

the payment to be made by the C.P.R. Company on account of the North Shore road, need not be underestimated. On the supposition that the amount to be received was to go towards paying another loan, a new arrangement would have to be made if \$4,000,000 of the amount were proposed to be diverted to pay the Paris loan. The question is whether such an arrangement could be made, and on what terms. If the terms which could be made in this case would be no better than in the other, an amount of \$4,000,000 having to be renewed in any case, one operation would be as good as the other. Till we know all the facts, a definite opinion on the case cannot be formed.

CANADIAN COPYRIGHT.

Interest in the copyright question continues to manifest itself from time to time. Mr. F. R. Daldy, Hon. Secretary of the British Copyright Association, in a letter to the *Times*, states that at the Berne International Copyright Convention "the United States Government made the consent of Canada that American copyright should run in that Dominion a leading condition of their conceding it to the British nation." But he forgets to say that the British Government had previously renounced the right of binding Canada by commercial treaties without her consent. The statement of this essential fact is necessary to a proper understanding of the question. A right to consent or to refuse to consent to be bound by a particular treaty carries with it the correlative right to ask that a treaty to which assent has been given shall be renounced. Mr. Daldy is on false ground when he complains that "Canada has asked the Imperial Government to repeal the British copyright" so far as it affects Canadian printers and publishers, "and also to denounce Canada's connection with the Berne convention." Canada is not going beyond her strict rights in demanding that, so far as she is concerned, the Berne convention should be denounced. Canada is a self-governing country, having by her constitution, which was assented to by the Imperial Parliament, the right to legislate on copyright. The only question is whether the British Parliament has a concurrent right of legislation, to a limited extent, on this subject, or whether Canada's right of legislation is exclusive. If ever that question is forced to a settlement, the settlement, while it will be political, can only be made in one way; our right of legislation will not be subjected to any more limitations on this than on the other subject. We can understand why British authors should resent the treatment of the question in this country. The British Copyright Association, as Mr. Daldy reminds us, think and act as owners of copyright, not in the interest of publishers. Canadian printers interest themselves in copyright from the opposite point of view. A sane view of copyright extends scant sympathy to them; but if they fight the question on the higher ground of constitutional right, and of what belongs to a self-governing people, their co-operation must be accepted by those who simply demand that our autonomy should, in this matter, be made complete.

ELECTRICAL SCIENCE.

The recent convention of electricians in Montreal was of a nature which demonstrated that its members were in earnest over their work, and that they had come together for no mere holiday occasion. In respect of the topics discussed and the spirit displayed, it may be termed an important practical gathering. Electrical work has now so wide a field, and so many applications of electricity are now either in actual work or in sight, that such occasions as these for electricians among us to come together and compare notes

are likely to be of service to the body politic. The work of the convention was set about in a business-like way, the whole of the dozen papers submitted being printed and illustrated and distributed among the members before the meeting.

The first paper was that of W. B. Shaw, of Montreal, on the application of electricity to the purposes of oculists, dentists, throat specialists, and those of general practitioners, with a word of warning as to the curative methods of electric quacks. The lengthy paper of Mr. John Galt, C.E., of Toronto, respecting the possibility of securing better regulation at central light and power stations by means of fly-wheel accumulators of improved construction, was discussed. Mr. Galt dwelt upon the recently expressed opinion of Dr. Edward Hopkinson, of London, of the necessity for an efficient accumulator capable of working as a regulator, which would save 30 to 40 per cent. in the cost of a generating plant. And he thought that the new method of fly-wheel construction, invented and patented last summer by Professor Sharp, of London, went far towards "filling the bill." The steel spokes of this wheel are tangential, like the spokes of a bicycle, instead of radial. "A powerful and light fly-wheel, deriving its power from its high speed, should satisfy both those who advocate heavy fly-wheels because of their power and those who condemn them because of their weight."

A practical paper on telephone cables, their construction and maintenance, was read by Mr. F. J. Schwartz, of the Bell Telephone Co., Montreal. This concluded as follows: "The amount of underground work in Montreal is at present small, and there has been no destruction caused by electrolysis. There is, however, considerable difference of potential between the cables and the earth at different points, and it is probable that trouble will be experienced. With overhead construction faults will continue to occur, and with underground cables the troubles, though fewer in kind, are no less destructive. To meet these special means will have to be adopted as occasion requires."

Mr. Rosebrugh read a paper on duplex telephony, which created much interest and is of no small importance. The method has been demonstrated in Toronto, where it is now in successful use. As we understand it, by the use of a return wire circuit a phantom circuit is created, which can be used for duplexing. Next came the paper of Mr. E. A. Sperry, of Cleveland, on the electric brake in practice. The writer contended strongly that the present hand brake for street cars was ineffective, and that the increasing cost to companies of the item of "damages" showed very clearly the need of an improved method of stopping the cars. He asserts that "under proper and standard conditions any car or train may be brought from a speed of ten miles an hour to absolute rest inside of ten feet," and adds what is quite true, that "it is not generally appreciated that the wheel brake has ample capacity to accomplish this." He was strongly in favor of an electric brake with which he had been experimenting, which is entirely independent of the current that impels the car.

The *Electrical World*, of New York, in its editorial on the convention, says that "the papers of Professor Rosebrugh, Mr. John Galt, and Mr. E. A. Sperry are important contributions to professional literature. . . . The paper of Professor Rosebrugh is perhaps the most important on the programme, dealing as it does with an aspect of telephony to which, apparently, little attention has thus far been given." The paper of Mr. Carl Breithaupt, of Berlin, upon the subject of municipal lighting, created quite an animated discussion.

As to the place of the next convention, Ottawa and Peterboro had each sent an invitation. On a ballot, Ottawa