

VI. STONE-QUARRIES.

(1.) QUARRYING OPERATIONS.

For the closer inspection of those 283 quarries and places which come under the operations of the Stone-quarries Act, 1910, at which about 1,648 persons were ordinarily employed during the year, and from which 1,331,003 tons of crude stone was produced, the whole of the statutory quarry-inspection has been transferred to the Inspectors of Mines; and for North Island quarries an additional and special Inspector, Mr. J. F. Downey, has been appointed. The respective inspection districts are defined in the tabulated statement of output accompanying this report.

For the better regulation of the stone-quarries of the Dominion, amendment of the Stone-quarries Act appears desirable, so that quarries or places having a face exceeding 20 ft. deep, whether explosives are used thereat or not, shall come under the provisions of the Act; and, judging by the number of fatalities at Government quarries during 1915 and 1916—viz., eleven, in comparison with four at all the other quarries in the Dominion—it also appears desirable that Government quarries shall be brought under the Act and receive independent inspection in the interests of safety, by persons other than officials in charge of and directing the operations, who at present act in a dual capacity and inspect their own work. It is also desirable that provision shall be made for annual returns from quarries, similar to those required from coal-mine owners and mining-claim holders. Owing to there being no legal authority for the collection of returns of output, the following tabulated statement must be regarded as incomplete.

The exportation of the produce of our quarries is not yet extensive. During 1916 small quantities of serpentine, lime, pumice-stone, and building-stone were exported, also 4,064 tons of pumice-sand—value, £11,944—mostly to Australia for use as insulation for cold storage and freezing-works.

Table showing the Number of Quarries under the Stone-quarries Act, 1910, also the Number of Persons ordinarily employed thereat, and the Annual Output of Crude Stone.

| Provincial District. | Name and Address of Government Inspector of Stone-quarries.            | Number of Working Quarries under the Act. | Number of Persons ordinarily employed. | Output of Crude Stone during 1916.           |                          |                 |                            |                                 |                            |                                             |                     |
|----------------------|------------------------------------------------------------------------|-------------------------------------------|----------------------------------------|----------------------------------------------|--------------------------|-----------------|----------------------------|---------------------------------|----------------------------|---------------------------------------------|---------------------|
|                      |                                                                        |                                           |                                        | Stone or Gravel for Macadamizing or Ballast. | Stone for Harbour-works. | Building-stone. | Limestone for Agriculture. | Limestone for Cement or Mortar. | Phosphate for Agriculture. | Claystone or Fire-clay for Bricks or Tiles. | For other Purposes. |
|                      |                                                                        |                                           |                                        | Tons.                                        | Tons.                    | Tons.           | Tons.                      | Tons.                           | Tons.                      | Tons.                                       | Tons.               |
| Auckland ..          | J. F. Downey, Mines Dept., Auckland                                    | 100                                       | 823                                    | 500,016                                      | 140,000                  | ..              | 3,000                      | 59,600                          | ..                         | ..                                          | ..                  |
|                      | M. Paul, Mines Dept., Waihi (Hauraki Mining District only)             | 11                                        | 77                                     | 61,871                                       | ..                       | 109             | ..                         | ..                              | ..                         | ..                                          | ..                  |
| Hawke's Bay          | J. F. Downey, Mines Dept., Auckland                                    | 47                                        | 109                                    | 7,300                                        | 3,000                    | ..              | 3,900                      | 80                              | ..                         | ..                                          | ..                  |
| Taranaki ..          | ..                                                                     | 44                                        | 123                                    | 42,600                                       | ..                       | ..              | 6,000                      | ..                              | ..                         | ..                                          | ..                  |
| Wellington           | ..                                                                     | 28                                        | 148                                    | 44,250                                       | 7,200                    | ..              | 7,800                      | ..                              | ..                         | ..                                          | ..                  |
| Marlborough          | T. O. Bishop, Mines Dept., Reefton                                     | 2                                         | 7                                      | ..                                           | ..                       | ..              | 1,200                      | ..                              | ..                         | ..                                          | ..                  |
| Nelson               | T. O. Bishop and J. Newton, Mines Dept., Westport (Buller County only) | 4                                         | 40                                     | 10,000                                       | ..                       | 1,500           | ..                         | 31,000                          | ..                         | ..                                          | ..                  |
|                      | ..                                                                     | 1                                         | 21                                     | 57,690                                       | ..                       | ..              | ..                         | ..                              | ..                         | ..                                          | ..                  |
| Westland ..          | T. O. Bishop                                                           | 3                                         | 24                                     | ..                                           | 2,713                    | ..              | ..                         | ..                              | ..                         | ..                                          | 151*                |
| Canterbury..         | E. R. Green and A. Whitley, Mines Dept., Dunedin                       | 14                                        | 98                                     | 82,459                                       | 48,333                   | 3,662           | 1,601                      | 1,474                           | ..                         | ..                                          | ..                  |
| Otago ..             | Ditto ..                                                               | 23                                        | 146                                    | 55,354                                       | 47,050                   | 2,443           | 59,346                     | 7,985                           | 7,600                      | 2,500                                       | 1,386†              |
| Southland ..         | ..                                                                     | 6                                         | 32                                     | 9,000                                        | 2,300                    | 130             | 7,300                      | 100                             | ..                         | ..                                          | ..                  |
| Totals ..            | ..                                                                     | 283                                       | 1,648                                  | 870,540                                      | 250,596                  | 7,844           | 90,147                     | 100,239                         | 7,600                      | 2,500                                       | 1,537               |

\* Serpentine. † Miscellaneous and unspecified.

(2.) QUARRY ACCIDENTS.

The following is a summary of persons killed or seriously injured during 1916 at stone-quarries and places within the operation of the Stone-quarries Act :—

| Cause of Accident.                             |    |    |    |    |    | Number of Accidents. |          | Number of Sufferers. |                    |
|------------------------------------------------|----|----|----|----|----|----------------------|----------|----------------------|--------------------|
|                                                |    |    |    |    |    | Fatal.               | Serious. | Killed.              | Seriously Injured. |
| Explosives ..                                  | .. | .. | .. | .. | .. | 1                    | ..       | 1                    | ..                 |
| Falls of ground                                | .. | .. | .. | .. | .. | 1                    | 1        | 1                    | 1                  |
| Falling from face, or during ascent or descent | .. | .. | .. | .. | .. | ..                   | 2        | ..                   | 2                  |
| Machinery ..                                   | .. | .. | .. | .. | .. | ..                   | ..       | ..                   | ..                 |
| Miscellaneous                                  | .. | .. | .. | .. | .. | ..                   | 1        | ..                   | 1                  |
| Totals                                         | .. | .. | .. | .. | .. | 2                    | 4        | 2                    | 4                  |

The fatal accidents per 1,000 persons ordinarily employed at quarries were two, being at the rate of 1.23 deaths per 1,000 persons employed. During the previous year two persons also were accidentally killed. This may be regarded as a reasonably low proportion.