

experience of telegraph and cable matters should prove of great value to the councils of the Committee. Already there are ample indications that the interests of the Dominion are being closely watched and that Mr. Esson is devoting keen attention to matters pertaining to Empire communications.

MACHINE-PRINTING TELEGRAPHS.

Until recently the only system of machine-printing telegraphy used commercially in this country was the Murray multiplex system linking up the main centres. An important departure has now been made by the introduction of systems of the start-stop type generically known as teleprinters. A few typical circuits have been equipped with such apparatus with a view to determining the extent to which its more general introduction would be justified on the grounds of traffic and staff economies. Teleprinters are suitable for installation between centres where the traffic cannot be dealt with economically by hand Morse operation, but where the volume of traffic is not sufficient to warrant the introduction of the more costly multiplex system. The speed of the teleprinters in use is sixty-six words per minute, and simultaneous transmission in each direction at this speed is possible, the line thus carrying a maximum of 132 words per minute. With the multiplex system four channels, each operating at forty words per minute, are available in each direction, the line thus carrying a maximum of 320 words per minute.

CARRIER-CURRENT TELEPHONY.

The extension of the carrier-current telephone system, to which reference was made in last year's report, has resulted in a very considerable improvement in the facilities offered to the public for long-distance telephone communication. A number of additional carrier channels has been installed, including a single channel system operated over the Cook Strait continuously-loaded telephone-cable. This has enabled an additional outlet to be provided between the two Islands at a relatively small cost.

The effect of the installation of the additional carrier systems has been to extend considerably the range of toll communication generally, to relieve the congestion of traffic between certain large centres, and to increase substantially the efficiency of the long-distance toll networks. Practically all the principal centres in New Zealand, from Dunedin in the south to Auckland in the north, are now in telephonic communication at all hours of the day and night. On Sundays and holidays, and after the usual busy hours on week-days, the range is extended as far south as Invercargill, and includes a number of centres which, telephonically, are too remote from the main arterial routes to be given a full intercommunication service during the whole of the twenty-four hours. The system of long-distance communication will be further extended during the next twelve months so that the remaining principal centres will be brought into the full benefits of the continuous long-distance service. It is also proposed to install carrier-current equipment at a number of other important centres in order to establish improved and increased facilities where the traffic has proved sufficient to warrant the expenditure involved in the provision of this apparatus.

To mark the opening of the carrier-current toll sections between Auckland and Wellington, and between Wellington and Christchurch, and at the same time to demonstrate the potentialities of these latest developments in the field of long-distance telephone communications, a unique telephonic conference was held on the 5th September last. This was presided over by the Postmaster-General at Wellington, and included gatherings at Auckland, Wellington, Christchurch, and Dunedin, comprising the Mayors and the presidents of the Chambers of Commerce of the four centres, together with representatives of the press. Over the special telephonic network extending from Auckland to Dunedin, and including Wellington and Christchurch as intermediate stations, the Postmaster-General briefly addressed the gatherings simultaneously, stressing the benefits to be derived from the new installations and outlining the programme of future extensions. Following the Postmaster-General's speech the various members of the Conference responded, and exchanged congratulatory remarks.