Canadian Railway Marine World

Devoted to Steam and Electric Railway,
Marine, Express, Telegraph, and Railway and Canal
Contractors' Interests.

Official Organ of various Canadian Transportation
Associations.

Published on the first of each month.

ACTON BURROWS, LIMITED - Proprietors, 70 Bond Street, Toronto, Canada.

ACTON BURROWS, A.Can.Soc.C.E. Managing Director and Editor-in Chief. AUBREY ACTON BURROWS - Secreta Business Manager. Secretary and

Associate Editors
JOHN KEIR AND DONALD F. KEIR

Canadian Business Representative, W. H. HEWITT, 70 Bond Street, Toronto

United States. Business Representative, A. FENTON WALKER, 143 Liberty St., New York

European Business Representative, J. MEREDITH MCKIM, 16 Regent St., London, Eng.

Authorized by the Postmaster General for Canada, for transmission as second class matter.

Entered as second class matter, July 25, 1913, at the Postoffice at Buffalo, N.Y., under the Act of Congress of March 3, 1879.

SUBSCRIPTION PRICE, including postage anywhere, \$2 a year.

SINGLE COPIES, 20 cents each, including postage. The best and safest way to remit is by express money order. Where one cannot be obtained, a post office money order, or bank draft, payable at par in Toronto, may be sent. Cheques or drafts not payable at par in Toronto cannot be accepted. Remittances should be made payable to Canadian Railway and Marine World.

NOTICE TO ADVERTISERS.

ADVERTISING RATES furnished on application. ADVERTISING COPY must reach the publishers by the 10th of the month preceding the date of publication.

TORONTO, CANADA, MARCH, 1916

PRINCIPAL CONTENTS.

The state of the s
Appointments, Transportation
Audit Department's Polotion to Poilway Or-
ganization 96
Birthdays of Transportation Men 87
of Railway Commissioners—
orders by Summaries of
Traffic Orders
Canadian Northern Ry Construction Etc 94
Canadian Northern Ry. Construction, Etc 94
Transcontinental Passenger Cars 84
Canadian Pacific Ry. Construction
Ciliarkable Egrnings 101
rogers Pass Pioneer Tunnel 86
Electric Railway Donartment 110 to 117
Finance, Meetings, Etc
Lake Erie & Northern Ry. Operation 112
London St. Ry. Report
London St. Ry. Report
Ottawa Traction Co's Annual Meeting 111
Projects, Construction, Etc 115
Report 113 Toronto Suburban Ry., Interurban Cars 110 Winnio
Toronto Suburban Rv., Interurban Cars 110
Hullbeg Electric Ky, and Alltomobile Col-
Expressions
Piess Commonica Among the
Freight and Passenger Traffic Notes 109 Grain :
Grain and Passenger Traffic Notes 109
Marine Department
Canadian Take Destactive Association 122
Dominion Marine Association
Great Lakes Vessels in Ocean Service 119
Great Lakes Vessels in Ocean Service
Electric Commissioners Railway
St Electrification
St. Lawrence Ship Channel Improvements. 118 Shipping Education Consults 128
Shing rederation of Canada 120
Shipping Under War Conditions
Provements
Railway
Railway Development 106 Railway Earnings 97 Railway Finance, Meetings, Etc. 91
Railway Earnings 97 Railway Finance, Meetings, Etc. 91 Railway Mechanical Methods and Devices. 88, 89
Railway Finance, Meetings, Etc. 91 Railway Mechanical Methods and Devices88, 89 Railway Rolling Stock Notes 94
Tol Way Track Laid in 1915 105
Trairaph, Telephone and Cable Matters 126
Telegraph, Telephone and Cable Matters 126 Track, Causes and Preventatives of Heaving. 95
Track, Causes and Preventatives of Heaving. 95

Progress of Rogers Pass Tunnel Construction.

The following table, for which we are indebted to J. G. Sullivan, M.Can.Soc.C.E. Chief Engineer, C.P.R., Winnipeg shows the progress made from Dec. 30, 1915, to Jan. 17, and the total progress to Jan

EAST END.
Main tunnel Total. 9,548 ft. WEST END.
Main tunnel 557 ft. 9.849 ft.

One-man Car Operation.—Investigation by the American Electric Railway Association shows that out of a total of 111 American cities in which one-man car operation is in use, 30 cities in 1910 had a population of more than 25,000, which means that 27% of the cities using the one-man method of operation are cities of large population. Eight other cities ranged between 20,000 and 25,000 population and 45 others are between 10,000 and 20,000, leaving for the small city of less than 10,000 a total of but 28. Of the 30 companies operating in cities with more than 25,000 inhabitants there are two companies the population of whose cities are more than 500,000; one city over 200,000, and one over 100,000, which shows the favor with which one-man operation is being met, and its ascending popularity for larger city operation.

Navigation Seasons at Port Nelson.-The record of the first steemship arrivals at, and the last departures from, Port Nelson, Hudson Bay, for 1912 to 1915, was given in the House of Commons, Feb. 7, as follows:—1912, s.s. Beothic arrived off Nelson roads, July 24, but for lack of pilot did not proceed up river until July 29; after clearing, she proceeded to James Bay. 1913, s.s. Bonaventure arrived at Port Nelson, Aug. 6, and cleared from there, with the steamships Bellaventure and Sinbad, Oct. 13, being followed on Oct. 19 by the Dominion Government ernment survey steamship Acadia. 1914, s.s. Bonaventure arrived at Port Nelson, Arg. 14; the steamships Bellaventure and Sheba cleared from there, Oct. 17. 1915, s.s. Bellaventure arrived at Port Nelson Aug. 1, and cleared from there, with the steamships Adventure and Sheba, Oct. 22.

Judgment was given in the October Court of Appeal, Jan. 24, in an action in which the County of Wentworth, the City of Hamilton and the Hamilton Radial Ry. were concerned. The railway extends from Hamilton to Oakville, the city and county authorities granting franchises, in respect of which certain payments are made. Some difference arose between the city and county respecting these payments, with the result that action was brought, and a verdict was given July 2, 1914, in favor of the county. Against this the city appealed, with the result that the appeal has been allowed and the original action dismissed.

Alaska halibut fishermen have petitioned the United States Government to take steps to protect the industry. It is alleged that owing to the opening of the Grand Trunk Pacific Ry., the centre of the fisheries in Alaskan waters has been shifted from Ketchikan, Alaska, to Prince

The Canadian Ticket Agents Association will hold its next annual meeting and outing at Port Arthur, Ont., early in June.

The Dominion Government Railway to Hudson Bay engineering staff has given \$513.97 as a special donation to the Manitoba Patriotic Fund.

Grain Inspection at Western Points.

Following are the number of cars of grain inspected on the Canadian Pacific, Canadian Northern, Great Northern and Grand Trunk Pacific Rys. at Winnipeg and other points in the Western Division, in Jan. 1916, in the 5 months ended Jan. 1916, and in the 5 months ended Jan.

			5 months to	5 months to	
		Jan. 1916	Jan. 1916	Jan. 1915	
C.P.R.		5,630	107,840	41,089	
C.P.R.,	Calgary	599	2,837	2,831	
C.N.R.		3,802	55,632	25,922	
G.N.R.,	Duluth	101	2,677	893	
G.T.P.		1,593	27,412	10,634	
Total		11,725	196,398	81,369	

Too Late for Classification.

The Dominion Government s.s. Quadra was sunk off Naniamo, B.C., Feb. 26, in collision with the C.P.R. s.s. Charmer, the crew being saved. She was valued at about \$80,000 and was engaged in the fishery patrol and lighthouse and buoy service on the Pacific coast.

Canada Steamship Lines' s.s. Empress of Fort William, which since Aug. 4, 1914, has been engaged in ocean service, was sunk by a mine off Dover, England, Feb. 26, while attempting to rescue the crew of the s.s. Maloja, which had struck a mine. The Empress of Fort William was built at Newcastle, England, in 1908, and was formerly owned by the Empress Transportation Co., Midland, Ont., and was later absorbed by Canada Steamship Lines, Ltd. Her dimensions were: Length 250 ft., breadth 43 ft., depth 25 ft., and she had a cargo capacity of 3,440 tons.

The Transit Co., Ltd., has been incorporated under the Dominion Companies Act, with \$250,000 authorized capital, and office at Toronto, to carry on a general shipowning and operating business, and in connection therewith to own and operate steam and other vessels, and to enter into agreements with steam and electric railway companies to move and operate their rolling stock. The incorporators are all connected with a Toronto legal firm.

The Manitoba Public Utilities Commissioner recently suspended the order directing the Winnipeg Electric Ry. to operate its cars over the Arlington St. bridge, Winnipeg. The Board of Control on Feb. 5, instructed the City Solicitor to apply for a renewal of the order. This new application will enable the question of the sufficiency of the existing brakes on the cars, to ensure safety on the gradient at the birdge, to be settled.

The Sasketchewan Co-operative Elevator Co. proposes to extend its system to include the ownership and operation of terminal elevator facilities at the head of the lakes, and is taking steps to have the matter discussed in the Legislature, with the view of having such extension authorized, and if necessary, obtaining the financial co-operation of the province.

C. H. Gaunt, heretofore General Manager, Pacific Division, Western Union Telegraph Co., San Francisco, Cal., has been appointed General Manager at Chicago, Ill., with jurisdiction over the company's lines in ten States. He is succeeded at San Francisco by M. T. Cook, heretofore Assistant General Manager, Chicago, Ill.

During 1915, 89,195,875 tons of bulk freight were handled on the Grent Lakes, an increase of 16,256,272 over 1914.