

1886.

QUEENSLAND.

ESTABLISHMENT OF DIRECT TELEGRAPHIC COMMUNICATION
BETWEEN AUSTRALIA AND GREAT BRITAIN (VIA UNITED
STATES OR CANADA).

(CORRESPONDENCE RESPECTING)

Presented to both Houses of Parliament by Command.

(1.)

THE SECRETARY TO THE AGENT-GENERAL to THE UNDER COLONIAL SECRETARY.

London, 5th April, 1886.

SIR,

I have the honour, by direction, to hand you herewith, for the information of the Colonial Secretary, a copy of a letter from the Colonial Office respecting the proposed establishment of a Telegraph Line between the United States and Australia, having its American terminus at San Francisco, together with a copy of Mr. Garrick's reply.

I have, &c.,

CHAS. S. DICKEN.

[Enclosure 1 in 1.]

THE COLONIAL OFFICE to THE AGENT-GENERAL.

Downing street,
30th March, 1886.

SIR,

I am directed by Earl Granville to acquaint you that His Lordship has been informed that proposals have lately been made in the United States, by gentlemen connected with the Australian Colonies, for the establishment of a Telegraph Line between the United States and Australia, having its American terminus at San Francisco.

I am to inquire whether you are in possession of any information respecting this scheme, and whether it possesses the support of your Government.

In view of the completion of the Canadian Pacific Railway, it would seem to deserve consideration whether such a cable, if constructed, might not more advantageously have its terminus in British Columbia.

I have, &c.,

JOHN BRAMSTON.

[Enclosure 2 in 1.]

THE AGENT-GENERAL to THE COLONIAL OFFICE.

London, 3rd April, 1886.

SIR,

I have the honour to acknowledge the receipt of Mr. Bramston's letter of the 30th ultimo, respecting the proposed establishment of a Telegraph Line between the United States and Australia, having its American terminus at San Francisco, and to say that I am not in possession of any information in regard to the scheme referred to, nor of the views of my Government respecting it. I concur in the opinion expressed in the last paragraph of the letter, that, in view of the completion of the Canadian Pacific Railway, it would be desirable to consider whether such a cable, if constructed, might not more advantageously have its terminus in British Columbia. A copy of your letter will be sent to the Colony by the next mail.

I have, &c.,

JAMES F. GARRICK.

(2.)

THE SECRETARY TO THE AGENT-GENERAL TO THE UNDER COLONIAL SECRETARY.

London, 6th August, 1886.

SIR,

I have the honour, by direction, to hand you herewith, for the information of the Chief Secretary, a copy of correspondence from the office of the High Commissioner for Canada, respecting the establishment of direct Telegraphic Communication between Australia, New Zealand, Canada, and Great Britain, together with a copy of the documents relating to the scheme, and a copy of the *Canadian Gazette* of the 29th July containing a report of an interview on the matter with Mr. Sandford Fleming, one of the promoters of the scheme.

With reference to the letter to Sir Charles Tupper of the 19th July,* contained in the Printed Documents, I am to say that, at the meeting of the Agents-General held on the 12th July, nothing was said as to the distribution of the annual subsidy, otherwise Sir James Garrick would have taken exception to such an apportionment as that mentioned in the letter referred to. At this meeting nothing was determined as to the place of landing the cable, or as to whether it should go *via* New Zealand or *via* Fiji.

I have, etc.,

CHAS. S. DICKEN.

[Enclosure 1 in 2.]

THE HIGH COMMISSIONER FOR CANADA TO THE AGENT-GENERAL.

London, 28th July, 1886.

SIR,

With reference to our recent meeting respecting the establishment of direct Telegraphic Communication between Canada and Australasia, I now beg to send you, as arranged, some letters and memoranda containing a definite proposal prepared by Mr. Sandford Fleming and the other gentlemen who undertook to go thoroughly into the question.

I shall be glad if you will be so good as to bring the subject before your Government at your convenience, and I venture to hope that they will give you such instructions as will enable us to take some further steps towards bringing about so desirable an object.

I have, &c.,

CHARLES TUPPER.

Printed documents referred to.

(1.)

ORDER IN COUNCIL IN REFERENCE TO THE ESTABLISHMENT OF TELEGRAPHIC CONNECTION BETWEEN THE AUSTRALIAN COLONIES, CANADA, AND GREAT BRITAIN.

Privy Council, Canada.

Ottawa, 10th June, 1886.

SIR,

By direction of the Right Honourable the President of the Council, I forward you a copy of an Order in Council, dated the 8th June, 1886, with respect to the subject of the proposed establishment of Telegraphic Communication by cable from the Australian Colonies, for your action and co-operation as therein expressed.

I have, &c.,

JOHN J. MCGEE,
Clerk, Privy Council.

The Hon. Sir Charles Tupper, G.C.M.G., C.B.,
High Commissioner for Canada,
9, Victoria Chambers, London, S.W.

(2.)

CANADA.

CERTIFIED COPY OF A REPORT OF A COMMITTEE OF THE HONOURABLE THE PRIVY COUNCIL, APPROVED BY HIS EXCELLENCY THE GOVERNOR-GENERAL IN COUNCIL ON THE 8TH JUNE, 1886.

On a memorandum, dated 22nd May, 1886, from the Minister of Public Works, submitting a communication from the High Commissioner for Canada in London, enclosing a copy of a circular addressed by the Colonial Office to the Agents-General of the Australian Colonies, on the subject of the proposed establishment of Telegraphic Communication by cable from those Colonies to San Francisco, the last paragraph of which is as follows:—

“In view of the completion of the Canadian Pacific Railway, it would seem to deserve consideration whether such a cable, if constructed, might not more advantageously have its terminus in British Columbia.” The Minister represents that several communications have been received from Mr. Sandford Fleming, C.E., setting forth the scheme of a Company, represented by him, to connect either Queensland or New Zealand with Vancouver, B.C., by way of Fiji and Hawaii, by which it appears that the estimated cost of the Cable would exceed £2,000,000 (say \$10,000,000); and that as it is the intention of the Company to very greatly reduce the rates at present ruling for telegraphic messages between England and Australia, the Company would require assistance from the different Governments interested, in the shape of a subsidy, which is roughly estimated at about £70,000 per annum for a period of about twenty years. Mr. Fleming

Fleming represents that the Governments interested in the project are Canada, Great Britain, India, Victoria, New South Wales, New Zealand, South Australia, Queensland, Tasmania, Western Australia, Hawaii, and Fiji, and states that advances have already been made towards some of the Agents of the Australian Colonies, with a view to having the terminus of the proposed cable in British Columbia instead of San Francisco, which have been favourably received. Mr. Fleming suggests that as Canada is greatly interested in establishing direct telegraphic communication with Australia, India, and the East, it would be advisable that this Government should take the initiative in the matter, and invite a conference of the Agents of the Colonies interested to discuss the subject.

The Minister, agreeing with the suggestions made as to the advantages likely to accrue to Canada from the establishment of direct cable communication between British Columbia and the East, and that it would be advisable that this Government should take the initiative in the matter, recommends that advantage be taken of the Colonial and India Exhibition now being held in London, and the presence in that city of representatives from the Colonies interested, to obtain an expression of opinion on the project, and that the High Commissioner for Canada be requested to invite a conference of the Agents-General of all the Colonies interested, and ascertain how their respective Governments would be disposed to act in the matter, and what amount of assistance they would be prepared to give; also, that the High Commissioner should ascertain from the Imperial authorities what assistance might be expected from them on behalf of the United Kingdom and India, and that the High Commissioner report the result of his inquiries as speedily as possible.

The Committee concur in the report of the Minister of Public Works, and the recommendations therein made, and submit the same for Your Excellency's approval.

The Committee further recommend that the High Commissioner be instructed to put himself in communication with the Secretary of State for the Colonies, and endeavour to secure the co-operation of Her Majesty's Government on the subject.

(Signed) JOHN J. MCGEE,
Clerk, Privy Council.

(3.)

DIRECT TELEGRAPHIC COMMUNICATION BETWEEN AUSTRALIA, CANADA, AND GREAT BRITAIN.

Batt's Hotel, Dover street, London,
10th July, 1886.

Sir Charles Tupper, G.C.M.G., C.B., High Commissioner for Canada.

Sir,

Having learned that the Canadian Government has instructed you to confer with the representatives in London of the other Governments interested in the projected Telegraph Communication between Australia and the United Kingdom, by what may be termed the Canadian route, I beg leave to submit the accompanying documents bearing on this important question.

I desire to direct your attention more particularly to the enclosed memorandum, of date, London, 1st July. In this document I have ventured to explain the views I have formed with respect to the projected Telegraphic Communication, and the principles upon which a company may be organised for carrying out the undertaking.

I have consulted a number of capitalists, as well as experts in ocean telegraphy, and have quite satisfied myself that with a very moderate Government subsidy, a substantial company can be formed to establish and work the new line of telegraph on the principles laid down in that memorandum.

The whole capital of the Company, to complete an independent telegraphic connection between Great Britain, Canada, New Zealand, and the Australian Colonies, may be placed at £2,500,000.

This capital may be divided into two parts—viz., £1,500,000 to bear a low rate of interest, secured for twenty-five years by Government subsidies; £1,000,000 to be share capital, apportioned between Australian, Canadian, and English capitalists.

The capital will be ample for the whole undertaking. With regard to the Restoration Sinking Fund, I have consulted some of the best experts on ocean telegraphy on the general question, and I learn that opinions are rapidly changing with respect to the life of modern cables. The first cables laid may be considered to have been to a large extent experimental, and advantage may now be taken of the very large experience gained.

It is found that in ordinary cases the breakages are apt to take place within a comparatively few years after the cables are laid, and that once properly repaired faults are not likely to recur.

The opinion is gaining ground that the life of a cable, as now made, instead of being ten or twelve years, is more likely to be double that period. As the conductors and insulating materials employed are practically indestructible, it is difficult to conceive that a cable, after lying twenty or twenty-five years at the bottom of the ocean, performing its functions satisfactorily, will not continue to be serviceable for an indefinite period. I mention these facts to show that there does not appear to be any sufficient reason for burdening an enterprise at its inception by providing a large Sinking Fund for restoration at a very early date. Be that as it may, the soundness of the principles I have laid down in the memorandum cannot be gainsaid.

We are aiming to establish a work which will result in all future years in a great saving to each Colony. It is suggested that each Colony, in proportion to the saving effected, should set aside a small portion of the money so saved to keep the work which effects the economy, in an efficient condition. For every hundred pounds saved, ten pounds, or perhaps eventually five pounds or less, is proposed to be funded to cover possible contingencies.

With regard to the probable earnings for revenue purposes, it will be seen, on reference to the memorandum of 6th April, that the foreign business of the Australian Colonies for the year 1889 is estimated to be 85,000 messages, or about 850,000 words. It is not to be expected that the whole traffic will come to the new line, for the existing telegraph company will undoubtedly reduce its charges in order to retain a share of the business.

Let

Let us assume that the business will be equally divided, and that the new Company will only have half of the 850,000 words; this will give 425,000 words, and we may reckon this business at four shillings per word, as the terms made with the Canada Pacific Railway Company will admit of "through" messages being sent at that rate.

425,000 words at 4s.	£85,000
Less cost of working and land service, say	40,000
Giving a balance of	£45,000

Equal to $4\frac{1}{2}$ per cent. on £1,000,000. This estimate is for the first year the line can be in operation. On careful examination it will be seen that the estimate is an exceedingly moderate one, no allowance having been made for the great impulse which will undoubtedly be given to telegraphy and general business by the large reduction in charges.*

There cannot be a doubt that the earnings will go on greatly increasing, while the working expenses will increase but little. It would not be at all a high estimate to double the net earnings in a very few years. This would give 9 per cent. on the whole share capital, and it may be assumed as certain that the increase would continue year by year.

I have explained that a subsidy is needed for the purpose of securing a million and a half of pounds at a low rate of interest. If the Government subsidies be sufficient to provide a sinking fund to pay off the £1,500,000 in twenty-five years, it would be proper to carry all excesses of revenue over a given dividend, say over 7 or 8 per cent., to the Restoration Sinking Fund.

It will be noted, as one of the proposed conditions, that not only will the charges on messages be reduced to less than half the present rates, but that messages sent by any Government shall be transmitted free to the full amount of its subsidy. This feature will place it in the power of each contributing Government to receive directly back each and every year its full proportion of the subsidy contributed.

I respectfully submit that the scheme above outlined is perfectly practicable; it will no doubt find warm and active hostility on the part of those pecuniarily connected with the existing telegraph company—those whose policy has been to maintain high rates in order to secure large profits. Such objections as they may offer should have little weight in view of the great Imperial and colonial advantages which the new undertaking will secure. The better policy for the companies to adopt will be to lower charges on messages and derive profits from the greatly augmented business which will certainly follow.†

The terms and conditions which I have indicated would undoubtedly command the organisation of a substantial and energetic company to carry out this new and important undertaking in the most satisfactory manner.

I have, etc.,

SANDFORD FLEMING.

(4.)

TELEGRAPH BETWEEN AUSTRALIA, CANADA, AND GREAT BRITAIN.

Memorandum by Sandford Fleming.

1. It is proposed that a Company be formed for the purpose of establishing Telegraphic Communication between Australasia and Great Britain by a new and independent line. This new telegraph is projected to traverse lands and seas beyond the control of any Power likely to prove hostile to the British Empire.
2. It is proposed that a chain of electric cables be laid across the Pacific Ocean, to connect the Australian group of colonies with Vancouver, the western terminus of the Canadian Pacific Railway. The cables to land at such intermediate islands as may be found suitable for mid-stations.
3. Arrangements have already been made with the Canadian Pacific Railway Company for the transmission of all through telegraph business between the Pacific and Atlantic Oceans on extremely favourable terms.
4. It is proposed to acquire complete control of one of the existing Atlantic cables landing on the shores of Canada, or to lay a new cable from Canada to Great Britain.
5. The whole line may be divided into three great Sections, viz. :—

* Referring to the recent great reduction in charges between London and New York, the Report of the Directors of the Direct United States Cable Company for the six months ending 30th June last states: "So far the reduction has resulted in more than doubling the volume of traffic, and the Directors are not without hope that with a revival of trade it may be still farther increased." The Report of the Anglo-American Telegraph Company also states that the traffic has increased over 110 per cent. since the rates were reduced.

† Since the date of this letter the Reports of the Associated Atlantic Cable Companies for the past half-year have been published. They generally favour this new policy. The low tariff introduced has resulted in a very much larger augmentation of traffic than was anticipated as a first result. "The unexpected increase in the volume of traffic immediately upon the introduction of the sixpenny tariff has induced the Directors to consider the expediency of adopting permanently a system of low rates. It is obviously their interest to encourage a very large traffic at low rates."—*Report A. A. Tel. Company.*

(A.) THE PACIFIC SECTION.

This section will consist mainly of electric cables, the lengths of which after allowing for slack will approximately be as follow:—

	Notes.
(1) Brisbane or Sydney to North Cape, connecting at the former with the Australian telegraph system, at the latter with the telegraph system of New Zealand	1,300
(2) North Cape to one of the Fiji Islands	1,240
(3) Fiji to Fanning Island	2,270
(4) Fanning Island to one of the Sandwich Islands	1,260
(5) Sandwich Island to Barclay Sound or Port San Juan, Vancouver Island	2,730
(6) Barclay Sound, across Vancouver Island and the Strait of Georgia to Vancouver City, the terminus of the Canadian Pacific Railway	100
Geographical miles	8,900

(B.) THE CANADIAN SECTION.

This section will extend along the Canadian Pacific Railway and the Intercolonial Railway to connect with an Atlantic cable. If it be found necessary to lay a new Atlantic cable the land line will probably terminate at Gaspé, in the province of Quebec. Distance from Vancouver to Gaspé

Statute miles ... 3,450

(C.) THE ATLANTIC SECTION.

A new Atlantic cable from Gaspé *via* the Straits of Belle Isle to Ireland

Geographical miles ... 2,450

6. These three great sections connected, and the business under one management, it will be possible to reduce permanently the charges on messages to the lowest practicable rates, and thus render the line of the greatest commercial utility. It is believed that the reduction in rates contemplated, and rendered possible by the satisfactory terms agreed upon with the Canadian Pacific Railway Company, will give a great impetus to telegraphy and promote the development of intercolonial intercourse and commerce.

7. The arrangements proposed, and the terms agreed upon, will admit of messages being sent from Australia to Great Britain on the opening of the new line at less than half—eventually, it is believed, at one-third—the charges at present exacted.

8. While the new line, established as set forth, will stimulate commercial activity between the countries to be connected, its political, naval, and military value will be very great indeed. It is well known to naval and military commanders that no reliance can be placed on the permanency of communications by way of the Mediterranean and the Red Sea, and it becomes obvious that the line through Canada may, during any emergency, assume incalculable importance. The cable across the Pacific will always be removed from the theatre of European complications. It will not only be a direct means of communication between the Australian Colonies and the Mother Country, but if an emergency arises to render every wire through Europe and Egypt useless, it will still be possible to communicate with India; indeed, every British station between South Africa and Port Hamilton may continue in telegraphic connection with London.

9. To secure advantages so great—and it is difficult to say whether in a commercial, political, naval, or military aspect the advantages would be greatest—Government aid and co-operation is necessary; but as there are twelve Governments more or less interested in the undertaking, moderate assistance from each will suffice.

10. The following Governments are interested in the new line of Telegraph:—

1. The Government of Great Britain.
2. " " Canada.
3. " " Hawaii.
4. " " Fiji.
5. " " New Zealand.
6. " " New South Wales.
7. " " Queensland.
8. " " Victoria.
9. " " South Australia.
10. " " Western Australia.
11. " " Tasmania.
12. " " India.

Of these Hawaii has offered twenty thousand dollars a year (say £4,000) for fifteen years to be connected telegraphically with San Francisco, and it may be assumed that that subsidy will be available to the proposed Company. The principal assistance, however, will require to be furnished by Great Britain and her Colonies.

11. It is proposed that Government aid should be directed to two main objects, viz.:—(1) To secure the establishment of the cables across the Pacific Ocean; (2) To provide for their permanent efficiency.

The first main object—the establishment of the cables across the Pacific—can be effected if the Government assistance takes the form of an annual subsidy sufficient in amount to pay a low rate of interest and provide for amortization on a large portion of the capital required for this section of the undertaking. The remaining capital may be share capital, and will have to depend for dividends on earnings.

12. The

12. The perpetual efficiency of the cables can be maintained in another way. It has been customary to make provision for this purpose out of earnings, but this course necessarily has a tendency to keep rates for the transmission of messages high. The policy recommended is to reduce traffic rates to a minimum, and, in order to do so, earnings should be charged with as little as possible beyond working expenses. It is therefore suggested that the renewal and duplication of the cables may be effected by a special provision. In the Memorandum attached hereto (6th April, 1886) it is clearly shown that the establishment of this new line in the manner set forth will result in a very large saving in the gross foreign telegraph business of all the Colonies it will serve. A comparatively small percentage of the savings so effected would provide for renewing, duplicating, and maintaining the cables in perpetual efficiency. It is proposed, therefore, that a Restoration Fund be provided from this source. Taking as a basis for computation the difference between present charges and the reduced charges, probably 5 per cent. or less will eventually be found sufficient; but it is suggested that at first 10 per cent. of the saving accruing to each Colony should annually be funded for the purpose set forth. If after a period of ten or more years it be found that less than 10 per cent. will effect the desired purpose, a smaller percentage of the savings may be carried to the Restoration Fund. The object in view is to provide sufficient, but no more than sufficient, to restore the cables whenever they may become unserviceable, and to maintain the line of communication in the highest condition of efficiency for the business to be transacted.

13. These provisions assented to, it will be possible, immediately on the cables being laid, to adopt a scale of charges for ordinary messages between the Australian Colonies and Great Britain of four shillings per word, Press messages at half or considerably lower rates. It is proposed that Government messages be transmitted free of charge to the full amount of the subsidy, and to take precedence of all other business.

Batt's Hotel, Dover street, London, 1st July, 1886.

(5.)

(Appended to letter dated London, 10th July, 1886.)

CANADIAN AND AUSTRALIAN CABLE.

MEMORANDUM SUBMITTED TO THE CANADIAN GOVERNMENT BY SANDFORD FLEMING.

Ottawa, 6th April, 1886.

A few years back attention was directed by the undersigned to the importance and practicability of connecting Great Britain telegraphically with China, India, Japan, and the Australian Colonies, by a line passing through Canada, and by one or more cables laid in the Pacific Ocean.

The subject was reverted to last year in a letter dated 20th October, 1885, addressed to the Premier, the Right Honourable Sir John A. Macdonald.

Since these dates the Canadian Pacific Railway Company has completed a line of telegraph from the Atlantic to the Pacific, thus establishing an important section of the original scheme, leaving to be completed only the cable across the Pacific.

The Australian Colonies are already connected telegraphically with England by way of Port Darwin, Singapore, Penang, Madras, Bombay, Aden, Alexandria, and through the Mediterranean Sea. The charges for messages are, however, very high, and there is always danger of interruption to business when political events assume a threatening attitude in Egypt or in Europe.

A cable from the Australian Colonies, *via* Fiji and the Sandwich Islands to Vancouver, the western terminus of the Canadian Pacific Railway, would connect them telegraphically with England by a line which would have the great advantage to every British interest of being entirely removed from all European complications. Moreover, a very large aggregate saving in the cost of transmission would be effected.

The Australian Colonies were first connected with England in November, 1872, consequently the following year (1873) was the first year the International line was in operation. The business in 1873 consisted of 8,952 messages to and from the Colonies. The last returns are for 1884, when the messages sent and received reached 48,896; showing an extraordinary development in eleven years, averaging an annual increase of 40 per cent. This increase may, however, be abnormal, and as the last three years of the period show a more moderate growth, it will be safe to take the latter as a basis on which to estimate future business.

The number and cost of messages between the Australian Colonies and Europe, for the three years referred to, was as follows:—

	No. of Messages.	Cost.
1882	39,175	£225,567
1883	43,334	251,277
1884	48,896	270,766

These results give a fair indication of the steady growth of the business under the present high tariff.

The annual increase in the number of messages is equal to 12½ per cent., and the average cost of each message sent during the three years—1882, 1883, and 1884—is £5 13s. 9d.; the charge of ordinary messages per word (between Sydney and London) being ten shillings and tenpence, Government messages eight shillings, and Press messages six shillings and sevenpence.

The undersigned has brought the question of a cable from Vancouver to Australia before the Board of Directors of the Canadian Pacific Railway, and has succeeded in effecting arrangements of a most satisfactory character. This Company will, within a few weeks, have telegraphic connections with all the principal points in the United States, including all the important cities on the Pacific Coast, and will be able to transmit messages on such terms as will enable the Pacific Cable Company to secure practically the entire business between the Continent of America and the Australian Colonies. The cable

cable leading from Port Darwin, in the direction of India, will, moreover, enable the new company to command a very large share, if not all, of the business between America and Asia.

It will be practicable under these arrangements with the Canadian Pacific Railway Company to transmit messages between the Australian Colonies and England at considerably less than one-half, possibly at one-third, the present charges, and between the Colonies and all the important cities in the United States and Canada at one-quarter the rates now enacted.

It is proposed, immediately on the Pacific cable being laid, to lower the charges on ordinary messages between Australia and England from ten shillings and tenpence to four shillings per word. This reduction will bring the cost of an average message from £5 13s. 9d. down to £2, and without doubt will give a very great impetus to telegraph business. It is not easy to estimate with any approach to accuracy what increase would result from this cause—men of experience in such matters are of opinion that the business would probably be doubled; but even if we limit our expectations to its ascertained normal growth, and base our calculations on a steady increase of traffic of only 12½ per cent. per annum, we shall see that the advantage of the new line to the Colonies will be immense.

The latest returns with 12½ per cent. per annum added give 85,000 messages for 1889. Assuming that the new cable would then be laid and the Canadian route in operation throughout, the estimate for a series of years would be as follows:—

	No. of Messages, based on an annual growth of 12½ per cent.	Saving effected, being the difference between £5 13s. 9d. and £2, or £3 13s. 9d. per Message.
1889	85,000	£318,400
1890	96,000	350,275
1891	107,000	392,550
1892	119,000	438,800
1893	133,000	490,420
1894	148,000	542,050
1895	166,000	612,125
1896	186,000	685,675
1897	208,000	767,000
1898	234,000	862,000
Total	1,481,000	£5,456,487

It will thus be seen that, without taking into account any additional increase in the number of messages which the great reduction in charges would undoubtedly produce, a very great saving would be effected in the Australian business. If the estimate be well founded it would amount to £5,456,487 within the first ten years, being an average saving of over half-a-million pounds per annum.

The new line when established will form a connection through South Australia with Port Darwin, and thence by existing telegraph lines with Asia and Africa. It is obvious, therefore, that it possesses a peculiar interest to the Imperial Government, as it will afford the means of communicating not only with the Australian Colonies independently of lines passing through the Mediterranean, but also with India and every British station between Hong Kong and South Africa.

Canada has already done much towards establishing the new line of telegraph between Great Britain, Australia, and Asia. She has, by an enormous expenditure in connection with her national railway, brought Vancouver within telegraphic reach of England, and she has thus rendered it a comparatively easy task to complete the whole connection. It has cost in all about £40,000,000 of public and private money to establish the railway and its adjunct the telegraph by which Vancouver has attained the commanding position which it occupies in respect to the Pacific Cable scheme. The Pacific Cable is, however, in some degree a corollary to the line across the Continent, and it is reasonable to expect that the Canadian Government will readily co-operate in its establishment.

The following Governments are more or less interested in the undertaking:—

1. The Government of Great Britain.
2. " Canada.
3. " Hawaii.
4. " Fiji.
5. " New Zealand.
6. " New South Wales.
7. " Queensland.
8. " Victoria.
9. " South Australia.
10. " Western Australia.
11. " Tasmania.
12. " India.

It will not be possible to carry out the undertaking by a private company without Government assistance. As electric cables are perishable, provision must be made for renewing or duplicating them when circumstances require it. It is also obvious that the reduced charges which are proposed will require a greatly increased business to yield a sufficient profit to meet dividends on capital. The company would, therefore, require a subsidy for a term of years, or until the business increased to such a volume as to render the line self-sustaining. But as the subsidy would be borne by so many Governments it would fall lightly on each.

The first step to be taken is to ascertain to what extent the several Governments would be disposed to co-operate in establishing the work.

(Appended to Letter dated London, 10th July, 1886.)

TELEGRAPH FROM CANADA TO AUSTRALIA.

LETTER to THE PREMIER OF CANADA BY SANDFORD FLEMING.

Ottawa, 20th October, 1885.

The Right Hon. Sir John A. Macdonald.

SIR,

I had the honour a few years back to submit to the Canadian Government a scheme for forming a great Intercolonial and Intercontinental Telegraph system, a prominent feature of which was the laying of an electric cable across the Pacific Ocean, from the Western Coast of British Columbia to Asia. The great object which the scheme had in view was the establishment of an unbroken chain of telegraphic communication between England and Japan, China, India, Australia, New Zealand, and South Africa, directly through Canada, thus connecting telegraphically all the great British possessions in every quarter of the globe without passing through Europe.

The accompanying memorandum, dated London 20th November, 1882, together with the documents submitted by the Secretary of State to the Canadian Parliament on the 20th February of the same year, will recall to your recollection the important public objects which the scheme had in view, and the efforts then made to carry it out. You are aware that through various causes these efforts proved unsuccessful; but the time which has elapsed has in no way lessened the importance of the project, or rendered it more difficult of accomplishment.

The political events which have so frequently assumed a threatening attitude in Europe, the difficulties which are never entirely absent in Egypt, point to the constant danger of interruption to existing communications by the Red Sea and the immense importance of securing an independent line of telegraph removed from all Eastern complications. The projected line, extending from England through Canada to the Pacific coast, in the Province of British Columbia, and thence across the Pacific to Asia and the Australian Provinces, would supply an independent line of communication so much desired, and in so doing would indirectly, but it is held very materially, strengthen the military and naval power of Great Britain, while it would directly promote the highest interests of every one of the great colonial possessions.

Within the present year an overland line of telegraph will be completed along the route of the Canadian Pacific Railway, thus spanning the American Continent, and there are a number of electric cables in operation across the Atlantic from England to Canada. The Canadian Pacific Railway Company have expressed a desire to facilitate the despatch of through telegraphic business along their line in every possible way, and are prepared to enter into a permanent agreement which, with the competition existing on Atlantic lines, will secure exceedingly low tariff rates between England and the coast of British Columbia. There only remains to be established the submarine telegraph across the Pacific Ocean.

When the accompanying memorandum was issued, it was thought that the Pacific cable should follow a northern route by the Aleutian Islands and Japan. It was generally believed that in the great central area of the Pacific Ocean subaqueous rocky ledges and coral reefs prevailed to such an extent as to render the establishment and maintenance of an electric cable practically impossible. That opinion was based on an imperfect knowledge of the physical character of the Pacific Ocean, and on the charts, which at one time were strewn with islands, reefs, and shoals, many of which were inserted on doubtful authority, and have consequently been omitted from the latest publications. Since then, also, it may be supposed that submarine telegraphy is better understood. Be that as it may, the view is now entertained that it may not be absolutely necessary to follow a northern route, and that the successful establishment of an electric cable running directly from British Columbia to the Australian Provinces may be quite within the range of practicability.

There are, indeed, extensive coral reefs in the central and southern Pacific; but the most authentic hydrographic information establishes that those reefs are generally in great groups, separated by wide and deep depressions free from obstructions. It is further revealed by the latest bathymetric data that those depressions or troughs present (as far as ascertained) a sea floor precisely similar to that of the Atlantic, so suitable for submarine telegraphy. Those ocean depressions, alike by their geographical position and their continuity, open up the prospect of connecting Canada and Australia by a direct cable. The course of the cable would be from Vancouver to the Fiji Islands, touching at the Sandwich Islands and Fanning Islands as mid-stations. From the Fiji Islands a cable connection would be formed with the existing Australian and New Zealand telegraph system.

Whatever route be followed by the cable across the Pacific, the object will be to bring the group of Australian Colonies into direct telegraphic connection with Canada, and secure a means of communication between them and England independent of all lines passing through or in proximity to Europe. Messages will be conveyed by the new line at lower rates than are now exacted, and the immediate effect which must follow its establishment is manifest. The cost of telegraphing between Australia and England will be reduced, intercourse will be facilitated between the sister colonies and Canada, and an impulse given to commercial activity.

Apart altogether from the political advantages of the new independent telegraphic connection, the gain to the general commerce of the Colonies which it would serve would justify them in co-operating with Canada in promoting the undertaking.

The undertaking may be promoted by the several Governments agreeing to give for a term of years a subsidy sufficient to induce a company to embark in it. The subsidy may be a fixed sum, contributed in equitable proportions, or it may be dependent on the business transacted by each respective Colony, and on the reduction in rates which would follow immediately on the line going into operation.

It is quite obvious that the gross foreign telegraphic business of any one Colony, reckoned at the difference between the present high rates and the reduced charges, would produce a considerable aggregate sum. That sum might be taken to represent the year's savings accruing to the Colony from the

the establishment of the new line of telegraph and it would obviously well repay that Colony to share the amount so saved with the Telegraph Company. Suppose the accrued saving so reckoned in any one year to be fifty thousand pounds, a moiety to the Company as a subsidy would be twenty-five thousand pounds, while the Colony itself would gain a direct pecuniary benefit from the undertaking to a like extent. The illustration as presented will explain the principle on which a subsidy may be based.

Among the British possessions in the Southern Hemisphere directly interested in the work are Fiji, Tasmania, New Zealand, Western Australia, Queensland, New South Wales, South Australia, and Victoria. I venture to think that their co-operation with Canada in the manner set forth would, without difficulty and with no great delay, secure to them and to the whole British colonial system all the political and commercial advantages to result from the projected line of communication.

As the contemplated work is of special importance to the mother country and all her Colonies, I trust I may be allowed to entertain the hope that you will be pleased to bring the subject under the notice of the respective Governments.

I have, etc.,

SANDFORD FLEMING.

(7.)

TELEGRAPH BETWEEN AUSTRALASIA, CANADA, AND GREAT BRITAIN.

London, 19th July, 1886.

The Honourable Sir Charles Tupper, G.C.M.G., C.B., High Commissioner for Canada, London.

SIR,

The undersigned, who were present at the meeting of the Agents-General on the 12th instant, having been requested by you to ascertain the amount of subsidy which would be necessary to enable a company to connect England telegraphically with Australia through Canada and the Pacific Ocean, have the honour to state—

We have considered the whole question, and are of opinion that a substantial company can be formed to establish an efficient telegraph connection on the route proposed for a total annual subsidy of £100,000 for twenty-five years.

The subsidy may be apportioned as follows, *i.e.* :—

1. Great Britain, on behalf of the United Kingdom, India, and the Crown Colonies	£50,000
2. Canada	10,000
3. Queensland	10,000
4. New South Wales	10,000
5. Victoria	10,000
6. New Zealand, Tasmania, and Western Australia	10,000
	<u>£100,000</u>

Or should the Imperial Government, by an arrangement with the Colonial Governments, itself guarantee the whole amount, the total subsidy may be considerably reduced, as the Imperial guarantee would enable the company to find capital at a lower rate of interest. With such guarantee a total subsidy of £90,000 for twenty-five years would suffice, and thus reduce the annual contributions.

The subsidy mentioned is calculated to pay interest on borrowed capital, and provide a sinking fund for its repayment in twenty-five years.

As the company would transmit all the messages of the various contributing Governments free, and the rates chargeable to the public for "through" messages would not be more than one-half the present regular tariff charges, Great Britain and the colonies would save a much greater sum than the amount of subsidies above proposed.

If the several Governments agree to pay over to the Company a percentage of the gross savings which would thus be effected by each country, the company could still further reduce the charges to the public.

We have, etc.,

DONALD A. SMITH
RANDOLPH C. WANT
ANDREW ROBERTSON
MATTHEW GRAY
SANDFORD FLEMING.

[Enclosure 2 in 2.]

HIGH COMMISSIONER FOR CANADA to THE AGENT-GENERAL.

London, 31st July, 1886.

SIR,

With reference to my letter of the 28th instant on the subject of the proposed Telegraphic Communication between Canada and Australasia, I think I had better give you some particulars respecting the status of the gentlemen who prepared the letter addressed to me on the 19th July, containing a proposal for submission to the Imperial and Colonial Governments. They are as follows :—

Sir Donald A. Smith, K.C.M.G., Director of the Canadian Pacific Railway Company and Hudson's Bay Company;

Mr.

Mr. Randolph C. Want, Solicitor in London for the New South Wales Government;
 Mr. Andrew Robertson, Chairman of the Board of Harbour Commissioners, Montreal;
 Mr. Matthew Gray, Manager of the India Rubber, Gutta Percha, and Telegraphic Works Company;

Mr. Sandford Fleming, C.M.G., C.E., Director of the Canadian Pacific Railway Company, and late Chief Engineer of the Intercolonial Railway and Canadian Pacific Railway.

I beg to inform you, also, that copies of the memorandum have been sent to the Secretary of State for the Colonies for the consideration of Her Majesty's Government, the Government of India, and the Crown Colonies. Copies have also been forwarded to the Canadian Government. This is in addition to the copies which have been sent to each of our colleagues, to be brought under the notice of their respective Governments. It is right I should add that the proposal is brought forward, not as a definite scheme, but as a draft for discussion, and I venture to hope that when the replies are received from the various Governments it may be possible to so consolidate the suggestions that have been made as to secure the hearty co-operation of the various Colonies concerned and of the Mother Country and India.

I have, &c.,

CHARLES TUPPER.

P.S.—I also enclose you a copy of this week's *Canadian Gazette*, containing, on Reg. 357, an account of an interview which a representative of that journal has had with Mr. Sandford Fleming on the subject of the proposed Cable.

[*Extracts from Canadian Gazette of July 29, 1886, referred to.*]

(1.)

TELEGRAPHIC COMMUNICATION WITH AUSTRALASIA.

LEADER.

We publish in another column an interview with Mr. Sandford Fleming in regard to the establishment of direct telegraphic communication between Australia, New Zealand, Canada, and Great Britain. The project is by no means a new one. In the last decade cables were from time to time projected to connect America and Asia by a direct route. Years passed, considerable expense was incurred, and in 1880, while the telegraph had extended easterly across Europe and Asia, and westerly across the Atlantic, the Pacific remained untraversed. Its central ocean bed was declared to be rocky and unsuitable, and under such declarations the proposals withered and lost substance. The pro-enthusiasm of the Canadian Pacific Railway sufficed to bring the question once more to the fore, and from that time to this sight has never been lost of the necessity of a Pacific cable as a corollary to the operation of the national railway and to the opening up of direct telegraphic communication between England and the Pacific coast of Canada. The peculiar importance of Canada's position fully justifies all that Mr. Fleming has said. A glance at the map of the globe establishes the fact that the Dominion occupies a situation directly central to the masses of population in Europe on the one hand, and Asia and Australasia on the other. It is, indeed, the natural route by which to complete an unbroken chain of electric telegraphs between Great Britain and her dependencies in every section of the globe. Canada, all parts of the Australian continent, New Zealand, the whole Indian Empire, China and all Eastern possessions, and South Africa may by its means be as one, entirely independent of those existing lines which pass through foreign countries; the cable would, indeed, be a British line of communication, through nothing but British territory. Surely it will be a short-sighted policy if no advantage is taken of this position. No one doubts the great inconvenience and ever possible danger of the present means of cable communication between England and these various parts of the Empire. Were anyone sceptical, no greater evidence could be wished than that afforded by the various wars and operations Britain has carried on of late in the Soudan. For a portion of one season, during which hostilities were in progress, a complete interruption resulted to postal and telegraphic service through Egypt with India, China, Australia, South Africa, and the East. So serious an aspect did the incident present to the mind of General Wolseley that he publicly expressed his conviction, that to depend on the existing telegraphic system as a means of communication with our Eastern possessions must be in the last degree suicidal. Lord Wolseley realises, indeed, that what happened once may happen again at very short notice, and with the most dire results. The world has yet to reach that high stage of civilisation when hostile feelings and actions will form no part of national life. Until that stage is reached—if reached it ever will be—it is obviously in the highest degree unwise to deliberately place the safety of the Empire in the power of those who naturally have no friendly feelings towards us, and who may at any moment find it to their advantage to become our avowed enemies. Primarily, therefore, it is an Imperial necessity that the new telegraph should be established.

For Canada and Australasia the project has also particular importance, second only to that of the mother-country. We spoke recently of the possible development of an interchange of trade between the Dominion and the Antipodes, following upon the direct steamship connection of British Columbia with Sydney. To the accomplishment of this purpose a direct telegraph is at least as necessary as a direct steamship line; the one is incomplete without the other. Investigations happily show the project to be no such serious financial undertaking as might formerly have been supposed, while the bed of the Central and Southern Pacific is to all appearances as well suited to form the cable bed as is the North Atlantic itself. Ordinary mercantile telegraphic business has not, however, been found as yet sufficient, at all events at the outset, to alone stimulate commercial enterprise. Hence, subsidies may fairly be asked from the British and Colonial Governments interested. The demands will, however, be in no sense of sufficient magnitude to hinder the project. Of the whole distance, Canada has already provided 3,450 statute miles, from Atlantic to Pacific, and in completing the Atlantic and Pacific links so many countries are more or less vitally interested as to render the share of each a comparatively small matter. Bearing these facts in mind, it is not surely too much to expect that, now the project is assuming distinct and practical shape, every encouragement will be given by one and all to secure its early and complete consummation.

INTERVIEW WITH MR. SANDFORD FLEMING.

In our last issue we drew attention to the mission of Mr. Sandford Fleming to this country in connection with the proposed cable line from Canada to Australasia. It will be remembered that, according to cable intelligence recently received from Canada, an Order-in-Council was passed by the Canadian Government authorising Sir Charles Tupper, as High Commissioner for Canada in England, to confer with the Agents-General for Australasia in regard to this subject. In accordance with these instructions, a meeting of the Agents-General took place at the office of the High Commissioner, when the representatives of the different colonies were present as well as Sir Donald A. Smith, Mr. Sandford Fleming, and others interested in the movement. The last-named gentleman has long had in view this idea of direct telegraphic communication with Australasia. In his report upon the Pacific Railway of Canada, dated 1890, he alluded to the project, and in the same year pointed out how that the investigations he had made established its perfect practicability and its great advantages to Canada and the British Empire. He has since confirmed and widened his convictions, as will be seen from the following interview he has been kind enough to afford to a representative of the *Canadian Gazette*.

"It is understood, Mr. Fleming, that in view of the completion of the Canadian Pacific Railway and telegraphic systems, you have made a proposition to the Canadian Government on the subject of direct communication by telegraph with Australasia?"

"Yes," said Mr. Fleming, "I have submitted numerous communications to the Canadian Government on the subject, and in every way in my power I have promoted the establishment of the undertaking."

"Has any company been formed?"

"No, none has been formed as yet. There will, however, be no difficulty in forming a company if the various Governments will co-operate and render moderate assistance. The purpose of such a company would be to establish telegraphic communication between the Australasian Colonies and Great Britain by a new and independent line through Canada. The electric cable would be laid across the Pacific Ocean to connect Brisbane or Sydney and New Zealand with Vancouver, the western terminus of the Canadian Pacific Railway."

"May I ask what route the cable is destined to take?"

"The whole line would be divided into three great sections, as follows, allowance being made for slack:—

(a) The Pacific Section.		Knots.
(1) Brisbane or Sydney to North Cape, connecting at the former with the Australian telegraph system, at the latter with the telegraph system of New Zealand	...	1,800
(2) North Cape to one of the Fiji Islands	...	1,240
(3) Fiji to Fanning Island	...	2,270
(4) Fanning Island to one of the Sandwich Islands	...	1,260
(5) Sandwich Island to Barclay Sound or Port San Juan, Vancouver Island	...	2,730
(6) Barclay Sound, across Vancouver Island and the Strait of Georgia to Vancouver City, the terminus of the Canadian Pacific Railway	...	100
Geographical miles	...	8,900

(b) The Canadian Section.

This section will extend along the Canadian Pacific Railway and the Inter-colonial Railway to connect with an Atlantic cable. If it be found necessary to lay a new Atlantic cable, the land line will probably terminate at Gaspé, in the province of Quebec. Distance from Vancouver to Gaspé—

Statute miles	...	3,450
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(c) The Atlantic Section.

A new Atlantic cable (if necessary) from Gaspé *viâ* the Straits of Belle Isle to Ireland—

Geographical miles	...	2,450
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"You would, then, Mr. Fleming, utilise the present Canadian Pacific telegraph line?"

"Most certainly. By its means an overland line and telegraph is now complete across the Canadian continent. Arrangements have, moreover, been made with the Canadian Pacific Railway Company for the transmission of all through telegraph business between the Pacific and the Atlantic Oceans on extremely favourable terms."

"You would also, I notice, Mr. Fleming, apparently select the Sandwich Islands route rather than that of the Aleutian Islands and Japan."

"Well, it was formerly thought that the Pacific cable should follow the northern route by the Aleutian Islands, and it was then generally believed that in the great central area of the Pacific Ocean subaqueous rock-ridges and coral reefs prevailed to such an extent as to render the establishment and maintenance of an electric cable practically impossible. Now, however, submarine telegraphy is better understood, and the most authentic hydrographic information establishes the fact that the extensive coral reefs in the Central and Southern Pacific are generally in great groups, separated by wide and deep depressions free from obstructions. These depressions or troughs present, it appears, a sea-floor precisely similar to that of the Atlantic, which experience has proved to be so suitable for submarine telegraphy. These ocean depressions, alike by their geographical position and their continuity, open up, therefore, a prospect of connecting Canada and Australia by a direct cable. The course of the cable would be from Vancouver to the Fiji Islands, touching at the Sandwich Islands and the Fanning Islands. From the Fiji Islands cable connection would be formed with the existing Australasian and New Zealand telegraphic stations, and thence with the lines to India and every British station between Hong-Kong and South Africa."

"What

"What do you calculate, Mr. Fleming, would be the prospect of business by this proposed direct cable?"

"In the first instance, it must be remembered that many of the Colonial Governments are more or less interested in the undertaking, and we should hope to obtain a considerable subsidy from them. A certain portion of this subsidy must be borne by Great Britain, on behalf of the United Kingdom, India, and the Crown Colonies, and the remaining portion by Canada, New South Wales, Victoria, New Zealand, Tasmania, and Western Australia. Then we are able to form some estimate from the operations by the present route to Australia. The business of 1873, which was the first year in which the International line was in operation, consisted of 8,952 messages to and from the Colonies. By the last returns—those for 1884—the messages sent and received reached 48,896. This is an extraordinary development in eleven years. But even taking the safer figures of the average of the last three years, we find an increase in the number of messages equal to 12½ per cent. per annum, and the average cost of each message, £5 13s. 9d. On this basis of increase, the messages in the year 1889 would be 85,000, or about 850,000 words, of which it may be assumed that the new company would transmit half, or 425,000 words. Four shillings per word for ordinary messages is the contemplated rate immediately on the operation of the line, as the terms made with the Canadian Pacific Railway will admit of through messages being sent at that rate. Four hundred and twenty-five thousand words at 4s. yields £85,000. Deducting the cost of working and land service, say £40,000, we get a balance of £45,000 for the first year in which the line can be in operation, while the saving in the Australian business—calculating the difference between £5 13s. 9d. (the old rate), and £2 (the new), £3 13s. 9d. per message—amounts, within the first ten years, to £5,456,497, or an average saving of over half a million pounds per annum. And this does not allow for the great impulse which will undoubtedly be given to telegraphic and general business by the large reduction in charges, for the present rate is as much as 10s. 10d. per word between Sydney and London for ordinary messages, 8s. per word for Government messages, and 6s. 6d. per word for Press messages."

"But quite apart from the commercial aspect, Mr. Fleming, you anticipate, I suppose, that the new cable will have some political and commercial importance?"

"Unquestionably. The political, naval, and military value of the new line will be very great indeed. Naval and military commanders will tell you that no reliance can be placed upon the permanency of the communications by the Mediterranean and the Red Sea, and it becomes obvious that the line through Canada may, during any emergency, assume incalculable importance. The cable across the Pacific will also be removed from the theatre of European complications. It will not only be a direct means of communication between the Australian Colonies and the Mother Country, but if an emergency arose to render every wire in Europe and Egypt useless, it will still be possible to communicate with India; indeed, every British station between South Africa and Port Hamilton may continue in telegraphic connection with London. The first great object is, of course, the establishment of a cable across the Pacific. And it is in this direction that Government aid should be directed, as well as to provide for the permanent efficiency of the cables when established."

(3.)

THE SECRETARY TO THE AGENT-GENERAL TO THE UNDER COLONIAL SECRETARY.

London, 7th September, 1886.

SIR,

I have the honour, by direction, to transmit enclosed herewith for the information of the Chief Secretary, a copy of a letter received from the Secretary to the High Commissioner for Canada, relative to the proposed establishment of telegraphic communication between Canada and Australia, and forwarding a map* showing the proposed line of telegraph, and a copy of a letter received by the High Commissioner from the Secretary of State for the Colonies.

I have, etc.,

CHAS. S. DICKEN.

[Enclosure 1 in 3.]

THE SECRETARY TO THE HIGH COMMISSIONER FOR CANADA TO THE AGENT-GENERAL.

Office of the High Commissioner for Canada,

9 Victoria Chambers, London, S.W.,

31st August, 1886.

SIR,

With reference to previous correspondence respecting the establishment of telegraphic communication between Canada and Australia, I have the honour, in the absence of the High Commissioner, to transmit to you herewith a copy of a map showing the proposed line of telegraph, which you may like to forward to your Government.

I also beg to enclose, for your information, a copy of a letter received from the Colonial Office, in which it is stated that the Secretary of State for the Colonies is sensible of the great interest and importance of the proposal, and that it will receive careful attention, but that he thinks it will be necessary to await an expression of the views of the Colonial and Indian Governments before any decision on the scheme can be taken by Her Majesty's Government.

I have, &c.,

JOS. E. COLMER.

Sub-Enclosure

[*Sub-Enclosure to Enclosure in 3.*]

THE COLONIAL OFFICE *to* THE HIGH COMMISSIONER FOR CANADA.

Downing street,
18th August, 1886.

SIR,

I am directed by the Secretary of State for the Colonies to acknowledge the receipt of your letter of the 29th ultimo, with its enclosure, respecting the proposed establishment of telegraphic communication between Canada and Australia.

I am to state in reply that Mr. Stanhope is sensible of the great interest and importance of the proposal, and that it will receive careful attention; but that he thinks it will be necessary to await an expression of the views of the Colonial and Indian Governments before any decision on the scheme can be taken by Her Majesty's Government.

I am, etc.,
R. H. MEADE.