

was discovered by Sorenson and party, and was the first quartz-reef worked in the Middle Island. In 1868 the property was purchased by Mr. Bullen, who has held the mine ever since and has taken a considerable quantity of gold out of it. There are three auriferous lodes in the ground, or it may be more correctly said that these are in one lode-course, having a total width of about 120ft. The lodes are running in almost parallel directions, and possibly may be found to come together and form one lode at the deep levels. Were such to take place a rich shoot of gold-bearing stone might be expected. The auriferous shoots of gold in the lodes have been stoped out in the old workings on the east side of Murdoch's Creek to the water-level and for some distance below it. About four years ago a company took up the ground on the west side of Murdoch's Creek adjoining the Phoenix Company's ground; a shaft was sunk to a depth of 150ft., from the bottom of which a cross-cut was made southwards for a distance of 100ft., without meeting with any lode. Shortly after this the company went into liquidation, when the Phoenix Company purchased the property, and constructed a drive to the northwards from the bottom of the shaft, where it cut a lode about 9ft. in thickness containing stone which showed gold freely. It is from this shaft that the workings are now carried on. The shoot of gold has been proved on each side of the cross-cut or drive from the shaft for a distance of about 50ft., and it has also been proved to a height of 100ft. above the level, and a winze has been sunk from this level for a distance of 100ft., showing the same class of stone. But the other two lodes which were worked in this ground at a higher level on the east side of the creek have not yet been met with.

As far as can be ascertained there has been about 20,479oz. of gold taken out of the mine since it was first opened, namely, 1,500oz. by the original holders and 18,979oz. since Mr. Bullen purchased the property twenty-three years ago. During last year about 3,100 tons of quartz was crushed, which yielded 1,907oz. 16dwt. of gold, being an average yield of 12dwt. 7gr. of gold per ton. The total value of gold obtained from this mine is about £78,844.

An electric-power plant is erected in what is known as the left branch of Skipper's Creek, about one mile and three-quarters from the crushing-battery, consisting of two brush dynamos, driven by two Pelton hurdy-gurdy wheels each 6ft. in diameter. This plant is erected near the foot of a fall about 170ft. in height, over which the water is taken to work the Pelton wheels. The electrical force is conveyed by a copper wire to a Victorian motor in the battery-building which drives the machinery, consisting of thirty heads of stamps, two air-compressors, and rock-breaker. When the whole of the machinery is at work the motive-power is barely sufficient to work the crushing-plant at the proper speed. The winding is done by compressed-air. It is said that a current of thirty-seven amperes, having an electro motive force of 1,100 volts, would give all the necessary power required to work the machinery to its proper speed, which is equal to 54½ horse-power; this, however, does not seem to give sufficient power to work the whole of the machinery.

This property with careful and economical management ought to be a valuable one. The average yield of quartz is nearly the same as that from the Globe Mine in the Reef-ton district, and the thickness of the lode is similar. The dividends paid by the company owning that mine last year amounted to £12,100. There is every reason to believe that the lodes of the Phoenix Company's property will extend in towards Mount Aurum as well as underneath the old workings; but it is not to be expected that any of these lodes will carry payable ore for a long distance continuously; there will be breaks in the lodes, and gold will occur here and there in shoots and ledges. This requires systematic prospecting to be continually going on while these shoots of ore are being worked.

*Gallant Tipperary Company.*—This company had their crushing-battery thoroughly overhauled and put in good repair—new tables and also a Pelton wheel have been erected in lieu of the turbine formerly used. The work in the mine is carried on from the main adit-level, which is constructed for a distance of about 950ft. The lode above this level has been stoped out to a height of 178ft., and stoping is still going on. The lode is about 4ft. in thickness, and eight men are employed, who are able to take out sufficient stone to keep the crushing-plant fully employed; about 165 tons of quartz a week is crushed.

*Sunrise Company.*—This company's mine is situate on Advance Peak, at an elevation of over 5,000ft. above sea-level. A new adit-level has been driven about 700ft., but it has not yet cut the lode they were working on in the upper levels. A new lode was, however, cut at about 300ft. in from the mouth of the adit, which is about 2ft. 6in. in thickness, yielding on an average 1oz. 5dwt. of gold to the ton of quartz. At 100ft. farther in than this another block of stone was cut richer than the other. A winze has been sunk for 30ft. on this block, and equally as good gold found. A crushing-battery of ten heads of stamps has been erected at the side of the right branch of the Macetown Creek, a little below the Premier battery, and the quartz is conveyed from the mine down the range to the crushing-plant in large boxes mounted on low wheels at the front end with a sleigh at the back; these boxes hold about 30cwt. each. The company had cleaned up a crushing of 147 tons before my visit, which yielded 183oz. of gold, and there was about 210 tons on the surface ready to send to the battery.

*Premier Consolidated Company.*—This is a new company formed in London, who have purchased the Premier Mine and plant belonging to the old company. It is said that the available capital left to prospect and work the mine is £11,000, after paying for the property and the expenses of floating the company. A low-level is being constructed from the level of the creek, and it is from this level that the future workings of the mine will have to be carried on; but, as it will take a considerable time to get this level constructed to cut the reef, the workings in the meantime are being carried on from the upper level.

There is no work being done on any of the other quartz-claims. Many of them have been held for years without any prospecting being done: amongst these may be mentioned the Homeward Bound, Golden Link, Ladye Fayre, North Tipperary, Garibaldi, New All Nations, Maryborough, Batchelors', Victor Emmanuel, and Black Angel.

*Invincible Quartz Company.*—This company purchased the property of a company of almost the same name, which had been working the ground for about seven years. At first the workings were carried on with success, and dividends to the amount of about £3,000 have been paid; but afterwards they could not find any more payable stone. An inclined shaft has been sunk for 200ft., but the operations had to be suspended owing to the influx of water. The present company are now erecting pumping-machinery to keep the water down, so that they can prospect the mine at deeper levels.