

SCHEDULES.

The list of persons to whom certificates of service and competency as coal-mine managers have been issued is appended, together with the statistics of output, persons employed, &c.

ARTICLES.

I have to express my indebtedness to Mr. Jonathan Dixon, mining engineer, of Westport, for his article on "Coal-cutting by Machinery," and to Mr. Alexander Aitken, C.E., of Kumara, and Mr. R. M. Aitken, of Reefton, for their article on "The Ventilation of Mines," both of which appear as an appendix.

I have, &c.,

JOHN HAYES,

Inspecting Engineer.

The Under-Secretary for Mines, Wellington.

No. 2.

Mr. JAMES COUTTS, Inspector of Mines, Thames, to the UNDER-SECRETARY, Mines Department, Wellington.

Sir,—

Inspector of Mines' Office, Thames, 15th February, 1904.

I have the honour to transmit the following report on the coal-mines in the Auckland District for the year ended the 31st December, 1903, in compliance with section 67 of "The Coal-mines Act, 1891":—

Kawakawa Mine, Kawakawa (John Culley, manager).—There is little change to report from this mine since my last visit; the manager's attention has been directed to working out the small pillars under Carraway's Hill. The work consists in exploring and driving through the ground that has fallen down with the object of finding one pillar at a time, and is like groping in the dark on account of there being no plan of the old workings to show where pillars have been left in, therefore the prospects of finding a pillar at times that will pay to take out are anything but encouraging, and a very large amount of timber is required to keep the workings safe, the sets in the roadway requiring to be continually renewed. For about three months a large amount of water found its way into the workings owing to the incessant rains. This gave considerable trouble, and the manager had to fall back on little pillars that were considered worthless to supply the customers, who in return complained of the poor quality of the coal, and not without good reason. The output of coal for the year was 3,443 tons, which is a slight decrease as compared with the previous year, but was sufficient to supply the local requirements. Should a seam of coal of similar quality to that found in this mine be discovered anywhere in proximity to the railway connecting with the port at Opua, it would be the means of giving a great impetus to this part of the district. The coal being excellent for steaming purposes, a large quantity could be disposed of. Six men were employed during the year.

Hikurangi Coal Company, Hikurangi (T. P. Moody, manager).—The operations in this company's mine are being directed to opening up that portion of their property on the western side of the Government railway which is to the dip of the workings on the east side of the railway. On the east side a level was driven in from the surface which drained off all the water met with in that portion of the mine. From the west-side workings the water has to be pumped out. However, this is not (so far as the seam here has been opened up) a formidable undertaking. Owing to the railway-line running nearly over the centre of the mine, the development in progress is like extra work in consequence of this portion having to be opened up and worked as a separate mine. The strip of coal under the railway cannot be interfered with beyond getting the roadways necessary for haulage and ventilation. It is pleasing to see that the seam of coal here is proving to be better in quality than that to the rise, and is opening to the manager's expectations. The work in hand to the rise of the railway is chiefly confined to taking out pillars. This is being done very effectively. Only a very small percentage of coal being lost, a feature no doubt largely due to the thin covering over the coal. When a pillar is taken out and most of the props withdrawn, the covering falls down from the surface, and being of a soft nature it breaks off short at the first pillars adjoining and does not crush the unworked coal. The company has again had a very successful year, enabling the directors to declare the usual dividends, which must be gratifying to the manager of the mine. The output of coal for the year was 39,625 tons, a slight increase as compared with the previous year, and an average of fifty-five men were employed. The mine was inspected three times during the year, the workings each time found to be safe, the ventilation good, and a large supply of props, &c., kept on hand at the mine. An accident happened to a miner named Henry Holton on the 29th October in this mine, the injuries he received being of a fatal character. This was duly reported in the usual way. No blame was attached to any one.

Northern Collieries, Hikurangi (W. R. Dunn, manager).—The operations in this company's mine are chiefly confined to working a patch of coal discovered about a mile in a northerly direction from the first old workings. The seam here varies from 4 ft. to 6 ft. in thickness, and is not so much disturbed by faults as in any of the other places opened out in the property. This favourable condition has enabled the manager to keep up a constant supply of coal to meet the demands, and the prospects at present are most encouraging. A tram-line has been laid from the top of the self-acting incline to this portion of the mine, and the horses that were engaged in drawing the trucks have been dispensed with and a light locomotive put on to do the work, thereby effecting a considerable saving in expense. The present openings are above water-level, which is a matter of great importance in the economical working of the colliery. The mine was in good working-order when last inspected, and as there is little covering on the top of the coal ventilation-openings can