

REPORT ON THE WORKING OF

the substantial manner in which the lines are now being constructed, will tend to bring about a change from the present moderate tariff to a still lower one.

The arrangements recently made by your instructions for the reception of Telegraphic Messages at all Post Offices in populous districts to which telegraphic communication at present does not reach, has already added considerably to the revenue, and will do so to a greater extent when the information of the facilities thus afforded for the use of the telegraph becomes more widely distributed. There can be no doubt that the plan is a great boon to outlying districts.

By the assistance of the Inspector of Post Offices, I am able to furnish you in Appendix L. with a comparative statement of the number of telegrams, and of the number of letters within each Province for the last year: I have included a similar statement comparing the proportion of telegrams to letters despatched in Great Britain, Belgium, Switzerland, and New Zealand; my authority is a report recently published by Mr. Scudamore, of the General Post Office. It will be observed on reference to the Appendix in question, that the Provinces of Marlborough and Southland make use of the telegraph to a greater extent in proportion to the number of letters despatched than any of the others. I attribute this, in a great measure, to the want of more frequent postal communication between those Provinces and other parts of the Colony. It will also be seen that New Zealand compares favourably, from a telegraphic point of view, with the United Kingdom, Belgium, and Switzerland.

Before concluding my Report, I would beg to bear my testimony to the able and zealous manner in which, as a rule, the several officers of this Department have performed their duties. I desire especially to mention that many of the recent improvements in the discipline of the various offices, and the working of the lines have been mainly owing to the suggestions furnished to me from time to time by Mr. C. V. de Sauty, whose long and varied experience in the art of telegraphy render his services in the position he now holds of Electrician to this Department, of very great value, and from whom a report on the condition of his branch of the Department is attached to this report.

I have, &c.,
C. LEMON,
General Manager.

To the Hon. the Telegraph Commissioner,
Wellington.

SIR,—

Wellington, 3rd July, 1868.

I have the honor to submit to you the following Report on the electrical condition of the lines of Telegraph in New Zealand (excepting those in Auckland), on the working of the same, and on the present electrical condition of the Cook Straits Submarine Cable.

THE lines visited by me, and to some extent inspected, were:—Bluff-Invercargill; Balclutha-Dunedin; Port Chalmers-Dunedin; Christchurch-Dunedin; Christchurch-Greymouth; and Christchurch-Nelson, *via* Blenheim.

All the stations in the Middle Island were visited and thoroughly inspected by me during the months of December, January, and February last.

The insulation of such of the lines as I have tested is in a very satisfactory condition, even in wet weather; and from the results obtained on those lines a good general idea of the condition of the remainder may be formed. The insulators in use consist of baked earthenware caps, cemented on to vulcanite covered bolts, by which they are attached to the arms; they are known as "Varley's Insulators," and are used on all the lines visited by me, excepting on the West Coast line from Christchurch to Greymouth, and on the short line from Dunedin to Port Chalmers. On these latter lines "Siemens'" galvanized iron-capped white porcelain insulators are fitted. Both these descriptions of insulators are exceedingly well fitted for the purpose intended. If any preference can be given, it should be in favour of the former, when more than one wire is attached to the same pole; the latter are, however, more suitable on lines of a single wire. The insulation of the lines will be improved when the new "leading in wires" are fitted to the several stations requiring renewal; as, owing to the effect of change of temperature, friction, and alternating moisture and dryness, the gutta-percha-covered wires—at present chiefly used—have become deteriorated and porous, admitting moisture to the conductor and causing a leakage or loss of current at each place so deteriorated. On the new lines recently constructed, and in course of construction, and on the re-erection of the Woodend and Blenheim section, longer arms than those hitherto used are being fitted, which alteration, taken together with the strict supervision under which the construction and renewals of the lines are now effected, will, it is hoped, remove one of the principal causes of interruption, *viz.*, "contact," or very materially diminish it. An improvement will also be found on those lines, resulting from the soldering of all joints. On the White's Bay and Nelson line all faulty or doubtful joints have been re-made or otherwise improved.

The principal part of the business of the new stations about to be opened on the West Coast, it is anticipated, will be with Nelson. I would therefore suggest that the new (third) wire, now being erected between Woodend and Blenheim, be carried on to White's Bay, and there connected to the No. 1 Nelson wire, by which means Nelson will acquire permanent direct communication with Christchurch.