

structors, New York; C. C. Blair, Youngstown, Ohio; Prof. A. H. Blanchard, Columbia University, New York City; A. G. Batchelder, New York; M. M. Campbell, C.E., American Road Building Association, New York; Major W. W. Crosby, Baltimore, M.D.; W. H. Connell, Philadelphia, Pa.; J. R. Draney, General Sales Manager, United States Asphalt Refinery Co.; W. DeWind, Austin Mfg. Co., Chicago, Ill.; A. N. Johnson, Chief State Highway Engineer, Springfield, Ill.; R. Lehmann, Engineer of French Government Service, New York; R. A. Meeker, State Highway Engineer, Plumfield, N.J.; A. F. Masury, New York; I. S. Pennybacker, Washington, D.C.; M. D. Powers, New York; E. S. Powers, New York; O. R. Parry, New York; Wm. A. Perkins, Connsant, Ohio; H. K. Salmon, Netcong, N.J.; Gordon Smith, Albany, N.Y.; H. Spencer, New York; Geo. D. Steele, Germantown, Pa.; H. C. Tattersall, The Troy Wagon Works Co., Troy, Ohio, care Wm. McNally & Co., and Maurice R. Young, New Jersey, Robeson Process Co.

Four hundred and fifty delegates, guests, speakers, exhibitors, etc., registered at the Congress. Of these, one hundred and seventy-two were from Montreal and one hundred and sixty-six from Quebec Province, outside of Montreal. One hundred and twelve registered from without the Province of Quebec, these being divided as follows: Ontario, sixty-seven; New Brunswick, seven; Manitoba, four; Alberta, two; Nova Scotia, two; India, one; United States, twenty-nine.

The exhibition of road machinery and materials which was held in connection with the Congress was very well managed and made a good impression upon those in attendance. It compared very favorably indeed with any similar exhibition that has ever before been held in every respect, excepting, of course, in the number of exhibits. Not only was the exhibition very pleasing to the eye, but to those who took the time to study carefully the machinery and materials presented and to listen to the information given by those in attendance at the booths, there was much to be learned.

Asphalt and asphaltic road oils were exhibited by the Aztec Oil and Asphalt Refining Company of Canada, British American Oil Company, Elder-Ebano Asphalt Company, Limited, and Imperial Oil Company. Tarvia and Barrett Specification Roofing were exhibited by the Paterson Mfg. Company. The Canada Creosoting Company, Limited, exhibited wood paving blocks and methods of creosoting railroad ties and bridge timbers. The Canada Cement Company, Limited, exhibited methods of concrete construction for roads and streets, in addition to a number of novel ways of using cement. The Dunn Wire Cut Lug Brick Company and its licensees had a joint exhibit.

Among the machinery manufacturers, the largest exhibits were those of Mussels, Limited, and of the General Car and Machinery Works, both of these firms exhibiting some machinery of almost every type necessary for road construction.

The Canadian Fairbanks-Morse Company, Limited, had a large exhibit of mixers, pumps, Koppel dump cars and other contractors' equipment.

Road rollers were exhibited by Mussels, Limited, General Car and Machinery Works, Albion Motor Car Company of Canada, and the J. I. Case Threshing Machine Company. Sawyer-Massey Company had a booth, but were unable to get one of their rollers to Montreal in time for the exhibition.

Foss and Hill Machinery Company exhibited London concrete mixers, sidewalk forms and other contractors'

equipment. The Pedlar People, Limited, constructed within their booth a Toncan metal garage, within which they exhibited corrugated culverts, Clinton wire cloth, ferro-dovetail and their various other lines. Corrugated culverts were also exhibited by the Canada Ingot Iron Company.

Baker-Barron, Inc., exhibited scrapers, graders and other road machinery. Alex. Bremner, Limited, exhibited builders' materials and municipal supplies. J. H. McCarty & Company exhibited Waterous road machinery. William McNally & Company, Limited, exhibited a Troy dump wagon and contractors' supplies. Jones & Glassco had in their booth a Foden steam truck.

The Decauville Flexible Armor Company of Canada exhibited a patented method of reinforced concrete brick construction for protecting embankments. Thomas Davidson Mfg. Company, Limited, showed samples of street signs, house numbers and other enameled steel products.

The technical and trade press was well represented, as there were exhibits by Good Roads, Canadian Municipal Journal, Good Roads of Canada, Contract Record, and *The Canadian Engineer*.

INTERNATIONAL ENGINEERING CONGRESS, 1915.

Among the general subjects to be treated before the International Engineering Congress, 1915, probably the one having the broadest interest is that of Materials of Engineering Construction, which enters into all phases of engineering activity. The list of topics which will be treated in this section is as follows:—

- (1) Timber.
- (2) Preservative Treatment of Timber.
- (3) Substitutes for Timber in Engineering Construction.
- (4) Brick in Engineering Structures.
- (5) Clay Products in Engineering Structures.
- (6) Probable and Presumptive Life of Concrete Structures made from Modern Cements.
- (7) Aggregates for Concrete.
- (8) Slag Cement.
- (9) Waterproof Concrete.
- (10) Cements containing Additions of Finely Ground Foreign Material.
- (11) Economics of the World's Supply of Iron.
- (12) The Life of Iron and Steel Structures.
- (13) The Employment of Special Steel in Engineering Construction.
- (14) The Place of Copper in the Present Engineering Field, and the Economics of the World's Supply Thereof.
- (15) Alloys and Their Use in Engineering Construction.
- (16) Aluminum in Engineering Construction.
- (17) The Influence of the Testing of Materials upon Advances in the Designing of Engineering Structures and Machines.
- (18) Cement Testing.
- (19) Testing of Metals.
- (20) Testing Full-Sized Members.
- (21) Proof Testing of Structures.

The papers to be presented from the United States have already been arranged for from the recognized leading authorities on the various topics. Arrangements for the papers from authors in other countries are being rapidly concluded, and the aggregation of papers which will be presented will constitute a broad review of the field and be of the highest value.