

MAINTENANCE OF LINES.

Although there were no severe snowstorms during the year, gales of exceptional severity, accompanied by heavy rain, were frequent, and the stability of the lines in almost every part of the country was tested to the utmost. As a result the number of minor dislocations of traffic owing to trees being blown down and to wires contacting was much greater than usual. In only one or two cases, however, were the interruptions of more than twenty-four hours' duration, and these were due not so much to the extent of the damage as to the flooded state of the country severely hampering the operations of the line-repair parties. The fact that there was a complete absence of major breakdowns, notwithstanding the frequency and severity of the gales experienced, testified to the stability of the lines, and fully justified the Department's past policy of carrying out regular and systematic overhauls of its lines and of using only those classes of poles which had been proved equal to withstanding the severity of the elements. It also proved that although the initial cost of a line having a factor of safety adequate to meet local conditions may be high compared with that of one having an insufficient factor of safety, the extra initial outlay is more than recouped over a period of years by the saving in maintenance charges and by the reduction to a minimum of service interruptions.

In connection with the construction and maintenance of its lines of communication, the Department has always to keep in mind the important fact that telegraph and telephone facilities are most needed in times of emergency, when it frequently happens that its communication system is called upon to stand the severest stresses of the elements.

Owing to the presence of cobwebs and to the adhesion to the insulators of salt spray, much difficulty has been experienced in the past in maintaining satisfactory insulation on some of the highly exposed coastal routes. During the year this trouble was alleviated on the Napier-Hastings section by the adoption of a method of periodically cleaning the insulators by means of high-pressure steam generated by a portable boiler. As it is recognized that the periodical cleaning of insulators is a palliative only, exhaustive tests are being carried out with a view to determining the type of insulator least affected by salt spray.

POLES AND WIRE.

During the year 103 miles of pole-line and 938 miles of wire were erected for telegraph and telephone (toll) purposes, while 146 miles of pole-line and 548 miles of wire were dismantled, or, in localities where no longer required by the Department, sold to settlers for use as private telephone-lines.

The lengths of pole-line and wire in use for telegraph and telephone toll purposes on the 31st March, 1928 and 1929, respectively, were as follow :—

Pole-line and Wire.							Year ended 31st March, 1928.	Year ended 31st March, 1929.
Miles of pole-line	..	..	..	..	..	..	12,771*	12,728
Miles of wire	..	..	..	..	..	..	62,602*	62,992

* Revised figures.

The telegraph and telephone wire in use on the 31st March, 1929—viz., 62,992 miles—is classified as under :—

	Miles.
Used exclusively for telephone toll traffic	4,509
Used exclusively for telegraph traffic	9,567
Used simultaneously and (or) conjointly for telegraph and telephone toll traffic	48,916

The total length of wire that may be used for telephone toll traffic is 53,425 miles; the total length that may be used for the transmission of telegrams, 58,483 miles; and the length of telephone toll-lines over which telegrams may be transmitted by telephone, 23,088 miles. The total length of Morse circuit derived from the superimposing of telephone circuits is 13,615 miles, and the total length of additional telephone toll circuit improvised from the existing wire circuits by the use of subsidiary apparatus associated therewith (so-called phantom working) is 6,755 miles.

TELEGRAPH INSTRUMENTS AND BATTERIES.

The following table shows the class and number of telegraph instruments and batteries in use at telegraph-offices for the year ended 31st March, 1929 :—