

SOUTH ISLAND MAIN TRUNK RAILWAY.

Kekerangu Section (56 m. 6 ch. to 63 m. 6 ch. ; length, 7 miles).—No work has been done on this section during the year.

MIDLAND RAILWAY.

Nelson-Westland (North End).

Kawatiri Section (59 m. 17 ch. to 63 m. 8 ch. ; length, 3 miles 71 chains).—The principal work on this section has been the driving of the tunnel at 62 m. 43.85 ch., and the erection of the Hope River Bridge. A compressor plant was provided, but was not fully employed at the tunnel owing to the shortage of men. During the latter portion of the year, however, better progress has been made, and 246 ft. of bottom heading was driven, the face now being at 62 m. 42.91 ch. The material in this tunnel is a very hard granite, broken with seams of quartz, and has so far been difficult to excavate. A number of tunnel blocks have been made, and shingle for the concrete aggregate has been carted from the Buller River for use in lining the tunnel. The piers for the Hope River Bridge have been completed ; the steel girders for both Hope bridges have arrived, have been carted to their respective sites, and are now ready for field riveting. A temporary bridge was constructed over the Hope River in order to deal with the spoil from the tunnel.

Arthur's Pass Tunnel.

The lining of the tunnel was completed in October, 1921. The 100 lb. track is now laid from 51 m. 54 ch. to 58 m. 40 ch., with the exception of about 10 chains across the Rolleston Bridge. The plate-laying in Arthur's Pass station-yard is well advanced, and should be completed in two months' time, with the exception of the portion to be done by the Railways Department. A crushing plant with two crushers and steam-shovel was installed at Arthur's Pass, and with this and the aid of the small crusher at Otira the line has been ballasted and lifted with the first lift from 51 m. 54 ch. to 58 m. 12 ch. The formation is completed, and a start has been made with the concrete kerbing for platform and excavation for subway at Arthur's Pass station-yard. The girders for Bealey Bridge have arrived, and six of these have been riveted up.

The erection of the reinforced power-house at Otira was commenced in October, and should be completed in two months' time. Material for three Babcock-Wilcox boilers has arrived on the site, and these are now being erected. The bush has been cleared off the pipe-line from intake at Goat Creek to the power-house, a distance of 45 chains. A road has been formed to the intake, and a small dam erected across Goat Creek. The excavation for a 50 ft. circular reservoir, 90 ft. above the power-house, and a 126 ft. by 60 ft. reservoir, 20 ft. above the power-house, are well in hand, and will be completed in one month's time.

The contractors for the electrification have erected 6,000 cable-racks, and completed the erection of the lighting system in the tunnel. At the power-house a 10-ton travelling crane has been erected in the engine-room, and two 100 kw. lighting-sets, one battery booster, and three condensers have been installed. A quantity of switch-room gear and pipes are on the site, but not erected. 1,500 rail-joints have been bonded.

At Arthur's Pass the sites for eighteen cottages have been cleared of bush and excavated for sixteen cottages ; 20 chains of road have been formed and metalled in the village.

At Otira forty cottage-sites have been cleared of bush, fourteen cottages are now in course of erection, and a great deal of material is on the ground.

GREYMOUTH - POINT ELIZABETH RAILWAY.

Extension to Seven-mile (3 m. 45 ch. to 6 m. 10 ch. ; length, 2 miles 45 chains).—The formation on this section has now been completed. The cuttings at 4 m. 12 ch. and 4 m. 45 ch. have been widened. The filling at 4 m. 33 ch. is, however, still subsiding into the swamp, and the above cuttings will require to be further widened to obtain material for this filling. Side drains have been excavated, and several pipe culverts put in. The station-yard formation was almost completed, and a temporary bridge was erected at the Seven-mile Creek. The concrete piers for the permanent bridge have been finished, and the ironbark piles for the abutments have been driven. The girders are on the sites, and as soon as the balance of the material is received the permanent work will be put in hand. The Raleigh Creek Bridge has been finished, and a reservoir to hold 25,000 gallons has been constructed. A water-race has been excavated, and a pipe bridge placed across Rocky Creek, to carry the water-supply to the station-yard. Platelaying has been completed to 5 m. 69 ch. on the main line, and 52 chains of siding have been laid. A ballast line was constructed to the beach, and the first and second lifts of ballast have been put in from 3 m. 46 ch. to 5 m. 68 ch. on the main line, and on 36 chains of sidings in the station-yard. Material is coming to hand for the erection of the station buildings.

LAWRENCE-ROXBURGH RAILWAY.

Beaumont - Miller's Flat Section (34 m. 70 ch. to 49 m. 70 ch. ; length, 15 miles).

The construction of this line has been utilized to provide work for unemployed, and the work has consisted mainly in culverting and formation. Twenty culverts and concrete pipes have been laid, and the formation is more or less complete to 38 m. 60 ch. In places some of the banks have been kept narrow, and will be widened out eventually by means of a construction train. Three gangs are still