

ELECTRICAL MECHANICAL AND MILLING NEWS

Vol. XIV.—No. V.

TORONTO AND MONTREAL, CANADA, JULY, 1890.

Price, 10 Cents
\$1.00 PER YEAR.

ELECTRICAL, Mechanical and Milling News,

PUBLISHED ON THE FIRST OF EACH MONTH BY

CHAS. H. MORTIMER,

Office, 14 King Street West,

TORONTO, — — CANADA.

Temple Building, Montreal.

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EDITOR'S ANNOUNCEMENTS.

Correspondence is invited upon all topics pertinent to the electrical, mechanical and milling interests.

IT is probable that electricity as a motive power will be discontinued on the railway at the Industrial Exhibition in Toronto next September. This was the pioneer electric railway in the Dominion, but as it is anticipated that the extension of the street railway via King street subway and Dufferin street would divert the street traffic from it, it has not been considered worth while to get up a permanent and elaborate electrical plant. If the subway is not completed this year, there is some talk of using a benzine engine that is being got up by some Toronto parties to run the road. If, however, it does not evolve with sufficient rapidity, or in other words materialize in time for the show, the historical apparatus of the Toronto Electric Light Company which has been utilized in the past will again be brought into requisition and hustle the crowds up the grade to Machinery Hall as per usual.

THE magnificent possibilities that would follow a successful attempt to produce light without heat by accomplishing a coincident vibration of etheric and magnetic waves by means of an electric current, would be equalled by the dazzling rewards that await the fortunate inventor. Imagine a luminous wire carried the whole length of a street, giving out a soft and beautiful radiance, like the sun at noonday, instead of the flared and alternating spots of light and darkness which are the results of the best systems of lighting in use to-day. Imagine it! No lamps to trim or intricate mechanism to get out of order, nothing but the cold and luminous wire shedding its radiant beams upon the darkened earth wherever it may be led. This and the production of electricity direct from fuel without the intervention of steam engine and dynamo, would be worthy of the brightest genius of this or any other age. The scientists at work on these problems may be one or two out of the highway to success just at

present, but in the light of past discoveries it would be idle to say that it will not be accomplished.

MR. David Plewes, Secretary of the Dominion Millers' Association, writes as follows on the subject of the grain tester:—"During last session of the Dominion Parliament, great pressure was brought to bear on the Government by some members from rural constituencies to compel grain buyers to use peck or half bushel measures to test the weight of grain per standard measured bushel instead of the two-quart tester now in general use. The chief argument used openly was that if those small measures made $\frac{1}{4}$ lb. mistake, the $\frac{1}{4}$ lb. multiplied by 16, would make 4 lbs. difference on a bushel; whereas $\frac{1}{4}$ lb. on the 1-16 bushel tester, would only be $\frac{1}{4}$ lb. on the bushel, for the difference on the tester only marked the difference on the full bushel measure. If this assertion were correct, then a tester that made wheat weigh by mistake 4 lbs. less than a measured standard bushel, their system would multiply the 4 lbs. by 16, making a total of 64 lbs. loss on a measured bushel—really making a standard bushel weigh 4 lbs. less than nothing. This was their open objection; the secret desire was to pass off 56 lb. wheat as standard wheat. Under this pressure the Government by Order in Council has ceased to recognize any grain measures less than peck measures, but at the same time does not prohibit the use of the two-quart tester wherever or whenever the grain buyer chooses to use it to satisfy his own mind of the gravity weight of any grain before he buys it. A cantankerous seller sells a buyer standard wheat and attempts to deliver wheat of less gravity weight than standard, then in order to prove a legal breach of contract a peck or half bushel measure would have to be used in order to secure a conviction in a court of law. For all practical purposes this Order in Council need not deter millers from buying wheat by standard as heretofore. All they have to do is to use their tester before buying, and bid according to their regular buying scale after testing. The seller, as heretofore, can refuse and go elsewhere to sell his wheat if he chooses to do so. But to whom will he go but to the Canadian miller who has paid him 5 to 10 cents per bushel for the past two years more than any other buyer would pay? If a slippery seller shows an inclination to deliver poorer wheat than sample sold by (I have known such men) it will be well to have a peck measure near by to test with. However, with a very large proportion of the farmers who know the present testers give correct tests, there will be no trouble. It is only the few designing ones who will cause trouble, and they are generally known even before one sees their sample of wheat or makes a bargain." Some newspapers have asserted that the Government has suppressed the tester, but the following copy of the Order in Council on the subject proves clearly enough that such is not the purpose:—"You are informed that while this instrument ceases to be a legal arbiter of the weight per bushel of grain as between buyer and seller, it is not the intention of the Department to prohibit its use by grain buyers or millers for the purpose of informing themselves thereon."

IT now appears probable that Harold P. Brown's little machine will be put in operation to experiment on the unfortunate Dutchman, Kemmler—nothing but a technical question as to the right of the prison warden to carry out the sentence standing in the way. It is curious to note how, among the mass of the people, electricity is considered the panacea for all evils. Because there has been, now and again, a bungle in the extremely simple process of hanging a man, the conclusion is immediately jumped at that electricity is the thing to straighten matters out and solve the "knotty"

problem, while in point of fact it is the most intricate and tricky method that could possibly be selected. In the first place, the delicate and complicated machinery necessary to insure certain results must be under the control of competent electricians. But while competent electricians have the field all before them that the development of electricity now presents, with its positions and emoluments, they are not hankering after the position of public executioner. Not much! Talent will have to be employed that is the refuse of the profession, and the result will be more horrible and ghastly than the worst ever perpetrated with the hangman's rope. Again, it is an open question as to what amount of current is necessary to effectually kill a human being. That men have been killed by electric currents is beyond doubt, but for one killed, thousands have experienced just as strong shocks with impunity. It is only those who have some constitutional defect such as weak action of the heart who have succumbed to the current, so that this is no argument electricity will be sure death in every case. Take a parallel instance. Men have been killed by sudden emotions of grief or joy and have even been known to drop dead from the effects of a sudden start, but because this is so he would be a bold philanthropist indeed who would attempt to put the murder-committing, hardened tough, out of his misery by scaring him to death. The attempt, however, would be a logical result of the arguments in favor of electricity. If it were not that the whole affair was concocted for fighting purposes by rival electric companies, and a painless and humane death the only object aimed at, it would be a simple matter to administer a dose of chloroform, or morphine or prussic acid strong enough to start the toughest citizen on his journey to the happy hunting grounds with neatness and despatch. It is a very grave question, however, whether this would not be rather more of an incentive to than a deterrent of crime.

SINCE the advent of electric railways in the larger cities, the telephone companies have had what is technically known as "a hard row to hoe." It was bad enough while they had the induction caused by electric light wires to contend with, though that was comparatively a hardship that could be borne as the lights did not, as a rule, interfere during business hours, but since the heavy electric currents necessary to run the railways have been in operation during the day, and have also brought into use the earth as a return conductor, the trouble has been intensified to such an extent as to seriously interfere with the use of the telephones. In the case of the railroads, the trouble is not so much from induction as from direct interference owing to the telephone being grounded in close proximity to the return currents of the electric cars. Several telephone companies in the United States are seeking legislation to compel the railroads to discontinue the use of the earth as a return conductor, claiming that they were there first. There are wars and rumors of wars in the air. Suits have been brought in several courts and the results have been various. In most of the decisions the electric railroads have been sustained. The question narrows itself down to this: Do the telephone companies own the earth, and can they alone use it as an electric conductor? It has been held not, as the telegraph companies used the earth as part of their circuits long before telephones were invented, and their prior use would entitle them to a monopoly of the argument of the telephone companies is held good that their prior use gives them precedence over the railways. Most of the trouble can be eliminated by the use of a metallic return wire for the telephones, and this is being adopted by many of the companies as a temporary remedy. The true solution of the telephone difficulties, however,