# Canadian Railway MarineWorld

Devoted to Steam and Electric Railway,
Marine, Express, Telegraph, and Railway and
Canal Contractors' Interests.
Official Organ of the various Canadian
Transportation Associations.
Published on the first of each month.

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

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

Associate Editor - - JOHN KEIR
Associate Editor - - DONALD F. KEIR
Mechanical Editor - FREDERICK H. MOODY, B.A.Sc.

BUSINESS REPRESENTATIVES.

W. H. HEWITT, 70 Bond Street, Toronto 70 Bond Street, Toronto A. FENTON WALKER, 143 Liberty Street, New York, N.Y. J. MEREDITH MCKIM, 3 Regent St., London, S.W., 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 any-

SINGLE COPIES, 20 cents each, including post-

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, FEBRUARY, 1914.

#### PRINCIPAL CONTENTS.

Appointments Birthdays of Transportation Men	79
Doard of Railway Commissioners	
Orders by, Summaries of	64
Traffic Orders Canadian Northern Ry., Construction	78
Canadian Pacific Ry.—	10
Appropriations for Western Lines	67
Construction, etc. Dining Car Service Building	74 97
Steel Trucks for Passenger Cars	55
Steel Trucks for Passenger Cars Vancouver Terminals	63
Electric Railway Department 83 to	90
British Columbia Electric Ry. Report Development	83
Dominion Power and Transmission Co.'s Steam	,
Plant	90
Finance Meetings, etc. Hull Electric Co.'s Prepayment Trailer Cars	86
Hydro Electric Railways in Ontarto	86
Ulliario West Shore Ry	84
Toronto Rv. Situation	85
Track Laid in 1913	86
Express Companies, Among the Express Rates, Modification	97
	77
Hudson Bay, Dominion Government Railway to. Kettle Valley Ry., Construction	70
	80 76
at the Department	95
Canada Steamship Lines, Ltd.	91
Hudson Bay Lighters Notices to Mariners	91
St. Lawrence and Chicago Steam Navigation	94
Co. Report	92
Sault Ste. Marie Canals Traffic  Nessels Registered	94
Transcontinental Ry Transcona Car	93
Passenger Rate Meetings at Buffalo	51
Railway Caratanatian in Barrana Buffalo	71
Railway Construction in Progress Railway Development	81
ballway Finance, Meetings, etc	78
	61
Wallarian Dalling Charl O 1	68
Railway Statistics	59
Railway Statistics Railway Track (Steam) Laid in 1913 Railway Subsidy Agreements	71
Telegraph Talashana and Cable Matters	73
Toronto Hamilton and Duffels Dr. Bonto	50
White Pass and Yukon Ry., Annual Meeting	62

### Canadian Society of Civil Engineers Committee Report on Track.

At the Society's recent annual meeting in Montreal, H. R. Safford, Chief Engineer, G.T.R., chairman of the committee on tracks, presented the following report:-

Dear Sir,—Owing to a tremendous pressure of business, we were not able to hold a meeting until Dec. 1, 1913. This meeting was attended by A. C. MacKenzie and myself. (F. P. Gutelius, the other member, was not present.)

The subject assigned to the committee is a very large and comprehensive one, and the work to be carried on should be in ac-cordance with a well defined programme, and, in order to conform to the wishes of the council as to procedure, it seems to us that the council should give a general outline of the subjects which should be first This is the procedure generally attacked. followed in associations of this nature, and is the one which we think will obtain the best results from the committee.

The committee is so small that we do not think we can carry on effective research work in a satisfactory manner, because in the work associated with track matters it is quite desirable that results obtained by the committee should be after a very general study by the committee, which should be representative not only as to individual railways but locality. We are, therefore, impressed that there should be an increase in the membership of this committee to at least 8 or 10, and a committee of this size can accomplish much more effective work.

We, therefore, recommend for consideration by the council the following action:— That the council shall instruct as to the general subjects it would desire given first attention, and we might suggest that two be selected from the following list: Recommended specifications for tie plates, for angle bars, for various classes of tie treatment, for bolts, spikes, etc. Recommended practice as to size of ties, as to character of timber, as to proper tie spacing. Economics of track labor, embracing the following: Proper methods of conducting track work, of measuring efficiency, of equating track values, of educating section foremen, and numerous other subjects could be suggested. That the committee membership be increased to 10.

We believe in the creation of this committee the membership should not be entirely confined to railway engineers, as there will be some features involved where it would be desirable to have the benefit of the views of men connected with steel manufacture, treatment of ties and other subjects which are associated with materials going into track use.

Interchange of Passenger Traffic at Toronto.—R. L. Fairbairn, General Passenger Agent, Canadian Northern Ry. lines east of Port Arthur, has issued the following notice: - "Arrangements have been completed for the interchanging of passenger traffic at Toronto between Canadian Northern Eastern Lines and the G.T.R. and C.P.R., applicable for all classes of traffic to and from all points. One coupon only will be required from Toronto to any destination on any of our allied lines-coupon to read Canadian Northern Ontario Railway. Division requirements will be given later."

Chuting of Concrete.-Observations show that with wooden chutes of planed boards, 2 ft. wide, and from 8 to 10 ins. deep, the preferable slope is 4 ins. per ft. Slopes of 2 ins. per ft. require a man to keep the chutes clear, and of 6 ins. per ft., cause the ingredients to separate, and require the use of baffles to retard the motion.

#### Canadian Northern Railway Earnings, Etc.

Gross earnings, working expenses, net earnings, increases, or decreases, compared with those for 1912-13, from July 1, 1913:—

	Gross Earnings	Expenses	Net Earnings	Increase
July	\$1,928,800	\$1,414,500	\$514,300	\$19,700
Aug.	1,824,800	1,416,200	408,600	37,800
Sept.	1,994,900	1,470,000	524,900	101,400
Oct.	2,687,100	1,683,000	1,004,100	298,800
Nov.	2,673,300	1,708,500	964,800	87,000
Dec.	2,256,000	1,632,000	624,000	43,000
	\$13,364,900	\$9,324,200	\$4,049,700	\$587,700
Incr.	\$ 1,125,000	\$ 537,300	\$ 587,700	

Average mileage under operation during 1913, 4,480, against 4,297 in the previous year. Mileage operated during Dec., 1913, 4,458.

## Canadian Pacific Railway, Earnings, Etc.

Gross earnings, working expenses, net earnings, increases, or decreases, compared with those for 1912-13, from July 1, 1913:—

	Gross Earnings	Expenses	Net Earnings	Increase or Decrease
July	\$11,993,062.27	\$7 876,269 09	\$4,116,793.18	x\$331 383.72
Aug.	11,434,459.88	7,473,320.64	3,961,139.24	x756,786.42
Sept.	12,157,082.17	7,741,503.48	4,415,578.69	165,274.84
Oct.	14,480,216.73	8,877,358.94	5,602,857.79	541,970.60
Nov.	13,407,015.31	8,518,769.25	4,888,246.06	630,107.02

\$63,471,836.36 \$40,487,221.40 \$22,984,614.96 \$249,182.32 Incr. \$ 2,164,923.71 \$ 1,915,741 39 \$ 249,182.32 x Decrease,

Approximate gross earnings for Dec., \$11,695,000, against \$12,108,000 for Dec., 1912. During Dec., 1913, the mileage under operation was increased to 11,827.

#### Grand Trunk Railway Earnings, Etc.

The following figures show the earnings and expenses of the G.T.R., C.A.R., G.T. Western Ry, and D.G.H. & M.R. for Nov., 1913, as compared with those for Nov., 1912:—

Grand Trunk Railway.

Earnings Expenses	1913. \$3,523,400 2,813,000	1912. \$3,534,500 2,820,800
Net earnings	\$710,400 Railway.	\$713,700
Earnings Expenses	1913. \$200,900 215,300	1912. \$223,500 211,400
Net earnings	\$14,400* ern Railway.	\$12,100
Earnings Expenses	1913. \$577,200 502,500	1912. \$621,000 523,800
Net earnings  Detroit, Grand Haven an	\$74,700 ad Milwaukee	\$97,200 Ry.
Earnings	1913. \$241,900 210,200	1912. \$243,400 197,600
Net earnings*	\$31,700	\$45,800

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from July 1 to Dec. 31:

	1913	1912	Increase Decrease	
G.T.R. C.A.R.	\$23,137,502	\$22,408,122 1,971,732		\$85,098
G.T.W.R D.G.H. & M.R	3,718,177 1,347,427	2,745,761 1.329,057	18, 70	27,584
Totals	\$29,439,740	\$28,754,672	\$685,068	

### Grand Trunk Pacific Railway Earnings.

The approximate earnings of the Prairie Section and Lake Superior Branch, 1,104 miles, for Nov., were \$1,004,915; for Dec., \$555,526. Aggregate from July 1 to Dec. 31, 1913, \$4,293,115.

Steel Rail Orders.—A press dispatch from Sydney. Jan. 6, said that the Dominion Iron and Steel Co. was finishing a large order for rails for the Canadian Northern Ry., after which the rail mill would be shut down 10 days for repairs; that an order had been received from the Australian Government for 5,000 tons of rails, which was expected to be followed by further orders from the same source; that after the Australian order is finished a big order for the C.P.R. wil' be rolled, and later a 12,000 ton order of 60 lb. rails for the west.