

the whole of the mines in the colony, and Mr. Stanford, the manager, deserves credit for capable manner in which the work of construction has been carried out.

The first question to be decided was whether a shaft or an adit would be the most economical method of working the mine. Of the two, the method adopted seems to me to be the more preferable. It must be borne in mind that this mine is considerably over 2,000ft. above the level of the sea, and, at that height, is subject to a great deal of frost and snow in the winter months, which renders it almost impassable for any wheel-traffic on surface roads to be carried on for at least two months in the year, and consequently blocks all means of transit of quartz or material between the crushing-battery and the mine.

By the method at present adopted the mouth of the low-level adit is no great distance from the crushing-battery, but it will not give many feet of backs on the lode to the old workings. The shaft will have to be sunk inside this adit-level; but this can be done equally as well as sinking from the surface, while winding and pumping machinery can be erected in a chamber alongside the shaft, and men can work here in all weathers.

The contract price for the construction of this adit is £1 6s. 6d. per foot. Already several vertical and two leaders have been cut, one of which is said to have an assay-value of 7dwts. per ton. Until such time as this adit is completed, and a lode cut at a greater depth, nothing can be said with regard to the future paying possibilities of this mine.

The Premier Mine.—This mine has been worked continuously for many years, but the return from the same left no margin for profit. Indeed, it may be said that it barely paid expenses; but considering the system formerly adopted for working it, this result was not to be wondered at. The company was in financial difficulties, and had to resort to many makeshifts in order to be able to continue mining operations.

Some three years ago the Premier Company put this mine in the hands of Mr. Farrell to offer on the English market, who arranged with the Glenrock Company to take up both the Premier and Tipperary Mines, giving them four-sevenths of the whole properties for the sum of £12,000. The Glenrock Company afterwards advanced £5,000 on mortgage to complete necessary works and open up the mines in a proper manner. This, however, proved insufficient, and they got into further financial difficulties with their creditors, and were also owing a considerable amount to the bank working in the mine.

The creditors brought an action against the company, and, judgment being obtained, a bankruptcy was put into possession of the property, and on the 12th of February of the present year a sale of the mines took place. The Premier Mine was the first offered, and was knocked down to Mr. Farrell for £1,550; but as the purchaser tendered a cheque which was not marked by the bank, it was declined, and finally Mr. W. Turton, solicitor for the Glenrock Company, became the purchaser for the sum of £1,100. The remaining properties of the company were also purchased by the Glenrock Company, who are now the sole owners. For some time previous to the sale, operations in the mines had been suspended, and have not yet been resumed. An expert has been employed by the Glenrock Company to examine and report on their properties.

The following are extracts from the reports on these mines, supplied to the directors by Mr. G. F. Hoskings, who was employed to examine the same. In regard to the Premier:—

“The No. 1 reef runs easterly and westerly, and underlies towards the south at an angle of from 55° to 85°. Nos. 2, 3, and 4 reefs are more irregular in their bearing and underlies, sometimes lying over almost flat, when they fall into or drop out of the No. 1 reef, but, withal, maintaining the parallelism with No. 1 reef. The reefs are similar in construction, and are chiefly composed of bluish-grey to nearly white hard to a friable quartz, of a heavy, laminated character, with patches in the deeper levels freely interspersed with arsenical and iron pyrites, changing to red oxide of iron near the outcrop.

“As this system of reefs divides the country-rock at a large angle, it is the highest presumption of evidence that the reefs are of a permanent character, and that they will live at a very great depth. This principle, which is admitted by most mining engineers, is strengthened by the fact that the No. 1 reef has been opened on and worked from the outcrop to the bottom of the No. 3 shaft, a distance of about 1,550ft., throughout the whole of this distance maintaining its individuality, getting stronger and wider in depth, and is now visible in the back of the stopes at the bottom of level of No. 3 shaft, 8ft. wide, and carrying a gold value of £30 per fathom. This stope should be excavated for £2 per fathom, and, with good facilities for removing the ore to the battery, should pay well.

“Stoping was being done in the bottom of the lower-level adit, east of No. 3 shaft, to a depth of about 8ft. below the level; and there the reef varies from 2ft. to 8ft. wide, about 2ft. of which is carrying gold, and at present milling 1½oz. to the ton. . . . A drive at the bottom of the No. 3 shaft is driven east about 22ft. The lode in the end is about 2ft. wide, and is not of a promising appearance, only carrying traces of gold. . . . So far as is now known, all the payable quartz above the low-level adit has been taken out and milled; but, with a better system of mining than at present carried on here, quartz of a low grade could be made to pay dividends, whilst to win quartz from here is, under the present system, to lose money.

“In order to do this [open out the mine] with speed and economy it would be necessary to begin with a new mode of development, instead of operations in sinking winzes in the bottom of the level, and from these winzes driving and stoping where all the *débris* and ore have to be taken out and hauled by hand or whip out of the winzes. An incline-shaft should be sunk at the proper angle, and far enough below to insure safety to the shaft, and of sufficient dimensions to admit of a double line of tramway, and for a footway. The reef could then be pierced by drifts and rises, and stoped away in the cheapest manner.

“For this purpose winding machinery must be provided and erected in position. As fuel is expensive, it will be necessary to consider the erection of an electric plant, with an auxiliary portable steam-engine, to be used when the water-power is frozen up, which is for about twelve weeks