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## REPORTS FROM HEADS OF BRANCHES.

## MAINTENANCE.

Mr. F. C. Widdop, M.Inst.C.E., Chief Engineer, reports as follows:— The track, structures, buildings, and appliances have been maintained in good order and repair. Permanent-way.—The relaying done during the year was as follows:-Main line and branches, 53 lb., 55 lb., 56 lb., 65 lb., and 70 lb. relaid with 70 lb. Miles. Main line and branches 40 lb., 53 lb., 55 lb., and 56 lb. relaid with 55 lb. material  $0^{1\over4}$ Main line and branches relaid with second-hand 53 lb., 55 lb., 56 lb., and 70 lb. material removed from main line ...  $5\frac{1}{2}$ 59

Sleepers.—The number of new sleepers placed in the track during the year was 209,072.

Ballasting.—192,832 cubic yards of ballast were placed on the track.

Slips, Floods, &c.—On the 15th June, 1929, heavy rain caused the flooding of the North Auckland line near Opahi, the water being 16 in. over the rails. No damage to track or train-delays resulted.

On the 15th July, 1929, the bank at north end of bridge No. 100 at 70 m. 48 ch., East Coast Main Trunk Railway, near Maniatutu, was washed out to level of gravel guards, and bank had to be supported to prevent further subsidence. There was no delay to traffic.

As the result of heavy rain on the 26th August, 1929, two large rocks of approximately 6 tons each came down from the hillside on to the line between Onoke and Kauri, North Auckland line, delaying traffic for four hours.

Both ends of No. 3 tunnel between Tahekeroa and Ahuroa, North Auckland line, were flooded on the 9th October, 1929, causing an interruption to traffic.

Traffic was delayed on the 9th November, 1929, owing to a slip near Mackaytown.

On the 15th February, 1930, exceptionally heavy rainfall caused floods and washout between Wellsford and Kaipara Flats, North Auckland line, involving a stoppage of traffic. Traffic was resumed on 16th February.

On the 29th June, 1929, a large slip occurred on the Main Trunk line at 272 m. 55 ch. between Utiku and Mangaweka, blocking the line for six hours.

On the 8th August, 1929, a slip of about 600 cubic yards also occurred at 274 m. 78 ch. between Utiku and Mangaweka, causing considerable delay to express trains.

Several other small slips occurred on the Main Trunk during the year.

The Foxton line between 3 m. 20 ch. and 5 m. 70 ch. was flooded on the 16th May, 1929, and all traffic was suspended for one day until water subsided.

A washout occurred on the 12th June, 1929, at 41½ m., main line near Te Horo. The bank carrying track was washed out for a distance of 20 ft. long by 8 ft. deep. Track was blocked for ten

On the 28th June, 1929, the bank carrying track at 153 m. 17 ch. between Westmere and Kai Iwi subsided under the weight of a train, the engine and several trucks being carried down to the bed of a creek with the track formation. A temporary deviation was made around the slip and traffic resumed after fifteen hours' delay.

A large slip occurred at 14 m. 20 ch., Manawatu Gorge, on 13th January, 1930. Line was blocked A further large slip at the same place occurred on the 16th to all traffic for nineteen hours. January, 1930, blocking line for all traffic until the 20th idem.

Several minor slips of rotten rock, &c., occurred in the Gorge during the year, delaying trains for

short periods until cleared away.

In the Napier district on the 15th May, 1929, heavy rainfall caused flood-water to rise over the line at 102 m. 60 ch. between Tomoana and Whakatu, and between 104 m. 40 ch. and 104 m. 60 ch. between Whakatu and Clive No damage was done to the line, but train services were suspended from 2 p.m. on the 15th until 7 a.m. on the 16th.

A small slip occurred at 24 m. 10 ch., Manawatu line, between Pukerua Bay and Paekakariki on the 20th June, 1929, which caused the derailment of an engine and four cars of a train which ran into it. The track was torn up for several chains, and traffic was blocked until 3 p.m. the next day.

On the 24th October, 1929, about 150 cubic yards of clay came down in a cutting at 281 m. between Mahaki and Otoko on the Gisborne Section, blocking traffic. Owing to heavy rain a large volume of water backed up from the river and covered the rails to a depth of 3 ft. at the north end of Traffic was blocked until 4 p.m. on the 25th. Te Karaka Tunnel.

Slips occurred on the Picton Section on the 16th May, 1929, at 1 m. 57 ch., between Picton and

Elevation, and 9 m. 55 ch. between Para and Tuamarina, causing delay to traffic.

Abnormal heavy rain on the 29th April, 1929, caused washouts at 13 m. 5 ch., 13 m. 75 ch., and 14 m. 47 ch., Nelson Section, between Brightwater and Spring Grove, and Nelson yard was also flooded, causing delay to trains; but services were resumed when the flood-waters receded.