

## Birthdays of Transportation Men in February.

Many happy returns of the day to:—

B. H. Bennett, General Agent, Chicago and North Western Ry., Toronto, born at Cobourg, Ont., Feb. 6, 1858.

F. L. C. Bond, Division Engineer, Eastern Lines, G.T.R., Montreal, born there Feb. 21, 1877.

C. H. Booth, ex-Local Freight Agent, Midland Ry., of Manitoba, Winnipeg, born at Banff, Scotland, Feb. 16, 1882.

T. Britt, General Fuel Agent, C.P.R., Montreal, born there Feb. 3, 1871.

G. E. Bunting, General Western Freight Agent, Allan Line Steamships, and Manager, Allan and Co., Chicago, Ill., born at Toronto, Feb. 8, 1873.

H. R. Charlton, General Advertising Agent, G.T.R. and G.T.P.R., Montreal, born at St. Johns, Que., Feb. 9, 1866.

R. Colclough, Superintendent, Intercolonial Ry., Levis, Que., born at Bic, Que., Feb. 24, 1871.

F. W. Cooper, A.M. Can. Soc. C.E., Division Engineer, C.P.R., Montreal, born at London, Ont., Feb. 16, 1880.

R. Crawford, Northwest Agent, Northern Navigation Co., Winnipeg, Man., born at Kingston, Ont., Feb. 21, 1870.

A. J. Donegan, Superintendent, Algoma Eastern Ry., Sudbury, Ont., born at Perth, Ont., Feb. 17, 1872.

R. W. Drew, Division Freight Agent, Saskatchewan Division, C.P.R., Regina, born at Kingston, Ont., Feb. 17, 1874.

E. A. Evans, M. Can. Soc. C.E., ex-General Manager and Chief Engineer, Quebec Ry., Light and Power Co., Quebec, born at Kensington, London, England, Feb. 26, 1855.

L. O. Genest, General Storekeeper, Western Lines, C.P.R., Winnipeg, born at St. Henri, Levis County, Que., Feb. 16, 1856.

J. H. Guess, General Purchasing Agent, Grand Trunk Ry., Montreal, born at Raleigh, N.C., Feb. 5, 1878.

J. C. Holden, A.M. Can. Soc. C.E., Division Engineer, C.P.R., Winnipeg, born at St. John, N.B., Feb. 1876.

T. C. Hudson, Division Master Mechanic, Quebec Grand Division, Canadian Northern Ry., Joliette, Que., born at Brockville, Ont., Feb. 20, 1873.

H. Hulatt, Commercial and Traffic Superintendent, G.T. Pacific Ry. Telegraphs, Winnipeg, born in London, Eng., Feb. 15, 1883.

C. Gardiner Johnson, Lloyds' Agent for British Columbia, Vancouver, B.C., born at Dunblane, Scotland, Feb. 8, 1857.

F. C. Johnson, Night Locomotive Foreman, C.P.R., North Transcona, Man., born at Montreal, Feb. 26, 1885.

R. S. Logan, Vice President G.T.R., Montreal, born at St. Louis, Mo., Feb. 13, 1864.

John McCraw, General Agent, Central Vermont Ry., New London, Conn., born at Craigvale, Ont., Feb. 6, 1868.

G. L. McCrea, Local Freight Agent, C.P.R., Vancouver, B.C., born at Springtown, Ont., Feb. 9, 1876.

D. McDonald, District Passenger Agent, Canadian Government Railways, Montreal, born at Ste. Hyacinthe, Que., Feb. 28, 1862.

T. McNabb, ex-Master Mechanic, Alberta Ry. and Irrigation Co., now of Turin, Alta., born in Scotland, Feb. 16, 1849.

J. K. McNeillie, Superintendent, District 3, Eastern Division, C.P.R., Montreal, born at Toronto, Feb. 23, 1874.

D. C. Macdonald, Assistant General Claims Agent, C.P.R., Winnipeg, born at Elmsdale, N.S., Feb. 9, 1874.

D. MacPherson, M. Can. Soc. C.E., ex-Assistant to Chairman, National Transcontinental Ry. Commission, Ottawa, born at Bath, Ont., Feb. 2, 1858.

C. S. Maharg, Superintendent, District 3, Manitoba Division, C.P.R., Brandon, born in Dufferin County, Ont., Feb. 4, 1867.

V. J. Melsted, Engineer of Water Service, Western Lines, C.P.R., Winnipeg, born at Gardar, N.D., Feb. 20, 1887.

G. A. Montgomery, General Superintendent, Algoma Central and Hudson Bay Ry., and Algoma Eastern Ry., Sault Ste. Marie, Ont., born at Bradford, Ont., Feb. 11, 1871.

A. Z. Mullins, Commercial Agent, G.T.R., Grand Rapids, Mich., born at Appin, Ont., Feb. 14, 1862.

M. G. Murphy, District Passenger Agent, C.P.R., Toronto, born at Halifax, N.S., Feb. 26, 1878.

J. E. Proctor, District Passenger Agent, C.P.R., Regina, Sask., born at Sarnia, Ont., Feb. 17, 1878.

C. T. Tidalls, Car Foreman, C.P.R., London, Ont., born at St. Heliers, Jersey, Channel Islands, Feb. 8, 1864.

J. E. Robitaille, Treasurer, Roberval-Saguenay Ry., Chicoutimi, Que., born at Quebec, Feb. 17, 1870.

A. E. Rosevear, General Freight Agent, G.T. Pacific Ry. and G.T. Pacific Coast Steamship Co., Winnipeg, born at Montreal, Feb. 20, 1863.

H. H. Schaefer, ex-Division Freight Agent, Intercolonial Ry., Moncton, N.B., born at Cologne, Germany, Feb. 10, 1848.

J. G. Scott, ex-General Manager, Quebec and Lake St. John Ry., Quebec, born there Feb. 13, 1847.

J. J. Scully, General Superintendent, Lake Superior Division, C.P.R., North Bay, Ont., born at Montreal, Feb. 3, 1872.

G. Spencer, Assistant Chief Operating Officer, Board of Railway Commissioners, Winnipeg, born in London, Eng., Feb. 21, 1865.

R. H. Sperling, Assistant to Chairman of the Board, British Columbia Electric Ry., London, Eng., born there, Feb. 9, 1876.

H. E. Suckling, Treasurer, C.P.R., Montreal, born at Gibraltar, Feb. 27, 1851.

Hugh Sutherland, Executive Agent, Canadian Northern Ry., Winnipeg, Man., born at New London, P.E.I., Feb. 22, 1845.

Sir Wm. C. VanHorne, K.C.M.G., Director, C.P.R., and President, Cuba Co., Montreal, born in Will County, Ill., Feb. 3, 1843.

F. L. Wanklyn, M. Can. Soc. C.E., General Executive Assistant, C.P.R., Montreal, born at Buenos Ayres, Feb. 25, 1860.

J. R. Watson, Assistant Superintendent, Sleeping, Dining and Parlor Cars and News Service, Eastern Lines, C.P.R., Montreal, born at Morpeth, Eng., Feb. 8, 1873.

John L. Weller, M. Can. Soc. C.E., Engineer in charge Welland Ship Canal, St. Catharines, Ont., born at Cobourg, Ont., Feb. 13, 1862.

A. Williams, Superintendent, District 2, Atlantic Division, C.P.R., Woodstock, N.B., born at Mono Road, Ont., Feb. 22, 1872.

## Disinfectant System for Trains and Lake Steamships.

A system of sewage disinfection for Great Lakes steamships as well as for trains has, according to a Detroit, Mich., press report, been worked out by Sanitary Engineer L. C. Frank, of the U. S. Public Health Service, and it is expected that the Treasury Department at Washington will issue regulations based on the plan devised. The action follows the U. S. Government's enquiry into the outbreaks of typhoid in 1913 among persons who had been fellow tourists on certain Great Lake steamships.

Prof. E. B. Phelps has suggested that steam might be used to disinfect the sewage from steamships and railway cars before it is discharged and a device has been designed to perform this function automatically. This device may be used wherever it is desired, to heat to 100 degrees centigrade and discharge automatically any liquid which is received intermittently or continuously. The device will apply in particular to the disinfection of sewage or lavatory waste from steamships or from steam, electric or gasoline trains.

Preliminary studies of the cost of operation indicate that with steam as heating agent, the disinfection of one closet would cost about 7½c. per 1,000 flushes. Therefore, if each steamer closet discharges on the average 50 times every day, the cost of disinfection a day per closet on steamships will be 5c.

## Expenditures on Grade Crossings by Board of Railway Commissioners.

Following is a statement of amounts paid by railway companies, municipalities and out of the Railway Grade Crossing Fund to April 1, 1914, in connection with orders by the Board of Railway Commissioners:

Fiscal Year.	Railway Companies.	Municipalities.	Grade Crossing Fund.
1909-10 ...	\$ 30,242.91	\$ 7,703.76	\$ 70.00
1910-11 ...	196,733.50	23,433.99	6,909.18
1911-12 ...	155,866.45	34,537.20	12,630.68
1912-13 ...	15,395.69	2,691.51	26,152.24
1913-14 ...	4,694.88	906.33	41,877.93
Totals ..	\$402,933.43	\$69,272.79	\$87,640.03

This includes all payments to date, with the exception of the St. Lawrence Boulevard Subway, St. Louis, Que. (order 8839), which provides for \$5,000 from the Railway Grand Crossing Fund, \$15,000 to be paid by the Montreal St. Ry. and the balance by the C.P.R. and the municipality, as agreed upon between themselves.

## General Clauses for Contract Specifications.

The Canadian Society of Civil Engineers' Committee on this subject, of which H. Holgate, Montreal, is chairman, presented a report at the annual meeting in Montreal in January, from which the following are extracts:—

"We have compiled the accompanying form of general clauses from various sources, and have revised, altered and added to them as we thought necessary. We have arranged them in a manner which, we hope, will be satisfactory, and have endeavored to cover the necessities of various classes of work. By the use of this or a similar form of general conditions, the form of contract and of the specification can be very much abbreviated, as many of these clauses would of necessity be incorporated in either the contract or specification, and by its use the standardization of forms of contract would be advanced.

"Though perhaps somewhat beyond the question that we have been asked to report on, we would recommend that all contracts should embrace in one document:—The agreement or contract itself; the tender or a certified copy of it; the specification; the general clauses; the signed drawings as tendered on; any modified drawings agreed to prior to signing of contract. Preferably these should be printed documents.

"In case of the adoption of a form of general conditions we would suggest that the Society have it printed and sold to the membership at a moderate charge."