

employees of the several railways. That the expenses incurred in carrying out the arrangements of the above shall be assessed against all railways operating in Canada, on a basis of half the cost in proportion to the mileage operated, and the other half in proportion to gross earnings. This applies to mileage and gross earnings in Canada.

The committees were constituted as follows:—

Special Committee on War and National Defence—Lord Shaughnessy, president, Canadian Pacific; Sir William Mackenzie, president, Canadian Northern; H. G. Kelley, president, Grand Trunk; A. H. Smith, president, New York Central.

Administrative Committee—U. E. Gillen, vice-president, Grand Trunk, chairman; Sir George Bury, vice-president, Canadian Pacific; D. B. Hanna, third vice-president, Canadian Northern; C. A. Hayes, general manager, Eastern Lines, Canadian Government Railways; F. F. Backus, general manager, Toronto, Hamilton & Buffalo; J. H. Walsh, general manager, Quebec Central; E. D. Bronner, vice-president and general manager, Michigan Central.

Car Service Committee—A. Hatton, general superintendent, car service, Canadian Pacific; J. E. Duval, general superintendent, transportation, Grand Trunk; W. A. Kingsland, general superintendent, Quebec Lines, Canadian Northern; W. N. Ripley, superintendent, car service, Canadian Government Railways; A. E. Locke, superintendent, car service, Toronto, Hamilton & Buffalo; W. A. Griffin, superintendent of traffic, Timiskaming & Northern Ontario Railway.

Sub-committees will be established in each province to report to the administrative committee.

W. M. Neale, acting superintendent of car service, Canadian Pacific, Montreal, was appointed secretary of the association and of all its committees.

On Friday, October 19th, before the Toronto Section of the American Institute of Electrical Engineers, Mr. Frank T. Wyman read a paper on "Transformer Design." Sixty members were present and quite an active discussion followed the reading of the paper.

Work on a new underground telephone cable from Washington to New York is now well under way. This cable will contain 80,000 miles of wire, and will be a valuable addition to the existing underground system which provides the national capital with all underground communication with Baltimore, Wilmington, Philadelphia, Trenton, Newark, New York, Bridgeport, New Haven, Hartford, Providence and Boston.

Inquiries have been sent from France to the United States for 96-in. and 74-in. seared plate mills and a 42-in. universal plate mill, to be electrically driven. The specifications include three main mill motors, 100 small motors, shears, roll tables, and from 9 to 15 heating furnaces. Lifting equipment, including 12 electric cranes, having capacities ranging from 10 tons to 50 tons, will probably be bought in Europe. The name of the prospective purchaser, now engaged in the manufacture of ship plates and munitions, has been withheld.

The first Norwegian iron and concrete boat was launched at the Porsgrund Cement Works, Christiania, recently, in the presence of Prime Minister Knudsen. The boat is built entirely on a new system, with the bottom up, from which extraordinary position the launching took place. The underlying sledges glided out with the ship. When the water was reached the hull was detached from the sledges. It gradually sank to a certain point and slowly righted itself. This ship of 200 tons was built in three weeks, but the next will only require about half that time. The frame can be used with each subsequent ship of the same size. It is intended to start wholesale building of iron and concrete boats of from 200 to 500 to 1,000 tons.

SASKATCHEWAN BRANCH OF THE CANADIAN SOCIETY OF CIVIL ENGINEERS PRESENTS PETITION TO PROVINCIAL GOVERNMENT

The Saskatchewan Branch of the Canadian Society of Civil Engineers presented the following resolution to Premier Martin, of Saskatchewan, on October 29th:—

October 29th, 1917.

To the Executive Council of the Government of the Province of Saskatchewan.

Hon. Gentlemen:

This petition is presented by the Saskatchewan Branch of the Canadian Society of Civil Engineers, which includes all members of the society residing in our province.

The Canadian Society of Civil Engineers founded by Royal Charter over thirty years ago, has now a membership of over three thousand, amongst whom are some of the most prominent men in the scientific, industrial and technical world of our Dominion. The educational requirements and the years of experience necessary for qualification to the various grades of membership are the most stringent, insuring utmost efficiency of all members in the particular branch of their profession.

The provinces of Quebec and Manitoba passed legislation in our favor considerable time ago, restricting the term "civil engineer" and the practice of our profession within these provinces to members of our society, and at present a legislative committee of our parent society at Montreal has been nominated to draw up suitable proposals to be submitted for legislation in our Dominion.

Our profession in its manifold branches does not only form an essential, creative factor in our life, carrying and aiding civilization, providing it with its necessities, enabling communications, manufacturing, etc., but the present titanic world struggle might properly be termed a "war of engineers." Mechanical, structural, nautical and the various other branches of engineering are feverishly exercising and straining their inventive and constructive faculties for a supremacy in the three elements—air, land and water.

In Great Britain and the United States the large engineering societies are always consulted before any extensive works are undertaken, and we daresay that considerable waste of public moneys in our various provinces could have been prevented if a similar course of action had been taken.

We beg to put our services at the disposition of the government of this province and hope to be able to cooperate to the fullest extent when called upon.

We would consider it a favor to be consulted in any new legislation touching upon our activities and would be glad to give any information at our disposal, either as a "consulting body" or in an advisory capacity concerning qualifications of members of our profession.

In conclusion, we beg to state that a similar movement in the province of British Columbia has been promised the most earnest consideration on behalf of the executive council of that province.

The committee which presented the petition consisted of Messrs. L. A. Thornton, chairman of the branch; O. W. Smith, past chairman, and J. N. De Stein, secretary-treasurer.

A meeting of the Manitoba Branch of the Canadian Society of Civil Engineers was held in the University of Manitoba, Winnipeg, Thursday, November 1st, when V. J. Melstead read a paper on "The Fixation of Atmospheric Nitrogen."