

roads formed and metalled, also a back-shunt to the wharf. The wharf and approach viaduct have been erected by contract.

*Tauraroa Section (7 m. 60 ch. to 15 m.).*—This section has been fully manned by co-operative contract parties, and good progress has been made. The whole of the formation between 7 m. 60 ch. and 11 m. 5 ch. is completed, but numerous slips have delayed the work, and are now interfering with platelaying. Mangapai Station yard (10 m. 32 ch. to 10 m. 47 ch.) has been formed complete. The earthworks up to 14 m. 52 ch. should be completed within two months, and work is in hand up to 15 m., the end of the section, but not much has been done. Rails have been laid from Oakleigh to 9 m. 4 ch., and a considerable amount of road-formation, fencing, &c., has been done. A quarry is being opened up near Tauraroa, with a short siding leading thereto, and a stone-crushing plant is being installed to provide broken stone for ballast and other purposes. All culverts except one are completed to 15 m. Two platelayers' cottages have been erected at Tauraroa Station.

*Waiotira Section (15 m. to 19 m. 78 ch.).*—Work was commenced on this section in August, 1915, and some earthwork was done at various places up to 17 m. 7 ch., but owing to the gradual reduction in the number of men it was found necessary to concentrate on the Tauraroa Section, chiefly in order to obtain early access to the ballast-pit. A steam-navvy is, however, engaged in the cutting between 15 m. 10 ch. and 15 m. 25 ch., and showing excellent results, the nature of the work on this line being suitable for the employment of these machines.

#### NORTH AUCKLAND MAIN TRUNK RAILWAY.

*Kirikopuni Section (118 m. 40 ch. to 115 m.).*—Bushwork and formation were continued until the beginning of November, 1915, when work was suspended. Sundry short lengths of formation are completed, including a considerable amount of stream-diversion, drainage, &c. The remaining works, over a length of about two miles, are in various stages of progress.

*Bickerstaffe Section (83 m. 75 ch. to 88 m. 40 ch.).*—The rails have been laid and ballasted, including the sidings in Maungaturoto Station. Goods and passengers have been carried to and from Maungaturoto throughout the period under review, and since Christmas the passenger traffic has extended to Huarau. The removal of slips from the various cuttings on this section has been a work of some magnitude.

*Paparoa Section (88 m. 40 ch. to 92 m. 16 ch.).*—The rail-head is at 91 m. 25 ch., and the first siding in the Huarau Station yard has been laid. Ballasting is being pushed on, the stone being obtained from the Hoteo quarry, distant about 26 miles by rail. The Pahi Stream Bridge (88 m. 61 ch.) has been erected, also an overbridge at 89 m. 28 ch. Formation at Paparoa Station yard is in hand. At the south end of the Huarau Tunnel a drive was put in for some distance, but was discontinued owing to heavy slips. An open cut was then commenced with a view to putting in a reinforced-concrete approach, of which about 33 ft. is completed. At the north end of the tunnel the approach cutting was taken out to 91 m. 54 ch., and stopped owing to slips. Timbering and sinking for the portal is being started. A tramway has been laid from the rail-head to the north side of the Golden Stairs Tunnel, with sidings to the tunnel portals.

*Mareretu Section (92 m. 16 ch. to 96 m. 38 ch.).*—Work is in hand at various places up to 94 m. 9 ch., but not much has yet been completed. Here also slips are troublesome. Culverts have been put in, with one exception, to 94 m. The north approach cutting to the Golden Stairs Tunnel is practically completed. At the tunnel the heading was commenced from both ends, work being suspended on that at the north end after it had been driven about 4 chains. The ground is not very favourable. At the south end it is better, and the south heading has been driven 9 chains. Piles are being driven in readiness for sinking for the portal, and stone has been quarried for use as loading over the portal, these measures being necessary owing to the treacherous nature of the ground.

#### HUNTLY-AWAROA RAILWAY.

Platelaying and ballasting were continued to Pukemiro Station, where two platelayers' cottages and sundry other structures were erected. The small amount of finishing-work required elsewhere was done, and the line was handed over to the Railway Department in December last, but a few men are still employed in connection with the access road to Pukemiro Station.

#### WAIUKU BRANCH RAILWAY.

Work is in hand over a length of about 9 miles of this line, which is about  $12\frac{1}{4}$  miles in length. The formation carried out to date is equal to approximately  $4\frac{1}{4}$  miles of completed line, including seventeen culverts, and about  $6\frac{3}{4}$  miles of fencing and  $\frac{1}{2}$  mile of roadway. Rails have been laid for a distance of 21 chains. A bridge has been erected at 0 m. 11 ch., and overbridges at 0 m. 18 ch. and 0 m. 67 ch. Two platelayers' cottages have been erected at Glenbrook Station.

#### EAST COAST MAIN TRUNK RAILWAY.

##### *Waihi-Tauranga.*

*Athenree Section (0 m. to 12 m. 35 ch.).*—Satisfactory progress has been made with the rock-cuttings on this section. Six small contracts were let for formation-work between 4 m. and 6 m., and of these five are completed, the remainder of the work being carried out under the co-operative system. The concrete piers for the Victoria Street Bridge (Waihi) are completed, and work has been commenced on those for the Waimata Stream Bridge at 0 m. 66 ch., and for an overbridge at 4 m. 55 ch. Seven girder spans have been manufactured under contract.