

Christchurch, Dunedin, Palmerston North, Wanganui, and Wellington, and may be printed for other exchanges if satisfactory arrangements can be made.

Common battery switchboards are installed at Invercargill and Timaru. It is also intended to install a similar equipment at Hastings, and some underground work is now proceeding preparatory to laying the necessary metallic circuits.

The demand for telephone trunk circuits continues, and considerable additions have been made during the year.

The following is a comparative statement showing length of new lines and wires erected in Telegraph Engineers' districts during the last five years:—

	1904.		1905.		1906.		1907.		1908.	
	Poles.	Wire.	Poles.	Wire.	Poles.	Wire.	Poles.	Wire.	Poles.	Wire.
Auckland ..	M. ch. 62 70	M. ch. 371 10	M. ch. 63 30	M. ch. 101 50	M. ch. 135 60	M. ch. 494 40	M. ch. 139 60	M. ch. 350 60	M. ch. 228 60	M. ch. 795 0
Christchurch ..	16 60	64 60	57 20	165 40	111 30	170 8	90 47	266 20	62 30½	641 50
Dunedin ..	81 60	166 0	136 50	400 20	48 40	392 20	121 0	518 20	248 60	644 60
Nelson ..	3 20	3 40	25 15	152 1	146 67	217 49	245 16	484 77	52 22	254 58
Wellington ..	33 0	116 40	128 71	592 78	156 35	641 40	104 43	696 74	157 2½	974 52
Totals ..	197 50	721 70	411 26	1,412 29	598 72	1,915 77	701 6	2,311 11	749 15	3,310 60

TELEGRAPH AND TELEPHONE MAINTENANCE.

The rebuilding of the Waipu–Dargaville line has been completed, and the line is now in first-class order.

On the Rawene–Kohukohu circuit and at Whitianga a piece of single-core cable has been laid across the river, replacing a long span of wire, which frequently gave trouble to shipping.

Duplex sets have been fitted at Auckland and Hamilton, on the No. 2 metallic circuit, and another quadruplex set at Auckland office.

To provide for rapid increases in the number of subscribers, the Onehunga Exchange has been fitted with a 50-number annunciator, the Hamilton Exchange with three, and the Rotorua Exchange with two 100-number annunciators.

The Wellington–Pahiatua and Hastings–Dannevirke sections have been thoroughly overhauled, a large number of ironbark poles, particularly stout at angles, having been erected, and the spans shortened to 3 chains where possible.

As the Pahiatua–Woodville section was reconstructed last year, and the Napier–Hastings section is a comparatively new one, there is now a substantial line all the way from Wellington to Napier, excepting the Woodville–Dannevirke section, which will be overhauled and strengthened at an early date.

The new telephone-line between Wharerata and Morere can now be used for through telegraph purposes whenever any breakdown occurs on the Gisborne main line between Wharerata and Nuhaka, thus minimising the delays caused by heavy weather on the east coast.

To make provision for increased traffic between Dannevirke, Weber, and outlying districts, a new wire has been erected to form a metallic circuit with the existing wire and the Morse superimposed.

A second duplex set has been installed at Napier and Hastings to work over one of the new metallic circuits.

Owing to the increase in the number of circuits, it has been necessary to put larger test-boards in at Carterton, Featherston, Hunterville, Levin, Mangaweka, Nuhaka, Waitara, Waverley, and Weber; and, to facilitate testing operations, test-boards have been put in at Ashhurst Railway, Kai Iwi, and Te Aute.

Marton Junction and Weber have been converted into Morse offices.

A Morse duplex circuit has been superimposed over the Wairoa–Napier metallic-circuit trunk wire.

The exchange subscribers at Apiti, Hutt, Johnsonville, Kiwitea, Mangaweka, Otakeho, and Pongaroa are connected by metallic circuits; the Kimbolton subscribers' circuits have also been made metallic, and the work of making the Wanganui subscribers' circuits metallic by means of aerial lead-covered cables is almost completed.

Provision is being made at Hastings in connection with the new post-office, now in course of erection, for the installation of a central battery equipment, and conduits are being constructed for underground cables to relieve the streets in the centre of the town from the congestion of overhead wires.

Owing to an increasing number of subscribers, new annunciators have been installed at Eltham, Hutt, Wairoa, and Weber; and new metallic-circuit bureau boards have been installed at Hunterville, Hutt, Patea, Wanganui, and Waverley.

The establishment of exchanges at Cheltenham, Kaikora North, Nuhaka, Otaki, Tokomaru, and Utiku has been authorised, and arrangements are in progress for their early construction.

The underground-conduit construction-work in connection with the Wellington Exchange was completed early in March. Altogether 3 miles 55 chains of trench-work was excavated. Considerable