

auriferous drift in the bed of the Arrow River, above the falls, appeared in the report of 1898. The plan of operations there described has been continued in a satisfactory manner. At my visit a lot of dead-work was being done in order to extend the mid-wall and races past a large slip. When this is accomplished there will be a good area of wash in front available for working. The tail-races, which are being brought up on each side the mid-wall as the work proceeds, are fitted with catch-boxes, ripples, &c., for gold-saving. When one side is being cleaned up the stream may be turned down the opposite side.

Arrow Flat Gold-mining Company (Claim-manager, Mr. J. Martin).—This company has its headquarters in Invercargill, and was formed for the purpose of working the flat in the river-bed at Arrowtown. Some years ago an attempt was made to work on the bottom from a shaft and block the ground out, but as the water was too heavy the scheme was abandoned. It is now intended to work the ground by hydraulic elevating. The races are complete, and a start was being made to lay the pipes at my last visit to the district. The following particulars have been recently supplied by the manager: Water is conveyed from Roaring Billy Creek by—(a) an open race (measuring 3 ft. wide in bottom, 4 ft. at top by 2 ft. deep) 2 miles 70 chains in length; (b) 77½ chains of fluming; and (c) four siphons having a total length of 3,505 ft.: total length of water-way, 4½ miles; the average fall being 12 ft. per mile. Penstock is at an elevation of 600 ft. above the claim, and the main pipe-line is carried down the precipitous mountain-sides. At the top the pipes are 24 in. in diameter, diminishing to 18 in. at the claim. The elevator has a 15 in. uptake, and the sluice-boxes (3 ft. in width) are provided with bar- and angle-iron ripples. Actual depth of ground is not yet ascertained.

Macetown.

About twenty-five men, including some half-dozen Chinese, are working in small parties in the locality, and said to be making fairly good wages.

There are several terraces extending from Scanlon's Gully, a short distance above the Macetown Township, down to Bush Creek, near Arrowtown. Nearly all of them were worked on the bottom in the early days by tunnelling, and paid well. Some of these are now being sluiced, but the principal difficulty under which the diggers labour is that of insufficient water to get away the top stuff in large quantities. About 100 acres of auriferous terrace ground is unoccupied. It is generally considered that satisfactory returns could be obtained from this area if commanded by a good water-supply.

Maori Point, Skipper's, and Upper Shotover.

The Londonderry Claim (Skipper's Sluicing Company, Limited) and those of Messrs. Johnson and Davis Brothers continue to be worked by hydraulic sluicing. At all these claims the wash is very deep.

Shotover River-bed Claims.—These claims are now being worked almost, if not quite, exclusively by means of Messrs. Smith and Sons' hydraulic jet-pump elevators. A description and sectional drawing, with dimensions, appeared in last year's report, and I am now able to give a photograph of an elevator in position.

Nine claims, employing twenty-nine men, are reported as being worked on the plan adopted by Messrs. Smith and Sons, and from the results obtained it appears quite conclusive that no other plan yet tried has given such good returns. This is further borne out by the fact of the river-bed being recently pegged out for several miles by parties who intend to work the claims by similar plants.

A few Chinese diggers are located in the district.

Waikaia.

At my visit in January the Argyle Company's race had broken away, consequently the men were all engaged in repairing it. The plant at the claim was also in course of removal, the elevator, &c., being re-erected in a fresh paddock. A new elevating plant has also been erected recently at the company's claim at Happy Valley.

At Scrubby Terrace all work has been stopped. It was found that the heavy clay overburden was too hard for the available water to break down, pressure being insufficient. In all probability it might pay a small party of miners to drive in the washdirt and truck it outside for treatment.

A claim has been taken up at Piano Flat, about twelve miles above Waikaia Township, and hydraulic-elevating plant was in course of erection at the date of my visit to the district. A dredge has also been built in the same locality.

Winding Creek Gold-mining Company (Limited).—Claim situated about five miles from Waikaia. The works have been carried on during the last twelve months by means of hydraulic jet elevation. The manager, Mr. David Robertson, has two elevators in position, lifting 45 ft. and 65 ft. respectively, but the principal work has been done at No. 1 face, where about an acre of ground has been stripped and elevated, with a return of about three thousand pounds' worth of gold. The length of races has been increased from twenty-two miles to about twenty-seven miles, the additional length constructed bringing in water from the Kenny-Murray and Winding Creeks. The plant is an excellent one. The main line of pipes vary from 30 in. to 15 in. in diameter, loss of head by friction being thus reduced to a minimum. The paddocks are lighted by electric arc lights of 2,000-candle power, the dynamo being driven by water-power off the main lead of pipes. This property is held principally by the London shareholders, who are represented in New Zealand by Mr. R. Hay, M.I.C.E., of Dunedin.

There are about fifty diggers—half of these being Chinese—in the district.

The Golden Terrace Hydraulic Claim, situate near the Mataura River, between Waikaia and Nokomai, has ceased work for the time being. The results were not satisfactory, the ground being heavy and very large stones having to be dealt with. It is estimated that a small party of working shareholders might make fair wages at this claim.