

The following is a summary of the main features of the year's work :—

DREDGES.

Seven dredges have been engaged excavating canals and drains, constructing stop-banks, and dredging rivers. Next year this plant will be increased by the addition of three floating dredgers. One of these, a Kingston grab dredge, has just been assembled on a pontoon, 60 ft. long by 24 ft. beam, built on the works at Kerepeehi. This plant will be in commission as soon as the quarters for the crew are completed. A pontoon, 80 ft. long by 20 ft. beam, for a steam dipper dredge will shortly be launched, and material is on hand for a second plant of this type. During the year under review a total of 440,092 cubic yards of spoil has been excavated by these machines, at an average cost of 8-2d. per cubic yard.

No. 1 Priestman dredge has been operating in the Waitoa River, which now has been straightened and improved as far as the North Road, Tahuna Settlement. In the Kaikupenga cut heavy timber above a hard stratum made dredging very costly. Large quantities of sand brought down the Waitoa River are causing extensive silting in the dredge-channel, and the machine is now removing these deposits. This dredge excavated 42,504 cubic yards during the year.

No. 2 Priestman dredge has been working up the Maukoro Canal, and is now 3 miles 10 chains from the Waitakaruru road-bridge. The country along the canal route is rising rapidly, and the dredge is being elevated by dams, as the wet unstable nature of the land prevents deep digging. These dams are somewhat difficult to maintain, and are obstacles to the transport of coal, but nevertheless very fair progress has been maintained. The spoil excavated during the year was 52,360 cubic yards.

No. 6 Priestman dredge has been on the Awaiti Canal construction, and completed the cut on the south side of the Kerepeehi Block. Good excavating-material was encountered, and the output from this plant was 60,638 cubic yards.

No. 15 Bucyrus drag-line has been constructing stop-banks on the Piako River. This machine has been giving very satisfactory service, and, using a bucket of 1 yard capacity, has excavated 89,023 cubic yards.

No. 16 Bucyrus drag-line has been widening the Piako River and Puhanga Canal. Operating within a very limited space along a river-bank road which had to be kept open for traffic, the work of this machine is a proof of the adaptability of the type. Using an extension boom 50 ft. in length, with a half-yard bucket, and working two ten-hour shifts daily, this plant handled 80,337 cubic yards.

No. 19 Michigan walking-dredge has been constructing drains on the Kerepeehi Block. The output for the year was 53,204 cubic yards.

No. 20 Rood land-dredge has also been operating on the Kerepeehi Block, and 62,026 cubic yards of material was handled. This machine, like the Michigan dredge, is an excellent digger on firm ground, but difficult to handle in soft land.

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.			Cubic Yards.	Cost per Cubic Yard.
1913-14	..	147,740	3-20d.	1918-19	..	125,196	4-87d.
1914-15	..	176,196	2-67d.	1919-20	..	138,310	6-90d.
1915-16	..	146,905	3-35d.	1920-21	..	158,865	7-42d.
1916-17	..	161,674	3-40d.	1921-22	..	246,022	7-29d.
1917-18	..	130,664	2-53d.	1922-23	..	440,092	8-20d.

CENTRAL DISTRICT.

The centre of operations is now at Kerepeehi, where an area known as the Kerepeehi Block, at the junction of the Awaiti Canal and the Piako River, is being dealt with. This block has been surrounded by levees, but the bank on the Awaiti Canal has yet to be raised to finished level. The internal drainage of the block is now completed, and a large three-barrel outlet equipped with flood-gates, and sluices constructed. The road-formation is being pushed ahead where the land is dry, but before the block is opened for settlement the low-water level at Kerepeehi must be lowered by extensive river-improvement works between Kerepeehi and Ngatea. The formation of the Kaikahu and Wairau Roads has been completed. 6,306 fascines and 9,504 cubic yards of clay were carted for formation of the Pouarua Road (southern section), and 2,724 fascines and 2,990 cubic yards of clay carted for formation of the eastern section of the Puhanga-Torehape Road. The formation of the stop-bank road along the northern bank of the Ngarua Canal is nearing completion, and a contract was let for the supply of 13,000 split black-birch sleepers for tramway to be used for the formation of the Puhanga-Torehape Road. The willows have been felled between Kerepeehi and Ngatea on both banks of the Piako River. The establishment of a central depot at Kerepeehi is progressing simultaneously with extensive and varied plant and machinery construction and repair work which is being carried out on the site. 1,757 cubic yards of metal were used for metalling the river-bank road from Ngatea Factory to Paul's Wharf, and 2,705 cubic yards delivered on to the Orchard East Road extension. For remetalling portion of the Orchard East Road, Kerepeehi-Ngatea Road, and Kerepeehi-Wharepoa Road 6,265 cubic yards of broken metal were used.

WAITAKARURU DISTRICT.

General repairs and maintenance work to roads, bridges, and drains have been attended to in this district and the adjoining Waitakaruru and Mahuta Settlement Blocks. In repairs to the Pipiroa-Waitakaruru and Ngatea-Pipiroa Roads 1,242 cubic yards of metal were used, and 3,309 cubic yards of spoil carted for the formation of the northern section of the Pouarua Road. On the eastern bank of the Waitakaruru-Maukoro Canal a temporary road has been formed for a distance of