

Telephone Engineers visit America.—Visits have been made from time to time by British Post Office electrical engineers and the engineers of the National Telephone Company to the United States to examine the telephone systems there, and it is the fact now that the standards of Britain and America are practically the same for the main equipments of cables, switchboards, telephones, &c.

SWITCHBOARDS.

Supply of Switchboards.—The greater number of the switchboards is supplied by the Western Electric Manufacturing Company, which originated in America, and which has factories in England, France, Germany, Austria, Italy, Russia, &c.

NEW EXCHANGES.

Replacing Old Switchboards by Modern Apparatus.—In London two new exchanges, Paddington and Gerard, were seen being fitted up and equipped by the Western Electric Company with central-battery apparatus of the latest practice, to replace older types of switchboard.

FITTING-UP OF SWITCHBOARDS.

Switchboards Abroad usually fitted by Manufacturers.—In Britain, on the Continent, in America, and even in Australia the exchange administrations are in a much better position in one respect than New Zealand, as the manufacturing company (mostly the Western Electric) not only supplied the switchboards, &c., but fitted them up with their own experts, and the administrative engineers had only to inspect the work and pass it.

Usually the manufacturing company had also maintenance to do for three months. In New Zealand we have invariably ordered the materials and have done our own fitting-up, so far successfully.

SMALL SUB-EXCHANGES IN PROVINCIAL TOWNS.

Small Sub-exchanges in Provincial Towns.—In the provincial towns of Britain there are small sub-exchanges, similar to those in New Zealand, that accommodate ten to twenty subscribers in the local post-office and a telephone cabinet in the public room of the office.

These sub-exchanges are used as ours are, mainly to enable the local subscribers to talk to their central town.

Circuits are all Metallic.—The circuits are all metallic, and the wires are run on poles overhead.

TRUNK TELEPHONE-WIRES.

Postal Telegraphs control Trunk Lines.—The trunk telephone-wires are very numerous in Britain, and are entirely in the hands of the Post Office exchanges or telegraph-offices.

Where the Post Office has no exchange—and they have not many yet, except small ones, outside of London—the trunk-line switchboards are controlled by the Postal Telegraph Department and accommodated in the telegraph-office buildings.

Trunk Telephone Business very large.—One instance may illustrate the enormous telephone business between large towns. Manchester has between three and four hundred trunk telephone circuits. Thirty-five of these are to Liverpool, and ten more circuits were being authorised to meet the demand arising from increased traffic.

CAPACITY OF TRUNK CIRCUITS.

The maximum capacity of a trunk circuit for business may be put down at fifty communications during the working-day.

QUALITY OF SPEECH OVER LONG TRUNK CIRCUITS.

Speech Good on Long Circuits.—The speech over the long trunk circuits, London to Edinburgh, and between Glasgow and Belfast, was found to be fairly good, its volume, however, diminishing sensibly with the length of line, and affected very considerably where cables were in the circuit.

DELAY IN GETTING TRUNK-LINE CONNECTIONS.

Excessive Delay on Trunk Connections.—The delays in getting the use of a speaking circuit to Manchester or Glasgow or to other large centres were very considerable, half an hour, three-quarters, or even more being common. Trunk wires seem to get filled as soon as they are provided, and it often happens customers want the same connections at the same time. It is no doubt difficult in large cities with many exchanges and junction wires to make connections as speedily as where there is only one exchange.

By Comparison, New Zealand Service Good.—The service given in New Zealand for both town and trunk connections is quite as good as any service that was met with.

CALL-BOX SYSTEM, LONDON AND ELSEWHERE.

Railway Platforms, &c., provided with Call-box.—The call-box system in London and elsewhere is very useful. This comprises a cabinet containing a telephone connected with exchanges, and is placed in many public places such as railway-platforms, underground-railway stairways, or wherever arrangements can be made to accommodate the cabinet. The customer enters the cabinet, rings up the exchange, and the attendant asks that the necessary pennies be dropped into the box. When she hears through the telephone that this has been done, the connection is made. The cheapest call in London is 2d.

The same system might be used in places in New Zealand with advantage.