

Smith, Cowan, and Ford, equipped with Proto apparatus, went into the Millerton Mine to explore the fire area. The brick stopping at the head of No. 1 dip was broken. This acted as an intake, and a considerable volume of air passed through the stopping into the fire area and cleared the atmosphere in the neighbourhood of the stopping. The party then entered the area and was able to get as far as the fourth stenton without the flame safety-lamps being affected. At this point the lamps went out. Messrs. Pearson and Duffy then donned their breathing-apparatus and made three separate traverses of the fire area before they returned to the stopping. The exploration work should have finished at this point, but Messrs. Maher and Ford were anxious to see the inside of the sealed-off area, and received permission to go down to the foot of the dip, a stated time being given them in which to get there and return to the stopping. The necessity of using the breathing-apparatus beyond No. 4 stenton was impressed on them before they left. They did not return within the time specified, and the others realized that Maher and Ford had got into difficulties. Duffy went down to No. 4 stenton and saw Maher's and Ford's lights on the ground a short distance away. He crawled down to where they were without his apparatus and was able to drag out Maher's body. Duffy then proceeded to try and revive Maher by means of artificial respiration. Duffy himself in recovering Maher's body had suffered considerably from gas. Duffy then ordered Cowan and Smith to don the rescue apparatus and go in and attempt to rescue Ford. Smith and Cowan proceeded down the dip past where Duffy was, and both were wearing their apparatus. Smith was in the lead and got as far as Ford's body, but, Ford being a heavy man, he was unable to do anything by himself. It appears that before entering the gas Cowan, for some unknown reason, discarded his breathing-apparatus and entered the gas without it. He got to where Smith was standing beside Ford's body and then collapsed. Smith, being unable to do anything, returned up the dip. Pearson then donned Smith's apparatus and went into the gas, but did not return. Assistance was then sent for, and the mine-manager and others arrived on the scene. Since by this time four men had already been lost while using the apparatus, the mine-manager decided that the apparatus should not be used any further. He therefore made an attempt to carry air into the dip by means of brattice and to recover the bodies in that way. Eventually this method proved successful, and the bodies were recovered. An examination of the apparatus used by Maher and Ford showed that they had not put the nose-clips on or had the mouthpiece inserted. In Pearson's case the nose-clip and mouthpiece were in place, but the oxygen had not been turned on. Evidently Pearson, through excitement, had omitted to do this. After the fatality, and before the apparatus had been interfered with in any way, the three sets of apparatus worn by Messrs. Ford, Maher, and Pearson were tested and found to be in good condition and safe for use in an irrespirable atmosphere. The only conclusion to be drawn from a consideration of the evidence available was that the accident was due to errors of judgment on the part of those in charge of the team, and to the breaking-down, under stress, of the organization of the team. The training given to Maher, Ford, and the others was practically the same as what is recognized in Britain as sufficient to qualify for a certificate of competency in rescue work.

On the 4th April, in the Birchwood Mine, J. W. Reid, a roadman, was resetting a prop when a fall occurred, by which he sustained serious injuries to his leg. He died in hospital on the 7th April from gangrene.

D. Tennant, an underviewer, employed at the Blackball Mine, went into the mine on the morning of Sunday, the 9th October, to make an inspection of the workings. He had not returned by the afternoon, and a search-party entered the mine to look for him. He was found under a fall. The actual injuries which he had received were apparently not serious in themselves, but he died from shock the same evening.

At Rotowaro Mine, on the 21st October, a labourer named A. Henderson was crushed between two railway-wagons. He and four other men were moving a wagon on a 1-in-70 grade when another wagon moved forward and crushed deceased between the buffers.

On the 23rd December, C. Roskvist, a rope-road worker employed at the Westportmain Mine, was struck by the haulage-rope on a steep incline and killed.

SECTION IV.—WORKING OF THE COAL-MINES ACT.

(a) PERMITTED EXPLOSIVES.

(Regulations 233 to 237 inclusive.)

The following is a table showing the quantity of permitted explosives used and the number of shots fired at New Zealand coal-mines during 1927 —

Inspection District.	Quantity of Permitted Explosives used (lb.).			Number of Shots fired.	Number of Misfired Shots.				Approximate Quantity of Coal produced.
	A2 Monobel.	Ligdynite.	Samsonte.		By Defective Explosive.	By Defective Detonators.	By Defective Leads.	Total.	
Northern (i.e., North Island) ..	101,265	..	..	114,742	6	79	30	115	Tons. 363,049
West Coast (of South Island) ..	199,956	..	97,552	355,634	36	390	238	664	1,146,785
Southern (i.e., Canterbury, Otago, and Southland)	23,059½	..	49,184½	113,162	..	56	30	86	242,161
Totals	324,280½	..	146,736½	583,538	42	525	298	865	1,751,995