any further delay. At the outset I stressed the point that the larger works would take five years to complete, and that before that time had clapsed the business under normal conditions will have attained a magnitude that will compel provision of additional accommodation. Much valuable time has already been lost in making a commencement with the scheme. Normal conditions have not prevailed, yet notwithstanding the disturbing elements created by the war the railway business has expanded considerably. The operations of the Department are already being carried on at the main centres with difficulty and under most disadvantageous circumstances. The time lost cannot be made up, but if further delay occurs in making a comprehensive start with the works there will be grave risk of the railway facilities proving unequal to the strain put upon them by the new business offering before the works are completed.

## RAILWAY MEN AT THE FRONT.

During the year a considerable number of railway men have volunteered for service with the colours abroad. The total number who have enlisted to the 31st March was 1,728. Fifty-two members have fallen in defence of the Empire up to that date. Up to the present it has not been necessary to place any restriction on enlistment by members, although the reduction in numbers in certain grades is now creating a somewhat serious problem. The names of all who answered the Empire's call are included in the roll of honour list appended hereto.

## MAINTENANCE.

Mr. F. W. MacLean, Chief Engineer, reports as follows:-

The track, buildings, structures, and appliances have been maintained during the year in good working order and repair.

Permanent-way.—Relaying has been carried out during the year as follows:—

Main and bra	nch lines	s, 53–56 lb	. relaid wi	th 70 lb	. material			Miles. $36\frac{1}{2}$
Branch lines, Branch lines,								9
lines	,		•••					12
Total relaying for the year								57 <del>1</del>

The reduced amount of relaying this year is due partly to the late arrival of shipments of rails from England, partly to the necessity for keeping some stocks in hand for future requirements in view of the difficulty in obtaining further supplies during the war.

The amount of relaying is considerably below what is desirable, and to overtake arrears increased expenditure in this direction will be required when conditions are normal.

This number is Sleepers.—158,223 new sleepers were put into the track during the year.

also considerably below the usual rate, owing pricipally to the reduced amount of relaying.

Slips and Floods.—In July, 1915, extensive floods and slips occurred on the North Island Main Trunk Railway between Taihape and Te Kuiti, on the Wellington-Wairarapa Railway, the Stratford-Whangamomona Branch, and other parts of the railway system, causing considerable delays to traffic. Traffic has also been delayed by slips and washouts in other localities.

Repairs were carried out promptly and every effort made to minimize inconvenience to

the public.

Extensive protective works have been carried out where damage has occurred or is anticipated. Ballasting. -406,544 cubic yards of ballast have been placed on the track during the year. A new ballast-pit is being opened out near Wiri.

At Te Kuiti quarry the two stone-crushers have been kept fully at work. In addition to our own requirements, stone has been supplied from this quarry for the Public Works Department and for local bodies.

At the Egmont pits a Bishop ballast-loader has been used with success. A large quantity of ballast has been supplied from this pit for the Public Works Department.

About 12,500 cubic yards of earth and sand have been deposited on the Rukuhia Swamp, which is every year becoming more consolidated.

-Bridge structures have been maintained in safe condition.

The difficulty of obtaining structural steel has delayed some of the work of strengthening bridges which is in hand.

The use of reinforced concrete in bridge structures is being developed.

Water-services.—These have been maintained in good order, and considerable improvements effected to meet increased demands.

Wharves.—The wharves belonging to the Department have been maintained in good repair. At Helensville about 15,000 yards have been dredged to increase the berthage available. Training-works have been carried out with a view to maintaining the increased depth at the

At Port Chalmers extensive repairs have been carried out, and the George Street pier is at present being widened.