

ASSOCIATION OF C. B. & C. I. EXECUTIVE MEETING

MEMBERS of the executive committee of the Association of Canadian Building and Construction Industries met recently in Montreal to discuss the completion of the National Council and the institution of a campaign for new members.

Several matters arising from the reports of various committees of the recent conference in Ottawa were also considered. It was decided to table the report of the Committee on Business Relations until the meeting of the National Council. In reference to the recommendations of the Committee on Standard Practices, it was decided to appoint four representatives to confer with two to be appointed by the Engineering Institute of Canada and two by the Royal Architectural Institute of Canada, with a view to preparing a uniform standard contract and other standard forms. The following were appointed to represent the association: H. T. Hazleton, Winnipeg; J. B. Carswell, Toronto; K. D. Church, Montreal; and J. K. Thomas, Calgary.

The report of the Committee on Labor was discussed, and it was decided to appoint a standing committee on labor to endeavor to carry out the recommendations of the conference committee and to meet with representatives of the unions. The committee will consist of the following: J. P. Anglin, Montreal, chairman; E. G. M. Cape, Montreal; C. B. Jackson and R. J. Fuller, Toronto; G. A. Crain and H. J. Graham, Ottawa; E. R. Dennis, London; Roy Secord, Brantford; J. W. Pigott, Jr., Hamilton; F. W. Dakin, Sherbrooke; Jos. Gosselin, Jr., Levis; Wm. Wilson, Regina; and one to be appointed from Winnipeg and one from Calgary.

The executive are of the opinion that in addition to the work outlined by the conference committee's report, the standing labor committee should endeavor to encourage the organization of a "Canadian Executive of Organized Labor" in the construction industries of Canada, and the formation of an "Industrial Council" to deal with Dominion-wide labor problems in the building trades. This information has been communicated to the Trades and Labor Congress of Canada and to the Minister of Labor.

The letter received from the Winnipeg Board of Trade, inviting the association to hold its next conference in that city, was favorably received and referred to the National Council for further action.

The association's president, J. P. Anglin, was elected official representative to the Chicago convention of the National Federation of Construction Industries.

PUBLICATIONS RECEIVED

MECHANICAL WORLD YEAR BOOK.—Published by Emmott & Co., Ltd., 65 King St., Manchester, Eng.; 316 pages, 4 by 6½ ins., stiff cloth covers. Price 2/-.

PROVINCIAL HIGHWAYS BOARD, NOVA SCOTIA.—Report for the year 1919, published by the King's Printer, Halifax, N. S.; 246 pages and paper cover; 8¼ by 9½ ins.; illustrated with several half tones.

CALCULATING DIAGRAMS FOR DESIGN OF REINFORCED CONCRETE SECTIONS.—By James Williamson; published by Constable & Co., Ltd., London, Eng.; 7½ by 11 ins.; 20 pages of text and 17 pages of diagrams; price, 12s. net.

ELECTRIC FURNACES IN THE IRON AND STEEL INDUSTRY.—By Rodenhauer, Schoenawa and Von Bauer. Third edition, 1920. Translated from the original by C. H. Von Bauer, formerly chief engineer, American Electric Furnace Co.; 460 pages, 6 by 9 ins., numerous illustrations. Published by Jno. Wiley & Sons, Inc., New York; price, \$4.50.

EDUCATIONAL CHART OF LOCOMOTIVE.—Published by "Railway and Locomotive Engineering," 114 Liberty St., New York; 50c. a copy. Single sheet about 16 by 43 ins. Printed in one color on coated paper, showing longitudinal and cross sections of Pacific or 4-6-2 type of locomotive, with every part numbered and the correct names of 676 parts given by numbers.

SUPER-CEMENT NOW ON THE MARKET

REFERENCE was made in *The Canadian Engineer*, issue of January 22nd, 1920, page 151, to a new development in the manufacture of cement. It was there stated that a new form of cement was being produced by the incorporation of a chemical with the clinker before grinding, the product showing very promising results in regard to strength and waterproofing qualities. This cement is new, so far as this continent is concerned, but has been in use in England, to a limited extent, for some years. Its manufacture has been developed in Canada, and at the present time, we understand, some of this cement is being offered for sale under the name "Super-Cement," the term that has been applied to it in England.

About nine years ago J. F. Goddard, an English engineer, discovered that a compound of certain chemicals, when incorporated into portland cement clinker during its manufacture, gave to the cement very useful and desirable properties. Since that discovery Mr. Goddard has continued his investigations with a view to perfecting the process and bringing it into practical use, free from all troublesome features. He had the assistance of well-known chemists and practical cement manufacturers in England, with the result that the new cement was produced commercially. Super-cement has been in successful use for about eight years and has been produced in commercial quantities for five years, although government war restrictions have somewhat retarded the extension of its employment.

Super-cement is made from any ordinary portland cement clinker, which is ground with a chemical ingredient that changes the physical properties of the cement. It is said that the chief difference between the two cements is that in super-cement, particles combine more thoroughly with the mixing water. The chemical action which occurs when water is mixed with the cement is assisted to a considerable degree by the added chemical, it is claimed, more of the cement being hydrated and performing the functions of a binder. This increased hydration assures dense, strong concrete.

An increase in tensile strength from 10 to 50% is claimed for super-cement as compared with portland cement, and an even greater increase in compressive strength. The percentage of increased strength with mortars has been very pronounced, and greater than the percentage increases with neat cement.

Super-cement is said to be especially non-absorbent and impermeable. Mortar composed of one part super-cement and three parts sand, moulded into hollowed cylinders, with walls ⅞-in. thick, and connected to pressure tanks, not only withstood a water pressure of 200 lbs. per sq. in. at the age of 17 days, but dried out and became hard and sound, with no sign of moisture on the outside. Similar mortars have also successfully withstood gasoline under pressure of more than 120 lbs. per sq. in. for over 13 weeks, with no leaks.

In a book entitled, "Cements, Limes and Plasters," by Ernest A. Doncaster, consulting chemist, London, Eng. (published by Crosby, Lockwood & Son, London, 1916), the author remarks that super-cement was originally intended to be only a waterproof portland cement, the waterproofing qualities being obtained by adding a chemical to the clinker. It was found, however, that the treated cement not only made a waterproof mortar, but was also much stronger than ordinary portland cement, thus differing from the usual waterproofing materials, which tend to weaken the cement with which they are used. Mr. Doncaster carried out a number of tests with this material, and found the tensile strength, after 90 days, of a 1:3 mix to be about 50% greater than that of a similar mortar made from similar, but untreated, portland cement.

Joncas, Malouin & Rousseau, Ltd., has been incorporated to carry on business as contractors, engineers and dealers in builders' supplies. The capital is \$20,000 and the head office is in Quebec. M. P. Joncas, Paul Malouin and J. E. Rousseau, civil engineers, are interested.