

1887.
NEW ZEALAND.

REPORT ON ACCIDENTS IN MINES

(ABSTRACT OF) BY HER MAJESTY'S COMMISSIONERS.

Presented to both Houses of the General Assembly by Command of His Excellency.

ABSTRACT of Portions of the Final Report of Her Majesty's Commissioners appointed to inquire into Accidents in Mines, and the Possible Means of preventing their Occurrence or limiting their Disastrous Consequences; with Remarks by GEORGE J. BINNS, F.G.S., Inspector of Mines, Dunedin.

INTRODUCTION.

THE following abstract of the report presented by Her Majesty's Commissioners has been made with the view of diffusing information. The report itself—which is the result of upwards of seven years' labour of scientific and mining men whose names carry sufficient weight to give the highest authority to the conclusions at which they have arrived—is exceedingly bulky, comprising 120 pages of a Blue Book, with very copious additions in the form of appendices, &c., the whole filling 320 pages. The preliminary report was 520 pages in length. In the present abstract I have endeavoured to give the most important conclusions arrived at, and can only strongly recommend the perusal of the original report to those who may wish to go more minutely into this very interesting subject.

1. METHODS OF VENTILATION AND WORKING.

In referring to these subjects the Commissioners point out that “the inefficient furnaces erected at the surface, of which many were to be seen thirty years ago, are now practically abolished,” and that in deep shafts well-designed furnaces, with from 50 to nearly 200 square feet of fire-grate area, and capable of circulating volumes of air ranging from 200,000 to 400,000 cubic feet per minute, are used; while many hundreds of mechanical ventilators are successfully adapted. It is to be regretted that in this colony surface-furnaces are not yet abolished.

In speaking of anemometers, those made on the revolving-vane principle are commended.

The report does not enter at any length into the relative advantages of the various systems of working, and devotes a considerable portion of the short space which is given to this subject to praise of the “long-wall” plan, wherever applicable. Though there may be mines in this colony where this system could be introduced—and, indeed, it has been for many years applied on a small scale at Collingwood—I am afraid that the nature of the roofs usually overlying our coal-seams is not sufficiently elastic to allow of its being carried out with the maximum advantage.

2. FALLS OF ROOF AND SIDES.

As this is a matter mostly within the province of the miners themselves, it was not to be expected that the Commissioners would do much towards elucidating any means of prevention.

The percentage of deaths from this cause is given at about 40 in Great Britain, while in New Zealand, from the commencement of inspection to the end of 1885, it was 62.

The report calls attention to the following points:—

- (a.) The maintenance of ample supplies of timber in localities convenient to the workmen;
- (b.) The proper training of each miner to the best mode of timbering and otherwise protecting his working-place;
- (c.) The exercise of increased care on the part of the workmen in watching the roof, sides, and face, and protecting themselves in time;
- (d.) The introduction, as far as possible, of arrangements with the workmen which will make it their interest not to avoid the labour of putting up the necessary timber, coggalls, buildings, or nogs for their proper protection;
- (e.) The employment of special timber-men or deputies for the timbering of main ways, and also for the repairing as well as drawing of timber;
- (f.) Preventing timber being left in the goaf of long-wall workings, which would have the effect of breaking the roof;
- (g.) Driving the working-places as rapidly as possible by shifts of an ample number of workmen in each face, and so reducing the risk of falls and exposing the least number of men to danger at any one time.

With regard to the interesting question of coal-cutting machines, the Commissioners state that they “cannot yet be accepted as a practical success.”