

These municipal-owned power lines have placed the manufacturers of the towns along the trunk transmission lines in a position to compete with the most favored plants close to Niagara Falls. Even if the cost of electric energy is slightly more than is paid at Niagara, transportation and labor conditions in their locality are so much superior that they are easy competitors.

This large claim will test the possibilities of successful operation of Government ownership of utilities. The wide distribution of the system will make it susceptible to all the abuses that such a scheme may be subject to. The partnership is so large and varied that the adjustment of capital and maintenance charges will entail much patience and skilful handling.

The Commission, the Government and the engineering staff are to be congratulated that they have so quickly completed the building of this system, and we trust that its maintenance and operation will be as successful as has been the construction and inauguration.

TORONTO'S BUILDING BY-LAWS.

The building code of any city is likely to be unsatisfactory to a few. As a usual thing building codes are too lenient in the restrictions they place upon the individual builders.

In the city of Toronto it has long been felt that the building codes were unnecessarily strict, and because of the expensive construction required the builders had to sink large sums unnecessarily in the structure or choose less permanent design.

The Engineers' Club, of Toronto, are endeavoring to bring together the various technical societies of the city with the object in view of preparing a new building code such as, they hope, will receive the approval of the city architect.

This will require long and careful consideration, and much careful computation and calculation will have to be made, and we think that as soon as the club has organized, the interested societies would be justified in approaching the Board of Control of the city of Toronto and asking for a special grant that they might employ a person or persons to give some months to the tabulating of information in the carrying on of experiments such as will be necessary to convince that a newer and less strict code is in the interests of the city as a community.

THE ART OF LAYING OUT CITIES.

In 1903 a public exhibition of city building in its various forms was held in Dresden, Germany. Since that time the subject has received very great attention from the technical, artistic, social, economical and sanitary societies of continental Europe and Great Britain. During the past year the engineering societies and the technical press have discussed the matter at great length and in almost all its phases.

This summer in Berlin another and larger international exhibition was held, and visitors from Great Britain, France, Canada, the United States and Japan came to examine the models and to discuss this new movement. So great has been the interest in this second that the models were transferred to Antwerp, London and Düsseldorf.

In the newer centres of Canada the difficulty and expenditure of city planning are small compared with the great work of rebuilding and remodelling the old cities.

with their narrow, crooked streets and substantially built, if unsanitary, dwellings, shops and factories.

The demand for quick transportation almost necessitates radiating streets. The high speed developed by automobiles requires wide avenues and the directing of traffic in certain limits. The wide avenue would be as picturesque as the narrow street, but with squares and monuments and carefully-kept boulevards it can be a thing of beauty as well as an avenue of utility. If our Canadian architects, park commissioners and city engineers would learn and profit by the experience of older centres, they would plan their city so that the future generations would not find it necessary to tear down and waste the work of the present years.

THE CIVIL ENGINEER'S OPPORTUNITY.

The value of an engineer's service does not depend upon the amount of work he personally performs, but upon his ability to secure good work from others. It is for his executive more than for his professional ability that he receives his remuneration.

An engineer must first make a fair start in the practice of his profession; he must be familiar with the details of various kinds of work, but continuous performance will not necessarily bring advancement. Advancement comes with opportunity combined with energy, intelligence and good judgment.

Usually an engineer's opportunity is the result of the confidence and loyalty he has been able to establish with and among men who have been his fellow-workers. It is working together as one unit, of a body of men that accomplishes results. Disasters in work are usually more frequently the result of disloyalty than of errors in judgment. The effort of some members of the staff to absorb all the credit and their activity in underestimating the good judgment of others leads to more engineering failures than bad design.

The student at the engineering college must not imagine that a university diploma is the key that will open the door to professional success. Success in engineering is a slow process of absorption. Experience is that which classifies engineers; even the literature in engineering reference books should not have too much weight attached to it.

Not more than fifty per cent. of the students who enter upon a course in engineering graduate and enter the engineering profession. Of this fifty per cent. it will only be for a few to become prominent in their profession. Aside from this, however, they will become prominent in walks of life that their engineering training will fit them for.

Whether times are good or times are bad, there will always be openings for young graduates full of life and energy who are content to lead the life of a Bohemian. His place in the profession will be largely governed by the opportunities of his early experience and his liking for the life.

PERCY'S PATENT LOCOMOTIVE STAGE.

A want which has been felt by contractors for years seems to have been met in the invention of a locomotive stage for marine and river work. The invention provides a rigid self-contained stage which can be made to any shape, design or strength to meet the requirements of any possible kind of work or site. This stage takes the place of expen-