

ELECTRIC RAILWAY DEPARTMENT.

NEW RAILROAD MOTOR.

A TEST of a new electric motor, the invention of Mr. Nicola Tesla, will shortly be made at the works of the Westinghouse Company in Pittsburgh. The motor is destined for use on the elevated railways in Boston, and is a polyphase or induction motor, applying an alternating current, which is said to be preferable for long-distance transmission. Its distinctive characteristic is the utilization of the rotating magnetic field. It does away with the commutator and the brush, necessary to the use of the direct currents in action. Mr. Tesla states that the discarding of these makes his motor less costly an important consideration more reliable, easier to handle, and less perilous to those who handle it.

THE HURON AND ONTARIO ELECTRIC RAILWAY.

THE Huron and Ontario Electric Railway Company are slowly but steadily completing arrangements for the construction of the road. According to the act of incorporation, the capital stock of the company is to be two million dollars. Mr. N. McNamara, of Walkerton, is president, Dr. Rollston, of Shelburne, vice-president, and Mr. A. McK. Cameron, of Meaford, secretary. The road will extend from Port Perry to Kincardine, with two branches, one running north from Priceville, through Meaford, Owen Sound, Tiverton, etc., around to Kincardine, and the other extending from Walkerton, through Mildmay, Teeswater, and Lucknow to Goderich, with a connection between Lucknow and Kincardine through Ripley. The entire length of the road will be something over 300 miles, and motive power for its operation will be supplied from stations at Eugenia, Glen Roden, Southampton and Thompsonville.

The company is authorized to issue bonds to the extent of \$10,000 per mile for construction purposes, and \$6,000 additional for each mile double-tracked. At a meeting of the shareholders held in Toronto recently an offer for construction was received from a New York firm. It was stated that most of the municipalities interested had passed resolutions adopting the by-laws and agreements with the company. A survey of the route is now being made by engineers. This will occupy about two months, after which track-laying will be proceeded with.

In Chemnitz, Saxony, no poles are used for operating the electric street railway. The method of stringing wires is by means of ornamental rosettes fastened into the woodwork or walls of houses, having projecting hooks to which the wires are attached. These hooks are firmly fastened and are tested with seven times the weight they are called upon to bear. The railway tracks are level with the pavements, and accidents are rare. The cars run at a rate of 220 yards a minute in the centre of the city. No conductors are employed, the motorman being the only person on board who represents the company. By doing away with conductors the company saves 44,000 marks annually. The fare is only 10 pfennigs, or a trifle less than 2½ cents, on all routes, including transfers. Should 150,000 persons evade payment in 12 months, the loss would be only 15,000 marks. It would take 450,000 evasions in fare to offset the company's savings by dispensing with conductor's salaries. Fare boxes are attached to both ends of the car.

SPARKS.

George Beattie was killed by a trolley car on the Hull & Aylmer electric railway.

A. W. Prestine, a carpenter of Hespeler, Ont., was killed on the Galt, Preston & Hespeler street railway by falling between the motor car and trailer.

An exhibition of Reynold's self-loading electric car was given in Montreal recently under the supervision of Mr. St. George, City Surveyor. The work done was satisfactory.

In lieu of privileges granted by the city of Hull, Que., the Hull and Aylmer Electric Railway Company have agreed to light the city for five years with thirty-two candle-power lamps.

Arrangements are being made in St. Johns, Nfld., for the construction of an electric railway, to operate between the city and suburban villages within a distance of twenty miles. The plant will be driven by water power.

The Canadian Electric Railway and Power Co. is seeking power from the Dominion Government to build an electric railway from Cobourg via Port Hope, Bowmanville, Oshawa, Whitby, Toronto, Oakville and Hamilton to Suspension Bridge and Niagara Falls.

The Vancouver, Victoria and Eastern Railway and Navigation Company is applying for incorporation to construct telegraph and telephone systems along the line of a proposed railway from Vancouver, B. C., through Manitoba, Ontario and Quebec to the Atlantic seaboard. The solicitor for the company is Donald G. Macdonell, of Vancouver.

Experiments have recently been conducted in New York by the New York Central Railroad Company, with a new hot water motor. The hot water, under enormous pressure, is stored in supply boilers and then charged into the battery cylinders of the motor. The great merit of the motor is said to be its cheapness. The cars can be operated upon any track, all that is required being a number of boiler houses along the road.

An effort is being made by the citizens of Cote des Neiges to compel the Montreal Street Railway Company to extend their line along Grey street and up Cote des Neiges Hill. The company object to building the line up the hill on the grounds that there is little traffic and the danger to life would be very great. The matter has been referred to the city attorney, with the object of learning who is the competent authority to determine where lines should be built in accordance with the terms of the franchise.

The belt line railway around Toronto which was constructed some years ago by the Grand Trunk Railway Company did not prove a paying investment, and has not been operated for some time. A company is now being formed, to be known as the Toronto Radial Railway Company, to acquire the property and franchise of the said railway, with the object of electrifying the road, and with the privilege of making extensions within a radius of fifty miles. Messrs. Dewart & Raney, Toronto, are solicitors for the company.

The directors of the proposed Carp, Almonte and Lanark Railway held a meeting on Wednesday last, when it was decided to begin preliminary surveys at once. It is proposed to have the line run from Carp to Bridgewater, a distance of some 68 miles, passing through Almonte and Lanark. From Bridgewater the line will connect with the Central Ontario R. R. and the Grand Trunk. Among the promoters are Mr. T. W. Rains, president, and Messrs. W. H. Stafford, D. M. Fraser, D. Shaw, Dr. Groves and J. W. McElroy.

The Ottawa Electric Railway Company provide amusements for their patrons at the parks owned by the company adjacent to the city. On the 22nd ultimo an exhibition of Edison's latest invention, the Vitascope, was given at "West End" park. The Vitascope is an improvement on the Kinetoscope, and instead of objects being reproduced in miniature in a cabinet, they are thrown in life size on a large screen, just the same as lime-light views. A view of Prospect Park, Brooklyn, showing foot passengers, bicyclists and horses passing, was an interesting feature, as was also the breakwater at Coney Island.