

THE BOWMANVILLE ELECTRIC LIGHT COMPANY.

DURING the fall and winter of 1886-7 the plant now owned by the Bowmanville Electric Light Company, commenced operations. The water power and site formerly occupied by McDougall's flour mills one mile north of the town was purchased and a central station erected under the supervision of Mr. Stephen Wright and Mr. M. Sanford. One thirty-five light eight ampere Ball dynamo was installed, and lights were placed in a number of stores and four lights on the streets on approbation.

In the following spring the present company organized with Mr. John McCellan as president, and Mr. W. J. Jones as secretary treasurer, which positions they still hold. A three years contract was then made with the town for fifteen street lamps, since increased to nineteen, and a new twenty-five light Ball machine was purchased. In 1889 this machine was exchanged for a forty lighter, so that the capacity of the station at present is seventy-five arc lights.

The pond covers an area of about twenty acres and gives a head of water of twenty-two feet. The machines are driven by three Lefel wheels, two twenty inch wheels of twenty-five h. p. each connected to one shaft driving one machine, and one twenty-six inch wheel of forty-five h. p. driving the other, so that either machine may be stopped, started or run at any desired speed independently of the other.

The station is connected with the town office by telephones owned by the company. They are placed on a metallic circuit to prevent induction, which on a grounded circuit of that length would be very bad owing to the close proximity of the light mains.

Owing to the noise at the station made by the machines the telephone had to be placed in a room separate from the dynamo room, so that the present superintendent invented a small piece of apparatus which causes an incandescent lamp to be lighted whenever the bell rings and it remains lighted until the telephone has been answered, when it is set ready for the next ring.

About sixty arc lamps are now in use and twenty-five Bernstein incandescents. A record is kept of the time each machine is started each night, and the circuit on which it is run.

There are two circuits embracing about twelve miles of wire, one of which has on it store lamps only. The other has the street lamps, hotels, churches, and all lamps which have to be run on Sundays and holidays so that one machine does all the work when the store lamps are not required. The motto of the station is, 'Cleanliness is next to Godliness.' Mr. F. G. Proutt, who was for three years with the Bell Telephone Co., has been in charge for the past two years.

ELECTRIC LIGHTING FROM A FINANCIAL STANDPOINT.*

By ERASTUS WIMAN.

As a matter of course the profitableness of any undertaking depends upon the price obtained. In my judgment electric light projectors are themselves to blame for loss of profit through false representations as to the economy of operation. If the truth had been told, and contracts refused except upon a paying basis, the electrical business throughout the country would now be upon a much better footing.

The promoters of electrical enterprises, and the sellers of electrical apparatus and appliances are rapidly killing "the goose

that lays the golden eggs," by falsely representing the great economy of operation, and consequently the great profits of such undertakings, thus falsely educating the public into the belief that anything like a reasonable price is extortionate.

The policy of the friends of the electrical industry should be directed in just the opposite course to that which you propose pursuing, namely, to show that electrical undertakings, upon the basis of the present prices *are not profitable*, and if they expect perfect service they must pay better prices, prices that have prevailed because the companies themselves have not heretofore appreciated and understood the cost of operation, and the great loss due to accidents and rapid depreciation.

These two extremes of success and failure tell the whole story of electric lighting in the past seven years. The companies that have succeeded have done so under favorable circumstances, with a freedom from ruinous competition, exacting good prices, and above all other requisities, with good management. If there is any department in human activity where brains and tact are required to a degree greater than any other, it is in the administration of an electric lighting plant. This is evident, not only because there was a great lack of experience and knowledge of a business that was in the production of an article that was in a certain sense mysterious and unknown, but because there has

been an amount of misapprehension as to its cost on the one hand and its value on the other, hardly ever experienced regarding any article of merchandise.

Some attempt has already been made to account for a misunderstanding as to the cost of electric lighting, but it is proper to allude to the folly which has prevailed in selling it for less than cost. The insane competition with each other in localities where one company was needed and more than one was ruinous is well-nigh passed, but there remains the competition with gas companies and the effort made to constantly lower the standard of electricity to that of gas. It is true that in the early history of the effort to use electricity as an illuminant, it was



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necessary to get down to the fumes of coal, and in order to show the superiority of one over the other, to yield for a time in the matter of profit. But so rapid has been the growth in the use of electricity, so immeasurably superior is the current to fame, in health, in brilliancy, in beauty and attractiveness, that the time seems near when electricity can claim the rightful place, and demand the price just so much higher as it is an illuminant just so much better. It took sixty years to introduce gas and make it a reliable servant of man. Its early history shows losses quite in proportion to those in electricity, while its later progress shows that long ago it reached its limit of illumination, its possibility of moderate profit, its constancy of danger, and its maximum of unhealthfulness. It has remained for electricity to show in every new edifice, in every modern place of public resort, in almost every commercial centre, in banks and hotels, as well as in thousands of miles of street lighting, how immeasurably superior is the electric globe of light to the meagre and inefficient gas burner. With this achieved, and a general verdict in the public mind as to the superiority of one over the other, is it not time to break away from a similarity of price, as we have broken away from a similarity of production? An advance in price commensurate with the superiority in the article produced, would add largely to the earning power of electric lighting companies, and it is time it was contemplated and acted upon.

*Abstracts from paper read before the National Electric Light Association, Buffalo, N. Y., February 24, 1892.