13 H.—22.

The study of the bacterial condition of milk retailed in Wellington City has been continued during the year, and has disclosed the disquieting fact that a considerable proportion of the milk, even in the winter-time, is scarcely fit for human consumption. The Plunket nurse reports that in many cases it is impossible to prepare humanized milk from the liquid sold. The causes of this unsound condition may be the use of unhealthy cows, lack of cleanliness in milking and handling, insufficient cooling, or merely staleness. These are all remediable, and the public is justified in demanding that a fresh, clean, healthful article be supplied.

### Other Departments.

A few analyses of waters and miscellaneous supplies were made for the Railways and Post Office.

The total work done for each Department is shown in the following table:-

#### SUMMARY OF ANALYSES AND DETERMINATIONS FOR GOVERNMENT DEPARTMENTS.

| Forwarded by                              |         |     |  |     |  |  | Total. |  |
|---|---------|-----|--|-----|--|--|--------|--|
| Agricultural Section                      |         |     |  |     |  |  | 103    |  |
| Customs                                   |         |     |  |     |  |  | 219    |  |
| Defence Forces                            |         |     |  |     |  |  | 125    |  |
| Explosives Branch (consignments examined) |         |     |  |     |  |  |        |  |
| Internal Affairs                          |         | ••• |  |     |  |  | 4      |  |
| Justice (Police)                          |         |     |  |     |  |  | 26     |  |
| Mines—                                    |         |     |  |     |  |  |        |  |
| Geological Survey                         |         |     |  |     |  |  | 135    |  |
| Head Office                               |         |     |  |     |  |  | 55     |  |
| Inspectors                                |         |     |  | *** |  |  | 68     |  |
| Prospectors                               |         |     |  |     |  |  | 96     |  |
| Post and Telegraph                        |         |     |  |     |  |  | 22     |  |
| Public Health—                            |         |     |  |     |  |  |        |  |
| Auckland District                         |         |     |  |     |  |  | 19     |  |
| Christchurch District                     |         |     |  |     |  |  | 141    |  |
| Dunedin District                          |         |     |  |     |  |  | 7      |  |
| Wellington District                       |         |     |  |     |  |  | 853    |  |
| Public Works                              |         |     |  |     |  |  | 27     |  |
| Railways                                  |         |     |  |     |  |  | 15     |  |
| Research (Dominion Labor                  | ratory) |     |  |     |  |  | 3      |  |
| Other Departments                         |         |     |  |     |  |  | 17     |  |
|   |         |     |  |     |  |  |        |  |

In addition, members of the Laboratory staff have been frequently consulted by officers of other Departments in matters involving knowledge of chemistry or chemical technology.

## Research.

A study was made of the distribution of titanium, phosphorus, and vanadium in Taranaki ironsand.

Owing to pressure of ordinary routine work no investigation of other chemical problems directly affecting New Zealand could be attempted during the year.

### Summary of Work.

A total of 2,247 samples was analysed during the year. Many of these were of a highly complex nature, involving a large number of separate determinations. For record purposes they have been classified, according to the nature of the analyses required, under the following heads:—

|        |               | _         |          |         |        |       |       |   |         |                   |
|--------|---------------|-----------|----------|---------|--------|-------|-------|---|---------|-------------------|
| 1.     | Coals and ca  | rbonaceo  | us miner | als     |        |       |       |   | <br>    | 32                |
| $^2$ . | Limestones,   | marls, ar | d clays  |         |        |       |       |   | <br>    | 52                |
| 3.     | Rocks, miner  | als, and  | ores     |         |        |       |       |   | <br>    | 237               |
| 4.     | Special exam  | inations  | for gold | and     | silver |       |       |   | <br>    | 144               |
| 5.     | Waters        |           |          |         |        | • • • | • • • |   | <br>    | 104               |
| 6.     | Manures       |           |          |         |        | • • • |       |   | <br>    | 18                |
| 7.     | Examination   | s for Cus | stoms    | • • • • |        | • • • | • • • | • | <br>    | 219               |
| 8.     | Milks         |           |          |         |        |       |       |   | <br>    | 651               |
| 9.     | Butters       |           |          |         |        |       |       |   | <br>    | 13                |
| 10.    | Miscellaneous | Š         |          |         |        |       |       |   | <br>    | 674               |
| 11.    | Agricultural  | Section   | (two mor | ths)    |        | • • • | • • • |   | <br>• • | 103               |
|        | To            | otal      |          |         |        |       |       |   | <br>    | $\frac{-}{2,247}$ |

### B. Explosives and Dangerous Goods.

# Legislation, &c.

As considerable difficulty was experienced in issuing licenses to individual carters, particularly owing to the many changes in the staffs of carrying firms due to the war, the regulations regarding the issue of carriers' licenses have been amended so as to allow of the license being issued to the employer.