

WIRELESS TELEGRAPHY.

Much attention has been given to wireless telegraphy. Negotiations have been proceeding with the Commonwealth Government for establishing a wireless-telegraph system between Australia and New Zealand, and some of the outlying islands, but nothing definite will be settled until there has been practical experience of the working of the installation just completed by the Marconi Company between Queenscliff, Victoria, and Devonport, Tasmania.

The Commonwealth and the New Zealand Governments have been approached by the Marconi Company, London; the International Telegraph Construction Company (Shoemaker's system), New York; the Lodge-Muirhead Wireless and General Telegraph Syndicate, London; the Gesellschaft für Drahtlose Telegraphie (Slaby-Arco-Braun system), Berlin; and the Wireless Telegraphy Company (Telefunken system), Berlin. No business arrangement has been made with either company, as the intention is to invite tenders, under certain well-defined conditions, at the proper time.

When at Rome the Postmaster-General had the opportunity of seeing the practical working of the Marconi wireless system between Monte Mario, Rome, and the island of Sardinia, a distance of about two hundred miles, which is maintained for military purposes. Messages were exchanged between the two stations with marked promptness and clearness, and the advantages of the system otherwise demonstrated. This means of communication between the two points is regarded as of great strategic value by the Italian Government, which have also equipped their war-vessels with the Marconi wireless system of telegraphy.

While in London, the Postmaster-General met Mr. Marconi and other representatives of his company. The Lodge-Muirhead Wireless and General Telegraph Syndicate's system was also seen.

On the voyage from Liverpool to New York in the White Star Company's "Majestic," which is fitted with one of Marconi's low-power apparatus, the Marconi Company was good enough to place the installation at the disposal of the Postmaster-General. News bulletins from Great Britain or America were accurately received daily, and official and private messages received and sent as well. The "Majestic" was in repeated touch with steamers travelling east and west, and messages giving the position of the vessels, the weather conditions—present and prospective—exchanged. This information, to say nothing of its obvious advantages to the travelling public, is of the highest value to navigators, who now look upon the wireless system as indispensable. To demonstrate the possibilities of the Marconi system, the company's London manager sent a message from Poldhu to the Postmaster-General when the "Majestic" was about twelve hundred miles from Liverpool, to prove the feasibility of transmitting wireless messages between Australia and New Zealand. The message was correctly received; but a reply could not at the time be sent owing to the "Majestic" being fitted with low-power, and not high-power, apparatus.

At New York representatives of the International Telegraph Construction Company (Shoemaker wireless system) invited the Postmaster-General to visit the company's factory and the United States Navy Yard to witness the practical working of their system, which had been adopted by the United States naval authorities. It was not convenient to visit the factory, but the installation at the navy yard, and another fitted up on the United States war-ship "Maryland" were seen. The authorities expressed themselves as well satisfied with the working of the Shoemaker system.

The Marconi system, it may be mentioned, has been adopted by the British naval authorities, and they are satisfied with its working.

TELEGRAPH AND TELEPHONE CONSTRUCTION AND MAINTENANCE.

NEW ZEALAND CABLE SERVICES.

The four cables across Cook Strait, and also the Wanganui-Wakapuaka cable, have been periodically tested, and found to be electrically sound. There has been no fault in these cables for over three years. A new cable hut has been built a short distance inshore at Lyell Bay, and the end of the cable transferred to it from the old hut, which has become buried in sand.

Late in November a break occurred in the cable across Foveaux Strait. The fault was found to be near the north shore. The insertion of a new shore end was completed by the cable-repairing ship on the 8th December, and the cable is now in good order. The short cables in other parts of the colony are satisfactory.

Owing to the great increase which has taken place in telegraphic business passing between the North and Middle Islands, it has become necessary to make greater use than formerly of the Wakapuaka-Wanganui cable.

SUPERIMPOSED CIRCUITS.

As will be seen from the reports on Telegraph Inspectors' districts which follow, the Department has during the year extended the work of superimposing telegraph circuits on telephone-wires, and of telephone circuits on telegraph-wires, wherever this has been practicable and the volume of business has called for it. It should, however, be again stated that only where the conditions are suitable may circuits be superimposed, and that a general application of this means of increasing accommodation is not practicable. A third metallic circuit has been provided between Invercargill and the Bluff by superimposing on two circuits already existing, and a similar improvement has been effected between Invercargill and Gore.

TELEPHONE EXCHANGE METALLIC CIRCUITS.

The installation of telephone-exchange metallic circuits contained in lead cables, to prevent induction from the electric tramways and the telephone connections of other subscribers, is now in active progress at Auckland, Christchurch, Dunedin, and Wellington.