

project, sites for power development with a guaranteed steadiness of flow, and a constant head without ice difficulties. The river being thus arranged by dams, power can be developed on a general scheme, which could be enlarged to utilize the whole flow at each point in years to come, when transmission may convey to unheard-of distances, and when large blocks of power will be required for heating, for nitrogen fixation from the atmospheric air (now an engineering commercial enterprise except for the expense), for smelting, and for electro-chemical processes.

THE THIRD INTERNATIONAL ROAD CONGRESS, LONDON, 1913.*

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STOP, Look and Listen," the characteristic sign which attracts the attention of the traveller at crossings of highways and railways throughout the United States, contains advice of inestimable value to those interested in the development of highways. As a pertinent citation of its application, the work of the third International Road Congress is worthy of careful study in order that the mass of information collated through the medium of reports, discussions, conclusions and exhibitions may be drawn upon to furnish ideas which may be used in the development of highway engineering in this country.

To-day, the world appreciates the admirable work instituted by the French Government in 1908, through the medium of its famous Department of Roads and Bridges in calling to Paris highway engineers and officials from all over the globe for the purpose of mutual exchange of opinions pertaining to the administration, construction, and maintenance of highways. At this convention the First International Road Congress, steps were taken to form the Permanent International Association of Road Congresses.

The Association includes in its membership national governments, state governments, municipalities, associations and societies, companies manufacturing materials and machinery, and individual members. According to the 1913 report of the Executive Committee of the Association, the membership on May 31st included 32 national governments, 256 corporate bodies and 944 private members. The dues of these members for the year ending May 31st, 1913, were \$21,520, of which \$14,980 was subscribed by national governments.

Of particular interest to the citizens of the United States are the regulations relative to the affiliation of national governments. The pertinent portions of the regulations pertaining to the two controlling bodies of the Association, the Permanent International Commission and the Permanent Council, are as follows:—

"The Permanent International Commission is composed of members belonging to the various countries represented in the Association. Each country has the right to one representative for each \$200 of its total annual subsidy. Provided, however, that the number of representatives from any one country shall not exceed fifteen,

and that any country which pays not less than \$50 shall have the right to appoint one delegate.

"The Permanent Council is composed of representatives chosen from among the members of the Permanent Commission: one for each country whose annual subsidy does not exceed \$100; two for each country whose annual subsidy exceeds this amount, and is less than \$2,000; three for each country whose annual subsidy exceeds \$2,000."

It is unfortunate that our national government stands alone among the great governments of the world in not having affiliated with the Permanent International Association. Our neighbors, Cuba and Mexico, are among those who have led us in officially expressing the interest of their national governments in the improvement of highways.

Since 1908 the subject of affiliation has been under consideration in the United States, and since the Second International Road Congress, held in Brussels in 1910, an active campaign has been waged to secure the adherence of the United States. In order that the United States may take its proper and dignified place in the world-progressive movement conducted under the Association, it appears the duty of every Association interested in good roads to pass resolutions memorializing the Congress of the United States to take the necessary steps to become a member of the Permanent International Association of Road Congresses.

During the sessions of the Third International Road Congress held in London in June, 1913, it was decided to accept the invitation extended by the German Government to hold the 1916 Congress in Munich. Since the Brussels Congress there has been a tacit understanding that the Fifth International Congress should be held in the United States in 1919. It is, of course, obvious that unless the United States becomes a member prior to 1916, it will be practically impossible to carry out this very desirable programme, desirable not only from the standpoint of the citizens of the United States, but also from the standpoint of highway engineers and officials in all the countries of the world.

A brief outline of the scheme upon which is founded the work of an International Road Congress will give some idea of the large amount of available information relative to every phase of highway engineering which is disseminated among highway engineers and officials throughout every land. The Permanent International Commission, about two years in advance of a Congress meeting, decides upon a series of topics which it considers of vital importance, and upon which a large amount of investigative work is in progress. Another series of topics is selected pertaining to subjects upon which thought has not crystallized as definitely as in the case of the first set of subjects, but information in regard to which will serve as the basis for future concentrated and co-operative work. The first set of topics is defined as Questions, the second set as Communications. The Executive Committee of the Association then notifies the national representatives in various countries of the list of Questions and Communications, and requests that in each country a reporter, or a group of reporters, be designated to prepare a comprehensive review on each Question and upon each Communication, the viewpoint in each case being national. The reports are delivered to the Executive Committee some six to nine months prior to the meeting of a Congress, are printed in the three official languages of the Association—English, French and German—and distributed before the opening of the Congress to all members of the Association. In the country in which a given Congress is held general

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