



PUBLISHED ON THE FIRST OF EVERY MONTH BY

CHAS. H. MORTIMER,

Office, 14 King Street West,

TORONTO, - - - CANADA.

62 TEMPLE BUILDING, MONTREAL.

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EDITOR'S ANNOUNCEMENTS.

Correspondence is invited upon all topics coming legitimately within the scope of this journal.

MR. W. C. McDONALD, of Montreal, has placed the youth of Canada under deep obligation to him by his recent bequest of \$40,000 for the endowment of a chair of electrical engineering at McGill University. Thus the means has been provided by which our young men may obtain the knowledge they require without being obliged as heretofore to go beyond the bounds of their own country. We learn that the electrical laboratories in the new building, now in course of erection, will contain all the necessary apparatus and facilities for electrical work, and the classes of the professor of experimental physics with all the apparatus at his disposal will also be available for the instruction of the students in this department.

ACCORDING to experiments made by Dr. Tatum, of Yonkers, N. Y., with an alternating current machine of high frequency, namely, of some 8000 alternations per second (the usual frequency of alternations in commercial machines at present in use being 300), he finds that the physiological effect, or in other words the power to kill, with any given strength of current, decreases in proportion to the frequency of the alternations, and that even at 4500 alternations, the effect is less than that of a continuous battery current. It would be curious if this very property of alternation which has usually been considered an element of danger, should eventually be the means of rendering high-tension currents comparatively safe.

AN interesting calculation was given by Mr. Gisbert Kapp in one of his recent Cantor lectures which is full of significance to the electrician and engineer. It was regarding the distance that power could be carried by means of a storage battery from a waterfall, the batteries being carried on a tram car, using the electricity from the batteries as motive power, compared with the distance that coal and corn could be carried with a similar loss in transmission in this case to per cent. The corn would be hauled by a horse that lived on it as he went along, and the coal by a locomotive using it for fuel. The distance attained with a 90 per cent efficiency in transmission would be for the coal and steam engine, 1,300 miles; corn and horse, 440 miles; and storage battery and motor, 26 miles.

THE Barking Road Tramway, London, on which cars are used driven by storage batteries as a motive power, is frequently instanced by friends of that method as proving the adaptability of storage batteries for street car propulsion. We do not think that anyone doubts that storage batteries can be used to push a

street car. That has been frequently demonstrated. The vital question is, can it be made to pay? If it is not commercially practicable, it must fail. On that road it takes $2\frac{1}{2}$ tons of batteries to move $3\frac{1}{2}$ tons of passengers. The car takes at times 17 h. p. at the car, with an average of 7 h. p. delivered at the axle of the car when running. This costs, with the cheap fuel and labor available, over 16 cents per car mile, or about four times as much as horse power on the Toronto street railway.

THE city of St. Catharines is about to lose a valuable industry by reason of the stupidity of the gentleman who acts in the capacity of City Solicitor. When it was proposed to submit a by-law to the ratepayers authorizing the granting of a bonus of \$9,000 to aid Messrs. Patterson & Corbin to erect a factory for the manufacture of electric cars, the solicitor's opinion was asked as to the proportion of votes required to legally carry the by-law. He replied that a majority of votes would be sufficient. The voting resulted in a majority being obtained for the by-law. While the Council and citizens were congratulating each other on the result, the City Solicitor announced that on further consideration of the matter he had discovered that to render the by-law legal, a majority of two-thirds of the votes cast must be secured in its favor. It is not surprising that everyone now feels disgusted with the situation. Messrs. Patterson & Corbin are understood to have selected a site for their factory at Peterboro'.

THE executive committee of the National Electric Light Association has fixed the 25th, 26th and 27th of August as the date of the next convention to be held in the city of Montreal. The convention will take place in Windsor Hall. The Victoria rink will contain the exhibition of electrical apparatus. The civic authorities and citizens of Montreal will leave nothing undone to make the occasion one of pleasure and interest. We have heard that it is the intention of one of our leading electrical companies to rank amongst the exhibitors, and no doubt the others will do likewise. We believe strong efforts will be made to induce electrical men in Canada to become members of the National Association on the occasion of this convention. Without wishing to detract from the benefits which might accrue to them from such a course, we are strongly of the belief that the electrical interests of Canada demand the formation of a Canadian Electrical Association, to which it would undoubtedly be to the advantage of every man interested in electricity in the Dominion to belong.

THE safety of the electric light as a means of illumination has been well demonstrated during the last year in Philadelphia. In that city the light or power is used in over 5000 buildings. 287 buildings have their own apparatus, ranging from a 20 light to a 4000 light installation; in the aggregate, 80,258 incandescent and 3,325 arc lights. There are also 15 central stations supplying from 2000 to 40,000 lights each, and motors from $\frac{1}{8}$ to 30 h. p. Chief Inspector McDevitt of the Fire Underwriters' Association, reports that during the year "no insurance loss occurred in any building in our city from fire where the cause could be in any way attributed to electric wires." This is a splendid showing, and one of considerable encouragement to electric light men. It also demonstrates the wisdom of rigidly enforcing the rules of the insurance companies in the manner of running wires and installing electrical apparatus generally. These rules may at times seem somewhat arbitrary, but the results attained through their observance in the matter of reputation alone, are of as much value to the electrical interests as they are financially to the insurance companies.

THERE is to-day no more important problem to be worked out by the electrical engineer than the invention of a successful method of furnishing current from the generator to the street car motor without the use of overhead wires. The unsightly constructions which are found necessary will not be long tolerated in the principal streets of large cities. The authorities of Berlin have decided that no more permissions be given for this class of work. We are sanguine that the skill which has brought the electric railway to its present state of perfection will solve the problem, and that at a very early date. The action of municipal authorities such as we have mentioned, will no doubt be a spur to action, and if it becomes more general, we may look for more