have no difficulty in getting the most satisfactory evidence that the electric locomotive will provide a perfectly feasible and safe system for performing all work at this tunnel.

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-We print elsewhere the opinion of a New York financial paper on the commercial aspect of the various Niagara Falls electric development works. The Canadian Engineer does not share the pessimistic views of that paper. One of the companies on the Canadian side of the Niagara is financially identical with the power company which installed the first large works on the United States side, and has undertaken its Canadian works with its eyes open, and after several years' experience as a pioneer in the development of large units for transmission to Buffalo and other towns as well as for consumption around Niagara Falls. The other two Canadian power companies are undertaken by men who not only understand the electrical business, but are skilled financiers, and know pretty thoroughly the commercial prospects of what they have undertaken. It is true that the 375,000-h.p. in course of development on the Canadian side is in excess of the visible present requirements in the Niagara peninsula and Toronto, but electric power can be transmitted to Ontario points as far west as London, and the local chemical and industrial works of the Canadian side of the Falls are certain of creation when the power is ready. In fact the electrochemical industries of the Canadian side of the Niagara will be one of the wonders of the Falls second only to the scenic wonders, and these can and will be the direct creation of electric power. Some of these electro-chemical industries afford enough profit to enable a power company owning them to supply the electric energy for nothing. At all events, the men at the head of the electric developments at Niagara are not taking any anxious thought about the future of their enterprises. In the meantime they have no difficulty in finding all the money needed for accomplishing what they have undertaken.

## TELEPHONE AND TELEGRAPH.

The International Telephone Co. is laying a telephone cable fifteen miles long, connecting Vancouver, Victoria, Marietta, Wash., and several intermediate points.

The Bell Telephone Co., which is extending its long distance equipment steadily in Manitoba, intends to connect with the American Bell system at Pembina and St. Vincent.

Stephen D. Field, nephew of the Atlantic cable inventor, has invented an amplifier which may be applied to a wireless receiving instrument, so as to make possible the recording of a telegraphic message. The amplifier can also be attached to ocean cables and greatly increase the speed of transmission.

On October 19th, a deputation of Brantford aldermen visited Toronto Junction and inspected the "Stark" telephone, light, and power system in operation there. As a result, a recommendation will be made that the company's offer for a franchise in Brantford be accepted. The deputation were enthusiastic in their praise of the system.

H. E. Brockwell, superintendent of service for the Bell Telephone Company, and J. McMillan, of the Canadian Pacific Telegraph, are superintending the installation of the composite telephone in Manitoba. The new system is so designed that telephone and telegraph messages can be transmitted over the same wire simultaneously.—Winnipeg Free Press.

William Marconi has been on this side of the water recently. His plans in brief are as follows: The Glace Bay station is to be moved to a more protected site inland, and the power of the transmitter greatly increased. The Poldhu, Eng., station will then be similarly increased in power, and by the new year Mr. Marconi hopes to have commercial connection across the Atlantic.

## \* \* \*

—E. L. Chadwick, representing W. H. C. Mussen & Co, Montreal, was in Toronto about the end of last month.

—St. John, N.B., has decided to purchase the electric light plant, in Carleton, a suburb of the city.

—The new tug Togo, built for G. S. Campbell & Co., Halifax, N.S., for harbor towing work, was given her trial trip Oct. 20th. The Togo is fitted for use as a fire and wrecking tug.

—The steamer Kenosha of the Kawartha Lakes Navigation Co.'s fleet was burned to the water's edge at Lindsay, October 22nd. The boat was valued at \$7,500, and was insured for \$4,000.

—The New Brunswick Southern Railway is making improvements in its roadbed, and is adding to its rolling stock, and hopes within a few months to have a through fast express from St. John to Boston.

—A rich nickel-copper deposit was discovered recently on the Montreal river in the Temagami reserve. Asbestus and mica have also been located on the reserve, of which the Crown Lands Department expects detailed reports later.

—The Temiskaming and Northern Ontario Railway is now running three trains each way per week from North Bay to New Liskeard. It is expected that the rails will be laid some thirty miles beyond New Liskeard before the end of the year.

—The contract for the air-brake equipment of the Grand Trunk Pacific has been awarded to the Canadian Westinghouse Air Brake Co., of Hamilton. It is said that the contract will take half of the output of the factory for the next four years.

—The Peterborough Shovel and Tool Co. was recently incorporated by Thos. Fortye, A. L. Sykes, A. Elliott and others of Peterborough, with a capital of \$50,000. A building will be put up immediately, and the factory will be in operation as soon as possible.

—The Dominion Department of Marine has placed thirteen gas buoys at important points on the ship channel of the St. Lawrence between Grondines and Ile Bigot. They are steel spar buoys showing acetylene gas lights 13 ft. above high water mark.

—We regret that, through an oversight, the valuable article on Insulation, which commenced in our last issue, and which is concluded on page 351 of this number, was not credited in the initial instalment to our esteemed contemporary, The Electrical Engineer, of London.

## FIRST TURBINE ATLANTIC LINER.

There has been launched from the shipbuilding yard of Workman, Clark & Co., Belfast, the steamer Victorian, the first of the two turbine-driven ships ordered by the Allan Line.

The Victorian is the pioneer turbine vessel for the Atlantic or any other ocean service, and, as such, her launch is an event of more than ordinary interest. She and the Virginian, now being built on the Clyde, are sister ships as regards dimensions, capacity and power. This pair of twelve thousand tonners will form a notable reinforcement to the fine fleet of the Allan Line, which already numbers twenty-eight steamers, and comprises several vessels of ten thousand tons each engaged in the mail passenger, and general service between the United Kingdom and Canada. Splendid ships, however, as are the Bavarian, Tunisian, Parisian, and Ionian, the Victorian exceeds them in size by 2,000 tons, and, as regards speed, is expected to be a long way in advance of them.

That she is one of the handsomest vessels ever built in Belfast was the opinion of every expert who saw her on the stocks before the launch or in the water afterwards. She is a striking contrast to the ordinary straight-sided ocean steamer of to-day. Her lines fore and aft are sharp and clean, swelling gracefully into a noble breadth amidships, which suggests