

carry on mining operations in such a manner that the gold is taken out, the object being to extract the mineral wealth, and by doing so to find profitable employment for the greatest number of people on our goldfields.

Mr. Evans, the general manager, deserves credit for the way he has erected the plant on the ground. Although a young man, with very little mechanical or mining knowledge when he took charge of the company, he has studied closely since, and made himself fully conversant with the whole of the details. There is scarcely any one but will make some mistakes, but, on the whole, Mr. Evans has carried on the operations of the company economically. The following is an extract from the *Otago Witness* of the 27th December last in regard to the buildings and plant:—

“The buildings and plant are of a very complete nature. First, there is a store-room, containing all the materials required, including duplicate parts of all machinery likely to be worn or destroyed; a blacksmith’s shop fitted up with a water-blast, which is not at all common in this part of the world; a workshop containing two iron-boring machines, vice, &c.; also a small electric turning-lathe, and a very elaborate set of tools and mechanical appliances, the private property of the manager. There is also a saw-mill with two circular saws. Another building contains a Pelton water-wheel of 40-horse power, the water being supplied by a branch from the main pipe, which drives a dynamo close to the wheel, the saw-mill, grindstone, turning-lathe, &c. The dynamo, which is only used for producing light, is capable of generating 7,000-candle power; but not more than 3,000-candle power is required to light up the claim, workshops, and huts. At first an arc lamp was used to light up the claim, but Mr. Evans has discontinued its use, substituting a couple of incandescent lamps, fitted up with a tin milk-dish as reflector, which he finds gives a more efficient light at less cost. Mr. Evans has displayed considerable mechanical ingenuity in fitting up various appliances to facilitate carrying on the work. At the foot of the elevator he has fixed an indicator which gives instant notice if the elevator gets choked in any way, by ringing a bell and, in the daytime, raising a disc, while at night an electric lamp is lighted. He has connected his cottage, half a mile distant, with a telephone and microphone fixed near the elevator, thus keeping himself in constant touch with the work going on, the slightest hitch in the working of the elevator or nozzle being easily distinguished. The gold-saving appliances appear to be very efficient. The elevator discharges into a double line of sluice-boxes, fitted with angle-iron ripples laid on the top of matting. These boxes are each 65ft. in length by 3ft. in width, having perforated plates at the lower end to screen the wash-drift. The finer material is discharged on tables covered with matting, having an area of 400 square feet, the matting being washed every two hours, the black sand and gold from the washings of the matting being run over a box covered with plush and copper plates. The efficiency of this process is fairly proved by the fact that the whole of the stuff finally passes over a table fitted with angle-iron ripples laid on matting, which only gives a pound’s worth of gold for every £1,000 recovered by the upper washing appliances.”

There is an appliance used here at the intake of the elevator which is not in use at any other that has come under my notice—that is, a small triangular piece of wood with an angle-iron bar on the outer edge. The flat surface is placed in front of the opening, a few inches back; the water rushing against this triangular piece of wood mixes up the water with air, and the elevator is said to do more work. It is well known that the introduction of air into the elevators when the intake is covered with water is a great improvement; but when not covered it has no beneficial effect. The manager, however, assured me that he can send up far more material with this triangular piece of wood in front of the elevator than he can do without it. Let this be as it may, its use when the intake is not submerged is not well understood; however, it is an ingenious and simple contrivance, and acts with the same result as Robinson’s patent nozzles, while its cheapness and simplicity has everything in its favour. This company employs from twenty-two to twenty-five men.

*Other Claims.*—There are about nineteen Europeans and 140 Chinese on this field in addition to the men employed by the Round Hill Company. The most of these are working higher up the Ourawera Valley and Terraces than the company referred to, but none of them have a sufficient supply of water to carry on extensive sluicing operations. A party of miners have taken up a special claim in the bed of the valley, adjoining the upper end of the Round Hill Company’s claim, and intend working it on the hydraulic-elevating principle; but it is very questionable if they have sufficient water to work the ground systematically on this principle, and if so it will take the water away from the individual miners now working ground on the terraces. Some of the Europeans here have been on the field for many years, and although many of them have not made much they still have confidence that the ground will eventually pay them for their labours. An instance of this may be quoted in the case of Mr. J. H. Chester, who holds one acre of ground, where he has been working for the last six years. Originally he had three mates, but they have left, and now Mr. Chester holds the claim himself. He has expended about £1,000 in cash, and all the gold he has yet got amounts to only about £250. The layer of auriferous drift is a considerable depth below the surface, and is composed largely of heavy boulders, which he has no room to dispose of without lifting and stacking them clear of his workings. A tramway had to be constructed for this purpose, to run them out on the end of a spur on which his claim is situate. After constructing a tail-race and getting the claim fairly opened out, the ground forming the spur began to slip down towards the creek, carrying a crane, which was erected to hoist the stones out of the tail-race, fully 20ft. below its original position, and crushed the sides of the tail-race together time after time. He has constructed three dams and laid down about 500ft. of steel pipes, which gives him about 100ft. of head. Before getting the steel pipes he tried wooden boxes made of 2in. planks; but these proved a failure, they would not stand the pressure. He is now in a fair way of working, and hopes to be ultimately rewarded for his outlay.

Some of the claims in the immediate neighbourhood of Mr. Chester have been remarkably rich. Mr. Joseph Clark is said to have made several thousand pounds, and after giving up the ground some Chinamen took it up, and are said to have averaged for five years £5 a week per man, and