

#### WAITOA CANAL.

This work is still being proceeded with by No. 1 dredge. A length of 45 chains was completed for the year, making a total to date of 78 chains. The portion already completed has had a marked effect on the flood-level in the Waitoa district. The hard ground met with has considerably retarded the work, and up to the present the dredge has been excavating the whole cut. Progress will be much accelerated when the dredge connects with the Waitoa River—30 chains distant—as a long straight of that river will be met with, requiring only widening and deepening.

#### PATETONGA CANAL.

This work was completed by No. 2 dredge at the end of July, and has proved a great benefit to the block of country which it taps. During the year 39 chains were dredged, making a total for the whole canal of 134 chains.

#### WAITAKARURU CANAL.

The No. 2 dredge commenced work on this canal in September, 1917, and has made very good progress, and in the course of another six months should have canal completed to the Mahuta Road. A dam, with sluice-gate attached, had to be erected at bottom end of canal in order to let water in at high tide and hold same. The completion of this canal will prove of immense benefit to a large extent of country. Distance dredged is 59 chains.

#### STOP-BANKS.

Owing to the effect of a few exceptionally heavy tides and unfavourable winds, several fairly extensive breaks occurred in the stop-banks. These were all repaired and minor points attended to. No new stop-banks have been erected, and the total length of same is still 28 miles 70 chains.

#### FORMED ROADS.

Although no actually new roads have been formed, yet a very large amount of new ballast and re-formation work has been done. In many cases roads on peat country were practically bare, and these have been built up with a liberal thickness of spoil, varying from 1 ft. to 3 ft. A distance of 7 miles 58 chains of this work was completed during the year. The grader team has also been busy improving existing clay roads, 9 miles 75 chains having been graded, 6 miles 20 chains disked, and 3 miles 64 chains ploughed.

#### BRIDGES, CULVERTS, ETC.

A party is now available to carry out the work of replacing the large number of narrow sill bridges with concrete-pipe culverts. Owing to no labour being previously available for this work a fair amount of repair work had to be done to these bridges. The number of sill bridges remains at 98; bridges on piles, 10; three-span bridges, 2; two-span bridges, 2; ferro-concrete culverts, 22.

#### DRAINS IN OPERATION.

The total length of drains constructed to date is 344 miles 41 chains, although, as mentioned in last year's report, some of these drains are now discarded.

With the Jugo-Slav labour available a considerable length of new drains will be constructed, as a lot of country at present lying idle can be made ready for settlement by the construction of a few main cross-drains.

#### BUILDINGS.

The policy of the Department in erecting huts for workmen at Rawerawe and Hopai has proved a great success. The men are much better off now than in the past. A small weekly charge is made to recoup the Department for the sum expended. The number of such huts at Rawerawe is eight (double), and at Hopai sixteen. The total number of buildings is now forty. Last year's figures gave the number as fifty-six, but these figures included double huts as two, whereas this year they are shown as one, which is strictly more correct.

#### FLOATING PLANT.

Two new launches and one punt have been added to the floating plant, and one small launch dispensed with. The list of plant is now two Priestman grab dredges, one steamer, six oil-launches, five large and two small pontoons. To the above has to be added the Priestman dredge lately purchased from the Auckland Harbour Board, but which is not yet commissioned, pending alterations. All plant is in good order.

#### BLACKSMITH'S AND SHOEING SHOPS.

Towards the end of the year a blacksmith's and shoeing shop was established at Hopai, and has been kept at full pressure, making for greater convenience in the work, and proving a considerable saving over the old method of sending work out.

#### MONIER PIPE-FACTORY.

This factory has been most successful, and a lot of these pipes have been used for culverts, &c. while a large number are now in readiness for future work. The quality of these pipes is excellent and the cost less than the price asked for an inferior class of pipe.