

and stone-quarries.\* This is an abnormal and very bad record, and caused apprehension that the gelignite was defective. In consequence of this the Dominion Analyst and Chief Inspector of Explosives, J. S. MacLaurin, D.Sc., carried out a number of experiments with gelignite obtained at places where accidents had occurred, with the result that it was found that much of the gelignite imported into New Zealand during the war was made with sodium nitrate in place of the corresponding salt of potassium, owing to shortage of the latter in Great Britain. Sodium nitrate is known to absorb moisture very readily, and gelignite was found which for that reason would not detonate. The condition was readily recognized by the swelling of the cartridges, which first occurs at the ends, the contents becoming of putty-like consistency. Circulars have been issued by this Department advising that—

- (1.) Gelignite should on no account be stored in a damp place.
- (2.) It should be kept in the paraffin sealed packets until required for charging, and the use of powder-cans for the conveyance of explosives from the magazine to working-place should be strictly enforced.
- (3.) Broken cartridges or cartridges that have become damp should not be allowed to accumulate, but should be destroyed.
- (4.) Cartridges showing any considerable amount of swelling, or which on cutting show moisture throughout the mass, should not be inserted in the charge, as they might fail to carry the detonation-wave, and so leave part of the charge unexploded in the hole.
- (5.) Detonators of No. 7 size should be used when obtainable in preference to No. 6.

#### FATAL ACCIDENTS AT MINING OPERATIONS OTHER THAN COAL-MINING.

The following is a brief description of accidents at mining operations other than coal-mining during 1915:—

Name of Person killed.	Date of Accident.	Mine or Claim.	Cause of Accident, and Remarks.
David Kennedy ..	8/1/15	Adams and Weir's (hydraulic-sluicing) claim, Mārewhenua	While removing a landslip in a tail-race 15 ft. deep, about half a ton of earth fell, burying deceased and killing him. The sufferer had but little mining experience. The Coroner's jury returned a verdict that no one was blameworthy.
John P. Vocasivich	14/1/15	Talisman Mine (quartz)	Deceased and his mate, John McClair, experienced miners, had just recommenced after a stoppage of several weeks to put a rise in the hanging-wall of the lode above No. 14. level. Immediately previous to such stoppage a round of eleven holes had been fired in two sections, eleven reports being counted. Before commencing to drill McClair states that they made a thorough examination of the face, working down all loose ground and the remains of an old hole, and they washed the face with a strong jet without disclosing the presence of any undischarged gelignite. While the seventh hole, distant 15 in. from the observed old hole, was being drilled in a different direction therefrom, an explosion occurred killing Vocasivich and inflicting minor injuries to McClair. The jury were of opinion that the drill had struck gelignite which had fallen into a vug during previous operations; and that no person is blameworthy. Owing to the frequency of late of premature explosions of gelignite, I believe that it is just as likely that inferior gelignite had remained unexploded in the butt of an old hole, and that the drill came in contact therewith.
Hugh McQuillan ..	27/1/15	Ross Mine (deep alluvial)	Deceased, the experienced driver of the electric winder, was electrocuted while endeavouring to work with his bare hand the switch of the telephone transformer, placed high up on the wall of the winding-room. Owing to a break in the transmission-line a connection had been made between the high-potential power-line and the telephone-line, causing the telephone transformer to spark. In his anxiety to save his employers' property deceased used his bare hand, no insulating-pole being kept by the management in the building, it is alleged, owing to the dampness of the same. The Coroner returned a verdict of "Accidental death by electric shock." Subsequent action by the widow claiming £2,000 damages from the company failed. Notwithstanding that deceased acted rashly, the management cannot be held blameless in not seeing that an insulating-pole was kept in a dry place in the winding-room.
James Walker ..	27/2/15	Lake Hochstetter (alluvial claim)	Deceased was the attendant in charge of an oil-engine and pump situated at the junction of an inclined and a level tunnel, driven in connection with the company's water-races. By a reversal of the natural ventilation, carbon-monoxide gas (white-damp) produced by the oil-engine, and which escaped from badly made joints and from the end of the exhaust-pipe within the drive, was inhaled by deceased, who was poisoned by this deadly gas. The Coroner found that deceased was poisoned by gas from the oil-engine in his charge. Action was taken against the company by the Public Trustee on behalf of the dependants of deceased, and compensation was paid to them.

\* Since the above was written—viz., on 15th May, 1916—a premature explosion occurred in a drive at the Public Works stone-quarry, Ohakune. Six lives were lost, and two persons were injured.