

and is transporting spoil 100 ft. at a cost of 5·63d. per cubic yard, pit measurement. The total quantity excavated to date is 16,411 cubic yards, the cost per cubic yard being 8·79d.

The No. 16 Bucyrus drag-line excavator commenced work on the 1st February, 1922, and is constructing a stop-bank road along the northern side of the Ngarua Canal. As this machine is in firm country, two ten-hour shifts are being worked daily. A total of 9,376 cubic yards of spoil has been excavated to date, the cost being 13·73d. per cubic yard. The excavating-cost at the present time is 10·62d. per cubic yard. A 35 ft. boom and 1-yard bucket is being used on this machine.

The No. 1 Priestman dredge is operating in the Waitoa River, and has made good progress. Improvements consisting of new channels to cut off the bends, and the dredging of intervening portions of the old channel, have now been carried out for a distance of 260 chains. The full effect of the work will not be felt until the dredge has completed the Kaikupenga cut, of which there is still some 20 chains to be done. This dredge has excavated 45,684 cubic yards during the year, the material being generally hard clay and heavy timber. The dredge is now 3 miles 20 chains from the starting-point at junction of Waitoa and Piako Rivers.

The No. 2 Priestman dredge has worked from Waitakaruru, on the Maukoro Canal, and has reached a point 2 miles 20 chains from the Waitakaruru road-bridge. The country is peat with clay bottom and some timber. The consolidation of the land resulting from the hand-dug drains on the canal route has been remarkable, and the indications are that good progress will be maintained where formerly dredging was impossible owing to deep floating peat. This dredge excavated 82,725 cubic yards of spoil during the year.

The No. 6 Priestman has been constructing the Awaiti Canal, and a cut 30 ft. in width has been excavated to station 1 mile 74 chains. The yardage for the year was 61,757 cubic yards.

The following table shows the amount of spoil dredged and cost per cubic yard for the past ten years :—

				Cubic Yards.	Cost per Cubic Yard.
1912-13	..	..	..	131,902	3·25d.
1913-14	..	..	..	147,740	3·20d.
1914-15	..	..	..	176,196	2·67d.
1915-16	..	..	..	146,905	3·35d.
1916-17	..	..	..	161,674	3·40d.
1917-18	..	..	..	130,664	2·53d.
1918-19	..	..	..	125,196	4·87d.
1919-20	..	..	..	138,310	6·90d.
1920-21	..	..	..	158,865	7·42d.
1921-22	..	..	..	246,022	7·29d.

CENTRAL DISTRICT.

Extensive development-works have been in progress in this district. Preparations are being made for the unwatering of an area of approximately 2,000 acres at the junction of the Piako River and Awaiti Stream. Fascines have been laid, and a contract let for cartage of 14,700 cubic yards of spoil for ballasting 100 chains of the Pouarua Road (southern section). Similar work has been carried out on the Torehape-Puhanga Road, and a further 1,000 cubic yards of clay placed on the Kaihere Road. The deepening of the drains on the peat area west of Kerepeehi has had special attention, and this land is improving rapidly. The stop-bank road, Ngatea, has been metalled for a distance of 60 chains, and 110 chains of the Ngatea-Pipiroa Road remetalled from the Ngatea end. 1,019 cubic yards of metal were used in repairs to the Kerepeehi-Ngatea Road. The metalling of the Kerepeehi-Kopuarahi Road has been completed. 15 chains of the Kerepeehi-Wharepoa Road and 179 chains of the Kerepeehi-Kopuarahi Road have been remetalled. 105 chains of new road formation were completed at Kerepeehi. The filling of the eastern approach to the proposed Awaiti Canal Bridge has been completed, and drainage-construction and the usual maintenance-work carried out. Four new dredges were erected, and a considerable amount of repair work in connection with plant, machinery, and launches has been carried out at Kerepeehi, where a new machine-shop has been erected on the site recently acquired for a permanent depot.

WAITAKARURU DISTRICT.

Forty chains of the Pouarua Road were fascined, and a contract let for cartage of 5,900 cubic yards of spoil. New outlet drains have been constructed and existing drains deepened between the Maukoro Canal and the Pouarua Road, where exceptionally heavy ground timber was encountered. A new wharf was constructed at Waitakaruru Township. A footbridge was erected over the Waitakaruru Stream Canal, and the overseers' dwelling shifted and remodelled. General repairs and maintenance-work to roads, bridges, and drains have been attended to in the district and in the adjoining Waitakaruru Settlement Block.

PIPIROA DISTRICT.

The Pipiroa-Waitakaruru Road has been remetalled for a distance of 145 chains from the wharf to the Ngatea Road intersection, and one mile of metalling completed on the Waitakaruru-Ngatea Road. This completes the metalling of the through road from Wharepoa Ferry to Waitakaruru. Crib work has been placed to protect several flood-gate outlets on the river, and extensive deepening of drains has been carried out with a view to unwatering the peat lands. Maintenance-work, including repairs to stop-banks and roads and cleaning drains, has been continually effected.