xiii D.—2.

The work of raising sides and ends of high-sided wagons is being pushed through as quickly as practicable. This addition to these wagons enables full loads of coal to be carried, and increases the

utility of this class of rolling-stock.

Westinghouse Brake.—All new engines and rolling-stock built for North and South Island Main Lines and Branches are equipped with the quick-acting Westinghouse brake before being placed in service. Efficient arrangements are in force for the examination and upkeep of the Westinghouse brake.

Car-lighting.—The oil-gas manufactured at the five separate Pintsch-gas works amounted to

8,609,720 cubic feet, costing 2s. 0.73d. per 100 cubic feet.

On sections not provided with Pintsch-gas arrangements have been made for lighting cars with acetylene-gas. The greater preportion of the cars have been so equipped, and it is estimated that all cars on the isolated sections will have this light during current year.

Motor-cars, Culverden-Hanmer.—Cars in service have been kept in good and efficient working-

order.

Steamers.—The Railway Department's steamers on Lake Wakatipu have been maintained in

good order. A new steamer is in hand and at close of year was nearing completion.

Re-taring Wagons.—Whenever wagons are in workshops for repairs the tare-weight is checked and adjusted before wagon goes into service again; also, at intervals not exceeding twelve months, the tare-weight of all goods-wagons in service is checked and adjusted.

Cattle and Sheep Wagons.—The work of fitting grated floors to the older wagons has made good progress. All new live-stock wagons are fitted with grated floors before being placed in traffic. These

grated floors are found to be of great assistance in carrying live-stock in good condition.

Renewals and Replacements.—During the year under review seven old worn-out four-wheel brake vans were written off and replaced with seven standard bogie brake vans, twenty-seven bogie wagons for coal and timber traffic were converted from fifty-four four-wheel wagons; also eight worn-out coal-hopper wagons, fifteen low-side wagons, and 1,269 worn-out tarpaulins were written off and replaced with new wagons and tarpaulins respectively. In accordance with the practice of the Department, the cost of the new bogie brake vans, conversions, new wagons, and new tarpaulins was debited to working-expenses.

Twelve new bogie cars are in hand (cost debited to working-expenses) for replacing two old cars

sold and ten old cars, which will be written off when the new cars are completed.

Train Running and Mileage.—There has again been an increase in train-mileage. Compared with 1910-11 the increase for 1911-12 is 230,612 train-miles, or equal to 2.83 per cent., and 366,248 engine-miles, being equal to 3.35 per cent.

The following table shows particulars of the expenditure per train-mile:

					Cost, in Pence, per Train-mile.			
	Year.		Train-mileage.	Engine-mileage.	Locomotive Branch.	Car and Wagon Branch.	Total.	
1911–12 1910–11		•••	8,371,687 8,141,075	11,310,078 10,943,830	21·32 20·50	5·99 5·31	27·31 25·81	

The increased cost per train-mile has been mainly caused by the extra cost of fuel and wages.

## MAINTENANCE.

## Mr. J. Burnett, Chief Engineer, reports as follows:-

Permanent-way.—The track has been maintained in good condition. The following relaying has been done during the financial year:—

Main line, 53 lb. and 56 lb., relaid with 70 lb. s Branch lines, 30 lb. and 40 lb., relaid with second	teel materia -hand 53 lb.	l , &c., steel	material	86 <del>1</del>
				31 <del>1</del>
Branch lines, 40 lb., relaid with new 55 lb. mater	ial			$0^{\frac{5}{4}}$
Total relaying for the year				1181

A greater quantity of relaying would have been done but for the delay in obtaining supplies of material, due to strikes in England.

A number of sharp curves have been fitted with check-rails to lessen the wear on the outer rails. The use of second-hand rails for this purpose is calculated to double the life of the outer rails, and will thus effect saving.

Sleepers.—287,383 sleepers were put into the track during the year. The increasing difficulty in procuring supplies of native-timber sleepers renders the importation of Australian hardwood in large quantities absolutely necessary.

Slips and Floods.—Traffic on the Picton Section was stopped for several days owing to damage

by floods, and considerable similar damage was done on the Midland (Canterbury) line.