

PHŒNIX BRIDGE AND IRON WORKS COMPANY

The Phœnix Bridge and Iron Works Company is making a new issue of bonds and stock this week, through the Quebec Savings and Trust Company. This stock has already been underwritten, and is now being distributed to the public. The offering consists of \$750,000 of 6 per cent. first mortgage bonds, and of \$800,000 of common stock. The bonds are being offered at 96 per cent. of par, and the stock at \$50 per share. The offering is being made simultaneously in London and in Canada. Approximately \$450,000 of the bonds and \$405,000 of the stock have been taken firm. A new company has just been incorporated at Ottawa with a capitalization of \$1,500,000. This company in every way takes the place of the company which has heretofore operated under the same title. After the present issue has been accomplished, there will remain in the treasury to provide funds for future expenses and for the general purposes of the company, \$700,000 of the common shares of the company. All the bonds will have been issued.

The Phœnix Bridge and Iron Works Company has a plant situated in the centre of the manufacturing district of Montreal, where shipping facilities are all that could be desired. The concern manufactures and erects structural steel for bridges and buildings. The cost of delivery, owing to the central location of the concern, is smaller than in the case of most other companies. Operations have now been carried on satisfactorily since 1898, and save for an occasional year, earnings have shown a fairly constant increase, beginning with \$51,000 in 1898 and progressing gradually to upwards of \$600,000 during the past couple of years. The land owned by the company allows of an expansion to the works. The assets of the company, at the end of last year, including \$25,000 which is being provided for improvements, amounted to \$1,400,000, while total liabilities were but \$57,000. This leaves a surplus of \$1,243 against the present bond issue of \$750,000.

Mr. James W. Pyke is president of the company, and Mr. T. Palmer Howard is general manager.

ABSENCE OF ROADS IS ECONOMIC LOSS

The improvement and maintenance of good roads in the rural districts is a vital problem in all parts of Canada. Inevitably, perhaps, the phenomenal development of railway and waterway navigation has largely overshadowed the necessity that exists for properly built waggon roads. However, it is steadily being more fully realized that the absence of such roads causes an economic loss of great importance to every citizen, and especially those of the rural districts.

Scientific progress is being made in many parts of Canada. The government of Ontario is spending large sums on roads in New Ontario. New Brunswick is enacting "good roads" legislation; and Saskatchewan, where railway development during the past few years has been phenomenal, is carrying out a comprehensive "good roads" policy.

Saskatchewan has appropriated \$1,200,000 for highway improvement work during 1913. This is merely a continuation of the work commenced in 1905, and each year since then the government has expended from \$200,000 to \$700,000 a year on roads and bridges. The work has been carried out under the supervision of a board of highway commissioners, and assistance is granted through them to municipalities under certain carefully defined conditions, states Conservation. This assistance is confined to the building of bridges and trunk roads. The old statute labor system is discouraged as being uneconomical and inefficient.

In view of the scarcity of gravel and stone in many parts of Saskatchewan, extensive experiments have been carried out at provincial expense to ascertain the best means of constructing clay roads. It has been found that Saskatchewan clays burned at comparatively low temperatures produce an excellent surfacing material for graded roads. Owing to the reddish color of this burned clay these roads are known as "the red roads of Saskatchewan." Their cost, where under-drainage is not necessary, has been found to be from \$2,000 to \$2,500 a mile. This includes the cost of burning the surface clay. Where tile drainage of the grade is essential, the cost is increased by from \$1,000 to \$1,500 a mile. It is claimed that these roads stand up well under prairie conditions.

Another class of road that is being experimented with in Saskatchewan consists of a specially prepared clay grade covered with asphalt. If suitable to the conditions, such a road should prove popular in the smaller towns and villages.

INSTITUTION OF CIVIL ENGINEERS.

Many of our readers will be interested in learning that Col. H. N. Ruttan, city engineer of Winnipeg, as a result of the ballot for the election of officers for the next session of the Institution of Civil Engineers has been included. The list of gentlemen whose names appear as eligible for election is as follows: President, Mr. Anthony George Lyster; vice-presidents, Mr. Benjamin Hall Blyth (Edinburgh), Mr. John Strain (Glasgow), Mr. George Robert Jebb (Birmingham), and Mr. Alexander Ross (London); other members of council, Mr. John A. F. Aspinall (Liverpool), Mr. John A. Brodie (Liverpool), Mr. William B. Bryan (London), Colonel R. E. B. Crompton (London), Mr. J. M. Dobson (London), Sir Hay Frederick Donaldson (London), Mr. E. B. Ellington (London), Mr. W. H. Ellis (Sheffield), Mr. W. Ferguson (Australasia), Sir Maurice Fitzmaurice (London), Sir John Purser Griffith (Dublin), Mr. C. A. Harrison (Newcastle-on-Tyne), Mr. Walter Hunter (London), Mr. Harry E. Jones (London), Sir Thomas Matthews (London), Mr. W. H. Maw (London), Mr. C. L. Morgan (London), Mr. Basil Mott (London), Mr. A. M. Tippet (South Africa), Sir Philip Watts (London), Mr. W. B. Worthington (Derby), Mr. Dugald Clerk (London), Mr. Robert S. Highet (India), Mr. Edward Hopkinson (Manchester), Mr. Frederick Palmer (London), and Col. H. N. Ruttan (Winnipeg).

LARGE STEAM PLANT.

Contracts for a steam plant of 60,000 k.w. capacity have been placed recently in New York by Messrs. Guggenheimer & Company, New York, for the Chile Exploration Company. The equipment at present comprises four 10,000 k.w. Siemens generators coupled direct to four 14,300 P. S. Zoelly steam turbines of Escher Wyss & Company manufacture, Zurich. These units will run at 1,500 r.p.m. when working with steam of 170 pounds pressure and 325° Centigrades superheat. Escher, Wyss & Company, Montreal, who are attending to the American business of their works, Zurich, have secured this order against competition from the foremost American and European makers on the strength of the low steam consumption of their turbine.

The plant is to be installed in Chile, and the power used for electric smelting of copper ore. The transmission line, which is of 200 miles length, will be for 110,000 volts pressure. Messrs. Siemens, Schuckert Werke have been awarded the contract for the whole of the electrical equipment.