

of the telegraph wires to Auckland *via* the Thames. The objections of some of the Maori tribes will, however, have to be removed.

If the political difficulties in the way of the rapid construction of this line be soon overcome, we shall be able to reach Auckland, by way of Tauranga and the Thames, by June, 1870. If, however, the line could be carried from Oruanui along the old mail track to Cambridge (the most southern station on the Auckland and Waikato line), there would be nothing to prevent telegraphic communication being open between Wellington and Auckland by January, 1870. The whole of the wire and insulators required have been in the Colony for some time.

*Hamilton to Cambridge—(Auckland and Waikato Line).*

Totara poles are now being erected on this line, and as soon as this work is completed it is intended to dismantle the line from Newcastle to Alexandra, *via* Whatta Whatta, and to maintain communication with Alexandria *via* Cambridge. It is not contemplated to permanently reconstruct the line between Cambridge and Alexandra, which, as a source of revenue, is entirely useless. As it is desirable, however, for political reasons, that this means of communication should still be kept open, such repairs from time to time will be effected as are found indispensable for this purpose.

MAINTENANCE AND REPAIRS OF LINES.

*Bluff to Balclutha.*

This section of the line, during the coming year, will require reconstruction in some parts. It is not, however, anticipated that, beyond placing a Lineman at Balclutha, and (during the summer months) getting an experienced Lineman, with two or three assistants, to overhaul such portions of the line as may require repair, much expense will be incurred. The poles now standing will be made use of again by being lowered, and only new ones will be used where it is absolutely necessary.

*Balclutha to Waitaki.*

This section, during the past year, has been to a certain extent repaired and overhauled, more particularly that portion between Oamaru and Dunedin. The line in some places has been straightened, and many bad angles have been cut out.

During the next summer that portion of the line lying between Oamaru and the Waitaki River will require looking to, and where the present poles are not fit to be used again, new poles of heart of totara will replace them: a stack of poles has been already placed at Oamaru for that purpose and for future repairs. The line between Dunedin and Balclutha will require closer looking to, as the poles in some parts are in a very bad condition, and having been already once lowered they will not be available again. It is intended for the future, where new poles have to be erected, not to make use of any other timber than totara, unless the line actually passes through bush, and then only under special circumstances will the timber on the spot be made use of.

*Waitaki and Christchurch.*

As very troublesome interruptions on this section have been caused at various times through heavy floods in the large rivers which the line has to cross in this section, and which could not possibly be avoided, some special measures became necessary to protect the line against this source of danger. After much consideration it was determined, as the most effective and economical plan, to drive heavy iron-bark piles to such a depth into the beds of these rivers as to render them perfectly safe from disturbance by floods, and then to fix to the upper portion of these piles the poles on which the wires are carried. This plan has been successfully carried out. Two iron-bark piles have been driven in the Rakaia and one in the Ashburton, in each case to a depth of twenty-one feet into the shingle.

Four piles of the same description have also been driven into the bed of the Waitaki River. So long as these piles remain sound, I anticipate we shall be spared from the serious interruptions, at these rivers, to telegraphic communication, which have hitherto been the cause of so much inconvenience to the public and so much expense and loss of revenue to the Department.

No great repairs on this section will be required during the next year, many of the poles being of Australian timber.

*Christchurch to Hokitika and Greymouth.*

This section, from Christchurch to within thirty miles of Hokitika, has been completely overhauled during the past year, and in some places reconstructed. The old poles have been for the most part made use of again, and on reference to Appendix B. it will be seen that, beyond the ordinary expenditure for maintenance, no very great outlay has been incurred. Owing to the Westport line being a continuation of the Hokitika and Greymouth line, it became absolutely imperative that the latter should be put in a complete state of repair, so as not to neutralize the beneficial results that were anticipated from the opening up of the new line.

*Blenheim and Nelson.*

The bush on this section has given a very great amount of trouble. It seemed in some places that, no matter how wide the clearing on each side of the line was made, the wires would still continue to be damaged by falling trees. To avoid the frequent interruptions which have arisen from the above cause, the Lineman stationed at Havelock has gone carefully over the line with a small gang of men, and has removed all trees that were likely, in falling, to damage the line. At the same time the line has been renewed in many parts—new poles taken from the surrounding bush have been substituted for old ones, many angles have been cut out, and the line has been straightened wherever it was found practicable to do so. A small part of the line between Picton and Blenheim still requires to be renewed. For this purpose, totara poles have been sent from Wellington to Blenheim, and have been landed there at the moderate cost of 21s. each. When this work is completed, I do not anticipate that this section will require any further expenditure of consequence for the next two or three years.