

between Otira and Stillwater has been completed and brought into operation, and is working satisfactorily. The section of double-line automatic signalling between Addington and Rolleston has also been completed, and is now in operation. Double-line automatic signalling between Auckland and Penrose will be brought into operation shortly.

Total mileage equipped with automatic signalling is as follows: Double line, 20 miles 57 chains; single line, 133 miles 77 chains.

*Block Working and Electric Tablet.*—The tablet system has been installed and brought into use between Huntly and Glen Afton, comprising the following stations; Huntly, Rotowaro, Pukemiro, and Glen Afton. Onoke ballast-pit siding and Kauri, on the Whangarei-Opua Section, have been opened as tablet stations. Riccarton has been installed as a tablet switch-out station. The installation of tablet-working between Helensville and Whangarei is well in hand, and will shortly be ready to be brought into operation.

The total mileage equipped is 1,662 miles of single track out of a total of 3,097 miles of line open for traffic. The number of tablet instruments now in use is 904, at 378 stations. The total number of automatic tablet exchangers in use is 343.

*Lock and Block.*—The lock-and-block system has worked satisfactorily during the year. Thirteen miles of this system have been replaced by automatic signalling, and the total mileage now equipped with the lock-and-block system is 22 miles of double line. The number of lock-and-block instruments in use is thirty-eight, at nineteen stations.

*Telegraph and Telephone Facilities.*—75 miles of poles and 626 miles of wire have been erected during the year. Fifty-one connections to railway telephone circuits have been provided. Twenty new connections have been made with the public telephone exchanges, and five connections given up. Thirteen electric bells and two Morse instruments have been installed. Four intercommunication sets have been installed in the Railway Head Office, comprising forty-nine telephones.

Metallic circuiting has been completed on the following sections: Mercer to Frankton; Huntly to Glen Afton; Henderson to Helensville; Putaruru to Rotorua; Palmerston North to Wanganui; Rangiora to Waikari; Rolleston to Oamaru; Palmerston to Waitati; Otira to Greymouth; Greymouth to Hokitika; Stillwater to Ngahere.

Totals now in use: Morse sets, 289; telephones, 1,824; electric bells, 352; miles of wire, 8,991; miles of poles, 2,833.

*Electric Light and Power.*—Electric-lighting installations have been made in a large number of station buildings, yards, and departmental dwellings.

*Electric-power Installations.*—The following work has been done in connection with the electrification of machinery in Locomotive workshops: Newmarket—twelve motors installed, 15 to 125 horse-power, and two motor-panels; Addington—six motors, 4 to 125 horse-power, installed; Hillside—five motors, 5 to 15 horse-power, installed. Electric-welding plant has been installed at Addington.

Motors, &c., have been installed as follows: Frankton Junction—Nine motors and two generators installed in sawmill and house-factory; Thorndon—1 to 5 horse-power motor in lighting-depot, 1 to 5 horse-power motor in Advertising workshops; Woolston—1 h.t. transformer installed; Oamaru—motor for soda-fountain; Dunedin—one radiator in reserved-seat office.

*Level-crossing Automatic Alarm-bells.*—Four level crossings have been equipped with automatic warning-bells, &c.—Avondale, Blake Street ("wigwag" signal); Hastings, Frederick Street; Bryndwyr, Glandovey Street; Mataura, Bridge Street. The present number of level crossings fitted with warning-bells, &c., is seventy.

*Expenditure.*—Particulars of expenditure for the Signal Branch for year ended 31st March, 1925, are as follows:—

|  |    |    |    |    |                 |           |          |
|--|----|----|----|----|-----------------|-----------|----------|
| New works—   |    |    |    |    | £               | s.        | d.       |
| Signalling and interlocking                                  | .. | .. | .. | .. | 11,611          | 11        | 1        |
| Electric tablet-working                                      | .. | .. | .. | .. | 1,095           | 2         | 11       |
| Telegraph and telephone facilities                           | .. | .. | .. | .. | 44,921          | 13        | 3        |
| Electric light   | .. | .. | .. | .. | 8,183           | 11        | 9        |
| Level-crossing alarms  | .. | .. | .. | .. | 1,871           | 17        | 11       |
| Automatic signalling   | .. | .. | .. | .. | 53,443          | 11        | 9        |
|  |    |    |    |    | 121,127         | 8         | 8        |
| Installing electric motors and work for other Departments .. |    |    |    |    | 9,617           | 0         | 6        |
| <b>Total</b> .. .. .   |    |    |    |    | <b>£130,744</b> | <b>9</b>  | <b>2</b> |
| Maintenance—   |    |    |    |    | £               | s.        | d.       |
| Signalling and interlocking                                  | .. | .. | .. | .. | 22,002          | 12        | 1        |
| Signals at level crossings                                   | .. | .. | .. | .. | 1,698           | 7         | 8        |
| Telegraph and telephone facilities                           | .. | .. | .. | .. | 14,450          | 19        | 1        |
| Lines, &c., maintained by Post and Telegraph Department      | .. | .. | .. | .. | 1,416           | 9         | 3        |
| Electric block and tablet working                            | .. | .. | .. | .. | 11,539          | 3         | 9        |
| Electric light   | .. | .. | .. | .. | 8,818           | 3         | 5        |
| Electric-power signalling                                    | .. | .. | .. | .. | 16,691          | 9         | 9        |
| Electric motors, cranes, fire-alarms, &c.                    | .. | .. | .. | .. | 1,177           | 9         | 5        |
| Buildings, &c.   | .. | .. | .. | .. | 603             | 1         | 2        |
| General charges  | .. | .. | .. | .. | 2,802           | 19        | 11       |
| <b>Total</b> .. .. .   |    |    |    |    | <b>£81,200</b>  | <b>15</b> | <b>6</b> |