

I venture to think it can be indisputably established that there is more than one route from Australia and New Zealand to Canada eligible for a British cable; that there is no necessity whatever for landing at New Caledonia, Samoa, or Hawaii, or, indeed, at any island occupied by natives who are not already wholly under British protection. I beg leave to describe several of such routes or combination of routes:—

Route No. 1.

Commencing at Vancouver Island, the cable would extend to Fanning Island, thence to the nearest island of the Fiji Group. From Fiji it may run direct to New Zealand, and thence to the Australian Continent; or it may run first to Norfolk Island, and from that point bifurcate to the northern part of New Zealand, and to a convenient point near the boundary between New South Wales and Queensland.

Route No. 2.

From Vancouver Island the cable would be laid to a small unoccupied island indicated on the charts as Necker Island, favourably situated about 240 miles westward from the Hawaiian Group. From Necker Island the cable would extend to Fiji, and thence as in route No. 1 to New Zealand and Australia.

Route No. 3.

As in route No. 2, the cable would extend from Vancouver Island to Necker Island, thence to Onoatua or some one of the eastern islands of the Gilbert Group. From this station in the Gilbert Group two branches would extend, one to Queensland and the other to New Zealand. The Queensland branch would touch at San Christoval Island in the Solomon Group, and terminate at Bowen, connecting at that point with the land lines easterly to Brisbane and Sydney, westerly to the Gulf of Carpentaria, where a connection may be formed with the Port Darwin-Adelaide Trans-continental telegraph, leading to Victoria, Tasmania, South and West Australia. The New Zealand branch of this route would find a mid-station on Viti Levu, the southern island of the Fiji Group.

Route No. 4.

As in routes Nos. 2 and 3, the cable would be laid from the northern terminal point to Necker Island. From Necker Island it would extend in a direct course to Bowen, touching at Apamama—a central island of the Gilbert Group—and at San Christoval, of the Solomon Group. At Bowen, this route may, as in the case of route 3, connect with Melbourne, Adelaide, Tasmania, by the South Australian overland line. Route No. 4 is probably the shortest possible line that can be drawn on the surface of the globe between any part of Canada and any part of continental Australia. It has the disadvantage of excluding from its telegraph service the Fiji Islands and New Zealand. To connect the latter colony a special cable from Queensland or New South Wales would be required. The Fiji Islands, however, would remain without a telegraph by this route.

The distance by each route is ascertained to be as follows (details are appended):—

Route No. 1—Including both branches from Norfolk Island to New Zealand and Australia		7,145 knots.
Route No. 2—Including branches to New Zealand and Australia		7,175 „
Route No. 3—Including both branches to Queensland and New Zealand from the Gilbert Group		8,264 „
Route No. 4—Vancouver to Bowen		6,244 „
Route No. 4A—Vancouver to Bowen, with a special cable from the mainland to New Zealand		7,310 „

Cost.

In estimating the cost of a cable there are various circumstances that require to be considered. One of the most important is the allowance for slack. It is customary to add an allowance to the ascertained superficial distance of 20 per cent., in order that the cable may be safely laid at all depths and under all conditions likely to arise. This practice has been followed in estimating the cost of establishing