## MASTERTON TO MANAWATU GORGE.

(Alex. Munro in charge.)

The felling and clearing of the bush on this road, one chain wide and about forty-two miles long, was completed in September, 1873; since which date the work of formation has been progressing, along with the erection of the necessary culverts and bridges. A length of about thirteen miles of formation is now nearly completed, the cost of the work averaging from 58s. to 115s. per chain, the latter price being paid for heavy side cutting. Owing to the scarcity of skilled labour amongst the settlers on this line of road, mostly Scandinavians, the work of bridge and culvert building has not progressed so rapidly as it otherwise might have done, but already ninety-seven box culverts, varying from 2 feet to 4 feet square, have been completed, and six large substantial bridge culverts, about 13 feet span each; as also five plain bridges, of 15 feet, 18 feet, 20 feet, 20 feet, and 25 feet in length, and one truss bridge 38 feet span with 10 feet spans at each end with wings and brave earth approaches. In three bridge, 38 feet span, with 10 feet spans at each end, with wings and heavy earth approaches. In three places where the river runs very near the road, it has been found necessary to build protection walls, to prevent encroachments by the river, the ground being soft, and easily washed away.

There are now in progress two large pile bridges, about 60 feet long each, for which the timber

is prepared and delivered on the ground.

 $\hat{\mathbf{A}}$  small portion of the road has been gravelled where it was softer than usual, with material from

the adjacent hills, and, judging from the manner in which this portion has stood traffic, there will be no difficulty in finding proper gravel for the road throughout.

A portion of this line of road has lately been surveyed and prepared for contract, viz. 803 chains, extending southwards from the crossing of the Manawatt River. This was submitted to public tender, and the lowest tender, amounting to £4,215, has been accepted; the work to be completed in five months. Other portions will be ready to be submitted to public competition as soon as the surveys which are now in progress can be executed. The line is carefully selected, and is well graded, the steepest inclination as yet being 1 in  $14\frac{1}{3}$  for a distance of four chains, and it is expected that if prosecuted with energy, and labour being obtainable, the whole length of this road may be opened for traffic in about nine months.

## WANGANUI TO CARLYLE (PATEA), AND WANGANUI TO TAUPO.

(WM. H. HALES in charge.)

Wanganui to Carlyle, Main North Road.—Between Wanganui and the northern boundary of the town of Carlyle there have been completed during the past year 13 chains of formation, 6311 chains of metalling, and 268 chains of re-metalling.

One cart bridge, 222 feet in length, completed, and two others, of 230 feet and 432 feet respectively,

are in process of construction.

Of the metalling completed, 378 chains are portions of the various sections between Waitotara and Whenuakura, 249 chains between Whenuakura and Patea Rivers, and 4½ chains of approaches to the The formation completed is 9 chains, being part of a contract for 249 chains of formation between Whenuakura and Patea, and 4 chains of approaches to Waitotara Bridge, consisting of 2 chains of embankment at the south end of the bridge, and filling in an old watercourse and forming 2 chains of road at the south end of the bridge.

That part of the road which has been re-metalled is a portion of that first constructed between

Wanganui and Waitotara River.

The whole of the main line of road from the town of Wanganui to the northern boundary of the town of Carlyle, a distance of 38 miles and 10 chains, has been completed in formation and metalling except 20 chains at the Patea River, and 6 chains at the Whenuakura River, which will form the approaches to the new bridges now in course of construction at these places. Throughout its whole length the road is in good order and condition for traffic.

Bridges.—During the year contracts have been let for erecting cart bridges over the Waitotara, Whenuakura, and Patea Rivers, one of which, the first named, has been completed and opened for traffic. The others are in a forward state, and when finished the road will be complete and bridged throughout. The Waitotara Bridge, R. S. Low contractor, is 222 feet long and 46 feet high, having three spans of 60 feet each trussed, and two spans of 20 feet each plain. It was completed and opened for traffic on the 30th May. It is a strong substantial structure, and the work has been executed in a thoroughly satisfactory manner.

thoroughly satisfactory manner.

The Whenuakura Bridge, now being erected by the same contractor, will be 230 feet long and 53 feet high. It is composed of three spans of 60 feet each, and one span of 43 feet, all trussed. The work is in a forward state; all the piles are driven, the greater part of the piers erected, and about three-fourths of the trusses for the three long spans are fitted and ready to be placed in position. It is

expected that this contract will be completed in about two months.

Patea Bridge was commenced by the contractors, Messrs. Rundell and Bassett, on the 9th February. It will be 432 feet long and 32 feet high above low water, and will consist of four spans of 60 feet each, trussed, two plain spans of 28 feet, four plain spans of 24 feet, and two plain spans of 16 feet each. Nearly all the material for this bridge is delivered at the site, and the work is being pushed on vigorously. The piles for the six single piers on the north bank are driven, and the first double or main pier is completed; while in the second main pier the piles are half driven and the upper framework. fitted together ready for placing. All the corbels, stringers, joists, guards, and flooring planks of 116 feet of the north end are fixed in position.

The completion of these bridges will do away with the old punt service at the three rivers, which, although rendered very efficiently, was during times of flood carried out at great hazard, and was

frequently extremely dangerous.