

North Bank.—6 chains of rock-cutting completed on North Bank Road. The work carried out by the Wairau Road Board.

Starborough, Blind River.—Formation of 18 chains of road; building culverts, and supplying timber for same.

Blind River Roads.—During the year 53 chains of road formed, giving access to Sections 26 and 29, Block XII., Clifford Bay. Since the formation of this road, which is only a temporary one, a new line has been laid off. Length of new line, 59 chains; the cost will not exceed £100, including pipes for culverts. The new road will be completed in about a week's time.

Tophouse Road.—6 chains of dray-road formed. Work carried out by Wairau Road Board.

Maddock's and Hodder Cutting.—9 chains of dray-road widened, Hodder Cutting. Work carried out by Awatere Road Board.

Saxton Pass.—138 chains road widened; purchase of 100 lb. rackarock, &c. Work carried out by Wairau Road Board.

Blenheim-Kaikoura-Waiatu Main Road.—During the year the following work has been completed: Purchase of timber for bridge at Stinking Creek and Bridge No. 1, Kekerangu; formation of 30 chains road, Cattle Creek, Lake Grassmere; 44 chains of side-cutting, 39 chains of clearing sand from road, 98 chains of wattling, 69 chains sowing grass-seed, 5 chains of road widened, 7 chains of ordinary formation, and 4 chains of metalling. Work carried out by Awatere Road Board.

Reserve A (Road through).—145 chains of road formed and metalled.

Cribb Creek.—50 chains of road formed; 50 chains engineering survey. Work carried out by Kaikoura County Council.

Kahautara Reserve (West of).—During the year 26 chains dray-road has been formed through rock and shingle, with clearing through scrub; also $4\frac{1}{2}$ chains of drains made.

Torea Wharf.—Contract let for erection of wharf at Torea. Work proceeding.

Okaramio Creek Bridge.—Levels taken of proposed bridge, the amount voted being insufficient to complete this work.

Clarence Bridge.—For protective works to bridge, 200 cubic yards of shingle has been carted, fifty bags of cement, wire plant, &c., on the ground. Works at bridge will be gone on with as soon as possible.

Wairau River Overflow (£1 for £1).—For protective works and banking, 88,654 cubic yards of banking, building concrete culverts, fencing 100 chains, removing buildings. Work carried out by Lower Wairau Road Board.

Waihopai River Protection.—During the year 412 cubic yards of boulders, $12\frac{3}{4}$ chains of wattling, nine piles driven, manuka carted for river protective works. This work was carried out by the Wairau Road Board.

Starborough Estate Roads.—The formation of roads on the Starborough Estate started in the month of June, 1899. As there was a considerable length of road to be formed, it was necessary to employ a large number of men at the commencement of the work, to give access to the various sections, to enable the settlers to cart their building and fencing material, allowing as little delay as possible in making the various lines negotiable for a horse and dray. At the commencement of the work we only undertook the heavy side-cuttings, which were particularly well adapted for the co-operative system. The rate paid per cubic yard was the market-value of the work and no more—namely, $7\frac{1}{4}$ d. of an average price for the side-cuttings throughout the estate. In some instances 8d. to 1s. was paid for cuttings on sidelings, but the total average did not exceed as previously stated. A considerable length of the roads were not adapted for co-operative labour, the sidelining ground being too light. The men would not be able to make wages on the light side, ling ground under 10d. to 1s. per cubic yard; and it was deemed necessary to use the road-machine-plough, and scoop, which would curtail the cost of construction. By using the road-machine the cost of the work has been considerably reduced for its entire length. I took particular care in obtaining the cost of a sidelining cutting about two miles in length, for 12 ft. in the solid, and it averaged 4d. per cubic yard with the road-machine. On the flat formation, for 22 ft. wide, the average cost is about 6s. per chain. The road-machine makes much superior work to that done by pick and shovel. I have used the machine for cutting water-tables. The ground requires to be ploughed, and after that the machine is started; the blade can be regulated to any cant or crown required. In open country, such as Starborough, a machine and a wheel-scoop will more than pay for themselves in the course of a year. The cost of a road-machine is about £70, and a wheel-scoop about £10. Any man with a practical knowledge of road-making can learn to work the machine within a week. 20 miles $13\frac{1}{2}$ chains of dray-road have been completed, varying in width from 10 ft. in the solid to 20 ft. and in one instance 33 ft. in the solid, to allow a team of six horses to travel round the curves with ease. On the back road at the foot of the Haldane Mountains it was not necessary to construct a dray-road; a bridle-track on permanent grade was made 6 ft. in the solid, which will meet all requirements for many years to come. The whole of the settlers, with one exception, have access to their holdings, and appear to be satisfied with the conveniences they have obtained within so short a period. What now remains to make the roads complete is gravelling; but I do not anticipate nor do I consider it necessary to gravel all the settlement roads; but the main roads throughout the blocks should be gravelled, and a few of the side-cuttings in the back blocks, as they are very soft in wet weather.

On this estate 20 miles $13\frac{1}{2}$ chains of dray-road were formed; $147\frac{1}{2}$ chains of track formed 6 ft. in the solid; 550 chains of drains made; earthenware pipes placed for culverts—735 of 9 in., 926 of 12 in., and 321 of 18 in. Timber culverts of totara—One 6 ft. by 4 ft., 30 ft. in length; one 4 ft. by 3 ft., 22 ft. in length; one 3 ft. by 2 ft., 30 ft. in length; two 4 ft. by 3 ft., 60 ft. in length (each); one 4 ft. by 3 ft., 24 ft. in length.