43 C.—2.

The circumstances of this and the fatal accident at the Wairaki Mine emphasize the need of careful examination of supporting timbers particularly at the face of pillar and head-coal workings, to see that they are properly tightened at the roof.

The fatal accident to Thomas Dixon at the Wairaki Mine on the 1st June was due to a fall of 30 tons of top coal coming away at the "lip." The fall revealed a concealed back. It was claimed that these "tops" were supported by at least two props which were swung out by the falling coal. A shot-hole had been drilled into the "tops" and the shotfirer intended charging the hole within a few minutes.

At the Dobson Mine on the 8th July William Stone, a trucker, who was going to help a miner to reset a prop which had been knocked out by a shot at 9.30 a.m., was killed at 11 a.m. by a thick slab of stone falling from the insufficiently supported roof. The shot brought down about  $3\frac{1}{2}$  tons of coal and, in order to reset the props, that coal had to be shifted. This was done by filling it into the mine tubs. The fatality points to the need of replacing knocked-out timbers at the earliest possible moment.

The fatal accident to Alexander Johnson at the Pukemiro Mine on the 1st October was an extraordinary one. The deceased and his mate were removing unused props and other material from a finished pillar place preparatory to withdrawing the standing timber there by lever and chain. One of the standing props, 13 ft. in length, broke owing to the roof pressure and, in falling, a portion of it either struck the deceased on the head or it struck the prop which they were carrying. He sustained a fracture of the base of the skull, from which he died four days later. The accident could not have been anticipated, and reasonable precautions had been taken for the men's safety.

## 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 1930:—

Inspection District.	Quantity of Permitted Explosives used (lb.).			-	Number of Misfired Shots.				Quantity oduced.
	A2 Monobel.	Ligdynite.	Samsonite.	Number of Shots fired.	By Defective Explosive.	By Defective Detonators.	By Defective Leads.	Total.	Approximate Qua
Northern (i.e., North Island) West Coast (of South Island) Southern (i.e., Canterbury, Otago, and Southland)	194,250 117,020 3,796	•••	153,044 63,851	186,703 320,130 95,837	$\begin{bmatrix} 1 \\ 25 \\ \cdots \end{bmatrix}$	115 155 16	19 177 33	$135 \\ 357 \\ 49$	Tons. 680,352 889,221 248,860
Totals	315,066		216,895	602,670	26	286	229	541	1,818,433

Eighty-four and a quarter per cent. of the coal produced in the Dominion during 1931 was broken down by permitted explosive, and the average production of coal per pound of explosive used was 3.42 tons, and per shot fired 3.01 tons.

## (b) List of Mines required by Law to use Permitted Explosives.

The following is a list of mines as at the 31st December, 1931, required by law to use permitted explosives:—

## Northern Inspection District.

Pukemiro Collieries, Pukemiro—Throughout South Mine.

Rotowaro Colliery, Rotowaro—Throughout No. 1 and No. 3 Mines.

Glen Afton Colliery, Glen Afton-All sections of the mine, with the exception of A section.

Waikato Extended Colliery, Huntly—All sections.

Renown Colliery, Rotowaro—All sections.