

Gas-ignitions have recently been reported as follows:—

Name of Colliery.	Date.	Place.	Quantity and how caused.
Ironbridge .. ..	7/8/18	No. 8 section .. ..	About 1 cubic foot was ignited in a hole in the roof by naked light.
Wairaki .. ..	22/12/19	Dip heading .. ..	Small ignition after firing a gunpowder charge. Not then reported to the Inspector.
„ .. ..	16/2/20	Dover's place off the dip heading	Ditto. This was reported. No person was injured. The mine has now been restricted to safety-lamps and permitted explosives.
Millerton .. ..	11/2/20	Old dip section .. ..	A small ignition by naked light at the face of a steeply rising place where brattice had been displaced.
„ .. ..	1/6/20	No. 2 dip section .. ..	A small ignition by a naked light shortly after firing a charge of permitted explosive. No person was injured.
Rotowaro .. ..	—/3/20	Back dip heading .. ..	Shortly after firing a shot a small quantity of gas was ignited in a hole by a naked light. Not then reported to the Inspector.
Fukemiro .. ..	11/5/20	Main north section back heading	Two miners, Summers and Howie, reported igniting about 200 cubic feet of inflammable gas at their working-place with a naked light.
Liverpool Colliery ..	1/6/20	Stone drive near middle brake	A fan attendant ignited a small quantity of gas at the fan outside the drive, and received slight burns.

In only one case—viz., the last-named—were burns received, and in that case they were but slight. In every case naked lights caused the ignition, and at such places the use of such lights was permitted.

An ignition of inflammable gas, however, must be regarded as a grave warning, for it proves that gas is being emitted from the strata which if allowed to accumulate, by defective ventilation might produce a disastrous explosion, for with the highly inflammable coal-dust of our bituminous and brown coal mines it requires only a few hundred feet of inflammable gas to become ignited to produce the concussion and flame necessary to cause a violent coal-dust explosion sufficient to wreck the mine and destroy those within it.

(c.) SYSTEMATIC TIMBERING.

[Section 40 (9) and Regulation 56.]

During the past five years thirty-four lives have been lost by colliery accidents, of which number twenty-three were caused by falls of roof and sides.

In the majority of cases of fatal accidents by falls the reason attributed at the inquests has been that they were due to concealed joints—i.e., “sooty” or “greasy” backs or heads, variously termed. “The roof appeared safe, but when it fell upon the deceased a concealed joint became visible.” And so it always has been: it is not the obviously dangerous roof which falls and kills a man, but the roof which has been given the benefit of the doubt by miner or deputy and been allowed to go unsupported by props.

To obviate this class of accidents systematic timbering has become compulsory by law in the mines of the United Kingdom and this Dominion. In sections of a mine where timber is used at the working-faces or in the roadways by the regulations pertaining to systematic timbering it is assumed that all roof is a potential source of danger, therefore by continuous and uniformly spaced rows of props, or props and bars (as may be considered most suitable), any dangerous invisible defect in the roof is as far as practicable guarded against.

In this Dominion the regulation regarding systematic timbering is very often neglected, and for this the colliery officials and miners are equally to blame. The miners frequently neglect to erect the props nearest the face within the specified distance, and deputies frequently do not enforce it with sufficient determination. The managers of collieries have not prosecuted miners for breaches of the regulations pertaining to systematic timbering, as they are unquestionably empowered to do under Special Rule 1 and Regulation 56. Unless more vigorous action is taken by mine officials, who are always on the spot, to secure efficient timbering, fatal accidents by falls of roof will inevitably continue.

The following are the maximum intervals for systematic timbering allowed at the principal collieries in the Dominion:—

Systematic Timbering (vide Regulation 56).	Name of Colliery.																						
	Hikurangi.	Northern.	Waipa.	Fukemiro.	Taupiri Extended.	Rotowaro.	Mount Torsesse.	Homebush.	Millerton and Deniston.	Westport-Stockton.	Blackball.	State Collieries.	North Brunner.	Paparoa.	North Cape.	Puaponga.	Shag Point.	Taratu.	Kaitangata and Castle Hill.	Nightcaps.	Freemans.	Waitiro.	
Between each row of props ..	Ft. 4	Ft. 4	Ft. 5	Ft. 5	Ft. 5	Ft. 5	Ft. 6	Ft. 4	Ft. 6	Ft. 6	Ft. 6	Ft. 6	Ft. 4	Ft. 6	Ft. 3½	Ft. 6	Ft. 6	Ft. 4	Ft. 6	Ft. 6	Ft. 6	Ft. 6	Ft. 6
Between adjacent props in the same row	5	4	5	6	6	6	6	4	6	6	6	6	4	6	3½	6	6	5½	6	5	6	6	6
Between the first row of props and the face	5	4	6	6	6	6	7½	3	7½	7½	7½	7½	..	7½	4½	6	7	5	6	6	8	7	