

SPARKS.

The Council of the town of Port Hope has appointed a committee to ascertain the cost of an electric light plant.

An electric tramway, to connect the town of Rat Portage with the towns of Norman and Keewatin, is projected and will probably be built next summer.

It is stated that the construction of an electric street railway in Halifax has been definitely decided upon, and that the work will commence in the spring.

Mr. J. Culverwell, lately representing the Edison General Electric Co. at Montreal, has been appointed general agent of the Automatic Telephone Co. of Canada.

The experiment is to be tried at Ottawa, of drying lumber by means of electricity. The apparatus for that purpose is in course of construction by Mr. Parr, of that city.

Mr. Maxwell, of the Portland office of the General Electric Co. has been appointed as manager of the British Columbia division, to succeed Mr. J. S. Anderson, resigned.

A resolution was recently passed by the Board of Works of the City of Hamilton, requiring the Hamilton Electric Light and Power Co. to verify by declaration all their accounts.

A by-law authorizing the issue of debentures to the amount of \$14,000 for the purchase of an electric light plant, was carried on October 24th, by vote of the ratepayers of the town of Niagara, Ont.

A company recently organized has applied to the Council of the city of Quebec for permission to build an elevated electric street railway in that city. They also ask exemption from taxation for 30 years.

Stock to the amount of \$60,000 has been subscribed for the purpose of constructing an electric railway to connect the towns of Watford, Arkona and Thedford, Ont. The undertaking will be proceeded with at once.

As a result of a recent meeting of the citizens of Leithbridge, N. W. T., it was decided to organize a local electric and power company with a capital of \$25,000. A committee of five was appointed to open a stock book.

The annual report of the Montreal Street Railway shows there has been an increase of 50 per cent. in the passenger traffic during the last three months. The year's business netted a profit of \$93,880.21, as against \$60,361.71 the previous year.

The Ottawa Board of Trade has appointed a deputation to wait upon the Dominion Government, to urge that action be taken in conjunction with the Imperial authorities, to push forward the scheme for the construction of a cable between Canada and Australia.

The electric cars on the streets of Victoria, B. C., are said to be much larger than those in use in Eastern cities, being capable of holding nearly 100 passengers. They also run at a much higher rate of speed. The road connecting Vancouver and New Westminster covers the distance between the two cities, 14 miles, in 50 minutes.

The Ottawa Electric Street Railway Co. has applied to the Ontario Government to be given three small islands in the Ottawa River, a short distance from the city. Should the request be granted, the intention of the Company is to extend its tracks to the river banks, construct a bridge from the mainland to the islands and establish a summer resort.

A convention of the railway telegraphers from all parts of the continent will be held in the City of Toronto, on the 15th of May next. It is expected that 300 to 500 delegates will be present. The membership of the Order of Railway Telegraphers numbers about 30,000. The Order has on hand a protective fund amounting to over \$40,000 and a rest fund of \$30,000.

The Legislature of British Columbia, at its next session, will be asked to grant incorporation to the Kalso City Electric Light and Power Co. Ltd. The Company propose to erect and operate electric works in and about Kalso City, which is situated in the West Kootenay district. The promoters of the Company are S. H. Green, F. E. Coy and B. H. Lee.

Action has been entered by the Dominion Government in the Exchequer Court, to recover from the town of Port Arthur the sum of \$1,596, duty on 266 tons of steel rails, used in the construction of the electric street railway of that place. It was decided some time ago that rails for electric street railways should be classed as tramway rails and consequently should be subject to duty.

The Hamilton City Council has refused the request of the Hamilton, Guelph and Beamsville Electric Railway Co. for a bonus of \$50,000 to aid the company in the construction of its line. It is understood that this decision will also apply to the proposed Radial Electric Railway Co., and the Guelph and Waterdown Company. The promoters of the Beamsville road, when asking for the bonus, stated that the road would not be constructed without it.

The attorney for the Toronto Street Railway Co., while in Detroit recently, stated that the company were perfectly satisfied with the arrangements with the city of Toronto. The gross receipts last year were upwards of \$800,000 and the receipts for next year are expected to exceed \$1,000,000. Last year the company paid 8 per cent. and \$800 per mile for single track to the city. Should the receipts next year exceed \$1,000,000 the company will have to pay 10 per cent. to the city.

A citizen of Toronto recently brought action for damages against the Bell Telephone Co. for having cut branches off shade trees overhanging the

street in front of his premises. The Company alleged that the branches interfered with the use of the wires of the telephone system which they had contracted with the city to maintain. The Court of Appeal held that the plaintiff had no interest in or title to the trees growing in the street sufficient to enable him to complain of the cutting. The Court likewise held that as the branches overhanging the street, growing within the plaintiff's grounds, were not a nuisance and in no way interfered with the use of the highway, the defendants had no right to cut them.

Some time ago the township of Etobicoke passed a by-law granting a bonus of \$20,000 to aid the construction of the Toronto and Mimico electric railway. The by-law under which the bonus was granted provided for the completion of the road by the 31st October, 1891. The road was not completed by that date, consequently the object of the by-law was lost by default. It is said, however, that the promoters of the railway are rather pleased than otherwise at the way things have turned out, as an appeal had been taken from the decision of the court sustaining the by-law, by parties opposed to the payment of the bonus. Under present circumstances the company will escape the costs incident to this appeal, amounting to about \$759, and will shortly have the by-law again submitted and expect to succeed in having it carried.

The conditions of the agreement which the city of London has just made for the construction of an electric street railway provide that the work of building the track must be begun between Nov. 15, 1892, and March 15, 1893. Seven miles of the railway must be completed, and the electric cars running thereon within two years. At the end of 20 years the city may, after six months' notice, assume the ownership of the railway on payment of its value, to be determined by arbitration. The company will pay yearly to the city \$100 per mile of single track and \$200 per mile of double track, if the gross receipts of the railway are \$60,000 a year. The company will also pay on all gross receipts under \$100,000, 5%, between \$100,000 and \$125,000, 5½%, between \$125,000 and \$150,000, 6%, between \$150,000 and \$175,000, 6½%, between \$175,000 and \$200,000, 7%, over \$200,000, 8%.

One of the large expenses of a street railway electric power plant is that arising from the burning out of the armatures of motors, which results sooner or later, with almost every machine in service. To start a car requires, of course, the expenditure of more electrical energy than is necessary to keep one in motion. This excess of electrical energy, when applied for the purpose of starting a car, has the effect of severely shocking the armature, which results in burning it out. The same effect is shown in stopping a car, as the sudden check in current, which must result, shocks and burns the coil on the armature. The force thus turned on for starting varies greatly according to circumstances, and it might not be precisely the same at any two times of the many which occur in a completed trip. The inertia, also, which is to be overcome by the motor, varies even more often according to the load, grade and state of soil; while the discretion of the driver, in turning on current in proportion to his load, can never be counted on with any degree of certainty. A mechanical regulating clutch has been brought out in Philadelphia, by which the machinery is started so gradually that only one-fourth of the force is permitted to enter the motor at once which would enter without the application of the clutch, and, therefore, the burning out of an armature is an absolute impossibility. After a car is in motion, it is claimed it can be stopped and started without interfering with the electrical energy or increasing it in the slightest degree. The motor runs continuously, but only works when the clutch is thrown in contact.

NOTES.

When a hand-hole plate or flange joint is to be packed it is well to have in mind the fact that it will require re-packing sometime, and do the work with a due regard for the future. It is the custom of many to cover plate surfaces and both sides of the gasket with a sticky mixture of white or red lead and oil, the object being to fill all the cavities that may be in the iron that is not touched by the gasket, and in hardening prevent a leak. The lead well does its work, but when from any reason it becomes necessary to break the joint and make it up anew, the convict on is forced upon the mind that while white or red lead makes a staunch joint it also makes a great deal of work in cleaning it for the new, as the lead either dried or burned fast, is very difficult to remove, requiring a scraper and a considerable amount of muscular energy. It is very seldom that such a paste is required—it seems advisable with hemp—and it is usually more a desideratum to have the packing remove easily than to burn fast.

We dropped into the engine room of one who is glad to learn, says the *Boston Journal of Commerce*. He was having trouble with an inspirator, and was the more troubled because the water line was fast disappearing, and the "blamed thing was broken and wouldn't start." It was no consolation that others had trouble with an inspirator before, and the same trouble, in fact, which was hardly the fault of the inspirator. The inspirator was fed from a tank overhead. The valve on the inspirator leaked, from a bit of grit getting under its seat, so that the steam entering through the suction-pipe into the tank rapidly converted the water therein to such a temperature that condensation was rather out of the question. The engineer did not notice how hot the water was in his tank, but started and re-started the inspirator as often as it broke. All we could suggest was that he close the valve from the suction-pipe of the inspirator to the tank, so no more steam could enter, and hold the water-valve in the tank open until enough water had run in to cool the whole down to a temperature where it would draw, and in future keep steam out of the tank. In this way the trouble was overcome, and with cool water it worked nicely.