

On 8th January, 1935, during an inspection of the Castlepoint Co-operative Mine, fire stink was detected along the goaf-edge. The area was sealed off.

On 10th January, 1935, Mr. A. Oliphant forwarded notification that an outbreak of fire had occurred in the old workings of the Hopeful Mine, and that the area had been sealed off with dirt stoppings. On 4th June, 1935, it was reported by Mr. P. J. Gallagher that further signs of heating were evident in the abandoned workings of the Hopeful Mine. All surface vents were then closed, after which there were no further signs of heating.

On 15th February, 1935, the manager of the Burke's Creek Colliery (Mr. C. D. Buist) reported that he suspected heating behind a fall in No. 1 panel. Temporary stoppings were put in ready to close the section quickly if necessary.

On 28th May, 1935, indications of heating were noticed on the surface of panel C of the third west section, Millerton Mine. The area had previously been sealed off, all workable coal having been extracted. Surface cracks were filled in and the panel water-sealed.

On 29th November, 1935, a slight evidence of heating was discovered in a fall of roof-stone against the side of a pillar-stump in panel M, third west section, Millerton Mine. The heated debris was cooled by the use of water.

#### PROSECUTIONS UNDER THE COAL-MINES ACT, 1925.

Ten informations were laid during the year. Nine convictions were recorded and one information was withdrawn.

Under section 60 (1) (d) of the Coal-mines Act, 1925, a mine-manager was convicted and fined £2 and costs for acting as mine-manager of a mine in which more than four men were employed, he not being the holder of a fireman-deputy's certificate or otherwise qualified to act.

An alternative charge was laid under section 62 (1) of the Coal-mines Act, 1925, that he, not being the holder of a certificate of competency as fireman-deputy, did act as a fireman-deputy of a mine. This second charge was withdrawn.

For failing to see that explosives were brought out of the mine at the end of the shift, as provided for by Regulation 224 (4) of the Coal-mines Act, 1925, an acting mine-manager was convicted without costs.

For failing to keep detonators stored in a proper place, as provided for by Regulation 223 (2) of the Coal-mines Act, 1925, an acting mine-manager was convicted and fined £1 and costs.

A mine-manager was charged with failing to take steps to enforce the provisions of Regulation 92 of the Coal-mines Act, 1925, regarding the daily inspection, by the underviewer, of the doors between the main airways, as provided for by section 198 (2) of the Coal-mines Act, 1925. A conviction and fine of £1 and costs were recorded.

For failing to see that the frame of a ventilating-door was constructed of masonry not less than 9 in. in thickness, as provided for by Regulation 192 (4) of the Coal-mines Act, 1925, a mine-manager was convicted and fined £1 and costs.

For failure to supply a sufficient quantity of air for the men employed in the mine, as provided for by section 92 (1) of the Coal-mines Act, 1925, a mine-manager was convicted and fined £3 and costs.

For failure to keep a monthly record of air measurements (section 91 (3), Coal-mines Act, 1925), an underviewer was convicted and fined £2 and costs.

For a breach of section 60 (1) (b) of the Coal-mines Act, 1925, the owners (five) of a mine were each fined 5s and costs.

For failing to bring explosives in his possession out of the mine at the end of the shift and return them to the place of storage, as provided for by Regulation 224 (4) of the Coal-mines Act, 1925, a miner was convicted and fined £1 10s. and costs.

#### SOUTHERN INSPECTION DISTRICT (JOB HUGHES, Inspector of Coal-mines).

In compliance with section 42 of the Coal-mines Act, 1925, my annual report on the coal-mines in the Southern Inspection District is submitted herewith.

#### COAL OUTPUT.

The total output of the Southern District shows a small increase of 4,448 tons. Small increases were shown in Canterbury, North Otago, and Otago Central of 2,698, 1,299, and 172 tons respectively. South Otago output decreased 8,731 tons and Southland increased 9,010 tons. The output from the Southland mines has gradually increased, until it now comprises over 50 per cent. of the total Southern District output. Unfortunately, very little development work is being carried out in this field, with the exception of one of the larger mines, and the majority of the mines operating in the Ohai District are at present obtaining almost their total output from pillar-extraction. Machine mining has not been extended, and it would appear that no material extension of mechanical mining is contemplated in this district, at least in the near future.

There were approximately 150 "hard" hats in use towards the end of the year, all mines working thick seams of coal having a certain number in use. The managers at all the mines where helmets are in use state that the number of minor head injuries to miners has decreased. The miners are asked to pay the cost price of the helmets, except in the two larger Otago and Southland mines, in which cases the hats are sold at half cost price. I am of the opinion, after careful observations of their usefulness during the year, that the use of this class of helmet, particularly in thick seams of coal, is almost a necessity as a means of mitigation of head injuries to miners, and that their use should be extended.

The McLuekie gas-detector has been regularly used at two of the larger mines, with, I am sure, beneficial results so far as efficient ventilation is concerned.

#### CANTERBURY DISTRICT.

*Springfield Mine.*—During the year further operations were carried out for the purpose of locating a more favourable area of workable coal. However, although work in the new dip was continued and a shaft sunk to a depth of 30 ft. (approx.), nothing of interest eventuated.

*Bonanza Mine.*—Pillar-extraction along the main level and rise pillars was completed about the end of August, and a dip heading has been driven south at a grade of 1 in 4 for the purpose of developing the dip coal. Present indications appear to be that the seam may thin to the dip, and I anticipate roof conditions to the dip will be more difficult to contend with.

*Clearview Mine.*—Pillar-extraction was completed about the end of the year. A prospecting-level was driven in the hill to the north of the old mine, but failed to locate a seam of coal. It would appear necessary to prospect to the dip of the old mine if further workable coal is to be found.

*Lucknow Clay-pit (Whitecliffs).*—All available clay has been extracted from the mine, and a new drive has been commenced adjacent to the old mine with a view to opening up a further area of clay for development.

*Klondyke Mine.*—All available coal has been extracted from along the main level, and, as a result of it being found impracticable to recover the whole of the coal, considerable trouble has been experienced with spontaneous combustion. This has been aggravated by the fact that a sealed-off area has been able to draw its oxygen-supply from the surface following subsidence. The necessary plant has been installed and a commencement made to develop the dip area by means of a crosscut dip heading, on a grade of 1 in 2½, driven in the coal-seam.

*Bush Gully Mine.*—Pillar-extraction has been continued and all available coal has been won from the present mine with the exception of approximately six months' work on the 4 ft. seam. A proposal to develop the dip area is receiving consideration, and prospecting for this purpose has been put in hand.