

crown of the reef forms a saddle, and has two legs, one going in an easterly and another in a westerly direction. The Garden Gully Company's workings are about 750ft. below the level of the surface, and at the cap of the reef, before the legs commence to go down, the lode is in many places 40ft. in thickness; but where it splits and forms into two lodes, they are each from 16ft. to 20ft. in width, and run down about 100ft. until they wedge out. Afterwards another saddle is formed, although not directly under the upper one, but a little to one side. A succession of these saddle reefs have been gone through, and the impression is that they will continue to do so as they go down. There is always a certain distance between one reef and another. The cap of the second reef or quartz lode, is generally found a little to the eastward or westward of the cap of the one above it, in proportion to the dip or inclination of the strata where the reefs exist. The quartz from this company's workings average from 15dwts. to 20dwts. per ton, thus enabling them to pay last year in dividends £37,000.

In working this description of reef, especially near the cap where the lode is a great width, great care is taken in stoping to have the ground, as each stope is taken out, filled in with material sent down from the surface, or from cross-drives in the slate formation; and in many instances walls are built with stone to keep up the roof. The passes where the quartz is sent down are all logged lengthwise into the stopes, as the ordinary method of logging will not stand the pressure. The Garden Gully Company uses the National rock-drill for stoping out with; but the manager informed me that the saving over hand labour was not great in working the drill in the stopes; but in sinking shafts, winzes, uprisers and driving levels, its use cheapened the cost considerably. The great advantage that he claimed for the rock-drill in stoping was, that it allowed them to take out the quartz at a more rapid rate, and likewise tended to give better ventilation in the mine. The crushing plant belonging to this company consists of 30 head of stamps of the ordinary pattern, having riffle and blanket tables, but they use no concentrating appliance, the amount of pyrites in the quartz being very small. They have not yet deemed it necessary to erect concentrators.

*Lansell's Mine.*—Adjoining this company's ground, on the New Chum line of reef, is Mr. Lansell's (180) mine, which has the deepest shaft in the Sandhurst District, it being 2,040 feet. Some years ago Mr. Lansell offered £2,000 to any company that would sink a shaft on any of the reefs in the district to a depth of 2,000ft., but he could find no one to accept his offer, till finally, having worked out the upper reefs, which went down to a depth of 750ft., he commenced sinking his own shaft, going down through barren ground for 750ft.; and kept on sinking until 2,040ft. was reached. A quartz lode was found at the 1,500ft. level of the same character and description as those found on the upper levels, having two legs, the same as those on Garden Gully line of reef, with foot and hanging walls running very regular, and extremely well defined. The lodes run in a northerly and southerly direction in almost a straight line—so straight that a candle can be seen along the lode on the upper levels, after they have been stoped out, for over 300yds. The only guide they had in going down was a vein of lava from 6in. to 12in. thick, and this vein still continues. Below the 1,500ft. level there are three other levels constructed; the reef opened out in each of them, and stoping commenced; but at the 1,875ft. level, which is the deepest one, the legs of the lode are tailing out, or getting so thin that it will not pay to work them deeper. The manager, Mr. Northcote, was extremely obliging, doing everything in his power to afford me all information with respect to the method of working, and the manner in which the lodes run. He contemplates that he has now five years' work in this lode, which he has proved to be payable in all the levels, and before the lode is worked out, the shaft will be again sunk and prospected to try and find another reef. The sinking of the shaft is carried on simultaneously with the stoping out of the lode, by having a small winding-engine on the surface, with a winding-rope down the ladder-shaft for haulage. A pentstock or house is built under the landing for the cages at the lower level, and the sinking continued, the stuff being hauled up in ordinary iron-bound buckets, which are landed in the lower chamber and afterwards emptied. This material is filled into trucks, and either sent up in the cages to the surface or to some of the upper levels as filling in stuff. I was extremely anxious to see the workings of this mine, as it is the deepest on Sandhurst, being over 1,000ft. under sea level; but I was told by every one that no strangers were allowed down the shaft. However, on informing the manager of my mission, he not only gave me permission, but accompanied me through the workings. The air in the lower level is very warm, notwithstanding that there is good ventilation. Having no thermometer with me, I could not tell the temperature; but, judging from the heat, it would be about 110° Fahr. There is slate rock on both sides of the lode very compact and tolerably hard, and the ground stands in many places without timber until it is filled in.

*St. Mungo and South St. Mungo Companies, Eaglehawk.*—These companies' mines are situated in the Eaglehawk District, about four miles from Sandhurst. The quartz lodes in these mines have a totally different formation to those on the Garden Gully, and New Chum line of reefs. In this instance the reef has a slight inclination from vertical, and is mixed up to a considerable extent with slate. The lode is from 20ft. to 40ft. in thickness, but a great percentage of this is slate, which is mixed among the quartz in large blocks; but in stoping out the reef the slate is picked out from among the quartz, and used for building walls to keep up the ground. The main levels are timbered with very heavy timber, being from 14in. to 18in. in diameter; and in many instances it is double-banked. In stoping out, very little timber is used; the stopes are kept filled in as the ground is taken out, and walls are built at short distances apart up to the roof. Instead of using timber, the slate that is mixed up with the lode, is used to build pillars or walls with; and sometimes these pillars have to be built up to very near the face of the workings. In almost every instance each stope is closely filled in before commencing another. All the passes are logged lengthwise into the stopes, and separate passes are kept specially for the workmen to get up and down to and from their work. The deepest part of their workings is about 750ft. Each of these companies has dividend-paying mines. I was informed by the manager of the South St. Mungo Company that £40,000 had been divided among the shareholders within two years. The quartz in this reef contains a great deal of