

all strutted. At the back of this is a bank 6 ft. wide on top and 24 ft. at base. The fence is 10 ft. high, and five of the wires are No. 2 galvanised strand cables—four at the bottom and one at the top; the remainder are No. 8 galvanised wire. The bank is gorse-stopped every chain to break the current, and it is also bedded with gorse between the bank and the fence. On a recent inspection of the work it was found intact, and the willows growing as well as they are likely to do in such an exposed position. It has not suffered from the summer floods, and no more of the reserve banks have been washed away, so I think it may be considered safe and effective. I would recommend, however, that the balance of the vote be kept in hand for extension or repairs, if such become necessary. The works were supervised by District Surveyor Brodrick.

*Shelter Hut, Stables, &c., Mount Cook Road.*—£101 10s. has been paid over on account of these works during the year, and a further sum of £129 1s. 10d. is now due. The works carried out comprised the erection of a 20 ft. by 12 ft. two-roomed building, with verandah and concrete chimney, also enclosed stable of five stalls, with forage-room and shelter-shed attached. The 10-acre paddock enclosing the buildings was fenced with six plain wires and one barb, and five hundred trees were planted round same and protected with a one-barb-wire fence. The trees are growing splendidly, but about 15 per cent. were eaten down by rabbits, otherwise there would not have been any failures. These should be renewed next spring. The hut and its appurtenances are a great comfort to travellers. It was a much-needed improvement, and the work is well finished.

*Studholme Junction (Cattle-stops and Removal of Gates).*—These works comprised the making of four cattle-stops, the erection of 12 chains of seven plain and one barb-wire fence with wooden posts, and the erection of two large and one wicket-gate, and were carried out by the Railway Department, the Survey Department paying half the cost. The reason so much work had to be done was that the two railway-lines, the main and the Waimate branch, had to be protected. Pits for the stops had to be dug, the rails lifted, and ironbark stringers placed beneath each rail, the stringers themselves resting on bedded ironbark cross-bearers.

*Kapua (Waimate Gorge) Drain.*—A contract was let and carried out during the year for widening and deepening this drain at a cost of £98 11s. 8d. The contractor made a good job of the work, but it has not given satisfaction to the settlers. A further vote, however, of £50 has been granted for improving the drainage, and will shortly be expended in turning a small creek near the entrance of the gorge into the drain, so as to prevent it flowing past the homestead of the lessee of Section 11. Any balance left over will be devoted to cleaning out the whole drain.

*Orari Domain.*—£50 was granted the Board for improving this reserve, and the following are the works upon which it has been expended, as reported by the Ranger: The whole of the boundary-line is fenced with a good wire-and-standard fence, and also planted with macrocarpa. A belt 1 chain wide along the south, east, and west boundaries and 1 chain wide on the north boundary is planted with two and three rows of trees respectively, well assorted, and consisting of evergreen and deciduous trees, shrubs, and some walnut and cherry trees, and between the rows a nicely graded path is formed right round the reserve. A good wire-and-post-and-standard fence is erected inside the rows of trees; and one field of about 5 acres is in old grass, and another of about 6 acres in wheat and laid down with grass. There are also good entrance-gates, and as a whole it is a credit to the Domain Board and to the township.

*Opitahi River Protective Works (Orakiparua Settlement).*—£58 16s. 1d. has been expended during the year on these works. For this amount about 20 chains of the bank fronting sections 22, 23, and 24 of the settlement were protected by the erection of 14 chains of eight galvanised-wire and willow protective fence and other means. Fence was very substantial; willows sunk deep; posts at intervals were given an additional hold by driving bars of iron 7 ft. or 8 ft. into the ground beside them, to which they were secured. Four large gorse stops supported by wire and willows were made to break the current in the worst places, while willows held by cable-wire to posts and anchored to the bottom of the river by driven bars were hung outside the fence wherever the current was strong, and a considerable number of willows were planted inside the fence. On a recent inspection the work was found intact, and has grown into such a dense impenetrable mass that it is hardly likely to suffer any damage now, and it appears to have driven the river away from the bank at the lower end, and may therefore be considered satisfactory. The balance of the money should be kept in hand to cut the willows and stack the branches behind the works next spring, or for any other purpose thought necessary.

All the above works were carried out under District Surveyor Brodrick's supervision.

*Hokitika-Christchurch Road.*—This road commences at the western bank of the Kowai River, about three miles from Springfield, extending thence to top of Arthur's Pass, a length of fifty-one miles. A considerable amount of work has been caused by the periodical floods, necessitating the employment of a number of extra men, also horse and dray hire, in repairing the damaged breaches and other work. Several landslips took place in the sideling cuttings, and 6 chains of the road near the 49-mile peg was washed away by the Bealey River. In addition to the usual work of maintenance, the works carried out comprised widening 6 chains of sideling cutting, and protecting same from the river by log-cribbing; protecting in the same manner several other places on the road; shingling several patches along the road, one between the 3- and 4-mile pegs being one mile in length; improving and re-forming the road between the 16- and 17-mile pegs, Cass Flat, and several other places; renewing several culverts and cutting side drains; clearing off stuff accumulated during the winter on the sideling cuttings, and keeping the water-tables clear. At the top camp (50½ miles) a new hut has been built to accommodate six extra labourers, also new workshop for smith's work, and powder-magazine. A considerable amount of labour has been expended in the river-beds and creeks in forming roads and making fords. Several heavy falls of snow took place during the winter, causing considerable extra work in cutting a coach-road through the drifts. I inspected the road in the middle of February last, and found it then to be in a very satisfactory state. Several bare parts I noted, nevertheless, which will require shingling before winter.