

LINES IN OTHER COLONIES.

I am in receipt of interesting and valuable reports from Mr. Todd in South Australia, Mr. E. C. Cracknell in New South Wales, and Mr. W. J. Cracknell in Queensland, on the condition and progress of the Department under their respective supervision during the past year.

Mr. Todd gives a brief retrospect of the advancement of telegraphic enterprise in each colony since the first introduction of the invention to these colonies in 1853; and I here take the liberty of tendering to that gentleman my best acknowledgments for the kind manner in which he refers to my early labors in Victoria during that year, when I had the honor of exhibiting in practical operation the first electric telegraph instrument in Australia (and at that period, I believe, the first electric telegraph in the Southern Hemisphere).

I need hardly say that I look with satisfaction, at the present time, on the successful ramification of this system of communication throughout the colonies, although I do not claim that the subsequent results are entirely due to the energy and enterprise shown by this colony in the rapid extension of telegraphs within her borders during the years following 1853 to 1860, and later.

Mr. Todd's remarks, respecting the position of the Electric Telegraph Departments generally, are so correct, that I take pleasure in quoting the following from his Report:—

"As might be expected, the telegraph does little more than pay its expenses. Being under the control of Government, demands are made upon it, and facilities afforded, which would not be thought of were the lines worked by private companies. In each colony there are a number of unremunerative country stations, granted, in most cases, on the glowing and sanguine accounts of the residents, who, no doubt, feel themselves perfectly justified in advancing the interests of their respective districts, but whose expectations are seldom realized. It will, however, be, no doubt, generally admitted—as I have before had occasion to observe—that, if the telegraph service is made self-supporting, or nearly so, it indirectly, in the collateral advantages it confers, well repays the Government, and consequently the community generally, for the comparatively small outlay incurred in its first construction. As the great element of a successful province—population—increases, the lines will become, not only self-supporting, but a valuable investment of the public funds. The general utility of the telegraph must be too well known and appreciated to require comment here; but, were it necessary, I could adduce many instances where service has been rendered, in the saving of life, in the detection and speedy arrest of criminal offenders, in the carrying out of important public works, and to commerce, which has more than repaid the entire cost of the Department."

Details showing the financial position and amount of work performed by the Departments in each colony are given, and, as the results may be of interest here, I quote the statement, as follows:—

SOUTH AUSTRALIA.

Expenditure on lines and stations	...	...	...	...	...	£99,178 19 5
Number of messages in 1865	...	...	...	...	...	112,344
Net revenue in 1865	...	...	...	...	...	£11,225 8 4
Working expenses	...	...	...	...	...	9,071 14 8
Profit	...	...	...	...	...	£2,153 13 8

VICTORIA, 1865.

Expenditure on lines and stations	...	...	...	...	...	£248,996 5 11
Number of private messages	...	...	...	...	...	210,777
Number of Government ditto	...	...	...	...	...	68,946
Total	...	...	...	...	...	279,723
Cash receipts, 1865	...	...	...	...	£34,970 2 10	£35,767 17 4
Ditto from other colonies	...	...	...	...	997 14 6	11,546 19 3
Value of 68,946 Government messages	...	...	...	...	...	47,314 16 7
Total value of revenue	...	...	...	...	...	37,846 17 5
Working expenses	...	...	...	...	...	£9,467 19 2
Profit	...	...	...	...	...

NEW SOUTH WALES.

Expenditure on lines, exclusive of expenditure on stations, to end of 1864	...	...	...	...	...	£132,025 18 3
Number of messages, 1864	...	...	...	...	...	130,500
Cash receipts, 1864	...	...	...	...	...	£29,678 8 4
Working expenses	...	...	...	...	...	22,085 1 7
Profit	...	...	...	...	...	£7,593 6 9

QUEENSLAND.

Number of private messages, 1864	...	...	...	...	...	22,914
Number of Government messages, 1864	...	...	...	...	...	4,322
Total	...	...	...	...	...	<u>27,236</u>
Cash receipts	...	...	...	...	£5,713 3 10	
Value of Government messages	...	...	...	...	1,405 5 7	
Less paid other colonies	...	...	...	...	...	<u>£7,118 9 5</u>
						1,525 2 7
Working expenses	...	...	...	...	...	<u>5,593 6 10</u>
						5,079 9 6
Profit	...	...	...	...	...	<u>£613 17 4</u>

The following lines were opened in South Australia during the year, viz. :—
Strathalbyn to Milang in March ; Victor Harbor extension in April ; to Blanchetown, on direct Sydney line, in November ; Wallaroo to Moonta in December.

The works authorized and in progress were—a line to Melrose and Port Augusta, at a cost of £9,150 ; direct line to New South Wales, £11,700 ; re-poling intercolonial line to Victoria, £13,000 ; branch line from Willunga to Noarlunga, £180 ; branch line from Tanunda to Nuriootpa, Greenock, and Auguston, £600 ; branch line from Gawler to Lyndoch, £150 ; branch line Strathalbyn to Macclesfield, £150 ; branch line Auburn to Watervale, £125 ; Penola to Victorian boundary, £600 ; Morse instruments for railway stations, £600.

Total provision for permanent expenditure on account of telegraphs in South Australia during 1865–6, £36,255.

NEW SOUTH WALES.

In this colony the work of extension is proceeding with rapidity and regularity. Up to the end of 1865, 2,584 miles of lines, carrying 3,177 miles of wire, and worked by 55 stations, had been completed. The number of messages transmitted in 1865 numbered 138,785, yielding a revenue of £31,362 5s. 5d., and an apparent profit, after paying working expenses, of £10,051 13s. 8d., the charges on telegrams from all sources being carried to account, as already mentioned.

An extension from Tamworth to Fort Bourke was in contemplation, and the results in respect to revenue were shown to be strongly in favor of the pastoral as compared with the gold fields districts.

The principle of guarantee by the inhabitants of places requiring telegraphic communication, both in respect to lines and stations, appears to work satisfactorily.

No exact information is given as to the mode in which the guarantee bond is executed ; but the arrangement is based, I believe, on securing the department against loss through a deficiency as between revenue and working expenses, and to the Government a certain rate of interest on the permanent outlay necessary in providing the line.

In either case the amount to be required from the guarantors is so moderate, as compared with the advantages derivable from the presence of the communication, that the balance must always be in favor of the private individuals who possess sufficient energy and enterprise to obtain the extension of a telegraph line and the opening of an office in this way.

Mr. Cracknell furnishes a very interesting account of his recent journey to England, the continent of Europe, and America, where he enjoyed the opportunity of visiting a number of the principal electric telegraph stations in those countries, and the manufactories of telegraph materials, instruments, &c., &c., in Berlin, London, and New York ; but, with the exception of Messrs. Siemens and Halske's rapid-writing type instrument, already alluded to, and the telegraphic fire-signal system in New York, very few improvements are noticed.

The following extracts are worthy of note:—

"Messrs. Siemens and Halske's works in Berlin were next visited, and I am not aware of a larger or better arranged manufactory."

"They had about 500 men employed in their workshops constructing instruments and telegraphic stores for every section of the globe. In Russia this firm has carried out extensive contracts, and have still a contract for keeping all the Russian lines in repair. For this alone, I was informed, upwards of 10,000 men were employed."

"Messrs. Wasserlien's workshops I also looked through, but they are on a much smaller scale. Although some very cheap and useful instruments are made by that firm, they are not, in my opinion, so economical as the higher-priced ones of Siemens and Halske's."

"The Royal Porcelain Factory in Berlin was well worth a visit. Having been informed that the director of that establishment had refused to supply any further orders for telegraph insulators, and this being a matter of some importance to these colonies generally (as of late scarcely any other than Berlin porcelain, in consequence of the superior quality, have been used), I waited on that gentleman, who told me that, in order to enable them to execute their orders for the rapidly increasing demand for their ordinary wares, he found it necessary to decline for the future to manufacture insulators for any but their own Government."

"I have no doubt that the heavy loss through so large a percentage of rejected insulators has been, in some measure, the cause of this determination. This gentleman was exceedingly courteous, and gave me the address of a very large factory at Altwasser, near Breslau, where I was more successful, the proprietor having promised to make samples and state a price for those patterns now in use here."

QUEENSLAND.

In this colony the communication northwards has been completed as far as Bowen, and an extension thence along the coast to Cardwell *via* Townsville was projected and under survey.

The extension from a point on the Bowen and Cardwell line to the Albert River had been partially decided upon, and a party, consisting of four Europeans and four Aboriginal assistants, under the leadership of Mr. F. Walker, had been despatched to make an exploratory survey of a route for the line; but the melancholy and unexpected death of Mr. Walker at or near Burke Town, Carpentaria, has left the enterprise for the present without further progression. There can be little doubt, however, that this line will eventually be carried out, even without the stimulus of a prospective connection with the Anglo-China and Australia Telegraph Company's cable *via* Singapore and Java, &c., as the pastoral interests, now so rapidly developing the producing power of northern Queensland, will, within a comparatively limited period (if not indeed at present), afford a liberal support to telegraphic communication over a large section of the intended route, where mail communication must for many years continue to be slow and irregular.

My own impression at present, however, is that the most advantageous point for effecting the connection with submarine cable, crossing Torres Straits, will be found nearer Port Essington than the head of the Gulf of Carpentaria.

The extent of lines completed up to December 31st, 1865, amounted to 1,131½ miles; number of telegrams transmitted during that year 47,697; receipts, including telegrams on Her Majesty's service, £13,382 11s. 10d.; actual cash receipts, £10,343 9s. 5d.; expenditure for salaries and maintenance, £10,070 18s. 11d.

Considering the very recent formation of Queensland into a separate colony, it is certainly most creditable to her position that so much and so successful advancement has been shown in the extension and development of the telegraphic system in that portion of our island continent.

There is now an unbroken line of telegraphic communication from Port Augusta and Adelaide on the west to Melbourne on the south, Sydney on the east, and Bowen on the north and east shores of Australia, a total distance, by measurement, of about 2,100 statute miles, undoubtedly the longest continuous line of telegraph south of the Equator.

TELEGRAPHIC COMMUNICATION BETWEEN VICTORIA AND TASMANIA.

The Parliamentary paper (No. 1) forwarded to me from Tasmania, and now given in Appendix C herewith, shows the present position of this question.

The subject was, as you are aware, revived by the Honorable the Chief Secretary of Tasmania by letter of 12th June, 1866, and the matter has taken a definite form, by

the departure for England, during last month, of Captain George Gilmore, as the accredited agent of the Tasmanian Government, for the purpose of initiating the proposed scheme in Great Britain. That success will attend Captain Gilmore's efforts I have little doubt. It is, therefore, altogether probable that within the year 1868 we may again see the telegraphic connection between the two colonies fully re-established by means of a submarine cable of much heavier proportions than the former one, and possessing all the modern improvements so recently introduced in the manufacture of the best description of telegraph cables. It will be observed that the Government of Tasmania has not placed any restrictions on the proprietary in respect to a maximum rate of charge to be imposed for the transmission of telegrams, nor has this Government, in granting permission for the cable to be landed on the shores of Victoria, made any stipulation as to charges. While it may be quite proper to encourage a private enterprise of this nature by every legitimate means, it appears to me that it would have been only right that some authorized limit should have been stated above which the maximum charge for a single telegram should not rise. It may properly be argued that the proprietary would not wittingly stand in its own light on such a point, and that it is improbable that the rate may even exceed the charge formerly made for telegrams passing through the cable, viz., 5s. for a single message from shore to shore; but with a permanently successful work and a rapidly increasing business, from other colonies as well as Victoria, the inducements to maintain a high rate for the purpose of realizing large and speedy profits, would press with strong force on the fortunate owners of the cable. I therefore think that, in the interests of both colonies (although Victoria has declined to accept any pecuniary responsibility on account of the scheme), a maximum limit for the transmission of telegrams from shore to shore should have been fixed.

It is anticipated that the Victorian shore end of the cable will be landed either near Cape Schanck, or within the heads of Western Port Bay, at or near the township of Flinders, as may appear best for the security of the cable.

Any landing in the vicinity of Cape Schanck must be effected through a dangerous and almost perpetual surf, where, although a sandy beach may readily be found as far as low-water mark, yet the frequent presence of basaltic trap rock in large masses, both above and below the extremes of tidal rise and fall, lead me to conclude that a safer and more secure landing may be found within the entrance to Western Port. Nothing can be determined, however, in this respect until a most careful survey may have been made of both localities mentioned, and proper leading marks laid down for guiding the vessel containing the cable to the most eligible landing point for the shore end.

In the event of the cable being landed on the coast in the vicinity of Cape Schanck, it will be requisite that a short length, consisting of about two miles of land line, should be erected, in order to effect the necessary connection with the Victorian telegraph system; or, on the other hand, should the cable be landed in Western Port, about seven miles of land line will be necessary; but in either case it would be most desirable, for the perfection of communication through the cable, that a second or distinct wire should be carried on the existing poles direct from Cape Schanck to Melbourne, having no intermediate station in circuit. It will eventually be necessary that this should be done, in order to prevent interruption or delay in business. The cost of such a wire would be about £500.

NEW ZEALAND.

I am not in receipt of any official reports relating to telegraphs in this colony later than August, 1865, noticed in my last Annual Report; but I learn through the public journals that the cable across Cook's Straits, from Wellington to Port Underwood, has been successfully laid by the contractor, Mr. W. T. Henley, and that the cable is in good working order. It is of a very heavy description, weighing, I am informed, seven tons to the mile, and containing three conducting wires. The cost was necessarily large (£25,000), considering the short length of the line (forty miles); but the contractor has undertaken to

guarantee and maintain the cable in perfect condition for twelve months after submergence. This, although a serious risk, is, nevertheless, of secondary importance in relation to the risk of maintaining the cable in its present position in future years, as it must be evident that the durability or permanence of the work, subject as it is to the action of tidal currents of unusual strength, on a rather uneven bottom, is to be almost entirely measured by the resisting power of the outer sheathing or protective armor of strong iron wires. It may be said that this remark will apply with equal force to all submarine cables; but it must be obvious that the risk of injury is largely increased by the presence of more than ordinary dangers to the safety of this cable; and that these are present in that portion of Cook's Strait lying between Port Nicholson and Port Underwood will scarcely admit of a doubt.

It is, however, to be hoped that, for the sake of the advancement of telegraphic enterprise in New Zealand, these fears may never be realized in practice; but it would, nevertheless be wrong to suppose that they have no reasonable foundation, and that they should not therefore be fairly considered.

TELEGRAPHIC COMMUNICATION WITH ENGLAND *via* JAVA AND INDIA.

The brilliant success attending the great Atlantic cable-laying and cable-recovering expedition during the months of July and August last will, doubtless, give an impetus to all large works of this description; but I am at present without positive information as to the exact position of the proposed Indo-Australian connection further than was conveyed by my last Annual Report, relating more particularly to the first section of the line, *viz.*, the link between Rangoon and Singapore (1,200 nautical miles). It was stated publicly, some eight months back, that the cable was in course of manufacture for this section; but I have not heard whether it has been as yet laid down.

The Anglo-Australian and China Telegraph Company are still pressing their claims on the Imperial Government with apparent prospects of success; so that, although there may not be at this moment a report of actual progress to be made, it cannot be said that the scheme has been withdrawn. On the contrary, it would appear from a document (*see* Appendix D, the latest advice) supplied to me through the courtesy of the Honorable G. F. Verdon, C.B., Treasurer, &c., &c., that some active movement in the matter is now being made.

The document purports to be a copy of resolutions presented to the Right Honorable the Earl of Carnarvon, Secretary of State for the Colonies, agreed to and signed by the gentlemen whose names are given as promoters of the propositions submitted for consideration.

The concessions sought for must, I think, be viewed in all respects as reasonable, and it is earnestly to be hoped that the presentation of the resolutions referred to may lead to some practical and decisive action on the part of the Home Government at an early day.

I am still of opinion, as expressed in my previous Report, that the connecting point for the Indo-Java communication on the shores of Australia should be found at or near Port Essington, and that a main trunk line, intersecting as nearly as practicable the centre of Australia, should be carried thence southward for about fifteen hundred miles to some central point which might be common to all the southern, eastern, and western colonies of the island by converging lines from each—the connecting or converging lines to be the property of each colony concerned; the main or trunk line to be constructed at the proportional joint expense, based on population, of each colony, but to be under one distinct management, as might be arranged.

As it will eventually become an absolute necessity that a central line of telegraph should be extended northward of the thirtieth degree of south latitude, and westward of the one hundred and forty-third meridian of east longitude, as a material aid in developing

the resources of the interior of this country, I do not consider that I am proposing too much in recommending that this route should be adopted for the Anglo-Indian connection, on the basis I have before suggested. It would be an easy task to dilate at length on the immense value of a direct telegraphic communication between the prosperous colonies on the south and the new settlements now struggling into existence on the north shore of Australia, irrespective of the impetus to settlement in the immediate vicinity of the telegraph route, which would be certain to follow the progress of the work, and would in itself form a strong argument in favor of the proposition; but, independently of these considerations, the scheme has in itself so much to commend it to the notice of the several Colonial Governments, that I consider it only necessary at present to remark that, when the Anglo-Australian and China Telegraph Company may be in a position to submit a definite proposition to the Governments of the respective colonies, involving the final determination of a landing point for the cable, the prospective necessity for a great interior line of telegraph, in the direction already indicated, should be prominently kept in mind.

Pending the realization of the Anglo-India and Australian project, the extension of a line to King George's Sound, as previously suggested by me, would reduce the time required for correspondence with Europe, England, and America, to the lowest extent possible under our existing ocean mail contract.

In my last Annual Report I stated the approximate estimate for a line from Port Augusta to King George's Sound at not exceeding £150,000; but I have since found, on referring to an accurate chart, that the distance to be traversed is considerably less than I at first accounted; I therefore consider that Mr. Todd's estimate of £120,000 for the same work would not, in all probability, be exceeded.

I have before strongly urged the importance of this extension on all grounds, and I am still of opinion that the line could be so worked as to afford a fair return for the expenditure invested.

The cost of the work would fall almost altogether, if not exclusively, on Victoria and South Australia, as it is improbable that the other colonies would contribute, although their telegrams to and from King George's Sound would materially swell the revenue derivable through the working of the line.

I would here beg to suggest that a correspondence on the subject should be opened with the Colonies of South Australia and Western Australia, in order that it may be ascertained how far they would be disposed to support the project.