

being followed upward close to some old workings. A sample of the stone was taken by Mr. Stanford, and crushed in my presence. It showed a few fine specks of gold, but not enough to excite an old miner. Gold was visible in some pieces of stone when wetted. Mr. Stanford is very hopeful of finding a body of this stone at a higher level, by which he could keep the battery going for some time. The far end of the adit was then visited, at 1,070ft., which is not being extended at present. A short distance back from the end a cross-cut is being put in on the south side about 18ft., but as yet no reef has been met with. The air is good, and the timbering is strong and neatly fitted. A very fine tram-line of steel rails is laid from the battery to near the tunnel mouth—a distance of three-quarters of a mile—following the sinuous and steep gully, at a gradient of from one in thirty to one in five, the steepest part being next the top, where a paddock is constructed capable of holding, it is said, 350 tons of stone. The tram-trucks pass under this paddock, and are filled through a shoot very quickly. The trucks are the best of their kind in Otago, are nicely fitted with brake-gear, well and strongly made, and are so connected one to the other by chain and lever that a man riding on the last one of the train can regulate their speed to a nicety at every change of grade on the line. There are employed twelve miners, one trucker, and mine-manager. The latter is a very handy man—looks after the men and the mine, points picks, and keeps the drills in order. A low-level tunnel was started for the line of reef from near the battery, but, after driving it a short distance, it was stopped for the want of cash. It is a very substantial piece of work, but costly. I have not heard of anything known to exist in the mine to warrant the outlay.

*Phoenix Quartz-mine.*—The lowest workings are at 224ft. from the surface. The lode varies from a few inches to 8ft. wide. All the working-places are strongly timbered, and in good order. Since my previous visit new cages, 6ft. 6in. in height, with automatic grips, have taken the place of the old cages, which were long out of date. The drainage from the lowest levels is forced up a height of 70ft. by a 4 x 3 Tangye pump, driven by compressed air. From this level two Tangyes—8 x 4 and 9 x 6—throw all the drainage to the surface; but there is not enough drainage to keep them constantly going. Of the thirty stampers at the battery, fifteen only are kept going at the present time. There are generally from seventy to eighty men employed on the work. Mr. Evans told me he had sent a sample of tailings and blanketings to Dunedin, to be tested by Cassel's Gold-extracting Company, and the result was 14½dwt. and 2dwt. per ton.

*Sew Hoy Dredges.*—These three dredges are working very steadily, and they pass over a considerable area of ground in a year. No. 4 dredge is capable of dredging to a depth of 29ft.; but is now working to a depth of 14½ft., removing a strip 130ft. long by 6ft. wide in twenty-four hours, at a cost in coal of about £2 14s. There are three men employed on each shift, or nine men on each dredge. This does not include four men constantly employed at the forge doing repairs. The forge uses Newcastle coal generally, but sometimes Westport coal. The three dredges use Kaitangata coal in preference to all others tried. The engine in No. 4 is 40-horse power, which is considered powerful enough to do all the work required. The gold-bearing wash is lying on a bottom of sand, clay, and gravel, somewhat patchy, all over the Big Beach. No. 3 dredge is working three or four hundred yards lower down on the same flat, and is said to be dredging to the same depth, putting through the same quantity of wash, and using the same quantity of coal, in the twenty-four hours. It is supposed these two dredges have yet several years' work on the Big Beach. No. 1 dredge is, and has long been, idle, as it was found to be too small to work at a profit. No. 2 dredge is working above the Shotover Bridge, on a small flat known as the Morning Star Beach. The character of stuff treated is much coarser than that in the flat lower down. This dredge is working to a depth of 22ft., and the quantity put through is not equal to that of either of the other dredges, but the consumption of coal is about the same as on the others. Small specimens of quartz and gold mixed are occasionally found in the boxes, all more or less waterworn, which is a proof of their having travelled some distance. The dredges alone employ thirty-six men. The same company is also working a sluicing claim a short distance above No. 2 dredge, where it employs another twelve men. Sluicing operations were stopped at the time of my visit, but quite a number of men were cutting a new water-race by the road-side from Miller's Flat in the direction of the claim.

*Premier Quartz-mine.*—Accompanied by the manager, Mr. Stanford, and Mr. Elliott, I followed the low-level tunnel to the first stopes overhead, on what is said to be a new reef making at the side of the drive, and which is from 10ft. to 12ft. wide, estimated to yield 18dwt. to the ton. This find appears to be the junction-point of two reefs, which at the present is lying very flat, but it is thought will shortly alter its lay to the usual angle of about 65°. The new discovery is on the right-hand side going in, and at 1,515ft. from the mouth of the adit, which is now driven a total distance of 1,759ft. At 1,555ft. from the mouth of adit a shaft is being sunk at an angle of 62° on the left-hand side going in, and is now down 52ft.; it is to be sunk a further depth of 18ft., when levels will be opened out on the reef, which is in the foot-wall near the bottom. The end of the adit was visited, but there is no lode there. It is said, however, that stone is known to exist some 300ft. ahead, at a higher level in the old workings. The mine is now well ventilated, and the workings are in good order.

It is to be regretted that Mr. Stanford stated in his report (5th August, 1893) to the shareholders in London his belief that "the Premier Mine will prove to be one of the finest mines of the world." There is nothing in sight to justify such a wild statement, and, to say the least, the report will do much harm.

The erection of the cyanide plant is being pushed on as fast as possible, and is expected to be completed in about three months. The present ten stampers will shortly be increased to twenty, and other important alterations to the battery plant are in hand. There are now thirty-four men employed in and about the mine.

*Barewood Reefing Company (Limited).*—This is the mine which was being worked by Hawking and Porter, tributers, last year, and abandoned by them shortly after the date of my visit. The manager for the new company is Mr. J. P. Smith, who has made some alterations and improvements on the old style (horse-whip and bucket) of getting the drainage out of the mine. The battery engine