

A principal feature of the year's work has been the replacing of a section (363 ft.) of the 16 in. wooden main in Fenton Street (between Hinemoa and Pukuatua Streets) with cast-iron mains. This important work was carried out by our men without any interruption of the water-supply. A similar substitution as regards 462 ft. of 6 in. mains was carried out in the basement of the main bath-buildings. Formerly wooden mains were used, but the action of the acid-fumes was very severe on the wire binding of the pipes, and necessitated continual repairs.

During the year the reticulation has been extended in the suburbs as follows: 1,254 ft. of 1 in. pipe in Devon and Pearce Streets, 1,089 ft. of $\frac{3}{4}$ in. pipe in Malfroy Road West, and 594 ft. of $\frac{1}{2}$ in. pipe in Amohau Street.

DRAINAGE.

Twenty-four premises have been connected to the sewer mains during the year. The 6 in. sewer at eastern end of Eruera Street has been extended about 320 ft. in order to enable some new houses to be connected. The drainage-pump motors have been giving satisfaction, but the type of starter supplied with the motors is not quite so satisfactory, and may have to be replaced.

The pumps now run practically without any other attention than that required for starting and stopping, and can be quite comfortably attended to by one man. Owing to certain structural defects the septic tank was not working very satisfactorily, and it was decided to empty it completely and give it a thorough overhaul. The sewage was meantime run by a by-pass on to some waste land close by the tank, which had previously been prepared by ploughing and the opening-up of shallow channels or trenches. The soil being light and porous, there was no difficulty in dealing with the sewage, which was principally liquid. A grit chamber is being constructed at the inflow to the tank, so that all non-soluble foreign matter can be collected and periodically cleaned out, instead of, as formerly, being carried into the tank and accumulating there. In the tank itself some new baffles are being constructed, and existing ones are being altered. The filter-beds have received a thorough overhaul, all vegetation has been cleared out of the side channels, and the main drain has also been cleared, so that the effluent gets away freely.

ELECTRICAL.

The year's record has been one of exceptional progress in this branch, as it constitutes the maximum number of lights connected to the mains in any year since the inception of the system. Further, the large number of domestic appliances connected up, as per the schedule hereunder, is exceedingly satisfactory, and, with the motor already installed, makes a fair load on the day running.

There has been an increase of ninety-three new consumers, while fifty-eight consumers have added to their installations, making a total of 777 lights.

The strides made in practically the first year of power-supply fully warrants the establishment of a show-room for cooking and heating appliances by the Department, and the sale of same at the lowest possible cost would materially increase the demand for energy, and so augment the revenue.

The system of control of the lighting of the Government gardens was reconstructed, so that the lights can now be controlled at one point. Additional lights have also been installed.

The battery for the medical apparatus at the main baths was renewed and the apparatus generally kept in order. In connection with the new apparatus that has arrived, some alterations will be required to existing plant at the baths to supply power for same.

One of the drainage-pump motors has been temporarily used to drive the Rachel pump.

The laying of a new acid-water main was supervised.

At the Sanatorium a local telephone exchange has been installed to connect the hospitals, Nurses' Home, and the Balneologist's residence. The cooking at the Sanatorium has been increased by the use of "Tricity" electrical hot-plate outfit.

The lighting of all departmental buildings and the street-lighting have been maintained, though the latter would be vastly improved by the installation of the "Series" system already reported on. The cables run when erecting the Whaka Road lights provide for the change there.

The drainage-pumps have now been run for the year by the motors, and the saving of the benzene alone has more than proved the advantage of their use.

The town-lighting mains have been extended to supply the new consumers. Two or three breaks have occurred on the Whakarewarewa and Ohinemutu sections, due to falling trees. The low-tension distribution, or at least a section, requires to be proceeded with at once. No serious trouble with transformers has taken place, with the exception of two of the small ones first supplied breaking down, but this must be expected as they have been in use for some time. The consignment of 150 meters received did not prove very satisfactory, and another make has been recommended. The loss of revenue from faulty meters is worth consideration, as it often amounts, in the course of a year, to the value of the meter. The 150 on order are urgently needed, and with the rate of progress a further quantity will be required before the end of the year.

The testing instruments recently received have been most useful, and have enabled the work to be carried out to the best advantage. The transmission-line track was cleared and the old telephone wire which was continually giving trouble has been taken down. Some repairs were carried out where the cables had fractured and some of the binders renewed. The aluminium wire will be retied on arrival of aluminium binding-wire. The lightning-arrestors on the line at Mourea were overhauled one Sunday, this being the day when the inconvenience caused through stoppage of the machines during the day can be reduced to a minimum. The plant at Okere has been maintained under rather adverse circumstances. Damage was caused on two occasions by lightning, and a shut down occurred when the transmission-line tie broke, and made contact as reported.