

with the re-establishment of the fighting man which must be carried out as long as one of these men remains alive to need it. In all we will require a revenue of from \$300,000,000 to \$350,000,000 per year, and if any man can tell me where the last million dollars of taxation is coming from, or how we are to raise that huge amount of money, then I say that he is entitled to any position the people can give him."

"It will take a good deal of money to put the Canadian Northern where it ought to be," said Mr. Carvell, "and I think as much money will be spent on the railways as in any other department of public work."

"The government's program calls for the spending of a large amount of money this year and the program will probably be enlarged, as it usually is, by supplementary estimates."

"But there are other institutions in the the country beside the Government that have a responsibility in connection with the effort to get back to peace conditions. The great corporations, public or private, the employers of labor all have their part to play and they must not shirk it. I am not a pessimist but I want to say here and now that we have troublous times ahead unless we face them properly. We must provide employment, for if the men of the country are not employed we will have something very near to Bolshevism. Every man who has made money during the war, and most employers of labor have made money, has a duty to carry on for the next year whether he can do it at a profit or not. He must play his part in the effort to bring the country back to a peace basis. It won't be for long. In a year from to-day we will have forgotten all about it."

Will Spend the Necessary Money

"During the coming year it will be necessary to spend money to prevent unemployment, and we will spend it. We can borrow it if we have to; we have borrowed it for war purposes for the past four years and we can do it again. It isn't this year, but it is the next year, after the soldiers are home and peace conditions restored, and the year after that and after that again, that we will need to be careful about the debt."

Visit to Parliament Buildings

After luncheon Thursday, the engineers visited the new Parliament Buildings, where they were met by J. B. Hunter, deputy minister of public works, who briefly outlined the history of the new structure from the time of the fire, February 3rd, 1916.

Apart from the loss of life, there were few regrets that the old building had been destroyed, he said, as it was badly ventilated, dirty and had outgrown its usefulness. He praised the work of the architect, J. A. Pearson, and his associates, Messrs. Ewart and Marchand. Mr. Hunter stated that the building is 470 ft. long, 245 ft. wide and 90 ft. high. The tower will be 260 ft. high.

Other Papers Read

After returning from the Parliament Buildings, the technical meetings were resumed at 4.30 p.m., J. L. Busfield reading a paper on "The Montreal Tunnel," illustrated by lantern slides, and Col. Leonard presenting a paper on the "Mining and Metallurgy of Cobalt Silver Ore." A paper was also presented on the "Standard Datum Planes for Canada," by Dr. W. Bell Dawson, superintendent of Tidal Surveys Department of Naval Service. Dr. Dawson reviewed the efforts that had been made to secure an accurate sea level datum, and the need for uniformity in surveys throughout the country. In conclusion he said:—

Dr. Dawson Urges Uniformity

"We have at present a network of levelling in Eastern Canada, which has been built up by three systems of levelling operations since 1883, and is now correlated accurately with mean sea level. The levelling in the public works department, extending from Georgian Bay through the Montreal region, and now connected with the tidal stations on the Lower St. Lawrence and at Halifax, was finally revised in 1914."

"The lines of the geodetic survey in the Maritime Provinces, connected with the tidal station at Halifax, since 1913, extend by other routes continuously to the region of the Great Lakes."

"On the Pacific coast, the lines of levels are also beginning to form a network; and the two sides of the country are united by a through line across the continent finally connected, in 1916 and 1917, by the comprehensive work of the Geodetic Survey. There is thus at present a system of bench-marks throughout all the more inhabited parts of Canada, for reference; and the dates mentioned show that this has been quite recently accomplished."

"It is obviously desirable therefore, that all engineers should now utilize the uniform datum thus established, and that all railway profiles should be referred to it, to eliminate the confusion arising from the adoption of independent datums which are still in vogue."

Moving Pictures by Mr. Norrish

The concluding attraction on the program was the exhibition, Thursday evening, by B. E. Norrish, of moving pictures showing some of Canada's natural resources and modern industries.

Registration

The registration at the convention included 187 from Ottawa and Hull, 38 from Montreal, and 74 from other cities in the United States and Canada, as follows:—

Toronto—H. T. Hazen, J. M. Wilson, H. W. Wicksteed, E. T. Wilkie, E. M. Proctor, Geo. Hogarth, W. S. Harvey, A. H. Harkness, H. E. T. Haultain, J. Morrow Oxley, T. U. Fairlie, C. S. Gzowski, Jr., F. G. Engholm, H. W. Armstrong, W. B. Russell.

Winnipeg—B. Stuart McKenzie, Guy N. Dunn, E. Brydone-Jack, J. M. Leamy.

Quebec—A. R. Decary, A. B. Normandin, Alex. Fraser, H. E. Huestis.

New York—Alfred D. Flinn, A. B. Oatley, A. C. London, F. H. Shepard.

Vancouver—Major W. G. Swan, C. J. Moon, Lt.-Col. Montizambert, W. M. MacAndrew.

St. John—F. G. Goodspeed, A. Gray, C. C. Kirby, Gilbert G. Murdock.

Kingston—R. M. McLelland, W. L. Goodwin, G. L. Guillet.

Peterborough—A. L. Killaly, Robt. B. Rogers.

Pembroke—Jas. L. Millar, J. L. Morris.

St. Catharines—R. W. Leonard, Alex. J. Grant.

New Westminster—A. M. Worsfold, W. R. Gross.

North Bay, T. R. Courtright; Fort William, H. B. R. Craig; Chatham, N.B., Geoffrey Stead; Isle Verte, P.Q., J. T. Bertrand; Cape Tormantine, N.B., A. B. Frippe; Bathurst, N.B., W. M. Melanson; Melbourne, Ont., J. W. Harkom; Brockville, G. H. Bryson; Sherbrooke, W. E. Brooks; Windsor, Arthur F. Stevens; Amherstburg, G. S. Rutherford; Sault Ste. Marie, J. W. B. Ross; Deschenes, P.Q., C. D. Norton; Cornwall, W. H. Magwood; Belleville, G. H. Forth; Worcester, Mass., I. N. Hollis; Napanee, F. F. Miller; Outremont, J. A. Duchastel; Iroquois Falls, L. E. Kendall; Calgary, Wm. Pearce; Halifax, C. W. Dodwell; L'Original, Victor A. Belanger; Timiskaming, P.Q., R. F. Davy; Three Rivers, Romeo Morrisette; The Pas, Man., J. W. Porter; Dawson, Alfred Thompson; Medicine Hat, Lt.-Col. Nelson Spencer; Moncton, S. B. Wass.

At the meeting held last week in Ottawa, the members of the Engineering Institute of Canada adopted a design for a new emblem. A shield of the same shape and size as the present emblem will bear the name and date of incorporation, and a beaver. There will be no enamel work. The badges will be in gold for members, silver for associate members and bronze for juniors and students. Each badge will be numbered on the back and they will be sold only to members of the institute.