

No attention is paid to the ventilation, the downcast air being taken down the shaft in the space allotted to the cage, while the upcast air is discharged through the small area in which the pumps work—a most unsatisfactory arrangement, and one which could not be expected to work under the most favourable circumstances. No attention is paid to leading what small current of air may at times exist, to the working faces, and at most places it is barely strong enough for a candle to burn, and many of the workmen have been compelled to leave for the above reason.

To insure good air in this mine it would be necessary to sink a new shaft, and before the workings progress much further it will be absolutely necessary to undertake this work.

Many defects exist about the fittings around this colliery, one, which is particularly dangerous, being that the slides for the cage are placed at the ends of the cage instead of at the sides, causing it to hang in only one slide when resting upon the catches at the surface, and also at the bottom of the shaft. An accident is liable to result from this at any moment, owing to the stripping of the slides. The shaft is also very inefficient in itself, being lined with 1-inch boards only.

Since Mr. Denniston visited this mine, it has been placed under the charge of a new manager, who is taking steps to render the workings more secure, but is still working under considerable difficulties. A small air-shaft has been sunk, and the slides for the cage altered, and a new cage has also been constructed. When I visited this mine on the 7th June, it was watered out in consequence of the late heavy rain, and the pumping appliances were quite unequal to the emergency; so that all mining operations were suspended until new pumps could be obtained, when it was proposed to erect 6-inch pipes.

It is further proposed to work the upper seam of coal, which is 3 feet thick, but is supposed to be of somewhat better quality than the main seam, which has been heretofore worked.

*Springfield Colliery, Malvern*, has been at work for 15 months, and is situated about six miles west from the Canterbury Colliery, near the entrance to the Kowai Pass. The coal which is worked here is 4 feet 6 inches thick, being one of several thin seams. It is entered on by an engine plane, driven eastward from the face of the hill for a distance, on the 26th October, 1877, of 569 links. From this the workings are opened out upon an ordinary system of pillar-work, which is, however, somewhat irregular at times.

The headings have been driven in places 9 feet by 4 feet 6 inches, and in others 5 feet by 4 feet 6 inches, the former having been undertaken with a view of obtaining cheap coal. It is, however, the intention of the company in the future to drive all these 5 feet by 4 feet 6 inches, and not endanger the safety of their workings. The timber which has been employed is amply strong, is well put in, and has not been in any way stinted where required.

The downcast air is led down the engine plane, thence along the working-faces, being discharged by a shaft 6 feet by 6 feet, and at the time of the survey was working satisfactorily, with a natural current. Provision is here made that, by a slight alteration of the stoppings, the ventilating current could be considerably increased if occasion required; but at present no change is necessary.

The air-courses are in satisfactory order, well secured, and free from fallen *débris*. A furnace is provided to assist the ventilation in close weather.

Prospecting shafts and bore-holes have been put down in this area, proving the coal to extend under the plains, but to be cut out to the westward by slates.

*The Stevenson Colliery (Cordy's), Malvern*, is small workings on the south bank of the Selwyn River wrought only for station requirements. The coal, which is 6 feet in thickness, is raised by a shaft 5 feet by 3 feet, and 130 feet deep, and is worked on the ordinary pillar system. The workings at present consist of one level driven 6 feet by 6 feet, and two headings each 4 feet by 6 feet, the main level having been extended at date of survey 472 links, and the further advanced heading 113 links, the total estimated output being 300 tons. Water-power is employed for winding and pumping, and when the colliery is working from 7 to 8 tons of coal per day can be raised.

The winding gear is in good order, a new flat 3-inch hemp rope being used. The cage is without a cover, a usual thing in the New Zealand mines; but this is not of so much importance, since it is only used for raising the mineral, a ladder being fixed in a small air-shaft to the rise for the use of the miners.

The pumps are 2½-inch plunger, with 8-inch stroke, and are sufficiently powerful to cope with what water is at present in the mine.

The ventilation is somewhat imperfect, no care being taken to lead the air in to the face, and in the far ends of the workings it is at times very weak, although, while the workings are so small, and in the absence of fire-damp, no serious results are to be anticipated.

The roadways are in good order, with the exception of level No. 2, a few feet of which has fallen in. The timbering is principally done with black birch, and is in no way stinted, sets from 8 inches to 12 inches diameter being used, and well put in.

This mine, not being a sale pit, but only worked for station purposes, is necessarily only wrought from time to time; it is, however, in better general repair than most of the sale pits of the district which are regularly at work.

*The Homebush Colliery, Malvern*, is situated about 2 miles north-east of the Glentunnel Railway Station, on the White Cliffs branch line of railway, with which it is connected by tram.

The coal is entered upon by an adit drive of 5 feet x 4 feet, driven on the 13th October, 1877, for a distance of 676 links, with six headings breaking off from this from 236 links to 628 links in length.

The coal as it is driven on by these headings is worked upon a system of longwall, and, with the exception of a few minor pillars which are left, the whole body of the coal has been removed from the main adit drive to the present working face.

The walling up on each side of the roadways, which are left 4 feet wide, is in most instances done by tearing down the sandy shale which forms the roof, and building with it, while the remainder of the worked-out area is stowed firmly as gobbing or goaf.