

the 26th February. As more particularly described in my last annual report, the works on this portion of the branch are moderately easy, and the line and levels particularly good.

The working survey of the remainder of the branch has been completed during the year. It shows the works on the unmade portions to be somewhat heavy: there will be 14 chains of tunnelling, and a considerable amount of rock- and earth-cutting and bridging.

The sharpest curves are  $7\frac{1}{2}$  chains radius, as on the main line; but the ruling gradient is easier, being 1 in 60. The total length of the branch, from the main line at Invertiel to Catlin's River, is 18 miles 10 chains.

*Waipahi-Heriot Burn Branch.*—A few station-works have been put in hand, and carried out during the year, viz., cattle-yards at Pomahaka and Kelso, gravitation water-supply at Conical Hills, and approaches to Kelso and Tapanui Stations.

A working survey of the remainder of the distance to Heriot Burn, the point to which the line is authorized, was made in 1880; and it is now proposed to prepare a contract for the formation on a subsection extending to Swift's Creek, about five miles. The works are remarkably easy, and the curves and gradients are good.

*Edendale-Toitotois Branch.*—The formation on the first section of this branch, a length of about four miles, has been done for nearly two years; and a contract has just been entered into for the plate-laying and stations. The section extends from the main line at Edendale to the Township of Wyndham, on the northern side of the Matura, and the centre of a good district. A fair amount of traffic may therefore be expected.

Tenders are also invited for the formation of a further length of three and three-quarter miles, called the Mokoreta Section. The earthworks, which are generally light, consist principally of a low embankment along the river-bed, and small cuttings through spurs. The contract includes a bridge over the Wyndham, of three 40-foot spans, of timber, on concrete piers and abutments.

The working survey of a still further extension of the branch to the Waimahaka Valley has been made during the year. The plans are not complete; they show the works to be heavy, and the line to be somewhat steep and tortuous.

#### OTAGO CENTRAL RAILWAY.

The earthwork on the Wingatui Section was nearly finished at the date of my last annual report, consequently the only important work in progress during the year was the tunnels. The first tunnel, of 303 yards in length, has been pierced and lined throughout, and 160 yards out of the 446 in the summit tunnel has been pierced by a bottom heading. The material is clay slate, very much distorted and of variable consistency, consequently the whole length will possibly want lining. In order to obviate the expense of draining when working down hill, the tunnel is only driven from the lower end.

With the exception of finishing up the small piecework contracts in progress at the end of last year, and maintaining the works previously done, there has been no work worth mentioning in progress on the Hindon Section during the year.

In anticipation of the disposal of the adjoining Crown lands, a detailed survey has just been commenced of that section of the Otago Central Railway between Hyde and the Rough Ridge. This is the only portion of the line from Chain Hills right to Hawea Lake of which there is no working survey.

#### INVERCARGILL-KINGSTON RAILWAY, WITH BRANCHES.

The only construction-works carried out or in progress on the Invercargill-Kingston Railway during the year are on the main line. Leaving out minor alterations and additions, they consist principally of the following: River protective works and additional openings at various places in the Upper Matura Valley; shelter-sheds at Waikiwi, Lady Barkly, Ord's, Centre Bush, Nokomai, and Soper's; cattle-yards at Lumsden; water-services at Oreti and Lumsden; turntable at Kingston; and additional sidings at Lumsden.

#### WESTERN RAILWAYS.

*Open Lines.*—The work done on the open lines last year has been remarkably small; the only ones worth mentioning are cattle-yards at Thornbury and a siding at Branxholm.

*Riverton-Orepuki Line.*—The Riverton Section, being the first six miles of this branch, was satisfactorily finished and opened for traffic in July, and the only two small stations on it were completed a few weeks thereafter.

Another small section of a mile and a half, which brings the line to a more convenient terminus near the Roundhill Diggings, was commenced, and the works, which include platelaying and stations, are well advanced.

A contract for the formation of the Pahia section,  $10\frac{3}{4}$  miles, which brings the line to Orepuki, was entered into in February, and the works are progressing satisfactorily. With the exception of seven cuttings, ranging from 5 to 20 chains long, and from 8 to 15 feet deep, and embankments to correspond, the earthworks are comparatively light; and there are only eight small bridges, having in all one span of 30 feet, two spans of 20 feet, fourteen of 13 feet, and ten of 11 feet.

The steepest gradient on the Pahia Section is 1 in 55, and the sharpest curve 20 chains radius.

*Otautau-Nightcaps Line.*—With the exception of a few station-works, which are now also done, the whole of this line was completed in February, and opened for public traffic on the 3rd of this month. The total length of the extension from Otautau to Wairio is 10 miles 55 chains.

The Nightcaps Coal Company has opened out a mine two and a half miles from Wairio, and made a private line to it, so that there is every prospect of a large mineral traffic, this being the only coal-field in Southland as yet accessible by rail.

#### ROADS AND BRIDGES.

##### NELSON DISTRICT.

*Pelorus Valley Roads.*—On the section of the main road between Wairau and Havelock, three and a half miles, which were contracted for last year, have been completed. Another contract for on and a half miles has been let, and a further section of two miles is now advertised. This only leaves