

clearing, 20 chains engineering survey, two miles grass-seed sowing, &c. Under co-operative labour the work done consists of 50 chains new formation, 20 chains re-formation, 380 lineal feet culverts, 4,500 superficial feet slabs, and six miles road-traverse. The work done by large contracts consists of 212 chains bushwork, 271 chains formation, 140 running feet bridges, and 970 lineal feet culverts. The large contracts were completed last December.

The co-operative works which were commenced at Pipiriki in October, 1891, were completed up to 6m. in May last. In the middle of last January work was recommenced on the uncompleted portion of the road from 8m. to 17m. on the co-operative principle. Including day-men there are now fifty-five men employed, and in the course of a fortnight this number will be increased to eighty men. This number may be still further increased, but not to any extent. With the eighty men the road will be open for through traffic next December, unless the coming season proves exceptionally wet. The prices vary from £1 2s. 6d. to £1 10s. a chain for bushwork, and average 8d. per cubic yard for earth, and 1s. per cubic yard for papa, with other prices in proportion. Besides completing this nine miles of formation, it is to be recommended that about four miles of the flats between Makotuku and Ohakune should be metalled as early as possible next year, before the road is cut out of all shape by wheel-traffic. From April to December Mr. A. W. Brooking was in principal charge of the works, since then Mr. Field has had charge. This road will be the main road from the Waimarino and adjoining blocks to the Wanganui River. It will certainly have to carry a lot of heavy traffic during the next few years, and therefore ought to be metalled throughout, but unfortunately, except from 18m. to 25m. (Ohakune), metal does not exist in any shape or form on the road, unless the nodules found in the papa is napped into metal or shell-rock be used of which there is only a limited supply.

Wanganui River Improvement.—The works performed by the department comprise—Groyne at Moutoa, groyne at Upokopoetu (unfinished), groyne and removal of papa point at Aokuru, groyne and dredging above Parikino, and transport of punts, &c., to Wanganui. Owing to floods in the river the contractor for groyne at Upokopoetu threw up his contract; and, on account of Native obstruction, certain works proposed at Ruapirau and Matahiwi were not started. On the 18th May, 1892, all the punts, plant, tools, &c., which had been used on the river by the Government were handed over to the Wanganui River Trust. The valuation put on the whole was £300. Since then the Trust has had full control of the expenditure of the last vote for river improvement. The river was, practically, perfectly cleared of snags by the Government work in 1891, and since then very few indeed have been left in the channel. The groins have all done good service, notably that at Aokuru. That at Upokopoetu, when completed, will remove what is now the worst barrier to regular navigation. I think that the Government, if they make any further grants, should give a large sum, and finish the work straightway themselves; otherwise the Trust should do everything themselves with their own funds.

Wanganui River-steamer, and Works executed by Wanganui River Trust.—The steamer subsidy is £650 for the first year, decreasing £100 each year for the succeeding three years. The "Wairere" is the steamer which Messrs. A. Hatrick and Co., the firm who receive the subsidy, obtained from Messrs. Yarrow and Co., England. Length, 98ft. 6in.; width 'midships, 14ft.; over paddle-boxes, 23ft.; horse-power, 80; draught when empty, 14in.; draught with twenty passengers and 3 tons coal and 3 tons cargo, 21in. The steamer started running on the 24th May, 1892, and since then she has regularly delivered the Wanganui mail at Pipiriki every week, though on two occasions she was not able to actually reach Pipiriki herself. In these cases the mails and passengers were forwarded by canoe. The average number of passengers is 20 up and 15 down; the average amount of cargo is 3 tons up and $\frac{1}{2}$ ton down; the average time Wanganui to Pipiriki (56 miles) is 10 hours; the average time Pipiriki to Wanganui (56 miles) is 7 hours. Including all stoppages, the speed up is about $5\frac{1}{2}$ miles an hour, and down about 8 miles an hour. At the worst rapids Messrs. Hatrick and Co. have laid down lines and floats, by which the steamer is enabled to warp herself up. These rapids are Matahiwi, Moutoa (lower and middle), and Kawhairaoa. The lines are composed of $1\frac{1}{2}$ in. circumference best flexible steel rope.

The Wanganui River Trust received a grant of £500 during the past financial year for the improvement and maintenance of the river.

The Chairman, Mr. J. T. Stewart, supplies the following information: Stone walls acting as groins have been completed at Wakaruawaka, Upokopoetu, Ruapirau, and Matahiwi, making a total length of 22 chains; and contracts have been entered into and liabilities incurred for a further length of $10\frac{1}{2}$ chains of stone groins at Upokopoetu, Matahiwi, and Haumoana. The total cost of these groins is £445, including £25 royalty on stone to Natives.

Cost of contingencies, including repairs to punts, advertising, snagging, removing eel-weirs, &c., amounts to £50; balance, £5. These groins have already effected a considerable improvement at the respective rapids, though, owing to their being only partially completed (except Ruapirau), the full benefit which will be ultimately derived from them is not yet manifest. With the further grant of £200 recently obtained, the Trust proposes to clear the channel from fresh snags throughout, to erect groins at several places where it has been observed that shoaling is most likely to occur, and do other necessary works.

Pohoruiatane Block.—A sum of £31 5s. has been expended on explorations and engineering surveys of two miles and a half of a road to give access to this block. After going all round the block I reported in favour of access by the Turakina Valley, but after starting the survey was instructed to wait till something definite was decided upon. This route will cost more than that known as "Harper's Track" on to Hale's Track, but unquestionably the Turakina route is the natural one; besides, all the settlers in the block are or have been residents in Hunterville.

Te Kapua Block.—During the year a sum of £45 has been expended on an engineering survey of three miles and three-quarters of access road into this block. The route is from Hunterville, *via* Watershed Road and Murray's Track. The survey was completed in October, 1892, but the formation could not well be started till the fallen bush was burnt. This was done last February. I am now having the pegs renewed, and shall start co-operative contracts there during April.

G. T. MURRAY.