

Southbridge Branch.—Goods-shed and loading-bank with sidings between Irwell and Ellesmere, coal-sheds at Lincoln and Southbridge, and additions to water-service and sidings at Ellesmere.

Springfield and Whitecliffs Branches.—Additional water-ways at Kirwee and Springfield, water-services at Darfield and Kirwee, coal-sheds at Darfield and Whitecliffs, and additional sidings at South Malvern and Glentunnel.

Albury Branch.—Water-services at Pleasant Point and Albury, and coal-shed at Pleasant Point.

Lincoln to Little River Branch.—The first section of this line, that from Lincoln to Birdling's Flat, a distance of 17 miles 8 chains, is fast approaching completion; goods-trains have already been run over it occasionally, and it will be opened for regular traffic so soon as the necessary station-accommodation is provided.

The line for a considerable distance runs along the margin of Lake Ellesmere, and within the influence of its floods. Although there is no current, the great area of water enables a considerable sea to rise in stormy weather, and the railway is exposed to its full force. The slopes of the embankment have been covered with rough-stone pitching, which makes it tolerably secure; it would, however, be advisable to make arrangements to let out the lake periodically to keep the water below a certain level. As the floods have a greater effect on the roads and adjoining lands than the railway, the local authorities and residents are more interested in the question than the Government; still it would be reasonable for the latter to contribute a little towards the work. It is proposed when the railway is fenced to plant willows in front of the embankment, which will afford a still further protection from the wash of the waves.

The working survey of the continuation of the branch to Little River, 6 miles, has been finished for some time, and a contract is now in preparation for a subsection of two or three miles. The line will be good and the works comparatively easy.

Ashburton Branch.—The contract for the formation of the second section of this line, 8 miles 39 chains, which was in progress at the end of last year, is now finished, as also the platelaying on a subsection of the same 2 miles 66 chains in length. A second platelaying contract for the balance, 5 miles 53 chains, was entered into on the 21st September. The works, which are considerably behind time, will probably be finished in June. This completes the branch to a distance of 19½ miles. Its further extension will be considered under the head of Surveys.

Albury-Fairlie Creek Branch.—The formation of this line, which was originally set apart to give work to the "unemployed," was finally closed to this class of labour in December, 1880. A contract for the completion of the formation was entered into in August last; but after executing rather more than half the work the contractors became insolvent, and the works have come to a standstill. Operations will, however, be resumed so soon as the necessary formalities for determining the contract are completed.

The Tengawai Bridge, in progress at the date of my last annual report, was finished on the 31st August; the work having been carried out in a satisfactory manner. A contract for painting it has since been entered into.

Five small bridges, that occur on the portion of the line partly done by the "unemployed," were let in one contract on the 17th January, and the work is progressing favourably. The bridges have in all 8 spans of 20 feet, 2 of 13 feet, and 10 of 11 feet.

CANTERBURY INTERIOR MAIN LINE.

The only portion of this line under construction is the section from Oxford to Malvern. Like the Weka Pass Section on the Main Line, and the Albury Downs Section on the Albury-Fairlie Creek Branch, a considerable amount of formation on the Oxford-Malvern line was done by the "unemployed," before December, 1880, when all works of this kind in the colony were closed.

Two contracts have since been let—one, 67 chains long, for the completion of a heavy cutting and other formation works on the south side of the Waimakariri River, which is well advanced; and the other for formation and platelaying between West Oxford and the river, a distance of 8 miles 35 chains, just commenced. They are respectively named the Waimakariri Gorge and West Oxford Sections.

The Waimakariri Gorge Section and the last mile on the West Oxford Section contain the only heavy formation works on the line, the former having a cutting 35 chains long with an extreme depth of 35 feet, and the latter a cutting 30 chains long and 48 feet in extreme depth, both through shingle terraces. The bridge work on the West Oxford Section consists in the aggregate of 5 spans of 40 feet, 4 of 20 feet, 15 of 13 feet, and 11 of 11 feet under the line, with an over-bridge of 3 spans of 20 feet each.

There is a gradient of 1 in 50 for about three-quarters of a mile, falling through the terraces towards the river on each side of the Waimakariri, with curves of 12 chains radius on the north side; but the alignment and gradients on the remainder of the line are much more favourable.

WAITAKI TO BLUFF RAILWAY, WITH BRANCHES.

Main Line. Works on Open Line.—The station works in progress during the year are of considerable extent, but the works on the line itself are of little importance. The latter comprise river protection works and flood openings at Balclutha, drainage of large cuttings and embankments and flattening slopes between Palmerston and Glendernid and at Edendale, pitching embankments at creeks, and minor works of a similar kind at various places.

The protective works at Balclutha, more particularly referred to in my last report, were completed early in the year; and, so far as can yet be judged, they are likely to stand well, and serve the purpose for which they were intended.

The flood openings through the solid embankments between the railway bridge and Balclutha are in progress. They are being carried out in accordance with the recommendation of the Commissioner appointed to investigate the question of the Clutha floods.

The drainage of earthworks, and flattening and protecting slopes, are contingencies inseparable from new works.