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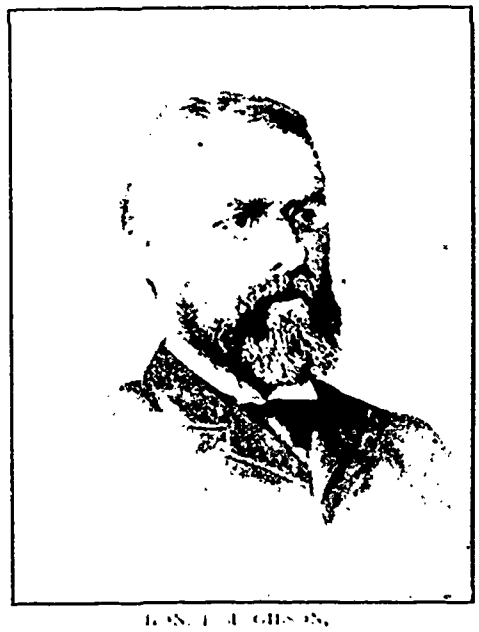
ELECTRICAL POWER TRANSMISSION TO HAMILTON.

THE Cataract Power Company has been incorporated at Hamilton, with a capital stock of $99,000, for the purpose of transmitting electric power from DeCew Falls to Hamilton, a distance of 32 miles. The promoters of the company are Hon. J. M. Gibson, James Dixon, John Moodie, John William Sutherland, John Patterson, and Edmund Brown Patterson, all of Hamilton. DeCew Falls are situated about two miles from St. Catharines and receive a constant and unfailing supply of water from Lake Erie. The height of the fall is about 270 feet. The depth of water at the brow of the fall is about 5 inches, and the width about 18 feet. This comparatively small body of water, operating upon water wheels from the height mentioned, is capable of generating 2,500 horse power. The only purpose served at present by this magnificent water power is the operation of a couple of small mills. The Cataract Power Company have acquired the sole ownership of the water privilege, and are understood to have gone very thoroughly into the practicability of the scheme for transmitting the power to Hamilton. No particulars are as yet obtainable regarding the system or methods to be adopted for transmission, but the details are said to have been carefully worked out and submitted to Nikola Tesla and other electrical experts, who have approved of them.



H. N. [illegible] GILES,
President Cataract Power Company, Hamilton.

The company have submitted to the Hamilton Street Railway Co., Hamilton and Dundas Railway Co., Hamilton, Grimsby and Beamsville Railway Co., Hamilton Electric Light and Power Co., and other large power users, a proposition to supply them with power at a cost very much below what they are paying under present conditions. The proposition is that the power shall be supplied under guarantee, so that the purchaser is asked to assume no risk whatever. If the company succeed in getting the acceptance of their proposition from the leading power users, the work of installing the necessary plant will be at once proceeded with. The total cost of carrying the enterprise to completion is estimated at nearly a quarter of a million dollars. If carried out this will be the longest electric power transmission line in the Dominion, and one of the longest in the world.

The further development of so important an enterprise, and one which bears to some extent the character of an experiment, will be watched with much interest. The recent declaration of Nikola Tesla that he has solved the means of successfully transmitting electric power for commercial purposes to a distance of 500 miles, augurs well for the success of this and enterprises of like character in the future.

BARRIE ELECTRIC LIGHTING PLANT.

THE picturesque town of Barrie, situated on the shores of Kempenfeldt Bay, is lighted at night by two electric plants.

The steam plant, situated on Bayfield street, was designed by Messrs. Kennedy, McVittie & Co., architects. It acts as an auxilliary to the water plant, which is situated at Midhurst, six miles north.

The switch board is a substantial slate affair, equipped with Brush instruments. The switch board room is merely a platform raised about ten feet above the floor of the dynamo room. A balcony runs around behind the board, so that the operator can see all of the machines from above. Stairs lead down to the floor of the dynamo room, which is floored in maple. All the machines are set on stone foundations, and the fly wheel of the engine is supported on stone abutments.

The engine is a Brown tandem compound, 180 h. p., with a fly wheel 12 feet in diameter by 24 inches face, driving a 22 inch belt onto a line of shafting, 35 feet long by 4½ inches in diameter. The line of shafting is below the switch board room, and is on a level with the floor of the dynamo room, the pulleys on it working in a pit. From the line of shafting, a 12 inch belt drives a 1000 light Brush alternator with exciter. Three five inch belts drive three Ball arc machines of 25 lights each. The machines are neat and clean, and everything about the place has a spick and span appearance.

In the boiler room two 14' by 60" Polson 100 h. p. boilers, fed by a Chas. Smith feed pump, and fired by soft wood, generate the steam for the engine. A Polson dependent condenser, direct connected, with a capacity of 3000 gallons of water per hour at 90°, beneath the floor of the dynamo room. The brick chimney is a substantial structure of considerable height.

The switch board room, the manager's office, and the cloak room are ceiled with basswood and the floors are maple. The manager's office is neatly fitted up and overlooks the flower garden and well kept lawn. On the switch board are seven switches for incandescent circuits. The board is fully equipped, and the light is sold principally by meter. The dynamo room is lighted by an arc light, and the rest of the building by incandescent lights.

At Midhurst there are two stations, one for arc lighting and one for the alternators. The machines in these plants are duplicates of the Barrie plant. A 30 foot head of water drives the arc plant, and a flume leads down to the incandescent plant.

The company is managed by an efficient board of directors, comprising Jas. T. Burton, President; M. Burton, vice-Pres.; S. A. Sett, Secty; Jas. A. Sanford, Supt; L. E. P. Pepler, director.