

way building in China, afterwards returning to Canada and devoting his attention to mining in the Cobalt region. Impaired health induced him to go South, where death overtook him.

Death came suddenly last week to Mr. Frank Rankin, of Haileybury, a member of the engineering staff of the Transcontinental Railway.

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### CANADIAN SOCIETY OF CIVIL ENGINEERS.

The meeting of the Mechanical Section of the Canadian Society of Civil Engineers, held in Montreal on the evening of December 3rd, was addressed by Mr. C. Brady, his subject being "Steel Passenger Car Frame Construction." Mr. Brady's paper was a neat and masterly treatment of the subject, and was well received by the members. An abstract of it appears on another page of this issue.

Following it an address was given by Lieut. Shirley T. Layton, A.M.Can.Soc.C.E., a graduate of R.M.C. and of McGill University. The speaker dwelt upon the primary object of artillery in modern warfare, explaining it to be for the protection of the advancement of infantry and assistance to its movements. The secondary object was the destruction of the enemy's war equipment. Such interesting points as the uses of different classes of artillery, including horse artillery armed with 13-pound guns, field artillery with 18-pounders, and others of larger order, made Lieut. Layton's paper a most instructive one for the members. He observed that in Montreal there were two heavy artillery batteries, armed with 60-pound guns, one having gone with the first contingent. The remaining battery was now armed with 4.7-inch guns, throwing shells weighing 45 pounds. This gun was well described by the speaker. Its mechanism and ammunition were illustrated by slides. The gun weighs about 4½ tons and the maximum range given on the sight drum is 9,600 yards. It has great power and is remarkably accurate at long ranges. The speaker emphasized its usefulness in bringing cross-fire to bear upon the enemy and also against buildings and fortifications. The recoil of the gun, method of loading and timing of shell explosion were explained in detail. The construction of different kinds of shells and the devices to prevent premature explosion were described.

It may be said of Lieut. Layton that some time ago he left the engineering staff of Walter J. Francis and Co., to accept a commission, and since that time he has recruited the whole number for the Montreal part of the Heavy Brigade, which will go with the next contingent. It is interesting to note in this connection that the Heavy Brigade in Montreal has been in charge of Lieut.-Col. Lacey R. Johnson, also a member of the Society. About 120 members of the Society are participating in active service.

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### NOMINATIONS, CANADIAN SOCIETY OF CIVIL ENGINEERS.

The following is a list of members who have been nominated for the various offices of the Canadian Society of Civil Engineers for the year 1915:—

For President, F. C. Gamble, Chief Engineer, Public Works Department, Victoria, B.C.; for Vice-President for 3 years, A. E. Doucet, District Engineer, National Transcontinental Ry., Quebec; A. St. Laurent, Public Works Department, Ottawa. For Vice-President for 1 year, E. E. Brydone-Jack, Professor of Civil Engineering, Manitoba University; Gordon Grant, Chief Engineer, National Transcontinental Ry., Ottawa.

For councillors, District 1, S. P. Brown, Chief Engineer, Montreal Tunnel, etc., Canadian Northern Ry.; H. R. Safford, Chief Engineer, G.T.R.; A. Surveyer, Montreal; R. M. Wilson, Montreal. District 2, C. B. Brown, Chief Engineer, Canadian Government Railways, Moncton, N.B.; F. W. W. Doane, City Engineer, Halifax, N.S. District 3, A. Amos, Quebec; T. A. J. Forrester, Quebec. District 4, G. J. Desbarats, Deputy Minister Naval Service, Ottawa; A. J. Grant, Superintending Engineer, Trent Canal, Peterborough, Peterborough, Ont. District 5, S. B. Clement, Chief Engineer, T. and N.O. Ry., North Bay, Ont.; J. L. Weller, Engineer in Charge, Welland Ship Canal, St. Catharines, Ont. District 6, W. G. Chace, Winnipeg; F. H. Peters, Calgary, Alta. District 7, N. J. Ker, Vancouver; D. O. Lewis, District Engineer, Canadian Northern Pacific Ry., Victoria, B.C.

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### CANADIAN NATIONAL CLAY PRODUCTS ASSOCIATION.

The following speakers are among those who have arranged to prepare papers for presentation at the coming convention of the Association in Toronto, January 26th, 27th and 28th, 1915:—A. C. McKay, Principal of Toronto Technical Schools, "Toronto Technical Schools and their Relation to the Manufacture of Clay Products"; W. W. Smith, Shallow Lake, Ont., "The Making and Burning of Drain Tile"; A. F. Greaves-Walker, Manager, Sun Brick Co., Toronto, "Kiln Kinks"; E. W. Knapp, "Possibility of Manufacturing High-Class Paving Bricks in Ontario"; Andrew Kruson, "Cheap Glazes for Use on Ontario Clays and Shales"; and Philip W. Green, B.A.S.C., A.M.Can.S.C.E., "Standardization of Clay Products from an Architect's Point of View."

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### TORONTO BRANCH CANADIAN SOCIETY OF CIVIL ENGINEERS.

A meeting of the Toronto Branch of the Canadian Society of Civil Engineers is being held this evening (December 10th), and is being addressed by J. E. Noulan Cauchon. The subject of his address will be the town planning problem, with special reference to the railway features.

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### COMING MEETINGS.

**AMERICAN ROAD BUILDERS ASSOCIATION.**—Eleventh Annual Convention; fifth American Good Roads Congress, and 6th Annual Exhibition of Machinery and Materials. International Amphitheatre, Chicago, Ill., December 14th to 18th, 1914. Secretary, E. L. Powers, 150 Nassau Street, New York, N.Y.

**CANADIAN NATIONAL CLAY PRODUCTS ASSOCIATION.**—Annual Convention to be held at the King Edward Hotel in Toronto, January 26, 27, and 28, 1915. Secretary, G. C. Keith, 32 Colborne Street, Toronto.

**EIGHTH CHICAGO CEMENT SHOW.**—To be held in the Coliseum, Chicago, Ill., from February 10th to 17th, 1915. Cement Products Exhibition Co., J. P. Beck, General Manager, 208 La Salle Street, Chicago.

**AMERICAN WATERWORKS ASSOCIATION.**—The 35th annual convention, to be held in Cincinnati, Ohio, May 10th to 14th, 1915. Secretary, J. M. Diven, 47 State Street, Troy, N.Y.

**SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.**—Annual meeting to be held at the Iowa State College, Ames, Iowa, June 22nd to 25th, 1915. Secretary, F. L. Bishop, University of Pittsburgh, Pittsburgh, Pa.