

*Clifton Block.*—This block is now well opened out. During the year 269 chains of engineering survey has been executed; also, there has been 158 chains of dray-road formation on the Rangatana and Makaranui Roads, and 40 chains of bridle-track on the Mangarewa Road, besides 80 lineal feet of culverts. Three large culverts on the Makaranui Road were destroyed through the overflow of the Mangawhero River during the Easter floods. To replace these by bridges 16,372 superficial feet of totara has been sawn and delivered at the sites. This Makaranui-Rangatana Road may now be used as an alternative route to the part of the Pipiriki-Waiouru Road in the same locality. By this means the crossing of the Mangawhero Ford on the main road may be avoided by using the bridge at Mr. McDonnell's homestead.

*Kaitieki Block.*—Only maintenance-work has been done during the year, the work extending over 9 miles 49 chains of bridle-track.

*Wanganui Block.*—The work done comprises 49 chains of dray-road on that part of the Rangatana Road which lies within this block; also, 74 chains of bridle-track on the Rata-Maire Road, and 40 chains of bridle-track on the Hukaroa Road. This latter road is now being continued for 120 chains. An engineering survey is also being done on the Mangaetoroa Valley Road. Some clearing on the road-lines is much required on the block to the north-east of Ohakune.

*Manganui-Ruapehu.*—Forty-one chains of dray-road have been formed by side-ditching and rounding up on the Middle Road.

*Gladstone Block.*—As before stated, the Taumarunui-Ohakune Road runs through this block for six miles. On this road the bushwork is now all completed except two contracts extending over about a mile, both of which are nearly finished. One hundred and seventy-three chains of formation has been done by the excavation of one large upper ditch and rounding up the material thus obtained 8 ft. wide between the centre-line and ditch, so that a partial dray-load is for considerable distances already formed. Three ditching contracts are still in progress; 73 lineal feet of culverting has been done. This clearing and ditching has made a very great improvement in this road. On the Pukaka branch road 120 chains of clearing has been done. As the ground is flat, this road is now passable for horses, though side-ditches are much wanted; they will shortly be started. During the past season the roads in this block have been well cleared up by fires.

*Tekapua Block.*—The Easter flood caused many slips on the roads in this block, but they are now almost cleared away, though the cost of maintenance has been much more than hitherto. 222 chains of engineering survey has been done on the Rongoiti Road. The work done on the other roads comprises 51½ chains bridle-track on the Wairepu West Road, thus completing it to the boundary of the block; 162 chains bridle-track on the Whaka Road, also completing it to the boundary of the block; and 80 chains bridle-track on the Nguinga Road. The roads in the Sommerville Block now want most attention, the Knights of Labour portion being now fairly well provided with tracks.

*Ohinewairua Block.*—This embraces part of the Torere-Horouta Road, on which 34 chains of dray-road has been completed, three additional contracts being still in hand. A road has been laid off from the Torere-Horouta Junction through the Kotukuraeroa clearing to the crossing of the Moawhango River at the Kaiangaroa-Taihape Road. As the Horouta Road gives access to a large area of first-class country, chiefly across the Moawhango River, it is desirable that it should be pushed on. Also, a bridge across the Moawhango River at about a mile above its confluence with the Rangitikei River is much required.

*Temporary Bridge, Mangaweka.*—My recommendation of the 10th August last that a temporary low-level bridge be erected at the site of the proposed cantilever bridge was approved of on the 14th August. Preparations for a start were made during the last week of August and the first week of September, but owing to the unfavourable state of the weather it was considered expedient to postpone operations for a time. This decision turned out to be correct, for during the next two months the river was in almost continuous flood owing to the exceptionally heavy rainfalls. Work was again started during the last week of October, and has been continued without interruption, except during the first ten days, till the completion of the bridge on the 29th January. The first vehicle crossed the bridge on the 27th December, and traffic across it has been uninterrupted since that date, though the bridge, as above stated, was not finally completed till later. The total length of the bridge is 260 ft., consisting of nine spans of 24 ft. each, with two end spans of 28 ft. and 16 ft. respectively. The height of decking is 6 ft. 3 in. above summer level on upstream side, and 7 ft. 1 in. on the downstream side, the heights of same above winter level being 4 ft. and 4 ft. 10 in. respectively. This allows for a rise of 2 ft. 6 in. before the water strikes the underside of stringers. From observations made, very little timber comes down till the water gets 3 ft. or 4 ft. above the level of decking, thus it is hoped the timber will float clear over the bridge. The cant of the decking causes the downstream side to be 10 in. higher than the upstream side. The width of decking is 12 ft. The piers are each composed of three railway rails weighing 52 lb. to the lineal yard, driven into the bed of the river as far as possible, and in a line up and down the stream, spaced 6 ft. apart. In driving, the rails had to be well supported and stayed up to prevent buckling. In spite of all the care taken about ten rails either buckled or broke. The final results of driving were, however, fairly satisfactory. A ton monkey with a 4 ft. drop was used for the finishing blows, with a movement of about ¼ in. to the blow on an average. The average length of rails driven, 16 ft. 1 in.; average depth through gravel, 6 ft. 9 in.; average depth in papa, 3 ft. 9 in.; below surface of ground, 10 ft. 6 in. The cutwater rails, driven in line with the piers, and from 18 ft. to 24 ft. above them, have been connected by strong timber stays with the top of upstream rails of piers. These stays, or cutwater timbers, are intended to divert all floating timber from striking the piers. On piers (8) and (9) an extra rail is driven alongside the centre of these cutwater timbers, and two timbers instead of one are fixed at each of the piers, as it is there that the greatest current is, measuring five miles an hour at winter level. The cutwaters, braces, caps, and stringers are nearly all of white-pine, roughly squared and dressed in order that the