

“ Estimate of the Business of the Pacific Cable for Ten Years after its Completion, calculated on the Basis of the 1,100,000 Words, for the Year 1898, and an Average Normal Increase of 15 per Cent. per Annum thereafter ”

—	Gross Earnings.	Interest and Working-expenses.	Surplus.
	£	£	£
1898	110,000	90,000	20,000
1899	126,500	90,000	36,500
1900	143,000	90,000	53,000
1901	159,500	90,000	69,500
1902	176,000	90,000	86,000
1903	192,500	90,000	102,500
1904	209,000	90,000	119,000
1905	225,000	90,000	135,500
1906	242,000	90,000	152,000
1907	258,500	90,000	168,500

“ As we have eliminated all but the fixed charges on revenue for the first three years, an examination of the above table will show that the surplus up to the fourth year will have accumulated to £109,500, which sum, together with the annually increasing surplus thereafter accruing, would be sufficient to meet all charges for repairs and maintenance, and leave a balance to be carried to a cumulative reserve, for renewals at some future day.”

It is worth noting in relation to Mr Sandford Fleming's qualifications for drawing up such an estimate that at the Colonial Conference of 1887 he estimated, in a memorandum which he laid before the Conference, that the business between Europe and Australasia would amount in 1893 to about 1,330,000 words. The actual business for the past year is given by Sir John Pender as 1,306,716 words, and according to Australian returns it was 1,401,293 words.

Not the least important of the papers accompanying Mr Sandford Fleming's communication to Mr Bowell is a statement by Mr Alexander Siemens, which throws some light on the limits within which tenders for the construction of the cable must confine their competition.

Mr. Siemens considers, in the first place, that the proposed further survey of the cable route is unnecessary. It is, in his opinion, sufficiently established that the route proposed at the Wellington Conference passes nowhere through water more than 3,500 fathoms deep. The necessity for exact survey has hitherto been due to the requirements of the engineer laying the cable, who has to know at every moment the precise depth of water into which the cable passes. The brake-power by which the cable is held back, and by which the percentage of slack is regulated, has to be adjusted according to the depth of water. If the adjustment depended entirely, as it used to do, on a knowledge of the soundings of the route, further survey would be necessary. But by a contrivance which has been used, according to Mr Siemens, with perfect success in the laying of six Atlantic cables, “ means have been devised to indicate to the brakesman continuously the percentage of slack with which the cable is paid out, and thus it is possible to lay a cable over a route of which only the general features are known. The depth offers no insuperable difficulty, as it has been found possible to construct cables for the Atlantic which will carry 7,000 fathoms of their own length before they break.

It may therefore, in Mr. Siemens's opinion, be taken for granted that any technical obstacles which were apprehended in 1887 have now been overcome, and that the cable can be laid as soon as the financial question has been settled. In relation to the financial question, Mr Siemens has worked out a scheme in which he assumes that the capital sum of £2,000,000 will cover the cost of the cable, of two repairing steamers of about 1,800 tons each, and of proving-instruments, and leave a working capital of about £50,000. He puts the total working-expenses, including repairs and maintenance, at £119,000, of which sum £90,000, or £12 per nautical mile of cable laid, are allotted to repairs. In making this very high estimate for the purpose, he states that he does so in order to be safe in the figures which he is using, and gives the ordinary calculation as £6 per nautical mile, while “ one at least of the Atlantic companies is able to keep its 6,000 miles of cable in efficient working-order for £4 per nautical mile.” Mr. Siemens's calculation of the probable returns of the cable assumes that in regular working there will be a surplus after the first two or three years of £101,000 per annum.

The time required for the construction he estimates at three years; but for an additional outlay of £30,000 a second large cable-steamer could be employed, and the time shortened to two years after commencing the manufacture.

Enclosure 2 in No. 24.

THE Canadian Government has lost no time in giving effect to the fifth resolution of the Ottawa Conference, which requested that it should take all necessary steps to ascertain the cost of the Pacific cable, and to promote the establishment of that undertaking. Three weeks ago it asked for tenders for the construction of the cable, and the specification under which contractors are invited to tender has now been distributed in this country. From a summary of various documents connected with the question which we publish this morning, it will be seen that three forms of tender have been called for, but that the Canadian preference appears to be for the construction of the cable as a public work, to be owned and worked by Government. According to one set of