

one company, and another company has come along and taken them right on those lines.

The President: Is it your wish, gentlemen, that this committee should be continued, to report at the next convention what they find can be accomplished? (Motion carried to continue committee.)

A. B. Smith: Who are the committee?

The President: Mr. Dion, Mr. Gossler and Alderman Sadler. There was another member, Mr. Badger, and it would be proper to appoint someone in his stead, and I will be glad to receive suggestions. Mr. Badger was appointed because he was in Quebec. Mr. Sangster, would you be kind enough to act as the other member of the committee? Mr. Andrew Sangster will be the remaining member of that committee. Now, the next business before us is the selection of the place and time for the next meeting of the convention.

Mr. Dion: I desire on behalf of Ottawa city to extend a cordial invitation to this Association to hold its next convention there. I can assure you of a very hearty reception, and I do not think it is necessary for me to say very much in support of this invitation, because it would seem as if it were Ottawa's turn to get it. We have not had a convention of this Association for five years; since that time it has been in Toronto and been further west and also further east. Ottawa is a central place, and I have spoken to a number of members about it and they seem to be quite agreeable to the idea. At any rate, I propose Ottawa, and I hope the convention will decide to come there. (Applause.)

The President: It does not seem to be any use to ask for any who are contrary minded to speak—therefore it will be Ottawa next. (Prolonged applause.) The next item on the programme is General Business.

Moved and seconded, that this Association express to Mr. James Conmee its appreciation of his earnest efforts in securing equitable legislation concerning the electrical industries of the province of Ontario, and that the combined Executive and Legislative Committees be instructed to convey this expression to Mr. Conmee in a proper and fitting manner.

A. B. Smith: I would move, seconded by Mr. Yule, that our Secretary be allowed the usual grant for the year. Carried.

The President: Now, gentlemen, we arrive at the question of papers, and we adjourned yesterday with the discussion upon Mr. Dion's paper unfinished. We had, perhaps, fully exhausted that element of the subject having reference to testing and methods of reading and so forth, but have not taken up the question of rates. If there be anything more to be said on the matter of meters, meter placing, meter testing and meter reading, we should be pleased to hear from you now, and I want to repeat what I said yesterday, that I hope that everyone here will take an active part; if necessary, rap another fellow over the knuckles in order to get some fire into our discussion.

Mr. C. H. Wright: Mr. Dion in his paper at page 2, section 4, says, "The current should be calculated from the indications of a Siemens dynamometer. If none is available, the wall ampere meter, which should be frequently calibrated, may be used instead." I think a Weston ammeter will be found more convenient and reliable. Last year Mr. C. E. Haskins, the meter expert, provided a plan of testing meters in houses. He takes a bank of lamps of a lower voltage than those in use on the company's wire and calibrates them at different voltages, and he can test the meter without any disturbance whatever, and this removes any doubt that may be in the consumer's mind as to the accuracy of the meter. On page 3, under the heading "Station Meters," Mr. Dion says, "The practice of metering the output of the central station, which is becoming quite popular, is a move in the right direction. The data obtained through the use of station meters is not otherwise available. It is sure to lead to economies in the station, and will be of material assistance in making and re-adjusting rates." I doubt the reliability of this data. Further back Mr. Dion refers to the size of meters in relation to the load. When we install a large meter for measuring the total output, this meter at certain hours of the day will work on a very light load. Take the case of hotels, where the lights are burning late, you

will have lots of meters working on practically full load, whereas your large meter in the station is working on low load; in fact, after twelve o'clock it is no uncommon thing to see this large meter stop altogether. You take and add up your house meter readings and check them against the main meter in the station, and the difference is altogether too great. Large differences in stations, perhaps, are to be looked for where we have transformers. In one station where I was employed, we thought there was something the matter with the meter, and had it recalibrated; in all cases we got difference of from 20 to 30 per cent. between the total readings of the house meters and the main meter in the station. I know we calculated our other losses to be about 5%, and the transformer loss could not have made up the 25 per cent. difference present. So that the fact of these large meters working on small load, looks to me as though the data thus obtained is not perfectly reliable.

A. A. Wright: We had as high as 36 per cent. loss once in a large bank of transformers. You promised to show us that card.

The President: That will come up in the reading of the next paper. Is there anything further desired to be said on this question?

Mr. Leyden: I want to say a word as to what Mr. Dion said as to when a customer objected to the reading of the meter, immediately removing it and replacing it by another meter. To my mind this is not the best way out of the difficulty. Mr. Dion states that it is not the proper method to test a meter on the premises. While you might not be able to get as accurate results on the premises as you would in your own testing room, still, if you do get any results at all, and they are anywhere nearly correct, the customer is a great deal better satisfied, and is very much less liable to complain the second time than if you take the meter out and put in a correct one. If you can show to him right on the premises that the first meter is correct, you are not liable to have much further trouble.

Mr. Fisk: I do not think it is hardly the right thing to do to have to humor every customer into believing his meter is right. We pay the Government for informing the public as well as ourselves that these meters are correct, and it a record is kept of the original test of these meters, and that is shown to the customer, I think that is far enough. If he is dissatisfied, then the law provides that by him depositing the proper amount the meter can be verified, and then there is no doubt about it at all. If you try and humor every customer that is dissatisfied, you have a big job on hand. If you take one man's meter out and put another one in exactly the same, perhaps his conditions will change a little; he gets better results and he at once says, 'I know what is the matter, that other meter is wrong'. He tells all his friends, and you have got to change everybody's meter; whereas probably the meter is all right. We pay the Government for testing these meters, and they have the option of depositing their fee and getting the certificate themselves, and if they do that, this certificate not only answers their purpose, but it also gives the lighting company another lease of life for five years on that particular meter, which I think is the proper way.

Mr. Dion: Have you any competition in your town, Mr. Fisk?

Mr. Woolsey: This meter question I think would apply to the province of the legislative committee. In several cities in the States that same question of doubt has arisen with the subscriber or with the consumer as to the meter being correct or not. It has gone into the board of electrical control of the various cities. When the consumer makes complaint or has an idea that his meter is not reading right, he applies to the board of electrical control, the inspector of it is the inspector of all electrical work, and the customer has to take his meter out and take it to the inspector's office, or else the inspector comes to the house and inspects the meter, and then if the meter is found to be out, or is found not to be correct, the company has to pay one dollar to the inspector and put in a meter that is right, but if it is found to be correct then the customer has to pay the dollar to the inspector.

Mr. Yule: Our practice has been to explain to the custom-