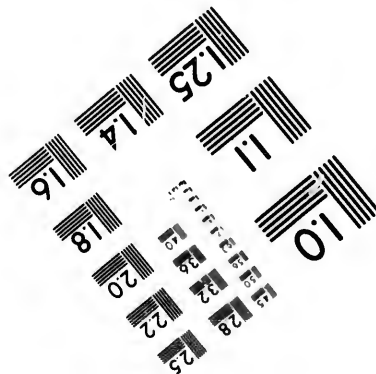
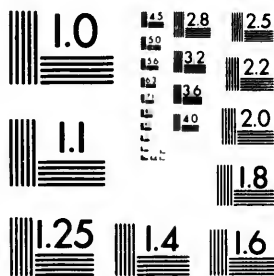


**IMAGE EVALUATION  
TEST TARGET (MT-3)**



28 25  
22 22  
20

**CIHM/ICMH  
Microfiche  
Series.**

**CIHM/ICMH  
Collection de  
microfiches.**

01



Canadian Institute for Historical Microreproductions

Institut canadien de microreproductions historiques

**1980**



The copy filmed here has been reproduced thanks to the generosity of:

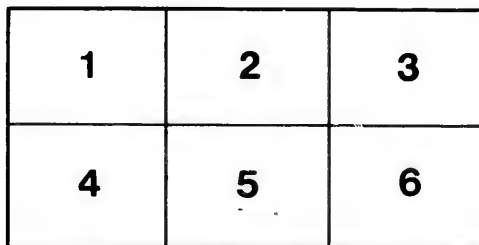
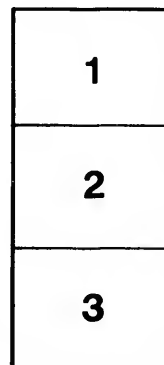
Library of the Public  
Archives of Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol  $\rightarrow$  (meaning "CONTINUED"), or the symbol  $\nabla$  (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

La bibliothèque des Archives  
publiques du Canada

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole  $\rightarrow$  signifie "A SUIVRE", le symbole  $\nabla$  signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

i

8

CONFIDENTIAL.

TELEGRAPHIC COMMUNICATION TO INDIA AND  
AUSTRALASIA

BY

THE CANADIAN ROUTE

---

*Submitted at the Meetings of the Colonial Conference, London, by*  
MR. SANDFORD FLEMING.

---

*Fourteenth Day—April 27th, 1887.*

IN the remarks which I was permitted to submit to the Conference on the 20th instant, I confined myself to showing how important to Australasia and to the Empire is the establishment of an alternative telegraph line between the Mother Country and her great Southern Colonies. I attempted to demonstrate the facility with which such a line could be secured by taking advantage of the works which Canada has carried out. I touched upon the enormous advantages which such a route possessed, owing to its geographical position. I alluded to the important fact that the cables would be laid in deep water, and would therefore be free from natural enemies, and much more secure from the attacks of hostile vessels. I referred to the commercial and political advantages which it offered in binding together the most important of the Colonies, and bringing into circuit nearly all the remote and outlying possessions of the Crown.

If these points be satisfactorily established, it will become a matter of importance to consider how such a work can best be carried out.

Such undertakings as the one in question have hitherto been

accomplished by private companies subsidised by Government ; and there cannot be much doubt that the Pacific cable might be manufactured, laid, maintained, and worked by a private company, aided by a reasonable subsidy, so as to give a fair return to the owners, while securing to the public greatly reduced charges.

It may, however, be asked, Is there no better means of securing even more fully than through the medium of a private company all the benefits which the new line would confer ?

The one other way is for the interested Governments themselves to undertake the work, and I think it can be clearly shown that the desired results can in this manner be more satisfactorily and more cheaply obtained. In this opinion I am greatly strengthened by a memorandum submitted by the representatives of New Zealand, and yesterday placed in the hands of members of the Conference. The memorandum to which I refer has been prepared by the Postmaster-General of New Zealand, and bears date February 5, 1887. In much that it contains I cordially concur.

I think I am correct in stating that some thirteen years ago all the telegraphs in India were handed over to the Government, and have since then been managed by a department under the central authority. I believe it is found that the system works well, and that the public are better served than they were before by private companies, for the reason that the public interests only are looked to under the new management, while private companies very naturally regard their own interests as paramount.

It seems to me most desirable that all cables communicating with Australasia, and all telegraphs within the Australasian Colonies themselves, should be under one management. How this may be

accomplished is a problem which I venture to suggest is well worthy the attention of the Australasian Governments. At the same time, I submit that it cannot be regarded with indifference by the Imperial Government or by Canada. I do not know what are the functions of the Australasian Federal Council, but possibly these functions could be extended so as to embrace the general control of telegraphs.

It would not be at all necessary for the Australasian Colonies to control the cables all the way to England. It would be quite sufficient that they should control the cables proposed to be laid to Vancouver on one side, and on the other side that portion of the existing system which extends from Australasia as far as India, embracing the lines of what is known as the Eastern Extension Company. It would be convenient to stop at India, as India separates the lines of the two companies—the Eastern Extension and the Eastern Telegraph Company. The Colonial Governments could not, of course, expropriate that which is private property; but possibly some arrangements mutually fair, both to the public and to vested cable interests, could be reached by which the desired result would be obtained.

It is obvious that a comprehensive scheme such as that suggested could not be carried out without much consideration and negotiation, especially with regard to the manner in which the capital required should be raised and the proportions in which it should be borne by each separate Government. But I am unable to see that the general scheme is at all impracticable. It would only be carrying out in a wider field the system adopted with so much success in India and in England with respect to telegraph service. In endeavouring to effect such a



joint arrangement there are certain leading principles which might be considered.

1. It would be necessary for each of the Colonies to agree to hand over to the central authority their respective telegraph systems, retaining a pecuniary interest in revenue in proportion to the value of the works handed over.

2. The establishment of the new cable across the Pacific would require new capital, which might be raised, possibly, on the joint guarantee of the Colonies and the Imperial Government, as in the case of the Intercolonial Railway of Canada. By such means the money could be obtained at the very lowest rate of interest; and, for several reasons, it would not be necessary in the first instance to lay more than a single Pacific cable; the scheme embraces the control of the Eastern Extension lines, and hence the line from Australasia to Vancouver would really give a triplicate service between Australia and England; moreover, deep-water laid cables are not liable to the same interruptions as shallow-water cables; in proof of which I may mention that the telegraph from Lisbon across the Atlantic to South America for the first ten years of its existence depended with great success on only a single line of cable throughout its entire distance. These cables were quite recently duplicated to meet the demands of business.

The capital required to lay a single cable to Vancouver from the Australasian system, reckoned at the low rate of interest at which money could be obtained, would, I estimate, involve a charge of less than £50,000 a year.

3. New capital would likewise be required to purchase the lines of the Eastern Extension Company, whenever that

company would be willing to sell at a fair value. This capital would also be obtained at a low rate of interest; and thus the whole connection between India, Australasia, Canada, and Great Britain could be most economically established, and it would become practicable to reduce charges on messages to the lowest possible tariff rates.

As the cables of the Eastern Extension Company would be acquired largely in Imperial interests, so as to give an alternate line, independently of the Suez route, to India, China, and Africa, it is reasonable to assume that the Imperial Government would render every assistance in securing them.

I have said that it would not be necessary for the proposed Central Telegraph Department to control cables or wires east of Vancouver. I do not think there would be any risk of the management being debarred at any time from the advantages of cheap telegraphy from Vancouver to England. I feel quite warranted in saying that the Canadian Pacific Railway Company would be willing to enter into an agreement for a long term of years to transmit Australasian messages at the low rates which I mentioned to the Conference on a previous occasion.

I have not cumbered these remarks with calculations. I have purposely avoided them, and referred only to principles. If the principles be sound—as I believe they are—and the scheme commends itself to the judgment of the Conference, an important step will be gained.

*Twentieth Day—May 6th, 1887.*

While I cannot but regret taking up time at the close of the Conference, I trust I may be pardoned for venturing to add a few words on the general question of establishing telegraphic connection between distant portions of the Empire.

The importance of the question appears to be generally recognised.

1. It is one of the few subjects specially referred to in the circular of Mr. Stanhope, of date 25th November last, inviting the several Colonial Governments to take part in this Conference by sending representatives.

2. It is one of the questions to which great prominence was given in the opening address of the President.

3. When the matter was first discussed, on the 20th ultimo, the Postmaster-General gave utterance to his broad and sympathetic views, and suggested that the Conference should not break up without expressing in some way a decided opinion in favour of the general policy of connecting telegraphically the great self-governing Colonies on the Pacific; and he indicated as one of the possible results a perfect revolution in the communication between the Australasian Colonies and the Mother Country.

4. On the same occasion members of the Conference representing South Australia, Queensland, the Cape of Good Hope, Victoria, New South Wales, and New Zealand, expressed generally their warm sympathy with the objects aimed at; indeed, I failed

to learn that there was a single gentleman present who did not recognise that in the interests of the Empire the question is one which is well worthy of the greatest attention.

There were, however, one or two points raised which I trust I may be allowed to refer to.

Some doubts were expressed as to the practicability of connecting Canada with Australasia by a direct telegraph. I do not propose to refer to the statement made by Mr. Patey as to the depth of the ocean, beyond saying that that gentleman has intimated to me that he was in error. I have asked Captain Hall—who was attending the Conference a few days back—to be good enough to furnish all the information in the possession of the Admiralty on this point; and I have no doubt he will confirm the statements submitted by me, as the officers of the Admiralty can, I believe, only look to the same sources as I did for the information which I laid before you, viz., to the soundings made by the “Tuscarora” and the “Challenger” expeditions. It must be admitted, however, that the known facts regarding the Pacific are somewhat meagre, and it is really a matter of very great importance that every doubt should be set at rest by having a proper nautical survey made with the least possible delay.

Another point was raised by Sir John Downer, viz., that the Colony of South Australia had, with great enterprise, spanned the continent from south to north with telegraph wire; that this line is a benefit to all the Australasian Colonies; that it was established at the sole expense of South Australia; that it is maintained by that Colony at a loss; that the inevitable result of a new telegraph across the Pacific would be to increase the loss; and, in con-

sequence, while the other Colonies would gain by the new line, South Australia in a pecuniary sense would suffer.

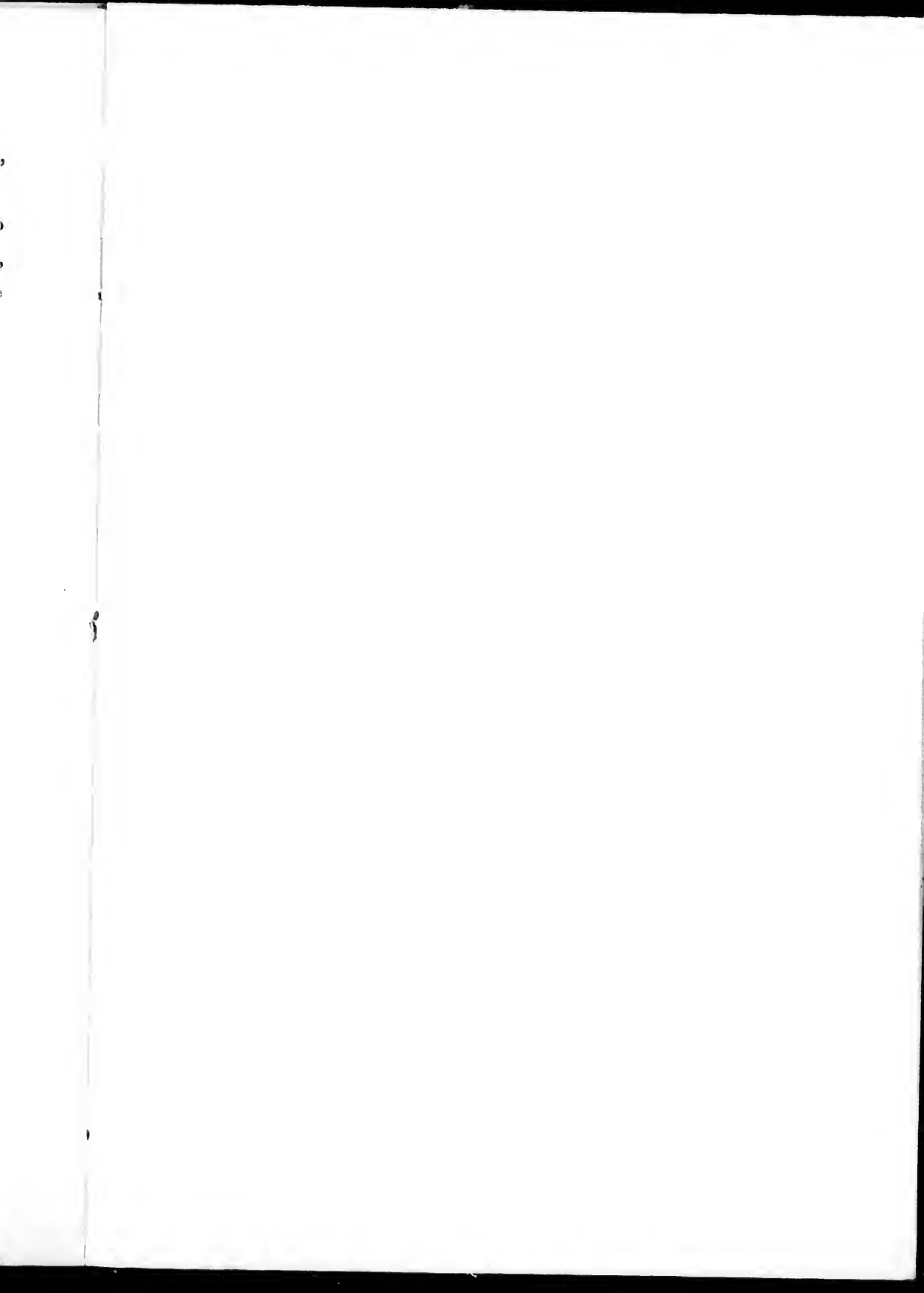
Again, it has been felt that not a little consideration is due to the private company, the Eastern Extension Telegraph Company, which has, with commendable enterprise, provided such cable communication as the whole Australasian Colonies now enjoy.

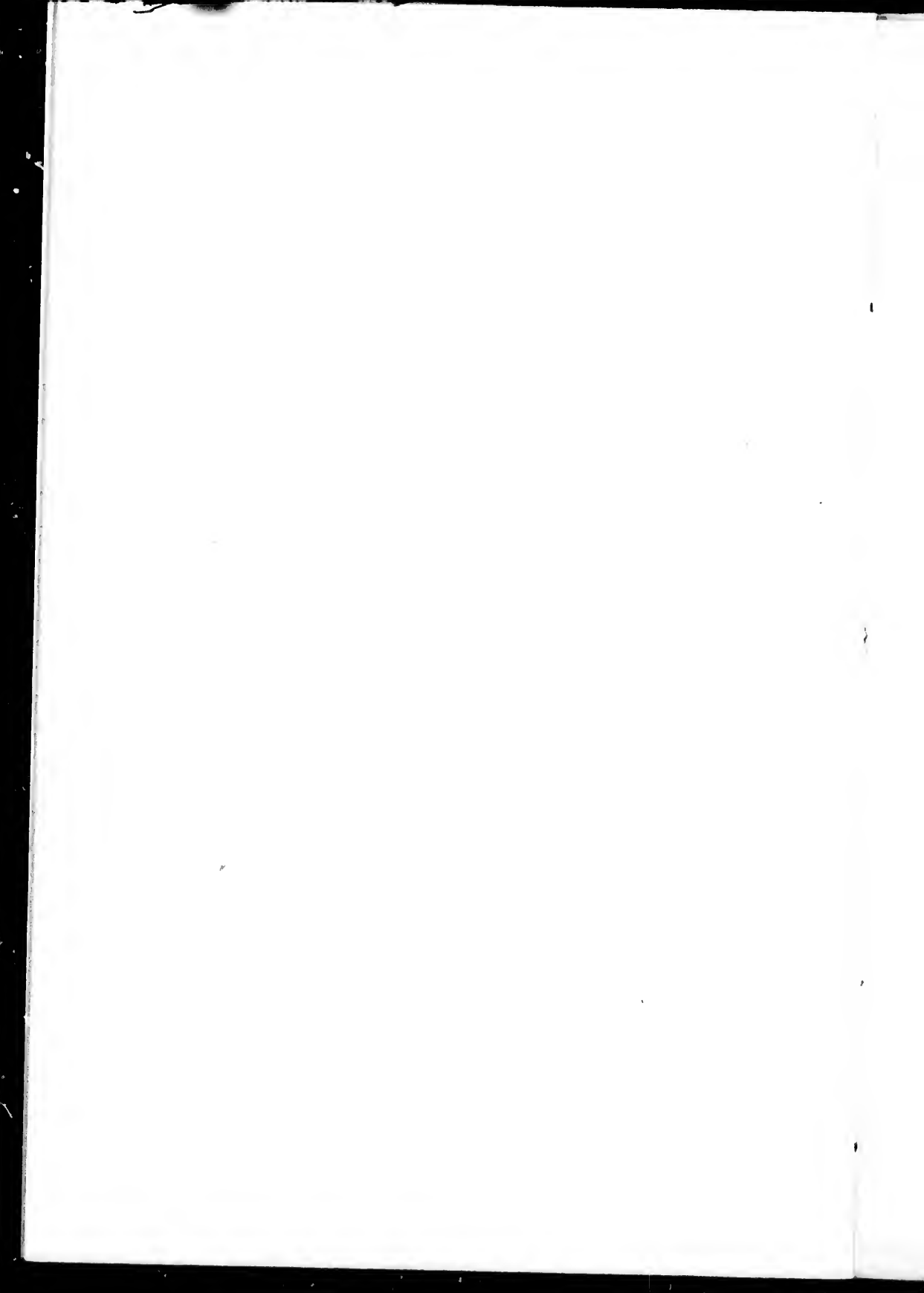
For my own part I fully recognise both claims; while at the same time, in view of vital Imperial and Colonial interests, I regard the connection of Canada and Australasia telegraphically as an absolute necessity.

The problem which is presented to us is to harmonise all interests as far as it is possible to do so; and I venture to remark that, to my mind, its solution lies in the direction indicated in the observations submitted at the close of the discussion on the 27th ultimo; and I gather, from observations which have fallen from several members of the Conference, that the views then set forth are not unworthy of the serious attention of all concerned.

The proposal is to bring all telegraph lines, constructed and to be constructed, east and south of India, and west and south of Canada, eventually under Government control. This appears to be the general idea of the Postmaster-General of New Zealand in his memorandum; and I can scarcely think that the time has not arrived when the matter should be considered, not as a commercial question simply, but as a question of Imperial importance in a naval, military, and political aspect.

I find that the length of telegraph lines in the several Colonies, as given by Mr. Charles Todd—a gentleman who has





been long and intimately associated with telegraphy in Australia—was in the year 1884 as follows, viz.:—

Victoria ..	...	...	4,020	miles
New South Wales	...	...	9,756	„
South Australia	...	...	5,292	„
Queensland	...	...	6,979	„
New Zealand	...	...	4,264	„
Tasmania	...	...	1,133	„
Western Australia	...	...	1,905	„
Total	...	...	33,349	„

and that the total revenue in that year was £527,734.

According to the same authority, the average cost appears to be £108 per mile; so that the whole cost of the 33,349 miles may be stated at about £3,600,000.

The Eastern Extension Company's lines embrace in all 12,035 nautical miles of cable, and it will be remembered that Mr. Pender stated before the Conference that the average cost per mile was £184. The whole 12,035 miles, reckoned at that rate, amounts to £2,214,440; but if that be the first cost, the present value, owing to depreciation of the cables, must be considerably less, for I find that about 6,600 miles, or more than half the whole length of cable owned by the company, has been laid from eleven to seventeen years. The actual dates when the cables were laid, and the periods they have been submerged, are as follows:—

Laid in 1869	...	180	miles; now submerged 18 years.
„ 1870	...	2,409	„ „ „ 17 „
„ 1871	...	2,724	„ „ „ 16 „
„ 1876	...	1,283	„ „ „ 11 „



Laid in 1877	...	864 miles ; now submerged 10 years.
„ 1879	...	2,444 „ „ „ 8 „
„ 1880	...	529 „ „ „ 7 „
„ 1883	...	920 „ „ „ 4 „
„ 1884	...	502 „ „ „ 3 „
„ 1885	...	180 „ „ „ 2 „
Total length	...	<u>12,035</u> „

The length of cable to connect Canada with the existing telegraph system of Australasia is placed at 7,600 miles, which, computed at £184 per mile (the first cost of the Eastern Extension cables, as stated by Mr. Pender), amounts to £1,398,400.

From these data we may estimate the first cost of all the cables and land lines between Vancouver and India as follows:—

New Pacific cable	...	...	say	£1,400,000
Australasian land lines	...	...	„	3,600,000
Eastern Extension	...	...	„	<u>2,220,000</u>
Total	...	...	...	£7,220,000

Looking at the large revenue from the Australasian land lines, it may be assumed that, taken as a whole, they pay working expenses and maintenance. It may not be necessary, therefore, to consider these lines in dealing with the question of new capital.

If we eliminate the Australian land lines, there remains £3,620,000 as the united cost of the new Pacific cable and the Eastern Extension system. To this amount should be added the value of repairing ships, stations, and other minor matters; and there ought to be deducted an allowance for depreciation of the existing cables. There may be various opinions on both points,

but there can scarcely be a doubt that the round maximum sum of £4,000,000 would be amply sufficient to cover every cost necessary to establish the Pacific line and buy out the Eastern Extension Company's property on fair and reasonable terms.

The interest on £4,000,000 at 3 per cent. is £120,000 per annum; but it will be obvious that the purchase of the Eastern Extension system would bring with it large subsidies, which would considerably reduce the interest charges. These subsidies are as follows:—

Tasmanian Cable subsidy	...	...	£4,200
Malacca Cable subsidy	...	...	1,000
Australian Duplicate Cable subsidy	...	...	32,400
Manilla Cable subsidy	...	...	8,000
Tonquin Cable subsidy	...	...	10,600
Macao Cable subsidy	...	...	500
Total	...	...	<u>£56,700</u>

As the Hawaiian Legislature has passed an Act offering 20,000 dollars a year to promote the establishment of telegraphic connection with America, that sum may be considered available as a subsidy in connection with the Pacific cable, making the total subsidies £60,700. If we take this sum as an asset, and deduct it from £120,000, it leaves a balance of only £59,300 a year to be met by the united Governments.

This estimate shows that the sum of £120,000 per annum would be required to meet interest when all the subsidies run out; but as the larger portion of the subsidies will not expire until the end of the century, it is reasonable to expect

that the business will then be, so enormously increased as to admit of paying all interest charges, largely, if not wholly, out of revenue. In the meantime the comparatively small sum of £59,300 per annum would be sufficient to accomplish all that is desired.

I have assumed the cost of the new Pacific cable and the value of the cables of the Eastern Extension Company together to come to £4,000,000, but, according to the opinion of some experts, that estimate is too liberal. It is held that if proper allowance be made for the depreciation of the existing cables £3,000,000 would be nearer the proper value of the two systems. If a capital of £3,000,000 suffice for all purposes, the interest at 3 per cent. will be £90,000, from which if we deduct the total subsidies—£60,700—there will remain a balance of only £29,300 per annum to be provided.

Thus an annual payment ranging from £29,300 to £59,300, in addition to the existing subsidies, would establish the Pacific cable and provide for taking over all the cables of the Eastern Extension Company. Even the maximum annual payment could not be considered burdensome divided in equitable proportions among the ten Governments more or less interested, viz., the Governments of Great Britain, India, Canada, Queensland, New South Wales, Victoria, South Australia, Western Australia, Tasmania, and New Zealand.

As the existing Colonial subsidies, amounting in all to £36,600, are paid by five only of the ten Governments interested in the larger scheme, it appears to me desirable that an arrangement should be effected by which these subsidies would be extinguished and the new capital provided on a financial basis, by

which all the interested Governments would contribute in equitable proportions.

A scheme of this kind, by which all the telegraphs mentioned may be consolidated and brought within the management of one department under Government control, could, of course, only be carried out by the co-operation of all the Governments concerned; but I venture to submit that the subject is one which claims earnest consideration. The scheme outlined, if carried into effect, would bring Canada within electric touch of Australia and New Zealand; it would establish an alternative line from India and Australasia to England, removed as far as possible from the theatre of every European complication and struggle that may arise; it would bring down charges on the transmission of messages to such moderate rates as would greatly facilitate intercourse and enormously develop business between Australasia, Canada, and the Mother Country; it would meet the case of South Australia, and enable that Colony to participate in the general advantages to be conferred on all the Colonies; and it would remove all reasonable objections on the part of the Eastern Extension Company. In the event of that company being disinclined to reduce its present high charges and unwilling to enter into competition with the new line, it would have the option of handing over all its property and receiving for it a fair and full value. If, however, the Eastern Extension Company determine to reject such reasonable proposals, the amount of capital to be provided will be so much the less, and it will become a very easy matter for the Governments concerned to carry out the essentially important work of connecting Canada and Australasia telegraphically.

