

**SPARKS.**

Mr. N. Duval, of 85 St. James street, Montreal, has invented a new water wheel which is laid flat in the water.

Rogers, Robertson & Co., oil merchants, Montreal, have amalgamated with the Bushnell Oil Co., Limited, of that city.

The village of Glencoe, Ont., has invited tenders for electric street lighting for a term of five years. Tenders closed on the 2nd inst.

A reduction in fares will, it is said, be made by the Metropolitan Railway Company between the C. P. R. crossing and the cemeteries.

Incorporation will be asked for the "La Compagnie de Telephone de Beauce," for the purpose of establishing telephone lines in the province of Quebec.

An assignment has been made by C. W. Henderson, dealer in electrical supplies, Montreal. The direct liabilities are given as \$8,327, and the indirect liabilities as \$2,186.

The New England Telephone Company have established a long distance service between Boston and points in Canada, connecting with the wires of the Canadian Bell Telephone Company.

The Sarnia Gas & Electric Light Company recently purchased a new boiler from the Goldie & McCulloch Co., of Galt, and an incandescent machine from the Canadian General Electric Co.

The receipts of the Toronto Street Railway Company for the year ending August, 1897, were \$1,020,215.40. The largest receipts for any one month was during July, when they reached \$106,750.

Messrs. S. J. Lightbound, Louis Hall, John Smith and James O'Brien, of Huntsville, Ont., have passed the examination of the Ontario Association of Stationary Engineers and received their certificates.

It is stated that the capital stock of the Toronto Electric Light Company will be increased from \$1,400,000 to \$2,000,000. This increase is said to be necessary for the extension of plant and new buildings.

In Montreal recently Mr. Frederic Nicholls, of the Canadian General Electric Company, had a conference with Sir Charles Ross in reference to the water power scheme at Kootenay, B. C., for which his company is furnishing the electrical machinery. It is expected that early in November power from this source will be supplied to Rossland.

The annual meeting of the shareholders of the Great North-Western Telegraph Company of Canada, was held in Toronto on the 29th ultimo. The directors chosen were: H. P. Dwight, president; Adam Brown, vice-president; A. S. Irving, Richard Fuller, H. N. Baird, Hon. Wm. Macdougall, Charles A. Tinker, James Hedley and W. C. Matthews.

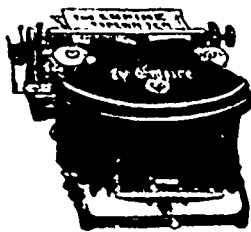
The name of the Electrical Supply Company, of Hamilton, Limited, has been changed to the Electrical Power & Manufacturing Company, of Hamilton, Limited.

The effort to bring about an agreement between the Hamilton and Dundas Railway Company, and the Hamilton Street Railway Company, in relation to the former's running rights over the street railway in Hamilton and the supply of electric power, has been unsuccessful. The Hamilton and Dundas company is continuing its arrangements to change the present system to that of electricity, and to continue on its old tracks throughout the city.

According to professor Ebert, a German physicist, a single horse power would be sufficient to run 46,000,000 Pulu lamps of 16 candle power. This is a phosphorescent lamp constructed 13 years ago, and consists merely of a piece of mica painted with sulphide of calcium and subjected to the action of Cathode rays in a vacuum. Should it become possible to convert mechanical energy into light alone, a single man turning a crank could develop sufficient energy to light a whole city.

The announcement is made that D. MacLachlin Therrell, the Southern electrician of the Postal Telegraph Company, whose headquarters are at Atlanta, Ga., has conceived a device by which he hopes to revolutionize long-distance telephoning. The invention, which combines the principles of the telephone and phonograph, has been publicly tested in a room at Atlanta, where renditions of vocal and instrumental music were transmitted through a resistance equal to that of 12,000 miles of wire, and were perfectly audible to all who had assembled to witness the experiment. Mr. Therrell's pet scheme is to have a telephone line across the Atlantic. This, he thinks, could be accomplished by having his repeaters located in bells at a distance of a thousand miles apart.

Mr. John McGill, of Kingston, son of the clerk of the county court, has invented a motor which he claims can be used in connection with steam, water power or compressed air, and that he can multiply the power of the usual steam engine ten times. "Take an engine," he says, "with a six inch cylinder. That is equal to about 28½ inches of steam space. To drive the piston one revolution at 90 pounds pressure will use 31,300 inches of steam. In my system it will take only 5,180 inches of steam to produce the same result, or take an engine with a five inch bore cylinder that is equal to 20 inches steam space. To run it at five pounds pressure, one revolution will require 2,000 inches of steam, and the power would be scarcely sufficient to overcome friction and set the engine in motion. In my system 910 inches of steam at five pounds pressure will yield a power of 24,000 pounds, equal to 7½ horse power." An ordinary turbine will scarcely move at 3 pounds per square inch, while with the new motor almost any amount of power can be obtained at that pressure, varying according to the size of the motor from, say, 25 to 100 horse power.



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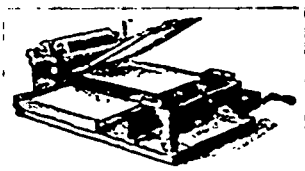
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