

being expended in improving the portion of the track between the Pass and the mouth of the Haast River. It is expected that all the work in hand will be finished by the end of May.

General.—Hereto is appended a statement (Enclosure No. 2), compiled by the Resident Engineer, which shows in a concise manner the various road-works carried out in Westland up to the 31st March 1882. The only works still required to make the communication for wheel-traffic between Nelson and the West Coast right down to Ross tolerably complete is the bridging of Granity and Larry's Creeks, and the Waitahu River, in the Buller watershed, and Donelly's Creek, near Ross, and general improvements at various places, particularly in the Buller Valley.

CHRISTCHURCH-HOKITIKA ROAD.

The cost of maintaining and repairing this road during the year just ended has been about the average of previous years. It is at present in fair order throughout, but some portions will soon want remetalling.

The wire foot-bridges over the Porter and Broken Rivers, in progress at the date of the last annual report, have been completed; and a further deviation has been made in the Otira Valley, to keep the road clear of the encroachments of the river.

I have in previous reports referred to the question of bridging the rivers and otherwise improving the Christchurch-Hokitika Road, to make it passable in the ordinary state of the weather. At present a very moderate downfall of rain causes a complete interruption to the traffic. The following rivers and creeks are still unbridged: Taipo, Otira, Waimakariri, Rough Wainihini, Smooth Wainihini, and Kelly's Creek. In addition to the above, the Bealey is crossed four times, but this can be avoided by diverting the road for a short distance. If the works above enumerated were carried out, the through journey from Christchurch to Hokitika could easily be accomplished in one day.

CANTERBURY DISTRICT.

Kaikoura-Waiau Road.—A section of three and a half miles at the Waiau end has been surveyed, and tenders for its construction are now advertised. A further length of five miles has also been pegged out, and the contract is in preparation. The survey of the remainder of the road across the Whale's Back to Greenhills is in progress.

Waiau Bridge.—After a careful consideration of the question in all its bearings, the site for this bridge was finally fixed at a point immediately below the junction of the Mason, and opposite the Waiau Township. Although of considerable width, there is no difficulty in bridging the Waiau anywhere in this locality, consequently the bridge is of the ordinary type. There are forty-three spans of 40 feet, with two land openings of 8 feet at each end. The piles and straining blocks are of Australian ironbark, all the remainder being native timber. Although at present only intended for road-traffic, extra large beams have been put in, so that the bridge can carry a railway without further strengthening. The contract is just being entered into, so that the works have not yet begun.

The site of the Waiau Bridge will be again referred to when considering the question of extending the railway northwards from Canterbury.

Rakaia Gorge Bridge.—After innumerable delays and difficulties in getting suitable tenders, and afterwards on the part of the contractor, this work is at last going steadily on, but very slowly. The abutments have been carried up to the level of the cast-iron seats, and the tension bars have been safely launched, and preparations are now being made for rivetting and launching the girders.

OTAGO DISTRICT.

The only work under this head in Otago for the year is the continuation of the Waikari-Waitati Road, commenced in 1880. Arrangements are being made to expend the vote taken last year in completing and extending present sections by small piecework contracts.

WATER-RACES.

Following the practice always adopted hitherto, I enclose the Resident Engineer's report on the Westland Water-races in full. (Enclosure No. 3.)

The maintenance and working of existing races, as well as the construction of new works, are considered in the Resident Engineer's report, but the former will be dealt with more particularly by the Gold Fields department. I will therefore only direct attention to the new works in progress on the Argyle, Kumara, and Mikonui Races. In the case of the Argyle Race the improvements in hand will make the works tolerably complete, and sufficient to meet all reasonable requirements for some years to come. It is considered advisable to augment the Kumara water-supply by the erection of a dam in the Kapitea Valley, at a cost of about £8,000. And with reference to the Mikonui scheme, the expenditure already incurred cannot be utilized unless the long tunnel through the range is made, or the water-rights in Donelly's Creek bought up.

MISCELLANEOUS WORKS.

The most important work under this head carried out or in progress during the year is the Forest Hill Tramway in Southland, intended to connect the Crown lands and settled districts of Forest Hill with the railway at Winton. A contract for the first six miles was entered into in August, and the works have since progressed steadily: the sleepers and ties are laid for three and a half miles, the rails for three miles, and the ballast for two miles. The whole contract is expected to be finished in June. The tramway, which is constructed in a substantial manner, and with good gradients and curves, is laid with 28-lb. rails on longitudinal sleepers, kept together by cross-ties, and well ballasted between, to give a firm pathway for the horses.

The only other miscellaneous works worth mentioning that have been in hand during the year are the following, some of which were done for the Marine and other departments: Removal of Buoy Rock, Nelson Harbour; erection of training-wall at Collingwood; removal of old wharf at Picton; manufacture of cranes at Dunedin and Greymouth; manufacture of diamond-crossings at Dunedin; erection of sheep-dip at Port Chalmers; removal of rock at Catlin's River; and the extension of the wharf at Queenstown.