

£187,035 14s. 9d. for the previous year, giving an increase of £7,330 18s. 10d. The number of passengers carried (exclusive of season-ticket holders) was 487,250, against 431,141 for the previous year (an increase of 56,109), of which 119,982 held holiday-excursion tickets, and the remainder ordinary tickets. The additional revenue derived from this increased number of travellers was £7,034 12s. 6d.

The number of parcels carried was over 6,000 in excess of the number carried during previous year, the increase of revenue being £370 12s. 10d.

The net increase in the tonnage of goods was 38,054 tons, the chief increase being in grain—namely, 38,524 tons; and the principal decrease in “minerals other than coal”—namely, 5,251 tons. This decrease is principally due to less material for road-making having been required by local bodies.

As predicted in my previous report, the revenue from goods traffic shows a decrease, notwithstanding the largely increased tonnage; this is, of course, attributable to the reduction in freight upon grain, manures, &c., of which the bulk of the traffic consists. The decrease of revenue was £1,124 7s. 4d., but as the grain season has just begun the decrease in next year's returns will be much greater.

The timber and coal trades continue firm, and, although I do not expect any material increase in these lines, there is no reason to anticipate any falling-off.

The trade in rabbits is an increasing one, and will probably be even greater next year than it has been during this.

Sheep and wool traffic still shows a decrease, the result, as stated in last year's report, of large flocks having been transferred to Canterbury. There is every reason to believe that both will recover their previous volume.

There has been no serious interruption to traffic, but a flood in December last somewhat deranged the train-services on two days.

Only one train accident has occurred—namely, at Elles Road, in March last. This, however, was proved to be the result of malicious tampering with the points, for which the department cannot in any way be held blamable. A reward of £500, with free pardon to any but the actual culprit, has been offered for the conviction of the offender.

Although the year under review has been a prosperous one, I anticipate that next year's working will show an increased traffic, but, as before stated, that the revenue from goods traffic will not be so great, owing to the reductions of freight upon the classes of goods that constitute the bulk of the traffic, which reductions the increased tonnage will not compensate for.

The rolling-stock at command is insufficient for requirements, and must be largely increased before traffic can be satisfactorily coped with.

I have, &c.,

S. F. WHITCOMBE,

District Traffic Manager.

The General Manager, New Zealand Railways, Wellington.

APPENDIX H.

SIR,— Locomotive Superintendent's Office, Wellington, 19th July, 1900.

I have the honour to report on the comparative results of car lighting for the year ending 31st March, 1900.

PLANT.

The Pintsch oil-gas system of car lighting uses, as the illuminant, a rich gas made from crude petroleum.

The process of manufacture liberates the gas from the oil; the tar and impurities being removed by condensation and purification, after which the gas is compressed, by pump, into storeholders, and from them it is conveyed by a system of pipes to various points alongside the tracks on which the cars are supplied with gas. Special hose and fittings are used for the charging of reservoirs under cars. Each car is fitted with a regulator, or reducing-valve, by which the gas, before use, is reduced to the constant and very low pressure which is required for burning it to advantage.

The Pintsch oil-gas system of lighting the New Zealand Government railway-cars was installed at Dunedin in 1896; similar plants have since been established at Christchurch, Wellington, Palmerston North, and Auckland. Each installation consists of two furnaces (each containing a pair of 7 in. retorts), purifier and washer, condensers, meter, steam-boiler, compressing-engine and pump, and two or more fixed storeholders.

To meet the increased demand for gas, additional fixed storeholders have been added at Dunedin and Christchurch; similar additions will be made at other centres to meet increased requirements.

Cars which do not run to a gas-making station are served by travelling storeholders, fixed on bogie platform-wagons. These holders have a capacity, when fully charged, of 5,000 cubic feet, at a pressure of ten atmospheres.

ROLLING-STOCK FITTED.

Up to 31st March, 1900, 439 vehicles were fitted with Pintsch gas, while others in process of being fitted will bring up the total to about five hundred. Each car has fitted, below the floor-level, two or more reservoirs of size proportionate to the number of lamps it carries. The reservoirs are charged to a pressure of 7 atmospheres, and will supply four duplex-burner lamps for about forty hours, or, practically, the necessary lighting for a week's service on ordinary trains during the winter months. A car is recharged with gas in from three to four minutes.