

I would suggest that the portion of the line between the City of Wellington and Featherston, which leaves the road and runs through the bush on the Rimutaka Range, be removed and erected along the coach road, for the purpose of allowing rapid inspection and repair when necessary,—a seriously difficult matter as the line runs at present.

The Linemen have been recently supplied with a code of rules and regulations for their guidance, which will facilitate their operations when engaged on repairs. I avail myself of this opportunity of testifying to the zeal and general desire, on the part of the staff of Linemen, to acquit themselves well of the important, arduous, and often dangerous duties assigned to them. As a body, I do not think any telegraph system has the service of a superior staff.

I must also notice the services of the District Inspector, Mr. Bird, whose section comprises some of the roughest and most difficult country in the Middle Island. The energy and perseverance evinced by Mr. Bird in surmounting many difficulties and interruptions in his endeavours to re-open communication, in times of flood and storm, are deserving of much praise.

With regard to the working of the lines generally, some alterations have recently been made. The most important of these is the abandonment of the system of “translation” at Wellington, Christchurch, and Dunedin. The business is subjected to less delay than formerly obtained. This change was carried out in consequence of the following remarks made on the subject in my Report of the 8th of April. Among other suggestions for the improvement of working, I recommended—

“That the system of ‘translation’ be superseded. During the last three weeks it has been suspended on the Government Buildings line as an experiment, and Mr. Mason reports that the work is got off much more rapidly now than by translation. The Telegraphists and Officers in Charge are universally in favour of the system of translation being superseded, and I am not aware of any single point in favour of retaining it. There can be no doubt that considerable time is lost in consequence of the necessity for reducing the speed of working so as to ensure good signals. This reduction of speed is necessary by reason of the number of circuits thrown into play, and the antagonism of as many springs. In translating between Government Buildings and Greymouth, for example, no less than nine independent circuits are made, nine electro-magnets are excited, nine springs to be overcome, and ten batteries thrown into play. In any one of these thirty-seven elements a very trifling fault will throw the whole thing out. The only argument in favour of ‘translation’ over ‘transmission’ is the greater accuracy *assumed* to be obtained by it, but that accuracy is purchased at the expense of speed. It is very rarely that the lines are in such order as to allow of rapid translation taking place. The delay is very serious, amounting, in some cases, to several hours,—for when an operator at a station has a message to send to another station to which he cannot work direct, he has to wait until perhaps three or four lines are cleared before he can send it. The “Varley” instruments are not suited for translation,—the electro-magnets being too long, take a comparatively long time to acquire and lose magnetism. Time is also lost in getting all the instruments necessary for the translation into adjustment on starting. Telegraphists not making due allowance for the increased number of circuits and magnets in use, start off at as rapid a speed as if they were working to a station direct, and at a short distance; in consequence, it is very rarely that within a reasonable time of the circuits being all prepared for translation that the messages can be commenced. If it is considered desirable for the sake of accuracy, to work direct, and without transmission,—the distance between any two stations in the Colony being so small, no difficulty can be experienced in doing so, although some little time will be sacrificed, but much less time would be lost than obtains at present. In conclusion, as to the matter of “translation,” I would observe that it is an old-fashioned and obsolete system that has been superseded all over the world (not excepting even Germany). I know of no country but this where it is in existence, and here, the lines being of such limited lengths, it is not at all needful on account of lengthy circuits. It has been, even on long lengths of submarine cable, done away with in favour of direct working. If no other reasons were shewn for superseding it, a glance at the complicated connections in stations would suffice to condemn the plan.”

On the 22nd May, “translation” was suspended at Wellington, Christchurch, and Dunedin, leaving it in force at White’s Bay and Hokitika. At the former place it was retained, not as a necessity or an advantage, but simply as a precautionary measure to allay any fears, that might arise, of danger to the cable by reason of the larger amount of battery power necessary to work through direct from Wellington to Christchurch,—not that any damage could result from using any amount of battery power on two of the cable wires—(the third is not in use)—but it was thought advisable, in case of any damage occurring to the cable from lightning, that the cause of such damage might not (in the minds of those unacquainted with electrical phenomena) be erroneously set down as an effect of the larger working battery power.

At the latter place it was retained, as the reasons above given for superseding the system do not apply in their full force to the Hokitika line,—none but Siemens’ Embossing Morse instruments being in operation at Hokitika and Greymouth.

The recent purchase of better constructed instruments (made by Messrs. Siemens Brothers) than those formerly in operation, and the approaching arrival of more of the same description, will further improve the working.

Some slight alterations have been introduced in the manner of fitting up new stations with regard to the placing and connecting up of the batteries. This will have the effect of shortening