## REPORTS FROM HEADS OF BRANCHES.

## MAINTENANCE.

Mr. W. R. DAVIDSON, Assoc.M.Inst.C.E., Acting Chief Engineer, reports as follows:

The track, structures, buildings, and appliances have been maintained in good order and repair.

Permanent	t-way.—Th	e relaying	done	during	the yea	r was as	follows:-	_			
Main	line and b	ranches, 40	lb.,	53 lb.,`	55 lb., 50	6 lb., 65 l	b., and 7	0 lb. rai	ls re	elaid	Miles
W	70 lb.	material									613
$\mathbf{Main}$	line and b	ranches, 40	lb., !	52 lb.,	and 53 I	b. relaid	with 55 l	b. mate	rial		5
$\mathbf{Main}$	line and	branches 1	elaid	l with	second-	hand 53	lb. and	56 lb. 1	$_{ m nat\epsilon}$	erial	_
r	${f emoved}$ from	om main lir	ıe								$20\frac{1}{8}$
		Total rel	aid f	or vear							871

This represents an increase of 19 miles as compared with the previous year.

Sleepers.—The number of new sleepers placed in the track during the year was 239,536.

Ballasting.—166,940 cubic yards of ballast were placed on track.

Slips and Floods.—The Kaihu Branch was flooded five times during the year at various places, but little delay to traffic was caused thereby.

Several slips and washouts occurred on the North Auckland line, but traffic was blocked for a few hours only. From the 2nd to the 7th May Mercer station-yard was flooded by the Waikato River overflowing its bank, and the speed of trains was reduced to 6 miles per hour during that period.

On the Main Trunk line on the 25th May a slip pushed several chains of the track off the formation between Piriaka and Kakahi. A light engine ran into the obstruction and was overturned clear of the track. Other slips and washouts occurred about the same time between Piriaka and Kakahi, and through traffic, with the exception of express trains, was blocked for four days.

The bridge over the Kara Stream, near Shannon, on the Manawatu line, was damaged by a flood

on the 25th May, and all traffic was blocked until the following day.

The line near Porirua was washed out by a flood on the 13th September, and traffic was blocked for four hours.

During the year 28,000 cubic yards of spoil were removed from an old slip near Ethelton, in Canterbury, on the main north line, that started to move, threatening to block the line. Exceptionally heavy rain on the west coast of the South Island caused many slips and floods. The Otira River washed out a portion of the Midland line near Otira, and owing to recurring floods delaying the repair work all traffic was stopped from the 10th to the 19th December. A heavy flood in the Grey River scoured out several piers of the Blackball combined road and railway bridge on the 4th December, leaving a gap in the bridge 320 ft. wide. The work of restoring communication by means of temporary timber beam spans was carried on continuously day and night until the 3rd January, when the bridge was again opened for road and railway traffic.

About 3,500 tons of stone were used for river protective works on the Westland Section.

On the 1st July two engines and several wagons were derailed by rock which had fallen on the track between Parera and Mount Allen, on the Otago Central line. Traffic was dislocated for two days until a deviation of the line around the obstruction was completed.

Bridges.—These have been maintained in good order. A large number of bridges have been overhauled and repaired. Many timber bridges which required strengthening or renewal were replaced by steel structures. The bridge-strengthening work to allow heavier engines to run was continued on a number of lines.

Water-services.—These have received all necessary attention. A number of stations were connected up with local bodies' supplies for economy reasons.

Wharves.—The wharves belonging to the Department have been efficiently maintained. On Lake Wakatipu the wharf at Kinloch was overhauled, and the wharf at Elfins Bay was extended and repaired.

Buildings.—These have been maintained in good order. During the year the station and post-office building at Moerewa, cottages at Fairfax, Rangataua, and Owhango, and the engine-shed at Outram were destroyed by fire.

Station-yards.—Siding extensions and alterations have been carried out and additional accommodation provided at a number of stations.

Railway Improvements.—The total expenditure under the Railways Improvement Authorization Account during the year was £337,049, as against £131,196 last year. This amount does not include expenditure under this account on the Auckland-Westfield Deviation, and Hutt Valley Railway, which are being carried out by the Public Works Department.