

TELEGRAPH AND TELEPHONE CONSTRUCTION AND MAINTENANCE.

NEW ZEALAND CABLE SERVICES.

Submarine cables were successfully laid across Croixelles Harbour and across Tory Channel at the extremity of Oyster Bay and Arapawa Island respectively. The Government steamer "Tutanekai" was used for the work.

The four cables across Cook Strait and the Wanganui-Wakapuaka cable have been tested from time to time, and found to be electrically sound.

In May, 1906, a fault occurred in No. 4 Lyell Bay cable, three miles from the Lyell Bay end. Repair was effected on the 3rd June. A few days later a break occurred in the same cable, about 20 knots from the Lyell Bay end. Repairs were effected by the 26th June. In the middle of January, 1907, the No. 1 Oterangi Bay cable suddenly broke 13 miles from Oterangi Bay. The repair was completed and the cable restored to good condition by the 24th January.

About 3½ knots of cable have been laid across Croixelles Harbour, and about 1 mile of cable in Tory Channel. These are to be used in lines in course of erection to outlying districts.

Cables across Whangarei Heads and the Northern Wairoa also broke down during the year, and repairs were effected without delay.

The cables in other parts of the colony are in good working-order.

SUPERIMPOSED CIRCUITS.

This class of circuit has now been in use on many of the Department's lines for some years, and has given entire satisfaction. The system is being brought into operation wherever suitable conditions exist and the requirements of the service call for and warrant it.

Telephone trunk wires have been run between Dunedin and Invercargill, Auckland and Hamilton, and Wellington and Masterton, and are in course of erection between Dunedin and Oamaru, Timaru and Waimate, Greymouth and Westport *via* Reefton, Marton and Taihape, and several other places. On all these lines a telegraph circuit either has been or will be superimposed on the telephone circuit, and in one or two cases, where the conditions favour it, two telegraph circuits and one metallic telephone circuit will be obtained from two wires.

There is a great public demand for speaking-facilities from one centre to another and from outlying districts to their chief town or city, notwithstanding that there is already generally in existence telegraphic communication. Usually it is necessary to run two wires to render the telephone service free from disturbing noises. The carrying-capacity of a pair of wires for telephone purposes is comparatively limited, being only about fifty communications a day, and it cannot be increased by any appliances, as in the case of telegraph circuits, to which single-current, duplex, or quadruplex apparatus can be attached. This makes the satisfaction of the public demands for telephonic facilities difficult to meet without large outlay. The comparatively small earning-capacity of telephone trunk circuits has been referred to in former reports.

ELECTRIC-TRAMWAY AND ELECTRIC-LIGHT UNDERTAKINGS.

Several Orders in Council for tramway-extension have been dealt with during the year on behalf of the Board of Control, and supervision maintained over the several tramway undertakings in the colony. A few applications for licenses for the electric lighting of boroughs have been received, and are under consideration for the framing of regulations for the control of the respective systems.

AUCKLAND DISTRICT.

Construction.

The following new lines and wires have been constructed during the year:—

	Poles. M. ch.	Wire. M. ch.
Waiharara, branch off Cape Maria van Diemen line	1 40	1 40
Ponga and Hunua, extension from Ararimu line	7 0	7 0
Waioweka and Ohui, branch off Opotiki-Ohiwa line	8 0	8 0
Pukekawa and Glen Murray, branch off Tuakau-Onewhero line ..	19 0	19 0
Hoanga, branch off Dargaville-Tangiteroria line	1 0	1 0
Waiotahi and Kutarere, branch off Opotiki-Ohiwa line	8 0	8 0
Leigh-Pakiri	7 0	7 0
Auckland to Thames No. 4, diverted to <i>via</i> Hamilton	101 0
Tirau to Tapapa	5 40	6 0
Te Aroha to Turangaomoana	20 0	20 0
Te Aroha to Mangaiti	0 60	4 0
Taumarunui to Matapuna and Manunui (metallic circuit)	8 0
Bruntwood to Matangi and Tauwhare	8 0	8 0
Owhata, branch off Herekino-Whangape wire	1 20	1 20
Otorohanga-Te Kuiti, extension of telephone-wire	11 60
Miranda to Kaiaua	5 0	5 0
Riverhead, branch off Auckland-Hobsonville wire	3 0	8 0
Waimauku, branch off Auckland-Hobsonville wire	5 0
Puni, extension from Pukekohe-Mauku line	2 0	2 0