

Canterbury-Westland Section, West End.

Otira Section (50 m. 38 ch. to 51 m. 40 ch.).—The only work done during the year has been the painting of the Rolleston River Bridge. A commencement was made with the painting of Goat Creek Bridge, but had to be discontinued owing to heavy frosts. Goods traffic between Otira Station and the contractor's depot was run by the Railway Department.

Arthur's Pass Tunnel Contract (51 m. 40 ch. to 59 m. 40 ch.—8 miles in length).—The tunnel begins at 52 m. 67·22 ch. and ends at 58 m. 12·40 ch. At the Otira (west) end the bottom heading has been advanced from 53 m. 61 ch. to 54 m. 17 ch., a distance of 36 chains, or 10 chains more than last year; at the Bealey (east) end the heading has been driven to 57 m. 75 ch., a distance of 6 chains for the year: thus 1 mile 47 chains of heading has been driven, leaving 3 miles 58 chains still to do. Lining at the Otira end is finished to 53 m. 66½ ch., or 38½ chains during the year. At the Bealey end it is complete to 57 m. 75¾ ch., or 14 chains for the year: total to date, 1 mile 16 chains complete. At the west end the bank which is being formed out of tunnel-spoil has been extended to 51 m. 78½ ch., and has reached the bed of the Otira River. Groins and stone facing are being put in as protective works. Owing to the dry weather interfering with the supply of water for power purposes, work has had to be wholly or partially suspended on two occasions.

At the Bealey end a 4 ft. culvert has been completed and some bank-formation work has been in hand in the Bealey Station yard.

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Cass Section (12 m. 12 ch. to 27 m. 40 ch.—15 m. 22 ch. in length). Ballasting and platelaying were continued, and completed in time for handing the section over to the Working Railways Department on the 12th December, 1910. A contract for erection of Cass Station buildings was let and is getting on fairly well, but has not yet been completed.

Bealey Section (27 m. 40 ch. to 41 m. 46 ch.—13 m. 75 ch. (deducting short chains) in length).—This section runs from Cass Station down the Cass River, up the Waimakariri and Bealey Rivers to junction with the end of the work included in the Arthur's Pass Tunnel contract. The line is mostly in the river-bed, involving a large amount of protective work. Formation to 35 m. was first put in hand, and is now in an advanced stage. Thence to 38 m. formation is well under way, but beyond that point not much work has been started yet. Protective works are nearly completed to 35 m. Boulders encased in wire crates, or gabions, is the method chiefly used for protection purposes, but a quarry has been opened up and large stone is being used for groins protecting the approaches to Cass, Waimakariri, and Bealey Bridges. Willow-planting is being done as a further means of protection.

Platelaying has been carried on for 1½ miles, or as far as Cass Bridge, and two lifts of ballast have been put down to the same point. Cass Bridge is complete except for the laying of the track. Piles are being driven for the Waimakariri Bridge, and the plate-girders for it are being made by contract and are due in September. Work has not yet been commenced on the Douglas Creek Bridge. The whole of the section can probably be completed by December, 1912, if vigorously pushed on.

WESTPORT-INANGAHUA RAILWAY.

Te Kuha Section (0 m. to 5 m. 74 ch.—5 m. 74 ch. in length).—With the exception of station buildings at Te Kuha, for the erection of which a contract has been let, all work on this section has been completed.

Cascade Section (5 m. 74 ch. to 12 m.—6 m. 6 ch. in length).—Formation, &c., of this section has been carried out partly under co-operative contract and partly under ordinary contract. Work under the former system extends from 5 m. 74 ch. to 6 m. 38 ch., and under the latter from 6 m. 35 ch. to 9 m.

Co-operative contracts: The cutting through the rock spur from 5 m. 78 ch. to 6 m. 4 ch., and the bank from 5 m. 68 ch. to 5 m. 78 ch., were completed at the beginning of the year. The bank from 6 m. 4 ch. to 6 m. 7½ ch. is almost completed. An 8 ft. by 8 ft. drive has been put through a cutting from 6 m. 8 ch. to 6 m. 10 ch. Material from this cutting is to be utilized in making the bank at 6 m. 37 ch. when the tunnel is completed. The cutting is complete from 6 m. 10 ch. to 6 m. 13 ch. The approach to the tunnel at 6 m. 15 ch. has been finished. Enlargement of the tunnel from 6 m. 15 ch. to 6 m. 20 ch., from a top heading driven last year has progressed well, and the face excavation is now at 6 m. 18·65 ch. The tunnel has been lined with concrete, 12 in. thick, from the entrance to 6 m. 18·40 ch. All the blocks for the arch have been made. Although the excavation has all been in granite rock, the broken nature of the material has necessitated timbering all through. The cutting-approach has been completed from 6 m. 20½ ch. to 6 m. 24 ch. Material therefrom is being tipped into the long bank at 6 m. 38 ch. A trestle was built to carry the service-road over bridge-site at 6 m. 36 ch. A 4 ft. arch concrete culvert has been built at 6 m. 7 ch. In addition to these earthwork co-operative contracts, bushfelling co-operative contracts have been let and completed from 7 m. 53 ch. to 9 m. 40 ch. An average of forty men have been employed during the year.

Ordinary contracts (6 m. 31 ch. to 9 m.): In May, 1910, six contracts were let for formation from 6 m. 35 ch. to 7 m. 38·3 ch.; in March, 1911, five contracts, 6 m. 46·6 ch. to 9 m.; and in May, 1911, one contract for formation from 7 m. 38·5 ch. to 7 m. 46·6 ch., and for culverts from 7 m. 21 ch. to 7 m. 47 ch. Work on the six contracts let in May, 1910, is about three-parts done; on the other contracts work has practically only just been commenced.

No. 1 contract (6 m. 31 ch. to 6 m. 70 ch.): This work was commenced in May, 1911. An average of five men were employed, and 720 cubic yards have been excavated, extending from 6 m. 50 ch. to 6 m. 59½ ch.