Public Clocks.—The Government Buildings' clock was checked daily at 9 a.m., and regulated when necessary. The maximum errors observed during the year were 26 seconds fast and 46 seconds slow. The clock is regulated by officers at the Government Buildings as directed by the Observatory.

The synchronous electric clock ran continuously, except for three stoppages due to power failures in June and July. The maximum errors observed during the year were 23 seconds fast and 17 seconds slow.

Time Service for Carter Observatory.—Advice was given to the Carter Observatory Board regarding a proposed arrangement for supplying the Carter Observatory with accurate time for astronomical work.

WORKSHOP

A small workshop was established during the year for carrying out instrument-making, servicing and repair work for this Observatory, and also for the Meteorological Office and Carter Observatory. The workshop is staffed by an instrument-maker seconded from the Dominion Physical Laboratory. Repairs that cannot be carried out in the Observatory workshop are attended to by the Dominion Physical Laboratory.

SOIL BUREAU

Director: Dr. L. I. Grange

EROSION SURVEYS

A bulletin describing soil erosion in the southern half of the North Island was published.

SOIL SURVEYS

General Survey.—The four-mile-to-an-inch soil maps of the North Island have now all been published. The mapping of the South Island has been completed with the exception of Marlborough Sounds, Karamea district, and Stewart Island.

District Surveys.—Officers of the Canterbury Agricultural College have collected most of the agricultural information required for the bulletin dealing with the soils of Ellesmere County. Agricultural notes for Hutt and Makara Counties and Matakaoa County are being compiled by officers of the Department of Agriculture to complete data for bulletins on these counties.

Detailed Surveys.—About 320 square miles, containing much undeveloped land, have been mapped in the Taupo district. A survey of the alluvial flats of Gisborne has been started. In the mapping of soils on the Wairarapa Plains, 450 square miles have been completed.

Besides the above, several detailed surveys of small areas have been made at the request of various organizations—*e.g.*, the Canterbury Agricultural College farm, as a basis for field trials, &c.: Omahutu and Waitangi State Forests in relation to *Pinus radiata* growth: and airports at Auckland, Rotorua, and Invercargill.

SOIL CHEMISTRY

Salt in Coastal Soils.—It has been found that salt spray in coastal areas is largely responsible for producing clay-pan soils. Analyses of rain-water in these areas show that as much as 3 cwt. of common salt per acre is added each year to the soil.

Effect of Dung and Urine Return on Soil Fertility.—Analyses of soils at Lincoln, comparing plots with dung and urine return against no return but with artificial fertilizers added, indicated only one significant difference—a great increase in exchangeable potash in the dung and urine plots.