

CANADIAN POWER COMPANY FREE FROM ICE TROUBLES.**Dr. Barnes Puts an End to False Reports.**

FOR some weeks past malicious reports regarding the Canadian Light & Power Company have been in circulation on the "Street" and in some cases have found their way into print. These reports were to the effect that since the recent cold spell set in the entire plant of the company at St. Timothee had been frozen up and that little or no electrical power was being generated. These reports were denied *in toto* by the president and directors of the company but despite their denials the statements continued to be made. It is believed that these malicious statements were set in circulation by the same interests who have all along opposed the Canadian Light & Power Company. The latter organization has had an up-hill fight since it first secured its charter. Between opposition from powerful financial interests, from rival power companies, and the City Council the directors of this company have been greatly harassed. Their success in spite of the violent and prolonged opposition is attributed to the sterling qualities of the members constituting the Board and to the merits of the project which they have undertaken. The latest opposition in the form of spiteful rumors regarding the company's plant is on a par with much of what has already appeared.

The following letter from the pen of Dr. HOWARD BARNES which appeared in a recent issue of the *Montreal Star* shows the falseness of the report that ice has seriously interfered with the power generated by the company.

In view of the discussion over the Canadian Power Company affairs, the *Star* asked Dr. HOWARD BARNES, of McGill, who is the foremost ice expert in America, to give his impression of an engineer's letter which appeared on Friday. Dr. BARNES writes:
Financial Editor, *Montreal Star*:

SIR,—My attention is directed to a letter signed "Engineering Staff," published in Friday evening's issue of the *Star* supposed to be a report of the Canadian Light and Power Co.'s operations at St. Timothee.

As I am anxious for the public to have always correct knowledge of the ice conditions on the St. Lawrence, particularly as they bear on the development of our vast water powers, I wish to point out how misleading this article really is.

I have no idea who has written it, but it is to me another illustration of the erroneous ideas people get of ice conditions by superficial examination. I am continually meeting this in my efforts to have adequate experiments tried on the maintaining of an open channel in the St. Lawrence in winter, so much so that I have for the time being practically abandoned all efforts in this direction.

I have been conducting a series of scientific experiments on Lake St. Francis and vicinity on the rate of growth of surface ice to determine the time of limiting thickness, the period of retrogression of the ice, and the effect of snow on the growth. These observations extend over a wide area, and include about seven stations on the Beauharnois Canal between Valley-

field and St. Timothee. I am, therefore, quite familiar with the ice conditions as they have influenced the operation of the Canadian Power Co.

The only frazil of any account that has been produced in the canal was on the night of the 28th of December, when the sudden drop of temperature with high wind ushered in the severe weather of January. This frazil accumulated in the small portion of the canal above St. Timothee bridge, which has not as yet been dredged, and considerably reduced for that reason the available free waterway. The company was not alone in experiencing ice troubles on that date, since all the hydraulic works in the vicinity of Montreal were affected, if not entirely shut down.

The Canadian Power Co., did not suffer to so great an extent as others, inasmuch as they had absolutely no rack or gate troubles, owing to their modern equipment. Letters to me show that practically all hydraulic works in Eastern Canada and the Northern United States were affected at that time. A large company in the States, who never before experienced ice troubles, was completely shut down. The weather conditions were exceptional, and might not occur again in the same way for ten years.

Even if they should, such trouble as was experienced at St. Timothee could be easily avoided by regulating correctly the freezing of the canal each year with the advent of cold weather, and especially when the canal is dredged throughout its entire length. Naturally the company employed a force or men to cut a channel in the forebay and blast out the frazil. This was done expeditiously. In regard to statements made by Engineer such as "the canal is pretty well blocked." I personally saw the canal at the point he refers to open from bank to bank a few days previous to his visit. He says of this section, "the water passage is irregular and running at four miles per hour." As a matter of fact, when he saw this section, the barge ice had grown out from the sides over this open water, but had not at the time entirely covered it over. The irregular contour of this ice, no doubt, gave him needless cause for alarm. That no frazil existed there I know because I had measurements of the rate of growth outwards of this barge ice as a matter of scientific interest. Measurements of the water current showed two miles per hour, and not four, showing how deceptive it is to gauge velocities in running water from eye observations. Engineer gives a loss of head of two feet in this section of canal, where he supposed the frazil to exist, but this must surely be a misprint, and should read two-tenths of a foot, which actually existed at the time. The whole loss of head over the entire canal is not more than two feet.

In my opinion, the Canadian Power Co's development at St. Timothee is exceedingly favorably situated, and when the dredging is completed this summer, coupled with their up-to-date design, they should be absolutely immune from ice troubles of any kind.

H. T. BARNES, D.Sc., F.C.S.,
McGill University, Feb. 26, 1912.

CONTROLLER WANKLYN'S VALEDICTORY ADDRESS.**Advises Others to do What he Himself Neglected.**

MR. WANKLYN has been given a good deal of publicity in connection with the valedictory address he delivered when giving up his position as controller. There is no doubt but that the Board of Control accomplished a good deal during the past two years, but in regard to one or two of the more important questions there has been absolutely no progress made.

Mr. Wanklyn devoted a good deal of attention in his address to the problems awaiting

settlement. The most important one, according to him, was in connection with the Street Railway and the need to provide new streets, etc. In the course of his remarks he says that a "new contract on a fair basis to both parties must be entered into." Mr. Wanklyn has had nearly a year and a half in which to "make a new contract on a fair basis to both parties" but absolutely nothing was done in the matter. If we are rightly informed the onus of blame in connection with this "do-nothing" policy rests primarily with Mr. Wanklyn himself. He was the recognized leader of the Board of Control and his refusal to negotiate with the Street Railway Company is responsible for the non-settlement of this important question. If he had shown any disposition to meet the Street Railway Company the whole matter could have been settled months ago. As it is the city and the Street Railway Company are as far apart today as they were when this question was first brought up. If Mr. Wanklyn had put into practice some of the professions he has made he would have left a better record behind him. The following extract from his speech referring to the Street Railway question is worthy of perusal. The only fault we have to find with the speaker is that he did not show a disposition earlier in his career to make "a new contract on a fair basis to both parties."

"If you will permit me," said Mr. Wanklyn, "I will venture to mention some problems still to be solved by my colleagues and this council. First I will call your attention to the tramways service. The old contract with the Montreal Street Railway entered into when the population was about half what it is now, no longer meets the requirements of the city. A new contract on a fair basis to both parties must be entered into. The city, owning as it does the most valuable consideration of all, the franchise or use of its streets, can offer the same to the company for the extended period allowed by law, viz., for 41 years from date. That is a most valuable consideration, the importance of which it is impossible to overlook, practically a monopoly in a city containing 600,000 souls and extending over 45 square miles, while 12 years ago the receipts of the company hardly averaged \$2,500, whereas today they often exceed four times that amount. Can any one tell what they will be in ten, twenty, thirty or forty years hence? Then care must be taken that of the certain increment the citizens get their proper share. A uniform fare throughout the city must be granted, placing all citizens on an equal footing, and the company, in return for the great privileges it hopes to enjoy, must contribute its share to civic improvements, and assume, as in every other city on this Continent, its proportion of the first cost and maintenance of the permanent pavements, a fair share of the cost of snow removal and street cleansing, and put into its service an adequate amount of rolling stock to prevent overcrowding and delay. A double track should be constructed between Gosford street and Bonaventure station, as the congestion on St. James street has become almost intolerable."