

Milk.—Wellington City: The number of milk samples taken in Wellington during the year was 1,716. Of these five were deficient in fat; six contained added water. Warnings were recommended in six cases slightly below standard, and in seventeen cases when the milk was not fresh. As in other recent years, the condition of Wellington's milk supply must be regarded as most satisfactory.

Country districts under control of Medical Officers of Health—Wellington, Gisborne, and New Plymouth: 870 milk-samples were examined; of these, nine were deficient in fat, eight contained added water and five were slightly below standard. As in the case of Wellington City, this discloses a very satisfactory condition of the milk-supplies of the above districts, and can be regarded as the result of efficient work on the part of the various inspectors.

Plunket Society: 308 samples of human and humanized milks were analysed for the Plunket nurses in the Wellington District.

Stores.—As in previous years a considerable number of analyses were made for the Post and Telegraph Stores, Public Works, Stores Control Board, and Railways Departments. This work consisted principally of examinations of stores in order to furnish data as a guide in the purchase of Government supplies. The samples examined included the following: For Stores Control Board—Fencing-wire, greases, "Joy" metal-cleanser, liquid soap, lubricating-oils, metal-polish, motor-oils, mineral turpentine, soap, and washing-powder. For Public Works Department—Concrete, electro-galvanizing iron, crude glycerine, Admiralty fuel oil, asbestos-covered flex, lubricating-oil, roofing-material, tiles and elbows, transformer-oil, and water. For Railways Department—Baking-powder, carbide of calcium, Krystol window-cleaner, coal, cocoa, coffee, soluble essences, jam, linseed-oil, lubricating-oil, mustard, ovoids, oranges, polish, and solder.

Other Departments.—Samples analysed for other Departments included, oil, sand, water, whey-paste, and wine, for the Department of Agriculture; fireworks, oil of citronella, and sulphuric acid, for the Explosives Branch; copra, for the External Affairs Department; cement, clay, feathers, graphite, syrup, and xylonite waste, for the Industries and Commerce Department; brass, preservo, and water, for the Defence Department; waters from Lake Taupo, for Internal Affairs Department (Fisheries); boiler-water, for the Marine Department; and water, wood, and wood-preservatives, for the State Forest Service.

Public Bodies (including Borough Councils, Harbour Boards, Hospital Boards, &c.).—Samples comprised: ashes, boiler-scale, water, effluents, debris and deposit from beach, lacquer.

RESEARCH.

The investigation of the incidence of goitre in relation to iodine content of soils and of waters has been completed, and the results are being published as a joint bulletin of the Departments of Health and of Scientific and Industrial Research.

In connection with fishery problems a general chemical survey was made of the waters of Lakes Taupo, Rotongaio and the principal streams entering the lakes. The results obtained are of considerable interest and practical value.

A considerable amount of investigational work was carried out for the Public Works Department in connection with the problem of finding a suitable lining material for the mineral-water baths at Rotorua.

An examination was made of waters and sediment from the Arapuni Dam for the Public Works Department.

In connection with a programme of bud-selection, &c., decided on by the Council of Scientific and Industrial Research, carefully selected samples of Australian, Californian, and New Zealand lemons were examined for comparative quantities of citric acid, peel, and woody matter, in order to determine the relative qualities of the lemons.

As a result of inquiries as to the utilization of mutton-bird feathers, some experimental work was carried out with a view to discovering methods of preventing the development of objectionable odours.

Research on New Zealand clays has been continued throughout the year, and special attention has been given to possible improvements in the manufacture of roofing-tiles.

For the State Forest Service an investigation was made into the efficiency of penetration of certain wood-preservatives.

As in other years, investigations into various cases of corrosion were carried out for Government Departments and local bodies.

The gold and silver content of a number of sinters from the thermal districts was carefully determined for the Geological Survey Department. This work involved extreme care and manipulative skill.

Abstracts of scientific papers and reports on chemical processes were prepared by various members of the staff as required.

GAS-CONTROL.

Regular tests of town gas for calorific value, purity, and pressure were carried out in Auckland, Wellington, Christchurch, and Dunedin.

BRANCH LABORATORIES.

Auckland.—The number of samples analysed for Government Departments was as follows: Health Department, 2,590; Justice (Police), 14; Post and Telegraph, 8; Collector of Customs, Apia, 3; Naval, 2; Public Works, 1; total, 2,618.

Health Department: Comparatively few food-samples were found not complying with the regulations. A number of samples of soda-water contained traces of lead due to lead piping, and even