

also a good deal of this sort of work is required of the Department. These simple tests are certainly well within the scope of the general practitioner, and, with the object of preventing too much use being made of the laboratory in this and similar directions, it has been recommended that a fee be charged for all examinations, except those involving public-health questions. It will be of interest to note the effect of this regulation should it be approved, but unless it results in a great reduction in the investigations of minor importance an increase of staff will be imperative.

#### EXAMINATION OF WATER-SAMPLES.

In all, fifty-eight samples of water have been bacteriologically examined. In twenty-eight cases I visited public water-supplies, or proposed supplies, and made my observations on the spot, which is the only satisfactory method of making such analyses. Unfortunately, it occupies much time, more especially where the intake is many miles from the town. So far as possible I have made analyses of the water as it comes from the taps, and also at the intakes and reservoirs, and have made an inspection of the catchment-area. In one or two instances where the result left an element of doubt, I have revisited the place and made further observations, and obtained samples for chemical analyses by Dr. Maclaurin. But it must be said that unless the work is done systematically and regularly, and each supply examined at least twice a year, much of the value is lost. Chemical analysis is also necessary to check the bacteriological results, since it is only by a full knowledge of the evidence afforded by each of these methods that a right interpretation of results can be reached. But to undertake even an annual examination of every water-supply in the Dominion would be impossible at present. Fortunately, the majority of catchment-areas are so situated as to render it unlikely that any dangerous pollution of the water can arise, so that meanwhile one can devote attention to the more suspicious supplies, and take the others gradually.

The following table indicates the principal results obtained:—

| Source of Water.                   | Organisms per Cubic Centimeter. |         | <i>Bacillus coli.</i> | <i>Bacillus sporogenes.</i> |
|------------------------------------|---------------------------------|---------|-----------------------|-----------------------------|
|                                    | At Normal Temperature.          | At 37°. |                       |                             |
| Wanganui,—                         |                                 |         |                       |                             |
| Okehu (after rain) .. .. .         | 1,160                           | 1,034   | ..                    | ..                          |
| Virginia Lake .. .                 | 490                             | ..      | ..                    | ..                          |
| Christchurch (Sydenham),—          |                                 |         |                       |                             |
| Artesian spring .. .. .            | 20                              | ..      | ..                    | ..                          |
| Tank No. 1 .. .. .                 | 135                             | ..      | ..                    | ..                          |
| Tank No. 2 .. .. .                 | 112                             | ..      | ..                    | ..                          |
| Sludge-deposit .. .. .             | ..                              | ..      | ..                    | ..                          |
| Marton,—                           |                                 |         |                       |                             |
| Tap .. .. .                        | 1,300                           | 193     | ..                    | ..                          |
| Reservoir .. .. .                  | ..                              | 110     | ..                    | ..                          |
| Sludge .. .. .                     | ..                              | ..      | ..                    | ..                          |
| Napier,—                           |                                 |         |                       |                             |
| Tap .. .. .                        | 52                              | ..      | ..                    | ..                          |
| Pump-well .. .. .                  | 2                               | ..      | ..                    | ..                          |
| Onehunga,—                         |                                 |         |                       |                             |
| Tap .. .. .                        | 40                              | 30      | 1                     | ..                          |
| Pump-well .. .. .                  | 30                              | 15      | ..                    | ..                          |
| Manukau Trust,—                    |                                 |         |                       |                             |
| Tap .. .. .                        | ..                              | 40      | 1                     | ..                          |
| Pump-well .. .. .                  | 30                              | 14      | ..                    | ..                          |
| Picton,—                           |                                 |         |                       |                             |
| Reservoir .. .. .                  | 100                             | 14      | 1                     | ..                          |
| Tap .. .. .                        | 150                             | ..      | ..                    | ..                          |
| Ditto (second visit),—             |                                 |         |                       |                             |
| Reservoir .. .. .                  | 75                              | 4       | ..                    | ..                          |
| Tap .. .. .                        | 24                              | ..      | ..                    | ..                          |
| Nelson,—                           |                                 |         |                       |                             |
| Reservoir .. .. .                  | 21                              | 4       | ..                    | ..                          |
| Tap .. .. .                        | 100                             | 42      | ..                    | ..                          |
| Dunedin (North-east Valley)—Tap .. | 160                             | 22      | ..                    | ..                          |