

ANOTHER ELECTRIC MOTOR—SOME WONDERFUL FEATS.

The New York *Tribune* describes the running of car driven by the Daff electric motor, at Greenville, N. J., on Thursday. The exhibition was made with miniature open cars on the smaller of the two tracks. The motor is easily managed, requiring only the turning of a handle to one side or the other to go ahead or run back, as it may be desired. The electric current is transmitted to the rails from the stationary engine, by positive and negative wires connecting with either side, and from the rails to the wheels and through these to the simple machinery of the motor. The brakes are magnets of high power. While the question of insulation of the rails presented such difficulties in the practical working of the Siemens electric system in Berlin as to require the introduction of an overhead wire, according to the Daff system the "low tension" current admits of the running of cars over rails laid in the ordinary manner, and with no special precautions against contact with the earth or against floods. There is no attempt at insulation in fact, and there is, consequently, absolute immunity from danger of shock or harm to human or animal life from contact with the rails. When asked what advantages are claimed for the electric motor as a substitute for steam locomotives for railways, Theo. Daff, electrician of the company which bears his name, said:—

"Our locomotives would be one-third the weight of those now in use to accomplish the same work. They would be operated for less than one-half the present cost of fuel. As to speed, the electric motor is practically unlimited, because there are no reciprocating parts. The expense of constructing and keeping in repair is much less than for any steam motor. The best steam locomotives in the world are those on the Pennsylvania Railroad; these are 18 by 24 cylinder, with 6-foot driving-wheels; they consume 8½ tons of coal per horse-power per hour while our compound stationary engines, which furnish the power, require only two tons of coal per horse-power per hour. A 20 or 250 ton train running at the rate of forty-five miles an hour develops 625 horse-power, and the steam-locomotive weighs, with the tender, fifty tons. We can condense the same energy into a twenty-ton electric motor and thus add thirty tons more paying capacity to the train. We can now actually accomplish a speed of seventy miles an hour with the armature on the shaft and 100 miles an hour is possible. The reciprocating parts in steam engines are always elements of danger at the higher speeds. While we wholly do away with these in our motor, there is a constantly increasing energy in the direction of rotation at the periphery."

Among the interesting exhibitions of the power of electricity was the running of the saws in the saw-mill at the rate of 2,800 revolutions a minute by a current transmitted through a mile of wire; but more astonishing than all else was the running of the electric motor up and down a track with a grade of 2,000 feet to the mile. This feat, in which electricity laughed at the laws of gravitation, and set at defiance all previous performances attempted by steam motors, would have seemed incredible had it not been witnessed by a dozen practical men.

THE REDUCTIONS IN THE PROVINCIAL EXPENDITURE.

The auditor general of the Province, Mr. Gaspare Drolet, has just issued a memoir of the reductions effected by the ministry of the Province of Quebec from which it appears that during the last six months upwards of \$156,000 has been retrenched, of which \$85,000 has been obtained by reducing the expenses of the civil service and \$71,000 in the administration of Beauport Asylum. In the Department of the Executive Council the annual expenses have been reduced to the extent of \$1,400, in the Provincial Secretary's Department, \$3,865, in the Registry Department \$4,750, in the Attorney General's \$2,350, in the Treasurer's \$900, Auditor's \$100, Crown Department \$5,800, Agricultural \$5,930, Public Instruction \$2,070 and Railways \$100. In addition to this, superannuations and supernumeraries whose services have been dispensed with, make an aggregate of \$12,457.50. Over two thousand dollars has also been taken off the amount voted toward subscribing to the press of the Province; \$3,000 voted to the library and \$3,326 in the salaries of watchmen, &c., in the departmental buildings. Next comes the copy of a report of a committee of the Executive Council stating the Treasurer has been informed by the eminent counsel retained by the Government that the decision of Hon. Mr. Justice Rainville in the Corporation Tax cases is illegal, that the tax in question is a direct one, that an appeal to the Privy Council has been made, but that on account of the "combined resistance" of the commercial corporations, who have been called upon to pay this tax it will be impossible to realize the amount estimated from these taxes during the current year and that in consequence it be necessary to make reduction in the estimates in other quarters, a list of which has already been published, including grants to many of the charitable and other public institutions of the Province amounting to \$35,293, and making the total reductions over \$150,000.

THE FIRST NEWSPAPER PUBLISHED IN CANADA.

Mr. Alexander Lawson, proprietor of the Yarmouth (N. S.) *Herald*, has finally set at rest the question of the establishment of the first newspaper in Canada. Mr. Bourinot, in his *Intellectual Development of the Canadian People*, and others, have credited the Quebec *Gazette*, established in 1764, as being the pioneer newspaper in these Provinces, but the historical fact, as related by Mr. Lawson, fixes the first newspaper enterprise as far back as 1752, thirteen years before the publication of the Quebec *Gazette*. The result of Mr. Lawson's research bears out the *Dominion Annual Register and Review* for 1882, which gives

Nova Scotia the credit of having given birth to the first newspaper published in what is now the Dominion of Canada, the year being fixed at 1753 instead of 1752; a mistake of one year only. Mr. Lawson thus relates his discovery:—

"On my passage from Yarmouth to Boston, in the *New Brunswick*, I had the pleasure of an introduction to Mr. Henry J. Morgan, of the Department of State, Ottawa, and editor of the *Dominion Annual Register and Review*. Our conversation naturally drifted into the subject of Nova Scotia newspapers. Referring to the early journals of the province, Mr. Morgan stated that a Halifax gentleman had informed him that he saw in the Legislative Library in the State House, Boston, a copy of a Halifax paper published in 1753, under the title (as Mr. M. understood it) of the *Mercury*. As this date was only four years after the settlement of Halifax, I thought there must be some mistake, and concluded to investigate the matter if possible. Soon after my arrival at Boston I mentioned this intention to my esteemed friend Mr. Charles E. Tard, of the Boston *Transcript*, and that gentleman kindly furnished me with a letter of introduction to Mr. C. B. Tillinghurst, Librarian of the Legislative Library. I at once proceeded to the State House, where I was most courteously treated by Mr. Tillinghurst, who, after a diligent but vain search after ancient Nova Scotia newspapers, accompanied me to the office of the Secretary of State (in the same building), who was equally obliging, and equally unsuccessful in his search. Mr. Tillinghurst then gave me a note of introduction to the Hon. Samuel Green, of the Massachusetts Historical Society, Tremont street. Mr. Green was absent, but a gentleman to whom I made known the object of my visit, in a few seconds brought from an alcove a bound volume of old Nova Scotia papers dating as far back as 1752. The first paper in the collection was No. 1 of the *Halifax Gazette*, dated March 23, 1752, 'printed by John Bushnell, at the Printing Office in Graton Street.' The paper is about 15 by 15 inches in size, printed in one leaf of two pages, two broad columns to a page."

ELECTRIC CARS IN PARIS.

PARIS, Sept. 8.—The electric tramcar trial was successfully accomplished to-day by the French Electrical Power Storage Company. At three o'clock the vehicle, an ordinary three horse tramcar, left the Place de la Nation on the far east, and, after traversing the capital through the most important thoroughfares, reached the starting point soon after six o'clock. A distance of thirty English miles was thus made in about three hours. The route was marked out with the soundless progress of the apparently animated car through the crowded streets was witnessed by the public may be imagined. There was not the slightest accident, and not a single horse shied throughout the entire route. Whenever there was an impediment, the driver, directed by M. Philippart, the manager of the Company, who was ever on the alert, had no difficulty in bringing the vehicle to a standstill at a second's notice. The ease with which the car was turned off one set of tram lines and got on to another across several yards of unsettled ground was likewise admirable. The locomotion is effected by means of Faure accumulators, weighing some fifty hundredweight, which are fixed under the tramway seats, and connected with a Siemens' machine placed under the floor. The machine, which makes twelve hundred revolutions a minute, sets in movement, by means of a pulley, an axle, to which are connected the wheels which give impulse to the wheels. These wheels revolve sixty times to twelve thousand revolutions of the machine. The speed of the electric tramcar is nine and one-third miles an hour on level ground, and five and one-half miles an hour on an ascent. The present tram lines are not well adapted for the new locomotion. On the newer lines the movement was sufficiently smooth, but on those that have been laid for some time there was a marked difference, and the actual working force was considerably lower than the indicated horse-power. To-day's experiment, however—the first ever made over a long distance—fully proves the practicability of electric tramcars, and it may safely be predicted that before long they will take possession of the tram routes of the French capital. The estimated cost is one-half that of horse trams. The Company who made the trip to-day consisted of engineers and journalists. M. Ferdinand de Lesseps was among them. On Sunday next a trip will be made from Vincennes to Versailles.

A COTTON BROKER'S SUICIDE.—BOSTON, September 22—

On September 4th Fred P. Jenks, a well-known cotton broker, hired a room in the Tremont House, and took four bottles of a patent medicine containing a large proportion of opium. He was found nearly lifeless, and died on the 6th. Inquiry into his affairs showed that a note he had negotiated some time before for \$2,800, and due the day of his death, was a forgery. Other forgeries were discovered in rapid succession. It was also found he had appropriated and squandered \$6,500, entrusted to his guardianship by elderly females. The signature on the forged note was "T. W. Raphael," of Oakdale, which was also appended to another note for \$440. Jenks also negotiated a note for \$3,300, bearing the forged signature of S. Blaisdell, jr. & Co., Holyoke, and another for \$3,800 bearing a forged signature of Corn. R. Butter, of Taunton. The amount of his fraudulent paper is \$13,000. Unfortunate cotton speculation caused the trouble.

PROTECTION OF TRADE MARKS.—On the 1st of July last a new law came into force in Luxembourg for the protection of trade marks. The principal conditions are the following:—A trade mark is considered to be every mark which serves to distinguish a certain article, also the name of a person or firm applied for that purpose. In order to secure protection, the mark must be deposited with the

authorities. The applicant receives an official certificate with copy of the mark. The latter can only be used for one article especially mentioned. The application for registering must be accompanied with a remittance of 10 frs. If the applicant wishes to abandon his rights he must make a declaration to that effect. Foreigners whose native countries exercise reciprocity can obtain the protection; but when the protection expires in the native country, it also ends for Luxembourg. Marks which have not been properly registered will be declared illegal on the application of any one interested.

MYSTERIOUS MURDER OF A BABY.—Castleton, Vt., Sept. 23.—

The funeral of Theron Goodwin's murdered baby took place this afternoon. Mrs. Goodwin fainted at the grave. The evidence thus far obtained and certain remarks dropped by Mrs. Goodwin strengthen the suspicion that she killed the child. Another clue was obtained this morning, which will be made the basis for issuing warrants for the arrest of two young men. The child was shot on Friday night, while the father was out on Lake Umbagog fishing. He heard two reports of a pistol, and, hastening home, found his wife prostrate with grief and the baby dead with a bullet hole in its head. Mrs. Goodwin said that a man fired at her through an open window and missed her. Then he entered the house, followed her into the room where the baby was sleeping, and, as she was leaning over the child, fired again, the ball missing her and entering the child's head. Another shot was fired, and she fell over on the bed. The man, supposing she had killed her, fled.

THE BRITISH BOARD OF TRADE RETURNS for the foreign

trade of August show a slight increase in the exports over the previous month, though a decrease as compared with the same month last year. The imports exhibit an increase as compared with the preceding month, and a somewhat larger increase as compared with those for August of last year, the increase in the latter case amounting to 9.4 per cent. The imports for eight months of 1883, as compared with a like period in 1882, show an increase of £12,745,225, or 4.6 per cent. A like comparison in the case of exports exhibits a decrease in eight months of 1883 of £2,042,935, or 1.3 per cent. Turning to the details of the imports for August we find special increase in the items of oxen, bacon, timber and wool. A decrease of £0,000 in the imports of wheat is noticeable. This decrease was mainly in arrivals from America; the purchases from Russia and India showing an increase. The tables show a heavy decrease in the exports of pig, bar and railroad iron as compared with last year, the exports of pig for the month amounting to only £97,000, as against £253,000 in August of 1882. The shipments of cotton goods, on the other hand, show an increase.

AUCTIONEERS' COMMISSION.—In the case of Farebrother

and others v. Cox, heard in the Queen's Bench, London, an interesting point was decided. The parties in the case were the well-known auctioneers, and Mr. Cox, picture dealer, of Pall Mall. Mr. Cox made an agreement with them by which, in consideration of their advancing him £2,000, he agreed to employ them as his auctioneers for the sale of his pictures and property at a fixed rate of percentage. At the sale most of the pictures did not reach the reserved prices fixed, and were bought in. The auctioneers claimed 742½ commission on all put up to auction, but defendant considered the amount due to be only 162½, being the commission on the pictures actually sold. The Court held that the effect of the buying-in was only to postpone the sale, and until they were sold the auctioneer could not claim his commission. The attempt to prove a custom of a regular commission on lots bought in failed entirely, as Mr. Palmer, one of the defendants, himself admitted that the rate claimed varied with different firms. Judgment was therefore entered for the defendants, with costs.

SANDFIELD MACDONALD'S WILL.—A suit is now pending

before the Chancery Division for the construction of the will of the late Hon. John Sandfield Macdonald upon a single point which now arises. By the will an allowance is made to the testator's youngest son, which is to be increased when the beneficiary arrives at a certain age upon condition that the executors approve his course of life up to that time. The time having arrived and the executors approving the beneficiary's conduct, the question arises whether the increased allowance is to begin from the date of the young man's majority or from the present time, some two or three years having elapsed since his majority. To construe the will upon this point a friendly suit is brought, in which Mr. G. S. Macdonald is plaintiff and the executors and the other beneficiaries are defendants. The question is purely one of law upon the construction of the will.—*Mail*.

A CHICAGO SCANDAL.—Chicago, September 21.—

Before the adjournment of the Board of Trade to-day, the Secretary announced that some one on the floor had mutilated the signal service weather report. Alterations had been made in the figures, so as to report a contrary meaning to the one intended. Before the deception was discovered, a perceptible decline in corn resulted, a number of members losing thereby. The report stated that the indications pointed to frost on Friday or Saturday night in all the states north of Tennessee. Operators gathered about it when posted, and soon after it was noticed an interlineation had been made by an unknown person, and a line written on the margin to the effect that the statement in the bulletin had been contradicted. Not long afterwards the entire bulletin disappeared mysteriously. Some operators are interested in these bulletins. No steps have yet been taken towards an investigation.

Lost wealth may be replaced by industry; lost knowledge by study; lost health by temperance or medicine; but lost time is gone forever.