

*Invercargill District—*

|   |     |     |                          |
|---|-----|-----|--------------------------|
| Police Station and Lock-up, Lumsden     | ... | ... | Work in progress.        |
| Home for Natives at the Bluff           | ... | ... | Tenders called for.      |
| Strong Room, Invercargill Survey Office | ... | ... | Work in progress.        |
| Customhouse at Bluff                    | ... | ... | } Finished.              |
| Repairs to Customhouse at Riverton      | ... | ... |                          |
| Courthouse, Invercargill                | ... | ... | Drawings being prepared. |
| Post and Telegraph Office, Gore         | ... | ... | } Work in progress.      |
| Post and Telegraph Office, Wyndham      | ... | ... |                          |

The Courthouses at Christchurch, Waimate, and Invercargill, the Lunatic Asylums in Canterbury and Otago, and the Public Offices at Timaru were designed by local architects, and are being carried out by the officers of this department. In all other cases the latter are doing the work from the beginning.

Beyond the information given in the above statement there is nothing special to notice. The works generally are progressing favourably.

## SURVEYS.

*General.*—The time at our disposal being so short it was utterly impossible to make detailed surveys of the whole of each line before the first contract was let. A reconnaissance survey was however made, and in every case where I was not already intimately acquainted with the country, I examined the line personally. I am, therefore, tolerably confident that the sections in hand are properly located.

*Working Surveys.*—The more important working surveys now in progress are the continuation of the Nelson-Foxhill line towards the Buller Valley, the line from Amberley to the Waiau Plain through the Weka Pass, and the Otago Central.

The extension of the Foxhill line is over very difficult country, requiring careful exploration. The only chance of getting a 1-in-50 gradient seems to be by the Blue Glen and Tophouse route.

The survey of the Amberley extension is made through the Weka Pass, the most difficult portion. A gradient of 1 in 50, with 8-chain curves, has been got without very heavy works.

A working survey has been made of 71 miles of the Otago Central: 25 miles between the commencement of the line and the Strath Taieri Plain, and 46 from the Maniototo Plain to Clyde. I am glad to say that the works are turning out at least as light as ever was expected, and that the minimum curves and gradients are easier than on the main line.

*Reconnaissance Surveys.*—I personally made reconnaissance surveys and reports on the Canterbury Interior Main line, the Oamaru-Livingston Branch, and the proposed railways in the northern districts of the Middle Island. The report on the latter, with a map of the routes, is forwarded herewith. The subject embraces one of the most important railway schemes that has ever come before the country. I hope the report will be of some little service in bringing the question to a satisfactory conclusion.

## GENERAL REMARKS.

The work of the department for the last six or seven months has been particularly heavy; the time given to get out the new contracts was so short that every one's energies had to be taxed to the utmost. During last year the works in progress and contracted for in the Middle Island comprise about 160 regular contracts, 80 task-work contracts, and a great number of piecework jobs. There was also a large amount of survey work. I have much pleasure in testifying to the hearty manner in which the officers of the department met the extra work imposed on them, and the zeal and ability they at all times display in performing their duties.

The usual map of the Middle Island, showing the state of the works and surveys, is hereto appended.

I have, &c.,

W. N. BLAIR,  
Engineer in Charge, Middle Island.

## Enclosure 1 in Appendix E.

## WESTLAND DISTRICT.—ANNUAL REPORT ON WATER-RACES.

SIR,—

District Engineer's Office, Hokitika, 31st May, 1879.

I have the honor to report on the water-races in this district, with which the General Government are connected. They are as follows:—

*Nelson South-West Gold Fields—*

- Four-Mile Water-race, Charleston District.
- Nelson Creek Water-race, Grey Valley District.

*Westland Gold Fields—*

- New River Water-race, Marsden District.
- Hibernian Water-race, Marsden District.
- Hohonu Water-race, Greenstone District.
- Waimea Water-race, Waimea District.
- Waimea Extension to Kumara, Kumara District.
- Kanieri Lake Water-race, Kanieri District.
- Mikonui Water-race, Totara District.

*Four-Mile Water-race.*—The project comprehended under the title "Four Mile Water-race," as set forth in previous annual reports, comprised—(1.) The purchase of the Argyle Water-race Company's reservoir, service-dams, and water-races (except only their race known as Race No. 2) at