

The following is a brief description of fatal accidents during 1916 at quarries under the Quarries Act, 1910 :—

Date.	Name and Situation of Quarry.	Name, Age, and Occupation of Person killed.	Cause of Accident, Nature of Injuries, and Remarks.
31 Mar.	Nihotupu Dam, Auckland	William Wallace Langlands (53), one of the contractors for construction of the dam	He was in his office at the works when a blast was fired at a spot 85 yards distant and 95 ft. higher. The blast consisted of a charge of ten sticks of gelignite in a hole 5 ft. deep. Warning was given of the intention to fire, but deceased apparently considered he was out of the danger-zone. A piece of flying rock from the blast fell through the office-roof, killing him by striking him on the head. Subsequent examination of the blast revealed a concealed joint in the rock, which reduced the resistance to the blast, causing the debris to be precipitated a greater distance than anticipated. At the Coroner's inquest a verdict of "accidental death" was returned
10 April	Jermyn Street improvement scheme, Auckland	Jeremiah O'Donohue (58), labourer on works	He was not at his proper working-place, but was gathering up tools to commence loading a dray when a piece of sandstone weighing about 4 cwt. fell from the face of the cutting and crushed him against the wheel of the dray. A shot had been fired about half an hour previously, and the ganger who fired the shot was barring down the loose ground at the time. Deceased was supposed to be working 14 ft. away to the left. The place had been examined and was thought safe. Death resulted from shock due to fracture of the ribs and possibly other internal injuries. The Coroner's inquest found the death to be accidental.

For the guidance of quarry managers and foremen the following particulars are furnished in connection with fatal accidents which occurred during 1916 at quarries and places which do not come under the operation of the Stone-quarries Act, and are therefore not inspected by officers of the Mines Department :—

Explosion at Ohakune Quarry.

On the 15th May at about 5.30 p.m. a premature explosion of a 2,000 lb. charge of high explosive occurred at the Public Works Department ballast-quarry at Ohakune, by which six persons were killed and two injured. Those killed were G. H. J. Mellsop, Assistant Engineer; H. J. H. Larking, engineering cadet; Arthur Davis, overseer; L. J. Torrens, William McCord, and P. McGarry, labourers. Those injured were Michael Sheehy, quarry foreman, and G. E. Morgan, labourer.

Three drives had been put into a nearly vertical face of scoria for simultaneous firing by electricity. In one of these—i.e., No. 3 drive—a mixed charge containing about 2,000 lb. of cambrite, gelignite, and dynamite had been placed in position in the original cases, with only the lids removed, at the end of the drive; an electric fuse with two detonators was connected with the charge, and by insulated cable carried along the roof of the drive about 60 ft. to two dry-cell red-seal (about 5 volts each) batteries placed within the drive at its mouth. To these batteries a Nobel's galvanometer and combined battery was connected. This battery was capable of generating 0.05 ampere: to explode a detonator 1.6 amperes is required. At the time of the explosion all the deceased were working within the drive, and the two injured men in proximity thereto outside. The charge was being built in.

At the inquest held in connection with this disaster the evidence of Dr. J. S. Maclaurin, Chief Inspector of Explosives, appears to be conclusive as to its cause. Dr. Maclaurin stated that he found samples of the explosives in the quarry magazine in perfect order, and that the accident was not due to defective explosive, but in his opinion it was due to misadventure in testing the wires by Mr. Mellsop. The custom is to test the cables and fuse with a galvanometer and a small electric current to make sure they are in order, and such small current was available from the combined galvanometer. In this case two red-seal dry batteries had been found after the explosion, and Dr. Maclaurin assumed these had been then used in addition to the galvanometer battery. These batteries could be safely used for testing the cables, provided the current passed through the galvanometer, but their use was fraught with grave danger owing to liability of inadvertently touching the wires together, instead of touching the galvanometer-poles.

Mr. R. W. Holmes, M.I.C.E., Engineer-in-Chief, Public Works Department, agreed in the possibility of the above, and stated that, considering the nearness of the poles in the galvanometer, it was risky to use an outside cell.

The Coroner's jury found that the accident was due to premature explosion of explosives placed in No. 3 drive.

It was stated in evidence that explosive was kept in the engine-house at the quarry, a quite improper and illegal practice. This, however, had no connection with the fatal explosion.

On the 22nd June a fall of papa in the Okahukura Tunnel caused the death of Michael Joyce, miner. Deceased, under instruction from the shift boss, had gone in with a mate to work down some ground loosened by shots fired by the previous shift. While in the act of doing this a lump of papa weighing 5 cwt. to 6 cwt. fell from the side wall and struck deceased, breaking his neck and causing instantaneous death. The Coroner's jury found that the death was accidental, and no blame attachable to any one.

(3.) SUMMARY REPORT OF MR. J. F. DOWNEY, INSPECTOR OF STONE-QUARRIES FOR THE NORTH ISLAND.

I have the honour to present my report for 1916 on such quarries, tunnels, &c., as come under the operation of the Stone-quarries Act, 1910, in the whole of the North Island (excluding the Hauraki Mining District, which is included in the inspectorate of Inspector Paul).