

Ploughing and grassing in Ohuia Swamp, 0 m. 40 ch. to 2 m. 70 ch., left and right, has been completed for fire-break purposes.

A daily service has been in operation, and all of the steel for the Maungaturanga Viaduct was landed at Waikokopu and railed through to Wairoa.

#### STRATFORD MAIN TRUNK RAILWAY.—EAST END.

*Matiere Section* (0 m. to 10 m. ; length, 10 m.)—This section has been complete for some time, except for a few minor details. General maintenance has been carried out.

*Ohura Section* (10 m. to 19 m. ; length 9 m. 10 ch.)—This section is also complete. Certain minor works were completed, and general maintenance was carried out.

*Tokirima Section* (19 m. 10 ch. to 29 m. 70 ch. ; length, 10 m. 20 ch.)—During the year the formation and culverting have been completed, except for additions needed to four fillings. The tunnels on the section, six in number, are complete, the year's work comprising 28 chains of breakdown and lining. Two railway-bridges, comprising 195 ft. of plate-girder spans on ironbark pile piers, were built, and material is on the site for Tokirima Stream Bridge and for two road overbridges.

Platelaying in 70 lb. material was done for 4½ miles to just beyond Tokirima Station yard, and first and second lifts of ballasting have been spread for 5 miles and 4 miles respectively.

*Heao Section* (29 m. 70 ch. to 55 m. 40 ch., on chainage from western end ; length, 3 m. 50 ch.)—The work on this section is heavy, and most of the construction work now being done is concentrated thereon. To facilitate transport of construction material from the Heao Depot to the heavy work on this section, including the eastern end of the Mangatete Tunnel, a service tramway was built, transport being handled by small construction locomotives. Most of the culverting and stream-diversion work is complete, this latter ranging in size from 18 in. culverts to 10 ft. by 8 ft. water-drive.

There are three crossings of the Heao Stream on this section of the railway, at all of which the concreting of foundations and piers is in hand.

*Tunnels*.—Heao No. 1 and Heao No. 2 are both 8 chains long. The Heao No. 1 tunnel has bottom heading pierced and 2½ chains of lining completed. The Heao No. 2 tunnel is complete. At the Mangatete Tunnel (length, 55 chains) a commencement has just been made with the breakdown and the lining at the eastern end. The western end of this tunnel is being worked under the Stratford District office. It is anticipated that this tunnel will be complete by May of next year, and the linking-up of the rails and the completion of railway, preparatory to handing over to the Working Railways, will follow quickly thereafter.

The stoppage of work for two months between April and June last occasioned a serious setback to construction operations. Had it not been for this the rails would have been into Heao Station yard by June, and all service transport would thus have been off the road before the winter conditions became adverse.

*Traffic*.—The Department is now maintaining a goods service from Tokirima Station, and a passenger and goods service from Ohura, linking up with the Main Trunk line at Okahukura. Goods are carried at through-booking rates, and the service is of much benefit to the district.

The average number of men employed on these works during the year was 350.

#### STRATFORD MAIN TRUNK RAILWAY.—WEST END.

*Raekohua Section* (47 m. 40 ch. to 50 m. 60 ch. ; length, 3 m. 20 ch.)—My last report indicated that this section had been completed as far as 50 m. 35 ch. During the year covered by this report some formation was done on Tangarakau Station yard ; 70 lb. rails were laid on the main line, and first loop of this yard, from 50 m. 37 ch. to 50 m. 50 ch. ; and rails have been boxed in with ballast and a good running-top maintained from 47 m. 40 ch. to 50 m. 37 ch. Ballasting is now being done in the Tangarakau Station yard with ballast supplied by the Railway Department from Mount Egmont. All completed bridges on the section were painted during the year. Piers A, B, and C of the Tangarakau Bridge were built, the construction being reinforced-concrete piles surmounted with a concrete pier. The steel-plate girders have been delivered, and preparations are in hand for placing them in position.

The tri-weekly passenger and goods services were maintained between Tangarakau and Tahora, connecting with the railway system at Tahora. During the year a total of 15,000 tons of coal was hauled to Tahora from the Egmont Collieries siding at Tangarakau.

*Heao Section* (50 m. 60 ch. to 55 m. 40 ch. ; length, 4 m. 60 ch.)—Good progress has been made on this section. The earthwork has been practically completed, though several cuttings are slipping badly. The bank between 50 m. 65 ch. and 70 ch. is narrow, and in the cutting at 50 m. 73 ch. 1,500 cubic yards is still to be removed out of an original total of 20,000 cubic yards. From here up to No. 1 tunnel, at 51 m. 15 ch., the service tram-line has prevented completion of the permanent formation, but the tram-line has been deviated to facilitate this work, which will be put in hand almost immediately. Earthwork in the Mangatetoko Valley, 51 m. 45 ch. to 52 m. 10 ch., is finished, and also in the Mangaone Valley, from 52 m. 65 ch. to 53 m. 47 ch., except for trimming of batters. In the Mangatete Valley, 54 m. 30 ch. to 55 m. 17 ch., all cuttings have been taken out, but several have given trouble with slips, two of which are still being worked.

*Tunnels*.—No. 3 tunnel, 63½ ch. long, was finished in March, 1931. The bottom heading of No. 4 tunnel (Mangatete Tunnel), which is now the only tunnel not finished, reached 55 m. 38·77 ch. in October, 1930, and was then stopped in order to make a start on concreting. Heavy ground at the portal necessitated 2 ch. of B section with lining 2 ft. thick. Lining is completed from the portal at 55 m. 16·60 ch. to 55 m. 24·45 ch. At 55 m. 20·50 ch. the tunnel comes to the surface of the ground and crosses a creek, which is being taken over the top of the tunnel. To give the necessary strength, for a length of 59 ft., the concrete lining was increased to a thickness of 30 in., a concrete invert also being built, and construction of a spillway over the tunnel is in hand. An electric locomotive is now in use in the tunnel in place of horses.