21 \mathbf{F} .—8a.

Reverting to the letter of Mr. Lamb (5th July, 1893), there can be no doubt whatever that a grave error was made by the officers of the department. A mistaken estimate was undoubtedly arrived at by them: I do not say with any design. I am bound to assume with good intention. Nevertheless, all the evidence from the best authorities, likewise from actual tenders, prove it to have been a mistake calculated to mislead, and I humbly think it would have been better and more dignified hal both Mr. Preece and Mr. Lamb acknowledged the mistake in their present evidence, and not attempted to defend it. It is true their views are in accord with those of the Eastern Extension Company, whose antagonism to the Pacific cable is at least comprehensible. They now find themselves, however, in contradiction to the highest electrical authorities, to the most experienced cable-managers, and to all those who, in the interests of the colonies and the Empire, are striving to establish a national line of communication between the great distant colonies and the Mother country; I may add to the head of their own department, for Mr. Lamb frankly stated, in reply to question 3083, that the views he expressed were not the views of the Postmaster-General.

Taking exception, then, to the views of the agents of the Eastern Extension Telegraph Company, and of the two Post Office authorities referred to, we have other evidence of the highest value to fall back upon, and on which implicit reliance can be placed. Lord Kelvin, Dr. Muirhead, and Messrs. Gray and Siemens, electricians, together with Messrs. Carson and Ward, the managers of two important trans-Atlantic cable companies, are each and all clearly of opinion that the proposed Pacific cable would have sufficient speed-capacity to transmit full sixty letters per minute simplex; and employing the duplex system now almost universally applied, together with the more recently introduced automatic transmitting apparatus, it would be quite possible to transmit telegraphic business continuously at the rate of 114 letters per minute. With each message transmitted there are certain letters sent which are free at the rate of 114 letters per minute. With each message transmitted there are certain letters sent which are necessage transmitted there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise do not pay for—and there are certain service messages which likewise d or, rather, that the telegraphing public do not pay for—and there are certain service messages which likewise do not pay. These non-paying letters and words, according to Mr. Carson, manager of the Anglo-American Telegraph Company, do not exceed 15 per cent. of the whole matter transmitted. Mr. Ward, manager of the Commercial Cable Company, places the non-paying matter at 16 per cent.; 84 to 85 per cent. of all traffic may therefore be considered paying traffic. If, then, we take 84½ per cent. of 114 letters we have ninety-six paying letters per minute as the speed-capacity of the cable. In modern business many code words are embraced, and the length of a business word is estimated to contain on an average eight letters. Dividing ninety-six paying letters by eight, we have twelve paying words per minute, after all necessary deductions are made.

In estimating the earning-power of the cable as designed, we are therefore warranted in taking twelve paying words a minute, and certainly 300 working-days a year. With this data, and reckoning 2s. a word as the uniform charge, we have the foliowing results as the possible earnings for the twelve months: Working twelve hours each day, £259,200; fifteen hours, £324,000; eighteen hours, £388,800; twenty-one hours, £453,600; twenty-four hours, £518,400. This shows very plainly that there will be ample capacity in the one single cable designed to transmit all the business which may be developed for many years to come.

I would direct attention to my estimate of gross earnings in page 6 of my statement prepared for the Committee last July. In the table there presented I went no farther than the year 1907, at which date I estimated the earnings

last July. In the table there presented I went no farther than the year 1907, at which date I estimated the earnings from traffic to be £258,500. This is the highest estimate I have made, and it is obvious that the cable designed by Lord Kelvin, with a cone on the long section of 552 lb. of copper and 368 lb. of gutta-percha per knot, would be capable of transmitting the volume of traffic required to produce that amount of gross earnings by working only twelve hours a day.

Revenue.

There remains to be considered the revenue which will arise from the traffic which may be expected to pass over the cable. This question is a difficult one, and I quite recognise that it is not possible to demonstrate precisely what the future business may be. In estimates which I have submitted to the Committee I have furnished the grounds the future business may be. In estimates which I have submitted to the Committee I have furnished the grounds for my belief that there will be a natural increase in traffic as the years go on. The increase may not be uniform year by year, but taking a number of years—say, ten years—I have thought that in view of the rapid development of the Australasian Colonies, and the additional facilities for telegraphing which the Pacific cable would provide, together with the reduction in charges, it would be a moderate estimate to reckon on the gross business increasing on an average 15 per cent. a year. Such an estimate may, of course, be held to be a mere conjecture on my part; I have therefore deemed it advisable to obtain the views of gentlemen fully acquainted with the development of the colonies and interested in Australasian trade and commerce. With this object in view, I obtained from the offices of the several Agents-General the names of a few leading men and Australian firms. I sent them a series of a particles the whole of which I am gled to place at the service of the Committee. I may questions, asking the favour of replies, the whole of which I am glad to place at the service of the Committee. state, as a result of this inquiry, that the expression of opinion is almost unanimous; no less than twenty-four leading Australasian firms or individuals give it as their opinion that an average increase in the yearly volume of business of 15 per cent. is quite a moderate estimate (see abstract of replies appended, page 29).

business of 15 per cent. Is quite a moderate estimate (see abstract of replies appended, page 29).

With respect to the share of business which it would be reasonable to expect would fall to the Pacific cable, among the replies received there are twenty expressing a definite opinion; of these, fifteen, or 75 per cent. of the whole, state the belief that it would be reasonable to count on the new cable obtaining one-half the total business. Most of these gentlemen think the half-share may be reckoned on at once; others, again, within a very short time after its establishment. The remaining five are somewhat doubtful. There is complete unanimity of opinion that the new cable would assist in developing trade and telegraphic communication between the Australasian Colonies and Canada, the United States, and other parts of America, and, as a whole, be of material advantage to the commerce of the Empire. I respectfully submit that these opinions must be taken to sustain the general soundness of the views I have submitted on the growth of telegraphic business, that we may fairly estimate an average increase of 15 per cent. per annum as moderate and reasonable. I have thought, and I still think, that the Pacific cable would obtain not far short of half the total business between Australasia and Great Britain, and that any possible shortage would be more than made good by new traffic between the North American Continent and the Australasian Colonies

when facilities for its rapid development are provided by a direct cable across the Pacific.

The Eastern Extension Company.

I ask permission to add a word with respect to the claims for consideration of the Eastern Extension Telegraph Company. The cables of this company extend from Madras easterly to Hongkong vid Penang and Singapore. At Singapore a branch extends southerly to Australia. Over this branch all the Australian business now passes; it consists of the following cables: From Singapore to Batavia, 1,002 kilometres; from Singapore to Banjoewangie, 1,707 kilometres; from Banjoewangie to Port Darwin (1), 2,104 kilometres; from Banjoewangie to Port Darwin (2), 2,088 kilometres; from Banjoewangie to Roebuck Bay, 1,656 kilometres: total, 8,557 kilometres. 8,557 kilometres 2,088 kilometres; from Banjoewangte to Roebuck Bay, 1,556 kilometres: total, 8,557 kilometres. 8,557 kilometres equal 4,620 knots, and this length of cable probably cost in the first place about £800,000; but, as some of the portions have been in use many years, the present value of the whole is assumed to be considerably less than that sum. It must be generally recognised that it is supremely important to have all the great possessions of Her Majesty connected by telegraph. A cable connecting Canada with the sister colonies in the South Pacific would bring them into direct touch with the Mother-country, without passing over foreign soil. It would be useful in an eminent degree to commerce. Its tendency would be to preserve peace, and peace is essential to human progress. The security of the present means of telegraphic communication with Australasia would be enhanced by a line across the Pacific. The Empire cannot have too many cables. Beligerents will not be so likely to destroy any one cable if the connection they would sever be maintained by cables ramifying through seas in other parts of the globe. Safety will be in numbers. For these reasons I hold that the Pacific cable will have a most potent influence in binding together the British Empire and preserving it intact. But the Pacific cable cannot be established without interfering more or less with the Eastern Extension Company. It would not interfere with the China business of that company, but it would certainly diminish the traffic, and consequently the profits earned, on the branch from Singapore to Australia. I would respectfully suggest, therefore, that it would be fair to that company, if they desire to be relieved of it, to