MINING LAWS.

The mining laws of Newfoundland are so framed that one must either spend some money in development or relinquish the claim. Once, however, a property has been proved satisfactory, it may be obtained on reasonable terms for a long lease. There are, doubtless, some points (which I will not dilate on here) upon which reforms are much needed, but in conversation with several prominent public men, I found a strong desire existing to do everything which might be necessary to obtain security of title and tenure.

According to chapter 13 of Consolidated Statutes, [second series], any person may search for minerals in the colony without first obtaining a license, but must not remove minerals. Having selected his ground—called a "mining location"—the extent of which must not exceed one square mile, the prospector must notify the Surveyor-General, and deposit a fee of $20. This establishes priority of claim or license for twelve months. If licensee desires to hold the claim after expiry of this time, he must deposit $30 more, which entitles him to a similar period, during which time he must spend $200 or its equivalent in labor exploring. If he desires a third year he must pay $50, and spend $400 or its equivalent in labor. At any time during this license a lease may be obtained for the minerals, along with a lease for fifty acres of surface land, by paying $25. The lessee must expend $800 per annum during the first four years of the lease, and during the fifth year $2,800, making $6,000 per square mile in all, or the lease shall be forfeited and the 50 acres of surface also. Extra land for railways and right-of-way may be granted at rate of 30 cents per acre. Gold areas are one-quarter square mile in extent, and are leased for 21 years. An initial payment of $50 has to be made on application for lease, and a royalty of 3 per cent. is to be paid on gross amount of gold mined. The lessee must lay out and expend $500 per annum on such leasehold, otherwise it shall be forfeited.

In conclusion, I can only say that there are vast possibilities for the ancient colony as a mineral-producing country.

ELECTRICAL PROGRESS DURING 1896.

In making up the forms for the press last month a sentence was dropped from one of the paragraphs in Mr. Armstrong's interesting review of the electrical progress of last year. The paragraph in full reads as follows :—

"In alternating work the battle of the phases and of rival types of generators has gone merrily on. The engineering considerations which should govern in any given case have, perhaps, not always been given due weight in the face of commercial exigencies requiring the sale of a particular system or make of machinery. Experience would seem, however, to have made certain conclusions reasonably evident, such, for example, as that resting on the authority of Dr. Louis Duncan that 'the best system for the transmission of energy for general purposes is the three-phase alternating system.' A point which may be conceded is the superiority of generators of the revolving field or inductor type for work requiring the use of currents at very high or very low potentials, the obvious facilities afforded by these designs for additional insulation or ventilation, as the case may require, rendering them especially well suited to certain classes of service. Where lighting alone is in question, the compounded single-phase alternator seems under ordinary conditions best adapted for the requirements of simplicity and close regulation."

It is rather a curious coincidence that on the same day this article appeared in THE CANADIAN ENGINEER, the *Western Electrician* of Chicago published a review of the electrical developments of 1896, under the same title, and by a writer of the same name (C. G. Armstrong), and further, that the Chicago writer, though dealing with local events, comes to the same conclusions on many of the problems of interest to the electrical world.

THE LATE E. CARL BREITHAUPT.

E. Carl Breithaupt, whose tragic death was the result of an explosion which took place at the Berlin gas works, January 26th, was well known as an engineer, and in the department of electrical work was an authority. Mr. Breithaupt was born in Berlin, Ont., on February 19, 1866. In early life he attended the public and high schools of the town, where he got a general education, afterwards going to the Northwestern College at Napierville, Ill., U.S. Later he attended Johns Hopkins University, Baltimore, Md., where he obtained the degree of E.E. About six years ago he was appointed manager of the Berlin Gas Company, which position he continued to hold. He was an active member of the American Electric Engineers' Association, and at the time of his death was second vice-president of the Canadian Electrical Association. He was one of the first directors of the Breithaupt Leather Company (Ltd.), of Berlin, Listowel and Penetang; and was also a member of the Toronto and Berlin Boards of Trade, and at one time director and president of the Berlin Board of Trade. He was president and manager of the Berlin and Waterloo Street Railway, and secretary and manager of the Gas Company. Mr. Breithaupt was a member of Beta Theta Pi fraternity at Johns Hopkins, where he graduated in electrical engineering in 1891. He has been a member of the Canadian Electrical Association since its inception, and a most active and valuable member of the executive committee. Last June he was elected to the office of 2nd vice-president, and it was hoped that within a year or two the association would have the benefit of his invaluable services as president. Mr. Breithaupt was an enthusiastic amateur photographer, and his work in this direction was of the highest artistic and technical value. He contributed from time to time papers to various American electrical publications, principally dealing with Canadian developments in electrical engineering, and his papers read before the C.E.A. were marked by a broad and comprehensive grasp of the subject. Deceased was the fourth son of the late Louis Breithaupt, mayor of Berlin in 1880, and was also a brother of the present mayor, J. C. Breithaupt.

E. CARL BREITHAUPT.