

number of interruptions, with the exception of the last season, upon the Port Darwin line, are really less, per mile, than in any other line that I know of, either in Victoria or South Australia. It must be borne in mind that not a single interruption occurs upon the Port Darwin line that is not made known throughout the length and breadth of Australia—it is made known to the press. Interruptions occurring upon other lines are not known—there is no notice in the papers about them. But the danger from lightning breaking the insulators I have recently got over, by a new kind of insulator. The danger arose in this way: In thunder storms, the lightning seeks an entrance to the earth down the iron pole, and breaks the insulator in order to make its way to earth. Another danger is that where natives, and I am sorry to say, perhaps more frequently, whites (you have the same difficulty in the other colonies), are very fond of making marks of the insulators, and throwing stones at them, and breaking them. I have got out a new form of insulator, of which some are now being made in England. They have been submitted to the best electricians in England, and are pronounced to be the best means of obviating the danger to which I have referred that have yet been devised. I have brought a drawing of the insulator, which, with your permission, I will lay upon the table—[*producing the same*]. The porcelain of the insulator, which is the non-conducting material, is protected by an iron shield, that protects it from stones; but the iron pin which enters the porcelain and holds the insulator upon the top of the pole brings a serrated piece of iron inside the porcelain to within about the eighth of an inch of the outer iron shield; so that lightning coming along the line, instead of smashing my porcelain dielectric, is discharged from the iron shield to those points quietly to the earth, and does me no mischief. Thus I get over the two difficulties—one from lightning, and the other from mischievous persons throwing stones—that I feel confident will remove a great many of the interruptions, or rather lessen the number of interruptions considerably which have arisen from the causes I have explained. You must remember, when we speak of the Port Darwin line, that it is a line 2,000 miles long, and you hear of every interruption; and if you turn to the return which will be put in, you will see that in a period of five years the interruptions varied from fifteen and a half days in 1875 to thirty-four days in 1877; and in counting those days we count very frequently a day more, because we count the whole day if an interruption occurs some time to-day; this day has been counted in the way this return has been made out; and if you compare that with any lines within the settled districts, you will find that the comparison is very greatly in favor of the Port Darwin line. For instance, I have taken 1874, and I find upon over 1,000 miles of that line there was not a single interruption during the whole of the year, and, as the country becomes more settled, we shall have less interruptions from the natives. We have now made a practice, I may tell you, of giving the natives fragments of insulators and wire, so that there is not the same inducement for them to injure the line. Again, in 1875, I find there was a distance of 500 miles without a single interruption, and many other sections of the same length had only one interruption throughout the whole of the year; that is, splitting up the line into sections, there are far fewer interruptions upon sections of the same length than there are between Adelaide and Mount Gambier or Mount Gambier and Melbourne, or Melbourne and Sydney.

368. *By Sir James Wilson.*—With the view of affording speedy repairs, is it desirable to have your stations upon the trans-continental line at shorter distances than you have them at present?—That, of course, being a matter involving expenditure, would be a question for the Government to consider. Whenever the other colonies express a wish for the Government of South Australia to do this I have no doubt the Government will give it their best consideration.

369. *By Mr. Mein.*—What is the average distance of your repairing stations at present?—I have not totted them up, but in the Northern Territory length they are very close—you see there are distances there of from twenty-nine miles to eighty miles; that is where we expect the line will be most frequently interrupted; but our greatest distance is 247 miles. Upon that section, however, during five years, I have had only three interruptions. Upon that section of the line to which you might say some objection applies from its great length, as a matter of fact, we have had only three interruptions. It is about the most favored section of the whole lot; there is plenty of water, and there are no natives; what few natives there are are friendly—are all friendly. South of Macdonnell Ranges the natives are friendly—they assist us rather than do any harm to the line, and there are no mischievous white fellows to do the line damage. If, therefore, I was asked whether it was necessary to put an intermediate station there, I should say, from past experience, extending over five or six years, that there is no occasion for it, because the line is in such a position that it is not likely to be damaged.

370. *By Mr. Burns.*—You are aware that New South Wales have extended their inland lines to Wilcannia, and there is an office established there?—Yes.

371. Supposing it proposed to connect by way of Wilcannia with the South Australian line, what would be the distance, and where would it connect?—We should probably take it from near Beltana. I have a map here—[*producing the same*]. I considered that question some time ago; it came before me, and I recommended that the line in that case should go from Beltana.

372. Beltana is only 130 miles from Port Augusta?—Yes; I should say either from Port Augusta or Beltana.

373. Have you estimated the distance?—The distance I think would be about 200 miles. I do not think much more.

374. Either from Beltana or Port Augusta?—Yes; with such a line as that, Sydney would be able to speak with Macdonnell Ranges direct.

375. And that line would not be much of a saving; it would give a connection to New South Wales with your overland line, but it only saves about 100 and odd miles?—It would not save much.

376. *By Mr. Boucaut.*—It might save coming down to Adelaide—200 miles—so that it would save about 400 miles?—It would give direct communication. With your permission, I would add that we are making provision so as to throw out of our intercolonial circuit with Sydney all local stations, so that the traffic between Adelaide and Sydney may not be impeded by any local traffic whatever.

377. *By Mr. Burns.*—If you made that line from Port Augusta or Beltana to Wilcannia, would it render Sydney entirely independent of the Victorian lines?—Sydney is independent of Victoria now; we never send any messages through Victoria, except in the event of interruption between Adelaide and Deniliquin.

378. *By Mr. Boucaut.*—Mr. Burns's question is, that though Sydney is independent of Victoria, still the proposed line would render her more independent?—Yes. One point I may mention, in reply to Mr. Boucaut's question, as to what steps we are taking to make the Port Darwin line more secure, and that is, that we are extending our lines from Adelaide northwards along a route to the east and parallel