{4}$ in. in thickness, having perforations of $\frac{1}{4}$ in. in diameter at $1\frac{1}{4}$ in. centres, cocoanut-matting also being used underneath these to save the fine gold. The quantity of water used, on an average, will be about twelve heads, or sufficient to treat 40 cubic yards of material per hour for twenty-four hours per day. The amount of capital expended in development has been about £2,900. Eight men are employed. No returns are yet to hand, the plant not having been completed, and sluicing operations only lately commenced.

SOUTHLAND DISTRICT.

Round Hill.

The Round Hill Company are still energetically carrying on operations, and have recently completed extensive enlargements in connection with their water-supply. Port's Race has now a capacity of twenty-seven Government heads of water, whilst the continuation of the Cascade Race