

good gold-bearing wash, carrying a quantity of large stones; below this is an 80 ft. layer of fine wash, carrying a little fine gold; and below this again is a heavy wash, varying from 2 ft. to 10 ft. in depth. The head-race empties into a reservoir, which is 4 or 5 chains from the open working-face, and when full from twenty to thirty heads are turned on to the open paddock and allowed to flow till the reservoir is nearly emptied. In this way of utilising the water a considerable quantity of *débris* is removed in a short space of time. The interval between the washings is well spent in breaking the stones to a size to pass through the sluice-boxes, 24 in. wide by 2 ft. deep, having a fall of $13\frac{1}{2}$ in. to 12 ft. The boxes empty into Stony Creek, where they have, it is said, a dump of over 200 ft. I did not visit the tailing-site. The ripples are made of iron bars 2 in. by $\frac{1}{4}$ in., placed on edge and longitudinally, and having 2 in. deep of manuka scrub placed under them. This kind of ripple is said to be very good.

Oriwiri Gold-mining Company, Round Hill.—(18/11/96): This company's claim is situated on the upper side of and joining the Round Hill Gold-mining Company's claim, and the open face and workings are about 100 yards from the top working-face of the latter company. At the time of my previous visit this new company was constructing the gold-saving tables and making other preparations to open the claim. Since then a large opening, from 50 ft. to 80 ft. deep, has been sluiced down and elevated to a height of 45 ft., where it is allowed to spread down the flat over a large area which is fast filling up, and now nearly to the level of the tail-end of the gold-saving boxes. From the top of the elevator there are 30 ft. of boxes laid with transverse ripples, from which the *débris* spreads over tables equal to 820 square feet, covered with cocoanut matting. The main water-jet pipe is 13 in. in diameter, the throttle 5 in. to 6 in., and the elevating-pipe 10 in. in diameter. The jet-nozzle is $1\frac{1}{2}$ in. in diameter. The head-race and reservoir are 445 ft. above the workings, to which there is a long line of pipes carefully and well laid in nearly a straight line. I did not observe a leaky joint in the whole length. The reservoir at the head of the pipes appears to be substantially constructed, and the retaining-wall is wide enough to admit of an additional 2 ft. or 3 ft. being added to the top and an additional depth of water stored. In the depth of material being sluiced there are said to be several thin layers of grit carrying a little gold, and at the bottom the gold-bearing wash is from a few inches to 5 ft. thick. In the bottom at the foot of the terrace a deep trench or gutter from 15 ft. to 20 ft. deep was found, but the quality of the wash in it was much the same as that on the higher level. Preparations are now being made to shift the jet plant and boxes to a higher level a short distance along the open face to the northward, where there is more tailing room, the tailings now being nearly at the level of the tail-boxes. The head-race is said to carry from four to six Government heads, and is nine miles long from George Creek. The reservoir is said to hold six hours' water with nothing coming in, or thirty hours' water at two heads and a third with water coming in. The claim is held by a few persons, and is said to be paying very well.

Round Hill Gold-mining Company.—(18/11/96): At the upper part of the company's ground, where sluicing was being done at the time of my previous visit, there are now two jets working and elevating the *débris* 65 ft. Two nozzles are playing on a high face some chains from the jets, along which distance the *débris* passes through sluice-boxes floored with ripples. At the top of the jet column are the first 60 ft. of boxes ($3\frac{1}{2}$ ft. wide), 30 ft. of which are paved with iron ripples laid transversely, $\frac{1}{2}$ in. apart, the other 30 ft. having perforated plates, the perforations being $\frac{1}{8}$ in. and $1\frac{1}{4}$ in. from centre to centre, in which boxes 4 oz. of gold are caught to every ounce saved by the tables, which have a surface of 480 square feet to each jet and set of boxes. The tables have a fall of 12 in. to the 12 ft., and are covered with cocoanut matting placed on top of calico. The tables discharge into other boxes, 36 ft. long by 2 ft. 6 in. wide, furnished with ordinary ripples and matting, in which only 2 oz. of gold are saved during six months. These tables are, in all, equal to 1,250 square feet, and the quantity of water flowing over this surface is estimated at eight and a half Government heads. The working-face is gradually getting deeper as the work advances into the terrace, and is at present from 60 ft. to 70 ft. high. Most of the gold is found near the bottom, which has not been mined on where the nozzles are now working. The boxes having perforated plates have a fall of 8 in. to 12 ft., and the rippled boxes have a fall of 6 in. to 12 ft. The enlargement and extension of the head-race to Cascade Creek, which is distant fifteen miles from the head of the pipes, and is being made to carry, it is said, twenty-seven heads of water. The least quantity of water available in dry weather is said to be eight heads. At the present time there are said to be seventeen heads used by each jet. The size of jet is $2\frac{3}{4}$ in., with a pressure of 125 lb. to the square inch. The gold returns from the two elevators—one of them worked full time and the other three-quarter time, equal to seven weeks for one elevator—was £780, without washing down the open paddock. With three jets in full work the value of the gold returns is estimated at £1,200 per month. The new pipes from the race to the claim are now fixed in position, and for size are the best in Otago. They appear to be well laid, are fairly free from leaks, and look very well. They are said to be made of annealed steel of 10 and 14 B.W.G., and cost 8s. 1d. per foot when placed in position. The main pipe-line has been extended 90 chains south to near the new claim, which is 70 chains below the present workings. The new claim has been lately bottomed at 30 ft. To this jet there are 13 chains of 18 in. pipes, branching into two lines of 13 in. diameter and 7 chains in length, and a third pipe-line off the main line 13 in. to work the nozzle. A third claim, I think, 40 chains lower down the flat, is to be opened shortly by an extension of the pipes to the spot. It is intended to work three jets only when everything is finished. A 4 in. jet is to be used for stripping.

Bluespur Gold-mining Company, Lawrence.—(10/1/96): Accompanied by the manager, Mr. Jackson, I walked round to all the working-faces, and found them in a safe condition. The height of these faces runs from 50 ft. to 100 ft., and the faces are nearly vertical. There were, at the time of my visit, two faces in full swing, running off a large body of gravel in a continuous and steady stream by two shifts of men in the twenty-four hours. The three faces are being worked on three different levels. The bulk of the stuff in the eastern faces is being constantly broken up to