

road and 930 fascines cut for the temporary support of the road on soft foundation material. At Waitakaruru the Maukoro Canal Left Embankment Road has been re-formed for a distance of 100 chains, and 1,593 cubic yards of metal used in metalling 60 chains of this road. Annual drain-maintenance work included cleaning 33 miles 74 chains of drains.

#### PATETONGA-TAHUNA DISTRICT.

Extensive drain-improvements in the Patetonga district have been carried out during the last two years, and practically all the main drains have now been reconditioned. Six to eight men have been employed on this work throughout last year and excavated 16,939 cubic yards of material in the improvement of 437 chains of drains and cleaned 38 miles 76 chains. A 25-ft.-span hardwood bridge was erected on the Patetonga Main Road. A party of four to seven men has been engaged snagging and removing willows previously killed by ring-barking and poisoning from the banks of the Piako River. The river-banks have now been cleared for a distance of six miles downstream from the Whakahoro Road flood-gate. The work was frequently delayed by high stages of the river during the winter and spring of 1937, and the men had to be transferred to other work at Hoc-o-Tainui. A reach 2 miles 6 chains in length was cleared during the past year. In November, 1937, authority was received to commence similar work on the Waitoa River, and No. 11 Priestman dredge was prepared for this work by removing the chutes and lowering the boom. This machine cleared the river-banks of willows for a distance of 75 chains, when owing to channel-silting the work had to be continued upstream with log-hauler operating from the river-bank. One mile ten chains of the Waitoa River has been cleared of willows. It is proposed to continue this work downstream with the dredge when flooding interferes with work of the log-hauler.

#### SURVEYS AND OFFICE WORK.

Land and engineering surveys carried out during the year comprised 4,142 chains of traverse, 3,058 chains of levels, topographical and other land surveys of 1,867 acres. Plans and specifications for contracts are prepared in the Kerepehi office, and a considerable amount of routine work is involved in the periodical measurement of work carried out by the dredges, the preparation of fortnightly wages and contract payments, payment in cash to the men scattered over a wide area, and the receipt and issue of stores.

#### SUMMARY.

The total length of subsidiary drains constructed on the Hauraki Plains to date is now 794 miles 68 chains.

The principal works carried out on the Hauraki Plains are summarized in the following schedule:—

	Length. M. Ch.	Excavation. Cubic Yd.
Drains cleaned by manual labour .. .. .	96 22	..
Drains widened and deepened by manual labour .. .. .	41 64	76,183
New drains constructed by manual labour .. .. .	14 0	37,186
Total quantity of drainage excavation by manual labour .. .. .	.. ..	113,369
Drains cleaned by weed-cutting launch .. .. .	3 43	..
River and canal and stop-bank improvement by machine construction .. .. .	13 31	251,829
Clay ballast delivered on peat roads by light railway .. .. .	0 78	16,420
Clay ballast delivered on peat roads by motor-lorries .. .. .	0 25	3,085
Fascines cut and used for road-construction .. .. .	.. ..	6,060
Light railway laid .. .. .	0 54	..
Sleepers cut and delivered for tramway .. .. .	.. ..	932
Road metalling—		
Resurfaced .. .. .	0 200	Cubic Yd.
New work, top course only .. .. .	0 69	7,806
New work, two courses .. .. .	0 284	Acres.
Area cleared of scrub, rushes, &c. .. .. .	.. ..	953
River-banks cleared of willow and scrub .. .. .	3 16	..
Road-bridges erected: 20 ft. to 25 ft. span .. .. .	.. ..	No. 3

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