Dealing now seriatim with the various matters detailed in the Commission and not covered by the above comments, we have the honour to reply as follows :—

16. *Examination of the Mine.*—The regular examination of the mine by the company's officials appears to have been properly carried out.

17. The ventilation is effected by a main ventilating-fan in the return airway outlet, the necessary directing and splitting of the air-currents being effected by brattice, pipes, and stoppings. An auxiliary fan feeding air through pipes to some of the working-faces assists the main ventilating scheme. Ample air to effect thorough ventilation enters the mine.

The carrying of the air-currents through to the various working-faces improved considerably during the last few months, but notwithstanding this the ventilation in some of the places was capable of improvement. The remedy for this consists in a more careful construction of the stoppings, and in a regular and methodical fitting and continuing of the various brattices.

We suggest that the Department consider the question of increasing in gassy mines the minimum of 150 cubic feet of air per person per minute, and also that it make provision that in all mines not less than the minimum amount be conducted into each working-place for each person working in such place.

18. *Lighting.*—It may be mentioned here that, so far as is known, this is the first explosion of magnitude that has occurred in New Zealand in a mine where safety-lamps are used. It was the custom of the company to issue one electric safety-lamp to each miner, and one oil safety-lamp to each pair of miners. There was considerable laxity in the daily issue of these oil safety-lamps. Miners just helped themselves and returned the lamps as they chose, no note or check (as required by section 97 of the Act) being taken of such issue or return. The idea of thus issuing three lamps to each pair of men was that the men would use the electric lamp to illuminate their work and the oil lamps to test, if necessary, for gas. This issue of lamps (though of advantage in enabling each miner to test for gas) carries with it an element of danger. In practice the men would hang up the oil-lamp on some adjacent prop and leave it there unattended. The laxity of the management in the manner of issuing lamps was reflected in the actions of the men. It was proved that on at least one occasion a man had gone away off shift from his working-face and left his lighted oil-lamp behind. Sometimes lighted lamps would be left by the men on trucks on the main level or at the foot of the stone dip and be brought in by the deputy.

In this connection we think that a regulation should be framed requiring the management of a mine, before first issuing to a miner a safety-lamp, to ascertain that he is fully conversant with its properties, and if necessary to give full instruction to him thereon.

19. *Explosives and Shot-firing.*—The type of explosive used is monobel A 2, which is a " permitted " explosive within the meaning of the Coal-mines Act. Some laxity existed in this mine in the method of preparing coal for the firing of shots. Regulation 242 (*b*) provides that no shot shall be fired unless the coal has been holed or side-cut to a depth greater than the depth of the shot-hole. We are satisfied that this regulation has at times been ignored and that the dangerous practice of " grunching " has been followed (*i.e.*, holes have been drilled in the solid face of coal, and fired). The great risk of such a shot is that, instead of breaking the coal down, the charge may blow out of the hole in which it was put. Should gas or dry coal-dust be present and the shot be overcharged, this may cause an explosion.

We think that the regulation should be amended so as to specify the length and depth of the holing or cutting required, the distance within which the hole must be placed in relation to the cut, and the direction the hole must take, reserving power, however, to the Inspector to modify or waive such provisions in any seam which should necessitate it. One witness of experience described the life of a shot-firer as " one constant fight " to resist the urgings of miners that he should fire shots that in his opinion are improperly prepared. A concise regulation on this question will strengthen the hands of the shot-firers.