## REPORTS FROM HEADS OF BRANCHES.

## MAINTENANCE.

Mr. F. C. Widder, 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. ł Main line and branches relaid with second-hand 53 lb., 55 lb., 56 lb., and 70 lb. material removed from main line ...  $5\frac{1}{2}$ Total relaid for year ...  $42\frac{1}{4}$ 

Sleepers.—The number of new sleepers placed in the track during the year was 152,161.

Ballasting.—143,121 cubic yards of ballast were placed on the track.

Slips, Floods, &c.—During the year the Kaihu Section between 11 m. and 15 m. was flooded on two occasions, causing slight delays to traffic.

On the 30th April, 1928, a heavy gale at Te Aroha caused considerable damage to dwellings and buildings.

On the 10th July, 1928, a heavy flood in the Waihou River caused several small washouts between Mangaiti and Tirohia, involving train-delays.

On the 24th, 25th, and 29th July, 1928, slips and washouts occurred on the main line, North Auckland, East Coast Main Trunk, Thames and Glen Afton Branches, causing interruptions to traffic.

On the 1st November, 1928, a slip of rock at 134 m., North Auckland line, between Onoke and Kauri, damaged the track and caused slight delay to traffic.

As the result of continuous heavy rain on the 30th and 31st October and 1st November, 1928, a slip came down in the Manawatu Gorge on the 2nd November, 1928, causing a stoppage of traffic. Line was cleared for traffic on the 3rd November, 1928.

Traffic was suspended on the Foxton Branch on the 2nd November, 1928, owing to a washout at Rangiotu, and resumed on the afternoon of the 3rd.

On the 19th June, 1928, a southerly gale caused damage to the sea-wall in several places between Kaiwarra and Ngahauranga. There was no delay to trains.

On the 16th August, 1928, a southerly gale caused heavy damage to the sea-wall between Kaiwarra and Petone. Traffic was suspended on the 16th August, but was resumed for single-line working on the afternoon of the 17th idem. Double-line working was resumed between Kaiwarra and Ngahauranga on the 20th August, and between Ngahauranga and Petone on the 14th September.

The wall has been repaired and strengthened with a toe of heavy rubble and concrete blocks.

A slip of about 300 cubic yards came down at 82 m. 12 ch., Wairarapa line, between Mangamahoe and Eketahuna, on the 1st November, 1928. An engine of a train was derailed, and line was blocked until the following morning.

On the 9th April, 1928, and the 5th and 6th March, 1929, slips and washouts occurred on the

Westport Section, causing delay to traffic.

Several washouts and slips occurred on the Otira line between Te Kinga and Inchbonnie, involving train delays.

On the 26th April, 1928, the approaches to Bridge No. 78A, Reefton line, between Cronadun and Rotokohu, were washed out, blocking the line until the 28th April, 1928.

On the 9th March, 1929, a severe earthquake at Arthur's Pass caused considerable damage to the formation and to the railway houses and station. It was necessary to employ a work-train to make up the formation. Practically all the chimneys of the houses were shaken down at the roof.

Owing to exceptionally heavy rain on the 18th and 19th March, 1929, several washouts occurred in the Dunedin district and caused blockage of traffic. On the Otago Central line, owing to the rapid rising of the Taioma Creek, a bank about 25 ft. high near Salisbury was scoured out at the toe, the embankment collapsing under the train, and the leading engine being precipitated into the creek. A deviation of the line was effected and traffic resumed on the 23rd March. On the Outram Branch, owing to washouts, traffic was blocked from the 20th to the 25th March, 1929.

On the 24th January, 1929, an exceptional downpour of rain caused a severe flood on the Kingston line, especially between Parawa and Athol, where the water was 18 in. over rail-level. No damage

was caused to track or bridges.

Bridges.—These have been maintained in good order. A considerable number of bridges have been overhauled and repaired, also a number renewed in rolled-steel joists. Bridge-strengthening to enable heavier engines to run has continued on a number of lines.

Water-services.—These have received the necessary attention. Electric pumping-plant has been

installed at a number of stations.

Wharves.—The wharves under the control of the Department have been efficiently maintained. During the year the Port Chalmers wharves were sold to the Otago Harbour Board, and portion of the Onerahi Wharf to the Whangarei Harbour Board.

Buildings. — Buildings have been maintained in good repair. The following buildings were destroyed by fire: Swanson, signal-cabin; Donnelly's Crossing, goods-shed; Otahuhu, washhouse of dwelling; Woodville, engine-drivers' room; Cross Creek, cottage; Romahapa, cottage; Glenhope, hut; and Kurow Station building and Post-office.