

APPENDICES

TO MINUTES OF PROCEEDINGS OF INTERCOLONIAL CONFERENCE ON THE DUPLICATION OF THE ELECTRIC TELEGRAPH BETWEEN AUSTRALIA AND EUROPE.

No. 1.

Telegraph from C. Lemon, Esq., Superintendent of Telegraph Department, New Zealand, to C. Todd, Esq., C.M.G., Adelaide.

New Zealand, 8th May, 1878.

Commissioner has seen your telegram desires me to say Government find it impossible to attend Conference Letter on board *Arenata* explaining their views on proposed duplication.

(Signed)

C. LEMON.

No. 2.

The Chief Secretary, South Australia, to the Chief Secretary, Victoria.

SOUTH AUSTRALIA.

Chief Secretary's Office,

Adelaide, 24th January, 1878.

SIR,

At the Cable Conference held in Sydney in January and February of last year, the Government of South Australia was invited to open negotiations for the duplication of sub-marine cables to connect this colony with Singapore. In compliance with this resolution, negotiations were opened with the Eastern Extension Telegraph Company, and resulted in the following proposal, which is now submitted for the favourable consideration of your Government.

The Eastern Extension Telegraph Company have intimated that they are willing, in consideration of an annual subsidy of £32,400, to lay a second cable from Singapore direct to Banjoewangie, avoiding the Java land lines, and thence direct to Port Darwin.

The amount of capital required for this work, which would comprise 2,157 miles of cable of the best type, is estimated at £540,000. This sum the company would raise at six per cent., which would be equivalent to the subsidy asked for. In addition to this, it is understood that, in the event of their offer being accepted, the company will be prepared to duplicate the cable between Penang and Singapore, a distance of 387 miles, and at a cost to themselves of nearly £100,000, for which they ask no subsidy.

As the company have recently, at a cost of about £180,000 from their own resources, provided a cable connecting Rangoon and Penang, should the proposal now submitted be carried out, there will be provided duplicate lines of communication between Australia and Europe, besides the alternative routes west of India and *via* China and Siberia.

The recent interruptions between Port Darwin and Singapore have most conclusively shown the necessity of having duplicate cables; and, as the proposition now submitted is in every respect reasonable, this Government would strongly urge that the terms offered should be accepted, the subsidy being apportioned amongst the several colonies on the basis of population, as agreed to at the Cable Conference; South Australia being exempt from contributing in consideration of the large outlay which she has incurred in erecting, and is still incurring in maintaining, the overland telegraph, which latter expense cannot be set down at less than £26,000 a year.

In the previous offer of the company laid before the Conference, they asked for a subsidy of £48,600, viz., £32,400 for duplication, calculated at 6 per cent. on capital cost, and £16,200 for a renewal fund. Their present terms are therefore much more favourable; and in fact it would be utterly impossible for any outside company to do the work cheaper and as efficiently.

With regard to the suggested duplication *via* Banjoewangie and Champion Bay, Mr. Todd, our Superintendent of Telegraphs, points out that it would involve about 350 miles more cable than if taken direct to Port Darwin, besides the cost of an extensive establishment at Champion Bay.

There would also be nearly 400 miles of additional land line to traverse, or over 2,330 miles from Champion Bay to Adelaide. It would be for the most part along the coast, and would consequently be more exposed to interruptions than a line inland. The route along which the cable to Champion Bay would be laid is right in the track of the south-east trades and north-west monsoons, during the prevalence of which it would be very difficult, or next to impossible, to effect any repairs. The sea bottom is also unknown, whereas between Singapore and Port Darwin the nature of the ground is now well known to the company's officers from several years' experience of the present cables; and it has been ascertained that the dangers to which these are exposed can to a great extent be avoided.

The only argument that can be urged in favour of a different route is the obtaining of a duplicate land line; but, with respect to this, experience has proved, not only that the present land line to Port Darwin is fully equal to all the demands made upon it, but that it is not liable to an interruption of more than two or three days. The Port Darwin line, passing as it does through the dry interior, is in circumstances exceptionally favourable for rapid transmission over long circuits, whilst the almost entire absence of local traffic must always give it an immense advantage over any other land line of equal length. I need hardly say that this Government fully realise the responsibility resting upon them to maintain the transcontinental line in the utmost state of efficiency; and I would add that Mr. Todd has designed a peculiar form of insulator adapted for iron poles, which he believes will prove an effectual safeguard against breakages by lightning and other causes which now give trouble where iron poles are used. A large number of these insulators will be ordered by the next out-going mail.

With

With regard to reduction of rates, the company intimate that they are prepared to reduce their tariff in consideration of an equivalent subsidy, with respect to which Mr. Knevitt, the company's agent here, has shown that, calculated on the past year's traffic, a reduction of one penny a word is equivalent to a loss of £1,000 per annum, or, in other words, that a reduction from 9s. 5d. a word (the company's present rate between Port Darwin and Europe, exclusive of Australian and New Zealand rates) to 7s. a word means a loss to the company of £29,000 a year; and it should be borne in mind that where the cost of a message under the reduced rate would still be considerable, no very great increase of business can be looked for as resulting from the proposed reduction.

This Government, therefore, consider that this is a question the consideration of which may be postponed till the more urgent matter of the duplication of cable is completed.

In view of the great importance to the whole of the colonies of securing a second cable, I would respectfully ask your early consideration of the Eastern Extension Telegraph Company's proposal, so that the question may be finally dealt with without further delay.

I have, &c.,

The Honourable the Chief Secretary, Victoria.

(Sd.)

WILLIAM MORGAN.

No. 3.

REPORT OF A VISIT BY THE AGENTS-GENERAL FOR VICTORIA AND NEW ZEALAND TO MR. THORNTON, C.B., SECRETARY OF THE PUBLIC WORKS, RAILWAY, AND TELEGRAPH DEPARTMENT OF THE INDIA OFFICE, AND JOINT MEMORANDUM ON THE QUESTION OF BEST MODE OF DUPLICATING EXISTING LINES.

We visited Mr. Thornton, by appointment, having previously sent to him an introductory letter from the Colonial Office. We found him exceedingly willing to give us all the information which his office could afford. He explained to us that, under an Act of the Council of India, the Indian Government issued licenses to telegraph companies, subject to certain specified conditions. He further informed us that India was a party to the International Telegraph Convention, and bound by its regulations, with the practical application of which Colonel Champain was more particularly acquainted. At this stage, Colonel Champain, R.E., the officer in charge of the Government Indo-European Telegraph Department, joined us by Mr. Thornton's request conveyed to Colonel Champain during the interview. We pointed out the increased rate per word which, since the last Convention, the Eastern and Indo-European Company appeared to have received for the transmission of messages between India and Europe. In reply, we were told that this increase was sanctioned by, and settled at, the Convention. Generally, the position was thus explained to us. The Indian Government concur with the Convention in the opinion that it is not desirable to encourage rivalry in prices between competing companies, as it may lead to the competition being abolished and to the establishment of a monopoly. They think it preferable to stipulate for what they consider fair charges. As Australia was not represented at, and therefore no party to, the Convention, their rules do not apply beyond India; but, as between India and Europe, there are two companies, the Eastern and the Indo-European, and both of these are bound by the Convention rules. The companies have also to comply with the conditions imposed by the Government. There seems to be no doubt that, even were the two companies to be willing to compete for Australian messages, the Indian department would not consent to their doing so by the reduction of their rates, unless both companies reduced equally. In short, the Government of India seems to adopt altogether the Convention policy of discouraging competition, but at the same time evinces a disposition to repress undue charges. There does not appear, however, to us, to be any adequate machinery by which undue rates can be altogether prevented. The companies virtually fix their own rates, and, when they agree, there does not seem to be much, if any, difficulty in the way of such rates being established. Possibly the Convention may take evidence as to traffic, income, business, and expenses, but we did not learn by what process of inquiry they were guided when fixing the rates. It is very probable that these triennial Conventions facilitate in some fashion international negotiations affecting the conditions of transmitting messages; but, in regard to finally fixing the rates, we doubt whether the Convention is the most suitable body to perform such a function. It may be that it prevents, or discourages from coming into play, a certain amount of competition which otherwise might lead to the conclusion that in the long run low cable rates would pay better than high ones. We were told by both Mr. Thornton and Colonel Champain that there would be no obstacle or objection whatever to the Australian and New Zealand Governments being represented at future Conventions; and we strongly recommend that they should be so represented, as it is obvious that any unrepresented interest on such an occasion is to some extent at the mercy of those to whom the actual making of the regulations is entrusted.

ARCHD. MICHIE.
JULIUS VOGEL.

1st June, 1877.

Memorandum by the Agents-General of Victoria and New Zealand.

Following the interview which we jointly had with Mr. Thornton and Colonel Champain, at the Indian Office, and the report of the same which we prepared, and had the honour to transmit to our respective Governments, we have carefully considered and discussed the whole question of telegraphic communication with Australia and New Zealand; and we think it desirable to place upon record the conclusions at which we have arrived.

It is impossible to exaggerate the importance commercially, politically, and socially of maintaining telegraphic communication between Europe and Australasia (in which term we include New Zealand and Tasmania). Apart from the innumerable advantages which facilities for immediate communication afford not only to the colonies, but to all persons having any dealings with them, the rapidity of the progress of these communities will in a great measure be affected by the extent to which such facilities are promoted

and maintained. It is, of course, evident that Australasia depends greatly for its future progress upon the flow of population from without, as also upon the increase of the number of those who, in one shape or another, introduce capital to, or open business relations with it. Unless the colonies are to be left to depend for the increase of their population and resources on the natural increase of the present small population, and on the labours alone of the present settlers and their descendants, they must look forward to emigration from more numerously peopled countries. The use of the telegraph has become so popular that it is now regarded as almost a necessary adjunct to our daily life; and nothing would more retard the introduction of fresh population and capital to the Australasian colonies than the feeling that those who become connected with these distant countries might find themselves outside the range of telegraphic communication.

It is true that a line of telegraph already exists, but in respect to that part of the route over which there is only a single line of communication there is the danger at any moment of interruption. Whilst such danger exists there is an indisposition to resort to the telegraph to anything like the extent to which it might be depended on, whilst in so far as it is used the loss in case of interrupted communication to those who are in the habit of employing it is most disastrous. The uses and ramifications of the telegraph are so wide-spread and deep-rooted that a suspension of communication becomes a calamity, not merely to individuals but to the State.

A complete duplicate system from end to end can alone, in our opinion, give to Australasia that reasonable security her interests and well-being demand.

The employment of the telegraph is evidently largely affected by the tariff, which to the extent to which the use of a line is placed beyond the reach of all who do not belong to the more affluent classes is equivalent to obstruction to the use of the telegraph. The arguments in favour of the telegraph are arguments in favour of its being placed within the reach of the mass of those who would benefit by it. We do not, as will be seen, urge that those, be they few or many, who do not directly derive benefit from the telegraph should be largely or permanently taxed to save expense to those who immediately employ it; but we consider that the matter is so important that the State may reasonably be expected to do all that can be done to aid those who require the service of the telegraph in procuring that service on the most favourable terms, consistent with the inevitable impediments which may stand in the way.

We incline to think also that the interests at stake, being as they are so large, and so certain to become larger from year to year, ought not to be left in private hands. Much, if not all, that can be said in favour of the Governments working the lines of telegraph within the colonies seems to us to be applicable to the desirability of their working the exterior lines which form the means of communication between the colonies and Europe.

It is impossible to read the report we wrote on our interview with Mr. Thornton and Colonel Thompson, and also to remember all the circumstances of cable communication with Australasia, not to be alive to the fact that the interest of the colonies have been prejudiced already by reason of their having no control over exterior cable lines.

At the late Conference held in Sydney nothing definite was decided as to the mode of duplication, but the representatives unanimously voted in favour of such duplication where necessary, and also considered that any necessary subsidy consequent thereon should be defrayed by the colonies assenting thereto, in proportion to their respective populations. The following is the text of the two resolutions:—

- "1. That it is desirable to extend and improve the means of telegraphic communication between Australia and Europe, by the duplication, where necessary, of the cables or lines connecting the same.
- "2. That any subsidy on ocean cables to connect Australia with Europe shall be borne by the several Australian colonies assenting thereto, in proportion to population."

The Conference also decided in favour of a subsidy of £20,000 as the proposed consideration for the future reduction of the tariff to six shillings a word. The resolution to this effect was supported by the representatives of the colonies of New South Wales, Queensland, South Australia, and Victoria. The representatives of New Zealand, Tasmania, and Western Australia refrained from voting. The text of the resolution was as follows:—

- "6. That the Governments of South Australia, and New South Wales be empowered to make arrangements with the Eastern Extension Telegraph Company for a reduction of message tariff to six shillings per word, at a subsidy not exceeding £20,000 per annum, terminable at one year's notice; and that such subsidy be borne by the respective colonies, in proportion to population, any colony to be at liberty to withdraw on like notice."

From these resolutions it is clear that the Conference contemplated, and its representatives more or less approved, a subsidy for a duplication, as well as of £20,000 for a reduction of the tariff; and we think we may assume that if both these subjects, viz., a duplication and reduction, can be procured for a payment of about £20,000 for a limited term, that such a result is much more favourable than the Conference expected, and is one to which the members assembled thereto would in all probability have given unanimous and cordial approval.

It is well to observe that the reduction to six shillings meant a reduction to that price, exclusive of the cost of transmission through the Australian Continent.

From what we have already said it will have been understood that the object to which we attach most importance in this communication is, that the Governments should take charge of telegraph cable communication.

Few will dissent from the principle who have observe how admirably the telegraph has been managed by the various Governments of the colonies. They may be said to have set the example, since followed in Great Britain, of cheap telegraph communication under Government control. So popular has this plan become that, notwithstanding the opposition in this country to anything savouring of protection, little objection is made to the telegraph being carried on at an apparent loss, which of course means that the taxpayers who are not immediately benefited by the telegraph are made to contribute to the cost for the benefit of those who directly use it.

Australasia in relation to the cables is somewhat in the position that Great Britain occupied in relation to the land lines when she determined to acquire them. Only in the one case there were numerous interests to deal with, whilst in the case of the cables the Governments would substantially have to deal with one company only.

Whatever we have said in favour of Government, and against private control of the cables, it is of course not designed to reflect on the company to whose praiseworthy energy and enterprise Australasia owes it that she has possessed, and still possesses, telegraph communication with the outer world.

The Eastern Extension Company deserves well of the colonies, and its claims cannot be overlooked. It would probably be deemed illiberal in Governments, and would prove very discouraging to future private enterprise, if, with money borrowed as low as they can now borrow, the Governments were to go into opposition to the company without giving it the opportunity of disposing of its interests on reasonably favourable terms to itself. The same consideration should be given to the company as that which the government of a city would give to existing water and gas works after it had determined that the city should in future take the charge of supplying the inhabitants with gas and water.

Before erecting fresh works all reasonable efforts should be made to acquire existing ones. We think, therefore, the Governments should fairly recompense the company by buying its lines, in preference to constructing others on their own account.

The company has a good duplicate system between Penang and India, and, it is to be presumed, contemplates duplicating the line between Singapore and Penang, since in Mr. Pender's memo., dated October 3rd, 1876, he says:—"This company, however, already possesses one line between Singapore and India, and has entered into a contract for a second, which will be laid down by the end of the present year."

When the Australasian lines reach Singapore, they fall into the system that serves for China. We think it would be desirable to arrange for the use without purchase of the lines from Singapore to India, always presuming, of course, that the duplication between Singapore and Penang is completed. Commercially and economically, it would appear to us to be a mistake to lay down fresh lines when sufficiently good ones are available. Two lines from Singapore to India would be sufficient for all purposes; and, therefore, both the Governments and the company must benefit by a suitable arrangement. We would suggest that in the event of the company selling its line between Singapore and Port Darwin to the Governments, that that arrangement should be accompanied by one for the use of the lines between Singapore and India, for a lump yearly payment, commencing with the present estimated revenue of the section and increasing each year by five per cent., for such time as may be agreed on. Thus the Governments will be able to fix their own tariff to India whilst still using the company's lines between Singapore and India. The arrangements must, however, be made in such a manner as to meet the contingency of the British and Indian Governments acquiring the lines between India and Singapore, a result which we believe will not be unlikely to follow the course we propose the Australasian Governments shall take.

We observe from a paragraph in the *Argus* that Mr. W. J. Cracknell, the Superintendent of Telegraphs in Queensland, has made a recommendation to the Government to arrange for the construction of a line to Singapore in connection with one from Singapore to Bangkok. This, though somewhat briefly stated, is probably a renewal of the plan arranged between the Governments of New South Wales, New Zealand, and Queensland and Mr. Audley Coote, in 1873. The project was to carry a land line up the Malay Peninsula to Teroi, on the Tenessarim frontier; the Indian Government to extend their lines from Moulmein to Teroi. The King of Siam was to give a concession for carrying the line up the Peninsula, and the projectors were in return to run a branch line to Bangkok in Siam. When Sir Daniel Cooper, Mr. Daintree, and Sir Julius Vogel commenced negotiating with Messrs. Siemens Brothers to carry out the arrangement made by their agent, Mr. Coote, considerable attention was given to the proposed route to connect Singapore with India, as on it depended the success of a thorough scheme of telegraph. We have good authority for saying that Sir D. Cooper, Mr. Daintree, and Sir Julius Vogel found reason to doubt the success of the project. They were informed it was very questionable if the independent Chiefs in the Peninsula would respect the King of Siam's concession; besides, the vegetation along the route was so rankly luxuriant that to keep the line open would involve considerable expense. So doubtful were they of the proposal that, in one of their letters to Messrs. Siemens Brothers, they wrote:—"With respect to the Malay Peninsula, between Penang and Singapore, we must inform you that we shall stipulate, in case that line does not work satisfactorily, that we be at liberty to call upon you to lay a cable instead."

From this it may be inferred that the Colonial representatives doubted the success of the line even so far as Penang, whilst beyond that, it is to be presumed, they thought a cable absolutely requisite. We make these remarks to show that we have duly considered Mr. Cracknell's proposal. It may be added, however, that the plan we are now suggesting is so much more favourable to Queensland as well as to the other colonies, that Mr. Cracknell, of whose ability we are well aware, is not, we think, at all likely to dispute it.

To resume, we have not come to the conclusions we have indicated without satisfying ourselves that the Governments would not be likely to suffer by them. Obviously, it would be imprudent to too narrowly discuss the purchasing price, but it is no secret that the company has expended about £600,000 on what is called its Australian Section, i.e., the line between Singapore and Port Darwin; that the New Zealand line has cost about £290,000, and the Tasmanian about £70,000; amounting in all to about £960,000.

Before further dealing with these figures, it is necessary to consider the mode of duplication. It is, as we have said, essential that there should be a complete duplication of the line between Australasia and Europe. Tasmania and New Zealand should also be secured against accident to their present single line of communication. This might be cheaply effected by laying a line between the two colonies themselves, which, in effect, would give to each an alternative means of communication with the main Australasian system. The line between Sydney and Nelson cost £290,000, including the purchase of a steamer. A line to connect Tasmania and New Zealand would cost about £200,000.

From England to Singapore, with the exception of the Penang section, to which we have already referred, there are two lines the whole way—at some parts there are more than two lines. Between Singapore and Australia there is but one line. We regret to have to touch on the subject of the route of the duplication of the line between Australia and Singapore, since it is one of great difficulty, but our remarks would

would be incomplete if we failed to do so. At the Conference, whilst the expediency of duplication was admitted, no decision whatever was come to concerning it. In our opinion no duplication would be satisfactory that did not give an alternative line throughout, which, of course, includes an alternative to the use of the line between Adelaide and Port Darwin. Bearing this necessity in mind, the following are the routes from which selection would probably have to be made:—

1. New Zealand to San Francisco, by way of Honolulu.
2. Western Australia to Galle.
3. Western Australia (North-West Cape) to Singapore, by way of Java.
4. Normanton to Port Darwin, partly by water partly by land, and from Port Darwin to Singapore, by cable throughout, touching at Java.
5. Normanton or Cape York to Singapore, by cable throughout, touching at Java, but not at Port Darwin.

Enquiries which have recently been made by Sir Julius Vogel point to the first route being almost impracticable on account of the great depth of the water which would have to be passed through. If such a line were laid, it is unlikely it ever could be repaired, as the depth of water is greater than that from which a cable has ever yet been raised. The depth at one point between San Francisco and Honolulu is 3,250 fathoms, and at a point between Honolulu and Fiji, 3,448 fathoms. The deepest line yet laid is supposed to be 2,700 fathoms, between Brest and St. Pierre, whilst the depth from which a cable has been picked up is between 2,400 and 2,500 fathoms. At some time or other a cable will probably be constructed from the United States to Japan, but it would have to go far north to avoid the depth of water of a direct or more southerly route. The project of carrying a line from San Francisco to Honolulu, and thence to radiate to Japan and China and to Australia, does not appear to be feasible. Number two route would be outside of the company's system altogether. Having already said that we think the company should be liberally dealt with, we consider that if the Governments buy the present line, it would be better policy to make the duplicate line touch Java, for the business with that place is supposed to be considerable. Besides the Galle line would involve the maintenance of a separate steamer. Another objection to the Western Australia route is, that the land line may not easily be maintained, and at any rate, the use of it will not be so cheap as that for which the Queensland Government would be willing to give the use of its line. The last objection only can be urged to the third route. It would be cheaper than any other, but it would not satisfy Queensland, and we doubt if the land line could be made as safe and trustworthy apart from the tariff to be charged on it as the Queensland land line. As to routes four and five, we have already said we think the route through Queensland by far the most secure, whilst it is probable that unless the Queensland route were adopted that colony would stand aloof. The adoption of the Queensland route would mean the reduction of the tariff through Australia. The Queensland Government charge for messages to Normanton only 1d. or 2d. a word, whilst the South Australian Government receive out of 10s. 8d. (the through charge to Adelaide) the large proportion of 1s. 5d. a word. We do not say the change is unreasonable (considering the expense and risk South Australia is subject to), but clearly it is altogether inconsistent with cheap telegraphy.

Routes four and five are the two ways by which communication can be made with Queensland. One by connection with Port Darwin, partly cable and partly by land line, with a second cable from Port Darwin to Singapore, avoiding only the Java land line; the other by cable from Normanton or Cape York to Java, and thence Singapore. The cost of route four would be about £650,000, whilst that of route five, from Normanton, has been variously estimated at from £750,000 to £1,000,000. We are not aware what would be the saving of cable cost and the additional expense of land line of making the starting point from Cape York instead of from Normanton. We have made route five to start either from Normanton or Cape York; if the latter be found preferable, it might be adopted.

Paying, as the Governments would, in cash, they should we think be able to get route five carried out for £700,000. As to whether route five would be more desirable than route four, we prefer not expressing an opinion. We think one or the other of these routes the best, and the choice between them should be carefully considered. We are of opinion, however, that, if the more costly route is chosen, Queensland should pay the difference between it and the less expensive one. As we have said, the Queensland Government now charge 1d. or 2d. a word to Normanton; but, when it was contemplated by the Queensland Government to join New South Wales and New Zealand in subsidising a company to construct a line from Normanton to Singapore, that Government proposed that the charge should be seven shillings for twenty words, or a little over 4d. a word; but then Queensland was to become liable for a considerable subsidy. Under the arrangement we propose, Queensland's contribution will be so much less that she can well afford to relinquish the fractional charge in excess of 4d. a word, which she formerly proposed.

We are of opinion that an annual sum by way of subsidy should be paid to the South Australian Government for reducing the rate to that which it is agreed shall be charged through Queensland. With an annual subsidy of £10,000, South Australia should see its way to adopt a tariff of 4d. a word. It could be arranged either to divide all through land receipts between the two colonies of South Australia and Queensland, or else that each should keep its own, and that New Zealand, New South Wales, and Queensland should use the Queensland route; the other colonies, the South Australian route, when both lines were open; and of course all use either route open in case of disaster to the other.

The expenditure under our proposal may be approximately estimated as follows:—

Port Darwin to Singapore	...	...	...	£600,000
Sydney to New Zealand	...	...	...	290,000
The existing Tasmanian line	...	...	...	70,000
The line proposed from Tasmania to New Zealand	...	...	...	200,000
The line proposed from Normanton to Singapore	...	...	...	650,000
				£1,810,000
Four per cent. on which would be...	...	...	...	£72,400
Add subsidy to South Australia	...	...	...	10,000
				£82,400

Say £82,400 annually.

We have naturally avoided including the profit, consideration, or goodwill which should be paid to the company. It should be satisfied with from 10 to 15 per cent. Its shares are now at about 25 per cent. discount, and such a sale should be a good transaction for it coupled with an arrangement for the use of the Singapore to India section, by which the company would enjoy upon such lines as it retains a virtual monopoly of the Australasian business. Between what we propose and the position of the company if the Government elected to carry a line from Western Australia to Galle, there can be no two opinions as to the interests of the company. We have already said Queensland should pay anything that is required over £650,000 for the connection between Normanton and Singapore. The amount will be ample if the route is by Port Darwin. If a cable the whole way is preferred Queensland should not hesitate to pay the difference. The arrangement would almost certainly be better for her than anything which has hitherto been proposed, whilst we think that it does substantial justice to South Australia. It must be borne in mind that a reduction of the present almost prohibitive rate of transmission through Australia is a cardinal feature of our proposal.

It is easily to be seen that the Governments have an advantage over the present and any other company, for, whilst the company has to pay six per cent. for its money, the Government can get it for less than four per cent. It was the knowledge of this, together with the reflection that communication must be kept up, and further expenditure incurred, that led us, before going into the figures, to conclude that the Governments could with benefit buy out the company. We have taken six per cent. as the borrowing rate of the company, although probably its shareholders look for a larger return on their share capital.

We have now to consider the question of expenditure. In December, 1874, Mr. Todd, the able Postmaster-General and Superintendent of Telegraphs of South Australia, who probably has the largest acquaintance with the subject of cable communication with Australia, wrote:—"I have no reliable information as to the amount of traffic with Java, apart from Australia. I believe, however, I am not far wrong in assuming that it is sufficiently large to cover the whole of the working expenses of the British Australian section by the cables between Singapore and Batavia, and between Banjoewangie and Port Darwin, leaving the whole of the receipts from Australian business to be carried to profit."

These Java receipts are not known to us, and we can only conclude that they must at any rate largely defray the expenses of working the line. The Governments would be able to reduce existing expenditure by doing away with one steamer, and using their own officers for many purposes. We think that on the five lines—viz., the two to Singapore, the New Zealand line, the Tasmanian line, and the New Zealand and Tasmanian line—the total expenses should not be more than £12,000 in excess of the receipts from the Java traffic. Adding this amount to the interest and to the payment of £10,000 to South Australia, we have an amount of £994,000. The rent of the Singapore and Indian section may also be added. The equivalent will appear on the other side under the head of revenue. We propose that the rent should commence with the present estimated revenue, and the items of rent and the revenue from this section might be left out on each side. It will, however, be more satisfactory to insert them. In order to make the matter clear it will be as well to explain how the 10s. 8d., which is the charge from London to Adelaide, is divided:—

	s. d.
The Company transmitting to India receives	...
The Indian Government	3 0½
The Java Government	0 4½
Eastern Extension Company, India to Singapore	0 2½
Ditto, Singapore to Darwin	1 7
South Australia	4 0
	1 5
Making in all 10s. 8d. a word.	10 8

Of the amount receivable by South Australia, 1d. probably is considered as the special carriage to Adelaide, for the same payment enables a message to be taken to Melbourne; in which case it is to be presumed the South Australian Government receive 1s. 4d. and the Victorian Government 1d. The company (*vide* Colonel Glover's letter to the Agents-General of March 9th, 1877) accept Mr. Todd's estimate of 235,000 words as representing the annual traffic of the Australian line. It is probably within the mark; at any rate, there must be an improvement going on. This would make the revenue of the Singapore and Indian section, 1s. 7d. a word, £18,600; and of the Singapore Australian section, at 4s. a word, £47,000. In neither case is the Java business, other than with Australia, included. The rent, therefore, of the Singapore and Indian section would be £18,600, with an addition of so much of the traffic between Java and Singapore as extends beyond the latter place. The revenue between Java and Singapore would belong to the Governments.

We have already incidentally mentioned that the reduction to 6s. a word, which it was proposed to secure, did not include the cost of transmission through the Australasian Continent. Any one who studies Mr. Todd's figures and those of the company will satisfy himself of the point. Indeed a reduction from 10s. 8d. to 6s., if it all came off the company's receipts, would leave of its 5s. 7d. a word only 1d. a word for the whole distance from Port Darwin to Madras. The £20,000 was meant to secure a word rate of 6s. to Port Darwin only, which, added to the rate to Adelaide of 1s. 5d., would have made together 7s. 5d. a word. It is important to remember this, for as we propose to include the £20,000 subsidy, our plan must involve a reduction on the tariff similar to that which that subsidy was designed to secure. As we assume that the revenue will not be less than at present, it is necessary for the correctness of our calculations that any reductions that are made should not result in a loss to the revenue. It will of course be open to the Governments, when they own the lines, to consider the question of further reductions. There are many people who believe that considerable reductions may be made without loss of revenue. At any rate we contend no loss of revenue worth consideration will result to the cables from the moderate reductions we propose. The reduction from 9s. 3d. to Port Darwin to 6s., which it was proposed to secure by the subsidy, amounts to 3s. 3d. a word. Of this amount 1s. 1d. will be covered by the reduction we propose on the rate of transmission through Australia. There is thus left 2s. 2d., which we confidently contend may be taken off the 5s. 7d. (the present rate over the two sections from Port Darwin to Singapore and Singapore to India), without diminishing the gross revenue. That is to say, we are of opinion that the total reduction of 3s. 3d. a word between Australia and England will induce a sufficient increase

of business to fully compensate the reduction of 2s. 2d. on the sections between Port Darwin and India. As to the reduction in the cost of transmission between Adelaide and Port Darwin, that is partly dealt with by subsidy, partly by presumed increase of business. In addition, we think 6d. a word (which is equal to a reduction of 3d. a word, the rate now being 7s. 6d. for ten words) may be the rate established between Australia and New Zealand, without any danger of diminishing the revenue on that line.

The total revenue remains to be considered. It is as follows:—

India to Singapore	...	...	...	£18,600
Singapore to Port Darwin	...	...	...	47,000
Sydney to New Zealand	...	...	...	14,000
Subsidy paid by New South Wales and New Zealand Governments	...	...	...	7,500
Australia to Tasmania, about	...	...	...	5,000
Proposed Tasmania and New Zealand line, about	...	...	...	3,500
The proposed subsidy	...	...	...	20,000
				£115,600

In reference to the subsidy on the New Zealand line, it has only eight years to run, but it cannot be questioned that by that time all need for it will have vanished.

The amount set down for the proposed New Zealand and Tasmanian line is moderate. The expenditure of £94,400 with the rent of the Singapore to India section of £18,600, amounts to £113,000. Deducting this from the revenue, there is a small balance left of £2,600. But the expenditure does not include interest on whatever sum it may be decided to pay the company in excess of the value of the lines purchased. Our calculation merely takes the cost of the lines without an allowance for goodwill. Whatever that allowance may be fixed at, its annual cost will not much exceed the margin between revenue and expenditure we have just referred to. Should there be an excess it will merely mean that the £20,000 subsidy is slightly exceeded. In a question of this kind three or four thousand pounds a year, apportioned amongst all the colonies, is not of much moment. Besides, if the £20,000 subsidy is slightly increased it is to be borne in mind that the amount will be reducible by increase of business; and surely it is better to pay a little more for a year or two, with a prospect of substantial reduction, than to stand committed to a continuous annual payment of £20,000. We must indeed express the opinion that the estimates of revenue are much within what the revenue will really amount to when two complete lines will give, to those disposed to use the telegraph largely, increased confidence in the safety of doing so.

The question of reserve, sinking, or re-construction fund, is one that requires consideration. It very much less affects the Governments than the company, because the Governments are in a better position to meet contingencies than is a private company. In our opinion the second or duplicate line is the equivalent of a reserved fund, and no other seems to be necessary. The duplicate line is not wanted so much for work as for an insurance against accident. All that the Governments should do is to maintain the two lines, the expenditure on which must necessarily be variable. The steamer, and the maintenance and repairs she will from time to time be called upon to effect, we include in the ordinary expenditure. The cost of any extraordinary reparation we consider will be fully covered by the increase of revenue to which we have referred. That increase may during some years reduce the rate of subsidy included in our calculations, or even afford a profit in excess of it; in other years, on the other hand, it may be all absorbed by repairs required.

As to the disposal of surpluses or deficiencies, these might either be divided in proportion to the populations of the several colonies or in proportion to the several takings by each colony. The work should be divided into staff, or general and local. By this plan the total cost of management would be much reduced, as the ordinary Government officers could perform the local work. The cost of the general or staff work could be apportioned amongst the colonies in the same way as it was decided to divide the receipts—*i.e.*, either in proportion to population or the respective receipts.

It would be superfluous to dilate on the advantage of having the telegraph in Government hands, because this is not likely to be unappreciated by the colonies, which have so long had reason to be satisfied with the Government control and management of the land lines. We may, however, observe that the plan which we now propose will, we think, be followed by larger results than might at present be commonly anticipated.

The Governments at the Conference at Sydney in 1873 seemed unanimously to approve of the proposal that the entire line between England and Australia should be acquired jointly by the British, Indian, and Australasian Governments. Our proposal, by which the last-mentioned Governments would secure part of the lines, may work better than a tripartite arrangement. There is probably a better prospect of the English and Indian Governments following the example of the Colonial Governments if it be found to work well, than of procuring their co-operation at first in a triple partnership. If, as we expect, increased revenue and largely augmented facilities arise from the step we now propose its results will powerfully influence the British and Indian Governments.

As we intend to send a copy of this memorandum to our respective Governments we may be permitted to observe that accident rather than design has led to this movement being confined to ourselves. We have had frequent opportunities of discussing it, and we have found that our opinions in the main harmonise. We thought it better not to treat it as an Agent-General's question, to discuss which, courtesy might have required of us that we should request the counsels and co-operation of the London representatives of other colonies. The question does not indeed come before us as Agents-General, excepting as they may feel themselves called upon to represent to their respective Governments the impressions which they from time to time receive. In thus expressing these opinions, we cannot in any way commit our Governments, or embarrass their actions for themselves.

The Agents-General of South Australia and Queensland would, however, probably feel that the questions into which we have entered relating to their colonies, are of a nature they would not enter into without consultation with their Governments. On the whole, therefore, we have thought it better to confine ourselves to placing on record merely the results of our own discussions and calculations, to which we have now the honour to invite your consideration.

ARCHD. MICHIE.
JULIUS VOGEL.

No. 4.

SOUTH AUSTRALIA.

INTERRUPTIONS ON ANGLO-AUSTRALIAN TELEGRAPH, 1872-78

Port Darwin Line Interruptions from its Completion in 1872 to 29th March, 1878.

When Interrupted.	Length of Interruption.	Situation and Cause
1872.		
August 27 ...	3 days ...	Between Peake and Charlotte Waters.
November 18 ...	3 " ...	
Total	6 days	
1873.		
January 28 ...	3 days ...	Between Beltana and Strangways Springs.
March 6 ...	4 " ...	Between Peake and Charlotte Waters.
April 8 ...	2 " ...	Between Katherine and Yam Creek.
May 28 ...	2 " ...	Between Alice Springs and Barrow's Creek.
August 24 ...	2 " ...	Between Daly Waters and Katherine.
September 16 ...	2 " ...	Between Tennant's Creek and Powell's Creek.
December 4 ...	3 " ...	Between Daly Waters and Katherine.
Total	18 days	
1874.		
January 17 ...	3 days ...	Between Powell's Creek and Daly Waters.
March 23 ...	2 " ...	Between Daly Waters and Katherine.
March 25 ...	2 " ...	
May 21 ...	2 " ...	
July 4 ...	3 " ...	
August 14 ...	2 " ...	
September 25 ...	2 " ...	
October 9 ...	4 " ...	
Total	20 days	
1875.		
January 30 ...	2 days ...	Between Charlotte Waters and Alice Springs. Insulator off, and line touching iron pole.
March 18 ...	3 " ...	Between Daly Waters and Katherine. Natives cut wire.
May 29 ...	2 " ...	Between Beltana and Strangways Springs. Insulator off, and line touching iron poles.
June 10 ...	2 " ...	Between Powell's Creek and Daly Waters. Insulator broken by natives; line on iron bracket.
August 15 ...	2 " ...	Between Yam Creek and Southport. Insulator broken; line on iron pole.
September 3 ...	2 " ...	Between Powell's Creek and Daly Waters. Insulator broken by natives; line on iron bracket.
October 18 ...	3½ " ...	Between Peak and Charlotte Waters. Line touching lightning rod.
December 10 ...	2 " ...	Between Charlotte Waters and Alice Springs. Insulator off; line touching lightning-rod.
Total	15½ days	
1876.		
February 26 ...	2 days ...	Between Tennant's Creek and Powell's Creek. Insulator off; line touching iron pole.
March 5 ...	2 " ...	Between Powell's Creek and Daly Waters. Insulator off; line touching iron pole.
April 26 ...	3 " ...	Between Beltana and Strangways Springs. Insulator off.
May 8 ...	6 " ...	Between Port Augusta and Beltana. Line broken at Moralina Creek.
May 29 ...	2 " ...	Between Barrow's and Tennant's Creeks. Teams ran over wire and cut it.
September 11 ...	4 " ...	Between Beltana and Strangways Springs, also Port Augusta and Beltana. Insulator off; line touching iron pole.
November 10 ...	3 " ...	Between Beltana and Strangways Springs. Insulators off, line touching iron poles.
November 29 ...	1 " ...	Between Yam Creek and Southport. Insulator off. Line touching iron pole.
December 27 ...	2 " ...	Between Powell's Creek and Daly Waters. Natives broke insulators, line touching iron poles.
Total	25 days	

When Interrupted.	Length of Interruption.		Station and Cause.
1877.			
January 11	... 1 day	...	Between Peake and Charlotte Waters. Insulator off, line touching iron pole.
March 19	... 3 "	...	Between Powell's Creek and Daly Waters. Insulator off, line touching iron pole.
June 11	... 2 "	...	Between Beltana and Strangways Springs. Piece of wire twisted round line-wire and pole.
June 11	... 1 "	...	Between Port Augustus and Beltana. Line broken half-mile south of Depot Creek.
August 4	... 2 "	...	Between Daly Waters and Katherine. Line broken midway between stations.
September 21	... 1 "	...	Between Beltana and Strangways Springs. Broken thirty miles north of Beltana.
October 9	... 1 "	...	Between Charlotte Waters and Alice Springs. Natives burning grass, burnt some poles down.
October 14	... 3 "	...	Between Alice Springs and Barrow's Creek. Bush fires.
November 6	... 3 "	...	Between Powell's Creek and Daly Waters. Natives breaking two insulators at North Newcastle.
November 10	... 2 "	...	Between Barrow's and Tennant's Creeks. Lightning breaking insulators and line on iron poles.
November 14	... 1 "	...	Between Katherine and Yam Creek. Lightning breaking insulators and line on iron poles.
November 30	... 2 "	...	Between Tennant's and Powell's Creeks. Lightning broke insulators and line on iron poles.
December 4	... 2 "	...	Between Powell's Creek and Daly Waters. Lightning broke insulators and line on iron poles.
December 8	... 3 "	...	Between Yam Creek and Southport. Lightning broke five insulators and line touching iron poles.
December 13	... 1 "	...	Between Alice Springs and Barrow's Creek. Natives cut out a shackle.
December 15	... 3 "	...	Between Powell's Creek and Daly Waters. Lightning knocked down several poles, line on ground.
December 25	... 3 "	...	Between Powell's Creek and Daly Waters. Lightning broke two insulators; line touching iron poles. Also between Beltana and Strangways Springs. Line chafed through insulator; touched iron pole.
Total	... 34 days		

1878.

January 1	... 1 day	...	Between Katherine and Yam Creek. Large tree falling across line at crossing of river.
January 14	... 5 "	...	Between Daly Waters and Katherine. Bush fire and heavy storm, blown tree across line. This wet season has been exceptionally bad for cyclones and terrific thunderstorms.
February 9	... 1 "	...	Between Barrow's and Tennant's Creeks. Lightning broke insulators, line touching iron poles.
March 15	... 5 "	...	Between Port Augusta and Beltana. Heavy floods at Willochra washed number of poles down, and line on ground covered with drift.
March 23	... 2½ "	...	Between Charlotte Waters and Alice Springs. Seven poles burnt, sixty miles south of Alice Springs, and line on ground.
March 25	... 2 "	...	Between Peake and Charlotte Waters. Exceptionally heavy floods.
March 29	... 1 "	...	Between Charlotte Waters and Alice Springs. Line broken.
	17½ days.		

Cable Interruptions.

When Interrupted.	When Restored.	Where between.
1872.		
June 22	... October 20 ...	Port Darwin and Banjoewangie.
1873.		
February 21	... February 24	Land line between Boeeki and Banjoewangie.
March 31	... April 2	Batavia and Singapore.
May 12	... May 26	Penang and Madras.
July 13	... July 13	Land line 30 miles from Banjoewangie.
November 20	... November 23	Singapore and Penang.
1874.		
May 20	... May 31	
August 13	... August 15	
August 16	... August 23	
December 10	... December 20	

Floating Station was established 16 miles from Batavia with daily steam communication to Singapore on the 18th December.

When Interrupted. When Restored. Where between.

1875.

September 2 September 16 } Batavia and Singapore.
 November 5 November 8 }
 November 15 December 24 Penang and Madras.

1876.

March 28 August 24 ... Penang and Madras.
 April 24 August 7 ... Port Darwin and Java.
 October 22 November 30 Batavia and Singapore.

1877.

February 26 March 2 ... Batavia and Singapore.
 July 13 July 17 ... Singapore and Penang.
 September 26 October 13 ... Batavia and Singapore.
 October 19 October 31 ... Singapore and Penang.
 November 8 December 15 Port Darwin and Banjoewangie.

1878.

January 22 February 3 ... Batavia and Singapore.
 March 11 March 13 ... Land line between Sitoenda and Sourabaya.

C. TODD,

Postmaster-General and Superintendent of Telegraphs.

General Post Office, Adelaide, March 29th, 1878.

No. 5.

F. 248-70.

Electric Telegraph Department,

Adelaide, 18th April, 1870.

SIR,

Having had several interviews with Commander Noel Osborn, R.N., at which the objects of his mission were discussed, I have now the honour to submit the following remarks and suggestions for the early consideration of the Government, it being desirable that some decision should be arrived at before the next outgoing mail.

Commander Osborn represents the Telegraphic Construction and Maintenance Company, who have entered into contracts for the construction of the line projected by the British-Australasian Telegraph Company, a copy of whose prospectus was lately received from the Agent-General, and is herewith appended.

Every offer hitherto has involved the payment of large subsidies; but, so far as appears, the proposition now submitted requires no such responsibility, but relies wholly on the traffic for payment. We have a scheme well considered and supported by an experienced and powerful company, capable of carrying out the work to a successful completion. All that is asked of us are the necessary facilities for bringing the cable to our shores, land for stations, and that we should assist by defining a track for the land section.

It is no unimportant consideration that the cable to be laid will actually form a portion of an integral through line practically under one management; free, therefore, from the complications and delays incidental to divided control and foreign operators.

Such are the altered and favourable conditions under which the scheme is now placed before us. I would therefore, in view of the importance of telegraphic communication with our Northern Territory, and the desirability of opening up an overland route, strongly advise that every effort should be made before Commander Osborn leaves us to secure the landing of the cable at Port Darwin; for although that place is named in the prospectus, I understand that it is by no means certain that it will be actually taken there unless South Australia take some steps to secure it.

English capitalists have, very naturally, great reluctance to encounter unknown obstacles and dangers—even though the dangers may be more imaginary than real—in erecting and maintaining a land line through an unsettled country. They feel, and correctly too, that the local Governments are in a far better position for carrying out this part of the work; and it would consequently require very little argument on the part of Queensland to induce the company to abandon all idea of a land line and carry their cable instead direct to the shores of Carpentaria, thus excluding our Northern Territory from all participation in the advantages to be derived from telegraphic communication. And I would here respectfully remind you, that New South Wales and Queensland mutually agreed to subsidize Mr. Frazer's scheme to the extent of £17,500 per annum, unaided.

Commander Osborn informs me that, if the land line between Port Darwin and Burketown is finally decided on, it will take Stuart's track as far as the Roper River, where it meets Gregory's, which will then be followed to Burketown, connecting there with the Queensland system.

The question for South Australia to consider (and fortunately it is a question in which the other colonies as well as the company are all equally interested) is, whether we shall be content to depend on so great a length of single line necessarily exposed to frequent interruption, or whether it will not be for

our own interests to carry a line across the continent, either direct to Port Darwin or to some point on the company's line. If we went direct to Port Darwin the company would, no doubt, abandon their land section and terminate there.

It is some eleven or twelve years since I first drew the attention of the Government to the practicability of erecting a land line from Port Augusta to the Northern Coast, and every addition to our knowledge of the interior since acquired has confirmed the views I then advanced.

We have then two plans to consider: First, to undertake the responsibility of a line right through, from Port Augusta to Port Darwin, to be completed simultaneously, or as nearly so as possible, with the laying of the cable, i.e., by the end of 1871—the company pledging themselves to terminate the cable there; or second, to let the company construct their proposed land line to Burkettown, but reserve the right to connect with them at some intermediate point, either on the Roper or Nicholson.

The distances are as follows:—From Port Augusta to Port Darwin, 1,550 or, say, 1,600 miles; to the Roper, say 1,400; to the Nicholson, say 1,100.

The first plan, if Stuart's track were followed, would secure the whole of the traffic to South Australia, but there would be the disadvantage of depending on a single line, which would be obviated by going to the Nicholson, or by letting Queensland connect with us, at either the Nicholson or Roper, according to the route taken.

If the second plan is adopted, we shall have to arrive at some arrangement as to the division of traffic—what messages shall go *via* South Australia, and what *via* Queensland.

The simplest, and perhaps the most equitable, arrangement would be a fixed tariff common to both routes, and an equal division of receipts between South Australia and Queensland.

A careful consideration of the whole question induces me to recommend that the Government should undertake to introduce a measure, immediately after the new Parliament meets, for providing, by means of a loan, for the construction, at once, of a line of telegraph from Port Augusta to Port Darwin—Commander Osborn guaranteeing, on the part of the company, to terminate the cable there. This, I understand, Commander Osborn would be quite willing to do, or at least to recommend to the British Australian Company, with whom he would communicate, to save time, by the Indo-European telegraph next mail.

To remove all cause for jealousy, as well as to provide an alternative line, Queensland should be invited to connect with us at some convenient point; and this, in my opinion, would be far better than a central station at Cooper's Creek with radiating lines to each capital, as has been suggested, but which I have shown to involve a useless expenditure of money.

The company would, no doubt, readily fall in with this plan, as their connection with two independent routes would make them secure from interruption, an advantage of equal importance to the colonies.

With regard to cost, it will much depend on timber being found along the route. Much of the country is, I believe, destitute of serviceable trees, and transport will therefore form a serious item. I propose, however, to use only fifteen or twenty poles to the mile, and, in some places, stone cairns, and by this means keep the expenditure down. It would not be safe to estimate the cost at less than £80 per mile, or, say, £120,000, which is the sum I would recommend should be provided by loan.

We might recoup ourselves for a portion—say one-fourth or one-third—by the sale of land in the Northern Territory, which the telegraph would do so much to open up.

Next, as regards maintenance: having two lines to depend upon, it would not be necessary to have stations so close together. Stations at the Blinman and Yudanamuntana Mines on the projected line of railway of 200 miles would be supported by local traffic. As far as pastoral stations extend, we should not require an extensive staff, as we could easily arrange with the settlers to assist in keeping the line in order, i.e., to repair casualties. Three or four stations with four men at each would be sufficient to bridge over the interior to the Nicholson or Roper. The annual maintenance would probably not exceed £8,000.

Revenue.—The company reckon sixty-five messages each way per diem for 330 working days. My estimate in previous reports was only twenty-five each way, or fifty per diem, and this moderate calculation, at 10s. a message, would yield £8,250, or a little more than the cost of maintenance, leaving the interest on first outlay unprovided for. That is all our existing lines do; they barely pay their working expenses; but no one doubts that they indirectly more than repay the colony by the facilities they afford to the commerce of the country. It should be borne in mind that the business will yearly increase with the growth of the colonies; and further, that the line will promote more than anything else the development of the North. There can be no doubt of its being remunerative in a few years.

We might effect an actual saving on the completion of the line by discontinuing the branch mail service to King George's Sound, which, with direct telegraphic communication with England, would no longer be so necessary. If the second plan is adopted, and we connect with the company's line at the Nicholson, £100,000 will be sufficient, but we should in that case have to divide receipts with Queensland. In the one case we have the control of a main line through, with a branch to Queensland; in the other we have simply a branch line connecting with the main to Queensland.

Should the Government concur in the views I have expressed, I would suggest that immediate steps should be taken for obtaining from the Surveyor-General a report as to the best route, which his extensive knowledge of the country will enable him to furnish. He has, I think, a party of surveyors well advanced on the eastern boundary, who might perhaps be made useful as a flying expedition, with a view to discovering the route offering the greatest facilities. As the cable will be laid by the end of 1871, we have no time to lose; whatever is done must be done quickly.

In conclusion, I would observe that it is next to impossible for more favourable terms to be offered to us; and, if we fail to accept them, we must be prepared to leave to Queensland the exclusive honour of having, through her own unaided enterprise and energy, afforded to the Australian colonies the immense advantages of telegraphic communication with the whole civilized world. Our geographical position and our intelligence alike prohibit this.

I have, &c.,

CHARLES TODD,
Superintendent of Telegraphs.

The Hon. the Treasurer.