

Regulations under the Stone-quarries Act, 1910.

JELlicoe, Governor-General.

ORDER IN COUNCIL.

At the Government House at Wellington, this 30th day of January, 1922.

Present :

HIS EXCELLENCY THE GOVERNOR-GENERAL IN COUNCIL.

IN pursuance and exercise of the powers and authorities conferred upon him by the Stone-quarries Act, 1910, and its amendments (hereinafter collectively referred to as "the said Act"), His Excellency the Governor-General of the Dominion of New Zealand, acting by and with the advice and consent of the Executive Council of the said Dominion, doth hereby revoke the regulations made under the said Act on the eighteenth day of March, one thousand nine hundred and eighteen, and in lieu thereof doth hereby make the following regulations, which shall come into force on the date of the publication hereof in the *New Zealand Gazette*.

REGULATIONS.

I. SAFETY OF THE QUARRY.

1. THE working of the face and sides, tops, or overburden of the quarry shall be carried on so as to prevent dangerous falls.
2. The overburden or "tops" of the quarry, and all loose ground or material, shall be cleared far enough back from the edge of the quarry to prevent danger to the persons employed.
3. When it is necessary for safety that any quarry shall be worked in steps or "galleries," the breadth of everyone of these shall be at least one-half its height, but in no case shall the breadth thereof be less than 12 ft. When the quarry is worked without steps or galleries, sufficient support to the face and sides shall be left to ensure safety to all persons employed.
4. There shall be a clear space between the outside rails of tramways and the edges of galleries sufficient to prevent both the falling of stones from the wagons and the falling of the men themselves to galleries below. Where such a space is impracticable the edges shall be securely fenced.
5. The top of the quarry, if dangerous, and the top of every shaft shall be securely fenced to the satisfaction of the Inspector.
6. All bridges shall be provided with secure hand and guard rails and a planked footway, and if used for passage of trucks shall be of such width as will provide a clear space of 3 ft. between the handrails and the sides of the trucks.
7. If work is carried on at night it shall be under the personal and constant supervision of a competent foreman appointed by the manager, and adequate light shall be provided.

II. ACCESS TO THE QUARRY.

8. Secure means of access shall be provided by which workmen can go to and from their working-places.
9. A ladder permanently used for the ascent and descent of persons in the quarry shall not be fixed in a vertical or overhanging position, and shall be inclined at the most convenient angle; and every such ladder shall have substantial platforms at intervals of not more than 10 yards. Ladders shall project at least 2 ft. above any platform or landing-place. The rungs of any ladder shall not be less than 4 in. away from the rock-face or other obstruction against which it may be fixed.
10. All tunnels used as a regular means of access to working-places shall be sufficiently drained, and where the space between the side of the truck and the side of the tunnel is less than 3 ft. places of refuge shall be provided at intervals not exceeding 50 yards. Every manhole and space for a place of refuge shall be constantly kept clear, and no person shall place anything in such manhole or space so as to prevent access thereto.
11. Persons shall not be raised or lowered in cages, trucks, buckets, or wagons unprovided with guides, except in sinking shafts; and no timber, tools, rails, sprags, or other material, except for repairing the shaft, shall be placed in the same cage in which men are being lowered or raised. In any shaft exceeding 20 ft. in depth, in which cages are not used, no person shall descend or ascend by the aid of machinery unless (in addition to the use of the loop, cross-bar, or other appliance) he is securely stayed to the rope employed for lowering or raising in such shaft by a strap or other fastening passing round the body under the arms, and such method of staying shall be used by every person who finds it necessary, in the execution of his duty, to descend or ascend a shaft on top of the cage-covers.
12. The top and all entrances between the top and bottom of every working or pumping shaft shall be properly and securely fenced or securely covered, but this provision shall not be taken to forbid the temporary removal of any fence or cover for the purpose of repairs or other operations if proper precautions are used.
13. Every abandoned or disused shaft shall be fenced or securely covered in, and its position indicated on the surface

by a post or cairn of stones, or such other permanent distinguishing-mark as an Inspector thinks sufficient.

14. Where a fence or cover has been temporarily removed from any entrance to a shaft to admit of the performance of ordinary quarrying operations, a strong horizontal bar shall be securely fixed across such entrance, not less than 3 ft. nor more than 4 ft. from the floor of the brace chamber or drive, as the case may be.

15. Where, in the opinion of the Inspector, the natural strata are not safe, every working or pumping shaft shall be securely cased, lined, or otherwise made secure; for which purpose an ample supply of sound good timber shall be kept on the ground ready for immediate use.

16. Every drive and every excavation of any kind in connection with the working of a quarry shall be securely protected and made safe for persons employed therein.

17. Where one portion of the shaft is used for the ascent and descent of persons by ladders, and another portion of the same shaft is used for raising material, the first-mentioned portion shall be cased or otherwise securely fenced off separate from the last-mentioned portion.

18. Every person employed in a quarry shall make himself acquainted with the system of signals used in such quarry, and a line or some other appliance shall be provided in each shaft to admit of danger-signals being communicated to the engine-driver from any portion of such shaft.

19. A clear view shall be kept for the engine-driver between his station and the shaft at the surface brace.

20. Every brace shall be properly covered to protect the workmen from the inclemency of the weather.

21. In every shaft in which a whim, whip, or windlass is used a proper ladder or footway shall be provided for the use of persons employed therein.

22. Before any winding-rope is used for raising or lowering persons in a quarry a full and accurate description of the rope shall be supplied to the Inspector, and his authority in writing to use the rope for the said purpose shall be obtained.

23. There shall be attached to every machine worked by steam, water, electrical or mechanical power, and used for lowering or raising persons, an adequate brake, which shall be maintained to the satisfaction of the Inspector at all times while the machine is in use.

24. All machinery in which steam, water, electricity, or air, or any two or more of them, are used as motive power shall be subject to the provisions of the Inspection of Machinery Act, 1908, so far as the same reasonably apply; and no such machinery, erected or fitted up, shall be employed until it has been examined by an Inspector appointed under that Act, and certified by him to be in proper and fit working-condition.

25. All boilers, compressors, engines, gearing, and all other parts of machinery, when used for any quarrying purpose, shall be kept in a safe state and condition.

26. Every fly-wheel, and all exposed or dangerous parts of the machinery, and every tramway constructed on an elevated platform other than a tramway worked by ropes, shall be kept securely and safely fenced.

III. BLASTING.

27. The charging, tamping, and firing of all drilled holes shall be done by the manager or foreman or by a competent person appointed in writing by him.

28. Tamping shall be of clay or other suitable material to the approval of the Inspector.

29. In any tunnel or drive where the number of holes to be fired exceeds six electrical firing apparatus shall be used. If the number of holes to be fired does not exceed six they may be spitted.

30. In any tunnel or drive, as soon as possible after shot-firing all places where shot-holes have been shall be hosed with water, and a thorough search shall be made for any unexploded portion of a charge.

31. If a charge misses fire—

(a.) A second charge shall not be placed in the same hole.

(b.) If the charge was fired electrically, the person firing the charge shall, before approaching the hole, disconnect the cable and the removable handle from the firing apparatus, and shall examine the cable and connections for any defect.

(c.) Except where the missfire is due to a faulty cable connection, and the charge is fired within one hour and a half after the defect is remedied, another charge shall be fired in a fresh hole, which shall be drilled not less than 12 in. away from the hole in which the charge has missed fire, and shall as far as practicable be parallel with the drilled hole. If, however, the hole was bled, the distance of the fresh hole shall not be less than 24 in. from the miss-fired hole.

(d.) If the miss-fired charge contained a detonator, the person firing the second charge shall, before doing so, attach a string to the electric lead or the fuse of the miss-fired charge, and secure it by attaching it to the cable or otherwise.

(e.) After the second charge has been fired, no person shall work in proximity thereto until the person firing the charge or an official of the quarry has made a careful search for the detonator and charge of the miss-fired charge. If these are not found the stone shall be loaded in a specially marked truck under the supervision of the person firing the charge or an official. The search for the detonator and charge,