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Devoted to Steam and Electric Railway, Marine, Grain Elevator, Express, Telegraph,
Telephone and Contractors' interests

TORONTO, CANADA, APRIL, 1909.

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See page 275.

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A.R.E. & M. of W. Association.

At the American Railway Engineering and Maintenance of Way Association's meeting in Chicago, Mar. 16, the President, W. McNab, Principal Assistant Engineer G.T.R., read an address, the principal portion of which follows:

"Your Association has completed a decade of active work, and during that period has made an enviable record, and now occupies a prominent position in the front rank of railway organizations and engineering societies. The advantage gained by this status turns on the beneficial influence it exerts in connection with the objects of the Association—the advancement of knowledge pertaining to the scientific and economical location, construction, operation and maintenance of railways—an influence which has been imparted to the railway world in a degree of usefulness, universal in its scope and almost unparalleled in its import. This feature should be especially gratifying to the members on this particular anniversary. More especially should this appeal to us, as few (if any) kindred bodies have, within the same period or similar length of time, acquired the growth, stability, practical usefulness and, in general, the high standing attained by this Association.

"In modern days, the science of railway engineering occupies a wide range in the domain of civil engineering in the generic sense. This fact was appreciated even in the early days of railway construction, by the compilers of the lexicons of that period, the term 'civil engineer' being defined by them as 'one who plans railways, harbors, docks, etc.'—railways apparently being given first place in importance. From these early days down to the time when the present classification of expenditure was introduced, each railway was practically a law to itself in regard to physical standards, as well as to clerical and accounting methods considered necessary for its proper care. In the course of time, however, the field covered by what is comprehended under the term railway engineering, became so enlarged and so important, that direct supervision in detail from one source was found inadequate, even though the authority enjoyed the broad title of civil engineer. During that period there was, in a more or less degree, a lack of proper appreciation of the value of technical education and training as an adjunct to the practical working of the railway, and the results of experiments made from time to time by certain railways, individually, to establish a justification for proposed changes were, in regard to real value, not altogether satisfactory to the railway world in general. The experience gained from such investigations, desirable or undesirable as the case might be, was often ac-

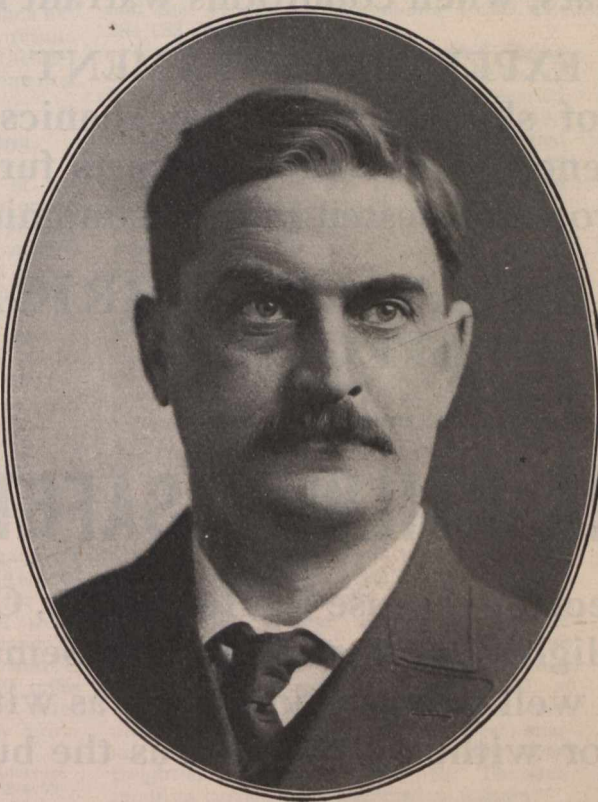
quired only after the expenditure of large sums of money, direct or indirect, and the ascertained facts were jealously guarded by the interests concerned. To the railway world, however, the results of such investigations, even if known to be of benefit, did not meet all the requirements essential to a comprehension of what was expedient from an economic standpoint, and the lesson which should have been taught, viz., that as much, if not more, valuable experience is to be ac-

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A. SHIELDS.
Master Mechanic Canadian Northern Railway.

quired through failures rather than from successes, was not properly brought home. "The text-books upon particular subjects connected with railway engineering in use in earlier days, were produced under private or individual auspices. As a general rule they were ably edited, yet the perspective embraced was circumscribed by reason of existing circumstances, and the value of their use was necessarily limited on account of lack of systematic re-issue of such volumes with supplements to meet changing conditions. Special articles upon railway technical matters, which appeared from time to time, lacked the value of full discussion, and information thus imparted did not meet requirements; therefore, the interest created could only be looked upon as more or less temporary and super-

But while there is every reason to be proud of our achievements during these past ten years, we should not rest content, but endeavor to keep our work up-to-date by eliminating from our Recommended Practice what in course of time has become obsolete, and perfecting that which is considered worthy of retention, in order that our recommendations may be safely relied upon as representing the best practice that can be devised for the time being. In no quarter of the world do the diversities of nature, both physical and climatic, exist in a greater degree than on the North American Continent, and for this reason the problems confronting railway engineers afford ample opportunity for the exercise of that particular knowledge which your Association was formed to advance, namely, that per-

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taining to the scientific location, construction, operation and maintenance of railways. Great progress has been made in that respect since the formation of the Association ten years ago. It is realized more fully that the railway problems coming under our immediate purview are being brought under the influence of common conditions and tendencies. We meet the propositions which ever present themselves with the knowledge that conditions to-day are not to be governed entirely by the experience acquired in earlier days. It is our endeavor, also, to realize how, in carrying out the objects of the Association, true economics require proper discernment between what is expedient and what is essential, as well as a clear insight into what will tend to the permanent commercial success of the companies by which we are respectively employed. We are also striving, and not unsuccessfully, for a better understanding of the relationship of capital invested to maintenance and operating expenses. In this respect it is borne in mind, that as the ratio of progress of all kinds is ever increasing, and that as railways are commercial undertakings, the various factors which produce the greatest permanent profit per cent. of the expenditure, as well as those which have an adverse effect, must be carefully studied. We realize more and more the value of a free exchange of experiences and the practical uses that such exchange can be put to, as well as the results brought about by scientific analysis of theories that have not yet been put to experimental tests."

Railway Statistics for 1907-1908.

In submitting his annual report of the steam railway statistics for the year ended June 30, 1908, J. L. Payne, Comptroller of Railway Statistics, says the various tables are based upon schedules and classifications which were put into effect in 1907. With the introduction of these new forms it is claimed perfect uniformity was secured in the method of preparing railway statistics in both Canada and the United States. During the year it was found necessary to widen some of the classifications, notably with respect to operating expenses, and these will be applied to the statistics for the twelve months now current. It is hoped, he adds, further changes may not be called for in the near future.

The total railway mileage in Canada on June 30, 1908, was 22,966, an addition of 514 miles as compared with 1,099 for the year ended June 30, 1907. There were, however, 4,327 miles of line reported as being actually under construction, and it is now known that upwards of 750 miles were put in operation very shortly after June 30, 1908. The distribution by provinces is as follows:

	Miles	Increase
Ontario.....	7,932.90	294.99
Quebec.....	3,573.65	69.51
Manitoba.....	3,110.91	36.45
Saskatchewan.....	2,081.30	56.44
British Columbia.....	1,732.83	64.78
New Brunswick.....	1,509.36	18.78
Nova Scotia.....	1,344.05	2.58
Alberta.....	1,323.02
Prince Edward Island.....	267.50
Yukon Territory.....	90.91	0.31

The total increased mileage, however, is partly offset by the abandonment of some tracks, so that the net increase is 514 miles. During the year there was an increase in second track of 144 miles, bringing the total up to 1,211; and an increase of 454 miles of terminal, yard and siding tracks. The aggregate of all tracks in the Dominion was 28,600 miles, against 27,796.80 miles at June 30, 1907.

The capital invested is \$1,239,295,013, of which \$607,425,349 is represented by stocks, and \$631,869,664 by bonds and other funded debt. These figures show an increase of \$18,856,758 in stocks, and of \$48,500,447 in bonds, etc. The figures,

however, do not include the cost of the Intercolonial and the Prince Edward Island Railways, owned by the Dominion Government; the Temiskaming and Northern Ontario Ry., owned by the Ontario Government, and the New Brunswick Coal and Ry. Co.'s line, owned by the New Brunswick Ry., or the cost to June 30 of the National Transcontinental Ry. between Moncton and Winnipeg. The expenditures on these lines total \$325,345,031, making a grand total of \$1,564,640,044. The amounts include cash grants in aid of railways, but it has been found impossible to estimate the value of the lands granted to aid railway construction. In regard to stock and bond liability the report states that a revision of the statistics is necessary, and may be undertaken during the current year, as some of it is no longer a legal liability at all; and in other cases it has disappeared altogether, or appears in some other form. During the year \$4,374,323 was added to the amount granted by way of subsidies to railways, \$4,221,727.30 being by the Dominion Government, \$68,284 by the Provincial Governments, and \$84,311.70 by municipalities. The Dominion Parliament and Provincial Parliaments have guaranteed railway companies' bonds to the amount of \$58,920,551. The acreage of land voted by the Dominion and the Provincial Parliaments totals 52,284,183 acres.

The number of passengers carried during the year was 34,044,992, an increase of 5.90%; the number of passengers carried one mile was 2,081,960,864, against 2,049,549,813; the number of passengers carried one mile per mile of road was 90,650, an actual decrease of 636 in the density of passenger traffic for the year; the number of passengers carried per mile of railway was 1,482, an increase of 51; the average receipts per passenger was \$1.921, an increase of .009 cent; the average passenger journey was 61 miles, and the average number of passengers per train 54. The passenger train mileage was 31,950,349, against 30,220,461 in 1906-07; the mixed train mileage was 6,210,807, against 5,971,414 for 1906-07.

The number of tons of freight hauled was 63,071,167, a decrease of 1.24%; the average receipts were .723 cent, against .812 in 1906-07; the number of tons hauled one mile was 12,961,512,519, against 11,687,711,830; the density of freight traffic as shown by the number of tons hauled one mile per mile of line was 564,374, against 520,564; average distance hauled 206 miles, against 183; average number of tons per train 278, against 260; revenue freight train mileage 40,476,370, against 38,923,890; mileage of loaded freight cars 748,924,820, of which 400,494,410 miles were north or east, and 348,430,410 miles were south or west; mileage of empty freight cars, 284,944,529; total freight car mileage, 1,033,869,349. The commodities carried were classified as follows:

	1907-8	1906-07
Products of mines.....	22,636,227	18,460,172
Products of forests.....	12,912,226	10,229,635
Products of agriculture.....	9,396,967	9,521,661
Manufactures.....	6,655,719	7,974,641
Products of animals.....	2,472,359	2,469,266
Merchandise.....	2,008,267	2,309,084
Miscellaneous.....	6,938,135	5,533,426

The total of the figures for 1907-08 shows a shortage of 51,267 tons when compared with the table showing the total freight carried. Of the total tonnage relating to commodities 38,821,418 tons were reported as originating on the line, and 24,198,482 as having been received from connecting roads.

The gross earnings were \$146,918,313.61, an increase of \$180,098.93, the distribution being as follows: Passenger service, 31.89%; freight service, 63.81%; stock yards, elevators, etc., 0.28%; car mileage, switching, etc., 0.19%; telegraphs, rents and other sources, 3.83%. Receipts from freight service, stock yards, elevators, etc., decreased \$1,583,557.16, while receipts from passenger ser-

vice, car mileage, switching, telegraphs, rents, etc., increased \$1,763,656.09, the net increase being \$180,098.93. The gross earnings represented an average of \$6,389.37 per mile of railway as compared with \$6,535.64 in 1906-07.

The operating expenses aggregated \$107,304,142.51, an increase of 3.42%; the distribution being as follows: Way and structures, 19.37%; maintenance of equipment, 18.89%; conducting transportation, 58.23%; general expenses, 3.51%. The cost of conducting transportation increased \$5,160,727.33, while each of the other items showed decreases amounting to \$1,604,257.09, leaving a net increase of \$3,555,470.24. The principal increases in conducting transportation were on account of wages and the cost of fuel. The operating expenses averaged \$4,672.30 per mile of line, an increase of \$51.40 a mile; the operating expenses per train mile of all trains was \$1.364, a decrease of .017 cent. The cost of running a train one mile has increased from \$0.779 in 1898-99, to \$1.364 in 1907-08, while the gross earnings per train mile have only increased from \$1.192 in 1898-99, to \$1.869 in 1907-08. The percentage of operating expenses to gross earnings was 73.04, an increase of 2.34%.

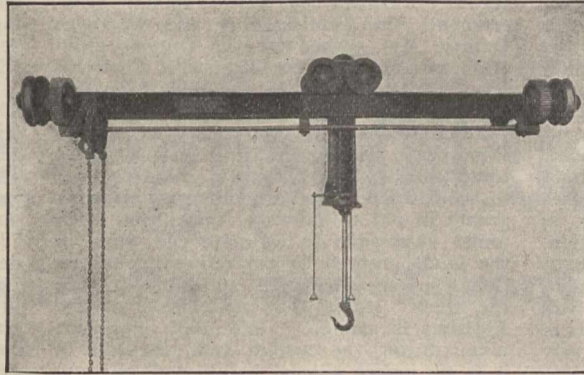
The net earnings were \$39,614,171.10, against \$42,989,537.41, a decrease of \$3,375,366.31. The net earnings were equal to \$1,724.90 per mile of line, as compared with \$1,941.73, a decrease of \$189.83. On a capitalization of \$1,239,295,013, representing the stock and bond issue, the net earnings would yield a dividend of 3.19%. There were, however, 29 out of 87 reporting railways which showed a deficit on the year's operations.

Railways Outside Dominion Jurisdiction.

There appears to be considerable doubt as to what railway companies are not under the Board of Railway Commissioners' jurisdiction. At the 1908 parliamentary session a return was made to the Senate by the Department of Railways transmitting a list, prepared in the Commission's offices, of companies which it was stated were not under the Board's jurisdiction. This list was published in our Oct., 1908, issue, and we were shortly afterwards informed by the Board's Secretary that it was incorrect. Subsequently the Secretary furnished us with a revised list, which was published in our Mar. issue, pg. 209. He has since advised us that the Moncton and Buctouche Ry. is not subject to the Board's jurisdiction, and should be added to that list.

In the list referred to as published in our Mar. issue, there is only one electric railway, viz., the Hamilton, Grimsby and Beamsville. Being of the opinion that there are a number of other electric railways which are not under the Board's jurisdiction, we communicated further with the Secretary, who advises us that the Board's Law Clerk does not know of a complete list of railways subject to the Board's jurisdiction, and of those not subject to it, and that therefore the list published in our Mar. issue, with the addition of the Moncton and Buctouche Ry. as made above, will have to be taken as approximately correct.

The Interstate Commerce Commission has decided the Act to Regulate Commerce, that in complaints for recovery of damages caused by unreasonable or unduly discriminatory rates, the cause of action accrues when the payment is made; in any other complaints for recovery or damages for alleged violations of the act to regulate commerce of which the Commission has jurisdiction, the cause of action accrues when the carrier does the unlawful act or fails to do what the law requires.

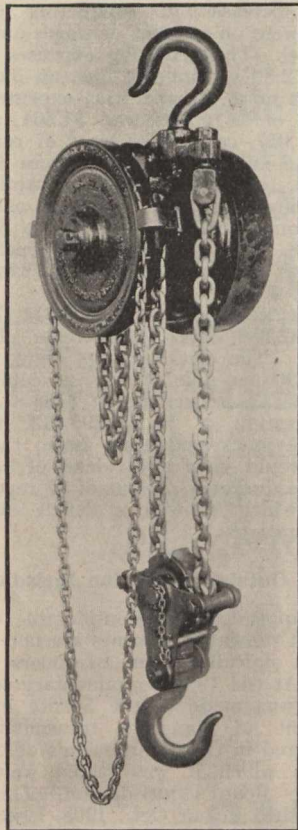


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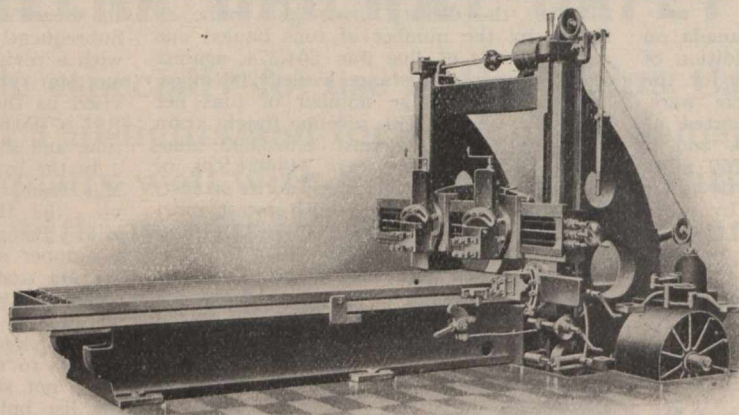
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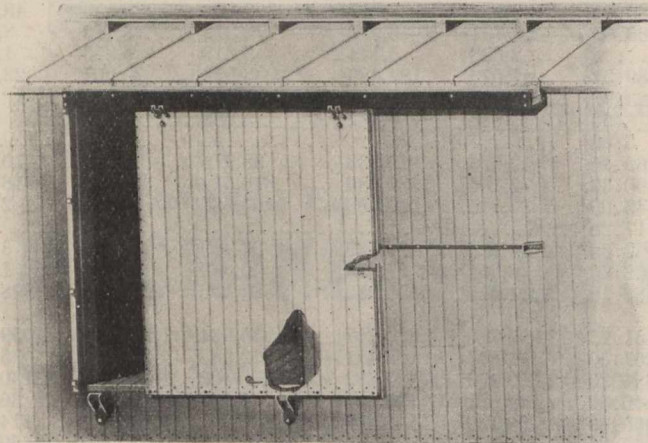
STEAM RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1908.

In the following table the column headed gross earnings includes passenger and freight earnings, as well as miscellaneous earnings; the next four columns give the operating expenses classified under their various headings, while the last gives the net earnings, which is arrived at by deducting the totals of the four columns referred to from the figures in the gross earnings column. The minus mark (-) before figures in the net earnings column shows that there was a deficit in the operations of the line to the extent of the figures given. The numbers in brackets—thus (1)—after the name of a railway refer to notes on page 243. The cents have been omitted in all cases, and the figures in the totals shows the aggregate earnings, etc., including the cents, omitted from the detailed items.

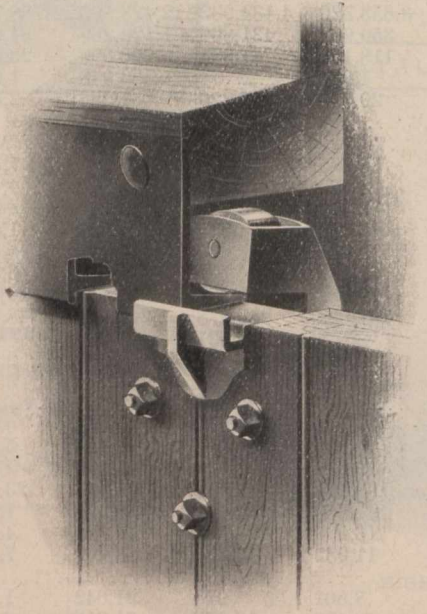
Name of Railway	Mileage	Passenger Earnings	Freight Earnings	Gross Earnings	Maintenance of Way and Structures	Maintenance of Equipment	Conducting Transportation	General Expenses	Net Earnings
Alberta Ry. & Irrigation Co. (1)...	111.82	\$ 59,424	\$ 134,622	\$ 204,094	\$ 77,239	\$ 19,642	\$ 65,658	\$ 15,525	\$ 26,027
Albert Southern	19.00								
Algoma Cent. & Hudson Bay (2)	89.64	23,751	137,717	360,722	35,453	48,413	156,581	12,697	107,575
Atlantic & Lake Superior (3)....	100.00	28,791	43,949	73,319	18,442	8,328	38,648	8,087	-187
Atlantic, Quebec & Western (3)...		3,698	5,144	8,813	4,373	1,381	12,606	3,821	-13,369
Bay of Quinte (4)	89.37	47,073	182,489	233,822	29,907	23,995	99,638	7,247	73,034
Bedlington & Nelson (12).....	23.97	251	553	807	12,135	486	1,965	380	-14,161
Beersville Coal & Ry. Co.	8.63	648	4,432	5,080	992	189	3,578	30	289
Bessemer & Barry's Bay (23)	5.00								
Brandon, Sask. & Hud. Bay (12)	69.45	19,176	19,533	38,976	32,249	10,047	57,141	3,477	-63,938
British Yukon	90.32	75,165	237,089	316,514	54,360	16,889	60,272	12,326	172,665
Brockville, Westport & N. W.	45.00	33,345	30,183	63,537	5,251	2,479	15,335	7,094	33,376
Bruce Mines & Algoma (23)....	17.28								
Buctouche & Moncton	32.00	10,520	16,739	27,259	8,582	3,038	8,343	3,161	4,133
Canada Coals & Ry. Co.	12.00	6,851	27,973	36,640	4,049	1,719	15,551	2,523	12,796
Canada Southern (19).....	382.19	2,204,016	5,496,012	7,884,165	807,947	828,970	3,678,455	170,754	2,398,036
Canadian Government Rys.—									
Intercolonial (13).....	1,451.22	3,027,710	5,820,857	8,935,934	1,732,390	2,059,883	5,314,955	241,843	-413,138
Prince Edward Island.....	267.50	161,897	142,411	312,983	116,098	75,487	202,528	14,345	-95,476
Canadian Northern (5).....	2,851.20	2,026,272	6,824,782	9,709,462	1,458,588	1,130,198	3,684,106	254,875	3,181,693
Canadian Northern Ontario (5)...	146.80	122,821	116,117	245,601	52,022	36,842	137,514	18,819	403
Canadian Northern Quebec (5)...	266.80	208,739	448,860	680,201	132,358	114,079	423,100	39,873	-29,210
Canadian Pacific (6).....	9,155.80	23,245,345	43,733,429	70,389,165	9,630,803	9,459,860	27,448,405	1,441,199	22,408,896
Cape Breton	31.00	5,350	2,510	7,997	4,386	2,691	6,736	3,311	-9,128
Caraquet (7).....	84.78	15,389	36,030	51,419	14,911	10,940	21,127	5,693	-1,253
Carillon & Grenville.....	13.00	1,547	119	2,561	2,540	1,085	1,735	62	-2,862
Central Ontario (8).....	140.13	84,431	170,760	269,422	50,999	14,149	79,669	9,109	115,494
Crow's Nest Southern (12).....	74.18	27,433	157,898	186,731	49,029	17,235	67,503	4,181	48,781
Cumberland Ry. & Coal Co.	32.00	18,251	77,480	95,752	24,006	10,822	11,045		49,857
Dominion Atlantic (10).....	278.38	391,672	409,033	801,288	118,591	59,479	290,469	41,586	291,161
Edmonton, Yukon & Pacific (5)...	4.50								
Elgin & Havelock	28.00	3,964	8,445	12,410	4,074	832	5,267	695	1,540
Esquimalt & Nanaimo (6).....	28.00								
Grand Trunk Pacific (11).....									
Grand Trunk (11).....	3,108.44	10,540,996	19,011,649	30,280,701	3,653,320	4,134,932	12,423,565	788,750	9,280,132
G.T.R. (Canada Atlantic) (11)...	456.26	481,675	1,445,066	2,035,417	359,962	431,800	1,122,269	54,619	66,764
Halifax & Southwestern (5).....	369.81	-211,148	173,565	387,185	118,154	41,864	200,999	23,963	2,203
Hampton & St. Martins	30.00	4,485	7,265	11,751	1,934		3,948	1,063	4,804
Hereford (16).....	52.85	17,931	56,156	74,182	29,711	17,320	51,265	2,559	-26,674
Hillerest Ry., Coal & Coke Co. (23)...	1.50								
International Ry. of N.B. (23)...	43.00								
Inverness Ry. & Coal Co. (5).....	65.50	21,755	187,410	210,112	36,282	23,379	47,313	7,590	95,546
Irondale, Bancroft & Ottawa....	48.00	7,177	18,800	25,177	8,929	1,551	13,530	4,495	-3,329
Kaslo & Slocan.....	31.73	7,553	9,915	17,689	32,372	2,951	14,327	544	-32,506
Kent Northern (14).....	27.00	8,217	10,698	18,916	4,020	825	4,300	1,580	8,191
Kettle River Valley	3.86	275	2,714	2,990	981	695	1,488	387	-562
Kingston & Pembroke (6).....	109.80	60,935	139,142	217,423	52,916	24,798	89,773	6,872	43,061
Klondyke Mines	31.81	11,258	35,281	46,990	29,802	15,138	30,445	16,945	-45,341
Lake Erie & Detroit River (15)...	198.81	173,407	1,806,664	2,008,952	167,091	287,878	1,209,704	48,275	296,002
Liverpool & Milton	5.53	840	8,539	9,397	6	1,621	3,717	483	3,550
Lotbiniere & Megantic.....	30.00	4,974	26,391	31,567	8,693	3,381	12,075	2,241	5,176
London & Port Stanley (15).....	23.66	49,695	66,102	124,054	21,219	21,725	94,775	5,936	-19,603
Magnetawan River (11).....	1.91								
Manitoulin & North Shore (2)...	13.69	1,183	43,297	46,653	10,420	4,635	14,050	5,546	12,000
Massiwiippi Valley (17).....	35.46	75,390	122,757	198,687	40,648	17,073	114,484	5,477	21,002
Midland Ry. of Manitoba.....	92.26	8,248	25,289	33,748	42,045	6,567	39,997	2,847	-57,708
Montreal & Atlantic (6).....	163.40	198,351	537,648	757,412	193,215	112,319	391,343	23,329	37,203
Montreal & Province Line (11)...	58.60	47,389	39,768	90,075	24,830	2,661	41,976	1,850	18,756
Montreal & Vermont Junc. (11)...	23.60	53,568	107,664	167,494	13,637	25,329	46,721	4,459	77,346
Morrissy, Fernie & Michel (18)...	10.85	8,342	91,959	106,522	11,982	13,327	48,209	7,357	25,645
Marmora Ry. & Mining Co. (8)....	9.60								
Napierville Junction (9).....	27.11	4,568	15,100	19,681	8,501	916	21,642	1,787	-13,166
Nelson & Fort Sheppard (12)....	60.12	36,072	58,645	98,824	48,429	12,060	61,218	3,057	-28,942
New Brunswick Coal & Ry. Co....	58.00	12,527	33,645	54,030	15,907	9,724	23,768	6,695	-2,066
New Brunswick & P.E.I.	36.00	10,380	18,880	29,572	8,342	3,693	10,182	1,354	5,687
New Brunswick Southern.....	82.35	19,562	25,684	45,264	14,263	2,765	25,120	5,601	-2,485
New Westminister Southern (12)...	24.10	91,100	32,633	124,073	17,843	9,276	61,228	3,463	32,262
Nosbonsing & Nipissing.....	5.50		24,564	24,564	7,860	3,684		13,019	
Nova Scotia Steel & Coal Co....	12.50	2,177	2,856	5,033	4,669	1,360	5,812		-6,808
Orford Mountain	55.10	8,254	19,353	27,608	14,413	2,080	18,755	3,219	-10,860
Ottawa & New York (19).....	56.90	67,946	48,481	118,062	38,365	13,726	66,903	5,684	-6,616
Phillipsburg Ry. & Quarry Co....	6.00		1,639	1,639	1,417		1,721	3,100	-4,599
Pontiac & Renfrew (23).....	4.25								

(Continued on page 243)

THE "DETROIT" CAR DOOR



This is positively the only door that answers
all requirements



The track forms a weather-proof door hood.

Hanger cannot be knocked off by being side scraped.

Tread of track and hangers protected from the weather.

Requires no tin or galvanized iron or other fixtures between top of door and bottom of track to make door weather-proof.

Runway of track inclined slightly downward, producing friction, making door always hang close to car and always in position.

It is stronger than the combined strength of all other doors—therefore, the cheapest at any price.

Let us send you full particulars

F. H. Hopkins & Co

SUCCESSORS LATE
JAMES COOPER

Montreal

Steam Railway Statistics for the Year Ended June 30, 1908—(Continued from page 241)

Name of Railway	Mileage	Passenger Earnings	Freight Earnings	Gross Earnings	Maintenance of Way and Structures	Maintenance of Equipment	Conducting Transportation	General Expenses	Net Earnings
Princeton Branch (16)	5.10	\$ 8,946	\$ 16,139	\$ 25,086	\$ 3,380	\$ 1,336	\$ 6,388	\$ 658	\$ 13,321
Quebec Bridge & Ry. Co. (23)									
Quebec Central	222.00	348,767	755,537	1,110,724	186,064	133,248	397,671	70,309	323,431
Quebec & Lake St. John (5)	246.50	226,360	406,100	656,514	91,930	75,151	282,427	39,799	167,206
Quebec Ry., Lt. & Power Co. (20)	26.00	152,929	44,046	202,345	23,709	18,416	83,580	23,771	52,867
Quebec, Montreal & Southern (9)	143.75	111,984	176,128	317,519	85,500	42,293	151,923	14,180	23,620
Red Mountain	9.59	5,320	26,270	34,329	8,649	5,269	21,838	cr. 1,832	404
Rutland & Noyan (19)	3.39	7,450	11,693	19,144	1,688	1,774	6,113	782	8,785
Salisbury & Harvey	50.00	11,807	20,800	32,787	27,366	4,572	14,091	1,758	-15,001
Schomberg & Aurora	14.40	4,309	4,628	8,937	4,308	929	8,155	328	-4,784
Stanstead, Shef'd & Chambly (11)	43.00	31,628	43,311	75,696	21,410	10,847	41,785	1,900	-247
St. Clair Tunnel (11)	2.25	65,430	239,377	304,824	15,733	18,612	106,075	71	164,331
St. Lawrence & Adirondack (19)	46.12	177,465	235,421	413,357	49,312	27,494	189,411	2,242	144,896
Sydney & Louisburg	54.30	20,127	398,493	418,692	67,705	120,681	172,483	45,016	12,803
St. Louis & Richibucto (14)	7.00								
Temiscouata	113.00	65,607	141,475	210,779	43,806	26,518	64,977	17,620	57,856
Temiskaming & Northern Ont.	209.40	371,779	415,582	805,320	125,150	108,008	448,558	28,418	95,121
Thousand Islands (4)	6.33	11,474	20,175	34,073	5,698	3,142	16,446	3,654	5,132
Toronto, Hamilton & Buffalo (21)	83.67	265,699	549,190	855,090	182,074	69,145	377,010	40,113	186,744
Vancouver Copper Co. (23)	12.00								
Vancouver, Victoria & East. (12)	126.22	87,995	287,196	376,784	79,675	55,422	186,234	12,345	43,106
Victoria & Sidney (12)	16.26	18,849	20,856	40,635	10,449	5,626	16,028	3,546	4,985
Victoria Ter. Ry. & Ferry Co. (12)	1.14	1,862	1,756	14,617	786	423	20,933	266	-7,793
Wabash (22)		752,989	1,705,069	2,458,058	197,803	302,851	1,604,387	73,687	-279,328
Wellington Colliery Co.	10.75	3,180	34,662	37,842	11,349	13,898	12,054		540
Ladysmith Extension	9.94		57,709	57,709	9,775	17,582	30,352		
York & Carleton	10.50	1,292	3,350	4,642	1,300	137	2,756	45	404
Totals	22,966.43	46,854,158	94,154,522	146,918,313	20,778,609	20,273,625	62,486,270	3,765,636	36,614,171

Notes to Steam Railway Statistics.

(1) The Alberta Railway and Irrigation Co. has trackage rights over 1.60 miles of the C.P.R.

(2) The Algoma Central and Hudson Bay Ry., and the Manitoulin and North Shore Ry., are owned by the Lake Superior Corporation. The latter railway has 1.38 miles of second track.

(3) The Atlantic, Quebec and Western Ry. has parliamentary power to take over the Atlantic and Lake Superior Ry., but the amalgamation has not been completed.

(4) The Bay of Quinte Ry. operates 19 miles under trackage rights. The Thousand Islands Ry. is owned by the same interests.

(5) Mackenzie, Mann & Co. (Ltd.) interests own or control and operate the following railways: Canadian Northern Ry.; Canadian Northern Ontario Ry.; Canadian Northern Quebec Ry.; Edmonton, Yukon and Pacific Ry.; Halifax and Southwestern Ry.; Inverness Ry. and Coal Co.; Quebec and Lake St. John Ry.; Schomberg and Aurora Ry. The Canadian Northern Ry. operates 349.44 miles under lease and 255.50 miles under contract.

The Canadian Northern Ontario Ry. has trackage rights over 4.00 miles, into the Union Station, Toronto. The Edmonton, Yukon and Pacific Ry. earnings, etc., are included in those of the C.N. Ry. The Halifax and Southwestern Ry. has trackage rights over 2.30 miles of other company's lines.

(6) The C.P.R. mileage includes 3,018 miles of lines of proprietary companies; 1,294.50 miles of lines operated under lease; 168.40 miles operated under contract, and it has trackage rights over 93.90 miles of lines of other companies. It has 209.90 miles of second track. The C.P.R. returns include the earnings and expenses of the Esquimalt C.P.R. include the Kingston and Pembroke Ry. and the Montreal and Atlantic Ry., which report separately. The C.P.R. owns, Rd., the New York Central and Hudson River Ry., the Toronto, Hamilton and Buffalo Ry. The Montreal and Atlantic Ry. mileage includes 60.50 miles of leased lines. It has 6.40 miles of second track.

(7) The Caraquez Ry. mileage includes 16.78 miles of lines operated under lease.

(8) The Central Ontario Ry. figures contain the returns of the operation of the Mar-mora Ry. and Mining Co., the line of which company it operates under lease.

(9) The Delaware and Hudson Co. owns and operates the Napierville Junction Ry., and the Quebec, Montreal and Southern Ry.

(10) The Dominion Atlantic Ry. mileage includes 32 miles of line operated under lease; it has also trackage rights over 14.51 miles of lines of other companies.

(11) The G.T.R. mileage includes 161.30 miles operated under lease. It also has trackage rights over 9.87 miles of other companies' lines. It has 697.16 miles of second track. The earnings and expenses of the Magnetawan River Ry. are included in those of the G.T.R. The G.T.R. owns and controls the Canada Atlantic Ry., St. Clair Tunnel, and the G.T. Pacific Ry., the latter of which had not commenced operations during the last financial year. It also controls the Central Vermont Ry., which operates the Montreal and Province Line; the Montreal and Vermont Junction Ry., and the Stanstead, Shefford and Chambly Ry. The Canada Atlantic Ry. mileage includes 59.85 miles of leased lines. It has 0.88 mile of second track.

(12) The Great Northern Ry. (U.S.) owns and operates the following lines in Canada: Brandon, Saskatchewan and Hudson Bay Ry.; Midland Ry. of Manitoba; Crow's Nest Southern Ry.; Kaslo and Slocan Ry.; Red Mountain Ry.; Nelson and Fort Sheppard Ry.; Vancouver, Victoria and Eastern Ry. and Navigation Co.; New Westminster Southern Ry.; Victoria Terminal Ry. and Ferry Co., and Victoria and Sidney Ry. The Bed-lington and Nelson Ry. mileage includes 8.67 miles operated under lease. The Nelson and Fort Sheppard Ry. mileage includes 4.70 miles of leased lines. The New Westminster Southern Ry. has trackage rights over 1.48 miles.

(13) The Intercolonial Ry. has trackage rights over 40.30 miles of other companies' lines. It has 16 miles of second track.

(14) The Kent Northern Ry. has as an extension, the St. Louis and Richibucto Ry., which line has not been operated regularly for some years. Whatever traffic there may have been over it is included in the K.N. Ry. earnings and expenses.

(15) The Lake Erie and Detroit River Ry. is controlled by the Pere Marquette Rd., and it operates under lease the London and Port Stanley Ry., which is practically owned by the city of London, Ont. The P.M. Rd. has trackage rights over 142.13 miles of other companies' lines, and the London and Port Stanley Ry. over 0.42 mile.

(16) The Maine Central Rd. owns and operates the Hereford Ry. (including the Dominion Lime Co.'s line), and the Princeton Branch of the Washington County Ry.

(17) The Massawippi Valley Ry. is operated by the Boston and Maine Rd.

(18) The Morrissey, Fernie and Michel Ry. mileage includes 5.03 miles of leased lines.

(19) The New York Central and Hudson River Rd. owns the Ottawa and New York Ry.; the St. Lawrence and Adirondack Ry., and controls the Toronto, Hamilton and Buffalo Ry., which it owns jointly with the C.P.R. It controls the Rutland Rd., which owns the Rutland and Noyan Rd., and also controls the Michigan Central Rd., which controls the Canada Southern Ry. This latter line has 242.98 miles of second track. The Ottawa and New York Ry. has trackage rights over 1.90 miles. The St. Lawrence and Adirondack Ry. mileage includes 13.30 miles of leased lines. It has also trackage rights over 8.92 miles of the lines of other companies.

(20) The Quebec Ry., Light and Power Co. mileage includes 2.00 miles operated under contract. It has six miles of second track.

(21) The Toronto, Hamilton and Buffalo Ry. has trackage rights over 4.36 miles of other companies' lines. It has 2.04 miles of second track. It is owned by the New York Central and Hudson River Rd., and the C.P.R.

(22) The Wabash Rd. does not own any track in Canada, but operates over G.T.R. tracks under lease.

(23) The following lines were either not operated during the financial year, or did not make returns: Albert Southern Ry.; Bessemer and Barry's Bay Ry.; Bruce Mines and Algoma Ry.; Hillcrest Ry., Coal and Coke Co.; International Ry. of New Brunswick; Pontiac and Renfrew Ry.; Quebec Bridge and Ry. Co.; and Vancouver Copper Co. (Lenora-Mount Sicker Ry.).

BARRETT JACKS

FOR RAILWAY AND CONTRACTORS

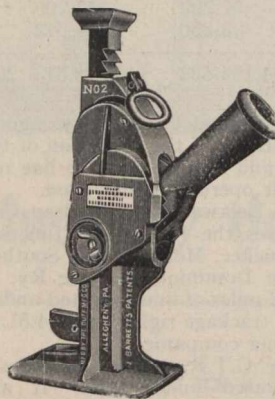
FOR HEAVY WORK. THE LEAST EXPENSIVE AND QUICKEST JACKS



TRIP JACK, 15 TON



TRIP JACKS for ordinary use. Capacities ranging from 10 to 15 tons. They are double-acting, that is, they lift the load on both the up and down movement of the lever. A light weight jack, positive in lifting, in holding and tripping.



10-TON AUTO LOWERING JACK

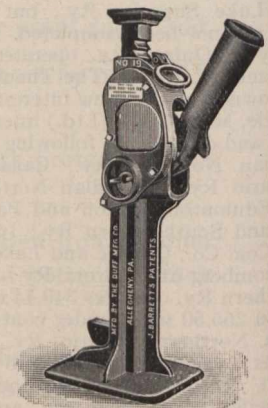


AUTOMATIC LOWERING JACKS

differ from the trip jacks by lowering the load instead of dropping it. Double-acting. Capacity, 10 - 20 tons.

LIGHT, STRONG, QUICK

For PUMPS — SCALES — VELOCIPEDES — TRACK TOOLS — HAND CARS — AND RAILWAY APPLIANCES OF ALL KINDS, APPLY TO



15-TON AUTO LOWERING JACK

CANADA'S LARGEST RAILWAY AND MILL SUPPLY HOUSE

The Canadian Fairbanks Company Ltd.
MONTREAL

TORONTO ST. JOHN, N.B. WINNIPEG CALGARY VANCOUVER

Judgment re Average Demurrage.

6264. Feb. 8.—In the matter of the complaint of the Wallaceburg Sugar Company, Ltd., of Wallaceburg, Ont., complaining that the effect of the operation of certain of the Canadian Car Service Rules is unfair and burdensome to large shippers; and applying for an order directing the adoption of what is known as the "Average Plan of Car Service." Upon the hearing of the complaint and counsel for the Grand Trunk, Canadian Pacific, and Michigan Central Railway Companies, the evidence adduced, and what was alleged—it is ordered that the application be, and it is hereby, dismissed.

D'Arcy Scott, Assistant Chief Commissioner, gave the following judgment:

The average demurrage plan, which the applicant seeks to have established, may be described as the giving of credit of free time by a railway company for use of a freight car to a consignee, when the amount of time he takes to unload the car is less than the amount of time allowed to do so by the Car Service Rules; which credit, or spare time, is set off against excess time for the use of other cars for which the railway company now charges the consignee demurrage. At the hearing of this case, it was urged by the applicant, that as the average system existed in Michigan where some of its competitors were, that it should be adopted in Canada, at least in so far as the sugar refiners were concerned. It was also stated that the Michigan refiners were able to purchase their raw material in Canada, but the Canadian refiners were denied the privilege of purchasing in Michigan; that the United States manufacturer was protected by a duty of \$1.77 per 100 lbs., while the protection granted the Canadian manufacturer was but 83c., and that, therefore, some special consideration should be granted the applicant. I cannot see how the fairness or the justice of the system upon which charges for car service in Canada are made is affected by these conditions which surround the sugar refiners of this country, or why, because such conditions exist, a radical change in the system should be made.

Mr. Gordon, General Manager of the Wallaceburg Company, told us that while they can regulate the number of cars of beets ordered per day from the farmers, they cannot control the number of cars per day which the railway companies may deliver, and that as a result they are sometimes "swamped." He said that, on an average, they unloaded 22 cars a day during the past year, but have unloaded as many as 90 cars in a day. About 60% of the beets consumed at the refinery are hauled by rail; the haulage of the other 40% being about equally divided between water transports and teams. That the company is capable of handling a fair number of cars within the time allotted by the Canadian Car Service Rules is quite apparent from the statement submitted with its application, dated Nov. 11, 1908. It shows that during a certain period 1,051 cars were unloaded, and that the average time per car was 31½ hours. Of this number of cars, 855 were not held longer than the 48 hours' free time allowed for unloading under the Car Service Rules. This proves that, under ordinary circumstances, 48 hours is sufficient time to be allowed for unloading a car of beets.

If special circumstances occur, for which the consignee is not responsible, which prevent him from unloading the cars delivered within the allowed free time, the Car Service Rules provide that demurrage shall not be charged for necessary additional time. For instance, allowance of extra time is made when cars are tendered to the consignee under conditions for which

the railway company is responsible in numbers beyond his ascertained reasonable ability to unload, or where the weather is inclement and unsuitable for unloading. These rules are interpreted, not by the railway company interested, but by the Canadian Car Service Bureau, whose Manager, Mr. Duval, stated, under oath, that the rules are interpreted most liberally to the consignee, and that the object of the Bureau is to secure the quick release of cars, rather than the collection of demurrage for the railways. This can be well understood even from the railway point of view, because while the car is held the company can only get \$1 per day for it, whereas the earning capacity of a freight car in service is about three times that amount.

The average system suggested, in my opinion, is not justifiable under the contractual relations, which exist between the consignor or consignee (as the case may be) and the railway company. The contract of carriage is, that the railway company will carry the goods to the point where they are to be delivered to the consignee, who in turn is to unload and release the car with all reasonable dispatch. For more certainty and uniformity of practice, rules have been adopted, which say in effect that "reasonable dispatch" for unloading shall not, in the case under consideration, exceed 48 hours. If a man exceeds this reasonable time in unloading, he is penalized by a charge of \$1 per day for the extra time he may hold the car. Such a provision is in the public interest, because it makes a consignee prompt in releasing cars consigned to him, and thus increases the supply of available cars for the shipping public. In my opinion, the average system might have the effect of making a consignee dilatory about unloading so long as he had free time to his credit, and if he had not free time to his credit the circumstances would be the same as they are under the present rules.

The Canadian Car Service Rules have only been in force since March 1, 1906, and it has taken some time to get the public to understand them. They may be defective in some details and require to be amended, but I think they are founded on sound principles, which should not be departed from. The uncontradicted evidence of Mr. Duval, of the Car Service Bureau, to the effect that cars are being released more quickly by consignees under these rules than was done formerly, proves that the desired result is being accomplished. The intention is that, under the Car Service Rules, each car shall be dealt with by itself and without reference to the movements of other cars. This insures equal treatment of the smaller shipper or consignee with the larger one. But, if the average plan were in force, I can well see that an injustice would be done the small dealer by giving an advantage or preference to the dealer who had a large number of cars to unload. Suppose a dealer with a large capacity for storage received 50 cars of merchandise, which under the rules he had two days to unload, and unloaded them all the first day, he would then have 50 days to his credit. The next day, he and a small competitor each received one car. The small competitor would have to unload in two days or be penalized, while the other could hold his car for 50 days' free time, which might prove to be of very material advantage. It may be said that this is an extreme case. It doubtless is, but it shows how the average demurrage plan might work out unless there were limitations upon it. Mr. Gordon suggested that the plan might be adopted for those in his line of business only. I do not think it would be advisable at this early date to start making exceptions to the general principles laid down in the car service order, which has not yet been in effect for

three years. These principles are, in my opinion, sound, and should not be interfered with. If the applicant cannot get redress under the rules from the Car Service Bureau, he may apply to this Board, and his complaint will be heard. I am, therefore, of opinion that this application should be dismissed.

April Birthdays.

Many happy returns of the day to—

J. A. Armstrong, Chief Train Dispatcher C.P.R., Ottawa, born at South Durham, Que., April 6, 1863.

F. J. Balch, Assistant General Freight Agent Ottawa and New York Ry., Ottawa, born at Massena, N.Y., April 15, 1870.

Adam Brown, formerly President Wellington, Grey and Bruce Ry. (now G.T.R.), Vice-President G.N.W. Telegraph Co., and Postmaster of Hamilton, born at Edinburgh, Scotland, April 3, 1826.

A. E. Edmonds, District Passenger Agent C.P.R., Detroit, Mich., born at Woodstock, Ont., April 8, 1866.

J. H. Flock, K.C., Honorary Counsel Canadian Ticket Agents' Association, London, Ont., born at Toronto, April 6, 1834.

B. W. Folger, Manager Niagara Navigation Co., Toronto, born at Kingston, Ont., April 8, 1872.

W. E. Fowler, Master Car Builder C.P.R., born at Weymouth, Dorsetshire, Eng., April 27, 1856.

F. A. Gascoigne, Superintendent Car Service, C.P.R. Eastern Lines, Montreal, born at Gosport, Hants, England, April, 1866.

J. P. Gay, Manager G.T. Despatch Fast Freight Line, Detroit, Mich., born at Hamilton, Ont., April 26, 1857.

B. C. Gesner, formerly Air Brake Inspector I.C.R., now travelling representative Galena Signal Oil Co., born at Cornwallis, N.S., April 23, 1859.

J. Murray Gibbon, Advertising Agent C.P.R., London, Eng., born at Udewella, Ceylon, April 12, 1875.

J. M. Horn, city freight agent Canadian Northern Ry., Winnipeg, born at Schoots, Lanarkshire, Scotland, April 12, 1880.

B. S. Jenkins, General Superintendent C.P.R. Telegraphs, Winnipeg, born April 8, 1859.

J. Kyle, Assistant Master Mechanic Canadian Northern Ry., Edmonton, Alta., born at Toronto, April 11, 1877.

J. B. Lambkin, Assistant General Passenger Agent Intercolonial Ry., Halifax, N.S., born at Quebec City, April 5, 1858.

J. S. Lawrence, ex-Superintendent C.P.R., Medicine Hat, Alta., born at Toronto, April 9, 1863.

D. McNicoll, Vice-President C.P.R., Montreal, born at Arbroath, Scotland, April 7, 1852.

P. Mooney, General Freight and Passenger Agent Halifax and Southwestern Ry., Halifax, N.S., born at St. Catherines, Que., April 19, 1871.

R. S. Richardson, Assistant Superintendent C.N.Q.R., Montreal, born at Napanee, Ont., April 9, 1865.

W. A. Ritchie, District Superintendent The Pullman Co., Montreal, born at Edinburgh, Scotland, April 13, 1854.

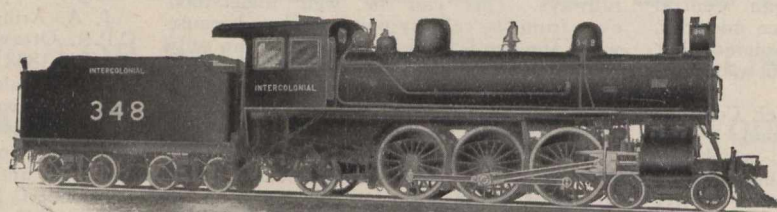
E. W. Smith, Superintendent Dining and Parlor Car Service, G.T.R., Toronto, born at North Bridge, Mass., April 21, 1869.

W. S. Tilston, Chief of Montreal Board of Trade Transportation Bureau, born at Manchester, Eng., April 14, 1877.

W. Wainwright, Fourth Vice-President G.T.R., Montreal, born at Manchester, Eng., April 30, 1840.

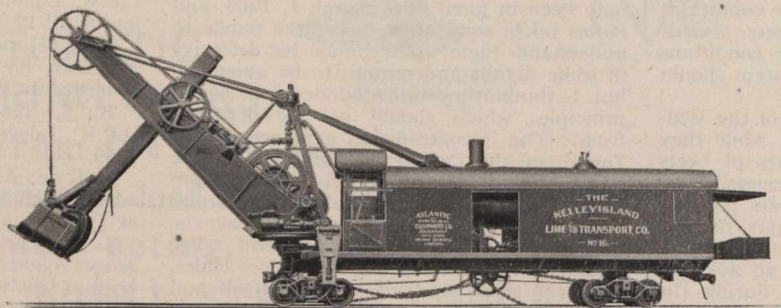
W. Woollatt, ex-General Superintendent Buffalo Division Pere Marquette Rd., Walkerville, Ont., born at Weedon, Hertfordshire, Eng., April 2, 1855.

LOCOMOTIVES



Pacific Type Passenger Locomotive built for the Intercolonial Railway.
 Total weight of engine, 194,500 pounds. Weight on driving wheels,
 132,000 pounds; diameter of driving wheels, 72 inches. Boiler
 pressure, 200 pounds. Maximum tractive power, 29,200 pounds.

STEAM SHOVELS



A high-class and powerful machine, absolutely reliable under all conditions of service.

MONTREAL LOCOMOTIVE WORKS, LTD.

BANK OF OTTAWA BUILDING, MONTREAL, CANADA.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alberta and Great Waterways Ry.—An act has been passed by the Alberta Legislature incorporating a company with this title to construct a number of lines in the province. By a resolution passed by the Legislature, Feb. 25, the Government is authorized to guarantee the company's bonds to the amount of \$20,000 a mile for the construction of the main line from Edmonton to Lac la Biche and Fort McMurray, 350 miles; and an additional amount of \$400,000 to provide terminals at Edmonton. W. R. Clarke, of Kansas City, Mo., is one of the principal promoters of this railway; and he is reported to have given assurances to the Legislature that work preparatory to actual construction will be gone on with at once, and that contracts will be let at an early date. The country through which the line will run is reported to be rich in minerals and the railway would give connection between Edmonton and the great waterways of the Mackenzie River basin, on to the Arctic ocean.

J. A. L. Waddell, C.E., Kansas City, Mo., in an interview in Vancouver, B.C., Mar. 3, said: "We have just secured a contract for undertaking all the engineering work of the A. and G. W. Ry. It is our intention to place survey parties in the field within 60 days, and this season will see construction well advanced from the Edmonton end. The entire line will be completed and in operation within three years. The charter had been secured by W. R. and D. O. Clarke, of Kansas City, Mo., and the capital will be supplied mainly from Europe. The route from Edmonton will run north by east for 125 miles, to a point west of Lac la Biche, and thence straight to Fort McMurray.

Calgary and Knee Hill Ry.—An act has been passed by the Alberta Legislature extending the time within which this projected railway may be constructed. Starting from Calgary, it is proposed that the line shall proceed northeasterly for about 60 miles through the Carbon, Rosedale and Knee Hill districts. While the bill was going through committee, it was stated that no one interested in the line—surveyors, engineers or any one else—had been over the route since 1907, and that nothing whatever was being done towards construction.

Canada Central Ry.—The Ontario Legislature is being asked to pass an act extending the time for the commencement and completion of the company's authorized railways. Ryckman, Kerr and MacInnes, Toronto, are solicitors for the company.

Canadian, Liverpool and Western Ry.—The application to the Dominion Parliament for the incorporation of a company with this title met with considerable opposition before the Railway Committee of the House of Commons. There was general opposition to the granting of extensive rights over water powers, it being argued that the main object of the promoters was to secure control over these, and that the power to construct railways, and to operate lines of steamships was being sought in order to the more easily secure Dominion legislation. There was also a particular opposition on the ground that the powers asked for could be granted by the Quebec Legislature. After a lengthened discussion, some protective clauses were inserted by agreement, and the clause declaring the works to be for the general advantage of Canada was carried by 50 to 20. The bill was finally reported as amended. (Mar., pg. 171.)

Central Ry. of Canada.—Application is being made to the Dominion Parliament for an act extending the time within which this projected railway may be constructed; increasing its bonding powers; confirming agree-

ments with the Ottawa Valley Ry., the Ottawa River Ry., and the Montreal Bridge and Terminal Co.; authorizing the company to connect its line with railways on the south side of the River St. Lawrence by means of a tunnel and to provide terminal facilities in or near Montreal for the use of the company and other railway companies. H. W. Raphael, Montreal, is acting Secretary.

Crow's Nest and Northern Ry.—A press report states that the company will complete the first 12 miles of its line from Crow's Nest to Crown, B.C., during the current year. C. L. Butterfield, Spokane, Wash., is Chief Engineer.

Flathead Valley Ry.—The British Columbia Legislature has passed an act incorporating a company with this title for the purpose of constructing a railway from Corbin on the Eastern British Columbia Ry., following the east fork of the south fork of the Michel Creek, southerly to the summit between that creek and a tributary of the Flathead River; thence to the Flathead River, and along the valley of that river, on to the International boundary, a distance of about 40 miles. The company is given all the usual powers; its head office is declared to be at Cranbrook; its capital is fixed at \$2,000,000, and it is given authority to issue bonds for \$35,000 per mile constructed. The provisional directors are: D. C. Corbin, A. J. Devlin and J. A. Harvey.

Goat River Water Power and Light Co.—Application is being made to the British Columbia Legislature to incorporate a company with this title for the purpose, among other things, of constructing standard or narrow gauge railways, to be operated by steam or electricity, within a radius of 10 miles of Goat River canyon, Kootenay district, and to connect with the C.P.R. line from Creston to Kootenay Landing. The company is asking for all the usual powers. The provisional directors are: E. V. Bodwell, J. H. Lawson, jr., and H. G. Lawson, Victoria.

Graham Island Ry.—The Railway Committee of the B.C. Legislature has reported in favor of a bill to incorporate a company with this title for the purpose of constructing a railway from near Lena Island, Skidegate Inlet, Queen Charlotte Islands, following the valley of the Houna River, northerly to Camp Robertson, thence to Camp Wilson, and on to or near Shields Island on Rennel Sound; and from any point on such railway to Massett Inlet. The company may make arrangements for various purposes with other companies; its capital stock is fixed at \$1,000,000, and it may issue bonds for \$30,000 a mile. The company is also given power to promote the incorporation of any company for any purpose which may seem directly or indirectly calculated to benefit it. The provisional directors are: P. D. Hillis, E. W. Tracksell, L. L. Butler and Z. M. Hamilton, of Victoria.

Halifax and Eastern Ry.—Replying to questions in the Nova Scotia Legislature, Mar. 11, the Premier said the Government had not had any negotiations with the Canadian Northern Ry. nor with other parties with reference to the construction of a railway between Halifax or Dartmouth, and any point on the Intercolonial Ry. within Halifax County, northeasterly in the direction of Country Harbour, Guysboro or Canso. The Government had not received from the Acadia Coal Co., nor from any persons who were jointly interested with the Government in the surveys over the route, any part of the \$34,478.65 which the special survey made in 1906 cost. The Government was demanding from the Acadia Coal Co. its amount due under the agreement.

Hardy Bay and Quatsino Ry.—Application is being made to the British Columbia Legislature for an act incorporating a company with this title for the purpose of constructing a railway from near Hardy Bay, westerly to Coal Harbor, Quatsino Sound, or nearby, with

power to construct branch lines of not more than 20 miles in a direct line from such railway. The capital stock of the company is fixed at \$250,000, and it asks power to issue bonds for \$35,000 a mile. It is applying for all the powers usually conferred upon railway companies. The provisional directors are: Col. H. Appleton, F. Appleton, Victoria, B.C.; and F. J. Marshall, London, Eng.

Intercolonial Ry.—The supplementary estimates submitted to the House of Commons provide for the appropriation of \$2,500 for a 100-ton track scale at Aston Junction, and \$4,000 for a siding for passenger cars at Gibson Junction, N.S.

International Ry. of New Brunswick.—T. Malcolm, the general contractor for the construction of this line, stated at St. John, N.B., Mar. 10, that about 25 miles of grading had to be completed, and that it was proposed to put 1,500 men on the work as soon as spring opened.

Interprovincial Ry. Bridge Co. of N.B.—In connection with the project to construct a bridge over the Restigouche River near Campbellton, N.B., on the New Brunswick-Quebec boundary, T. Malcolm, the general contractor, said in St. John, N.B., Mar. 10, the bridge will connect up the International Ry. of New Brunswick with the Atlantic, Quebec and Western Ry. (the Atlantic and Lake Superior Ry. section). The connection thus established would enable the whole of the Chaleur Bay district to have a direct route for its fish and other products with the New England markets.

Kettle Valley Lines.—The Kettle River Valley Ry. is applying to the Dominion Parliament for an act extending the time within which it may construct the lines of railway already authorized to be constructed. E. C. Myres, Toronto, is Secretary of the company.

Kootenay and Alberta Ry.—In connection with the application to the British Columbia Legislature for the passing of an act incorporating a company with this title, the Railway Committee reported: "The public interest does not require that at this present session the preamble should be held to be proved." The Legislature adopted this recommendation and the bill has been withdrawn. The application for the charter was made by J. B. Ferguson, J. H. Senkler, K.C., and E. Bloomfield, Vancouver, B.C. (Mar., pg. 173.)

Lacombe and Blind Man's Valley Ry.—The Alberta Legislature has passed an act incorporating a company with this title, with authority to construct a railway from Lacombe, through Blind Man's Valley.

Lake Superior and Long Lake Ry. and Transportation Co.—Application is being made to the Ontario Legislature for an act incorporating a company with this title for the purpose of constructing a railway from near Black's Siding on the C.P.R., near the Black River, Thunder Bay district, northerly to the southwest angle of Owl Lake; from the northeast angle of Owl Lake to the southeast angle of Long Lake, and from the northeast angle of Long Lake to the National Transcontinental Ry., with power to operate car ferries on Owl Lake and Long Lake in connection with the sections of the railway. It is also desired to have all the necessary powers to construct wharves, docks and terminals, and other powers necessary to the operation of the railway. R. A. Pringle, Cornwall, Ont., is solicitor for applicants.

Manitoulin and North Shore Ry.—It is said that at a conference between officers of the Lake Superior Corporation and the Ontario Government, Mar. 9, the question of the extension of this railway was discussed, and that as a result a definite plan will be submitted to the Government by the company.

McGillivray Coal and Coke Co.—By an act passed by the Alberta Legislature, this company is given authority to construct a tramway to connect its coal mines with the C.P.R.

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Meadow Creek Ry.—The British Columbia Legislature has passed an act incorporating a company with this title, authorizing the construction of the following railways: (1) Commencing between mileposts 40 and 41 on British Columbia Southern Ry. near Yahk, southeasterly to Meadow Creek, and following the creek easterly and southerly to the International boundary, about 10 miles; (2) From the British Columbia Southern Ry., about 2.5 miles west of Cranbrook, southwesterly through lots 5249, 2310, 5801, 2311 and 6313, to the southwesterly end of Smith's Lake, thence northwesterly to Perry Creek, about eight miles; and (3) branch lines from either of the above not exceeding in any one case five miles in length. The company is given all the powers usually conferred on railways. The head offices are to be at Cranbrook, its capital is fixed at \$200,000, and it may issue bonds for \$10,000 a mile. The provisional directors are: M. B. King, J. H. King and B. A. Carter.

Montreal Bridge and Terminal Co.—Application is being made to the Dominion Parliament for an act extending the time for carrying out the company's undertaking, confirming agreements with other companies, increasing its bonding powers and share capital, changing the name of the company and authorizing it to connect its terminal stations in Montreal with railways on the south side of the River St. Lawrence by means of bridges or tunnels. C. A. Sara, 11 St. Sacrament St., Montreal, is Secretary of the company.

New Brunswick Docks and Terminal Co.—Application is being made to the New Brunswick Legislature for an act incorporating a company with this title for the purpose of constructing docks, dockyards, wharves, piers and terminals at Bathurst, Newcastle and such other port or ports on the Bay Chaleur and Miramichi River as may be selected for the purpose. The provisional directors are: G. E. and T. J. Drummond, E. McDougall, Montreal; W. F. C. Parsons, Londonderry, N.S.; J. J. Drummond, Midland, Ont.; W. M. MacLeod, R. W. Cooper, London, Eng. The company is being organized in the interests of the Canada Iron Corporation, which has ore mines in the vicinity of Bathurst. (Jan., pg. 17.)

The Niagara Peninsular Ry. Co., which was originally incorporated to construct a railway from Port Colborne and in the townships of Humberston and Wainfleet, is applying to the Ontario Legislature for an act authorizing it to extend its line northerly to St. Catharines. The capital stock is fixed at \$200,000, and the corresponding section of the act of 1907 is repealed. The provisions of the Ontario Railway Act are made to apply to the company, and the special provisions contained in secs. 9, 10 and 11 of the act of 1907 are repealed. (Mar., pg. 173.)

Northern New Brunswick and Seaboard Ry.—Application is being made to the New Brunswick Legislature by the Twin Tree Mines Ry. for an act changing the name of the company to the Northern New Brunswick and Seaboard Ry., and amending the company's previous acts, 4 Edward VII, chap. 88, and 8 Edward VII, chap. 85, by defining Alston Point on the north side of Carron Point, on the south side of the entrance to Bathurst harbor, as the terminus of the proposed railway, by increasing the capital to \$1,000,000, by increasing the amount of debentures which may be issued from \$250,000 to \$500,000, repayable in 30 instead of 20 years, and by repealing sec. 14 of the last-mentioned act. The foregoing changes are due to the fact that this charter will be used by the Canada Iron Corporation, Ltd., to connect its iron mine up the Nipisiguit River with Bathurst.

Owen Sound and Meaford Ry.—A deputation of residents along the route of this projected railway waited on the Ontario Govern-

ment Mar. 4, and asked Government assistance in the construction of the line. The estimated cost of the railway, including the bridge across the Sydenham River, is \$850,000, and the deputation stated that it was estimated the sale of \$750,000 of bonds would net \$675,000. In order to make the bonds the more readily saleable, the municipalities asked the Government to guarantee the interest. Owen Sound had agreed to become liable for \$100,000 of the bond issue. The Premier stated that the matter would receive every consideration, and some aid might possibly be given.

Pacific Coast Coal Mines (Ltd.)—The British Columbia Legislature has passed an act authorizing the company to construct a railway in the Cranberry and Cedar districts, from its coal mine to the coast, or to connect with some other line of railway communication; and also in any other parts of the districts named, from any coal mine which may be owned or operated by the company from time to time, to some convenient points of shipment, with power to construct branch lines from any point along the railway. The company is authorized to construct telegraph and telephone lines, and it is declared that upon the company filing with the Chief Commissioner of Lands a plan and profile of its proposed railway, now under construction from its mine in Cranberry District to Boat Harbor, the same shall be deemed to be a railway constructed under the authority of this act. It is further declared that nothing in the first three clauses shall render it obligatory on the company in the operation of any railway or railways constructed by it to engage in or carry on the business of common carriers. The Lieut.-Governor, however, may from time to time pass orders requiring the company to carry passengers and freight on any of its lines, in which case the company shall, as to such railway, carry passengers and freight as required by the provisions of the Railway Act.

Prince Edward Island Ry.—The Minister of Railways, replying to a question in the House of Commons recently, said eight tenders were received for the construction of the branch railway from Harmony to Elmira, in King's Co., P.E.I. The question of accepting either of them was under consideration. There had been expended out of the appropriation of \$31,000 voted last session for the construction of the line, \$3,077.91. It was the intention to proceed with the work.

The supplementary estimates submitted to the House of Commons provide for the following amounts: Further amount required for extension of wharf at Souris, \$23,000; land claims in connection with Montague branch, \$6,851.51; land claims in connection with Murray harbor branch, \$4,383.77; land claims in connection with the Vernon River branch, \$2,216.69.

Prince Edward Island Tunnel.—Speaking at the Empire Club, Toronto, recently, Rev. Father Burke stated that no system of navigation could be found strong enough to establish and maintain winter communication between Prince Edward Island and the mainland, and that the only thing which would ever meet the needs of the island was the tunnel which had been promised at the time the island province joined in Confederation. (Mar., pg. 175.)

Prince Rupert and Port Simpson Ry.—The Railway Committee of the British Columbia Legislature has reported in favor of the passing of an act incorporating a company with this title, having for its object the construction of a railway from Prince Rupert to Port Simpson, with branch lines not to exceed 10 miles in any one case. The company is given all the powers usually conferred upon railway companies; its head office is to be at Victoria; its capital stock is fixed at \$1,000,000, and it may issue bonds for \$35,000 a mile.

The provisional directors are: M. King and H. B. Robertson, of Victoria.

Quebec, Montreal and Southern Ry.—An announcement has been made by the Delaware and Hudson Co., which owns this railway, that it is expected to open the extension between Pierreville and St. Philomene by May 1. The ballasting on this mileage is being done by the company, and the bridge work is being pushed forward. The Beau-court and Gentilly bridges have been completed, and everything is ready for erecting the superstructure of the Nicolet bridge.

Salisbury and Albert Ry.—In connection with the passing of the bill asking for the incorporation of a company with the title of the Salisbury and Harvey Rd. Co., for the purpose of taking over the old Salisbury and Harvey Ry., the House of Commons objected to the use of the word "railroad" as part of the title on the ground that there might be some confusion as to its interpretation, as "railway" is the word used in all Canadian acts. As a result of the discussion it was finally decided to drop the name Salisbury and Harvey Rd., and to call the line the Salisbury and Albert Ry. The act gives the company all the rights, properties, privileges and franchises of the old company.

Sault Ste. Marie and St. Joseph Island Ry.—The Ontario Legislature is being asked to pass an act incorporating a company with this title to construct a railway from the C.P.R. near Sault Ste. Marie, to and through Campment D'Ours and St. Joseph Island, with authority to operate car ferries between the mainland and the islands. P. T. Rowland, Sault Ste. Marie, Ont., is solicitor for applicants.

The provisional directors named in the bill are: T. J. Foster, G. H. L. Armstrong, H. E. Bishop and P. T. Rowland. The head offices are to be at Sault Ste. Marie; the capital is fixed at \$500,000, and securities to the amount of \$40,000 a mile may be issued.

South East Kootenay Ry.—The British Columbia Legislature has granted an extension of three years within which this company may commence the construction of its projected railway, and expend 10% of the amount of its capital upon construction.

St. John River Valley.—Application is being made to the New Brunswick Legislature for an act to incorporate a company for the purpose of constructing a railway from St. John along the valley of the St. John River to Centreville, Grand Falls or Edmundston. At a meeting of the Woodstock, N.B., Board of Trade, Mar. 1, a resolution was passed appointing a committee to confer with committees from the Boards of Trade of St. John and Fredericton in the interests of the bill.

St. Maurice and Eastern Ry.—Application is being made to the Dominion Parliament for an act incorporating a company with this title with power to construct a railway from the National Transcontinental Ry. at St. Prosper, Champlain county, westerly to Shawinigan Falls, Que. Bisailon and Brosard, Montreal, are solicitors for applicants.

Temiskaming and Northern Ontario Ry.—The question of the extension of the branch of this line from Charlton, through Elk Lake to Gowganda, Ont., is still under the Government's consideration. Several petitions have been received from persons interested in the development of the district urging the immediate construction of the extension.

The Commissioners have given instructions for the clearing of portions of the surveyed route for the extension of the branch from Charlton to Gowganda. The object of this work is to keep winter communication with Gowganda open as long as possible.

Contracts have been awarded to the Forest City Paving and Construction Co., London, Ont., for the construction of a round-house, locomotive foreman's office, coal chute and trestle and for reinforced concrete arch cul-

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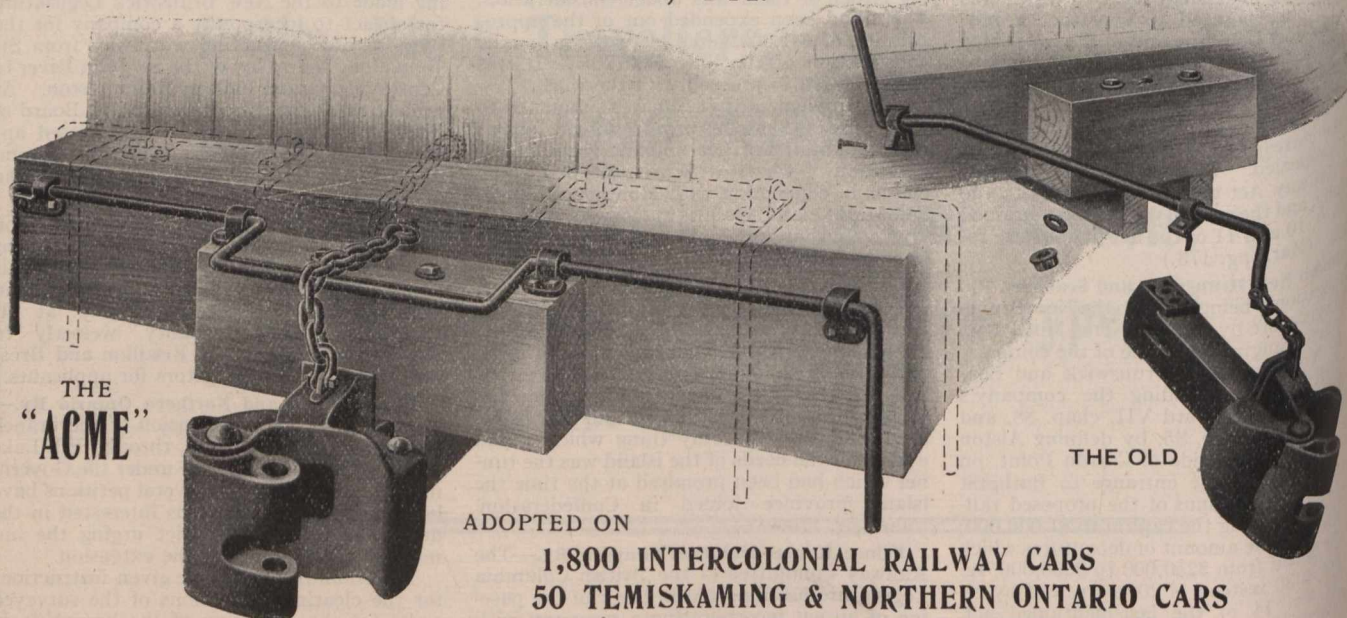
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verts at mileposts 218½, 221 and 222½. A contract has also been let for the construction of a machine shop and the installation of a heating system in the round-house, all at Cochrane, Ont. The work will be commenced immediately.

Tobique and Campbellton Ry.—Application is being made to the New Brunswick Legislature for an act amending 4th Edward VII, chap. 86, incorporating the company. J. W. Niles, Tobique, N.B., is Secretary of the company.

Twin Tree Mines Ry.—See Northern New Brunswick and Seaboard Ry.

Victoria and Barclay Sound Ry.—W. K. Houston, H. H. Jones, W. E. Laird and C. L. Betterton, Victoria, B.C., are named as provisional directors in the act passed by the B.C. Legislature, incorporating a company with this title. The company is authorized to construct a railway extending from Victoria by way of Otter Point and San Juan to Barclay Sound, near Sarita River, with branch lines not exceeding 12 miles in any one case. The company is given all the powers usually conferred upon railways. The head offices are to be at Victoria; its capital is fixed at \$1,500,000, and it may issue bonds to the amount of \$50,000 a mile of line constructed.

Winnipeg and Northern Ry.—The Manitoba Legislature is being asked to pass an act amending 5 and 6 Edward VII, chap. 122, incorporating this company. H. J. Macdonald, Winnipeg, is solicitor for the company.

A Railway to Hudson Bay.

Ino. Armstrong, Chief Engineer of the survey which has been going on since Oct. last, of a route for a railway to Hudson Bay, has presented a tentative report to the Minister of Railways. Two of the four parties sent out had completed their work by Feb. 28. Party 1, working from the Pas, Sask., completed its section of 127 miles Feb. 20; Party 3 completed its work Jan. 20, but had since been engaged in some additional work upon an optional route; Parties 2 and 4, it was expected, would complete their work by Mar. 15, but it was thought likely that these two parties might have to undertake some additional work during the summer. The result of the surveys, Mr. Armstrong says, has been more than satisfactory. The route mapped out does not present the difficulties that were anticipated, and for the greater part of the distance it will be possible to carry on construction cheaply and rapidly. Optional routes have been suggested. The total cost of the line, either to Fort Churchill or Port Nelson, together with the necessary terminals and harbor improvements at each place, Mr. Armstrong estimates at between \$17,000,000 and \$18,000,000. The Fort Churchill route, he says, would cost \$11,608,000 for the railway and about \$6,000,000 for harbor and terminal works; the length of the line to be constructed would be 465 miles. The distance to Port Nelson is put at 397 miles, and the cost of the railway is estimated at \$8,677,000, but the terminal and harbor works necessary would be much more costly than at Fort Churchill. On the whole, Mr. Armstrong favors further examination of Port Nelson Bay is made. The estimates for the construction of the line are based on the requirements of a route to handle the traffic for from seven to ten years, a period long enough to test the usefulness of the route. Sixty-pound rails and wooden trestles and culverts would be used.

With regard to the Nelson River, Mr. Armstrong states that from information obtainable it would seem that by canalizing some portions it would be possible for ocean-going vessels to enter Lake Winnipeg from Hudson

Bay. From Lake Winnipeg a channel of 33 ft. already exists to the south end of the lake, and thence the canal might be extended via the Red River to Winnipeg. The Minister of Railways, referring to the matter in the House of Commons Mar. 6, said the idea that Winnipeg might yet be an ocean port, was rather staggering, but it was too large a question to discuss at present.

The suggestion that Port Nelson, which is a land-locked harbor, should be the terminus of the projected railway, does not meet with favor in Winnipeg, where Fort Churchill has been always regarded as the natural terminus of any railway. It is stated that western capitalists had made considerable investments and improvements at Fort Churchill, in the expectation that a railway would ultimately reach there. In this connection, J. W. Tyrrell read a paper on "Hudson Bay as a National Asset," at the recent meeting of the Ontario Land Surveyors' Association. He has made several exploratory trips into Hudson Bay for the Dominion Government. In the course of his paper he said, after making complete surveys of the mouths of both the Churchill and the Nelson Rivers, he could not think that the mouth of the latter could, with any reasonable expense, ever become a desirable harbor. "We were obliged," he said, "in a small vessel, drawing a comparatively small amount of water, to lie about 30 miles off the shore, and even in trying to get into the mouth of the river in a small sailboat, we were stranded high and dry at least 10 miles from the mouth of the river." Fort Churchill was, he declared, beyond all question, the most advantageous port on the west coast of the bay. The harbor was an excellent one, possessing good anchorage in from four to nine fathoms of water at low tide; the area of this depth might be greatly extended at small cost. From records extending back a great number of years the average dates of the opening and closing of Fort Churchill harbor were June 18 and Nov. 18, making the open season exactly five months. There would be no difficulty in keeping the mouth of the harbor open during the early part of Nov., and with the help of icebreakers it could, if necessary, be kept open throughout the winter, as the strong tidal and river currents would very materially assist in clearing out the ice. So far as the construction of a railway was concerned, there were no unusual difficulties in the way. He had been over the route from Prince Albert to Fort Churchill, and had reported favorably on it. Dr. Otto Klotz, who was also present at the gathering, said, from personal observation, he was of opinion that York Factory, which was at the mouth of Nelson River, lacked the requirements of an available harbor.

The Minister of Railways, in reply to questions asked in the House of Commons recently, stated that the total amount appropriated on account of surveys for this projected railway was \$100,000, of which there had been expended, to Jan. 25, \$61,567.72. The number of men employed on surveys, since they were fully organized about Oct. 1, 1908, had averaged about 110, and the total number of days of employment of all men to Jan. 31, was 15,352, including Sundays. The first actual line was run by Party 1, at Frog River, about 35 miles from the Pas, on Sept. 14, 1908. No decision as to construction would be reached pending receipt of estimates and reports upon the completion of the survey.

The Algoma Steel Co. has sold 5,400 tons of steel rails to the New York Central and Hudson River Rd. for Aug. delivery.

D. Corrigan and F. McCallum, two G.T.R. conductors of long service, were found guilty at Toronto, Mar. 8, of conspiring with a number of other persons to defraud the company, by issuing false tickets for the Montreal-Toronto trains.

Railway Commissioners' Traffic Orders.

6299. Feb. 10.—In the matter of the complaint of Macdonnell and O'Brien, of Hervey Jct., Que., against rates charged by Canadian Northern Quebec Ry. and Quebec & Lake St. John Ry. on empty box cars from Hervey Jct., on the C.N.Q.R., to Latuque, on the Q. & L.S.J.R.; and applying for an order directing the said companies to file joint tariffs on through traffic originating in points on the C.N.Q.R. and destined to points on the Q. & L.S.J.R. Upon the reading of what was alleged on behalf of the railway companies, and the hearing of counsel for them, and upon the report of the Chief Traffic Officer of the Board—it is ordered that the maximum charge made by any railway company under the Board's jurisdiction in a through shipment of new empty cars over two or more lines of railway, be not more than \$5 a car. That the C.N.Q.R. at once prepare and submit to the Board a joint tariff for the shipment of new empty cars over the lines and portions of the lines of the C.N.Q. and the Q. & L.S.J. railway companies. That the Advisory Committee of the Canadian Freight Association submit without delay an amendment to the Canadian Classification providing for the lower minimum charge to apply on new empty cars moved over a joint route composed of two or more lines of railway.

COAL RATE FROM TABER, ALTA.

6319. Feb. 13.—In the matter of the complaint of W. B. Bashford, of Rosthern, Sask., alleging excessive freight rates of the C.N.R. on coal from Taber, Alta. Upon hearing this application and what was alleged on behalf of the railway company, it is ordered that the C.N.R. and the C.P.R. companies do forthwith cause to be filed with the Board a joint tariff on coal shipped from Taber, Alta., destined to Dalmeny, Sask., making provision for same freight rate that exists from Taber to Rosthern, Sask.

COAL RATE, HUNTINGDON, QUE., TO OTTAWA.

6387. Feb. 27.—In the matter of complaint of A. Baile, of Montreal, against an overcharge by the G.T.R. of 20c. per ton on a shipment of coal in car N.Y.C. 34181, from Huntingdon, Que., to Ottawa, Ont.; and applying for an order directing the railway company to refund to complainant the amount of the overcharge. Upon the reading of what was alleged in support of the application and on behalf of the railway company; and upon the report and recommendation of the Traffic Officer of the Board—it is ordered that the railway company be authorized to refund to the complainant the amount of the overcharge, viz., 20 cents a ton on the said carload of coal.

MOVABLE PARTITIONS FOR INDIVIDUAL SHIPMENTS.

6411. Feb. 19.—In the matter of the application of East Clover Bar branch of Alberta Farmers' Association, requiring railways to provide movable partitions in cars to enable individual farmers to make individual shipments. Upon hearing this application in the presence of a representative of applicants, and hearing what was alleged by him, it is ordered that the application be refused.

TRANSCONTINENTAL RATE CASE.

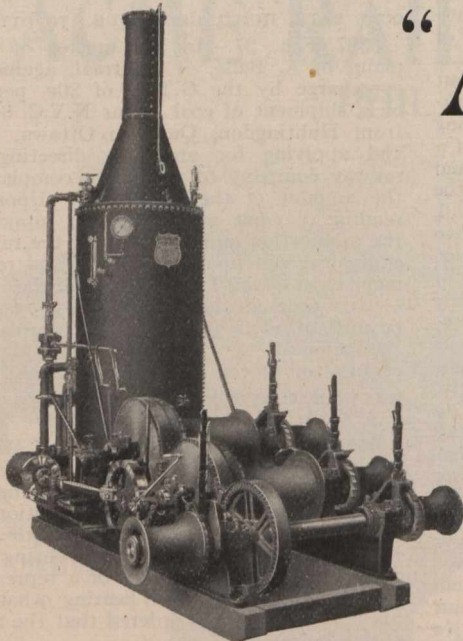
6543. Feb. 25.—In the matter of the application of the Vancouver Board of Trade for a refund under order dated Aug. 11, 1906, in what is known as the Transcontinental Rate Case, July 31, 1907: Upon hearing this application and hearing what was alleged by counsel for the Board of Trade, and it appearing that all complaints had been adjusted, including the claim of the Woodward Department Stores, referred to in letter, Feb. 23, 1909, it is ordered that the application be dismissed.

THE ELECTRIC HEADLIGHT

The following letter was received under date of May 8, 1908, from Mr. J. W. Cleary, Travelling Engineer Pyle-National Electric Headlight Co.:

"I learn from _____ the Master Mechanic here, that an engineer running between _____ and _____ discovered a broken rail with the Pyle-National Electric Headlight and made the stop without ditching his train. One or two pairs of wheels got off, but that was a small affair to what it would have been where a foot of the rail was broken off. Also an engineer running east of here found some cars shoved out on the main line. He saw them with the 'Electric' and made the stop without hitting them."

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Railway Finance, Meetings, etc.

Alberta Ry. and Irrigation Co.—Approximate net profits from all sources, exclusive of land sales, for Jan., \$30,348, against \$28,475 for Jan., 1908. Total net profits for 7 months ended Jan. 31, \$250,126. Approximate railway receipts for Feb., \$19,420, against \$12,914 for Feb., 1908.

The amount of tax paid to the Alberta Government by the company, under the Railway Corporation Tax Act for 1908, was \$23,281.53.

In the course of the examination of T. C. Bovill, Deputy Minister of Finance, before the Public Accounts Committee of the House of Commons, Mar. 19, he stated that among the assets of the Dominion there was carried at par, a loan of \$14,075 to this company. No interest had been paid since 1887, and no special effort had been made to collect it.

The Buffalo and Lake Huron Ry. Co.'s half-yearly meeting was held at Liverpool, Eng., recently. The report for 6 months ended Dec. 31, 1908, showed that after providing for the interest on the first and second mortgage bonds, the balance, including the amount brought forward from the previous half-year, was £14,711 13s. 11d., enabling a dividend of 5s. 3d. a share to be paid, and a balance of £927 0s. 8d. to be carried forward. The directors were re-elected for the current year as follows: Chairman, M. H. Maxwell, Liverpool; J. M. Synge, Westerham, Kent, and E. Ashton, Liverpool, Eng. The line is leased to the G.T.R. Co.

Canadian Northern Ry.—The Manitoba Legislature has before it a measure authorizing the Government to guarantee bonds for about 210 miles of the C.N.R., at the rate of \$13,000 a mile, and terminal bonds to the extent of \$3,000,000. In asking that the measure be read a second time, Mar. 6, the Premier stated that the reasons for increasing the guarantee from \$10,000 to \$13,000 a mile were so manifest that he need not cite them. With regard to the proposal to guarantee the \$3,000,000 of terminal bonds, he stated that the annual interest payable by the Dominion Government, through the Transcontinental Railway Commission, and the Grand Trunk Pacific Ry., for their interest in the Winnipeg terminal property, exactly equalled the amount of interest on the bonds to be guaranteed by the Provincial Government. In the course of the discussion reference was made to the fact that the Legislature had already authorized the guarantee of \$1,000,000 of bonds for terminal purposes, and it was understood that, in the event of the present bill passing, this amount would be consolidated in the \$3,000,000.

Canadian Northern Quebec Ry.—An action is being heard in the Superior Court at Montreal, in which a farmer named Lapointe, residing at Longue Pointe, is seeking to recover \$2,000 as damages from the Chateaugay and Northern Ry., one of the companies amalgamated as the C.N.Q. Ry. Co. The ground of the action is that while his property was expropriated for the purposes of an electric railway, the company afterwards used the line for trains run by steam, thus changing the character of the road, and causing more damage to the adjoining properties.

Canadian Pacific Ry.—Under the provisions of the Railway Corporation Tax Act, the Alberta Government received, during 1908, \$182,190 from the C.P.R.

Judgment has been reserved in the appeal of the C.P.R. against the assessment of the lands granted to the British Columbia Southern Ry. by the Provincial Government. The lands involved are 3,000,000 acres in extent and the taxes are about \$150,000 a year. The C.P.R. maintains that only a small part of the lands sold or offered for sale are assessable in any case.

Central Ontario Ry.—We were advised,

Mar. 16, that there was no truth in the press reports that the C.O.R. had been sold to the G.T.R., and also that there had been no negotiations between the respective companies.

Crow's Nest Coal Co.—At the annual meeting in Toronto, Mar. 12, G. G. S. Lindsey, President and General Manager; Hon. R. Jaffray, Vice-President; E. R. Wood, and Sir H. Pellatt, declined re-election, and directors for the current year were elected as follows: E. Rogers, Toronto; Col. Clough, New York; J. P. Graves, Spokane, Wash.; W. F. Robertson, Granby, Que.; E. C. Whitney, H. B. McGiverin, Ottawa; R. N. Young.

Cuba Ry.—The gross earnings of the seven months ended Jan. 31, were \$1,065,868, against \$1,053,125 for the corresponding period 1907-08, while the net receipts were \$198,647, against \$107,147.

Detroit River Tunnel.—The authorized capital stock of this company is \$30,000, all of which is in Michigan Central Rd. treasury. It is also authorized to issue \$15,000,000 of first mortgage bonds, which are to be guaranteed by the M.C.R. Of these bonds, an amount of \$10,000,000 is ready to be placed on the market.

Dominion Atlantic Ry.—Gross earnings for Jan., \$69,950, against \$70,426 for Jan., 1908.

Grand Trunk Pacific Ry.—Subscriptions were recently invited on the London, Eng., market for an issue of £1,000,000 of G.T.P. Ry. debentures. The issue price was 90 and the debentures are redeemable in 1936 at 105. The object of the issue is to provide additional rolling stock to be delivered during the current year for use on the Lake Superior branch, and on the Prairie Division.

A resolution has been submitted to the House of Commons by the Government, authorizing it to raise \$10,000,000 by means of a loan, and to advance it either in one sum or by instalments to the G.T. Pacific Ry., to aid it in completing the Prairie Division. The money is to be advanced by the Government upon the pledge of an issue of bonds bearing 4% interest, secured upon the company's railway, but subject to any prior lien or charge by a mortgage or deed of trust. The bonds are also to be guaranteed by the G.T.R. In default of payment of interest the Government is to have the right to be "deemed to be the holder of such bonds and entitled to the rights and remedies available to bondholders, arising according to the terms of such mortgage when default is made in payment of interest or principal of such bonds." The resolution provides for the repayment of the loan to the Government, with 4% interest, payable half-yearly within ten years.

Intercolonial Ry.—A resolution was passed Mar. 11, at a meeting of the New Brunswick Union of Municipalities, opposing the leasing of the Intercolonial Ry. by the Dominion Government, and favoring the discussion by municipal governing bodies of the question of urging the Government to establish a Public Utilities Board.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—The directors have authorized an issue of \$6,048,000 of new stock, equal to 24% of that outstanding, to be issued to existing stockholders at par, one-third of the new stock to be preferred, and two-thirds common.

In connection with the taking over of the Wisconsin Central Ry., the holders of the W.C.R. preferred stock, the amount of which outstanding is \$11,207,104, are depositing their scrip with a trust company, receiving in return therefor permanent receipts. It is stated that the C.P.R., as controlling the M., St. P. and S.S.M. Ry., has consented to allow that company to issue its own obligations calling for the payment of 4% annually to the holders of W.C.R. preferred stock, for the 99 years of the lease, instead of merely guaranteeing the dividends on that issue as proposed in the original plan.

The Wisconsin Central Ry. directors have passed a resolution authorizing the leasing of the line for 99 years to the M., St. P. and S.S.M. Ry. Co., and the directors of the latter company have ratified it. The shareholders of the W.C.R. will meet in Milwaukee, Wis., April 11, for the purpose of confirming the leasing of the line.

E. Pennington, heretofore Vice-President and General Manager, has been elected President, succeeding the late T. Lowry; he retains for the present his position as General Manager. The position of Vice-President has not been filled. H. Lowry has been elected a director to fill the vacancy on the board caused by his father's death.

With the new issue of stock the company will have \$31,248,000 of stock outstanding. Of this \$10,416,000 is 7% preferred stock, and \$20,822,000 common stock, on which the current rate of interest is 6%. The C.P.R. controls the company through the ownership of 51% of the stock, and will exercise its right to subscribe to the full extent of its holdings, and in accordance with its usual custom, will take up any of the stock to be issued which is not taken up by the shareholders.

Ontario Sault Ste. Marie Ry.—The annual meeting was held March 17, the business being of a purely formal character. The officers and directors for the current year are: President, C. M. Hays; Vice-President, E. J. Chamberlin; Secretary-Treasurer, F. Scott; other directors, W. Wainwright, M. M. Reynolds, R. S. Logan, W. H. Biggar, Jos. Hobson; General Auditor, W. H. Ardley.

Pere Marquette Rd.—A press report from Detroit, Mich., says it was semi-officially announced Mar. 5, that the P.M.R., had finally passed under the control of J. P. Morgan, and that in all probability the company's lines, franchises, etc., would be disposed of to the Baltimore and Ohio Rd. "The deal" one of the company's officials is quoted as saying, "simply awaits the outcome of the negotiations for a settlement of the financial difficulties of the Cincinnati, Hamilton and Dayton Rd."

A Detroit, Mich., dispatch, Mar. 17, says W. Cotter, President, states that there is no truth in the report of a pending sale of the P.M.R. to the Baltimore and Ohio Rd.

Quebec and Lake St. John Ry.—Gross earnings for Feb., \$37,071.19, against \$31,941.04 for Feb., 1908. Aggregate gross earnings for 2 months ended Feb. 28, \$83,320.24, against \$68,216.53 for same period 1908.

Quebec Central Ry.—Gross earnings for Jan., \$53,671.62; expenses, \$50,322.78; net earnings, \$3,348.84; against \$68,640.25, gross earnings; \$57,695.20 expenses; \$10,945.05, net earnings for Jan., 1908. Aggregate gross earnings for 7 months ended Jan. 31, \$607,348.13; expenses, \$428,247.47; net earnings, \$179,100.66, against \$638,006.77 gross earnings; \$443,587.23 expenses; \$194,419.54 net earnings for same period 1907-08.

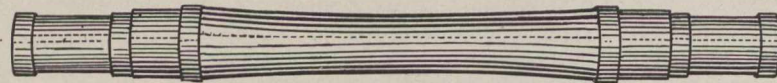
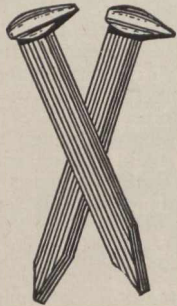
St. Mary's and Western Ontario Ry.—Following are the officers and directors for the current year: President, T. O. Robson; Vice-President, F. E. Butcher; Treasurer, H. L. Rice; other directors: D. Boins, A. Baird; Secretary, J. W. Graham; Chief Engineer, G. E. Hyde; Chairman of Advisory Board and executive, J. Chalmers; other members: J. W. Graham, H. L. Rice. The railway is leased to the C.P.R.

Tillsonburg, Lake Erie and Pacific Ry.—During the passage of this company's bill through the Railway Committee of the House of Commons recently, it was stated that the line had been acquired by the C.P.R. The line was originally operated as an independent company, but in 1904 the C.P.R. took it over under lease for 99 years.

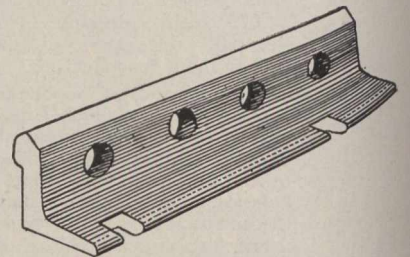
White Pass and Yukon Ry.—Gross earnings for seven months ended Jan. 31, \$885,066.

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C. P. R. Betterments, Construction, Etc.

Wharf at St. Andrews, N.B.—The C.P.R., as exercising the rights and franchises of the New Brunswick and Canada Ry., has deposited with the Department of Public Works, Ottawa, plans and description of the site of a proposed wharf to be constructed at St. Andrews, N.B. Approval of plans is asked for.

Plans have been submitted to the St. Andrews, N.B., council for the construction of a wharf there at a cost of \$20,000. It will be 290 ft. long, and it is proposed to start construction at once.

The New Brunswick Southern Ry. is now owned by the C.P.R.

McAdam-Aroostook Junction, N.B.—The programme for the season's work includes the carrying out of further works of improvement between McAdam and Aroostook Junction, N.B. During the past three years considerable work has been done in the way of reducing gradients, strengthening bridges and laying heavier tracks on this section of line. The work is to be continued during the current season, and it is expected that it will be so far completed that by the fall the company will be able to run much heavier trains over it than at present.

Windsor St. Station, Montreal.—Plans are reported to have been completed for the extension of this station. The new buildings will, it is said, cover the entire block of land bounded by Windsor, Osborne, Mountain and St. Antoine Streets. The total area of the new terminals will be about 400,000 sq. ft. The new head office buildings will have a total frontage of 275 ft. on St. Antoine St. Eight new tracks will run into the terminals, which will have nearly four times the accommodation of the present buildings.

Place Viger Extensions.—The C.P.R. has withdrawn its application to the Board of Railway Commissioners for power to expropriate certain lands between Notre Dame and Craig streets, in connection with its Place Viger terminal extension plans. The opposition to the carrying out of the company's proposal was on behalf of the Montreal Brewing Co., the ground taken being that its premises would be entirely surrounded by the railway yards and property, and there would be no means of getting in or out from it. D. McNicoll, Vice-President C.P.R., in reply to a question as to the withdrawal of the plans, is reported to have said that the company had secured all the land it required.

Montreal-Toronto Second Track.—A Montreal dispatch states that it has been officially announced that the construction of the second track as far as Smith's Falls, Ont., will be completed during the current season, and that a start will be made preparatory to the construction of a second track between Smith's Falls and Peterborough, a distance of 133 miles. The work on this section, which, it is said, will be done this season, will consist of reducing gradients and curvature, and strengthening bridges. The principal object of this work is said to be to have the main line in order to suit the gradients of the proposed Georgian Bay and Seaboard Ry., which will extend from Victoria Harbor to Peterborough, Ont. The section of this line between Victoria Harbor and Coldwater has been completed, and is being operated as a branch of the company's Toronto-Sudbury line.

Campbellford, Lake Ontario and Western Ry.—A meeting of representatives of the towns through which this projected railway would pass, was held at Cobourg, Ont., Mar. 24, for the purpose of urging upon the C.P.R. the desirability of the early construction of the line.

Connection with G.T.R. Near Toronto.—The C.P.R. has given notice of its intention

to apply to the Board of Railway Commissioners for authority to construct a branch line from its railway at milepost 10.15 in lot 8, con. 4, Etobicoke tp., York county, to the G.T.R. in lot 9, con. 1, Etobicoke tp., and Y connections.

Toronto Junction, Ont.—The C.P.R. has been having some negotiations with the West Toronto council with a view to the removal of the wooden bridge over the tracks at Weston road, which is in a bad state of repair.

St. Mary's and Western Ontario Ry.—Application is being made to the townships of Blanshard, Osborne and Exeter, to pass by-laws granting loans of \$10,000 each to the company in connection with its proposal to construct a line from St. Mary's to Exeter, Ont. Speaking at Exeter recently, J. W. Graham, Secretary of the company, said the proposed extension was estimated to cost \$25,000 a mile, and municipal aid to the extent of \$80,000 a mile had been obtained towards the construction of the 15 miles easterly from St. Mary's. The line would be commenced, he said, within six months after the municipalities had passed the by-laws, and it was expected that it would be in operation by 1911. Three surveys have been made for the proposed extension, but no decision has been announced as to which route will be adopted.

Fort William, Ont.—A delegation from Fort William, Ont., appeared before a committee of the Ontario Legislature, Mar. 13, to ask for approval of the agreement with the C.P.R. granting a further exemption from taxation, and the carrying out of certain works of improvement. The agreement fixes the tax at \$30,000 a year for 15 years.

Fort William to Winnipeg Second Track.—With the exception of a distance of about 18 miles, the second track between Fort William, Ont., and Winnipeg, Man., had been completed at the end of 1908. It is proposed to complete this 18 miles during the coming season.

Central Division Improvements.—During the season of construction of 1909, it is proposed to carry out the following works of betterment upon this division: To lay 60 miles of 85-lb. steel between Fort William and Winnipeg, and on the Estevan section; to do 100 miles of ballasting on the Souris and Estevan sections; to construct an overhead bridge at First St., Brandon; to do 30 miles of ballasting on the Yorkton section; to construct an extension to passing tracks and new tracks on the Last Mountain and Estevan sections.

Teulon Northerly.—During the current year it is proposed to extend the present line from its existing terminus two miles north of Komarno towards the Icelandic River, Man. The distance between these points is 26.5 miles, and it is hoped to complete 17 miles this season.

Brandon Round-House.—Tenders were received to Mar. 10 for the construction of a six-stall addition to the round-house at Brandon, Man.

Mowbray Southeasterly.—Track will be laid this season on the extension of the Mowbray branch, for 6.5 miles from Mowbray, Man.

Virden Northerly.—Among the new work to be done during the current year is the laying of 10 miles of track on the new branch from Virden, Man., on the Broadview section of the main line, northwesterly.

Lanigan to Prince Albert, Sask.—Plans have been filed at Prince Albert, Sask., by the C.P.R. for a line from Lanigan to Prince Albert, passing through Humboldt, the Hoodoo country, crossing the South Saskatchewan River at St. Louis, and entering Prince Albert from the east. General Man-

ager Bury is quoted as saying that as soon as the gap between Wynward and Lanigan is closed, the line from Lanigan to Prince Albert will be commenced.

Pheasant Hills Branch.—Tracklaying will be completed during the present year from Wilkie, Sask., the present terminus, 99.5 miles west of Saskatoon, to Hardisty, Alta., the present terminus of the Wetaskiwin branch, a distance of 131.7 miles.

Western Division Improvements.—The betterments to be undertaken on this division this year include the following: The provision of a gravity water supply at Regina, Sask., the water to be taken from Pilot Butte; the construction of a new hump yard at Moose Jaw, Sask.; construction of additional passing tracks on the Swift Current section; ballasting for 50 miles on the Portal section; ballasting 17.2 miles on the Lethbridge section and 100 miles on the Edmonton section; ballasting 30 miles on the Macleod branch; laying 100 miles of 85-lb. steel on the Edmonton section; 53 miles on the Macleod section, and three miles on the Cranbrook section; constructing extensions to and additional passing sidings, and a number of betterments on bridge works.

Regina, Sask., Spur Tracks.—A map has been submitted to the Regina city council, showing the route of a branch line with spur tracks which the company proposes to erect for warehouse accommodation in the city. The branch is to start near the Bulyea branch, run across the Eastern Annex and up Eighth Ave. to Broad St., with spurs into blocks 184, 185, 186 and 187. The branch and spurs are expected to be constructed as soon as weather permits.

Lacombe Branch.—During the current year it is proposed to extend this branch, which now terminates at Stettler, Alta., 35 miles easterly.

Weyburn Westerly.—A branch line will be constructed during the current year from Weyburn, Sask., on the Portal section, 20 miles west.

Cheadle-Alix.—It is proposed to start construction during the current year upon a branch line from Cheadle, on the Calgary section of the transcontinental line, 40 miles northerly.

Lethbridge, Alta., Shops.—We are advised that the press reports that the company proposed to erect shops for the Western Division at Lethbridge, Alta., and to employ 600 men there, is premature, and that nothing definite has been done with this end in view.

Lethbridge-Macleod Cutoff.—During the current season the construction on the steel bridges across the Belly and Old Man Rivers, on the Lethbridge-Macleod cutoff, on the Crow's Nest branch, will be continued.

Kipp Northerly.—Construction will be proceeded with during the current season on a branch line, starting from Kipp, on the Macleod section of the Crow's Nest Branch, to 28.5 miles north on the Little Bow River.

Crow's Nest Pass Branch.—The Privy Council has passed an order granting the C.P.R. 25.55/1000 acres of land in the s.w. quarter of sec. 29, tp. 9, range 22, west of the 4th principal meridian, for use as a right-of-way and station ground, at \$25 an acre, and recommends the selling by public auction of the balance of the quarter section at an upset price of \$25 an acre.

Kootenay Central Ry.—A press report states that the C.P.R. is not likely to award any contract at present for construction upon any part of this line. The despatch states that tenders were asked for during Feb. for the grading of 30 miles of line "from the connecting point on the Crow's Nest Pass branch between Cranbrook and Fernie, to north of Fort Steele, B.C.," and

N. CURRY, President
N. A. RHODES, Vice-President

CAPITAL, \$1,000,000

J. M. CURRY, Sec.-Treas.

RHODES, CURRY & CO.

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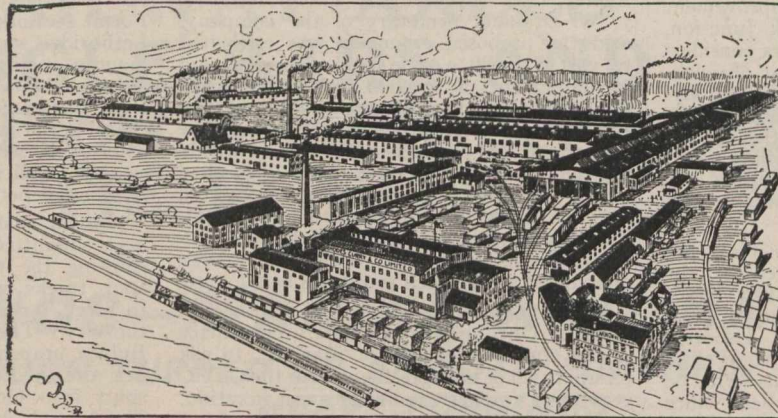
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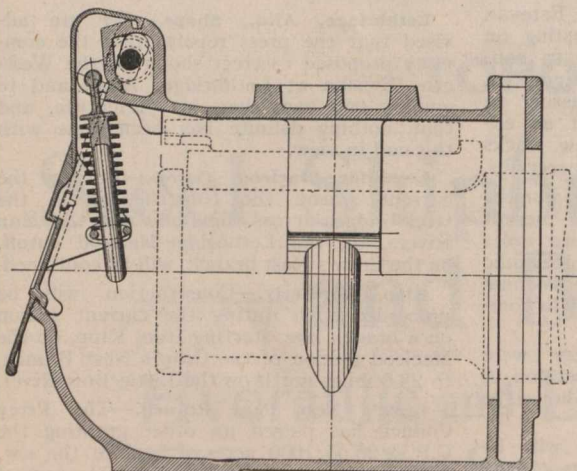
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- 2,500 Car Axles
- 500 Tons Castings
- 1,000 Tons Forgings
- 1,000 Tons Bar Iron and Steel

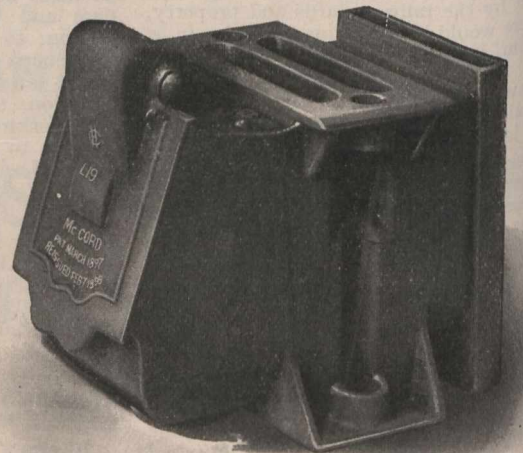
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it was expected by railway men that this work would be proceeded with early in the spring."

Pacific Division Improvements.—The betterments proposed to be carried out on this division during the current year include: Replacing of steel cantilever bridge at Cisco, with a heavier bridge of the same type; extensive replacement of wooden bridges with permanent structures, changes of line, additions to passing tracks; yard improvements at Kamloops, Mission Junction, Spence's Bridge, North Bend and Vancouver, B.C.; ballasting 16 miles on the Cascade section; erecting a 280-ft. steel arch on the Esquimalt and Nanaimo Ry.

Railway Rolling Stock Notes.

The Duluth, South Shore and Atlantic Ry. is reported to have ordered 400 freight cars.

The Crossen Car Mfg. Co., Cobourg, Ont., has delivered 43 flat cars to the J. D. McArthur Co., Winnipeg.

The T. & N.O. Ry. has ordered two 6-wheeled switching locomotives from the Canadian Locomotive Co., Kingston, Ont., for delivery during the summer.

The G.T. Pacific Ry. has ordered 10 colonist cars, 5 parlor cafe cars, 16 first-class coaches, 8 second-class coaches, 3 dining cars, and 8 sleeping cars, from the Canada Car Co., Montreal.

The Canada Car Co., Montreal, is building 46 Hart convertible ballast cars and one plow distributing car for the Hart-Otis Car Co., Montreal; and 4 Lidgerwood unloading cars and 25 flat cars for F. H. Hopkins & Co., Montreal.

The C.N.R., between Feb. 15 and Mar. 15, received the following additions to rolling stock: 3 consolidation locomotives, from the Canadian Locomotive Co., Kingston, Ont., and 12 cabooses from the Crossen Car Mfg. Co., Cobourg, Ont.

The C.P.R., between Feb. 12 and Mar. 14, received the following additions to rolling stock: 42 box cars, 8 first-class cars, 2 Pacific type locomotives, and 3 switching locomotives, from its Angus, Montreal, shops; 3 vans from its Farnham, Que., shops, and 291 steel frame box cars from the Dominion Car and Foundry Co., Montreal.

The C.P.R., between Feb. 12 and Mar. 14, placed orders for the following rolling stock: 86 box cars, 102 refrigerator cars, 500 stock cars, and 10 mixed traffic locomotives, type D10, at its Angus, Montreal, shops; 4 vans at its Farnham, Que., shops; 500 steel coal cars at the Dominion Car and Foundry Co., Montreal; and 2 Pacific type locomotives at the American Locomotive Co., Schenectady, N.Y.

The Hart-Otis Car Co., Montreal, has received orders for cars as follows: 20 Hart convertible all-wood ballast cars, 34 ft. long, 40 tons capacity, and one double plow distributing car, from E. F. and G. E. Fauquier, Ottawa, for N.T.R. contract work; 10 similar cars from the Quebec Contracting Co., Quebec, for N.T.R. contract work; 16 similar cars from the Willard Kitchen Co., Fredericton, N.B., for N.T.R. contract work; 18 all-steel Otis dumping gondola cars, 24 ft. long between couplings, 50 tons capacity, for handling broken stone and sand from the Bird's Hill Sand Co., Winnipeg; and 20 all-wood Otis dumping gondola cars, 1909 type, 36 ft. long, 40 tons capacity, from the Pacific Coast Coal Mines Ltd., Victoria, B.C.

The Minister of Railways stated in the House of Commons, Mar. 1, that the cost of construction of I.C.R. motor cars 225, 226 and 227 had been \$55,800. During 1907, one of the cars ran between St. John

and Hampton, N.B., and a second between Halifax and Windsor Junction, N.S., while the third was used as a spare car while the others were being worked into shape. More or less minor defects incidental to all new enterprises were encountered, but were being gradually remedied. During 1908, one of the cars was run on the River Ouelle branch, and gave good satisfaction. The revenue had not been worked out, but the expense of maintaining the three cars had been to that date \$4,669.11. One car was then running between Halifax and Windsor Junction, N.S., and the other two were in the shops for general repairs in order to be ready for the coming summer's business.

Following are chief particulars of the 25 mogul locomotives under construction for the G.T.P.R., by the Canadian Locomotive Co., Kingston, Ont., mentioned in our Feb. issue:

Weight on drivers.....	138,176 lbs.
" total.....	161,976 lbs.
Cylinders.....	20" by 26"
Drivers, diam.....	63"
Boiler, type.....	Extended wagon top.
" working pressure.....	200 lbs.
Heating surface, tubes.....	1,688 sq. ft.
" firebox.....	188 sq. ft.
" total.....	1,876 sq. ft.
Tubes, no. and diam.....	271-2"
" length.....	11' 11"
Grate area.....	33.43 sq. ft.
Capacity, coal.....	10 tons.
" water.....	7,000 U.S. gals.
Traction effort.....	28,063 lbs.
Brakes.....	Westinghouse.
Journal bearings.....	Canadian bronze.
Springs.....	Montreal Steel Works.
Steam heat equipment.....	Gold Safety Car Heating and Lighting Co.
Jacks.....	one 15-ton Norton, to each locomotive.

Great Northern Railway Lines in Canada.

Manitoba Great Northern Ry.—An act has been passed by the Manitoba Legislature, incorporating a company with this title, the provisional directors being: L. W. Hill, R. I. Farrington, Jas. Fisher, C. P. Wilson, and J. F. Fisher. The company is authorized to construct a single or double track railway from Winnipeg to Brandon, thence to Elkhorn, and on to the western boundary of the province; also a line from Morden northwesterly to Rathwell, and thence, still northwesterly, to the Winnipeg-Elkhorn line; together with such branch lines as may be necessary or convenient. The line may be constructed in sections, and the company may acquire plans and surveys now existing for these lines or for any portions of the same. It may also enter into agreements with other railway companies for any purpose, and it is authorized to acquire the existing constructed lines of the Midland Ry. Co. of Manitoba, viz.: A line from the International boundary at Gretna to Portage la Prairie; and a line from the International boundary in range 4, west of the principal meridian, to Morden. The company's capital stock is fixed at \$2,500,000,

and bonds to the amount of \$20,000 a mile of line constructed may be issued. The company is also authorized to carry on an express business, to construct telegraph and telephone lines, and to maintain bridges.

Midland Ry. Co. of Manitoba.—The Manitoba Legislature has passed an act authorizing this company to construct, in connection with its authorized line between Winnipeg and the International boundary, a branch running from such line on the east side of the Red River, in tp. 1, range 2 or 3 east, to the west side of the Red River in tp. 1, range 2, east of the principal meridian. The company is also authorized to sell the lines already constructed under its charter to the Manitoba Great Northern Ry.

Vancouver, Victoria and Eastern Ry. and Navigation Co.—The Board of Railway Commissioners has authorized the company to open for traffic the portions of its line from Huntingdon to Cloverdale; from Olivers to the International boundary near Blaine, Wash.; and from Olivers to the Fraser River bridge, at New Westminster, B.C. These pieces of line connect up the company's lines south of the Fraser River, with the bridge over the river, and so with the line from New Westminster to Vancouver, constructed by the Vancouver, Westminster and Yukon Ry., which the V. V. and E. Ry. and N. Co. acquired.

Press reports state that the company will ask for tenders at an early date for the laying out of its terminals on Burrard Inlet, Vancouver. The work, it is expected, will extend over about three years. A Stewart, Assistant Chief Engineer, and J. S. Napp, Right-of-Way Agent, have been in Vancouver for some time in connection with the work. (Mar., pg. 195.)

The Dominion Government is asking Parliament for authority in its Government Harbors and Piers Act, to lease breakwaters, wharves and piers under the control of the Department of Marine and Fisheries to municipal corporations, railways or shipping companies. The Department of Public Works has power to lease wharves, etc., coming under its jurisdiction, and the present bill extends that power to the Department of Marine.

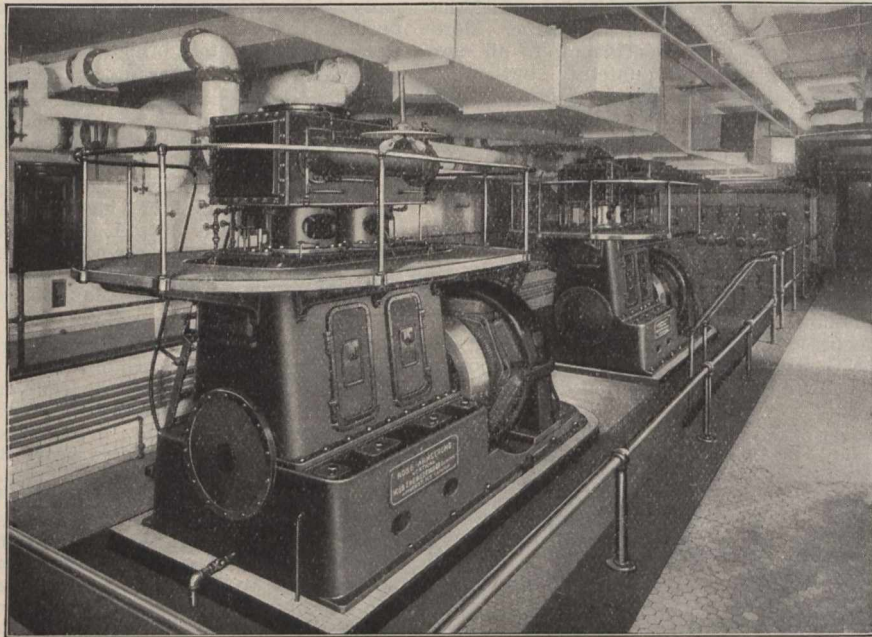
The public accounts for Ontario for the year 1908 show that the present value of the certificates issued by the Treasurer for aid to railways is \$2,511,670.53. The interest paid on the certificates is 1 3/4 % every six months, and the total amount will be paid off by 1948. The total amount which the province will have to pay to clear the principal and interest is \$4,086,288.74. Against the present indebtedness of the province, which amounts to \$12,733,340, the Temiskaming and Northern Ontario Ry. is placed as an asset. The amount expended on the railway to Dec. 31, 1908, was \$13,982,764.55.

Locomotive Fuel Consumption.

The cost of fuel consumed by locomotives on the various Canadian railways during the year ended June 30, 1908, was \$17,718,486.24. In volume the aggregate consumption was 5,970,791 tons, against 5,608,954 in 1906-07. Following are details, two cords of wood being calculated as one ton of fuel:

Locomotive.	COAL.		WOOD.		Total Tons Fuel.	Miles run.	Fuel consumed per 100 miles.
	Anthracite.	Bituminous.	Hard.	Soft.			
	Tons.	Tons.	Cords.	Cords.			Tons.
Freight.....	1,404	3,306,499	176	23,391	3,318,283	42,291,082	7.84
Passenger.....	2,684	1,440,057	216	10,699	1,446,919	30,504,171	4.74
Mixed.....	334	346,463	282	3,267	350,921	7,410,971	4.75
Switching.....	415	595,318	2	4,879	598,092	14,941,179	4.00
Construction.....		255,185	1	1,831	256,576	5,474,838	4.69
Total.....	4,837	5,943,522	677	44,067	5,970,791	100,622,241	

The average cost of fuel was \$3.19 a ton. The consumption per 100 miles was slightly larger for all classes of locomotives than in 1906-07, the figures for 1906-07 being: Freight, 7.29 tons; passenger, 4.57 tons; mixed, 4.05 tons; switching, 3.76 tons; construction, 4.54 tons.



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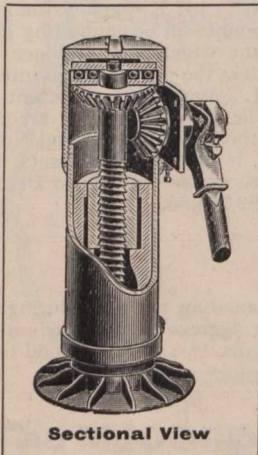
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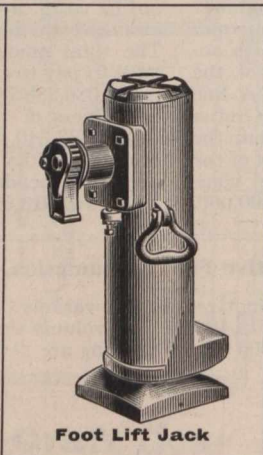
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Bell Telephone Building, MONTREAL, Watson Jack, Manager.
Union Bank Building, WINNIPEG, J. F. Porter, Manager.

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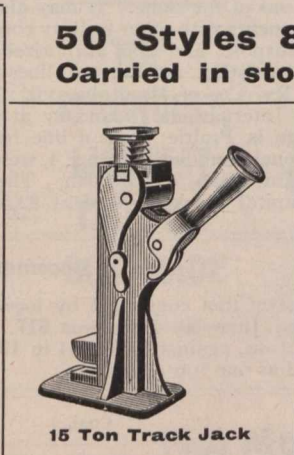
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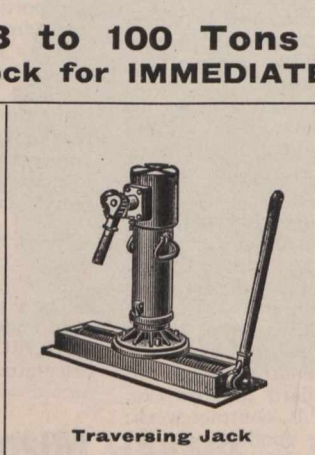
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Orders by the Railway Commissioners.

Beginning with June, 1904, we have published in each issue summaries of orders passed by the Board of Railway Commissioners, so that subscribers who have filed our paper have a continuous record of the Board's proceedings. No other paper has done this. Complete copies of any of the orders summarized below, or of others previously passed by the Commission, will be furnished for 25 cents, cash to accompany requests for copies in all cases.

6292. Feb. 17.—Directing G.T.R. to protect Foxmead crossing, near Atherly, Ont., by electric bell.

6293. Feb. 18.—Directing W.E. & L.S.R. Ry. to equip all its cars with air brakes within 3 months from date of order.

6294. Feb. 26.—Authorizing Bell Telephone Co. to place its wires across the M.C.R. tracks in Crowland tp., Ont.

6295. Feb. 19.—Authorizing Water Commissioners of Guelph, Ont., to lay a main under C.P.R. in Guelph, and a water conduit across G.T.R. in Puslinch tp., Ont.

6296. Feb. 19.—Authorizing city of Vernon, B.C., to lay sewer pipes under C.P.R.

6297. Feb. 19.—Authorizing C. H. Winslow, Millbrook, Ont., to lay water pipe under G.T.R. track.

6298. Feb. 19.—Authorizing C.P.R. to construct a spur to Pintsch Compressing Co.'s premises, North Bay, Ont.

6299. Feb. 10.—Fixing maximum charge to be made by shipments of new empty cars over two or more railways. See pg. 251.

6300. Feb. 19.—Authorizing Robitaille Eureka Distillery to place electric wire under Quebec Ry., Light and Power Co.'s tracks near Beauport station, Que.

6301. Feb. 15.—Authorizing C.N.Q. Ry. to ballast its Montford branch; make suitable ditches along its right-of-way; remove all brush; replace the rail now in use with a heavier rail; provide a platform and shelter for passengers at Chapleau; supply regular passenger trains with baggage cars; appoint a permanent agent at Montford; and certain other requirements.

6302. Feb. 20.—Authorizing Scarboro Independent Telephone Co. to place its wires across C.P.R. in Scarboro tp., Ont.

6303. Feb. 20.—Authorizing Bell Telephone Co. to place wires across G.T.R. at Boucher St., Meaford, Ont.

6304. Feb. 20.—Authorizing Alberta Government Telephones to place wires across C.P.R. at Standard Soap Works, Calgary, Alta.

6305. Feb. 20.—Authorizing Alberta Government Telephones to place wires across C.P.R. tracks near Strathcona, Alta.

6306. Feb. 13.—Dismissing application of Guernsey, Sask., Board of Trade for order directing C.P.R. to give to Guernsey a lower rate on grain to the terminal elevators at Fort William than at present.

6307. Feb. 13.—Dismissing application of Saskatchewan Grain Growers' Association alleging excessive rates on lumber and coal shipments.

6308. Feb. 13.—Dismissing complaint of Elstow, Sask., Board of Trade, alleging delay on part of railway companies in transportation and delivery of coal shipments.

6309. Feb. 13.—Dismissing complaint of W. O. Miller, Tessier, Sask., alleging inability to secure a settlement from the C.N. Ry. for property taken for railway purposes.

6310. Feb. 13.—Authorizing G.T.P. Ry. to construct, within 15 days, a temporary crossing over tracks at Zelma, Sask., and dismissing petition for a station and freight room accommodation.

6311. Feb. 13.—Dismissing petition of residents of Rush Lake, Sask., requesting C.P.R. to construct a highway over its tracks there.

6312. Feb. 13.—Dismissing complaint of C. L. Mintminick of Churchbridge, Sask., that G.T.P. Ry. has failed to compensate him for right-of-way through his property.

6313. Feb. 13.—Dismissing petition of farmers and grain growers in Saskatoon County, Sask., for loading platform at a siding of C.N.R. Goose Lake branch on sec. 8-36-6, w. 3.

6314. Feb. 13.—Dismissing complaint of Strassburg, Sask., Board of Trade respecting C.P.R. freight rates on lumber shipments.

6315. Feb. 13.—Dismissing complaint of J. R. Standen and others of Osage, Sask., alleging that C.P.R. proposes closing its station there, and asking that the same be continued.

6316. Feb. 13.—Dismissing complaint of Rosaleigh School District 820 of Frobisher, Sask., of failure of C.P.R. to provide station agent or operator at Hirsch, Sask.

6317. Feb. 13.—Dismissing application of C.P.R. for authority to construct branch line in Regina, Sask., from northerly boundary of its station grounds between Broad and Rose Sts. across Dewdney St. and 8th Avenue.

6318. Feb. 13.—Dismissing complaint of J. L. Sundabe, Hitchcock, Sask., that C.P.R. has refused to put in a crossing over road allowance in sec. 22, tp. 3, r. 9, w. 2 m.

6319. Feb. 13.—Requiring C.P.R. and C.N.R. to file with Board joint tariff on coal shipped from Taber, Alta., destined to Dalmeny, Sask., making provision for same rate that exists from Taber to Rosthern, Sask.

6320. Feb. 13.—Authorizing C.P.R. Co. to move the existing westerly connection of spur across blocks 7 and 11 in Estevan township, Sask., and re-establish the easterly connection, thereby reinstating the location and length of spur as the same existed prior to said change made by the Co., and rescinding order of May 6, 1908.

6321. Feb. 13.—Ordering C.N. Ry. to erect and maintain a third-class station at Condie, Sask., and place an agent in charge on or before June 1.

6322. Feb. 13.—Ordering C.N. Ry. to erect fences on both sides of its right-of-way where the same crosses the lands of H. K. Miller, of Lumsden, Sask., on or before May 15.

6323. Feb. 13.—Ordering C.N. Ry. to fence along both sides of its right-of-way through sec. 32, 19, 21, w. 2 m., on or before May 15.

6324. Feb. 13.—Authorizing C.N. Ry. to construct crossing across its right-of-way in Aberdeen, Sask., and to grade approaches and furnish all necessary planking.

6325. Feb. 13.—Directing C.N. Ry. to establish gates on either side of its right-of-way and station grounds on 23rd St., Saskatoon, on or before May 15, and to continue the filling between its main line and Goose Lake branch.

6326. Feb. 8.—Directing C.N. Ry. to fence both sides of its right-of-way between Dauphin and Gilbert Plains, on or before Sept. 1.

6327. Sept. 1.—Granting permission to Pere Marquette Rd. and Lake Erie and Detroit River Ry. to load and unload on and from car ferries plying between Conneaut, Ohio, and Port Stanley, Ont., and forward to their destination trains in transit in the United States or Canada, on such ferries or on the lines of the said railway companies when the Lord's Day begins, and do any work necessarily incidental thereto, including the returning of empty cars which have been placed in the slip tracks at Port Stanley before 6 a.m. or after 8 p.m. upon the Lord's Day.

6328 to 6330. Feb. 13.—Directing council of Dundurn, Sask., to elect whether it accepts

permanent crossing over C.N. Co.'s tracks and station grounds 700 ft. south of the south limit of Clark St., and a temporary crossing over and at or near the north end of existing elevator track, such last crossing, if elected to be taken, to remain in existence and to be used only till the company may lay an additional track between the existing main line and the elevator track; and upon the laying of such new track, the temporary crossing at the end of the elevator track shall be closed, or the council may elect to take a permanent crossing as provided in order of Nov. 29, 1907, and immediately upon the council electing as aforesaid the Ry Co. shall construct such crossing and perform the grading and lay planking.

6331. Feb. 13.—Directing C.P.R. and C.N.R. Co.'s to agree upon terms for the erection of union station and establishment of joint facilities at Maryfield, Sask., on or before May 1, and to file agreement with Board. If the companies are unable to agree upon terms within time mentioned, then the same shall be settled by the Board, upon application of any interested party.

6332. Feb. 13.—Directing C.N.R. to construct a fence along both sides of its right-of-way where the same crosses the n.e. quar. sec. 21, tp. 19, r. 21, w. 2 m.

6333. Feb. 13.—Directing C.N.R. to construct farm crossing across the right-of-way through lands of C. Mann, Lumsden, Sask., to furnish gates and put in planking.

6334. Feb. 13.—Authorizing G.T.P.R. to refund overcharge admitted by letter of J. E. Dalrymple, Feb. 8, 1909, on shipment of settlers' effects from Mt. Forest to Moose Jaw, Sask.

6335. Feb. 20.—Amending order 1876 of Oct. 22, 1906, by striking out the clause limiting the speed to 15 miles an hour at which the C.P.R. shall operate trains over portion of the line from Bolton to Craighurst, Ont., authorized to be operated by said order.

6336. Feb. 20.—Authorizing Stormont Telephone Co. to place wires across G.T.R. tracks at Aultsville, Ont.

6337. Feb. 20.—Authorizing city of Winnipeg to lay sewer under C.P.R., Brown and Sutherland spur, where same intersects Sutherland Ave., Winnipeg.

6338. Feb. 19.—Authorizing Robitaille Eureka Distillery to place water pipe under Quebec Ry., Light and Power Co.'s tracks near Beauport, Que.

6339. Feb. 16.—Authorizing C.P.R. to construct its railway across 15 highways in Medonte tp., Ont.

6340. Feb. 22.—Ordering that G.T.R. crossing on Main Street, Welland, Ont., be protected by gates and watchmen.

6341. Feb. 12.—Directing that M.C.R. crossing on South Main St., Welland, Ont., be protected by flagmen, warning persons of approach of trains 17 and 31.

6342. Feb. 22.—Authorizing Okanagan Telephone Co. to place wires across C.P.R. at Vernon, B.C.

6343 to 6346. Feb. 22.—Authorizing Winnipeg Electric Ry. to place transmission wires across the C.P.R. in St. Boniface at four points.

6347. Feb. 22.—Authorizing the city of Winnipeg to lay a sewer under C.P.R. at Barton Ave.

6348. Feb. 25.—Authorizing Manitoba Government Telephones to erect wires across C.N. Ry. at Rat Portage Lumber Co.'s spur, Norwood, Man.

6349 to 6352. Feb. 26.—Authorizing Manitoba Government Telephones to erect wires across C.P.R. tracks at various points.

6353 to 6356. Feb. 26.—Authorizing C.N.-O.R. to erect telegraph wires across the

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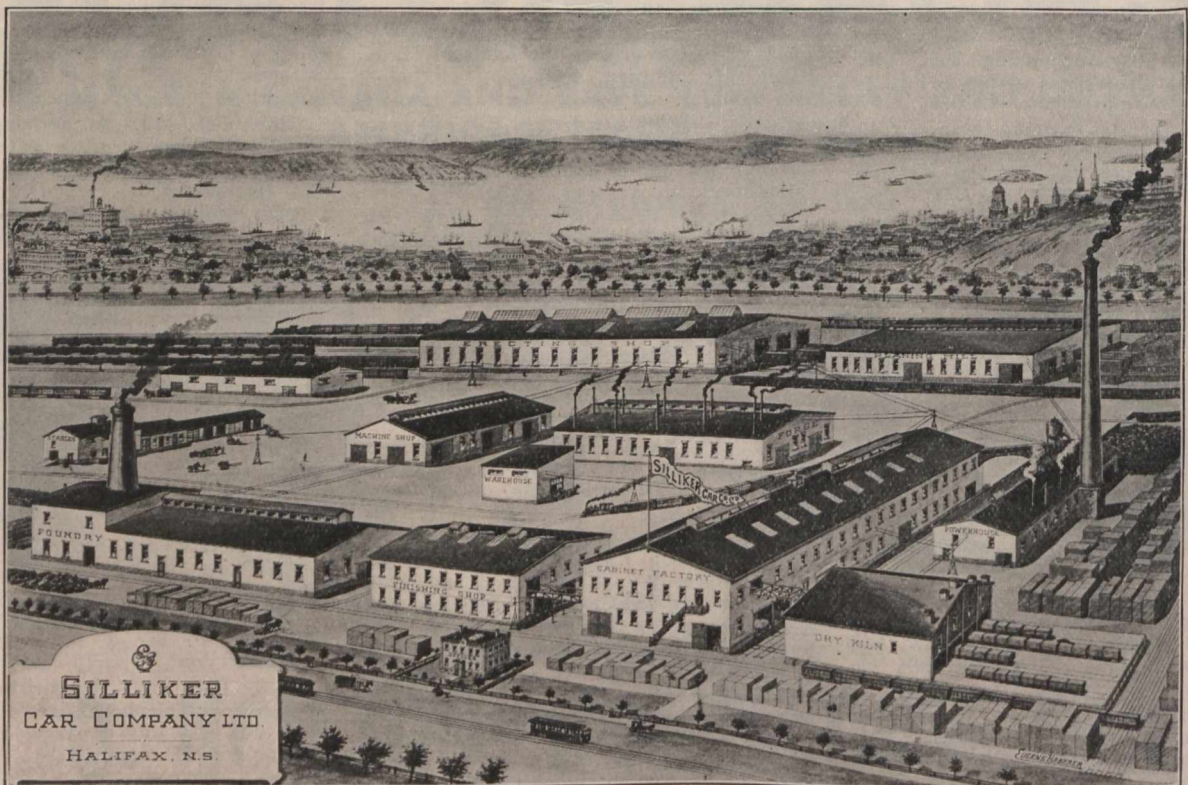
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G.N.W. Telegraph Co.'s wires at various points in Ontario.

6357. Feb. 26.—Authorizing Manitoba Government Telephones to erect wires across C.P.R. tracks $2\frac{3}{4}$ miles east of Plum Coulee, Man.

6358. Feb. 26.—Authorizing C.N.O.R. to erect wires across G.N.W. Telegraph Co.'s and Bell Telephone Co.'s wires, lot 3, con. 1, Cumberland tp., Russell Co., Ont.

6359 to 6363. Feb. 26.—Authorizing Alberta Government to erect wires across C.P.R. tracks at various points.

6364. Feb. 26.—Authorizing C.N.O.R. to erect telegraph wires across G.N.W. Telegraph Co.'s and Bell Telephone Co.'s wires at Longueuil St., L'Orignal, Ont.

6365. Jan. 27.—Authorizing C.P.R. and C.N.O.R. to construct branch lines in Parry Sound, Ont.

6366. Feb. 22.—Extending until May 1, 1909, order 6167, dated Feb. 4, 1909, directing express companies subject to the Board's jurisdiction in Canada to accept and carry acetylene gas under rules and regulations prescribed in connection therewith in the official Express Classification no. 18, and at the rating therein provided; and that a supplement be issued to Express Classification no. 16, as now in effect, to provide for the said changes becoming effective not later than March 1, 1909.

6367. Feb. 25.—Authorizing C.N.O.R. to take part of lot 22, con. 11, Mara tp., Ont., for diverting a highway.

6368. Feb. 22.—Varying order 5869, Dec. 16, 1908, and authorizing C.N.O.R. to construct its railway across highway on lot 20, con. 2, York tp., Ont., also rescinding order 6192, Feb. 4, 1909, dismissing the application.

6369. Feb. 27.—Authorizing C.P.R. to cross with its Sudbury-Kleinburg branch, highways in Vespra, Ont., and amending order 6139, Jan. 27, 1909.

6370. Feb. 13.—Authorizing the town of Indian Head to construct water pipe across C.P.R. property and under its tracks, Indian Head, Sask.

6371. Feb. 17.—Authorizing city of Calgary to lay water main under C.P.R. tracks at Fourth St. West, Calgary, Alta.

6372. Feb. 17.—Dismissing application of S. Ottewell, Clover Bar, Alta., for permission to allow his cattle to run under G.T.P.R. bridge at s.w. 13.53, 23 west 4th mer.

6373. Mar. 5.—Authorizing C.P.R. to operate bridge at mile 4.2, Guelph branch, Ontario Division, of its line.

6374. Feb. 26.—Authorizing C.P.R. (B.C. Southern Ry.) to construct and operate branch line, or spur, to F. Dailey's premises, lot 3063, group 1, east of Kootenay District, B.C.

6375. Feb. 26.—Approving C.P.R. plan showing bridge over highway near Highlands, Que.

6376. Feb. 17.—Dismissing complaint of C. Knight, Calgary, Alta., against the C.P.R., from Strathmore to Hochelaga; also from Calgary et al and Winnipeg, and alleged discrimination between the complainant and P. Burns & Co.

6377. Feb. 17.—Authorizing city of Calgary, Alta., to lay water pipe under C.P.R. tracks at First St. West.

6377a. Feb. 26.—Authorizing Toronto Electric Light Co. to erect temporarily, certain wires for the conveyance of electricity over G.T.R. right-of-way and tracks near Lansdowne Ave., Toronto.

6378. Feb. 27.—Authorizing Bell Telephone Co. to erect wires and cables across G.T.R. tracks at Station St., Lennoxville, Que.

6379 to 6385. Mar. 1.—Authorizing Argyle Rural Municipality to erect wires across C.N.R. tracks at various points in Manitoba.

6386. Jan. 18.—Dismissing complaint of G. E. Barber Co., Ltd.; Hall & Fairweather, Ltd.; C. H. Peters & Sons, A. C. Smith & Co., and the W. F. Hathaway Co., Ltd., and the city of St. John, N.B., against an arrangement with the C.P.R., the I.C.R. and the Seely Packet Line, for handling grain products from the west for ports on the Bay of Fundy, from stations on the Dominion Atlantic Ry. in Nova Scotia.

6387. Feb. 27.—Authorizing G.T.R. to refund to A. Baile, Montreal, the amount of overcharge, namely, 20c. a ton on carload of coal shipped from Huntingdon, Que., to Ottawa.

6388. Feb. 26.—Authorizing Bell Telephone Co. to place wires under G.T.R. tracks at siding, corner of 7th con. and Crowland Rd., Crowland, Ont.

6389, 6390. Feb. 17.—Authorizing city of Calgary, Alta., to lay water mains under the C.P.R. tracks at Eleventh St. West and Thirteenth St. East.

6391. Feb. 17.—Dismissing application of city of Calgary for agreement between the city and C.P.R., dated Dec. 13, 1906, and the Board's order of same date with respect to subway under C.P.R. tracks at Osler St. and First St. East, Calgary.

6392. Feb. 17.—Dismissing complaint of T. Fitzgerald, Crossfield, Alta., that C.P.R. train employes in that district are employed an excessive length of time on continuous duty.

6393. Feb. 15.—Authorizing city of Medicine Hat, Alta., to construct a subway from the intersection of Toronto St. with North Railway St., under C.P.R. right-of-way, to the intersection of Toronto St. with South Railway St.

6394. Feb. 15.—Dismissing application of city of Medicine Hat, Alta., for an order authorizing the construction of an overhead bridge on Ottawa St., over C.P.R. right-of-way.

6395. Feb. 15.—Authorizing city of Medicine Hat to extend Main St. across C.P.R. lands and right-of-way, forming a public highway; and authorizing the city to construct a public crossing under the C.P.R. Saskatchewan River bridge, between the east pier and the east abutment, at the city's cost.

6396. Feb. 17.—Authorizing R. Lake, Blairmore, Alta., to lay water pipe under C.P.R. tracks at road allowance n.e. quar., sec. 34, tp. 7, r. 4, w. 5 m.

6397. Feb. 19.—Dismissing complaint of W. Robinson, Hurry, Alta., that the G.T.P.R. has constructed its right-of-way across his homestead, made a deep cut through his property, and thrown waste material over his land.

6398. Feb. 19.—Dismissing complaint of Alberta Farmers' Association, respecting condition of the Edmonton, Yukon & Pacific Ry. bridge, approved by order 5691, Nov. 24, 1908.

6399. Feb. 17.—Authorizing city of Calgary, Alta., to cross C.P.R. spur on Second St. East with Calgary St. Ry. tracks.

6400. Feb. 19.—Dismissing complaint of A. Landals, Strathcona, Alta., that the C.P.R. has constructed a wagon road across his property, cutting his place in three parts and shutting him off from water.

6401. Feb. 19.—Dismissing application of town of Vegreville, Alta., for authority to construct a highway crossing over C.N.R. tracks at Main St.

6402. Feb. 19.—Dismissing application of Parkdale Coal Co., Edmonton, Alta., against G.T.P.R. continuing its right-of-way through portion of lot 22, Edmonton Settlement Survey.

6403, 6404. Feb. 17.—Authorizing city of Calgary, Alta., to lay water pipe and sewer pipe under C.P.R. tracks at Eighth St. West, and Fifth St. West, respectively.

6405. Feb. 17.—Authorizing Calgary Gas Co. to lay gas main under C.P.R. tracks at Eighth St. West.

6406. Feb. 8.—Dismissing application of city of Winnipeg for authority to construct a bridge between Brown and Brant Sts., over C.P.R. yards, and directing the C.P.R. to contribute towards the cost of construction.

6407. Feb. 8.—Approving C.P.R. location line across road allowance on its Molson branch, between mile 99 and 124.

6408. Feb. 8.—Authorizing city of Winnipeg to construct crossings over the Louise Bridge spur at Talbot, Chalmers, Poplar and Gordon Sts., and over the old main line, or Selkirk branch, C.P.R., at Talbot, Chalmers and Nairn Sts., and ordering that all expense in connection with necessary grading, etc., be borne by the city.

6409. Feb. 8.—Dismissing application of D. A. Keizer, Engineer of St. Paul's municipality, for authority to lay a culvert under C.P.R. tracks at Rossmore Ave., lot no. 3, St. Paul's, Winnipeg.

6410. Feb. 19.—Authorizing Edmonton Radial Ry. to cross with its tracks the Edmonton, Yukon & Pacific Ry., at corner of Hardisty Ave. and Curry St., Edmonton, Alta.

6411. Feb. 19.—Dismissing application of East Clover Bar Branch of Alberta Farmers' Association, requiring railways to provide movable partitions in cars, to enable farmers to make individual shipments.

6412. Feb. 19.—Dismissing application of C.N.R. for authority to construct a spur from its main line to Cushing's mill and lumber yard, Edmonton, Alta.

6413. Feb. 19.—Approving location of C.P.R. branch line from Peave Ave. to Sixteenth St., along the south side of Mackenzie Ave., Edmonton, Alta.

6414. Feb. 19.—Authorizing city of Edmonton, Alta., to extend Sixteenth St. south, across C.N.R. lands and right-of-way, to join Sixteenth St. north of the said railway lands; and ordering that all expense in connection with the necessary grading, etc., be borne by the city, and that the C.N.R. shall receive no compensation for the use by the city of lands covered by the extension.

6415. Feb. 19.—Dismissing complaint of J. C. Haddock, Wabamun, Alta., that the G.T.P. Ry. Co. took possession of his lands on east half sec. 8, tp. 53, r. 4, w. 5 m., without full settlement.

6416. Feb. 19.—Dismissing application of J. Gainer & Co., Strathcona, Alta., for lower minimum weight on live hogs in double-decked cars; also for order authorizing C.P.R. to rebate to applicants excessive freight on two cars live hogs shipped from Wetaskiwin and Strathcona to Victoria, B.C.

6417. Feb. 19.—Dismissing complaint of C. Hind, Mannville, Alta., alleging excessive freight rates by the C.P.R. on a horse shipped from St. John, N.B., to Strathcona, Alta.

6418. Feb. 19.—Dismissing complaint of P. Reid, Blackfalds, Alta., that C.P.R. has removed gates and cut posts and wires where the railway affects his property, causing loss by cattle getting on the right-of-way and being killed.

6419. Feb. 19.—Dismissing application of city of Edmonton, for an order declaring that the plan, profile and book of reference of the C.P.R. location through Edmonton is not in accordance with the Railway Act, and that same be annulled.

6420. Feb. 19.—Dismissing complaint of United Farmers of Alberta that railway companies had not fenced their right-of-way, that grain cars are not provided with proper grain

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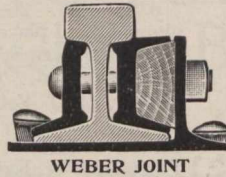
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doors, that freight rates are excessive, that serious losses are sustained by reason of stock cars not being promptly spotted for unloading; and that in districts where new railway lines are being built, farmers are compelled to sustain heavy losses because the companies do not fence or protect their right-of-way while work is being done thereon.

6421. Feb. 19.—Authorizing G.T.P.R., on or before April 1, 1909, to construct a suitable temporary crossing for use of farmers desiring to cross the tracks with farm implements, between sections 12 and 13, tp. 53, r. 23, w. 4 m.; between mile 77 and 112; and that the temporary crossing shall be discontinued when the permanent subway is constructed.

6422. Feb. 17.—Authorizing the municipality of Didsbury, Alta., to open a street across Calgary and Edmonton Ry. right-of-way and tracks, in the line and of the width of Hespeler St., in an easterly direction, to the easterly boundary of C. & E. R. lands, all expense in connection therewith to be borne by the municipality; any questions that may arise as to protection (if any) to be reserved for further consideration; and the crossing of the C. & E. R. lands at Waterloo St. shall not be affected by this order.

6423. Feb. 25.—Ordering the crossings in the village of West Lorne, Ont., be protected by gates to be installed by the M.C. Rd.; the gates to be controlled from a tower between the M.C.R. and Pere Marquette lines; detail plans to be submitted to engineer of Board; the gate operators to be appointed by the M.C. Rd., and the cost of installing gates and erecting tower to be borne equally by the M.C. Rd. and P.M. Rd.

6424. Feb. 25.—Ordering that the M.C. Rd.'s and Pere Marquette Rd.'s crossings in Dutton, Ont., be protected by gates.

6425. Mar. 1.—Authorizing the city of Calgary, Alta., to place its electric light and power wires across C.P.R. tracks at Eighth St. East, Calgary, Alta.

6426. Feb. 26.—Authorizing the C.P.R. to construct a branch line, or spur, from a point at chainage 141.77 on the Quebec section of its line, to the premises of Leroux Bros., lots 456 and 457; together with another spur commencing from a point on the first-mentioned spur 431 ft. in an easterly direction.

6427. Feb. 27.—Authorizing the Esquimalt and Nanaimo Ry. to construct a spur to the Shawinigan Lake Lumber Co.'s premises, lot 13, Malahat district, Vancouver Island, B.C.

6428. Feb. 27.—Authorizing C.P.R. to construct two branch lines, or spurs, on the s.e. quar. sec. 11, tp. 24, r. 1, w. 5 m., near Calgary Jct., Alta., for the Alberta Portland Cement Co.

6429. Feb. 27.—Authorizing C.P.R. to construct a branch line or spur in Abbotsford, B.C., to the Abbotsford Shingle Co.'s premises, on the n.e. quar. sec. 15, tp. 16, east coast meridian, B.C.

6430. Mar. 3.—Approving location of Kootenay Central Ry. from a point on the southern boundary of lot 109, G 1,547, to a point on the B.C. Southern Ry., north of Galloway, lot 3,063 A 320, East Kootenay, mileage 103.4 to mileage 173.29.

6431. Mar. 3.—Amending order 6160, Feb. 4, 1909, authorizing the Manitoba Government Telephones to cross C.P.R. tracks $\frac{1}{4}$ mile west of Brookdale, Man., by adding the following clause, viz.: "It is further ordered that the poles on each side of the track be guyed back so as to make it impossible for them to fall on the track."

6432. Mar. 3.—Authorizing the Bell Telephone Co. to place its wires across T.H. & B. Ry. tracks $\frac{1}{2}$ mile northwest of Chantlers station, Ont.

6433. Mar. 3.—Authorizing the C.N.O.R. to erect telegraph wires across Bell Telephone Co.'s wires, lot 20, con. 2, tp. Alfred, Ont.

6434. Mar. 3.—Authorizing A. B. Greenwood to place a telephone line across G.T.R. tracks at side road between lots 20 and 21, con. 7, North Gwillimbury, Ont.

6435 to 6438. Mar. 2.—Authorizing the Hamiota rural municipality, Man., to place wires across G.T.P.R. tracks at four points.

6439. Mar. 2.—Authorizing the city of Winnipeg to lay a sewer under C.N.R. tracks, where the same intersect Lombard St., known as the Winnipeg Transfer Ry.

6440. Feb. 25.—Ordering that the crossings of the highway by the M.C. Rd. and P.M. Rd., in Rodney, Ont., be protected by folding fence gates.

6441. Feb. 17.—Dismissing application of city of Calgary respecting subway under C.P.R. tracks at Osler St., and First St. East, Calgary, Alta.

6442. Feb. 19.—Dismissing application of H. Harvey, Strathcona, Alta., alleging loss sustained on certain goods shipped from Edmonton to a flag station on the C.N.R.

6443. Feb. 8.—Directing the C.N.R. to stop the train known as the "St. Paul Flyer" at St. Agathe, Man.; and to stop no. 7, due to arrive at Winnipeg at 7.25 a.m., at St. Agathe.

6444. Feb. 19.—Dismissing complaint of J. Gainer & Co., Strathcona, alleging excessive freight rates charged by the C.P.R. on live stock from Wetaskiwin, Alta., to Winnipeg, Man.

6445. Feb. 19.—Limiting approval of G.T.P.R.'s location plan, sec. 17, tp. 53, r. 23, w. 4 m., through Edmonton, known as its freight line, to 50 ft. on either side of the centre line as appearing upon the said plan.

6446. Feb. 19.—Dismissing complaint of H. A. Glaspell, alleging delay in delivery of express parcels by the Dominion Express Co., at Vegreville, Alta.

6447. Mar. 3.—Approving location of C.P.R. Touchwood Hills branch, from a point in sec. 15, tp. 28, r. 7, w. 2 m., at Theodore, Sask., to a point in sec. 30, tp. 28, r. 10, w. 2 m., and thence to a point in sec. 20, tp. 32, r. 17, w. 2 m., on the Quill Lakes branch.

6448. Mar. 3.—Authorizing the Chatham, Wallaceburg & Lake Erie Ry. to operate its trains over the crossing under the M.C. Rd. tracks on west side of Town Line Road, near Charing Cross, Ont.

6449. Mar. 2.—Approving revised location of C.P.R., mileage 1 to mileage 12.3, between Broadview and Grenfell, Sask.

6450. Mar. 2.—Approving location of Burk's Falls & French River Ry., from station 0 to station 55, lot 3, con. 1, Armour tp., Parry Sound district, Ont.

6451. Mar. 2.—Authorizing C.N.O.R. to open for traffic that portion of its railway between Rosedale and Queen St., Toronto, Ont.

6452. Mar. 2.—Amending order 5568, Nov. 3, 1908, by adding after the word "crossing" in the 6th line of paragraph 1, the words, "or by establishing electric connection by any other device or method which will indicate whether or not the bell is in good working order." This order refers to electric bells at crossings. See Dec., 1908, pg. 867, Jan., pg. 13.

6453. Feb. 19.—Dismissing complaint of C. N. Corbett, Edmonton, Alta., alleging excessive express charges by express companies in the west.

6454. Mar. 3.—Authorizing C.P.R. to construct a branch line or spur in St. Louis, Montreal parish, Que., to the Hartt & Adair Coal Co.'s premises.

6455. Mar. 3.—Authorizing the G.T.R. to construct four branch lines from a point on its branch to the premises of the Erie Realty Co., and of other traders north of Eastern Ave., Toronto, and thence westerly to Lever Bros.' premises, south of Eastern Ave.

6456 to 6460. Mar. 3.—Authorizing the Canadian Machine Telephone Co. to place its wires across T.H. & B.R. tracks at 5 points in Brantford, Ont.

6461. Mar. 3.—Authorizing the Alberta Government to place wires across the Edmonton, Yukon & Pacific Ry. tracks, $1\frac{1}{2}$ miles east of Strathcona, between secs. 22 and 27, tp. 52, r. 24, w. 4 m.

6462. Mar. 3.—Authorizing Great Northwestern Telegraph Co. to place its wires across G.T.R. tracks, leading from its main tracks to Canadian Ship Building Co.'s yards, Bathurst St., Toronto.

6463. Mar. 3.—Authorizing Manitoba Government Telephones to place wires across C.P.R. tracks $\frac{1}{2}$ mile west of Minnedosa station, Man.

6464. Feb. 4.—Authorizing G.T.R. to connect its tracks with the Hamilton Radial Ry. tracks near Burlington, Ont.

6465. Feb. 4.—Authorizing the Hull Electric Ry. to cross C.P.R. tracks in Hull, Que.

6466. Feb. 25.—Ordering that an electric bell be installed at the crossing of L'Esperance Road, Tecumseh, Sandwich East tp., Ont., by the G.T.R.; cost of installation, to an amount not exceeding \$300, to be borne by the township, and the maintenance to be at the expense of the G.T.R.

6467. Mar. 5.—Authorizing the Chatham, Wallaceburg & Lake Erie Ry. to open for traffic portions of its line on Union St., Aberdeen Bridge, King, Third and Raleigh Sts., from Raleigh St. to William St., and on William and Queen Sts., Chatham, Ont.

6468. Mar. 5.—Approving P.M. Rd.'s Standard Passenger Tariff, C.R.C. 190.

6469. Mar. 5.—Authorizing C.P.R. to use and operate 25 bridges on its Toronto-Sudbury line.

6470. Mar. 5.—Authorizing C.P.R. Co. to construct a branch line or spur to the Okanagan Produce Co.'s premises, lots 4, 3 and 2, block 24, Vernon, B.C.

6471. Mar. 8.—Authorizing C.N.R. to connect its Hallboro extension with its Neepawa branch, near Hallboro.

6472 to 6474. Mar. 8.—Authorizing Bell Telephone Co. to erect its wires across the Central Ontario, C.P., and Brockville, Westport and N.W. Rys., at various points in Ontario and Quebec.

6475. Mar. 8.—Authorizing B.C. Telephone Co. to erect wires across E. and N.R. at Nanaimo, B.C.

6476, 6477. Mar. 8.—Authorizing Caradoc and Ekfred Telephone Co. to erect wires across the M.C.Rd. and G.T.R. at two points in Ontario.

6478. Mar. 6.—Authorizing C.P.R. to use 23 bridges on its Guelph and Goderich line.

6479. Mar. 6.—Authorizing South Leeds and Pittsburg Telephone Co. to erect wires across Thousand Islands Ry.

6480. Mar. 8.—Approving location of C.N.O. through Hardy, McConkey and Blair tps.

6481. Mar. 8.—Authorizing C.P.R. to use bridges on its Ottawa section, over Mill Creek and Back River.

6482. Mar. 8.—Authorizing C.P.R. to use 41 bridges on its Quebec section, between mileage 10.1 and 151.0.

6483. Mar. 8.—Authorizing C.P.R. to construct bridges over Lachine Canal, Montreal, near Ogilvie Flour Mills Co.'s premises; and rescinding order 6266, Feb. 16.

6484. Mar. 6.—Authorizing C.N.R. to construct its Hallboro branch across the C.P.R. Rapid City branch, in Manitoba.

6485. Mar. 6.—Authorizing G.T.R. to construct spur line to F. A. Laurie's premises, Lot 28, Parry Sound district, Ont.

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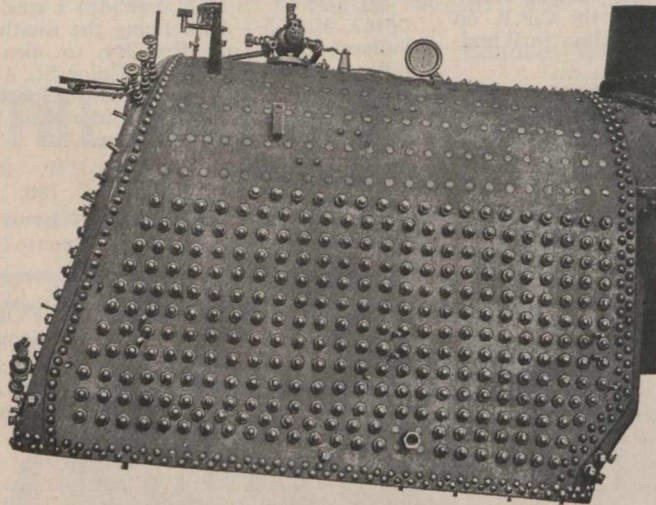
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6486. Mar. 6.—Authorizing C.P.R. to construct spur line for C. G. Johnson, in Vancouver, B.C.

6487. Mar. 9.—Authorizing G.T.R. to construct spur line to W. D. Morris' premises, Ottawa, Ont.

6488. Mar. 8.—Temporarily [approving agreements of the Bell Telephone Co. with various rural telephone companies, provided tolls are not higher than those charged immediately previous to July 13, 1906, and authorized by law to charge.

6489. Mar. 8.—Authorizing city of Calgary, Alta., to erect light and power wires across C.P.R. at 8th St.

6490. Mar. 8.—Ordering that tender trucks (weighing 100,000 lbs. or over when loaded) of steam locomotives used in passenger service be equipped with steel-tire wheels on or before Dec. 1, 1909.

6491. Mar. 9.—Authorizing S. Hollingsworth, of Blueberry Creek, Castlegar, B.C., to lay wooden pipe under C.P.R.

6492. Mar. 8.—Authorizing Bell Telephone Co. to erect wires across G.T.R. at Kent St., Simcoe, Ont.

6493. Mar. 9.—Authorizing Credit Municipal Canadian to lay pipes under G.T.R. at the Upper Lachine Road, Rockfield, Que., near boundary line between town of St. Pierre and Montreal West, and west of the Simplex Ry. Appliance Co.'s works at St. Pierre aux Liens, Que.

6494. Mar. 6.—Authorizing G.T.R. to construct spur lines to the Dymont-Mickle Lumber Co.'s premises, Nipissing district, Ont.

6495. Feb. 19.—Authorizing G.T.P.R. to take parts of various lots in the n.w. $\frac{1}{4}$ of sec. 18, tp. 53, north range 24, w. 4th mer., Edmonton, Alta.

6496. Mar. 11.—Authorizing C.P.R. to construct spur line to Columbia River Lumber Co.'s premises near Tappen, B.C.

6497. Mar. 11.—Authorizing C.P.R. to construct spur line to Manitoba Gypsum Co.'s premises, Winnipeg.

6498. Mar. 10.—Authorizing Bell Telephone Co. to erect wires across C.V.R. $\frac{1}{2}$ mile west of Farnham, Que.

6499. Mar. 12.—Authorizing C.P.R. to divert original road allowance between secs. 25 and 26, tp. 16, r. 5, w. 2nd mer., Sask.

6500. Mar. 9.—Authorizing C.P.R. to construct spur line to Montreal Light, Heat and Power Co.'s premises, Montreal.

6501. Mar. 12.—Authorizing Winnipeg Electric Railway Co. to cross, at rail level, the C.P.R. line across Logan Ave., Winnipeg.

6502. Mar. 12.—Dismissing application of Toronto and Niagara Power Co. for approval of location of transmission line from Cainsville to Brantford, Ont.

6503. Mar. 11.—Authorizing C.N.O.R. to permanently divert side road lying between lots 13 and 14, con. 1, Gloucester tp., Ont.

6504. Mar. 9.—Authorizing N., St. C. & T. Ry. to connect its tracks with T.H. & B. Ry. tracks in Crowland tp., Ont.

6505. Mar. 12.—Directing Montreal Light, Heat and Power Co. to remove power wires placed across C.P.R. in vicinity of Lachine canal, Que.

6506. Mar. 12.—Authorizing C.P.R. to use bridge 37A on its Webbwood section, Ont.

6507. Mar. 12.—Authorizing C.P.R. to use bridge at mileage 27.34 and at highway crossing at Nelson St., Sudbury, on its Cartier section, Ont.

6508. Mar. 12.—Authorizing C.P.R. to use bridges 5.5 and 27.6 on its Teeswater section, Ont.

6509. Mar. 12.—Authorizing C.P.R. to use five bridges, 2.2, 6.8, 23.8, 27.3 and 30.1, on its Orangeville branch, Ont.

6510 to 6512. Mar. 12.—Authorizing C.P.R. to use certain bridges on its Sault Ste. Marie, Port Burwell and North Toronto branches, Ont.

6513. Mar. 12.—Authorizing Manitoba Government Telephones to cross G.T.P.R. $4\frac{1}{2}$ miles east of St. Boniface station.

6514. Mar. 12.—Authorizing G.T.R. to construct spur line to Shirback, Connor & McLachlan's premises, Himsforth tp., Ont.

6515. Mar. 13.—Authorizing Wood Products Co. of Canada, Ltd., to erect wires across G.T.R. at Donald, Haliburton, Ont.

6516. Mar. 12.—Authorizing C.P.R. to use six bridges on its Owen Sound section, Ont.

6517. Mar. 12.—Authorizing Central Ontario Ry. to construct spur line to R. J. Graham Co.'s premises, Frankford, Ont.

6518. Mar. 9.—Authorizing C.N.O.R. to build across six highways in Gloucester tp., Ont.

6519. Mar. 12.—Authorizing Saraguay Electric Light and Power Co. to erect wires across C.P.R. in Notre Dame municipality, Hochelaga County, Que.

6520. Mar. 15.—Approving C.P.R. plans for proposed rearrangement of interlocking plant at Richmond St., London, Ont., at crossing of London St. Ry.

6521. Mar. 12.—Authorizing Northern Colonization Ry. (C.P.R.) to build across highways and divert certain portions of the highways between Nomingue, Que., and ten miles n.w.

6522. Mar. 16.—Authorizing municipality of Hamiota, Man., to erect wires across C.P.R. near Hamiota.

6523. Mar. 13.—Authorizing G.T.R. to build a bridge and approaches for vehicular traffic, on A. M. Dickie's farm crossing, in London tp., Ont.

6524. Mar. 16.—Authorizing Wainfleet tp., Ont., to lay culvert under G.T.R.

6525. Mar. 16.—Authorizing Essex Terminal Ry. to join its track with the C.P.R. at or near McDougal St., Sandwich West tp., Ont., and amending order 5204, by striking out the words "on the gravel road."

6526. Mar. 16.—Authorizing the G.T.R. to construct spur to C. A. Larkin's premises, Toronto.

6527. Mar. 16.—Authorizing C.P.R. to construct spur line in Stonewall, Man., to A. Patterson & Co.'s premises.

6528. Mar. 16.—Authorizing Bell Telephone Co. to erect wires across C.P.R. near Farnham, Que.

6529. Mar. 16.—Approving location of C.P.R. proposed new station and freight shed at Weston, Ont.

6530. Mar. 17.—Approving location of C.N.O.R. through Roberts tp., Ont.

6531. Mar. 17.—Directing G.T.R. to construct and operate spur line to Christie, Henderson & Co.'s premises, Toronto.

6532. Mar. 17.—Authorizing C.P.R. to build across highways in Bentinck tp., Ont.

6533. Mar. 17.—Approving temporarily agreements of Bell Telephone Co. with various rural telephone companies, provided that the tolls charged by same are not higher than was charged immediately previous to July 13, 1906, authorized by law.

6534. Mar. 18.—Approving location of Q.M. & S.R. new station at Sorel, and Pierreville, Que.

6535. Mar. 18.—Rescinding order 6490, of Mar. 8, 1909, in regard to engines weighing 100,000 lbs. or over being equipped with steel-tire wheels, on or before Dec. 1, 1909.

6536. Mar. 9.—Authorizing St. Mary's & Western Ont. Ry. to construct spur line to D. Maxwell & Sons' premises, St. Mary's, Ont.

6537. Mar. 16.—Authorizing C.P.R. to build across certain highways in Bentinck tp., Ont.

Abandonment of Locomotive Works Project.

In regard to the proposal of Beyer, Peacock & Co., Ltd., of Manchester, Eng., to establish locomotive works near Montreal, which was considerably discussed towards the end of 1907, the following extract from the remarks of Sir Vincent Cailhard, Chairman of Directors at that company's recent annual meeting, will be of interest: "I come now to capital expenditure in suspense. At the general meeting last year I gave a full explanation of what this item comprised, and I may, perhaps, be allowed to express our regret that the project we then had in view with regard to Canada has not been carried out. This disappointment most certainly cannot be ascribed to any lack of encouragement on the part of the Canadian railway companies—and I am glad to have this opportunity of stating that in public—nor can it be ascribed to any want of energy on our part. I should like to add, with regard to the Canadian companies, that they treated us with every courtesy and kindness and gave us a warm welcome, but circumstances arose beyond our control. I need scarcely remind you of the financial crisis, the effects of which extended far into last year, and that trade depression reigned throughout the year, and is still with us. Circumstances arose, I say, beyond our control, which led us reluctantly to the conclusion that we had better abandon our Canadian project. I explained last year that even if we should have to abandon this scheme, there would be scarcely any, if any, risk of loss, and I am glad to repeat that statement now."

Railway Commissioners' Titles.—An Ottawa press despatch of Mar. 9 says: "The Railway Commission has proclaimed itself a democratic body, and does not want to be addressed as 'their Lordships,' etc., but orders the presiding officer to be addressed as 'Mr. Chairman,' and the others as 'Mr. Commissioner.'" In our Oct., 1908, issue, we gave authoritative information as to the use, or misuse, of titles in this connection, in the hope that we might induce our contemporaries to conform to the rules of etiquette, but the frequent and recent use of the prefix "Judge," "Mr. Justice," or "The Hon.," when referring to the Chief Commissioner, makes us feel that our effort in that direction has been largely in vain.

Steel Tire Wheels for Tenders.—The Board of Railway Commissioners passed the following order 6535, Mar. 18: In pursuance of the powers conferred upon the Board by secs. 30 and 264 of the Railway Act, and of all other powers possessed by it in that behalf; and upon the report and recommendation of the Inspector of Railway Equipment and Safety Appliances, it is ordered that tender trucks where the tender when loaded (weighs 100,000 lbs. or over) of locomotives used in passenger service by companies operating railways by steam power, under the legislative authority of the Parliament of Canada, be equipped with steel-tire wheels on or before Dec. 1, 1909; and that the use in such service on or after Dec. 1 next, of tender trucks (where the tender when loaded weighs 100,000 lbs. or over) of locomotives equipped with cast-iron wheels, be prohibited, except in cases of emergency, in which it may be necessary to use the same to take trains to divisional or terminal points. And it is further ordered that every such railway company be liable to a penalty not exceeding \$100 for each and every failure to comply with the foregoing regulations within the time of its coming into force and thereafter. This order rescinds order 6490 passed Mar. 8, the only difference between the two being a slight verbal one.

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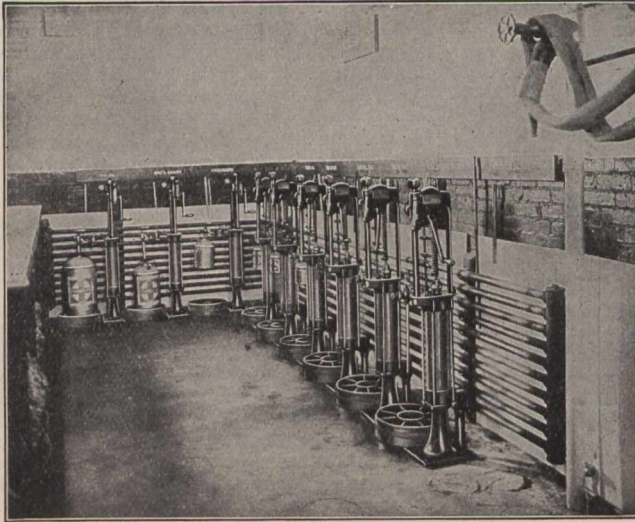
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MANAGER

Canadian Northern Ry. Construction, Etc.

Canadian Northern Quebec Ry.—The Board of Railway Commissioners has ordered the company to effect considerable improvements on its Montford branch between St. Jerome and Arundel, Que. The length of line covered by the order is about 40 miles, but the first 10 miles is reported to be comparatively good. Guy Tombs, the company's General Freight and Passenger Agent, stated subsequently that workmen were busy all last summer ballasting the track, digging ditches, erecting new stations and doing other work. New and heavier rails had been purchased in the fall; these had been delivered and were ready to be laid as soon as the spring opened up. Other betterments would be gone on with during the season.

The Canadian Northern Ontario Ry. has under construction on the wharf at the foot of York St., Toronto, a freight warehouse 350 by 40 ft., and one story high.

The Ontario Premier announced in the Legislature, Mar. 18, that the Government had decided to aid the C.N.O. Ry. to the extent of 4,000 acres a mile, or a total of 2,000,000 acres, for the construction of a line from Sudbury to Port Arthur, a distance of about 500 miles, the line to be constructed through the great clay belt. The company, said the Premier, asked for a land grant and for a guarantee of bonds. The Government decided to decline to guarantee any bonds, and to offer to the company a grant of 4,000 acres a mile, provided it proceeded at once with the construction of the 500 miles of railway, and to carry it through the southern portion of the great clay belt. The Government would retain the pine timber and minerals on the land granted, and the right to say when and at what price the land is to be put on the market for sale. If the company agreed to these terms, a bill would be prepared and laid before the house for approval.

A deputation from the western part of the province waited on the Government, Mar. 17, and asked that a generous subsidy be granted the company. Prior to this the company had, in response to the request of the Government, submitted a proposal, with respect to the construction of the line, asking for a cash subsidy of \$3,000 a mile and 7,500 acres of land a mile, or a guarantee of bonds.

President Mackenzie, in an interview, Mar. 17, said: "If what I hear is true concerning the restrictions put upon the land grant, then the thing is almost valueless to us. The land up there, according to the general idea, is not much use anyway, and if we are to be bound by all sorts of restrictions in handling it, then the aid they give us will be practically nil."

Canadian Northern Ry.—Plans have been deposited with the Dominion Minister of Public Works, showing the location of a proposed steel dock at Port Arthur, Ont., upon the water lots lying between the north side of Park St., produced, and the south side of Lincoln St., produced.

A bill is before the Manitoba Legislature providing for the guarantee of bonds for the construction of 210 miles of line. The bond issue will be at the rate of \$13,000 a mile. The bill also provides for the guarantee of \$3,000,000 of bonds for terminal stations and terminals under construction, for which the guarantee of the C.N.R., the National Transcontinental Ry., and the Grand Trunk Pacific Ry.

We are advised that the company has not yet taken into serious consideration the question of electrifying its new shops at Winnipeg. A press report stated that the company had announced that its shops and that power would be supplied from the Winnipeg Electric Ry. plant at Lac du Bonnet.

A delegation from the territory north of Oak Point, Man., recently waited upon the Manitoba Government to urge the completion of the branch from Oak Point. Track has been laid as far as Lundar, and the delegation asked that it be extended along the lake shore to the narrows of Lake Manitoba, instead of directly northerly as previously intended.

Duluth, Winnipeg and Pacific Ry.—A company with this title was registered at St. Paul, Minn., Mar. 19. It has been organized for the purpose of constructing a line from Virginia, the southern terminus of the Duluth, Rainy Lake and Winnipeg Ry., to Duluth, Minn. The D.R.L. and W. Ry. was lately acquired by the Canadian Northern Ry.

Alberta Midland Ry.—The Alberta Legislature has passed an act incorporating a company with this title for the purpose of constructing a number of railways in the province. In the course of the discussion in committee, it was stated that the lines mentioned in the bill were those covered by the charter of the Alberta Central Ry., a company holding a Dominion charter, and that they were extensions of the Canadian Northern Ry. The routes of the various lines mentioned in the bill as it came before the committee were as follows: From Strathcona via Calgary to the confluence of the Little Bow and Belly Rivers, thence southerly to Lethbridge, with a branch from near Bittern Lake northeasterly to Vegreville; a branch from the crossing of the Little Bow River, southerly via Macleod to the southern boundary of the province; a branch from the last mentioned line between Macleod and the crossing of the Belly River, westerly to the western boundary of the province; a branch from between Cardston and the southern boundary of the province, to the western boundary of the province. In passing through committee provision was made for the construction of the following additional lines: From Calgary to Banff; from Cochrane northerly to join the C.N.R. at Pigeon Lake; an extension into Wetaskiwin; an extension to Nanton; and an extension from Content to Red Deer and on to Rocky Mountain House.

The Government Act for the guaranteeing of C.N.R. bonds to the extent of \$13,000 a mile, provides for the construction of 850 miles of line, and covers practically the whole of the lines mentioned in the bill. In the discussion before the Legislature it was stated that the C.N.R. would commence the construction of the Athabasca Landing extension, and the line from Vegreville to Camrose and Calgary this season, and might possibly construct the lines in the Crow's Nest Pass country. (Mar., pg. 183. See also Saskatchewan and Alberta Railways, Feb., pg. 125.)

Level Crossings Protection.—The House of Commons has passed a bill providing for the appropriation by the Government of \$200,000 a year for five consecutive years for the purpose of "aiding in the providing of protection, safety and convenience for the public in respect of existing highway crossings at rail level." The sums voted are to be placed to the credit of The Railway Grade Crossing Fund, and to be applied under the authority of the Board of Railway Commissioners. The Board may fix the amount the Dominion shall pay up to 20% of the cost of elimination and not exceeding \$5,000 for each crossing not to exceed four tracks; where there are five or more tracks it is to be regarded as two crossings. Not more than three crossings in any one municipality will be eliminated in any one year. The act provides that municipalities shall contribute towards the elimination of the crossings, but the percentage to be contributed is not fixed.

TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

The Canadian Pilling Co. has recently installed a turntable tractor at the C.P.R.'s Quebec roundhouse. This makes 32 installed on the C.P.R. system at various points.

E. L. Dyer has issued a booklet, "How to test wire, how to build fences and about concrete posts," which can be obtained by mailing 10c. in stamps or coin to him at King St. and Atlantic Ave.

The Northern Electric and Manufacturing Co., Ltd., Montreal, has been awarded the contract for supplying and installing a Western Electric alternator, exciter and switchboard equipment for the town of Iberville, Que.

The Goldschmidt Thermit Co., 103 Richmond St. West, Toronto, has issued a 36 pg. booklet, "Instructions for the use of Thermit in Railroad Shops," which should prove of interest to railway mechanical men. A copy will be sent on application.

The Holden Co., Ltd., has been incorporated under the Dominion Companies Act, with \$45,000 capital stock and head office in Montreal, to acquire the business heretofore carried on by N. J. Holden Co., Ltd., and to carry on a general railway and contractors' supply business, etc.

The Meaford Wheelbarrow Co., Ltd., Meaford, Ont., has secured the Canadian rights to manufacture the line of roller bearing wheelbarrows and concrete carts made by the Sterling Wheelbarrow Co., of Milwaukee, Wis., and will offer the same to the general trade.

The B. Greening Wire Co., Ltd., Hamilton, Ont., is installing electric welding machinery in its works for the more economical welding of the iron frames for their wire door mats, wire guards, tellers' cages, etc., and for the wire chain fittings, and the welding of wire generally.

C. F. Medbury, until recently Manager of the Westinghouse Electric and Manufacturing Co.'s office, has been appointed Manager of the Canadian Westinghouse Co.'s Montreal office, succeeding H. D. Bayne, who recently resigned, and who has since sailed on an extended tour through Europe.

The B. Greening Wire Co., Ltd., Hamilton, Ont., has in press a series of illustrated catalogues of goods manufactured in its various departments. The first one relates to the wire screening, wire cloth and perforated metal departments. It is copiously illustrated, and contains a number of useful tables, which will prove of value to anyone interested in screening wire cloth, or perforated metals. Copies will be sent by the B. Greening Wire Co., on request, to any address.

Owing to the rapid increase in the export business of The Page Wire Fence Company of Walkerville, Ont., since the introduction of its Empire white fencing for railway, farm and ranch use, it has been thought best to have the foreign business handled by a company of a name similar to that of the fencing, and to this end The Empire Fence Export Co., Ltd., has been formed. It is owned and controlled by the same people as the old company. The head office and factory will be at Walkerville, Ont.

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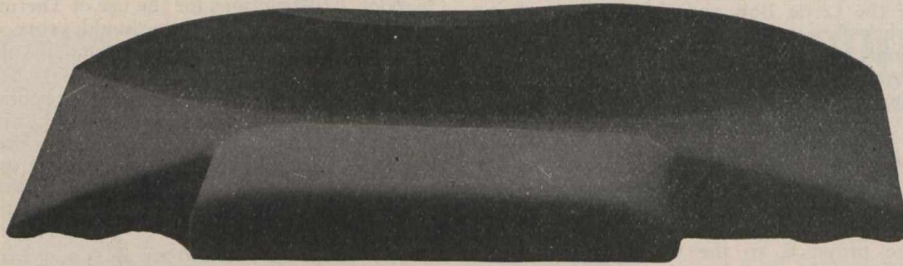
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TRANSPORTATION APPOINTMENTS.

The information under this head, which is almost entirely gathered from official sources, is compiled with the greatest care, so as to ensure absolute accuracy. Anyone who may notice any error in our announcements will confer a favor by advising us.

Canadian Northern Quebec Ry.—Quebec and Lake St. John Ry., W. D. Barclay, General Manager Halifax and Southwestern Ry. and Inverness Ry. and Coal Co., has also been appointed General Manager Canadian Northern Quebec Ry., and Quebec and Lake St. John Ry. Office, Quebec, Que.

W. W. Johnston, heretofore chief claims clerk, has been appointed Contracting Freight Agent. Office, Quebec.

H. McDonald has been appointed chief claims clerk, in charge of freight claims, vice W. W. Johnston, promoted. Office, Quebec.

G. E. Beekman has been appointed New England Passenger Agent. Office, 336 Washington St., Boston, Mass.

E. F. Tarbox has been appointed Travelling Passenger Agent. Office, 336 Washington St., Boston, Mass.

Canadian Pacific Ry.—M. McD. Duff has been appointed Assistant to the Manager, C.P.R. Steamship Lines, with office at Montreal. The Manager, A. Piers, has his office in Liverpool, Eng.

F. A. Gascoigne, heretofore Car Accountant, has been appointed Superintendent Car Service, Eastern Lines. Office, Montreal.

J. D. Altimas has been appointed Car Accountant, vice F. A. Gascoigne, promoted. Office, Montreal.

A. S. Maynard has been appointed Chief Commissary Agent, in charge of the purchasing of commissary supplies for the company's hotels, steamships and dining cars. The office is a branch of the Purchasing Department. Office, Montreal.

L. Fisher, heretofore Road Foreman of Locomotives, Saskatoon, Sask., has been appointed Road Foreman of Locomotives, Souris, Man., vice J. Scott, transferred.

J. Scott, heretofore Road Foreman of Locomotives, Souris, Man., has been appointed Road Foreman of Locomotives, Saskatoon, Sask., vice L. Fisher, transferred.

Jno. McRae has been appointed roundhouse foreman, Revelstoke, B.C., vice G. Chapman, resigned.

G. H. Tedlock has been appointed Locomotive Foreman, North Bend, B.C., vice D. Inches, resigned.

H. Vollans, heretofore Assistant Roadmaster, has been appointed Roadmaster, Cascade section, Pacific Division, vice A. Munro, deceased.

O. Johnson has been appointed Assistant Roadmaster, Cascade section, Pacific Division, vice H. Vollans, promoted.

H. M. Tait has been appointed Travelling Passenger Agent, C.P.R. Steamship Lines, for the State of Washington, with office at Seattle.

Grand Trunk Pacific Ry.—G. W. Robb, heretofore General Foreman Motive Power, G.T.R., Ottawa, has been appointed Assistant Master Mechanic, G.T.P.R. Office, Rivers, Man.

W. J. McKee, heretofore Locomotive Foreman, G.T.R., Hamilton, Ont., has been appointed Locomotive Foreman, G.T.P.R., Melville, Sask.

Grand Trunk Ry.—D. J. McCuaig, heretofore Locomotive Foreman, Ottawa, has been appointed General Foreman Motive Power Department, at Ottawa, Ont., vice G. W. Robb, resigned to enter G.T.P.R. service. No successor to D. J. McCuaig as Locomotive Foreman has been appointed and he will discharge the duties of both positions.

W. W. Yeager, heretofore leading machinist, Hamilton, has been appointed Locomotive Foreman, Hamilton, Ont., vice W. J. McKee, resigned to enter G.T.P.R. service.

The following agents have been appointed: St. Paul, Que., W. T. Parker; Dominion, Que., W. J. Mallett; Convent, Que., W. J. Mallett; River Beaudette, Que., J. A. Perrier; Morrisburg, Ont., G. A. Godfrey; Omeamee Junction, Ont., J. M. Rutherford; Scotia Junction, Ont., S. Blatherwick; Mimico, Ont., W. E. Millar; Thorold, Ont., J. W. Ralston; Norwich, Ont., I. J. Heldman; Amherstburg, Ont. (outside agency), R. L. Kitchen; Goldstone, Ont., R. J. Hyde; Port Huron (Pass.), Mich., C. R. Clarke.

Intercolonial Ry.—A J. Tingley, heretofore Police Inspector, has been appointed acting Special Agent, vice E. A. Williams, Special Agent, resigned to enter the Thiel Detective Agency service.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—E. Pennington, Vice-President and General Manager, has been elected President, vice T. Lowry, deceased. Mr. Pennington will continue to act as General Manager.

Niagara Gorge Rd.—E. S. Jerred has been appointed Canadian Travelling Passenger Agent, with office at Toronto, vice C. Graves, resigned.

Quebec and Lake St. John Ry.—See Canadian Northern Quebec Ry.

Temiskaming and Northern Ontario Ry.—S. B. Clement, heretofore Assistant Engineer, has been appointed Chief Engineer, vice G. A. McCarthy, resigned to enter private business. Office, North Bay, Ont.

The Western Canada Railway Club, which was recently formed in Winnipeg, held its inaugural meeting at the Royal Alexandra Hotel, Mar. 9. The proceedings were opened by an address from the Honorary President, W. Whyte, Second Vice-President C.P.R. A paper was read by G. J. Bury, General Manager C.P.R. Western Lines, entitled "A Review of Organizations and a Suggestion," which dealt with the history of labor organizations, and indicated their relation to rail way operation. A number of the members took part in the discussion, which was summed up by the Honorary President.

Canada Port, Docks, Storage and Warehouse Co.—Application is being made to the New Brunswick Legislature for an act incorporating a company with this title, with offices at St. George, N.B., and a capital of \$99,000. The company is asking for very extensive powers, to construct docks, warehouses, elevators and all terminal facilities. The provisional directors are: G. W. Marsh, W. L. E. Marsh, J. Doust, Toronto; R. W. Agnew, C. H. Clarke, New York city. Two of the Toronto directors, Marsh and Marsh, some years ago were interested in a venture to establish a steamship line between Maritime Province ports and the West Indian Islands, and latterly were interested in a venture to acquire a controlling interest and rights at Letang, N.B.

Sir Thos. G. Shaughnessy, President C.P.R., stated recently that the company had invested \$5,000,000 of its surplus funds in Dominion 10-year 3¾% debentures.

E. de la Hooke, Secretary-Treasurer Canadian Ticket Agents' Association, London, Ont., has nearly recovered from a heavy fall on the ice on Mar. 9, which injured his hip.

The G.T.R., according to a Montreal dispatch, has decided to obey the Imperial Privy Council's judgment, by putting on a third-class passenger service between Montreal and Toronto at 2c. per mile.

The annual meeting of the Montreal Warehousing Co. was held Mar. 3. Following are the directors for the current year: C. M. Hays, President; E. H. Fitzhugh, Vice-President; W. M. Ramsay, J. W. Loud, W. Wainwright.

The C.P.R. Y.M.C.A. building at Kenora, Ont., was opened recently by Wm. Whyte,

Second Vice-President C.P.R. The building is a substantial one and well equipped, special attention being paid to the living and boarding accommodation.

The monthly meeting of the Canadian Railway Club was held in Montreal, Mar. 2, when a paper was read by E. E. Lloyd, Chief Clerk office of Auditor of Stores and Mechanical Accounts, C.P.R., entitled Shop Timekeeping and Labor Distribution.

It is reported from Mexico City, that Sir Wm. C. Van Horne and associates have purchased the Pan-American Rd., and that it is their intention to extend it to a connection with the Guatemala Ry. system, and to construct branch lines in Mexico.

An order for the winding-up of the Spanish River Navigation Co. was made in Toronto Mar. 23. The company's affairs are said to be in a bad condition. P. H. B. Dawson, of Sault Ste. Marie, is appointed provisional liquidator, and reference is to the Local Master at Sault Ste. Marie.

Peter Fountain, a G.T.R. freight conductor, of Sarnia, pleaded guilty at the Stratford, Ont., Police Court, Mar. 26, to two charges of forgery. He used the names of Trainmaster Bowker at Stratford, and Superintendent Gillen at Toronto. On request of counsel he was remanded for sentence.

A recent press despatch from Winnipeg announced that the C.P.R. had decided to abolish its Secret Service Department. We are advised that the company has not had such a service for some time past, merely having a staff of men for making open inspections and investigating claims and irregularities.

H. G. Elliott, Assistant General Passenger Agent G.T.R., was, at the recent 32nd annual meeting of the Grand Chapter of Quebec Royal Masons, elected Grand First Principal Z, but for personal reasons he declined, and E. A. Evans, General Manager and Chief Engineer Quebec Ry., Light and Power Co., was chosen.

The C.P.R. is reported to have let a contract to Foley, Welsh & Stewart, for the construction of 600 miles of irrigation ditches to complete the western section of its system in Alberta. The main canal will be 40 ft. wide and will carry 6½ ft. of water. A quarter of a million acres will be served by the new system when completed.

Replying to questions in the House of Commons recently the Minister of Railways stated that during Dec., 1908, the number of permanent employes on the I.C.R. had been 7,192, and of temporary employes, 1,286, with a pay roll of \$464,971.96. On the P.E.I. Ry., during the same month, there were 461 permanent and 204 temporary employes, the pay roll amounting to \$26,034.33.

The Interstate Commerce Commission's Division of Prosecutions announced, Mar. 7, that an indictment containing 21 counts has been found in the District of Vermont against the C.P.R., and an indictment containing a similar number of counts against the Quaker Oats Co. The C.P.R. is charged with giving transportation of certain stockfeed and other grain products from Richford, Vt., to Boston, Mass., and nearby points, free of charge, and the Quaker Oats Co. is charged with receiving the concession.

During Jan., 18 employes were killed and 20 injured in the course of their work on Canadian railways. Of the fatalities 5 were due to collisions, 3 each to being run over and to being caught between cars; 2 each to derailments and to falling material, one each to a fall, to an explosion of dynamite, and to death by what is known as "bends" in a tunnel worker. Of the other accidents, 6 were due to explosions of steam, 5 to falls, 4 to falling material, 3 to derailments, and one each to being run over and to a collision.

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MAINLY ABOUT PEOPLE.

Lady Shaughnessy and Miss Shaughnessy are in Europe.

G. Shanks, C.P.R. yardmaster at Adamville Jct., was killed in a head-on collision there, Mar. 18.

E. B. Osler, M.P., director C.P.R., has been re-elected President Ontario Rifle Association for the current year.

Mrs. Robt. Stevenson, a sister of Lord Mount Stephen, and of Mrs. Robt. Meighen, died at Montreal, Mar. 3, aged 78.

Hugh Sutherland, Executive Agent C.N.R., Winnipeg, has been elected Chairman of the Selkirk Centennial Fair Committee.

Hon. J. S. Hendrie, M.P.P., has been re-elected Chairman of the Railway Committee of the Ontario Legislature for the current session.

The engagement of Miss R. Bosworth, daughter of G. M. Bosworth, Fourth Vice-President C.P.R., to D. B. Seeley, Montreal, is announced.

R. Kerr, Passenger Traffic Manager C.P.R., Montreal, attended the recent meetings of the Transcontinental Passenger Association at Chicago, Ill.

S. B. Morris, C.P.R. ticket agent, Rodney, Ont., has been re-elected Grand Master Workman of the Ancient Order of United Workmen of Ontario.

Miss Madeline Crossen, daughter of W. J. Crossen, President Crossen Car Manufacturing Co., Cobourg, Ont., is engaged to L. E. Jordan, of Ottawa.

D. Marshall, it is reported, will shortly be appointed Minister of Railways for Alberta, a new position about to be created by the Provincial Government.

H. R. Charlton, G.T.R. Advertising Agent, recently returned to Montreal from Seattle, Wash., where he arranged for the G.T.R. exhibit at the forthcoming Yukon exhibition.

J. M. Mackenzie, Miss Mackenzie and the Misses Ethel and Grace Mackenzie, of Benvenuto, Toronto, sailed for England in the middle of March and are expected to return in May.

H. P. Dwight, President G.N.W. Telegraph Co., Toronto, who has had a slight attack of pneumonia, was on Mar. 30 reported to be progressing very satisfactorily towards recovery.

J. W. Leonard, General Manager C.P.R. Eastern Lines, who has been at Preston Springs, Ont., since January, on account of ill-health, is reported to have considerably improved.

R. Boswell, after 19 years' service with the Dominion Transport Co. in Toronto, was presented with a clock, an oak secretaire and a gold fountain pen, by the staff, on retiring from the company's service, Mar. 17.

B. W. Folger, Manager Niagara Navigation Co., accompanied by Mrs. Folger and two daughters, who left Toronto in the middle of Jan. for Europe, returned at the end of March, after spending most of the time in Munich.

S. R. Poulin, Division Engineer National Transcontinental Ry., delivered an address to the Canadian Society of Civil Engineers' Winnipeg branch, Mar. 11, on the construction of the line between Moncton and Winnipeg.

T. Henry, Traffic Manager, and H. F. Chaffee, Assistant General Passenger Agent, Richelieu and Ontario Navigation Co., attended recent conferences of the South Eastern Passenger Association at Chicago, Cincinnati and St. Louis.

D'Arcy Scott, Assistant Chief Commissioner, who was to have held a sitting of the Board of Railway Commissioners at Montreal, Mar. 2, was prevented from attending, owing

to the death of Mrs. M. P. Davis, Mrs. Scott's mother. The sitting was postponed for a week.

A. B. McDonald, who has recently been appointed general foreman car shops, I.C.R., Moncton, N.B., was born at Moncton, Sept. 16, 1869, and entered I.C.R. service Dec., 1889; was appointed charge hand Oct., 1904; car foreman, April, 1905; and General Foreman, Feb., 1909.

G. W. Robb, who has been appointed Assistant Master Mechanic G.T.P.R., Rivers, Man., was presented with a cabinet of silverware by the G.T.R. shop employes at Ottawa Mar. 13, on the occasion of his resigning the position of general foreman Motive Power Department there.

W. Alderson, who has recently retired from the position of General Car Inspector G.T.R., Toronto, after 50 years' service, was presented, Mar. 6, with an illuminated address and a purse of gold, and Mrs. Alderson with an umbrella and bouquet, by the staff of the car department of the whole G.T.R. system.

A Philadelphia, Pa., dispatch says: W. P. Henszey of the Baldwin Locomotive Works, one of the most prominent designers of locomotives in the world, died there, Mar. 23, from pneumonia, aged 77. During the 50 years of his connection with the works it is estimated that he designed more than 32,000 locomotives.

W. R. Baker, Secretary C.P.R., who is at present on a visit to Europe, was recently received by the Prince and Princess of Wales, and subsequently lunched at Marlborough House. He has been spending some time in the south of France with James Redmond, of Montreal, and is expected to return to Montreal in April.

W. McNab, Principal Assistant Engineer, G.T.R., Montreal, was re-elected President American Railway Engineering and Maintenance of Way Association, at the annual meeting held in Chicago Mar. 18. He occupied that position for a portion of the past year, having succeeded to it on the death of the previous President.

The Lord Chancellor and Lord Collins, two of the Judicial Committee of the Privy Council, before whom the G.T.R. Penny Fare case was recently argued, are shareholders in the G.T.R. On their desiring to know if counsel had any objection to their being members of the Board, it was stated that there was no objection whatever.

E. Dussault, who died at Quebec Mar. 7, held the contract for construction of the breakwater extension there, and amongst other works undertaken by his firm are the construction of the Government wharf at Levis, Que., and two lightships in the Traverse, and in partnership he built a branch of the Quebec Central Ry.

G. J. Bury, General Manager; W. B. Lanigan, Assistant Freight Traffic Manager, C.P.R. Western Lines, and T. R. Flett, Superintendent District 3, C.P.R., Brandon, Man., were guests at the Lanigan, Sask., Board of Trade dinner recently. The chief topic of discussion was of Lanigan as the future railway centre of the province.

Lord Strathcona has sent \$2,000 to the fund being raised for the building of a new armory for the 65th Regiment at Montreal, and has also contributed \$1,000 to the organ fund of the new All Saints' Cathedral, Halifax, N.S. He has offered \$10,000 a year to encourage physical and military training, including rifle practice, in Canadian public schools.

C. McLellan, for over 50 years an employe of the G.T.R., died at Stratford, Ont., Mar. 16, aged 70. He was an apprentice in the London and Northwestern Ry. shops at Crewe, Eng., and after coming to Canada was

engaged in the G.T.R. shops at Montreal, Brantford and Stratford, being latterly foreman of the running repair shops, from which position he retired two or three years ago.

W. Gell, Master Mechanic G.T.P.R., who has been in the London, Ont., hospital for some time past, and who recently underwent a serious operation, was reported, at the middle of March, to be progressing very favorably and was allowed out, but he suffered a relapse, which, though not at the time we write considered very serious, has necessitated his return to the hospital.

J. M. Egan, who recently returned from Brazil, where he is said to have assisted in building one of the largest railroads in that country, was, from Jan., 1882, to Sept. 1, 1886, General Superintendent Western Division C.P.R., Winnipeg; Sept. 1, 1886, to Feb., 1888, General Superintendent St. Paul, Minneapolis and Manitoba Ry.; and at a later date became President of the Central Georgia Ry., and Ocean Steamship Co.

Mrs. Nixon, wife of W. J. Nixon, C.P.R. train dispatcher, Medicine Hat, Alta., and her two children, were killed at Montreal, Mar. 17, in the accident at the Windsor St. station, Montreal. Mrs. Nixon and the children were in the ladies' waiting-room, awaiting the arrival of Mr. Nixon, who is a brother of A. J. Nixon, Assistant Superintendent G.T.R., London, Ont., and who was on the train which ran into the station.

H. D. Mackenzie, whose appointment as General Foreman of Locomotive Shops, I.C.R., Moncton, N.B., was announced in our last issue, was born at Churchville, N.S., July 22, 1865, and entered I.C.R. service July 26, 1881, since when he has been, to Sept. 1, 1897, machinist apprentice; Sept. 1, 1897, to Oct., 1899, charge hand at Moncton and Stellarton, N.S.; Oct. 16, 1899, to Feb. 1, 1909, Mechanical Foreman, Stellarton, N.S.

F. H. McGuigan, formerly Fourth Vice-President G.T.R., who has been a fruitful source of copy to the daily press since he resigned the Vice-Presidency of the G.N.R. (U.S.), has recently been named as a possible Manager for the Dominion Steel Co. Mr. McGuigan recently entered into business on his own account and at present is engaged in the construction of the Ontario Government's power transmission line, which will probably occupy his attention for some time to come.

C. S. Richardson, who was recently appointed District Freight Agent C.P.R., Buffalo, N.Y., was born at New York City, Sept. 26, 1870, and was, from Feb., 1885, to Feb., 1887, clerk General Eastern Passenger Agent's office, West Shore Rd., New York; Feb., 1887, to Feb., 1890, ticket agent C.P.R., New York; Feb., 1890, to Feb., 1896, Travelling Passenger Agent C.P.R., New York; Feb., 1896, to Feb., 1901, Contracting Freight Agent C.P. Dispatch, New York; Feb., 1901, to Sept., 1903, Travelling Freight Agent C.P.R., Syracuse, N.Y.; Sept., 1903, to Jan., 1905, Freight and Passenger Agent C.P.R., New York; Jan., 1905, to Jan. 15, 1909, Travelling Freight Agent C.P.R., Buffalo, N.Y.

T. McHattie, who has recently been appointed Superintendent of Motive Power and Car Department, Central Vermont Ry., St. Albans, Vt., was born at Dufftown, Banffshire, Scotland, Aug. 8, 1854, and entered railway service Oct. 2, 1870, since when he has been consecutively to 1878 in locomotive shops, Great Western Ry. (now part of the G.T.R.) at Hamilton, Ont.; June, 1878, to Aug., 1886, locomotive engineer, same road; Aug., 1886, to April, 1889, locomotive foreman, G.T.R., at Palmerston, Ont.; April, 1889, to April, 1898, general foreman in charge of locomotives, same road, at London, Ont.; April, 1898, to Jan., 1909, Master Mechanic, Eastern Division, same road, at Montreal.

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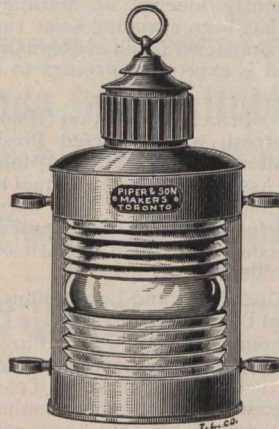
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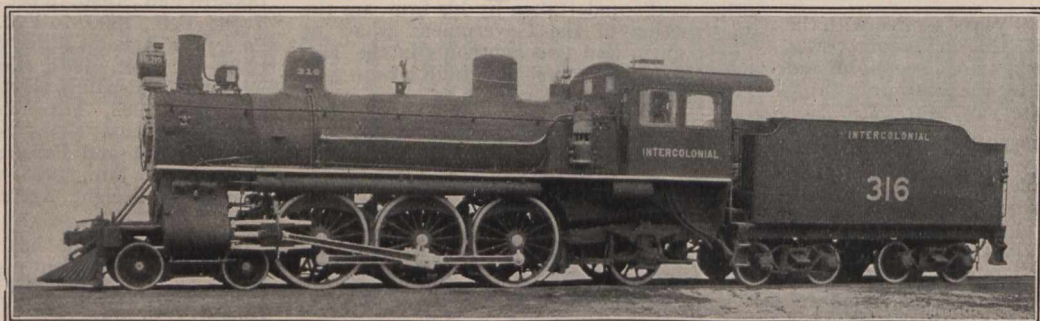


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W. U. Appleton, whose appointment as Assistant to the Superintendent of Motive Power, I.C.R., Moncton, N.B., was announced in our last issue, was born at Moncton, Jan. 29, 1878. He entered the I.C.R. service as messenger, and was transferred to the locomotive shops as apprentice, Sept., 1895, since when he has been from Dec., 1899, to April, 1901, clerk in Mechanical Superintendent's office; April to Sept., 1901, machinist, Moncton shops; Sept., 1901, to Oct., 1902, clerk to Superintendent of Machinery and Rolling Stock; Oct., 1902, to May, 1903, clerk Master Car Builder's office; May, 1903, to May, 1904, clerk General Superintendent's office; May, 1904, he was appointed Chief Clerk to Superintendent of Motive Power, which position he still also holds.

Imperial Service Medals for long and meritorious service were presented to I.C.R. employees at St. John, N.B., recently. Following are the names of the recipients, with their occupation and length of service: G. Collard, brakeman, 34 yrs.; D. Driscoll, porter, 26 yrs.; P. Driscoll, porter, 31 yrs.; A. Fraser, blacksmith, 25 yrs.; I. B. Humphrey, station master, 36 yrs.; W. Kelley, conductor, 46 yrs.; J. H. Magee, tinsmith, 35 yrs.; J. Milligan, conductor, 47 yrs.; M. Manson, porter, 25 yrs.; J. McAnulty, porter, 25 yrs.; D. McDonald, porter, 26 yrs.; E. L. Perkins, storekeeper, 36 yrs.; T. W. Prince, engineer, 44 yrs.; A. Rainnie, conductor, 48 yrs.; R. M. Scott, locomotive inspector, 36 yrs.; E. P. Shaw, checker, 35 yrs.; I. G. Stevens, policeman, 27 yrs.; E. Shaw, crossing man, 33 yrs.

E. Pennington, who has been elected President Minneapolis, St. Paul and Sault Ste. Marie Ry., consequent on the death of T. Lowry, was born at La Salle, Ill., Sept. 16, 1848, and entered railway service in 1869, since when he has been; to 1870, warehouseman; 1870 to 1872, brakeman; 1872 to 1875, conductor; 1875 to 1877, roadmaster; 1877 to 1879, Superintendent of Construction, 1879 to 1882, General Roadmaster; 1882 to 1884, Assistant Superintendent Chicago, Milwaukee and St. Paul Ry.; 1884 to June, 1888, Superintendent Minneapolis and Pacific Rd.; June, 1888, to Apr. 15, 1898, Superintendent Minneapolis, St. Paul and Sault Ste. Marie Ry.; Apr. 15, 1898, to Feb. 1, 1899, General Superintendent, same road; Feb. 1, 1899, to Mar., 1909, Vice-President and General Manager, same road.

P. W. Snider, Superintendent C.P.R. Telegraph Department, St. John, N.B., died there Mar. 22, of Bright's disease. He was born in Halton County, Ont., July 14, 1854, and learned telegraphy in the Dominion Telegraph Co.'s office at St. Catharines, Ont., in 1870. He was subsequently employed by the same company in Brantford, London, Toronto and Ottawa until 1877, when its lines were extended to the Maritime Provinces. He opened its office at St. John, N.B., in Oct., 1877, and was section manager for the Maritime Provinces until the consolidation of that company in 1881. From Aug., 1881, to 1889, he was cashier of the Western Union's St. John office, and was then appointed Manager of the C.P.R. Telegraphs, St. John office. In 1890 he was appointed circuit manager for the Maritime Province district, and in charge of the maintenance of lines, and in Nov., 1903, was appointed Superintendent.

D. Sutherland, who has recently been appointed General Agent, C.P.R., Prince Rupert, B.C., was born at Niagara Falls, Ont., Sept. 21, 1873, and entered railway service Dec., 1888, since when he has been consecutively: Dec., 1888, to Dec., 1890, clerk in District Passenger Agent's office, C.P.R., Toronto; Dec., 1890, to Oct., 1893, clerk in Assistant Freight Traffic Manager's office, same road, Toronto; Oct., 1893, to May, 1896, clerk in General Freight Agent's office, same road,

Toronto; May, 1896, to May, 1897, clerk in General Freight Agent's office, same road, St. John, N.B.; May, 1897, to May, 1899, City Freight Agent, same road, St. John, N.B.; May, 1899, to Dec., 1901, Travelling Freight Agent, Atlantic Division, same road, covering New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland; Dec., 1901, to Nov., 1906, General Freight Agent, Newfoundland Ry.; Dec., 1906, to Jan., 1909, Travelling Freight Agent, C.P.R., Vancouver, B.C.

Edward S. Piper, President of the N. L. Piper Railway Supply Co., Ltd., died in Toronto Mar. 24, aged 67, after several months' illness. He was a son of the late Noah L. Piper, one of the original York pioneers. He was educated at the Model School and Upper Canada College, Toronto, and at Dr. Tassie's grammar school in Galt. On leaving school he was associated with his father in the house-furnishing business. He was soon made a partner, and at his father's death succeeded to the business. He had a genius for invention, and patented many improvements in railway lamps. His success with these and other inventions led him to merge his house-furnishing business into that of railway supplies, in which he built up a very successful trade. He invented and patented many other railway appliances, including orderboards, semaphores, street gates, etc., which the railways have adopted and are still using. He was widely known among railway officials throughout the Dominion. He was an Anglican, a Freemason, an Oddfellow and a Forester. He is survived by a widow, one daughter and four sons. One of his brothers, H. L. Piper, is Managing Director of the Hiram L. Piper Co., Ltd., Montreal.

Cause of C.P.R.'s Montreal Accident.

In giving evidence at the inquest into the causes of the recent accident at Windsor St. station, Montreal, when an uncontrolled train ran into the waiting-room there, H. H. Vaughan, Assistant to the Vice-President C.P.R., said: "The cause of the accident had evidently been that the plug had been struck by the driving wheel, a very rare occurrence with this style of engine. It is a thing which would happen very suddenly. It was caused by the breaking of the spring hanger, which was probably due to some hidden defect in the material. Defects in the spring hangers are constantly occurring on account of their very severe service, although they are made of the best material possible. The breaking of this spring hanger would lower the boiler on one side, and cant it two or three inches toward the wheels. If the engine had lurched over as far as possible the driving wheel would have come in contact with the washout plug. That blown-out plug was the only thing that I could find on the boiler to account for the escape of steam. The needed repairs had all been made at Newport, and I received a report to that effect from the B. & M. locomotive foreman there. There were always minor repairs to be made after every run of 125 or 150 miles."

Asked as to how he accounted for the scalding of the engineer, he said he could not speak from knowledge, but proceeded to give his views as to what must have taken place after the fireman jumped: "My idea is that at first the engineer did not think that anything serious had happened. Otherwise I am convinced that he would have shut the throttle and applied the air brakes immediately. I do not suppose we have a man but would have done that. I think the engineer got off his seat to go to the side where the plug had blown out, and then found that the steam and water he was getting was very much worse than he expected. He probably at first thought that the gauge glass had broken, and as he felt for that he got a whole spurt of hot

steam and water in his face, and very likely inhaled some of the boiling vapor. Either that overcame him or he fancied that the whole side of the boiler had blown out, and staggered to the gangway and got off. I think this because it is so infinitely easy for an engineer to close the throttle and apply the air. I have often seen engineers leave their places and look at anything suspicious, leaving the engine running, and I am convinced that from his side of the cab, the thing seemed trivial, and the engineer went to fix it, with the result I have stated."

Mr. Vaughan then stated that while he could not speak from actual knowledge, as he had not seen the work done, the C.P.R. had had the track measured and an estimate of the efficiency of the brakes, under the conditions that were known to have existed, prepared by the Westinghouse Co., and on this information, which could be verified by the experts who supplied it, he gave the following explanation as to why the brakes did not act: "It is 1,930 ft. from the station buffer block to where the brakeman had first taken alarm. The brakeman thinks he acted very quickly; but he was excited. Probably three or four seconds elapsed between his realizing where the train was and actually applying the brake. He had to turn around, enter the door, think where the valve was, and then open it, all of which would have taken three or four seconds. At that time the train was probably travelling from 50 to 55 miles an hour, or from 70 to 80 ft. a second, so that it would have run 250 ft. before the valve was opened. Then after the valve is opened it would probably take $1\frac{1}{4}$ seconds before the full brake pressure was set. In addition, the broken spring hanger on the engine prevented the brakes from working on the engine, so that the train had only a small percentage of its total weight braked. Assuming a speed of 55 miles an hour, with the last car 300 ft. from the laundry, leaving about 1,600 ft. to the buffer bars at the station, and allowing for the length of the train, we would expect the train to have a speed of about 25 miles an hour when it hit the stop block, which would be sufficient to account for the accident. It is inconceivable that with the brake in perfect working order at Montreal Jct., it should be out of order when it was applied. As to the brakeman's idea that the brake did not set right, this was probably due to the fact that he was only accustomed to feeling the brakes applied from the engine, which was quite different to the effect when the brakes were applied from the rear of the train."

Cost of Accidents.—The Secretary of the Board of Railway Commissioners has issued the following circular to railway companies: "I am directed by the Board to request you to be so good as to furnish, for the use of the Commission, statements, under separate heads, all losses, direct and indirect, sustained by your company in Canada and charged or chargeable to the company during the company's last five financial years—including the cost of all repairs and renewals, damages for injuries to persons, payments in settlement of possible claims, and all other expenses—caused by and due to the following: head-on and rear-end collisions, side pitch-ins, open switches, broken rails."

The Minister of Railways, replying to questions in the House of Commons recently, stated that it was not the intention of the Government to add to the obligations already incurred in granting aid to railways. This was the reply to the final question, the previous questions having to do more particularly with an interview which the Premier of Alberta had with the Prime Minister and the Minister of Railways, when the desirability of aid being granted by the Dominion Government for the construction of railways in Alberta was urged.

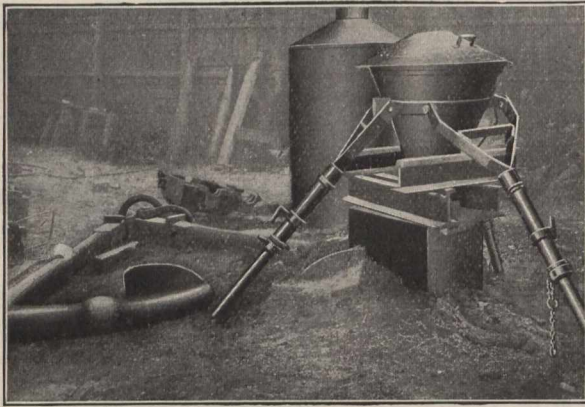
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TORONTO, CANADA, APRIL, 1909

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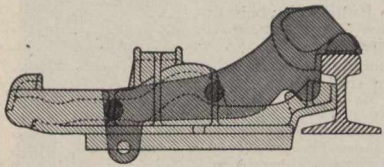
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Railway Lands Patented.—Letters patent were issued covering railway land in Manitoba, Saskatchewan, Alberta, and British Columbia, during Nov., 1908, as follows:

	Acres.
Canadian Northern Ry.	15,939.67
C.P.R., grants	659.73
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National Transcontinental Railway.

The report of the Commissioners of the N.T.R. for the nine months ended Dec. 31, 1908, presented to the House of Commons, shows that there had been expended \$18,866,212.84, making a total expenditure since the initiation of the work of \$45,924,156.88. There were 668.65 miles of grading completed, and 309.12 miles of track laid. The entire line is under contract with the exception of the entrance into Winnipeg. Contracts for steel superstructure and viaducts amounting to 23,765 tons have been awarded, and 6,995 tons have been practically completed. Contracts for 174,818 tons of 80-lb. rails have been awarded, of which 105,692 tons are being furnished by the Dominion Iron and Steel Co., and 69,123 by the Algoma Steel Co. The necessary fastenings for these rails have been ordered through Canadian manufacturers. The McArthur contract for the construction of the section between Winnipeg and the Fort William branch of the G.T. Pacific Ry. has been approximately 82% completed, and the work is to be finished so as to permit of the operation of the line in Sept. During the year certain items of classification were disputed between the engineer acting for the G.T. Pacific Ry., and the Commissioner's Chief Engineer, and as after considerable discussion, they found they could not agree in every particular, it was decided to put in force the arbitration clauses of the N.T.R. Act. Accordingly C. Schreiber was decided upon as third arbitrator. No further progress can be made towards a settlement of the differences until the snow has finally cleared away.

The through mileage from Moncton to Winnipeg is 1,804.84, and the work done in the different districts is as follows: District A., Moncton to the New Brunswick line, 255.10 miles, 39% done; district B., from the New Brunswick line to Clear Lake, long. 74° w., Que., 398.74 miles, 53% done; district C., from Clear Lake, Que., to Quebec-Ontario line, nothing done; district D., from Ontario-Quebec line to near long. 84° w., 248 miles, about 4% done; district E., from long. 84° w., to near long. 89° 30' w., 259.91 miles, nothing done; district F., from long. 89° 30' w., to east bank Red River near Winnipeg, 374.66 miles, 87% done. In district C. it is estimated that there are 2,500,000 acres of good farming land available on its being cleared, while an additional 1,250,000 acres will be available on give navigation for about 70 miles southerly of the railway. In district D. it is estimated that there are 1,344,000 acres of land available for agricultural purposes on its being cleared on the first 185 miles; 3,800,000 acres on the next 100 miles, and 500,000 acres in the Missanabie River valley, in addition to large areas which will require drainage, and from mileage 325 to mileage 475 there is about 1,600,000 acres of good sandy loam available.

With reference to the cost of the line the Minister of Railways said a memorandum by the Chief Engineer, dated Feb. 9, contains his estimate of April 3, 1908, placing it at \$63,427 a mile. From information supplied by the Finance Department it was stated that loans of £1,425,428 1s. 7d. and £2,689,851 7s. 11d. at 3½% had been raised for the purposes described in clause 23, chap. 71, of the statutes of 1903; the interest charged on these loans to Jan. 31 had been £85,520 13s. 0d. The debentures issued by the commissioners, now amounting to \$46,000,000, and deposited with the Minister of Finance, were not issued in respect of these loans, but were issued generally as money was required for payment of construction work. The statute makes

no provision by means of which the commissioners can make payment of the interest on these debentures as it accrues, until such time as there is a net revenue and income derived from the operation of the line, when the principal and interest becomes a first lien thereon.

A semi-official statement has been made at Moncton, N.B., that the line between Moncton and Chipman, N.B., the starting point of the Canada Eastern Ry. branch of the Intercolonial Ry., will be so far completed by the fall as to permit it to be opened for the carrying of coal and other freight.

A. E. Doucet, District Engineer, Quebec, in reviewing the work done on his district, says progress under very favorable circumstances is being made, there being over 6,000 men employed between the Quebec-New Brunswick boundary and Weymontachene River. On the south side of the St. Lawrence River easterly the work is practically completed for 150 miles, and there are over 3,000 men employed on the remaining mileage to the New Brunswick boundary. On the north side of the St. Lawrence River track had been laid from Cap Rouge to Portneuf River, where there was a gap of 12 miles on which some steam shovel work was required. Beyond this track had been laid 68 miles, where a bridge was being constructed over the Milieu River by the Dominion Bridge Co. The bridge has a total length of 3,000 ft., and is 175 ft. above water level. It is expected that the bridge will be completed in May. Beyond the Milieu River track had been laid for 48 miles to the St. Maurice River, beyond which no track had been laid. Supplies and material had been taken into points 71 miles beyond the St. Maurice River, and a certain amount of work had been done.

J. D. McArthur, in an interview Mar. 6, said the Winnipeg-Lake Superior section of the line would be completed so far as the grading was concerned by May 1. The last section of the grading was about half completed. Tracklaying will be pushed, and it is hoped to get it ready for operation for the fall.

In an interview at Winnipeg Mar. 12, S. R. Poulin, District Engineer, stated that track was expected to be laid between St. Boniface and the Winnipeg River, 113 miles, in a few days thereafter. Tracklaying would be resumed on the east bank of the Winnipeg River April 1, and on the same date another gang would start laying track westerly from the junction with the G.T.P.R. Lake Superior branch. Ballasting would be proceeded with simultaneously from the two ends. There was nothing, he said, to prevent the line being completed between Winnipeg and Lake Superior Jct. by Sept. 1. Easterly of this junction, very satisfactory progress was being made on the other 150 miles of the route in district F. The first 80 miles had been fully cleared and prepared for the grading gangs, and grading was being proceeded with on 50 miles. Clearing gangs were at work on the remaining 70 miles.

Tenders will be received to April 8 for the construction and erection of a steel and concrete bridge and approach spans over the Red River between Winnipeg and St. Boniface, Man., together with grading and approach spans over certain streets in Winnipeg.

THE QUEBEC BRIDGE.

During the discussion of the vote of \$150,000 in the House of Commons for the preparation of plans for the reconstruction of the bridge across the St. Lawrence at Quebec, the Minister of Railways said the engineers had decided that they could not use any part of the material prepared for the former bridge; it was useful for nothing but scrap.

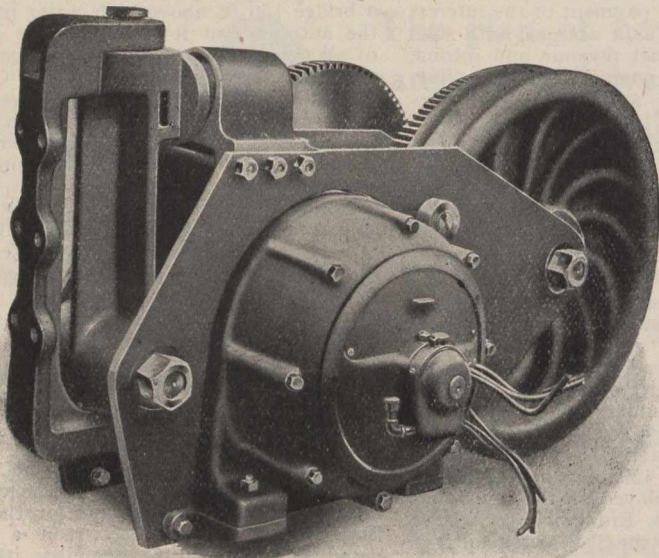
The engineers hoped to have the plans for a bridge 150 ft. above high water ready by the autumn, but it would not be possible to ask for a vote on account of construction until next session. The G.T.P.R. Co. had not made any overtures to the Government with regard to the building of the bridge, but the company had been giving consideration to the question of carrying on traffic across the river in connection with the expectancy that the N.T.R. tracks would be laid from Moncton to Levis during 1910.

Some newspapers have been advocating the construction of a tubular bridge under the water, and this was mentioned during the discussion. The Minister said he saw the suggestion made, but thought it would be utterly impracticable. The water at that point is 200 ft. deep, and the current is very rapid.

GRAND TRUNK PACIFIC RAILWAY.

On Mar. 16, in the course of his speech in the House of Commons on the work of the Department of Railways for the year, the Minister of Railways read a report dated Feb. 5 from C. Schreiber, the Department's Consulting Engineer on the G.T.P.R. The report stated that from Winnipeg to 8.50 miles west of Battle River, 683.50 miles, grading and bridging was completed, and track laid over the whole distance, with suitable sidings at each station, of which 92 miles had a full lift of ballast, 502 miles had a first lift, and 89.50 miles was a skeleton track having no ballast. Station buildings had been completed at West Winnipeg, Melville, Portage la Prairie, Nokomis and Rivers; others were in course of erection at Biggar and Wainwright, while contracts had been let for those at Scott, Iwana, Allan, Lazare, Kelliher, Semans, Loney, Punnichy, Bradwell, and Goblentz. Engine houses had been erected at Rivers and Melville, while others were in course of erection at Watrous, Biggar and Wainwright. Water services had been provided at Beaudry, Elie, Harte, Rivers, Lazare, Welby, Gerald, Melville, Watrous, Bradwell, Earl and Biggar; and was being provided at Portage la Prairie, Squirrel Creek, Pope, Quadra, Miniota, Uno, Atwater, Birmingham, Ituna, Mostyn, Touchwood, Wainwright, Quinton, Raymore, Nokomis, Iwana, Landis, Reford, Unity, Winter, Yonker, Artland and Duun. Grain elevators had been erected at 31 points, 39 elevators in all having been erected, while loading platforms had been constructed at 52 points. There had been erected on each side of the line 345 miles of fencing. A two-line telegraph wire has been strung from Winnipeg for 672 miles, and a single-line wire from mileage 672 to Battle River. This section of the line was opened for public traffic Sept. 21, 1908, since when it had been successfully operated. On the section from Battle River to Wolfe Creek, 241 miles, the steel viaduct over the Battle River was completed Dec. 11, and the Clover Bar bridge over the Saskatchewan River on Dec. 26, 1908. The Battle River bridge consists of 51 spans of 50 ft., and one of 150 ft., making in all 2,700 ft., and is 180 ft. high. The grading and bridging were practically complete from the Battle River to 50 miles west of Edmonton, 172 miles, so that there was no impediment to the laying of track over the whole distance. From mileage 50 west of Edmonton to Wolfe Creek (the western limit of the Prairie section), 69 miles, about 75% of the grading had been done and a number of the culverts built. There were two gangs of men engaged in driving piles for pile and trestle bridges. The grading and bridging on this section should be finished by July. The work, at the time of the report, was practically closed down for the winter, with the exception of the pile

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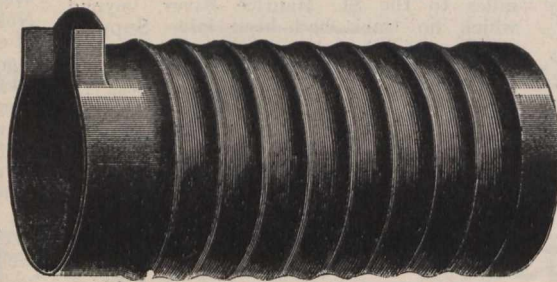
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driving for bridges, the construction of concrete piers and pedestals for the Pembina River bridge, and some grading in rock cuttings and muskegs between mileage 65 west of Edmonton and Wolfe Creek. On the Mountain section the first 100 miles easterly from Prince Rupert was under contract and fair progress was being made with the grading, which is largely composed of solid rock. The quantities excavated were 633,396 cubic yards of solid rock, 94,470 cubic yards of loose rock, and 94,407 cubic yards of earth. There had been 32 culverts constructed on the 100 miles, and a capacious wharf and warehouse had been erected at Prince Rupert. There were 1,850 men and 90 horses and mules engaged on the work. This was the only work in progress on the mountain service, which is about 836 miles long.

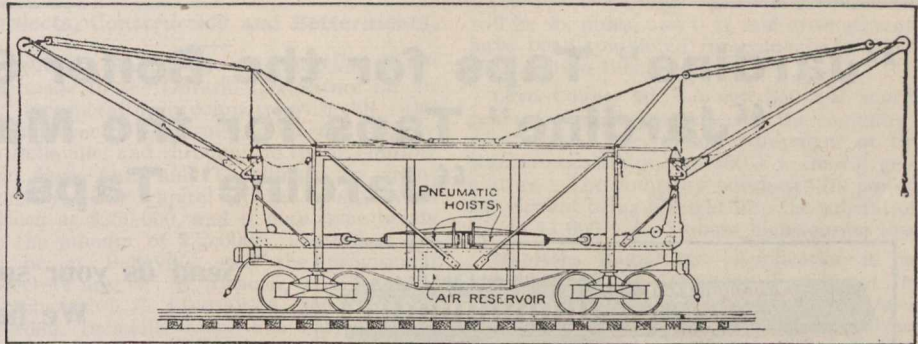
Replying to questions as to the financing of the line, the Minister of Railways said the Government had guaranteed bonds in respect of the construction of the Western Division N. T. Ry. to the amount of £3,200,000, all of which had been issued and sold at 92½, the net proceeds of the sale being \$14,385,600. The sum of \$10,335,482.92 had been paid on account of work done on the Prairie section; \$2,150,852.30 on account of the Mountain section; and the balance, \$1,899,264.78, was deposited in bank to the credit of the Receiver-General. The G.T.R. Co. had guaranteed series A bonds to the amount of £2,100,000, and series B bonds to the amount of £1,354,000. Certain debenture equipment stock of the G.T. Pacific Ry. had also been guaranteed by the G.T.R. The whole of series A bonds, which realized £1,975,705, had been used for construction on the Prairie division, and £128,000 of the series B bonds, which realized £1,228,755, had been expended on the Mountain section.

The final location of the G.T. Pacific Ry. between Wolfe Creek and Prince Rupert has been completed, and it is stated that surveys will be started during the summer for the branch from near Fort George to Vancouver. In connection with the construction going on in the vicinity of Prince Rupert tenders have been asked for the supply of 300,000 cross and switch ties, and 4,000 telegraph poles.

The British Columbia Legislature has before it a bill ratifying an agreement between the Government and the company extending the time within which the company must complete the survey and subdivision of the townsite of Port Rupert, and in some other respects varying the agreement previously made with respect to the same. It is announced that the first sale of lots at the townsite will be made May 1.

GRAND TRUNK PACIFIC BRANCH LINES.—The Alberta Legislature has passed the act authorizing the granting of aid, by way of guarantee of bonds, for the construction of 491 miles of branch lines in the province. The Legislature was informed that the company would construct the line from Wainwright to Calgary and Coutts this fall. (See Saskatchewan and Alberta Lines, Feb., pg. 125.)

PACIFIC NORTHERN AND OMINICA RY.—In the passing of this company's bill for an extension of time through the British Columbia Legislature, it was given permission to construct a branch from the Skeena River, by way of the Copper and the Telkwa Rivers, to a junction with the G.T.P. Ry. at the confluence of the Bulkley and Telkwa Rivers. This branch is to form part of the main line until 1911 to construct this branch, and to construct 15 miles of its line between Kitimat and the Copper River. (Mar., pg. 185.)



Derrick Car for Handling Railway Rails.

The increase in the weight of railway rails in recent years makes the use of machinery for handling them a necessity. A number of railways have appliances for this purpose, but an unusual type is adopted by an eastern line. The machine consists of a flat car with a derrick at each end, which is worked by a pneumatic hoist, taking air from the brake system. The car carries an air reservoir connected directly with the train line, and when this tank is to be filled the locomotive engineer allows the air pump to run the pressure up to 80 lbs. When the train is moved a valve is closed, shutting off the connection between the train pipe and the reservoir. The reservoir will hold sufficient pressure to handle 20 rails after being shut off from the train line.

The accompanying illustration shows the construction of the derricks. Each cylinder operating a derrick has a piston with a travel of 7 ft., and a pulley is attached to the end of the piston rod. A full movement of the piston pulls the hoisting cable 14 ft. The hoisting cylinders for the two derricks are independent, each being worked by a separate air cock. Both derricks can be worked simultaneously in loading or unloading rails.

Railway Rolling Stock Statistics.

Returns for the year ended June 30, 1908, show that there were added to the rolling stock of the various Canadian lines 368 locomotives, 8,302 freight cars, and 384 passenger cars. On that date there were in service 1,122 passenger, 2,392 freight and 358 switching locomotives, a total of 3,872, against 964 passenger, 2,206 freight, and 334 switching locomotives at June 30, 1907. This motive power was equivalent to 169 locomotives for every 100 miles of line, against 156 for the preceding year. In the passenger service there was one locomotive for every 30,343 passengers carried, as against one for 33,337 in 1907. In the freight service there was one locomotive to every 26,368 tons of freight hauled, as compared with one to every 28,951 tons in 1906-07. The number of passenger miles per passenger locomotive was 1,855,580, and the number of ton miles per freight locomotive was 5,418,692, showing an increase of 270,509 in passenger miles, and 120,545 in ton miles, per locomotive as compared with 1906-07.

The number of passenger cars of all kinds in service June 30, 1908, was 4,026, an increase of 384 over June 30, 1907, the distribution among the various classes being: 1st class, 1,493; 2nd class, 487; combination, 422; emigrant, 303; dining, 114; parlor, 63; sleeping, 236; baggage, express and postal, 873; others, 35.

The cars available for freight service showed an increase of 8,302, the number available being 115,709, distributed as follows: box, 72,863; flat, 21,759; stock, 5,047; coal, 11,616; tank, 197; refrigerator, 2,423; others, 1,804. In addition there were 7,180 pay, gravel, derrick, caboose, and other cars in the various companies' service. Excluding the companies' cars the supply of freight cars represented an average of 5,039 cars per 1,000 miles of line, against 4,783 in 1907. The capacity of the cars was 3,277,394 tons, an average of 28.28 tons per car; the figures for 1907 were incomplete, but they showed a car capacity of 2,908,903 tons, or 27.56 tons per car. In regard to available car supply it must be borne in mind, says the report, that the normal number of cars undergoing repairs is about 5.02% (at one period during 1907-08

the percentage reached 9.5), so that it may be assumed that at least 5,808 cars are in the shops at all times.

Victorian State Railways, Australia.—A bill is being introduced into the local Parliament providing for the expenditure of £1,000,000 on improvements of the various lines, additions to rolling stock, additional telegraph and telephone lines, etc. The railways are controlled by a commission of which T. Tait, formerly Manager of Transport, C.P.R., is chairman.

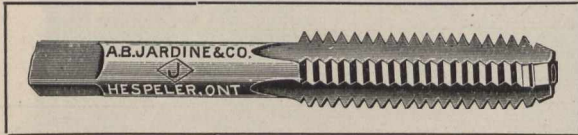
Telephone Dispatching on the C.P.R.—In reference to the particulars which we gave in our last issue respecting the extensions of the system of telephone dispatching on the C.P.R., we are officially advised that appropriations have been made for the stringing of a telephone wire between Fort William and White River, Ont., and that the work of erection will be commenced as soon as weather permits. The dispatchers will be located at White River. Appropriations have also been made for a telephone circuit between Winnipeg and Brandon, Man., and Medicine Hat and Calgary, Alta., which will be put in operation during the summer.

The Eastern Canadian Passenger Association held a meeting at Toronto, Mar. 2, for the consideration of rates for the forthcoming Alaska-Yukon Exhibition at Seattle, Wash., and for other business.

A resolution was submitted to the House of Commons, Mar. 8, by Hon. H. R. Emmer-son, asking the House to secure by lease or otherwise such branch lines now connecting with the I.C.R. as will serve as direct and profitable feeders to the traffic of the said railway. After some discussion the debate was adjourned.

A bill introduced into the House of Commons by J. Conmee, M.P., has for its object the insuring to every railway employe of the privilege of exercising his franchise wherever he may be. The voter will be required to present at the poll, where he may be on the date of the election, a certificate from his home constituency certifying his right to vote. He will then vote for the candidate of his choice, and his sealed vote will be forwarded to his home constituency, and counted along with the other votes cast.

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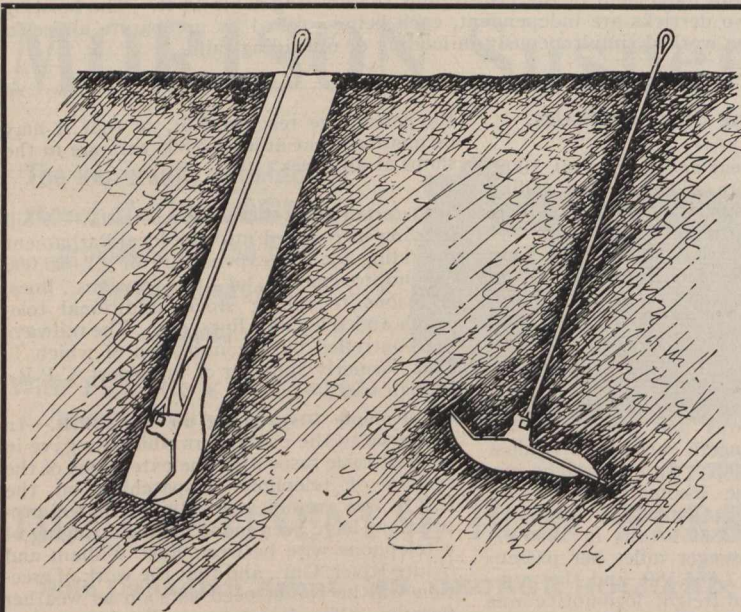


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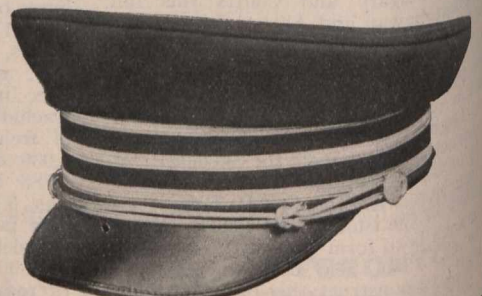


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Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1907-08, from July 1, 1908:

Table with columns: Earnings, Expenses, Net Earnings, Net Increase. Rows for July, Aug., Sept., Oct., Nov., Dec., Jan., Feb.

Approximate earnings for 3 weeks ended Mar. 21, 1909, against \$408,800 for same period 1908.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1907-8, from July 1, 1908:

Table with columns: Earnings, Expenses, Net Profits, Net Increase. Rows for July, Aug., Sept., Oct., Nov., Dec., Jan., Feb.

Approximate earnings for 3 weeks ended Mar. 21, 1909, against \$3,570,000 for same period 1908.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross revenue for Jan. 203,657.11; net revenue, \$41,298.76; against \$210,897.48 gross and \$2,878.23 net for Jan., 1908.

Aggregate gross revenue for 7 months ended Jan. 31, \$1,655,002.38; net revenue, \$505,382.29; against \$1,986,633.92 gross and \$559,786.67 net for same period and for 7 months ended Mar. 21, 1908.

Approximate gross earnings for Feb., \$193,014, and for 3 weeks ended Mar. 21, \$139,897, against \$187,927 and \$148,984 for same periods 1908.

MINERAL RANGE RD.—Gross revenue for Jan. \$62,685.47; net revenue, \$3,990.30; against \$58,657.99 gross and \$6,265.00 net for Jan., 1908.

Aggregate gross revenue for 7 months ended Jan. 31, \$492,065.58; net revenue, \$98,373.50; against \$482,321.11 gross and \$81,760.07 net for same period 1907-08.

Approximate earnings for Feb., \$59,621, and for 3 weeks ended Mar. 21, \$55,909, against \$55,776 and \$45,218 for same periods 1908.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross revenue for Jan. \$762,640.67; net revenue, \$219,550.06; against \$761,539.89 gross and \$245,559.13 net for Jan., 1908.

Aggregate gross revenue for 7 months ended Jan. 31, \$7,801,440.83; net revenue, \$3,604,745.13; against \$7,535,418.54 gross and \$3,073,814.89 net for same period 1907-08.

Approximate earnings for Feb., \$760,388, and for 3 weeks ended Mar. 21, \$630,750, against \$653,123 and \$632,152 for same periods 1908.

Grand Trunk Ry. Earnings, Expenses, etc.

The following figures give the earnings of the G.T.R., the C. A. R., the G. T. Western Ry., and the D. G. H. & M. Ry., separately, for Jan., as compared with Jan., 1908:

Table comparing Grand Trunk Railway, Canada Atlantic Railway, Grand Trunk Western Railway, and Detroit, Grand Haven & Milwaukee Ry. for 1909 and 1908.

TRAFFIC RECEIPTS OF THE SYSTEM.

Table showing aggregate traffic receipts from Jan. 1 for Grand Trunk, Canada Atlantic, G. T. Western, D. G. H. & M., and Total for 1909, 1908, Increase, and Decrease.

ELECTRIC RAILWAYS.

Projects, Construction and Betterments.

Belleville Radial Ry.—Application is being made to the Ontario Legislature for an act incorporating a company with this title, with power to construct an electric railway in Belleville, and through the tp. of Thurlow and Port Ann, and Tyendingaga to Shannonville. The capital of the company is placed at \$250,000, and it may issue bonds to the amount of \$25,000. The offices are to be at Belleville, and the provisional directors are: W. B. Deacon, J. Elliott, F. Ketcheson, J. G. Lindsay, A. McGie, W. S. Morden, Belleville. The line may be constructed in two-mile sections, but construction shall be carried on continuously so as to form one continuous railway, and the Ontario Railway and Municipal Board may approve of plans for the construction of different sections.

British Columbia Electric Ry.—Work in connection with the reclamation project undertaken by the company will be started early in April. This is in connection with what is known as the Stave Lake power plant. The surveyors have practically completed their work, and the construction of the pipe lines and dyke will probably be in hand before high water time. R. W. Le Baron is the engineer in charge of construction. In connection with the power development it is proposed to construct an electric railway from Burnaby Lake to New Westminster, and another from near Burnaby Lake to Port Moody, B.C.

Brantford Street Ry.—The most important piece of work to be undertaken in connection with the reconstruction of the street railway in Brantford, Ont., which is owned by the same interests as the Grand Valley Ry., is the relaying of the Colborne and Market street lines. According to the contract with the city this work must be done within three and four months respectively from May 1. The reconstruction of the line on other streets, and the construction of some additional lines, has to be completed within two years. When the lines are reconstructed in accordance with the agreement, there will be 16 miles of electric railways in the city.

Calgary, Alta.—The Calgary, Alta., city council has ordered 400 tons of 80-lb. steel, 710 tons of 60-lb. steel, and the ties necessary for its line. It has also placed orders for the following electrical equipment and rolling stock: A 750 h.p. 3-cylinder compound engine with the Robb Engineering Co., Amherst, N.S.; generator set and switchboard; six cars, pay-as-you-enter type, with the Preston Car and Coach Co., Preston, Ont., and six similar cars with the Ottawa Car Co., Ottawa, Ont.

Cobourg, Port Hope and Haverlock Electric Ry.—When this application and that of the Cobourg, Peterborough and Kawartha Lakes Ry. came before the Railway Committee of the Legislature recently, the promoters of each company presented their claims for consideration. The committee expressed a desire that they should come to an agreement, to merge the two bills in one, but they were unable to do so, and both bills were reported.

Grand Valley Ry.—The lines projected by this company include a line from Brantford to Port Dover, Ont., 33.66 miles, passing through Mount Pleasant, Boston, Townsend Centre, Waterford, Bloomsburg, and Simcoe; from Brantford to Woodstock, where connection will be made with the Woodstock, Thames Valley and Ingersoll Ry., owned by the same interests; and the extension of this line from Ingersoll to London; and an extension of the present line

between Brantford and Galt, from Blue Lake to St. George. This latter extension will be six miles, and it is said arrangements have been completed for going on with its construction this season.

Levis County Ry.—A new 250 k.w. motor generator is being installed at the company's substation. The present equipment at the station consists of two 250 k.w. motor generators. The company purchases its power, the current being brought into the substation by an 11,000 volt, 3-phase high-tension line.

Manitoba Radial Ry.—Application is being made to the Dominion Parliament for an act extending the time for the commencement and completion of the line of railway authorized by the act 6-7 Edward VII, chap. 105. Smith and Johnson, Ottawa, are solicitors for applicants.

Montreal and Southern Counties Ry.—Several important contracts are reported to be let in connection with the construction of this projected electric railway. It is understood that the company will use the southern roadway on the Victoria Jubilee bridge for the laying of its tracks. At present a single track only will be laid, supplemented for traffic purposes by two switches. This, it is anticipated, will enable all the traffic offering until the line is extended to Longueuil, Chambly, and other points. Work will, it is said, be commenced at an early date upon the substation and car barns at St. Lambert, so as to have them completed during the coming season. E. A. Mumford, Secretary of the company, states that the tubular steel poles for the electric installation have been purchased, together with all the necessary appliances for the overhead work on the Victoria bridge, and that tenders will shortly be invited for the supply of all the electrical equipment necessary.

Montreal Terminal Ry.—When the application made by this company for various amendments to its act of incorporation was before the Railway Committee of the House of Commons, the clause authorizing the company to "lay out, construct and operate an elevated railway from the western limits of Montreal to the eastern limits of Maisonneuve," was withdrawn. The application therefore resolved itself into one for an extension of time within which to construct lines already authorized. Representatives of the city of Montreal urged that no further extension of time should be granted until the company produced its plans. It was stated that the company had had seven years in which to do so, and still they were not forthcoming. The further consideration of the bill was postponed.

Morrisburg Electric Ry.—The Ontario Legislature is being asked to pass an act amending the act incorporating this company, by authorizing it to extend the main line from Ormond, continuing through the townships of Winchester, Osgoode and Gloucester, to Ottawa, passing near the villages of Kenmore, Metcalfe and Greeley; and by extending the line from Ste. Therese to connect with the main line in Osgoode tp., and by increasing the capital stock from \$500,000 to \$1,000,000. The petitioners are: C. M. Willard, H. Loughridge, W. M. Loughridge, J. W. Bogart, G. W. Bogart, R. Merkley.

Ottawa and St. Lawrence Ry.—Application is being made to the Ontario Legislature for an act incorporating a company for the purpose of constructing an electric railway from the boundary line between Ontario and Quebec, in Lancaster tp., Gleggery county, westerly along the north shore of the St. Lawrence River, to Brockville, thence northwesterly to Perth, connecting there with the Lanark County Elec-

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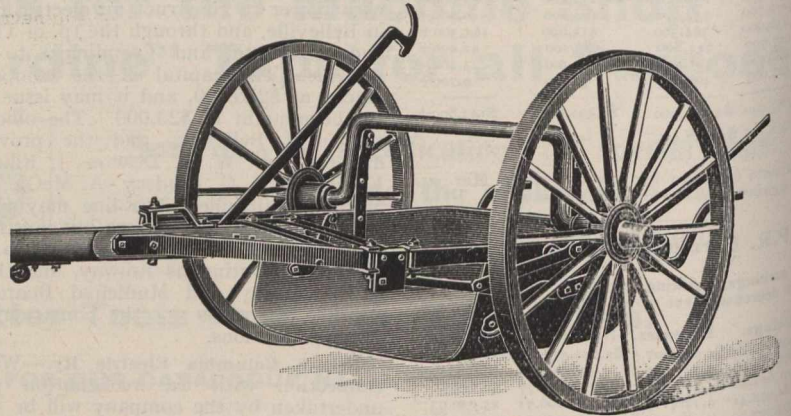
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tric Ry.; from Morrisburg to Ottawa, connecting there with the Lanark County Ry.; with branch lines from Kenmore to Metcalfe and Russell connecting with the Ottawa and New York Ry. The company desires to have power to amalgamate with the Lanark County Electric Ry., and all railway lines intersecting; to acquire by purchase any electric railway within the territory comprised within its territory; to contract with the Brockville, Westport and Northwestern Ry. for trackage on that part of its line between Brockville and Athens; and to acquire running rights over the tracks of the Cornwall Electric Ry. It also desires to have power to operate steam and other vessels on the St. Lawrence River, and any inland waters touched by the company's lines. The company's offices are to be at Ottawa; its capital is fixed at \$1,000,000, and it may issue bonds to the amount of \$20,000 a mile. The provisional directors are: W. J. Armitage, W. L. Redmond, W. P. Walker, M. S. Beckstead, F. Iveson, C. S. Cossett, L. H. Daniels, T. Berney, J. L. Rolston, W. O. Riddell, J. E. Askwith. In passing through committee it was decided to change the name of the company to the Ottawa and St. Lawrence Ry., instead of that mentioned in the application for a charter—the Eastern Ontario Counties Electric Belt Line Ry. Co.

Ottawa Electric Ry.—The supplementary estimates for the Department of Agriculture submitted to the House of Commons, contain an item of \$10,500, being the further amount required for construction of a branch of the electric railway to the experimental farm, Ottawa, including cost of fence.

Peterborough Radial Ry.—By an act under consideration by the Ontario Legislature, the company is asking for an extension of five years for the completion of the lines authorized.

Port Arthur and Fort William Electric Ry.—Tenders are being asked by the Commissioners for rails, ties and other construction material required for the double-tracking of the electric railway connecting Port Arthur and Fort William, Ont.

Quebec Ry., Light and Power Co.—E. A. Evans, General Manager, stated in an interview, Mar. 11, that extensive improvements were under consideration, which, if carried out, would mean extended operations, and giving the company a much greater earning capacity. These improvements would mean the expenditure of a large amount of money, and were necessitated on every hand, and that the tourist traffic to the city is increasing at a very great rate.

St. John to Edmundston, N.B.—Application is being made to the New Brunswick Legislature for an act incorporating a company with authority to use electric power, from St. John, along the valley of the St. John River to Centreville, and to Grand Falls or Edmundston. J. J. F. Winslow, Fredericton, N.B., is solicitor for applicants.

Simcoe Electric Ry. and Power Co.—The Ontario Legislature is being asked to pass an act incorporating a company with this title, with power to construct an electric railway from Midland to Coldwater, Ont., and branches or extensions. The company also asks for authority to lease from the Crown the big chute of the Severn River, and develop the water power there, and dispose of electrical energy for commercial purposes. W. Finlayson, Midland, Ont., is solicitor for applicants.

Stratford and St. Joseph Radial Ry.—The Ontario Legislature is being asked to pass an act extending the time within which this company may construct its projected

electric railway between Stratford and St. Joseph, on the shore of Lake Huron, Ont. J. U. Vincent, Ottawa, is solicitor for the company.

Toronto, Niagara and Western Ry.—The company's application for an extension of time for the construction of the several lines of electric railway which it has been authorized to construct, has been approved by the House of Commons. There was considerable opposition to the passing of the bill, the principal ground taken being that although the company had been granted several extensions of time, no serious construction had been done. It was stated that the company had made a considerable expenditure in acquiring its right-of-way, and in the construction of abutments for bridges, etc. One of the members stated that the promoters of the company informed the Railway Committee that about \$250,000 had been expended; that a portion of the line had been constructed at Mimico, the abutments of a bridge at Twelve Mile Creek, Bronte, put in, and other work done.

Toronto Ry.—Car barns are to be erected in the northwest part of the city, either on Bloor St. or Lansdowne Ave. While the site has not definitely been announced, it is thought that it will be on Lansdowne Ave. A switch has already been put into that property.

Windsor Tunnel and Lake Erie Co.—A press report states that the company expects to start construction on its projected line early in July. The line will connect Windsor, Sandwich, West Vereker, New Canaan, McGregor, Huron and Oxley, and will have a total length of about 30 miles. It is proposed to connect the line with the Detroit River tunnel, and so secure connection with the electric railway lines in Detroit, Mich. The officers are: President, R. A. Bailey, Detroit, Mich.; Vice-President, Dr. J. A. Smith, Windsor, Ont.; Treasurer, W. Boug, Windsor; Secretary, J. G. Leggatt, Windsor.

Winnipeg Electric Ry.—It was stated Mar. 10, by Manager Phillips, that the proceeds of the issue of £300,000 of new stock, which was being made in London, Eng., would be used for the extension of lines, the relaying of track on streets to be paved or repaved by the city, and the provision of new cars.

Electric Ry. Finance, Meetings, Etc.

Berlin, Ont.—The Berlin, Ont., city council, Mar. 15, by a vote of nine to five, decided to take the management of the electric railway owned by the city from the Light Commissioners, and to operate it directly by the council.

British Columbia Electric Ry.—Gross earnings for Jan., \$200,280; operating expenses, \$105,006; net operating earnings, \$95,274; renewal funds, \$13,958; net earnings, \$81,316; approximate income from investments, \$13,550; net income, \$94,866; against \$171,160, gross earnings; \$90,724, operating expenses; \$80,436, net operating earnings; \$10,750, renewal funds; \$69,686, net earnings, \$11,036, approximate income from investments; \$80,722, net income for Jan., 1908. Aggregate gross earnings for 7 months ended Jan. 31, \$1,343,919; net earnings, including estimated income from investments, \$630,005; against \$1,167,960 gross, and \$583,042 net, for same period 1907-08.

Halifax Electric Tramway.—Railway receipts for Feb., \$12,537.02; against \$12,272.37 for Feb., 1908. Total receipts for 2 months ended Feb. 28, \$26,322.61, and for 3 weeks ended Mar. 21, \$9,127.39; against \$25,192.46, and \$8,762.34 for same periods 1908.

London St. Ry.—Gross earnings for Jan., \$17,737.83; expenses, \$12,985.11; net earnings, \$4,752.72; Feb. gross earnings, \$16,497.00; expenses, \$12,724.38; net earnings, \$3,772.62; against \$17,284.37 gross earnings; \$12,969.20 expenses; \$4,315.17 net earnings for Jan.; and \$16,094.87 gross earnings; \$12,746.52 expenses; \$3,348.35 net earnings; for Feb., 1908.

Montreal St. Ry.—Total earnings for Feb., \$284,090.21; operating expenses, \$199,912.17; net earnings, \$84,178.04; city percentage on earnings, \$16,373.83; interest on bonds and loans, \$15,164.36; rent leased lines, \$498.67; surplus, \$52,141.18; against \$270,224.43, total earnings; \$201,449.05, operating expenses; \$68,775.38, net earnings; \$14,567.24, city percentage on earnings; \$17,935.96, interest on bonds and loans; \$444.43, rent leased lines; \$35,827.75, surplus for Feb., 1908. Aggregate total earnings for 5 months ended Feb. 28, \$1,514,614.68; operating expenses, \$959,551.64; net earnings, \$555,063.04; total charges, \$145,341.74; surplus, \$409,721.30; against \$1,458,462.81, total earnings; \$943,475.93, operating expenses; \$514,936.88, net earnings; \$148,134.68, total charges; \$366,852.20, surplus, for same period 1907-08.

Nelson Electric Tramway.—A resolution has been passed by the city council of Nelson, B.C., to purchase the rights and franchises of the Electric Tramway Co. The company has been in difficulties for some years past, and since the fire at the car barns in May, 1908, when the cars were destroyed, it has shown no desire to renew the service. The company offered the city the whole of its property in the city, including tracks, etc., valued at \$75,000, for \$10,000.

Quebec Ry., Light and Power Co.—Negotiations, it is reported, are in progress for the transfer of a controlling interest in this company to a British financial syndicate. Another report says the C.P.R. is likely to acquire control.

Southwestern Traction Co.—The Ontario Legislature has decided that the company's bonding power shall not exceed \$25,000 a mile of line. Application was made to have it increased to \$33,000 a mile.

Southwestern Traction Co.—It was reported from London, Ont., Mar. 23, that the London and Western Trust Co. had been appointed to act as receiver of the S.T. Co., during a temporary financial difficulty, which it is anticipated will be speedily adjusted.

Winnipeg Electric Ry.—The Manitoba Legislature has passed an act authorizing the company to issue \$1,500,000 of debenture stock, and a meeting of the shareholders has been called for April 7 to authorize the directors to make an issue of £300,000 of 4½% perpetual consolidated debenture stock under the act, and to authorize the execution of a mortgage to the British Empire Trust Co., to secure the same. This issue of debentures has been underwritten by Sperling & Co., and Kitcat, Mortimer and Arthur, London, Eng., and is being offered to the public at 97. The debentures are being issued subject to the existing issue of \$1,000,000 of 5% mortgage bonds, redeemable Jan. 1, 1927, and to the \$4,000,000 of 5% mortgage bonds redeemable 1935, and certain provisions as to future issues, either for extensions, or for redeeming previous issues. The trust deed provides that the company may purchase any of the stock on the market at or below 105 plus accrued interest, or may redeem the whole or any part, to be selected by drawings, of the stock at 105, the same premium becoming payable by reason of a voluntary liquidation of the company.

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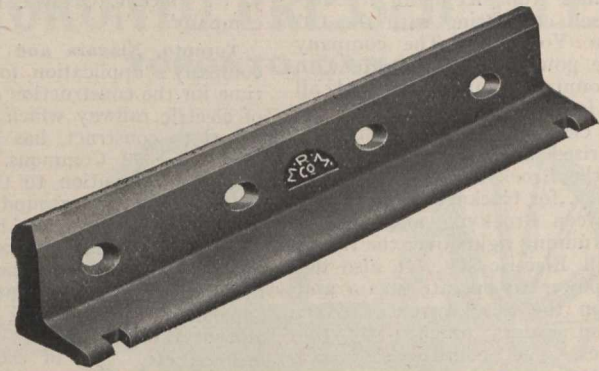
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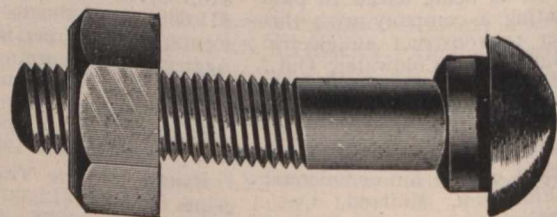
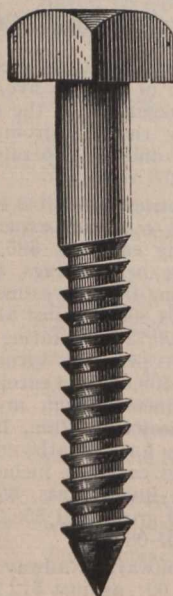
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ELECTRIC RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1908.

The following abbreviations are used in the names of railways—E., electric; E. R., electric railway; E. S. R., electric street railway; Ry., railway; S. R., street railway. The minus mark (—) in the column for net earnings shows that there was a deficit in the operations of the line to the extent of the figures given. The numbers in brackets—thus (1)—after the name of a railway refer to notes below.

Name of Railway	Mil'ge	Gross Earnings	Net Earnings	Proportion of Earnings to Working Expenses	Earnings per Car Mile	Operating per Car Mile	Passenger Car Mileage	Freight Car Mileage	Locomotive Mileage	Passengers Carried	Freight Carried
				p.c.	cts.	cts.					Tons
Berlin and Waterloo S.R.	3.12	\$ 29,962.69	\$ 9,662.64	67.75	33.68	22.81	88,961			621,916	
Leased Berlin & Bridgeport Ry.	2.38	6,252.82	565.50	90.95	18.21	16.54	34,384			138,000	
Brantford S.R. (1)	7.00	32,909.18	2,773.72	91.57	26.17	23.97	125,722			485,213	
Brantford & Hamilton Ry. (2)	23.00	6,525.41	1,311.99	79.89	23.00	18.30	28,362			21,897	5
British Columbia E.R. (3)	78.93	1,199,881.45	445,062.20	62.90	30.34	19.56	3,857,049	97,302		21,328,180	37,859
Cape Breton Electric Co. (4)	11.90	89,199.47	32,656.01	63.38	27.82	17.63	320,591			1,586,062	
Chatham, Wallaceburg & L. Erie	21.50	43,206.70	1,703.53	96.07	37.09	35.63	116,480		7,718	159,700	
Cornwall S.R.	6.30	26,224.76	3,784.79	85.57	13.25	11.34	198,016			368,070	8,450
Egerton Tramway Co.	8.10	47,229.17	13,817.07	70.74	33.87	23.96	134,386	5,054		920,413	
Galt, Preston & Hespeler S.R. (5)	9.00	109,103.63	36,789.77	66.28	43.90	29.09	220,557	27,945		708,296	92,063
Leased Preston & Berlin E.R.	10.75										
Grand Valley Ry. (1)	23.50	36,947.10	-2,162.26	105.85	24.25	25.67	152,303			207,582	
Guelph Radial Ry.	6.00	28,304.01	7,017.94	75.20	15.50	11.66	180,000	2,500		636,976	12,000
Halifax E. Tramway Co.	12.13	174,646.62	55,186.44	68.40	21.66	14.82	806,411			3,928,892	
Hamilton & Dundas S.R. (2)	7.25	47,592.33	14,996.85	68.50	49.07	33.61	96,981			462,063	480
Hamilton, Grimsby & Beam.E.R.(2)	22.00	90,182.71	22,279.66	75.30	31.61	23.80	285,225			473,099	16,095
Hamilton Radial E.R. (2)	24.75	114,798.20	27,173.21	76.32	29.13	22.23	394,022			1,003,000	1,945
Hamilton S.R. (2)	22.00	322,943.10	75,296.55	76.68	20.05	15.37	1,610,402			8,078,816	
Hull Electric Co. (5)	16.75	74,311.51	-13,568.88	118.25	14.51	17.16	499,998	12,038		1,112,898	9,927
International Transit Co. (6)	3.37	40,018.73	8,237.74	79.41	15.16	12.04	263,881			956,329	
Kingston, Ports & Catarqui E.R.	8.00	29,711.89	-1,911.92	106.43	14.88	15.83	199,680			821,754	
Levis County Ry.	10.25	55,699.92	-5,218.44	109.36	20.24	22.17	274,674			1,483,732	
London S.R.	26.46	231,935.65	64,009.46	72.36	16.26	11.76	1,425,995			6,325,541	
Montreal Park & Island Ry. (7)	23.60	283,276.79	97,407.88	65.59	30.96	20.31	897,680	17,115		3,539,049	39,400
Montreal S.R. (7)	71.82	3,736,620.50	1,565,858.31	58.09	25.91	15.05	14,418,605			91,120,394	
Montreal Terminal Ry. (7)	20.89	97,354.84	-4,185.88	104.29	18.37	19.16	491,977	37,883		1,151,011	88,277
Nelson Tramway Co.	3.00	5,418.25	11,680.99	315.58	20.15	63.61	26,880			196,527	
Niagara Park & River Ry. (8)	11.75	142,516.02	65,637.43	53.94	38.69	20.87	367,727	552		1,440,058	
Niagara, St. Cath. & Toronto (9)	30.00	160,415.51	47,950.69	70.10	29.86	20.94	285,672	251,385	251,385	977,561	112,597
Niag. Falls, Wesley Pk. & Cl. Ry. (9)	4.50	32,546.29	15,102.79	53.59	17.62	9.44	184,670			762,437	
Oshawa Ry.	8.83	58,372.96	8,064.05	86.18	134.21	115.67	25,460	18,032	43,492	141,085	91,568
Ottawa E.R.	23.38	598,009.62	207,307.56	65.33	17.92	11.71	3,335,324			13,445,041	
Peterborough Radial Ry.	6.00	31,042.45	3,099.82	90.01	11.72	10.55	264,813			665,430	
Pt. Dalhousie, St. C. & Tho. S.R. (9)	9.00	87,367.01	25,938.11	70.31	44.50	31.33	196,078			1,652,018	
Quebec Ry., Light and Power Co. Citadel Division	8.17	21,043.68	7,145.57	66.04	16.95	11.19	124,125			441,664	
Montmorency Division (11)	17.22	255,676.00	71,819.49	71.90	19.19	13.79	1,332,310			6,049,203	
Sandwich, Wind. & Amh. Ry. (12)	25.00	139,999.26	47,781.74	65.87	51.95	34.22	269,485			1,265,890	
Sarnia S.R.	35.44	159,958.94	66,220.17	58.60	24.00	14.07	665,855			2,690,473	
Sherbrooke S.R.	8.00	37,435.71	1,974.02		25.05	23.73	149,400			633,545	
Southwestern Traction Co.	7.00	34,132.55	2,422.70	92.90	11.83	10.99	288,322			901,533	
St. John Ry.	28.50	60,505.23	8,902.84	85.28	23.12	20.08	241,357	15,569		324,167	1,184
St. Stephen S.R.	12.50	156,654.31	9,714.94	93.80	17.09	16.03	916,391			3,433,809	
St. Thomas S.R. (13)	3.00	28,293.30	-3,699.71	113.07	15.43	17.39	183,960			586,956	
Sydney and Glace Bay Ry. (4)	7.50	11,563.76	-4,402.62	137.98	3.42	4.72	338,040			511,604	
Toronto Ry. (14)	18.80	110,697.84	52,549.40	52.52	36.57	19.21	302,674			2,210,939	
Toronto Suburban Ry.	52.39	3,609,218.35	1,633,879.94	54.73	24.31	13.38	14,843,574			87,964,425	
Toronto & York Radial Ry. (14)	9.81	39,009.66	4,785.68	87.73	19.27	16.91	202,386			862,590	
Windsor, Essex & L. Shore Rap. Ry.	78.05	299,812.04	108,021.01	63.97	29.88	19.11	936,508	66,675		2,920,696	220,000
Windsor and Tecumseh (12)	37.28	35,585.62	11,852.03	66.69	32.37	21.59	109,108	796	796	138,710	625
Winnipeg E.S.R.	52.66	903,184.61	465,080.57	48.51	25.80	12.28	3,500,270			21,292,004	
Woodstock, T.V. & Ing. E.R. (1)	11.50	19,534.90	3,820.20	80.44	17.10	13.76	114,184			387,500	
Yarmouth S.R.	2.00	14,196.43	3,185.26	77.56	16.67	12.93	85,120			230,000	
Totals	992.03	14,007,049.48	5,311,169.57				56,412,035	552,846	303,391	299,099,309	732,475
							56,964,881				

Notes to Electric Railway Statistics.

(1) The Brantford St. Ry. is owned and operated by the same interests which own the Grand Valley Ry., and the Woodstock, Thames Valley and Ingersoll Ry.
 (2) The statistics for the Brantford and Hamilton Ry. cover its operations for one month only, the line being a new one. The B. and H. Ry. is owned by the Dominion Power and Transmission Co., which also owns or controls the Hamilton and Dundas St. Ry., the Hamilton, Grimsby and Beams-

ville Electric Ry., the Hamilton Radial Electric Ry., and the Hamilton St. Ry.

(3) The British Columbia Electric Ry. owns local electric railways in Victoria, Vancouver and New Westminster, and a suburban line connecting the last two cities.

(4) The Cape Breton Electric Co. owns the local electric railway in Sydney, and owns jointly with the Dominion Coal Co. the Sydney and Glace Bay Ry.

(5) The Galt, Preston and Hespeler St. Ry., together with its leased line, is operated in connection with the C.P.R., under a lease. The C.P.R. also owns the Hull Electric Co.

(6) The International Transit Co. is one of the companies owned by the Lake Superior Corporation at Sault Ste. Marie, Ont., and connects with the Trans-St. Mary's Ry. at Sault Ste. Marie, Mich., owned by the same company.

(7) The Montreal Park and Island Ry., and the Montreal Terminal Ry., are owned by the Montreal St. Ry.

(8) The Niagara Falls Park and River Ry. is owned by and operated in connection with the International Ry. of Buffalo, N.Y.

(9) The Niagara, St. Catharines and To-

ronto Ry. also owns the Niagara Falls, Wesley Park and Clifton Ry., and the Port Dalhousie, St. Catharines and Thorold Electric St. Ry.

(10) The Port Arthur St. Ry. was owned by the City of Port Arthur, Ont., during the period covered by these statistics. It is now owned jointly by the cities of Port Arthur and Fort William.

(11) The Quebec Ry., Light and Power Co. operates a steam freight service over its Montmorency Division, the statistics of which are given in the steam railway statistics.

(12) The Sandwich, Windsor and Amherstburg Ry. owns and operates the Windsor and Tecumseh Electric Ry., and the statistics given include the operation of both lines. The S.W. and A. Ry. is in its turn owned by the Detroit United Ry.

(13) The St. Thomas St. Ry. is owned by the city, and operated by a commission.

(14) The Toronto Ry. owns the Toronto and York Radial Ry.

Electric Railway Notes.

The Winnipeg Electric Ry. is building at its own car shops, 30 double-truck cars, 32 ft. 11 ins., length of body; 45 ft. 4 ins., length over all. These cars will be equipped with G.E. 80 motors and Westinghouse air brakes.

Press reports recently stated that the Montreal and Southern Counties Ry. had ordered 6 observation type electric cars, 56 ft. long, to be built at the G.T.R. shops, Montreal. On Mar. 22, we were officially advised that the order had not been placed.


N. M. Cantin, who was actively engaged in the promotion of the Stratford and St. Joseph Electric Ry., was charged in the Toronto Police Court, Mar. 4, with stealing a certificate of 9,000 shares of stock in a mining company. The charge was withdrawn, the Crown Attorney stating he was satisfied there was no theft, and that the matter should not have been brought into court at all.

The Ontario Railway and Municipal Board is being asked by Vaughan and Markham townships to order the Toronto and York Radial Ry. to properly construct the road between the rails, and for 18 ins. on either side, and to keep same in proper repair. The townships allege that the railway company has not properly removed the snow from its road, but has done it in such a way as to block traffic on the highway.

The British Columbia Electric Ry. is constructing at its car shops, New Westminster, 16 passenger cars and one observation car for its Vancouver lines; six cars and a shunter for its New Westminster line; six box cars and an electric locomotive for the Chilliwack line, now nearly completed; seven box cars, two flat cars and an electric locomotive for its Lulu Island line. It has, it is reported, in addition, placed orders for some electric locomotives.

The Calgary Electric Ry. has ordered 4 pay-as-you-enter cars from the Preston Car and Coach Co., Preston, Ont., of which the following are chief particulars: Length of body, 28 ft.; length of rear vestibule, 7 ft.; length of front, 4½ ft.; with bull-nose roof, semi-elliptic side sash and deck sash, 14 walk-over cane upholstered seats and 2 stationary seats; P.C. & C. Co.'s automatic folding door fixtures, positive sand boxes. The cars are to be equipped with Westinghouse 101-B motors.

The Winnipeg Electric Ry. Co. is objecting to the city's application to the Legislature for amendments to its charter, in so far as they refer to power to lay conduits in streets, and to compel companies operating wires to rent space in those conduits. The company



IDEAL RAILWAY FENCING

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OTTAWA, CANADA

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states that in accordance with the city by-law passed last summer, compelling the company to put all wires underground, it had commenced that work and had made excavations. The city had, however, stopped the work on the ground that the company had no power to use streets and lanes for conduits.

The question of the operation of street cars on Sundays has come up for consideration by the Ontario Legislature in bills put forward by various company and municipally owned lines at the current session. The general policy of the Government in regard to these was stated by the Premier in reply to a deputation from London, Mar. 10, asking that such operation be not allowed. He stated the Government had no right to decide the question of Sunday cars on purely moral grounds. Neither London nor any other municipality would get Sunday cars unless the people voted for them, and it will be a future and not a past vote.

Grain Elevator Notes.

The Alberta Pacific Co.'s elevator at Ponoka, Alta., and 20,000 bush. of grain, were destroyed by fire recently.

Conger & Co.'s elevator at Rouleau, Sask., was destroyed by fire recently, together with about 70,000 bush. of grain.

Arrangements are reported to have been made for the erection of an elevator at Wainwright, Alta., for M. Orr, Stoughton, Sask.

The Vancouver Milling and Grain Co. has let a contract for the construction of an elevator of 115,000 bush. capacity at Vancouver, B.C.

The Northern Elevator Co. has commenced work on the construction of elevators at Leslie and Elfors, Sask., and is said to be contemplating the erection of another one at Wynyard, Sask.

Clark and Hannah's elevator, Orangeville, Ont., and about 20,000 bush. of grain, were destroyed by fire recently. The estimated loss is \$12,000, of which \$4,000 represents the elevator.

K. Burnett, Nanton, Alta., is reported to have secured a site in Vancouver for the construction of an elevator there, which it is stated will be ready for operation for dealing with the coming season's winter wheat.

Press reports state that 43 elevators will be built in Alberta during the current year, divided as follows: Alberta Pacific Elevator Co., 25; Alberta Grain and Elevator Co., 8; and private firms, 10. Most of these, it is stated, will be erected in the southern part of the province.

As a result of a recent meeting between a New Westminster, B.C., deputation and members of the Calgary Grain Conference, a committee of six has been formed to investigate the question of the erection of terminal elevators at New Westminster for the purpose of handling grain from the prairie provinces.

An order-in-council has been passed establishing fees for the inspection and weighing of grain as follows: For inspection, grain in sacks, one-third cent. per cental; in bulk, 50c. per carload; and 50c. per 1,000 bush.; for weighing, 30c. for each carload into and out of elevators, and 30c. per 1,000 bush. for each cargo from elevators.

Application is being made to the city council of Vancouver, B.C., by H. Moorer & Co., Kingston, Ont., for assistance in the erection of a terminal elevator at that port to cost \$400,000, by way of exemption from taxation and a guarantee of bonds. Press reports state that the request is not likely to be granted, as the Dominion Government and the C.P.R. have under consideration proposals for the construction of elevators at that port.

F. W. Peters, Assistant to Second Vice-

President C.P.R., Winnipeg, who was in Vancouver recently, is stated to have assured the local authorities that the company is prepared to deal with the question of erecting elevators on the Pacific coast, and that it will be found that when grain begins to move westward, elevators will be there to deal with it. When the time came, the matter would be principally in the hands of F. F. Busted, General Superintendent of the Pacific Division, who superintended the erection of the terminal elevators at Fort William, Ont.

The Alberta Grain Growers' convention at Calgary, recently, adopted a resolution to urge the Dominion Government to undertake the erection and operation of a terminal elevator on the Pacific coast, to deal with Alberta grain shipped west, and failing action by the Government, to urge the C.P.R. to undertake it, to be ready to handle the 1909 crop. The convention also desired amendments to the Manitoba Grain Act, in its application to Alberta, so that any farmer wishing to put grain through elevators by sale or otherwise be enabled to obtain cars in the same proportion as if loaded from platforms, and that the companies keep books for the purpose of entering requests for cars.

Regarding the C.P.R. elevator which is to be constructed by the John S. Metcalfe Co., on Maple Island, near Victoria Harbor, Ont., at the terminal of the Georgian Bay and Seaboard Ry. (C.P.R.), we are advised that in the main it will be the same as the one recently constructed by the same firm for the G.T.P.R. at Tiffin, Ont., a description of which appeared in our Dec., 1908, issue. In the case of the C.P.R. elevator, the working house will be smaller, and the power plant larger than that of the G.T.P.R. Any other differences are of a minor character. The capacity of the new elevator will be 2,000,000 bush., and the contract price is about \$900,000.

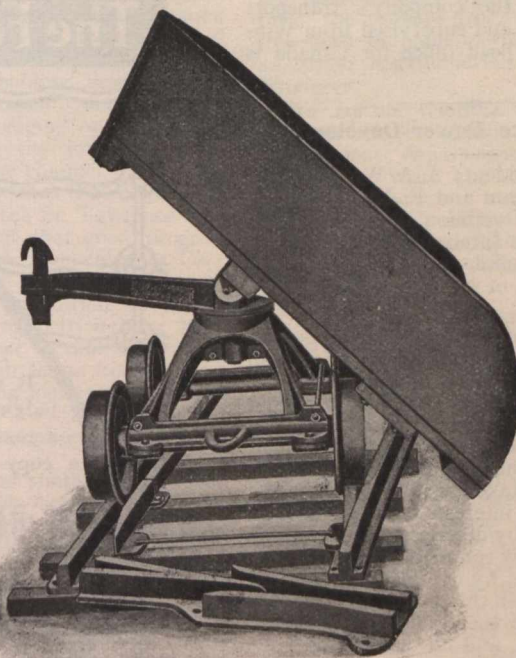
MARINE DEPARTMENT.

The Sagamo-Kenosha Collision.

Commander O. G. V. Spain, R.N., Dominion Wreck Commissioner, has given the following judgment in connection with the investigation of the collision which occurred between the Muskoka Lakes Navigation and Hotel Co.'s steamboats Sagamo and Kenosha, at Beaumaris, Ont., Aug. 11, 1908:

"The court having made a full and exhaustive enquiry into all the circumstances attending the casualty, and having carefully reviewed the whole of the evidence that it was possible to obtain from the officers and crews of the vessels themselves, and also from passengers, finds as follows: The accident was caused by the Kenosha striking the port quarter of the Sagamo with her stem. The court considers that the officers of the Kenosha are in fault, that the Captain was below at the time of the accident, and the deck was in charge of Jas. Ariss, the mate, who was under the influence of liquor, and incapable of performing his duties in a satisfactory manner. There were large numbers of passengers on board each vessel, and it was much more by good luck than good management that a serious disaster was averted. R. Hanson, Captain of the Kenosha, who holds a certificate of competency as master of a passenger vessel in the minor inland waters, is severely censured, not only for being below at the time his vessel was leaving the dock, but also for leaving the deck in charge of an officer who was under the influence of liquor. The certificate held by Jas. Ariss, as mate in the minor inland waters, is cancelled, as the court considers that an officer who is intoxicated when in charge of a vessel, more especially a vessel carrying large numbers of passengers, is not a fit and proper person to hold

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The Canadian Road Machine Co., Limited
HAMILTON, CANADA

this position. The master and officers of the Sagamo are exonerated from blame. The court desires to bring to the notice of the Manager of this company, the grave responsibility that rests, not only with the officers of the vessels, but with himself. Too great care cannot be taken on board passenger vessels in seeing that the masters and officers are thoroughly competent and sober. It appears by the evidence that on previous occasions it was known to the Manager that mate Ariss had been under the influence of liquor on duty, and the court considers that, being aware of this fact, the company should not have kept this officer in such a responsible position, where the lives of numbers of passengers might at any time be left in his sole charge."

Hudson Bay Co.'s Steamboat Service.

This company has now a complete service covering the ocean journey to the Labrador coast, and Ungava, Churchill, York and Moose Factories in Hudson Bay, and all the navigable streams in the interior waters of Northwest Canada. Following is a list of the steam vessels which will be operated during the year, together with their respective routes:

Discovery—London, Eng., to Hudson Bay.
 Pelican—London, Eng., to Labrador, Ungava and Hudson Bay points.
 Port Simpson—Stikine and Skeena Rivers, B.C.
 Hazelton—Stikine and Skeena Rivers, B.C.
 McKenzie River—McKenzie River, B.C.
 Wrigley—McKenzie River, B.C.
 Peace River—Peace River, Alta.
 Messenger—Peace River, Alta.
 Grahame—Athabasca River, Alta.
 Primrose—Athabasca River, Alta.
 Saskatchewan—Saskatchewan River, Sask.
 Churchill—Churchill River, Keewatin Terr.
 Lac Seul—Lost Lake and Lac Seul, Keewatin Terr.
 Inenew—James Bay.
 Eskimo—James Bay.

The whole of the company's transport service is directed and supervised from Winnipeg, where the head office for Canada is located.

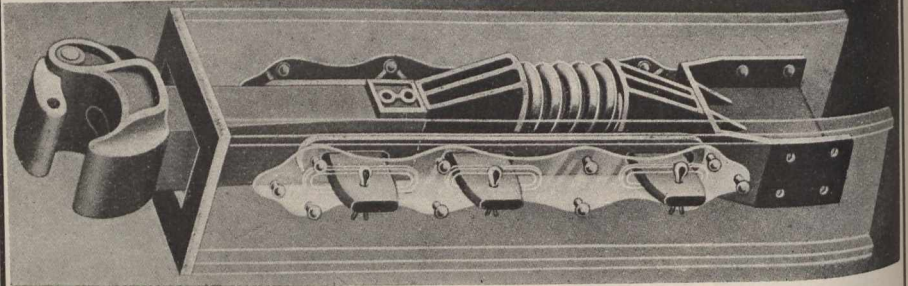
The St. Lawrence Power Development.

C. J. Smith, President; A. A. Wright, H. A. Calvin, L. Henderson and F. King, counsel, representing the Dominion Marine Association, waited on the International Waterways Commission in Buffalo recently, and presented a memorial, of which the following are the main points:

"In pursuance of the opportunity afforded by your commission, we have caused careful examination to be made of the plans submitted by the Cedars Rapids Manufacturing and Power Co. respecting its proposed works in the Cedars Rapids of the St. Lawrence River, and submit that the proposed works, if permitted to be undertaken, would very seriously interfere with the interests of navigation on the St. Lawrence, by diverting water from its present channels, by completely barring other necessary channels, by overloading and congesting the canal at this point, by entailing risk of accident in the proposed works and possible blockades, and by causing derangements of present conditions, the consequence of which it is impossible for expert engineers or others to estimate with any degree of certainty.

"It appears that the proposed works would completely bar the river to The Calvin Co., whose rafts are obliged to take the channel now proposed to be closed; and that the channels now available for certain boats of the Richelieu and Ontario Navigation Co.,

THE FARLOW TWIN SPRING DRAFT GEAR



Designed for Wooden or Steel Cars and Engines.

Pulling Strains Distributed Equally on the Three Cross Keys.

Buffing Shocks Distributed on End Sill, Three Cross Keys, Filler Block and Body Bolster. Cannot be Pulled Out or Driven Back and Will Not Spread Sills.

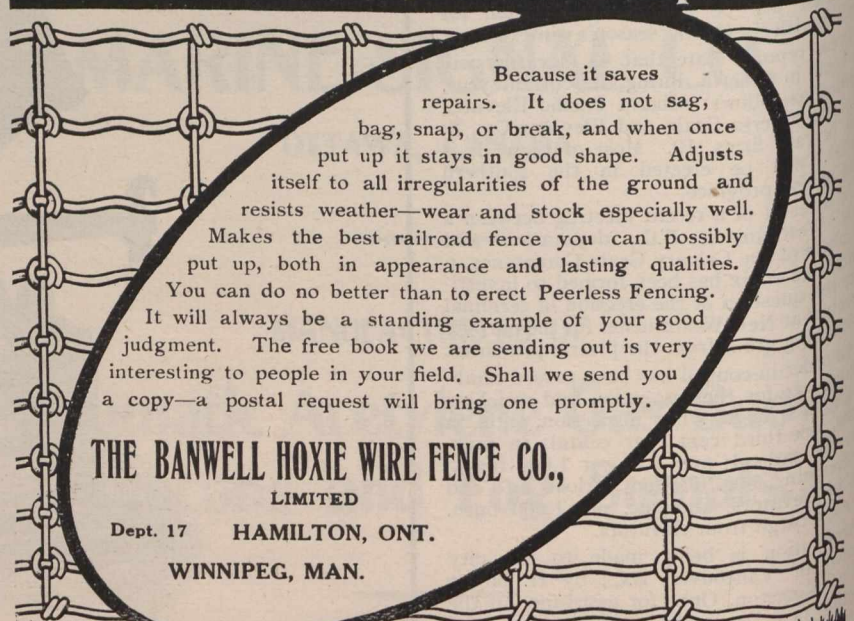
FARLOW DRAFT GEAR CO.

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THE BANWELL HOXIE WIRE FENCE CO.,

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and others, would be materially altered, or rendered useless, while, of course, no guarantee can be given that other equally satisfactory means of passing the Rapids will be afforded. While engineers may be able to estimate the probable volumes of water, and the possible or even probable direction and velocity of currents, experience alone will give certain results, or settle the questions of grave importance whether proposed new channels will be safely navigable for the vessels requiring to use them. It has been admitted that undertakings by power development companies to meet future emergencies, and to protect or indemnify navigation interests, should not be accepted, and that the protection should be applied before the development is permitted.

"We have a larger duty to perform than merely to protect the interests of the two companies above named; and their cases are cited merely as concrete examples sufficient in themselves to warrant refusal of sanction for the proposed works, without reference to the other dangers and difficulties entailed, such as the congestion of canals, the risk of accident to the works and the chance of blockades, not to mention the various other perils which can only be foreseen with reference to other cases where navigators are proved to have suffered by the positive evidence of increased insurance rates. We beg leave to refer to various previous memorials and petitions submitted to your commission, in which they have, through their individual bodies, declared themselves unalterably opposed to power developments on the St. Lawrence and other rivers which may in the present, or future, possibly interfere to any extent with any navigation interests; and we refer again to the well-defined policy already laid down by your commission that the interests referred to are to be considered paramount; we submit that it is abundantly apparent that these interests would be directly and definitely prejudiced and interfered with by the proposed works, and that the rights of navigators would also be rendered liable to the other indirect perils and difficulties referred to, and that, therefore, the plans submitted cannot properly be given the sanction for which the promoters ask. We therefore pray that the plans and proposals submitted be not sanctioned by your Commission."

Memorials were also presented by the Shipping Federation of Canada, Montreal Board of Trade and Montreal Chambre de Commerce, to the same effect. A meeting took place, Mar. 8, in Ottawa, when the deputation placed its views of the Long Sault Development Co.'s proposals before the Premier, the Ministers and Chief Engineers of the Railways and Canals, and Public Works Departments, and the Chief Engineer of the Marine Department, during which the plans were thoroughly discussed.

Shipping Federation of Canada.

The annual meeting was held in Montreal Feb. 10. In submitting the sixth annual report for the year 1908, Hugh A. Allan, President, said:

The season of navigation opened April 30 with the arrival of the s.s. Corsican, and the last ocean vessel to leave was the s.s. Dahomey, Nov. 26. The number of sea-going vessels that arrived during the season was 739, of a tonnage of 1,958,604 tons, compared with 742 vessels of a tonnage of 1,923,658, showing a decrease of 3 vessels and an increase of 34,946 tons. The passenger business eastbound shows an increase, which may be accounted for by the U.S. travelling public appreciating the natural advantages of the St. Lawrence in preference to other routes. The westbound traffic shows a considerable falling off. The number of cattle shipped in-

creased 2,565; the number of sheep shipped (which is the smallest since 1879) decreased 1,274. The apple shipments decreased 262,608 barrels; cheese decreased 169,480 boxes; eggs decreased 17,547 cases; lard decreased 13,077 packages; flour and meal decreased 127,408 barrels; lumber decreased 9,663,118 feet b.m.; butter increased 26,365 packages; box meats increased 13,439 boxes; pulp and paper increased 18,456 tons; hay increased 8,939 tons; grain and seeds decreased 1,482,207 bush. Time, however, works its own cure, and already there are signs of improvement and, as in past years any improvement in trade in the west always reflects itself on Montreal, we may probably look for a gradual betterment during the coming year.

There was a decrease in employment of longshoremen during the season, the daily average being 669, as compared with 786 in 1907. The season passed without any recurrence of labor troubles. The new bonus system is appreciated by the regular men who look to the wharves annually for their living, and has had the effect of retaining until the close of navigation the greater number of the men who signed the contract at the beginning of the season, thereby reducing the floating element which caused so much trouble by making unreasonable demands when the call for labor exceeded the supply.

The marine signal service stations that were opened in Oct., 1907, for reporting vessels and conveying to them the conditions of the river, have been found of great advantage. This was especially so during the unprecedented period of fog and bush fires which we passed through, enabling us to know the whereabouts of vessels that were delayed with passengers on board. Although the present system works well in clear weather, the executive committee consider it would still be of greater advantage if wireless communication could be set up between vessels and the shore in smoky or thick weather; this latter point is receiving the Minister's consideration. Another matter is the work done in connection with the dredging of the Beaujeu channel below Quebec; a 30 ft. channel with a width of 600 ft. has been opened during the season, enabling vessels drawing under 30 ft. to reach Quebec at any state of the tide. Dredging operations are being continued, and the intention is to extend the width of the channel to 1,000 ft. It is very gratifying to learn that a start has been made to deepen the St. Lawrence ship channel to 35 ft., and that good progress has been made with the deepening at Cap-à-la-Roche. I think it is only fair to mention the satisfactory condition in which the different aids to navigation have been kept during the season. From the record kept of reports and complaints from masters and pilots, the following figures show a very satisfactory condition for the season. In 1906, 52 defects were reported; in 1907 47, and in 1908, 17.

The question of the rental of the permanent sheds, and how best to reach the upper storeys, has been under consideration by the Montreal Harbor Commissioners. The executive committee consider that the charging of rentals for the permanent sheds is a very unwise step, and is not in accordance with the policy of making Montreal a free port, which policy was first adopted by the Government when it took over the Lake St. Peter debt, and has been continued since then by the reductions from time to time in the wharfage rates. While the committee admit that the erection of these sheds has been very beneficial to the trade of the port, they do not believe that the policy of making steamers of the regular lines trading to the port, whose bills of lading only call for delivery at

ships' rail, pay all the rental charges, while the merchants and receivers of freight, who benefit by the improved wharf accommodation, receive this benefit without cost to themselves. The executive committee does not ask for free sheds, but it considers that the new conditions call for a re-arrangement of these charges so that all parties benefitting shall pay a proportion of the benefits received. It was stated by the Chairman of the Harbor Commissioners at a meeting of the Manufacturers' Association, that \$30,000 has been saved in three months in the handling of freight on the wharves, and as the season of St. Lawrence navigation extends over seven months of the year, it is reasonable to suppose that the saving during the whole season will amount to about \$70,000. The executive committee therefore is of opinion that this saving should enable the Commissioners to reduce the charges of rentals to the regular lines, and thinks it well also to point out that a tramp steamer might come to the port and have her cargo handled without contributing a cent to shed rentals. In the committee's opinion the Harbor Commissioners should be asked to consider whether the system prevailing at Boston and Portland of covering the cost of shed accommodation by a charge on the goods cannot be adopted here. If this were done, the regular lines running to Montreal would be put on a par with the lines running to Boston and Portland, and therefore able to compete with them.

The Federation has protested for years against the sick mariners' dues of 2c. a ton, charged 3 times a year on every ship arriving in any of the provinces except Ontario. The monies collected from these dues form part of the Consolidated Fund of Canada, and a large surplus has accumulated. The Government introduced a bill during the last session reducing the dues from 2c. to 1½c. per ton. It is to be hoped that in the near future this unjust impost will be abolished altogether; the charge falls upon vessels which gain no advantage from the fund; besides, not being levied in Ontario, the tonnage from that province goes free both in home ports and in the U.S., an unfair discrimination against the other provinces.

The cordial relations that have existed between the Federation and the different Government departments have continued during the year, and to this I attribute largely the success of our work, and it gives me pleasure to testify to the assistance, co-operation and assiduity of the Minister of Marine, and the other officers of his department.

THE HARBOR COMMISSIONERS' REPLY.

The Montreal Harbor Commissioners replied to Mr. Allan in an interview in the Montreal Witness as follows: "Mr. Allan's remarks were somewhat misleading. Out of the total revenue for the port of Montreal, which amounts to about \$500,000, the shipping companies contributed last year \$29,500; the merchants, manufacturers and railway companies contributed the balance. The shed rental charge this year is only 3% on the actual cost, which is a very moderate rental, considering that these new magnificent steel sheds are the best of their kind, and have more than doubled the storage capacity in the central part of the harbor. The erection of these sheds has enabled the steamship companies using them to handle freight with very much greater despatch and at greatly reduced cost. The cargo of a steamer of one of the leading lines using this port on a voyage last season was loaded and unloaded, a total of 13,000 tons in 72 hrs., a time record which has not been surpassed by any of the modern ports in Europe. There has also been a saving to the steamship com-

panies as far as labor costs are concerned, not as many men being required now as heretofore, owing to the erection of these fine new sheds. The rental asked from the shipping companies for this year will be less than one-fifth of the total revenue, and therefore, his statement that the merchants and receivers of freight benefit by the improvements carried on in the port of Montreal, without cost to themselves, is incorrect. Before these sheds were definitely decided upon by our predecessors in office, the shipping people unanimously agreed to pay 3% interest on the cost of construction. One of the largest companies has already agreed to the new rental charge without criticism. As to wharfage rates, in 1896 the harbor commissioners, having a surplus and no improvements being carried on, the wharfage rates were reduced 25%. In 1901, 60% of the wharfages on exports were reduced 50%. This means a reduction in revenue approximately \$100,000 a year. It is not the commissioners' intention to raise the wharfage rates to where they were prior to 1896, but to make a small increase with due regard to the port's best interests to enable them to meet their obligations. As far as the 'free port' is concerned, the commissioners have not been given to understand that this is the Government's intention, and they do not know of any 'free port' in the world."

Since the foregoing statement was made, the commissioners have reconsidered the matter of an increase in wharfage rates, and announced that the increased charges, of which notice had been given, would not be put in force this year, but most probably would be next year.

Atlantic and Pacific Ocean Marine.

J. White has been appointed harbor master at Charlottetown, P.E.I.

J. P. Esdaile, steamboat inspector for Nova Scotia since 1889, died at Halifax Mar. 14.

The Allan Line s.s. Virginian, after being overhauled, has returned to service, completing her first passage since then on Mar. 12.

The Dominion Public Works Department received tenders, Mar. 23, for the construction of three ice piers on the Annapolis River at Annapolis Royal, N.S.

The Elder-Dempster Co. is reported to have decided to place steamships on the route between Montreal and the Atlantic terminals of the Tehuantepec Ry. of Mexico, at Coatzacoalcos.

Capt. C. Cameron, who was in command of various trans-Atlantic liners for 25 years, and who until recently was captain of the White Star s.s. Oceanic, died at Southampton, Eng., Mar. 14.

The C.P.R. has extended the privileges of its pension fund to the crews engaged on its Atlantic steamships. The minimum pension is the same as that granted to the staff on shore, viz., \$20 (in sterling £4 2s. 2d.) a month.

W. J. Dott and G. R. Nicholson are reported to have been appointed joint managers of Allan Bros. and Co., London and Liverpool, Ltd., at Liverpool, Eng., representatives of the Allan Line, succeeding the late W. Beckett Hill.

The Dominion Department of Agriculture received, Mar. 17, offers of a steamboat required for quarantine service at Halifax, N.S. The size of the vessel desired is: Length, 80 ft.; breadth, 20 ft.; draught, 8 ft.; with a speed of about 10 knots an hour.

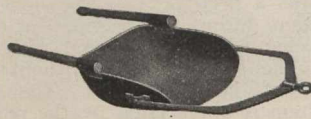
The s.s. Stikkelstad, which sailed from Glasgow, Scotland, Nov. 23, 1908, for Sydney, N.S., has been given up as lost, and from the wreckage found along the west

The Meaford Wheelbarrow Co., Limited

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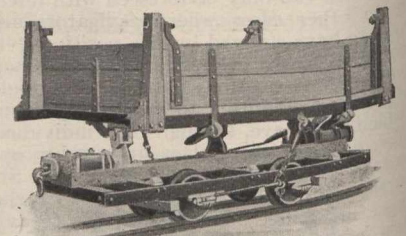
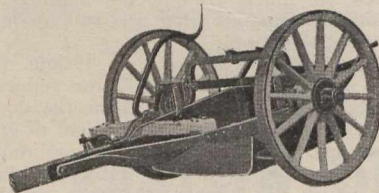
WHEELBARROWS, both wooden and steel
WHEEL SCRAPERS, square box and pressed bowl
PRESSED STEEL SEAMLESS DRAG SCRAPERS



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New Stone, Brick and Steel Building, with every convenience, luxuriously furnished and superior table. ALWAYS OPEN. ALWAYS READY. ALWAYS BUSY. Half an acre of Medicinal and other Baths, with trained operators and attendants.

F. L. YOUNG - - General Manager

coast of Scotland it is assumed that she was wrecked shortly after leaving Glasgow.

The following Government appointments in Nova Scotia have been announced: F. P. Chiasson, harbor master, Margaree; P. L. McFarlane, harbor master, Baddeck; S. C. McMillan, receiver of wrecks, Isaac's Harbor district; J. Melonson, Port Warden, Annapolis Royal.

The British Secretary of State for the Colonies recently announced that the whole question of the promotion and extension of trade relations between Canada and the West Indies, including improved steamship communication, would be covered by the Royal Commission appointed to enquire into it.

The Leyland Line, which it was recently announced was to withdraw from the St. Lawrence route, has been amalgamated with J. H. Welsford & Co., owners of the Gulf Transport Line, in England. The bulk of the Leyland staff will be retained by the new management, and a considerable reduction of capital will be made.

The Newfoundland barque *Lairnia* was wrecked recently at Chance Cove, about 15 miles from Cape Race, and became a total loss. She got safely to shore after considerable difficulty. She was a wooden vessel, built at Glasgow, Scotland, in 1869, her dimensions being: Length, 125.1 ft.; breadth, 24.1 ft.; depth, 13.6 ft.; tonnage, 251 register.

The Union Steamship Co. is reported to have decided to build another steamship similar to the s.s. *Makura* for the Canada-Australia route, at a cost of about \$2,000,000. It is stated that the company, which at present receives a subsidy of \$325,000 annually, is prepared to place two more vessels on the route, if the subsidy is increased by \$100,000.

The Osaka Shosen Kaisha, which is to inaugurate a trans-Pacific service in June, in connection with the Chicago, Milwaukee and Puget Sound Ry., has chartered the British s.s. *Strathearn*, owing to its inability to complete some of the vessels under construction by the time mentioned. One of the six vessels to be operated by the company is to be named *Canada Maru*.

The Nippon Yusen Kaisha's s.s. *Aki Maru*, which arrived at Seattle, Wash., recently, reported that telegraph communication had been maintained with either the Japanese shore station or the Vancouver Island station throughout the whole voyage across the Pacific. This was not accomplished direct with shore stations all the time, but by means of relays through other vessels of the same fleet leaving or approaching either shore.

The Minister of Marine gave notice in the House of Commons, Mar. 3, of a resolution empowering the Government to enter into a contract for a subsidized line of steamships between Canada and France. The aggregate amount to be paid is not to exceed \$200,000 a year, and at least 15 round trips must be made during the year. The Government's intention is said to be to enter into a new contract with the Allan Line for a 15-knot service, replacing the present 12-knot service.

Press reports state that the keels of two Atlantic liners for the C.P.R. have been laid at Govan, Scotland. It is stated that the new vessels will be a great advance on the present *Empresses*, both in accommodation and speed. Sir Thos. G. Shaughnessy, while in St. John, N.B., recently, stated in response to a question as to the transfer of the *Empress* vessels to the Pacific route, that he had nothing to add to what had already been said, except that the scheme had not assumed a definite shape.

C. N. Armstrong, who recently returned to Montreal from London, Eng., is reported to have said that the work in connection with the projected "all red" route from England, via Black Sod Bay, Ireland, will be pushed on, immediately on the passage of the bonus bills by the British Parliament. The subject does not appear to have been mentioned in the British Parliament during the present session, in any form, and there seems no likelihood of the matter being dealt with during the present year at any rate.

The grounds on which the Allan Line is protesting against the entrance of the White Star Line into the Canadian trade, are that the latter line agreed to remain out of the St. Lawrence trade, or else to keep its name out of it. The steamships *Laurentic* and *Megantic* will, as has been announced, take up the St. Lawrence route on the opening of the season, operating in conjunction with the Dominion Line as the Dominion-White Star Line, and this is looked upon as an infraction of the agreement with the Allan Line. Both the Dominion and White Star Lines are owned by the International Mercantile Marine Co. The matter is being arbitrated upon.

The Canada Line, a joint service between continental Europe and Canada, operated by the Hamburg American Line, the Holland American Line, and the North German Lloyd, in connection with the C.P.R. and G.T.R., was inaugurated Mar. 19 by the sailing of the s.s. *Prinz Oskar* from Rotterdam for Halifax. Three twin-screw steamships will be utilized on the route, viz., *Prinz Oskar* and *Prinz Adalbert*, sister vessels, of 6,000 tons gross, owned by the Hamburg American Line, and *Willehad*, 4,800 tons gross, owned by the North German Lloyd. The ports of call are: Halifax, St. John and Portland, Me., on the winter schedule, and Quebec and Montreal in the summer. The Canadian office of the line is at Montreal, under J. Thom's management, and agencies have been established at Quebec, Toronto and Winnipeg.

Maritime Provinces and Newfoundland.

Capt. R. Keay has been appointed harbor master at St. Andrews, N.B.

The La Have Steamship Co., Ltd., has declared a dividend of 5% for the past year.

N. Martin has been appointed harbor master and port warden of Port Hawkesbury, N.S.

An order-in-council was passed recently, rescinding a previous order prohibiting the use of trawls in St. Mary's Bay, N.S., from Oct. 1 to June 30.

The Halifax and Inverness Steamship Co.'s s.s. *Strathlorne* is having her machinery installed at Halifax. The hull was built at Mahone Bay, N.S. When completed she will be operated between Halifax, Cape Breton ports and Prince Edward Island.

The C.P.R., under the franchise of the New Brunswick and Canada Ry., has deposited with the Dominion Public Works Department, plans and description of the site of a wharf which it proposes to construct at St. Andrews, N.B.

The Island Tug Co., Charlottetown, P.E.I., owns 2 steam tugs and one twin-screw passenger and freight steamer *Harland*. The latter is under contract with the P.E.I. Government, and the tugs have been hired by the Dominion Government to attend the dredges Montague and Prince Edward.

The North Shore Steam Ship Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$50,000 and office at Sydney, N.S., to own and

operate steam and other vessels, and to carry on the business of shipowners and common carriers within and without the Dominion. The provisional directors are: J. T. Burchell, J. A. Young, W. F. Burns, C. M. Burchell and H. Ross, Sydney, N.S.

At a recent meeting of the St. John Board of Public Works, the question of increased wharf accommodation was referred to a committee. It was stated that the Eastern Steamship Co. is making application for the berth now occupied by the s.s. *Senlac*, which is to be removed to another route. The company, it is said, will put on a morning boat, to connect with the s.s. *Prince Rupert*.

The Marine Department has given notice that the whistling buoys formerly moored near Pubnico harbor lighthouse, Shelburne harbor entrance, Liverpool bay, northeast shoal off the south coast, Nova Scotia; and near Indian rocks, P.E.I.; the gas buoy and the bell buoy at Thrumcap shoal, Halifax harbor, N.S., and the bell buoy at Prim reefs, Hillsborough Bay, P.E.I., have been replaced by combined gas and whistling buoys.

Press reports state that the s.s. *Senlac*, which has been operated between Halifax and St. John for the past few years, is about to be withdrawn from that route, and run between Gaspe, Quebec, and Campbellton. She is managed by W. Thomson & Co., St. John, N.B., and receives about \$10,000 a year in subsidies. It is stated that the opening of the railway between Halifax and Barrington has interfered with her trade. The *Senlac* was recently quarantined with smallpox on board, and the agents are reported to have said that she will be laid up.

Application is being made to the N.B. Legislature for an act incorporating the New Brunswick Docks and Terminals, Ltd., with power to construct and operate docks, dockyards, wharves, piers and terminals at Bathurst and such other port or ports on the Bay Chaleur and Miramichi River, as may be selected for the purpose. Those mentioned in the application are: G. E. Drummond, T. J. Drummond, E. McDougall, Montreal; W. F. C. Parsons, Londonderry, N.S.; J. J. Drummond, Midland, Ont.; W. M. MacLeod, and R. W. Cooper, London, Eng.; all of whom are interested in the Canada Iron Corporation Ltd.,

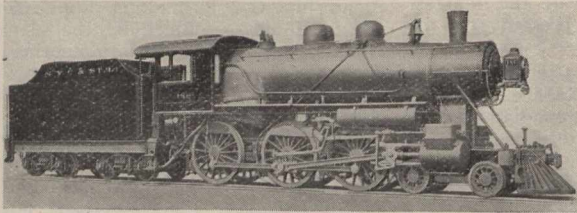
The Avon Marine Insurance Co., of Windsor, N.S., was wound up recently. It was organized in 1851, in the days when wooden shipbuilding was a flourishing industry in the province. The original capital stock paid up was \$25 a share, and for 3 years dividends of \$65 a share were paid, and subsequently for a number of years dividends of \$50, \$45 and \$40. In the winding up \$112 a share, making a total of \$44,800, has been paid to the shareholders. The Secretary of the company was presented with the office furniture, and the President with a model of a barque.

The s.s. *Beothic*, built at Glasgow, Scotland, for Job Bros., St. John's, Nfld., for sealing purposes, arrived there recently. The arrangement of holds, crew's quarters, etc., is similar to that on other vessels of the same firm. Forward under the peak deck are the crew and firemen's quarters, on the bridge deck are captain's room and chart room, and underneath this the saloon, with staterooms on each side, having accommodation for 10 passengers. Her dimensions are: Length over all, 252.8 ft.; length between perpendiculars, 240 ft.; breadth (moulded), 35.6 ft.; depth (moulded), 19.2 ft.; depth of hold, 16.11½ ft.; mean draught (laden), 17.9¼ ft.; tonnage, 1,140.13 gross, 471.42 register; deadweight (including bunkers), 1,505 tons; total water ballast, 412 tons; capacity for grain, 94,460 cubic ft.; capacity for bales, 90,000 cubic ft.

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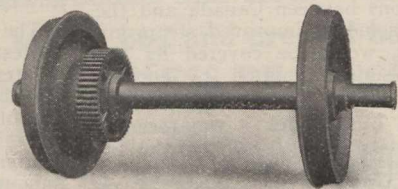
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St. John, N.B.	Toronto, Ont.	Vancouver, B.C.
Calgary, Alta.		Winnipeg, Man.

THOS. C. IRVING,

Gen. Man. Western Canada, Toronto.

Province of Quebec Marine.

The Shipping Federation of Canada has established a branch office at Quebec.

A press report states that two fire boats are to be provided for Montreal harbor. The local shipping interests have been pressing for such for several years.

The Sincennes McNaughton Line, Ltd., has been granted supplementary letters patent increasing its capital stock from \$250,000 to \$750,000, in shares of \$50 each.

F. St. Louis, one of the oldest captains on the St. Lawrence River, died at Montreal recently, aged 89. He was in the R. & O.N. Co.'s employ for 58 years, and latterly had charge of the steamboat Three Rivers.

The amount distributed by the shipping companies operating at Montreal, to the longshoremen, as bonus in accordance with the agreements for service for the last season, was about \$50,000. The average bonus paid was \$30.

The city of Quebec has given notice of an application to the Provincial Legislature for amendments to its charter of incorporation, providing authority to operate a ferry system across the St. Lawrence River between Quebec and Levis, to borrow money for that object and for other purposes.

The list of coast, lake and river officers for the current year, given on another page, contains the s.s. Restigouche, owned by Bouchard Bros., Quebec. We are advised that the name of this vessel is to be changed to either Lady of Gaspe or Prince Edward, prior to the opening of navigation.

An order-in-council was passed Mar. 6, amending the Montreal Pilotage District by-law 44, by adding the following paragraph: "Provided, however, that vessels coming into the harbor of Montreal by way of the Lachine Rapids shall be exempt from pilotage dues on entering the harbor."

The Department of Marine has given instructions to the operators of the various wireless telegraph systems under its control that they will communicate to passing vessels equipped with wireless apparatus any information, not already published, respecting changes in aids to navigation on the routes such vessels are taking, and also, if requested, information as to the weather conditions prevailing during the previous 24 hours.

The Yale Shipping Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$33,000 and office at Montreal, to own and operate steam and other vessels, and to carry on the business of common carriers, within and without the Dominion. The provisional directors are: C. A. McCollough, New York, N.Y.; N. M. Ward, Orange, N.J.; W. A. Taft, Arlington, Mass.; G. I. Dewar, Ottawa.

Ship Pass of Balmaha Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$36,000 and office at Montreal, to own and operate steam and other vessels, and to carry on the business of ship owners and common carriers within and without the Dominion. The provisional directors are: C. A. McCollough, New York; N. M. Ward, Orange, N.J.; W. A. Taft, Arlington, Mass.; G. I. Dewar, Ottawa.

The Dominion Barging Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$75,000 and office at Lachine, Que., to build, purchase or otherwise acquire, and to operate barges and other vessels for the towage and conveyance of merchandise by water, and to carry on a general forwarding, warehousing and wharfinger business. The provisional directors are: P. Johnson, A. J. Brown, F. G. Bush, Montreal; W. Beadie and J. McLaughlin, Lachine, Que.

The Pacific Pass Coal Fields, Ltd., has been incorporated under the Dominion

Companies Act, with a capital of \$5,000,000 and office at Montreal, to acquire interest in coal and other mines, and mining rights, etc., and in connection therewith to own and operate steam and other vessels, wharves, docks, etc. The provisional directors are: A. H. Cook, J. G. Scott, V. Boswell, G. E. Amyot, J. T. Ross, A. E. Doucet, Quebec, Que.; E. B. Greenshields, Montreal; A. de Bernis and R. Brutinel, Edmonton, Alta.

The question of constructing a dry dock at Quebec has received a fresh impetus by the recent receipt of a letter from Sir Thos. G. Shaughnessy, President C.P.R., by J. G. Scott, and which was read at a recent meeting of the Quebec Board of Trade, in which he said: "I quite agree with your views about a suitable graving dock either at Quebec or Montreal. No doubt Quebec would be the better place, because I imagine that the large passenger ships of the future will wish to make Quebec their terminus."

In connection with the Richelieu River improvements the Department of Public Works has opened an office at St. John's, Que. The work to be done consists of dredging, blasting and the construction of a movable dam, and there has been expended to date on the work \$18,918.97. P. Paradis was engineer in charge. Tenders were asked, Feb. 8, for the construction of two centre hopper dumping scows, for the purpose of replacing worn-out scows as tenders for the dredge Richelieu. The contract for their construction has not been awarded.

The National Navigation Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$300,000 and office at Quebec, Que., to build, repair, purchase, sell and navigate vessels of all descriptions; to float and raise sunken or wrecked vessels; to enter into contracts for the towing and salvage of vessels, and generally to engage in the business of common carriers on land and water. The provisional directors are: I. Montreuil, S. Martel, N. Mercier, J. A. Guerard, T. Gagnon, J. A. Fafard, and J. Cote, all of Quebec.

C. C. Ballantyne and L. E. Geoffrion, of the Montreal Harbor Commission, were in consultation with the Minister of Marine, Mar. 9, in relation to the proposed improvements to the harbor for the current year. Four sheds on the Jacques Cartier pier will be equipped with grain conveyors, and another marine leg will be added to the grain elevator. Electric transporters, designed by the Chief Engineer for handling cargo from ship to shed, or to vehicles, will be installed for the upper storeys of sheds 2 and 7, on trial; and in the meantime the upper storeys of all the other sheds are being equipped with wooden chutes. The plan of improvements, which is intended to be spread over the next 25 years, is under consideration, and it is expected that the Chief Engineer's specifications, etc., will be ready by May 1.

Ontario and the Great Lakes.

J. P. Healy has been appointed Government wharfinger at Rosspoint, Ont.

The Railways and Canals Department received, Mar. 23, tenders for stone protection on Summit Level, on the Welland Canal.

Burnet and Simpson, Birdsall, are having built a steamboat on Rice Lake. The machinery is being built at the Doty Engine Works, Goderich.

The Great Lakes Steamship Co., Ltd., of Toronto, is reported to be in negotiation for the construction of one or more steamers for delivery next spring.

The Lehigh Portland Cement Co., of Belleville, which operated the s.s. Salaberry last year, will not have any vessels in service during the current year.

F. Mills, Beaumaris, is building a steamboat for operation during this season, the machinery for which is being supplied by the Doty Engine Works Co., Goderich.

The C.P.R. is reported to be arranging for a canoe service to the Gowganda mining district, from Biscop, near Sudbury, to start as soon as river navigation is open.

The Lemcke Tug Co., Ltd., Lion's Head, Ont., owners of the tug W. E. Gladstone, which was wrecked in the fall, will not replace her for the forthcoming season.

The Minister of Public Works, in response to a question in the House of Commons, Mar. 11, said that the question of taking over Whitby harbor was under consideration.

The contract for the new boilers to be supplied to the Dominion Public Works Department's dredge Assiniboine has been awarded to the Doty Engine Works Co., Goderich.

The Inland Revenue Department received tenders, Mar. 29, for the privilege of ferrying across Lake Temiskaming, between Old Mission, Que., and Old Fort Temiskaming, Ont.

Smith and Howe, Port Stanley, are building a steam fishing tug, which will have a compound engine, 75 n.h.p., and boiler, which are being constructed at the Doty Engine Works, Goderich.

The Niagara Navigation Co., and the Richelieu and Ontario Navigation Co., are reported to be considering the question of equipping their vessels with a system of wireless telegraphy.

J. Walsh, one of the three men who were sentenced to life imprisonment in 1900, in connection with the attempted blowing up of lock 24 on the Welland Canal, died at the Kingston penitentiary Mar. 4.

W. Hanna & Co., Port Carling, are building a steamboat for service on the Muskoka lakes. She will be 85 ft. long over all, by 16 ft. beam. The engine and boiler are being supplied by the Doty Engine Works Co., Goderich.

The larger of the two steamboats which the Temagami Hotel and Steamboat Co. is building, as mentioned in our last issue, will be equipped with a triple-expansion engine and water tube boiler by the Doty Engine Works Co., Goderich.

The G.T.R. car ferry Ontario No. 1 was recently taken in hand at Cobourg for some slight alterations in her accommodation. It is said that the dining and sitting rooms are to be enlarged and the plumbing and steam heating equipment overhauled.

The Merchants Steamship Co.'s new vessel, which was mentioned in our last issue, and which is expected to arrive at Toronto from England, early in July, will be named Mapleton. She will be operated under the management of J. & J. T. Mathews, Toronto.

E. A. Turner, accountant Montreal Transportation Co. at Montreal, has been appointed Manager at Kingston, in succession to L. Henderson, whose appointment as General Manager has already been announced. Mr. Turner has been with the company for 20 years.

The Western Navigation Co.'s s.s. Kaministiquia, was launched at Newcastle-on-Tyne, Eng., Mar. 9. She is of full canal size and is expected to be in service on the lakes soon after the opening of navigation, under command of E. L. Stephen. The company's headquarters are at Fort William.

The Collingwood, Ont., council is considering the request of R. Morrill, for a lease of certain land at the eastern end of Harbor St., 400 ft. each way from the present water line, for the installation of a marine railway for hauling out steamboats for repairs in connection with his yards.

The Conger Coal Co. is reported to have bought the Tonawanda, N.Y., steamboat A. Weston for operation between Toronto and

Charlotte, Oswego and other U.S. ports, in the coal trade. She was built in 1882, her dimensions being: Length, 163 ft., breadth, 31 ft.; tonnage, 511 gross, 269 net.

The Ministers of Railways and Canals and Public Works received a deputation representing Goderich, Guelph and Stratford, Mar. 2, who urged the necessity for the proper protection of the entrance to Goderich harbor. It was agreed that the work was necessary, and attention was promised as early as possible.

T. C. Sims, Little Current, Ont., operating the Eastern Manitoulin Royal Mail Steamship Line between Cutler and Manitoulin, has bought the steamboat Bon Ami to replace the Iroquois, destroyed by fire last year. The Bon Ami was built in 1894, her dimensions being: Length, 108 ft.; breadth, 21 ft.; tonnage, 226 gross, 149 register.

Revillon Bros., Montreal, have placed an order for the construction of a steam barge for carrying freight and passengers on Lake Nipigon, and for carrying supplies in connection with the National Transcontinental Ry. construction work in that district. The machinery, consisting of a twin-screw outfit, is being supplied by the Doty Engine Works Co., Goderich, Ont.

At the Huntsville, Lake of Bays and Lake Simcoe Navigation Co.'s annual meeting at Toronto recently, the directors' report showed an increase in gross earnings over those of 1907, but on account of the increased boat service in 1908, the net earnings were somewhat less than in the previous year. Following are the officers for the current year: President, C. O. Shaw; Vice-President, H. Foster Chaffee; Secretary, W. J. Moore; Treasurer, J. W. McKee.

The reports as to ice conditions on the Great Lakes indicate an early opening of navigation this season. There is considerably less ice in all the lakes and channels than at this time last year. The ice fields in Superior were reported recently to be small in the central and eastern parts; in Michigan, small and broken up; in Huron, none in the southern portion; Erie, neither large nor heavy; while in Ontario there were practically no fields formed during the winter.

The Hamilton and Fort William Navigation Co. recently obtained an order declaring it to be entitled to any material in the Canadian Shipbuilding Co.'s yard at Toronto, subject to the return of any of it found not to belong to the Navigation Co. The material claimed was to be used in the construction of a steam vessel, at a cost of \$297,000, of which \$30,000 had been paid. The Navigation Co. has deposited security to the extent of \$40,000. The Shipbuilding Co. is in liquidation.

The Gowganda Transport Co., Ltd., has been incorporated under the Ontario Companies Act, with a capital of \$100,000 and office at Toronto, to carry on the business of common carriers; to construct or acquire wagon roads, tramways, etc.; to construct or otherwise acquire steam and other vessels, wharves, docks, etc., and to carry on a general navigation business. The provisional directors are: A. C. McKenzie, Beaverton; R. B. Henderson and A. H. Royce, Toronto.

The reports of the U.S. Lake Survey give the Feb. levels of the great lakes, in feet above tide water, as follows: Superior, 601.48; Michigan and Huron, 579.94; Erie, 571.40; Ontario, 245.28. It is estimated that during March, Superior will be 1½ ins. lower; Michigan and Huron, 1½ ins. higher; Erie, 2½ ins. higher, and Ontario 2¾ ins. higher. Compared with the Feb. averages for 10 years, Superior is 8¼ ins., Michigan and Huron 1¾ ins., Erie 9½ ins., and Ontario 20½ ins. lower.

The Haileybury Navigation Co., Ltd., Haileybury, the incorporation of which company

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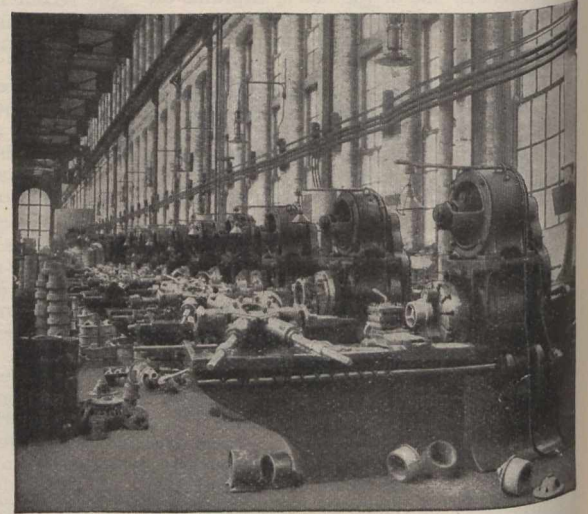
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For Sale

was announced in our last issue, has placed an order with the Doty Engine Works Co., Goderich, for the construction of a steel passenger steamer for service on Lake Temiskaming. She will be equipped with fore and aft compound engine and Fitzgibbon boiler, and will be capable of a speed of 14 miles an hour. Her dimensions will be: Length, 85 ft.; beam, 17 ft. It is expected that she will be completed in June.

The steamboat Aletha, owned by Mrs. A. Roys, Kingston, has been sold to the Quinte Navigation Co., Picton. The price stated to have been paid is about \$8,000. The vessel is being overhauled and put into good condition for the season. She is under charter to the Lake Ontario and Bay of Quinte Navigation Co., Kingston, for the spring and fall, on the Kingston-Belleville run, and will probably be operated on the bay route during the summer, relieving the Quinte Navigation Co.'s steamboat Brockville.

The Brockville Transportation Co., Brockville, Ont., has purchased the steamboat Bermuda from J. Davidson, Bay City, Mich., and will operate her under the U.S. flag, anywhere between Quebec and Duluth, Minn. She is a wooden vessel, and is said to be probably the only one operating on the lakes rated 100 at Lloyd's. She was built by Capt. Davidson in 1907, her dimensions being: Length, 220 ft.; breadth, 41 ft.; draft, 14 ft.; tonnage, 1,312 gross, 1,079 net, and has capacity for 60,000 bush. of grain.

The Richelieu and Ontario Navigation Co.'s s.s. Brockville has been thoroughly overhauled and lengthened by 17.6 ft., making her total length 197.6 ft. The stateroom accommodation has been increased to 60 rooms, and a large observation cabin on the hurricane deck, as well as a large promenade space, have been added. She has also had new engines and boilers installed. The name of the vessel is to be changed to Rapids Queen, and she will be operated during the season in conjunction with the Rapids King.

The Richelieu and Ontario Navigation Co. has placed an order in Detroit, Mich., for the construction of a twin-screw steamer. The contract provides that the vessel shall be modern in every respect, with 150 staterooms, supplied with running water; 10 parlor rooms, fitted with shower baths, etc.; dining, smoking, library, and music rooms, with observation deck, to all of which special attention is to be paid. When completed, the vessel will be operated between Lake Ontario ports and the Thousand Islands.

The Huntsville, Lake of Bays and Lake Simcoe Navigation Co., during the past year, made considerable additions and improvements to its property. Docks have been erected and telephone connections made between the important resorts in the district. The retiring directors were re-elected at the recent annual meeting. Following are the officers for the current year: President, C. O. Shaw; Vice-President, H. F. Chaffee, Toronto; General Manager, S. H. Jacobs; Secretary and Assistant General Manager, W. J. Moore; Treasurer, J. McKee.

The Western Dry Dock and Shipbuilding Co., Ltd., has been incorporated under the Ontario Companies Act, with a capital of \$1,000,000, and office at Toronto, to carry on the business of a dry dock company, and in connection therewith to construct or otherwise acquire graving and other docks, etc., for the building, repairing and docking of vessels; to carry on a general shipbuilding business, and to build and operate vessels of all kinds. The provisional directors are: J. H. Spence, C. E. H. Freeman, A. Singer, Toronto. It is reported that the company intends to construct a dry dock at Port Arthur.

Replying to questions in the House of Commons, Mar. 3, the Minister of Railways

and Canals stated that the expenditure on the Newmarket canal, on the Holland River, to Mar. 31, 1908, amounted to \$31,444.26; and that from April 1 to Dec. 31, 1908, there had been expended \$156,873.65. The following contracts had been let for the work now in progress: For construction of sec. 2, let to J. Riley and assigned to the York Construction Co., \$652,009.50; for cement, two contracts to the Lakefield Cement Co., at \$26,000; and to the Hamilton Bridge Co., for three bridges, amount of contract \$17,792. The contracts for section one had not been let.

An order-in-council has been passed, making regulations for the governance of a ferry across the narrows of Lake Temiskaming, to be known as the Old Fort Temiskaming Ferry. These provide that the limits of the ferry shall extend, on the Ontario side, one mile above and one mile below a point near the old Fort Temiskaming, and on the Quebec side, one mile above and one mile below the Old Mission. Suitable landing stages must be provided, subject to the approval of the Inland Revenue Department. The licensee shall provide a suitable vessel for the conveyance of passengers, cattle and ordinary vehicles, and during the season of navigation shall run as often as may be found necessary for the public convenience, daily from 6 a.m., the number of such crossings to be determined from time to time by the Inland Revenue Department. The boat shall be placed on the route on or before May 1, and the license shall be granted for 5 years from May 1, 1909.

Manitoba, Saskatchewan, Alberta, Etc.

The Pioneer Navigation and Sand Co. is reported to be arranging to build large docks at the foot of Grove St., Winnipeg.

The Northern Dredging Co., Ltd., with headquarters at Chicago, Ill., has been registered under the Northwest Territories Ordinance respecting foreign companies, to carry on business in Alberta.

A contract for the machinery for a steamboat, now under construction for the Fisheries Department, to be utilized on Lake Winnipegosis, has been placed with the Doty Engine Works Co., Goderich, Ont.

In connection with the recent failure of A. Booth & Co., Chicago, Ill., who were intimately connected with several fishing companies in Canada, W. V. Booth, President, and F. B. Robbins, Assistant Treasurer, have been indicted for conspiracy to defraud the Continental Bank of Chicago of \$300,000.

It is announced that a new steamboat will be in operation on the Red River this season. John Hyland is having built, at St. Boniface, Man., a vessel 185 ft. long, 44 ft. beam, with a draught of 4½ ft., and equipped with engines capable of developing a speed of 18 miles an hour. Cabin accommodation is being provided for 50 passengers, while for excursions, etc., there is to be ample accommodation for a large number. The first trip will be made about May 1.

A press report states that a company is being formed in Calgary, Alta., to operate a steamboat on the Bow River. It is said that a vessel is to be built with a flat bottom and arrow stern wheel, and to be specially adapted for use on the rapid and shallow waters of the river. Power will only be required when running against the current, and in a contrary direction a brake will be utilized. The boat will be run between Calgary and St. George's Island, with afternoon trips to other points.

The concrete work in connection with the works at St. Andrew's Rapids, near Winnipeg, is reported to be nearly completed, the work having been carried on

throughout the winter. The steel for the superstructure has not arrived, and the wood for the lock gates has also been delayed, so that the gates will not be completed until after the spring floods. A. Dufresne, Resident Engineer, is reported to have said recently that the locks would be opened for light draught vessels as soon as the ice breaks.

B.C. and Pacific Coast Marine.

A steamboat is reported to be under construction at Victoria for excursion passenger service on the Victoria Arm.

Capt. T. Whelan, formerly of Foley, Welsh & Stewart's steamboat Caledonia, and later of that firm's steam tug Lottie N., was drowned in Burrard Inlet recently.

The British ship Lord Shaftesbury, while proceeding down the Fraser River for Sidney, in tow, with lumber, recently, grounded on a sandbar, and was subsequently laid up at New Westminster for examination.

Foley, Welsh and Stewart, G.T.P.R. contractors, are constructing a stern-wheel steamboat at Victoria, similar in design to their steamboat Skeena, for operation on the Skeena River in supplying their construction camps.

Application has been made to the Governor-General in Council, by E. Mener, New Westminster, B.C., for approval of a site for the construction of a wharf and marine slip on the north shore of Lulu Island, on the north arm of the Fraser River.

The Dominion Fish Co., Ltd., has been incorporated under the B.C. Companies Act, with a capital of \$75,000 and office at Vancouver, to carry on a general fishing business, and in connection therewith to own and operate boats, vessels, wharves, etc.

The Vancouver Industrial and Development Co., Ltd., has been incorporated, with a capital of \$250,000 and office at Vancouver, to carry on a mining and quarrying business, and for the purposes of the business, to own and operate steam and other vessels.

The Canadian and Foreign Commission and Export Co., Ltd., has been incorporated under the B.C. Companies Act, with a capital of \$20,000, to carry on a general commission business, and in connection therewith to own and operate steam and other vessels for carrying passengers and merchandise.

MacKay, Smith, Blair & Co., Ltd., has been incorporated under the B.C. Companies Act, with a capital of \$300,000 and office at Vancouver, to carry on a general mercantile business, to own and operate steam and other vessels, and to receive goods as wharfingers, warehousemen and carriers.

The Puget Sound Navigation Co. is considering plans for the construction of a fast turbine steamboat for service between Seattle, Wash., and British Columbia. The plans show a vessel 250 ft. long, with accommodation for 1,500 passengers, and capable of a speed of 21 knots an hour. It is proposed to have the vessel in operation by 1910.

The C.P.R. has, we are officially advised, decided to install wireless telegraph apparatus on all its B.C. coast steamships, but no decision has been arrived at as to which system will be utilized. Preparations are now being made for installing a system on the s.s. Princess May, and the Princess Royal will probably be dealt with immediately afterward.

The Banfield Creek motor lifeboat, which was built last year at Bayonne, N.J., for the Dominion Government, at a cost of about \$15,000, was recently taken to Victoria, almost a total wreck. It appears that she was left near the life saving station, improperly moored, and, during a slight storm, broke loose and was driven on the rocks at Robbers Island.

Steamboats are under construction for B. T. Brynolson, Vancouver; T. Marion, Quesnel; and N. S. Clark; Ashcroft. Those for the latter two are stern-wheelers. The machinery for each is being supplied by the Doty Engine Works Co., Goderich, Ont.; that for the first-mentioned vessel being a compound surface condensing engine of 100 n.h.p., with Scotch boiler.

The number of sea-going vessels arriving at Vancouver during 1908 was 3,558, with an aggregate tonnage of 3,116,225 tons, an increase of over 50% since 1903. There was an increase also in the coasting trade of 2,706 vessels and 1,059,526 tons in the same period. The figures quoted for 1908 are stated to exceed the combined tonnage of all the Puget Sound ports, and to compare favorably with those of San Francisco.

The Vancouver Pilotage Authority Report for 1908 shows receipts of \$22,191 and disbursements of \$21,227.56, leaving a balance at bank of \$963.44. The arrivals were: 5 British and 14 foreign sailing, and 88 British and 208 foreign steamers; departures, 5 British and 13 foreign sailing, and 86 British and 208 foreign steamers. There were 5 pilots in service during the year, 4 holding first-class licenses, and one a second-class license.

The G.T.P. Ry. has placed orders with the Polson Iron Works, Toronto, for the neces-

FENCE TALK No. 3

Page "High Carbon" Wire Fences only seem to cost a cent or two more a rod than "hard drawn" wire fence. They really cost fully three cents a rod less—and then some. Figure it for yourself:

Page "High Carbon" horizontal wires—the wires that have to stand the pulling strain, are made of a grade of steel wire containing 0.30 carbon. Other fences' horizontals are "hard steel," or hard drawn wire, at best containing 0.10 carbon.

High Carbon Page wire will stand a strain of 2,400 pounds.

The other kind breaks at 1,800 at best.

That explains why a "High Carbon" Fence will stretch tighter and stand up longer.

That accounts for Page "High Carbon" Fences needing but two fence-posts to the other fence's three.

See now what that figures in a mile of fencing:

Two cents a rod more for Page Fence in the first place, or \$6.40.

100 fewer posts for the Page Fence—because the tougher wire lets it stretch tighter and stay tighter. Are the 100 posts worth 12c. apiece? Call it that—tho' it's nearer 20c. a post, most places. But call it \$12.00 saved in posts—which balances the 2c. a rod more first cost and leaves \$5.60 to the good.

What does it cost your company to dig 100 post holes? To deliver 100 posts? To set and tamp 100 posts? To staple the fencing 100 times oftener than you need to with a "High Carbon" Fence?

Doesn't ten dollars look small for all that extra work?

Well that is only a part of the saving you make on every mile of "High Carbon" Fence you put up, as compared with "Hard Drawn" wire fence.

Our book, sent from the nearest Page place for your asking, tells the rest—and tells you how to prove "High Carbon" betterness beforehand.

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AERATED WATERS.

The Grand Trunk Railway Company of Canada.

Notice is hereby given that the Ordinary General half-yearly meeting of the Grand Trunk Railway Company of Canada will be held at the City Terminus Hotel, Cannon Street, London, E.C., on Wednesday the 21st day of April, 1909, at twelve o'clock noon precisely, for the purpose of receiving a report from the Directors, for the election of Directors and Auditors, and for the transaction of other business of the Company.

Notice is also given that a resolution will be submitted to the meeting to assent to and accept an Act of the Parliament of Canada entitled "The Grand Trunk Act, 1909," and to authorize the Directors to exercise the powers conferred by the said Act.

Notice is also given that the Transfer Books of the Company in London and Canada will be closed from Saturday, the 20th day of March, to the day of meeting, both days inclusive.

By Order,

C. RIVERS WILSON, President.
H. H. NORMAN, Secretary.

Dashwood House, 9 New Broad Street, London, E.C., 12th March, 1909.

C.P.R. LANDS

THE CANADIAN PACIFIC RAILWAY COMPANY have 9,000,000 acres of selected lands for sale in Manitoba, Saskatchewan and Alberta.

Maps, as enumerated below, showing these lands in detail, will be sent free on application.

Map No. 1—Winnipeg to Second Meridian	\$ 8.00 to	\$15.00 per acre.
Map No. 2—South-Eastern Saskatchewan, 2nd to 3rd Meridians	10.00 to	25.00 per acre.
Map No. 3—Main Line, 3rd Meridian to Range 10, W. 4th Meridian (generally)	8.00 to	per acre.
Map No. 5—South-Western Alberta	8.00 to	15.00 per acre.
Map No. 6—Part of Alberta—Edmonton, Battle and Saskatchewan Rivers Districts—4th Meridian to Range 7, West 5th Meridian	10.00 to	25.00 per acre.
Map No. 7—Part of Western Saskatchewan, 3rd to 4th Meridians	10.00 to	25.00 per acre.

All prices are subject to change without notice.

TERMS OF PAYMENT

An actual settler may purchase not more than 640 acres on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal, with interest, in nine equal instalments annually thereafter, as shown in the following table:

160 Acres at \$ 8.00 per acre, cash payment \$191.70 first year's interest \$65.28 and nine instalments of \$160.00	180.00
" " 9.00 " " " 213.70 " " " 73.46 " " "	200.00
" " 10.00 " " " 239.70 " " " 81.62 " " "	220.00
" " 11.00 " " " 263.60 " " " 89.78 " " "	240.00
" " 12.00 " " " 287.60 " " " 97.96 " " "	260.00
" " 13.00 " " " 311.55 " " " 106.10 " " "	280.00
" " 14.00 " " " 335.60 " " " 114.32 " " "	300.00
" " 15.00 " " " 359.50 " " " 122.44 " " "	320.00

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of six per cent. per annum.

Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN, Land Commissioner, Winnipeg.

CANADA NORTH-WEST LAND CO.

This Company has 525,000 acres of selected lands in Manitoba and Saskatchewan which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

F. T. GRIFFIN, Land Commissioner, Winnipeg.

sary machinery for two steamboats which the company is to construct at Victoria, B.C., by day labor during the current year. The vessels will be similar to the company's s.s. Distributor, built by A. Watson, at Victoria, last year, the machinery for which was also supplied by the Polson Iron Works, and they will also be operated on the Skeena River.

The Corinthian-Malin Head Collision.

Following is the full text of Justice Bargrave Deane's judgment, concurred in by Admiral Stewart and Capt. Acton Blake, Elder Brethren of Trinity House, delivered in the Admiralty Division of the High Court of Justice, London, Eng., in the case arising out of the collision between the Allan Line s.s. Corinthian and the Ulster Steamship Co.'s s.s. Malin Head, Sept. 13, 1908, near Grosse Isle, St. Lawrence River. In our Jan. issue, we published Commander Spain's judgment in the same case, and it will be seen that the English Court judgment is in entire agreement with that.

Justice Bargrave Deane, in his judgment, said: "I have to ask myself whether, in my opinion, the non-blowing by the Malin Head of a whistle when she hard-ported caused the possibility of this collision; in other words, was the non-blowing of the whistle a possible cause of this collision? I wish to put myself within the wording of the Lord Chief Justice in the case of the Anselm. That is a very difficult case for me to deal with; for this reason, that on looking at the Anselm case, which was a decision overruling this Court, I find this: The case is reported in 1907 P.D., at pg. 156, and in my judgment I said this: 'That was a case not of alteration of helm, but of reversing engines—no signal was sounded when those engines were reversed, although the rules say that when the engines are reversed three blasts shall be given on the whistle, denoting that fact. Here again was a definite breach of that rule, and a breach which I think it is my duty to say was a serious breach. It cannot be too strongly impressed upon officers in charge of ships that they must obey the regulations. If they do not obey the regulations, they run a very serious risk. Here again I have to ask myself the question—and I have the advantage of the Elder Brethren's advice. In our opinion his not obeying the regulations did not in this case contribute to the collision.' This is a definite finding of fact. I turn to the decision of the Court of Appeal, and in the judgment of the Lord Chief Justice I find this: 'Then there is the non-signalling that she was reversing. We are advised by our nautical assessors, who have also advised us with regard to the port helm signal, that the non-indicating to this vessel which was rapidly approaching, that the Anselm was reversing her engines, was abstaining from giving her information which might be useful, if only for the purpose of calling her marked attention to what was going on in front of her. That seems to me the essence and pith and marrow of the rule which indicates that these signals are to be given.' Then later on I find this: 'I therefore come to the conclusion that the Anselm was to blame in these three respects, and that as regards two of them, namely, neglect to give sound signals when porting and when reversing, it is quite impossible to come to the conclusion that they had no effect upon the collision.' Later still he says this: 'When persons are attacked, and it is proved against them that there is a serious breach of statutory rules, I have very grave doubt whether they can be said to fulfil the obligations upon them if they do not satisfy the Court by affirmative evidence that the breach of the rules has no possible effect.' That is distinctly

a question of fact. I had the advantage of seeing the witnesses in the case of the Anselm, the Court of Appeal had not. The Elder Brethren who sat with me also had an opportunity of seeing the witnesses, and they advised me in that particular case the non-giving of the signal had no possible effect upon the collision. The Court of Appeal, advised by two different gentlemen who did not see the witnesses, said that as a matter of fact I was wrong. It is a very awkward position which this Court is put into when it, being advised by two nautical gentlemen so competent as our Elder Brethren always are, should be overruled on a question of fact by two gentlemen of whom we know nothing, and who have not seen the witnesses. The Lord Chief Justice said this Court has to be satisfied that in fact the non-giving of the signal had no possible effect. I am advised in this case by the Elder Brethren, and I agree with them, that in this particular case the non-blowing of the signal when the hard-ported took place had no effect, because it is distinctly proved by the Corinthian's witnesses that they saw the vessel hard-ported for a considerable time before the collision. They put it at five minutes, and if that be so, who can say that the fact that a blast was not blown had any effect upon the knowledge of those who were navigating the Corinthian? I feel, as I have said, that I am in an awkward position with regard to the Court of Appeal, but I have to take my own line, and, as a matter of fact, I am advised and I find that the non-blowing of the signal by the Malin Head did not affect the collision, and that therefore she is not to blame for that. I start again with this, that I find these two vessels were approaching each other end on, or so nearly end on that it was the duty of each, under the rules, to port. The Corinthian starboarded, and I think that she was breaking the rule under the circumstances. If they were end on, or nearly end on, and the rule is clear, why did she starboard? I think it is clear from the evidence of the Corinthian. They say they wanted to make the Margaret Tail buoy, and they say it is not a narrow channel, and therefore they could go where they liked. They say they wanted to make the Margaret Tail buoy because the weather was sufficiently thick for them to anchor upon the north side of the channel if they did not find the buoy. They could not anchor in the middle of the river, but out of the channel on the north side, and it is perfectly clear that when the Corinthian saw the Malin Head, the pilot and master determined to go well to the north, and turned to go up to the north, and persevered in that, and then, seeing the other vessel was porting, there was nothing for them to do but to reverse the engines, and they reversed them, but it was too late, because it was then impossible to avoid the collision. The fact that this vessel meant to go to the north, emphasizes rather the fact of her starboarding than that she was on the starboard bow of the plaintiffs' vessel. Something has been said about the Malin Head being beached improperly. I think that the whole matter depends upon whether or not there was at that time a state of atmosphere which enabled her to proceed safely on up the river. It is true she went on and got as far as a place called Indian Cove, not far from Quebec, when she was overtaken by fog. If that is so, and I believe it is, then she did her best to get herself and her cargo up to Quebec, and she probably would have arrived at Quebec, or got into some safe place, before she sank. As it was, having to anchor before she got to Quebec, she was overtaken by circumstances as to which no blame attaches to her, and she was beached at the best place she could be beached at. I do not think any blame

can be attributed to her for that, and I think she would have been wrong if she tried to beach herself at the other place which was suggested. As far as I know I have dealt with all the points, and I think the fact that the Malin Head kept on at full speed to try and avoid the collision was the right course for her to take. If she had reversed, she would probably have been struck further forward. I do not think any blame can be attached to her for any other matter, and therefore I must find the Corinthian alone to blame."

Georgian Bay Ship Canal.

The final report of the board of engineers appointed by the Dominion Government to ascertain the feasibility of construction and probable cost of a ship canal from Montreal to the Georgian Bay by the Ottawa River valley, Lake Nipissing and the French River, has been laid before Parliament. It states that a 22-ft. waterway, capable of carrying the largest lake freight vessels, 600 ft. in length, 60 ft. wide, and having a draught of 20 ft., can be established for about \$100,000,000 within a period of 10 years, and that the annual maintenance of the same would be, approximately, \$900,000, which includes the operation of storage reservoirs for the better distribution of the flood waters of the Ottawa River. The distance from Montreal to the mouth of the French River, on Georgian Bay, is 440 miles, and upon this waterway there would have to be constructed 27 locks, 18 main dams, 28 miles of canal excavation, and 66 miles of channel dredging. The remaining mileage consists of long stretches of deep-water navigation on the Ottawa and French Rivers and across Lake Nipissing. The report states that to make Lake Nipissing the summit level, and not the divide between the Mattawa River and Lake Nipissing, would cost an additional \$10,000,000, and involve an additional 10 miles of rock cutting.

It is stated that the current in the Ottawa River would not exceed three miles an hour, and practically slack water would obtain over a large part of the waterway.

It is estimated that the probable time taken by a lake freight steamboat, 12-mile maximum speed, from French River to Montreal, would be 70 hours, and that the season of navigation will average 210 days, from May to Nov. The engineers say that with a storage system as planned, and the tributary basins thereto, required for the navigation project, a reliable supply can be secured at various dams amounting to 1,000,000 h.p., which can be developed for about \$50 per h.p.

The report recommends that an understanding be arrived at between the Dominion, Quebec and Ontario Governments, governing the disposal and control of all water powers, water lots and islands on the proposed route, in view of the possible canalization of the rivers utilized. Recommendations are also made in regard to the conservation of forests in relation to water supply and for the appointment of a special commission to examine the great canals of the world before any further plans of construction are made. These great canals include the Suez Canal, between the Mediterranean and Red seas; the Corinth canal, which is a sea level canal cut for some miles through solid rock, in Greece; the Baltic ship canal in Germany; the Manchester ship canal in England; the Forth and Clyde ship canal in Scotland, and the canal under construction across the Isthmus of Panama.

The only question which is not fully treated of in the report, is that relating to the storage of the flood waters of the Ottawa River. "The study of this question," A. H. Laurent, the engineer in charge of the work, states, in a report to the Minister of Public Works, dated Jan. 9, "has to be continued, and supplementary reports will be issued as the collection of the necessary data progresses."

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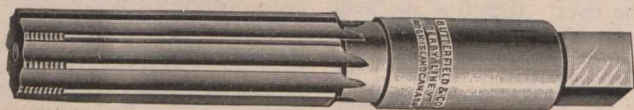


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Coast, Lake and River Officers for 1909.

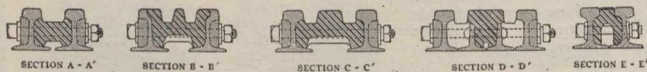
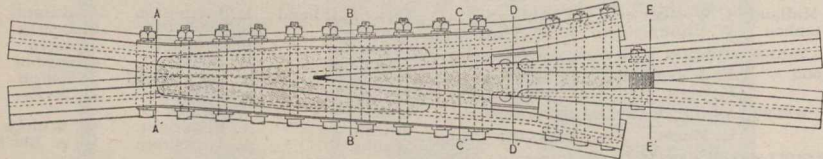
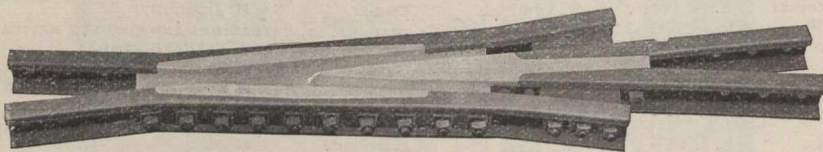
The following appointments have been made by the principal navigation companies engaged in the coast, lake and river routes for their various steam vessels, tugs and barges, for the current year. In the first column is given the name of the vessel, in the second that of the captain, and in the third that of the chief engineer:

Table listing various shipping companies and their officers. Includes entries for ALGOMA CENTRAL STEAMSHIP LINE, ARROW LAKES LUMBER CO., BOUCHARD BROS., BRAS D'OR STEAMBOAT CO., CALVIN CO., CANADIAN FISHING CO., CANADIAN LAKE AND OCEAN NAVIGATION CO., CANADIAN LAKE TRANSPORTATION CO., CANADIAN NORTHWEST STEAMSHIP CO., CANADIAN PACIFIC CAR AND PASSENGER TRANSFER CO., C.P.R. DETROIT RIVER CAR FERRIES, H. CANN & SONS, CAPE BRETON ELECTRIC CO., CENTRAL CANADA COAL CO., CHARLOTTETOWN STEAM NAVIGATION CO., COAST STEAMSHIP CO., DETROIT, WINDSOR AND BELLE ISLE FERRY CO., DOMINION ATLANTIC RY., DOMINION TRANSPORTATION CO., EASTERN MANITOULIN ROYAL MAIL STEAMSHIP LINE, EMPRESS TRANSPORTATION CO., FARRAR TRANSPORTATION CO., FOLEY, WELSH AND STEWART, G.T.R. DETROIT RIVER CAR FERRIES, HALIFAX AND CANSO STEAMSHIP CO., HALIFAX AND INVERNESS STEAMSHIP CO., F. E. HALL & CO., HAMILTON STEAMBOAT CO., ISLAND TUG CO., KENNEBECASIS STEAMSHIP CO., KILKEEL CO., LAKE ERIE NAVIGATION CO., MARQUETTE AND BESSEMER NO. 1, LAKE ONTARIO AND BAY OF QUINTE NAVIGATION CO., CASPIAN, MACKENZIE STEAMSHIP CO., MAJESTIC STEAMSHIP CO., MATHESW STEAMSHIP CO., MERCHANTS STEAMSHIP CO., M.C. RD., DETROIT RIVER CAR FERRIES, MIDLAND TOWING AND WRECKING CO., MIDLAND TRANSPORTATION CO., MONTREAL AND GREAT LAKES STEAMSHIP CO., MONTREAL TRANSPORTATION CO., ADVANCE, BICKERDIKE, BOSTON, BRITANNIA, COLUMBIA, EXCELSIOR, GARLAND, PAPPOOSE, PLEASURE, PROMISE, SAPHO, VICTORIA.

Table listing various shipping companies and their officers. Includes entries for DOMINION ATLANTIC RY., DOMINION TRANSPORTATION CO., EASTERN MANITOULIN ROYAL MAIL STEAMSHIP LINE, EMPRESS TRANSPORTATION CO., FARRAR TRANSPORTATION CO., FOLEY, WELSH AND STEWART, G.T.R. DETROIT RIVER CAR FERRIES, HALIFAX AND CANSO STEAMSHIP CO., HALIFAX AND INVERNESS STEAMSHIP CO., F. E. HALL & CO., HAMILTON STEAMBOAT CO., ISLAND TUG CO., KENNEBECASIS STEAMSHIP CO., KILKEEL CO., LAKE ERIE NAVIGATION CO., MARQUETTE AND BESSEMER NO. 1, LAKE ONTARIO AND BAY OF QUINTE NAVIGATION CO., CASPIAN, MACKENZIE STEAMSHIP CO., MAJESTIC STEAMSHIP CO., MATHESW STEAMSHIP CO., MERCHANTS STEAMSHIP CO., M.C. RD., DETROIT RIVER CAR FERRIES, MIDLAND TOWING AND WRECKING CO., MIDLAND TRANSPORTATION CO., MONTREAL AND GREAT LAKES STEAMSHIP CO., MONTREAL TRANSPORTATION CO., ADVANCE, BICKERDIKE, BOSTON, BRITANNIA, COLUMBIA, EXCELSIOR, GARLAND, PAPPOOSE, PLEASURE, PROMISE, SAPHO, VICTORIA.

Table listing various shipping companies and their officers. Includes entries for NIAGARA NAVIGATION CO., NIAGARA, ST. CATHARINES AND TORONTO NAVIGATION CO., NIQUET ET FRERE, PIERREVILLE, QUE., NORTHERN NAVIGATION CO., ONTARIO AND QUEBEC NAVIGATION CO., ONTARIO CAR FERRY CO., OTTAWA FORWARDING CO., OTTAWA RIVER NAVIGATION CO., PARRY SOUND TRANSPORTATION CO., PENINSULA TUG AND TOWING CO., PENNSYLVANIA AND ONTARIO TRANSPORTATION CO., PICKFORD AND BLACK, QUEBEC AND LEVIS FERRY CO., QUINTE NAVIGATION CO., RENWICK CO., RIDEAU LAKES NAVIGATION CO., ST. JOHN RIVER STEAMSHIP CO., ST. LAWRENCE AND CHICAGO STEAM NAVIGATION CO., SPARROW LAKE STEAMER LINE, SYLVESTER BROS., TEMISKAMING NAVIGATION CO., TURBINE STEAMSHIP CO., TURRET CROWN, LTD., UNITED STATES AND DOMINION TRANSPORTATION CO., AMERICA, CARIBOU, EASTON, MANITOU.

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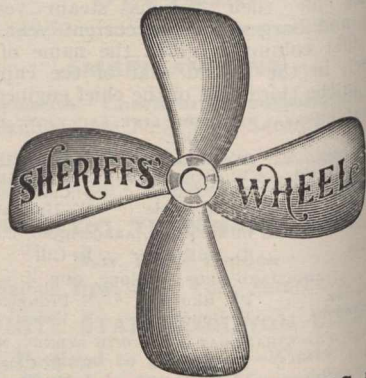
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Enlargement of the Welland Canal.

L. Henderson, General Manager Montreal Transportation Co., in an interview recently, presented his views on the proposed deepening of the Welland canal to allow vessels of large tonnage carrying grain cargoes to pass through, as against the proposed construction of the Georgian Bay canal. The main points raised by him were that the Canadian route offered the natural geographical advantages for carrying grain from the far west, but that this route needed to be given the best possible facilities in order to meet the competition offering from the U.S. routes by the improvements to the Erie Canal, now under way, on which over \$100,000,000 is to be spent. Given a reasonable improvement of the Canadian trade route, he considered that not only would the Canadian carriers hold their own trade, and ship Canadian grain by Canadian routes to the markets in Europe, but they would secure a large slice of the trade offering from the U.S. Northwest, by the simple process of offering better service and lower rates.

He was very glad to see by reports of the proceedings of Parliament that the Minister of Railways and Canals, when asked as to the construction of the Georgian Bay canal and the enlarging of the Welland canal, said they would become national necessities within a few years, and that the enlargement of the Welland canal would enable the St. Lawrence route to retain its trade despite the immense expenditures which the State of New York is making for the enlargement of the Erie canal. Those acquainted with trade conditions on the Great Lakes and the St. Lawrence will heartily endorse the Minister's position. They know very well that if the larger steamers now trading on the Upper Lakes could go through to Lake Ontario with their big cargoes, that grain could be carried to the foot of lake navigation for half a cent a bushel over the rate to Buffalo. The only charge to add to this to put grain f.o.b. ocean steamers is the river rate, which at present is 1 7/8c. a bushel, including the Montreal terminal charges. This makes 2 3/8c. a bushel, as against the

rate from Buffalo to f.o.b. steamers at New York, which at present is over 6c. a bushel, and rarely falls below 4 1/2c., which would give a big margin to work upon to keep business coming this way.

The enlargement of the Welland canal, he considered, was a much more feasible scheme than the construction of the Georgian Bay canal, which, according to all latest Government surveys, could hardly cost less than \$150,000,000, while long before it could be built, the Erie canal improvements would be finished, and trade diverted to that channel. On the other hand, the enlargement of the Welland canal could be done for about one-sixth of this cost, and within one-sixth of the time, and it will suit the trade quite as well or better.

One of the largest factors in lake transportation was the securing of return cargoes, which greatly affected the situation. While vessels using the proposed Georgian Bay canal would be entirely dependent for return cargoes on what freight they could get out of Montreal, which is comparatively limited, those using the St. Lawrence and Great Lakes route would not only have the Montreal trade, but also the enormous amount of coal which is annually shipped from Lake Ontario and Erie ports to Fort William and Port Arthur, which amounts to over 1,000,000 tons a year now.

On this account the saving to Manitoba and the West on hard coal alone would be very large in case the new Welland canal were built, as hard coal is about 40c. a ton cheaper on Lake Ontario and Erie ports, owing to proximity to the mines in Pennsylvania, and with the new canal low freights could be secured, which are not now possible, owing to the shallow draught of the present Welland canal. At present, although the distance is some 300 miles farther from Fort William to Buffalo than to Georgian Bay ports, vessels would rather go to Buffalo at the same rate of freight, on account of the return freights they can get.

What Canada needs, and what Montreal should earnestly work for, is to cheapen this transportation as much as possible, so as to keep our own trade for our own trade routes, and the best way to do this is to improve our waterways along practical, sensible lines, where the quickest and greatest benefit can be obtained at a minimum cost. Our waterways have always been the great regulators of freight rates, and every reasonable effort should be made to keep them so. It looks as though the Government was anxious to push through the Welland canal improvement project, and he believed that it will ultimately do so, but Montreal should give it some encouragement, and not lie down and take too much for granted.

The scheme he suggested is to deepen the Welland canal from 14 to 22 ft., with a widening of the channel and locks to permit of accommodating vessels up to 10,000 tons, instead of the present accommodation for 2,000 ton boats; to make the channel so large as to be of identical accommodation to the foot of the lakes with the canals and locks at Sault Ste. Marie, while at the foot of the lakes the cargo could be transhipped to barges for transportation to ocean vessels at Montreal, thus securing the longest possible haul for the largest possible cargoes.

The result of such an improvement of the Welland canal would be that the through trip to the foot of lake navigation could be made by 10,000 ton steamers, instead of by 2,000 ton boats as at present. This would mean a saving of a full 2c. a bush. on wheat, which would mean a saving of \$2,000,000 on a crop of 100,000,000 bush., and would probably draw a great deal of trade from U.S. sources, as well as holding the Canadian trade.

The result of this improvement, put in tabulated form, would be as follows:

U.S. ROUTE.	
Fort William to Buffalo.....	1.5c.
Buffalo to New York.....	3.5c.
f.o.b. charges, New York.....	.90c.
	5.90c.

CANADIAN ROUTE.	
Fort William to Kingston or Prescott.....	2.00 c.
Kingston to f.o.b. ocean steamer, Montreal.....	1.875c.
	3.875c.

This shows a difference in favor of the Canadian route of over 2c. a bush. with the enlarged Welland canal, which, with the increased trade which would undoubtedly come this way both from the Canadian Northwest and the northwestern states under such economical charges, would undoubtedly cause an improvement in the shipping facilities, and which would lead to further reductions in the rates, and thus to further advantages of the Canadian route over those offered even by the improved Erie canal.—Montreal Gazette.

Notices to Mariners.

The Dominion Department of Marine has issued the following notices:

No. 14. Feb. 25.—28. New Brunswick, south coast, Bay of Fundy, Passamaquoddy Bay, St. Andrews, aids to navigation.

No. 15. Feb. 26.—29. Ontario, Lake Ontario, Wicked Point, color of light. 30. Ontario, Georgian Bay, Western Islands, Double Top rock, intended change in character of light. 31. Ontario, Lake Superior, Thunder Cape, change in character of light. 32. United States of America, Lake Erie, Buffalo harbor entrance, Horseshoe reef light, characteristic to be changed.

No. 16. Mar. 2.—33. British Columbia. Fraser River, New Westminster, railway swing bridge, alteration of lights. 34. British Columbia, Boundary Bay, Mud Bay, Serpentine and Nicomekl Rivers, railway swing bridges, lights. 35. British Columbia, Strait of Georgia, Mary Island, Sharkspit, buoy established.

No. 17. Mar. 15.—36. Ontario, Lake Ontario, Bay of Quinte, Trenton, position of gas buoy changed. 37. Ontario, Detroit River, construction of tunnel between Detroit and Windsor, caution.

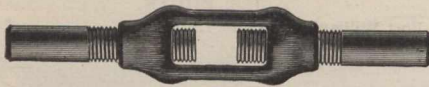
No. 18. Mar. 15.—38. Nova Scotia, Bay of Fundy, Chignecto channel, Eatonville, lighthouse established. 39. Ireland, east coast, Dundrum Bay, St. John's Point light, character altered. 40. Ireland, east coast, Skulmartin, light vessel, character of light altered.

No. 19. Mar. 17.—41. Quebec, River St. Lawrence, English Bay, St. Pancras Point, lighthouse established. 42. Quebec, River St. Lawrence, Goose Island, Hospital Rock back range light, red stripe painted on tower.

No. 20. Mar. 22.—43. British Columbia, Vancouver Island, west coast, Carmanah, change in character of light, intended change in fog signal. 44. British Columbia, Vancouver Island, Victoria harbor, Laurel Point, change in position of light.

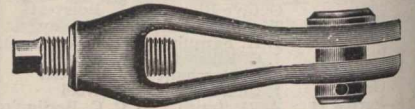
Considerable activity has prevailed recently at lake ports where vessels were berthed for the winter. Most of the steamboats are being overhauled and wharves are being put in order in preparation for an early opening of navigation. It is reported that the Niagara, St. Catharines and Toronto Navigation Co.'s vessels will be in operation between Toronto and Port Dalhousie early in April. The Canadian route for ocean-going vessels will apparently be utilized to a greater extent this year than last, as according to reports a scheme is on foot, by a U.S. syndicate, to operate a line of steamboats in the grain traffic between U.S. ports and Montreal.

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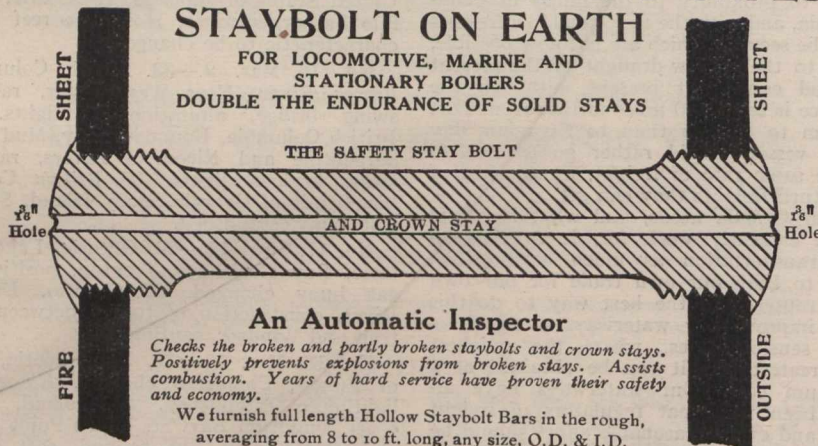
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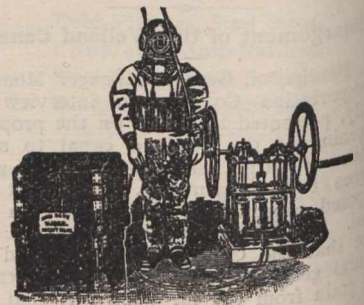


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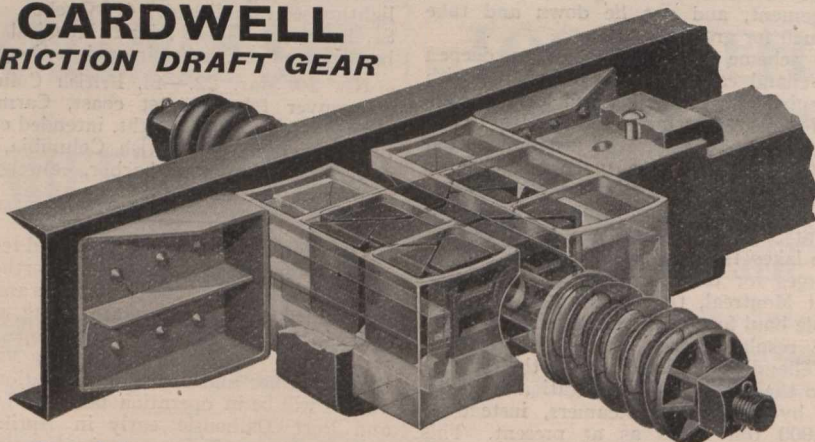
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Trade and Navigation Statistics.

In addition to the statements of customs revenue collected at the various ports of entry throughout the Dominion, together with tables showing the quantities of goods imported, and the duties paid thereon, with the countries of origin, as well as tables showing the quantities of goods exported, with the countries to which they were sent, the report of the Minister of Customs, for the year ended Mar. 31, 1908, contains a series of tables showing the number of vessels arriving and departing at and from the various ports classified under several headings.

The first of the tables deals with the sea-going vessels entered and cleared at each port during the fiscal year. The tables show that sea-going vessels were entered or cleared at 119 ports distributed as follows: Prince Edward Island, nine ports; Nova Scotia 63, New Brunswick 23, Quebec 11, and British Columbia 12. In all there were 15,087 vessels of 10,189,275 tons entered, bearing the flags of 14 different nations. The leading nations were: Great Britain, 8,474 vessels of 6,931,577 tons; United States, 5,504 of 1,789,532 tons; Norway and Sweden, 789 of 1,036,118 tons. Of vessels declaring outwards there were 14,717 of 9,301,996 tons, bearing the flags of 16 different countries, the leading nations being: Great Britain, 8,444 vessels of 6,004,598 tons; United States, 5,120 of 1,759,739 tons; Norway and Sweden, 816 of 1,100,427 tons. A classification of the vessels shows that of the British vessels entered inwards 4,254 of 6,434,744 tons were steamers, and 4,220 of 496,833 tons were sailing vessels, and of those sailing from Canada, 3,865 of 5,421,029 tons were steamers, and 4,579 of 583,569 tons were sailing vessels; while of the foreign vessels entered inwards, 3,625 of 2,787,444 tons were steamers, and 2,988 of 470,254 tons were sailing vessels; and of those leaving Canada 3,332 of 2,857,620 tons were steamers, and 2,941 of 439,778 tons were sailing vessels. Of the vessels credited to Great Britain 4,969 vessels of 1,213,027 tons entered inwards, and 5,593 vessels of 1,393,633 tons were registered in Canada. The freight carried and the number of the crews were as follows:

	INWARDS.		Crew.
	Tons Weight.	Tons Measurement.	
British.....	1,306,822	254,373	193,852
Canadian.....	202,939	1,449,054	68,317
Foreign.....	887,154	36,618	140,763
Total.....	2,396,915	1,740,045	402,932
	OUTWARDS.		Crew.
	Tons Weight.	Tons Measurement.	
British.....	2,706,334	714,085	154,071
Canadian.....	616,248	291,480	75,613
Foreign.....	1,454,787	538,499	143,040
Total.....	4,777,369	1,544,064	372,724

Following is the number of vessels with their tonnage arriving at or clearing from the principal ports in the Dominion, in the sea-going trade:

	Entered		Cleared	
	Vessels	Tonnage	Vessels	Tonnage
Halifax, N.S.....	1,065	1,076,424	1,045	978,482
Sydney, N.S.....	264	368,775	453	439,024
North Sydney, N.S.....	792	250,414	644	243,002
Louisburg, N.S.....	297	358,396	315	373,263
Yarmouth, N.S.....	736	200,554	721	207,995
St. John, N.B.....	1,333	1,083,616	1,236	775,521
St. Andrews, N.B.....	527	36,627	506	34,374
Quebec, Que.....	333	1,248,958	168	539,914
Montreal, Que.....	399	1,363,972	377	1,325,199
Vancouver, B.C.....	1,336	994,830	1,434	1,050,413
Victoria, B.C.....	1,181	1,377,808	1,161	1,318,179
Nanaimo, B.C.....	288	309,476	500	378,674

The second series of tables show the description, number and tonnage of Canadian and U.S. vessels trading on the rivers and lakes between Canada and the U.S. (exclusive of ferriage). The tables cover the arrivals and departures at 90 ports distributed as follows: New Brunswick,

2 ports; Quebec 11, Ontario 71, Saskatchewan 1, British Columbia 2, Yukon 3. The total number of vessels entered inwards was 22,322 of 9,712,052 tons register, and carrying 336,581 as crews, divided as follows:

	Vessels.	Tons Register.	Crew.
Canadian, steam.....	7,956	4,203,542	183,356
" sailing.....	1,079	249,764	5,401
U.S. steam.....	8,459	4,188,702	132,874
" sailing.....	4,828	1,070,044	14,950

A further description of the vessels shows:

	Number of	
	Vessels.	Tons Register.
Screw steamers.....	13,167	5,764,029
Paddle steamers.....	3,178	2,601,595
Stern-wheel steamers.....	70	26,220
Schooners.....	1,789	574,978
Sloops.....	499	52,833
Barges.....	3,619	699,997

The total number of vessels entered outwards was 23,486 of 10,371,708 tons register, and carrying crews totalling 358,092, divided as follows:

	Vessels.	Tons Register.	Crew.
Canadian, steam.....	7,986	4,355,872	201,497
" sailing.....	1,212	302,008	5,928
U.S., steam.....	8,450	4,572,384	134,264
" sailing.....	5,838	1,141,444	16,403

A further description of the vessels shows:

	Number of	
	Vessels.	Tons Register.
Screw steamers.....	13,208	6,550,436
Paddle steamers.....	3,153	2,349,612
Stern-wheel steamers.....	75	28,208
Schooners.....	1,845	588,900
Sloops.....	173	2,331
Barges.....	5,032	852,221

The third set of tables shows the number of British and foreign vessels engaged in the Canadian coasting trade. These returns were collected from 193 ports distributed as follows: Prince Edward Island, 10 ports; Nova Scotia 62, New Brunswick 22, Quebec 14, Ontario 68, British Columbia 14, Yukon Territory 3. The total number of vessels engaging in this trade was 81,012, distributed as follows:

	INWARDS.		Crew.
	No.	Tonnage.	
British.....	79,213	25,096,442	1,148,669
Foreign.....	1,799	1,638,304	28,297
Total.....	81,012	26,734,746	1,176,966
	OUTWARDS.		Crew.
	No.	Tonnage.	
British.....	72,660	22,259,971	1,017,253
Foreign.....	1,565	1,535,118	26,486
Total.....	74,225	23,795,089	1,043,739

Of the vessels arriving, 54,368 of 21,314,515 tons were steamers, and 24,845 of 3,781,927 tons were sailing, and of the vessels departing, 47,846 of 18,549,764 tons were steamers, and 24,814 of 3,710,207 tons were sailing, flying the British flag. A further classification shows the following:

	Vessels.	Tonnage.
Screw steamers.....	81,531	30,377,035
Paddle.....	15,786	9,322,972
Stern-wheel steamers.....	7,210	3,156,723
Total.....	104,527	42,856,730
Ships.....	17	29,224
Barques.....	82	73,514
Barquentines.....	45	12,908
Brigs.....	367	32,834
Brigantines.....	23	4,580
Schooners.....	36,484	2,479,188
Sloops.....	2,446	98,163
Barges, canal boats.....	11,246	4,924,694
Total sailing.....	50,710	7,673,105
Grand total.....	155,273	50,529,835

During Jan., two navigation employes were killed and 5 injured in the course of their work. The deaths were caused, one by drowning, and one by being caught between a boat and a wharf. Of the other accidents, 2 each were due to falling material and to explosions, and one to a fall.

The question of dividing the Marine and Fisheries Department into two separate departments, is under consideration by a parliamentary committee. The opinion has been expressed that it is impossible for one deputy minister to perform satisfactorily the executive duties relating to both marine and fisheries matters.

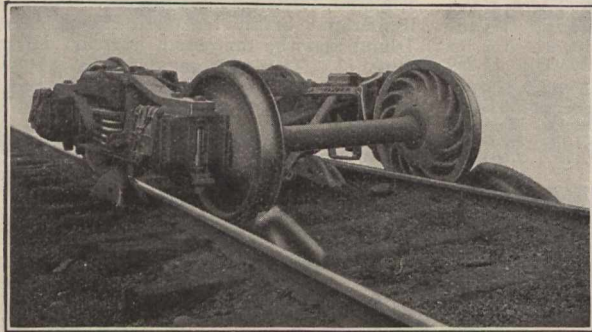
Northumberland Straits Icebreaking Steamship.

The icebreaking steamship which is being constructed for the Dominion Government by Vickers, Sons and Maxim, Ltd., London, England, for the winter navigation of Northumberland Strait between Prince Edward Island and the mainland, is to be delivered May 11. The contract price is £103,000, and there has been paid to date on account of construction \$125,316.66.

The specifications provide for a twin-screw mail and passenger steamship having the following principal dimensions: Length between perpendiculars, 250 ft.; length over all, 279 ft. 6 in.; breadth, moulded, 46 ft.; depth to upper deck, 27 ft.; depth to main deck, 19 ft.; upper deck to promenade deck, 7 ft. 9 in.; load draught, mean, 18 ft.; indicated h.p., 6,000; dead weight on 18 ft. draught, 600 tons; dead weight on trial, 500 tons. The vessel is being built and engaged under Lloyd's special survey, is to be classed 100A1 at Lloyd's, two deck rule, with water ballast and double bottom, fore and aft, and will comply with all the Board of Trade requirements for passenger service. The hull is of steel, with special strengthening to fit her for the service for which she is designed. She has a cut water stem, elliptical stern, and is fitted with nine watertight bulkheads, two steel masts, and a short bowsprit. She will be provided with a short bridge deck, promenade deck, forecabin deck, upper deck, main deck, and a steel lower deck. The wheel house, captain's and officers' quarters are placed on the bridge deck; the deck saloon and entrance, smoke room and an official suite are on the promenade deck; the first-class dining saloon is forward, the first-class staterooms amidships, and the mail room and store room aft on the upper deck; the main deck is generally to be used for cargo, while the accommodation for the second-class passengers and engineers are placed aft, and for the firemen and trimmers forward. The main cargo hold is forward of the coal bunkers and boiler room, and a deep tank and trimming bank are placed aft of the engine room. Steam steering gear is fitted, with an emergency hand steering gear. Three lifeboats, a cutter, gig and dinghy are provided with all necessary appliances, and in every other department the appliances are of the latest and most approved pattern. The vessel is to be heated throughout with steam and lighted with electricity, a searchlight 24 inches in diameter and of 25,000 candle power being placed on the foremast. The first-class dining saloon has seating accommodation for 60 persons, and the staterooms are fitted with berths for one, two, three or four persons. The second-class accommodation is fitted with sofa seats and folding backs forming 20 beds. Ample bath and lavatory accommodation is provided.

The vessel is to be propelled by twin screws set well clear of the ship's side, not to overlap, and to turn outwards in going ahead. The screws are to be driven by two sets of inverted, direct-acting, triple-expansion, surface-condensing engines, each set having three cylinders working on separate cranks, placed at an angle of 120 degrees to each other in sequence of high, low and intermediate, when the engines are going ahead. The engines are to be capable of developing 6,000 collective indicated horse power. The battery of boilers is to consist of two double-ended boilers, 14 ft. 10 in. by 21 ft.; and two single-ended boilers, 14 ft. 10 in. by 11 ft.; the double-enders to be fitted with six, and the single-enders with three withdrawable furnaces, the mean inside diameter of the furnaces being 3 ft. 10 in., each fitted with fire grates 5 ft. 9 in. long. The boiler tubes

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are 2½ in. outside diameter. The boilers have to stand a water test pressure of 360 lbs. to the square inch, and are designed for a working pressure of 180 lbs. to the square inch. The total heating surface of the boilers is not to be less than 14,600 sq. ft., and the total fire grate surface not to be less than 395 sq. ft. A system of forced draught is to be fitted.

The contractors have to give a guarantee that the vessel is sufficiently strong and capable of dealing with drift ice fields 15 ft. in thickness. The vessel will be named Earl Grey.

Grounding of Lightship Anticosti.

The following decision has been given by Capt. L. A. Demers, Chief Examiner of Masters and Mates, re the grounding of the Dominion lightship Anticosti on White Island Reef, N.S., the same being concurred in by J. Bain and P. Lachance:

"The evidence adduced at this investigation shows that the vessel was supplied with an efficient compass and necessary instruments for the purpose of navigation; that the captain, and first and second officers, possess foreign-going certificates as masters, and the evidence has brought out the fact that the compass errors had been occasionally determined by the captain whilst the vessel was on the station, but no record has been entered in the log book of such observations.

"Taken as a departure for the purpose of this investigation, the navigation from the easternmost cape of Cape Breton, the court finds that the navigation of the vessel to the time of the grounding was carried on in a haphazard way, no cross bearings of lights or points of land being taken to ascertain the position of the ship; that the distances were judged by the eye approximately, and were kept as guides for each succeeding course; that an element of uncertainty existed in the captain's mind as to the amount and nature of the deviation of his compass, and no steps were taken to obtain positive evidence that the vessel's distance from the land was correct, and

whether courses steered were proper by either means of observation, cross bearings or soundings. The engagement of a pilot (irresponsible) seems to have led to a wrong impression, which, however, is inexcusable. In this court's point of view it was the duty of the captain to advise his officers that they were solely responsible for the safe navigation of the ship when on deck, and not the pilot. The evidence in connection with the frequent changes of courses after 4 p.m. till the ship grounded is conflicting. All seem to lay the responsibility on the pilot, and no attempt was made on the part of the captain to ascertain the strength and direction of the current and the stage of the tide. The fact that the ship floated off without the help of the engines shortly after touching, indicates clearly that the tide was flood, which was the cause of the vessel being brought in shore and out of her course, a matter which was easy to find by referring to the Almanac or sailing directions. If either a cross bearing or a four-point bearing had been taken off Cranberry light, the mishap would have been evaded. The evidence of Boudreau, the helmsman, goes to show that the lights ashore were visible before the course was altered to the southward, and demonstrates conclusively that the vessel was farther in from the position which the report on the log and the testimony of the captain show. When breakers were seen there was no attempt to stop the engines, but they were kept full speed, the course being altered to starboard, but too late. It appears that the moment the ship struck, the order to man the boats was given and performed effectively, and that the mate was the first to go down in one of them, and the second mate in the other, leaving the captain to direct operations.

"After reviewing carefully the evidence given on the above stated facts, the court can arrive at no other conclusion than that the navigation of the lightship Anticosti was performed in a careless way, utter disregard to the most elementary procedure of coast navigation being evident on the part of the captain and the first officers,

and therefore, in view of which, the court, however, wishing to be lenient in view of it being a first mishap, suspends Capt. Alfred Couillard's certificate 2607 for three months, from Feb. 9 to May 9, 1909, and severely censures the chief officer, C. Bernier, for not ascertaining the position of the vessel when he came on watch at 4 o'clock. As to the second officer, owing to the fact that he was required to be at the helm at times, the court simply warns him to be careful in future."

Canal Expenditures and Traffic.

The total amount expended upon the Canadian canal systems for the year ended Mar. 31, 1908, by the Department of Railways and Canals, aggregated \$3,221,984.73, of which \$1,723,156.07 was on capital account, \$508,010.19 on income account, \$556,902.83 for staff, and \$433,915.64 on repairs. These last two items are charged to revenue. There is also \$45,155.99 for miscellaneous expenditures common to both the railway and canal branches of the Department. The revenue produced from the canal works amounted to \$144,882.13, the amount received from hydraulic rents being \$126,873.70. The total revenue derived from canals from July 1, 1867, to Mar. 31, 1908, was \$13,763,468.60.

The total traffic through the several canals for the season of navigation of 1907 was 20,543,639 tons, an increase of 10,020,454 over 1907. The number of passengers carried was 279,199, an increase of 22,699.

On Mar. 3, a deputation from the Dominion Marine Association waited on the Ontario Attorney-General, to ask the assistance of the province in procuring an amendment to the Canada Shipping Act, to bring about the inclusion of Ontario in the list of provinces exempt from the compulsory payment of pilotage dues. It is hoped that Ontario will take up the matter and protest against what is claimed to be an unjust discrimination. This matter has previously been represented to the Federal authorities, but without effect.

LIST OF STEAM VESSELS REGISTERED IN CANADA DURING JAN. AND FEB., 1909.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Port of Registry.	Owners.
Alcedo.....	122,650	Ballard, Wash., 1905.....	Screw 16 N.H.P.....	69.7	16.8	7.6	70	47	Ottawa.....	Department of Marine.
Andover.....	126,331	Kamloops, B.C., 1908.....	Paddle 6 ".....	91.3	19.9	4.0	177	111	Vancouver, B.C.....	G. B. and E. Ward, Kamloops, B.C.
Christine.....	86,714	Glasgow, Scotland, 1881...	Screw 40 ".....	126.0	17.2	9.9	140	95	Ottawa.....	Customs Department.
D. and G.....	126,096	Port Maitland, Ont., 1909...	" 10 ".....	58.2	14.1	7.4	41	28	St. Catharines, Ont....	G. Jones, Port Maitland, Ont.
Elgin E.....	121,957	Collingwood, Ont., 1908...	" 20 ".....	75.0	16.0	8.2	66	45	Port Stanley, Ont.....	C. Thorne, M.O., Port Stanley, Ont.
Elola.....	126,329	Vancouver, B.C., 1907.....	" 3 ".....	45.4	10.1	4.3	19	13	Vancouver, B.C.....	F. R. Begg, Vancouver, B.C.
John Hancock	126,013	Granville Ferry, N.S., 1908...	" 3½ ".....	53.0	16.2	5.2	43	29	Annapolis Royal, N.S.	B. Dolan, Granville Ferry, N.S.
Kereoneous...	122,583	Yarmouth, N.S., 1908.....	" 2 ".....	34.0	9.6	4.0	8	4	Yarmouth, N.S.....	J. S. Gray, Yarmouth, N.S.
Longboat.....	126,266	Simcoe, Ont., 1901.....	" 2 ".....	37.0	10.0	4.0	23	15	Toronto.....	Turner Lumber Co., Toronto.
Mayr no. 1...	126,137	Dartmouth, N.S., 1909.....	" 6 ".....	60.5	17.3	7.0	50	45	Halifax, N.S.....	Imperial Oil Co., Sarnia, Ont.
Prin Charlotte	126,236	Govan, Scotland, 1908.....	" 795 ".....	330.0	46.7	23.7	3844	1999	Victoria, B.C.....	C.P.R., Montreal.
Reliever.....	122,417	{West Bay City, U.S., 1888 } {Midland, Ont., 1908..... }	" 80 ".....	226.0	36.4	10.5	810	366	Midland, Ont.....	M. Chew, Midland, Ont.
*Roddick.....	122,606	Fort Frances, Ont., 1908...	" 3 ".....	66.0	12.0	4.4	52	31	Kenora, Ont.....	W. J. Wilson, Fort Frances, Ont.
Shuswap.....	126,330	Astoria, Ore., 1888.....	" 7 ".....	46.5	13.3	5.0	33	22	Vancouver, B.C.....	B.C. Land and Works Department.
Slippery Jack.	116,686	Richibucto, N.B., 1897...	" 1 ".....	32.0	11.4	5.0	12	11	Richibucto, N.B.....	J. Legoff, Richibucto, N.B.
Tyrant.....	60,459	Glasgow, Scotland, 1869...	" 96 ".....	237.5	30.2	19.9	1039	667	Halifax, N.S.....	Public Works Department.
W. E. Rooney	116,487	Toledo, O., 1873.....	" — ".....	49.0	12.8	4.2	12	6	Wallaceburg, Ont....	J. Lee, Wallaceburg, Ont.

* Formerly Germanic.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA DURING JAN. AND FEB., 1909.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Reg. tons.	Port of Registry.	Owners.
Elva Blanche...	126,116	Mahone Bay, N.S., 1908...	Schr.	93.8	25.0	9.3	79	Lunenburg, N.S....	A. Ernst, M.O., Mahone Bay, N.S.
Jessie Ashley...	116,557	Maitland, N.S., 1908.....	"	95.7	26.0	8.6	122	Maitland, N.S....	W. Anthony, Maitland, N.S.
Kennacohair...	126,095	Welland, Ont., 1908.....	Dred.	100.0	40.0	9.5	462	St. Catharines, Ont.	W. E. Phin, Welland, Ont.
La Trinité.....	126,381	St. Joachim, Que., 1891-1906	Schr.	72.7	23.0	6.6	47	Quebec, Que.....	J. Gagné, Baie St. Paul, Que.
Loyal.....	111,634	Mahone Bay, N.S., 1900...	"	94.4	25.0	9.6	99	Lunenburg, N.S....	A. B. Carson, M.O., Rexton, N.B.
Minnie F. Crosby	126,103	La Have, N.S., 1908.....	"	97.6	27.2	10.0	119	Halifax, N.S.....	A. B. Crosby, Halifax, N.S.
*Myrtle Mack...	116,687	Bath, Me., 1865.....	"	46.4	14.2	5.2	20	Richibucto, N.B....	J. D. McLeod, Tidnish, N.S.
Sea Duck.....	126,054	Bathurst, N.B., 1908.....	"	38.0	12.6	5.6	16	Chatham, N.B.....	E. P. Roy, Bathurst, N.B.

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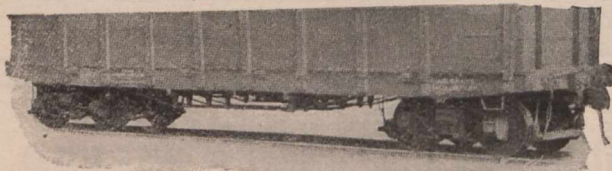
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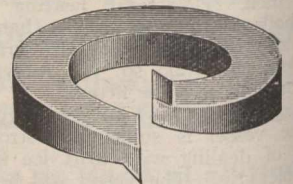
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The Kilkeel-Scotia Collision.

Commander O. G. V. Spain, R.N., Dominion Wreck Commissioner, has given the following judgment respecting the collision which occurred in the Strait of Canso, off Port Mulgrave, April 28, 1908, between the Dominion Government ferry steamer Scotia and the Inverness Railway and Coal Co.'s s.s. Kilkeel:

"The accident was caused by the Scotia striking the port side of the Kilkeel close to the stem. The Scotia was carrying out her ordinary work, running from Port Tupper to Port Mulgrave, as a ferry boat. The Kilkeel was proceeding from Port Hastings to Port Mulgrave, in order to enable her to fill up with water. At the time of the collision the weather was fairly clear, and lights could be seen at considerable distance if a proper lookout had been kept. As a matter of fact, there was no proper lookout man kept on board the Scotia, as the second mate, J. McDonald, who was supposed to be keeping a lookout, was, at the time of the accident, in the after part of the ship. From the evidence adduced, it appears that the red light of the Kilkeel was first seen about three points on the starboard bow of the Scotia some three minutes before the accident. Under these circumstances it was the duty of the Scotia to keep clear of the Kilkeel, and the Master of the Scotia had to use his own judgment, which was the best way to carry this out.

"The court considers that the accident was caused by the Master of the Scotia using bad judgment in not reversing his engines soon enough. He apparently had time to carry out this manœuvre before he considered it proper to do so. Captain L. R. Maguire, of the Scotia, who holds a Master's certificate of competency in the inland waters, is censured and warned to be more careful in future. The court takes this lenient view of the accident for the reason that the fact of the Scotia being an unwieldy vessel to manœuvre, is thoroughly appreciated, but the two vessels were crossing, which is the position of greatest danger, and under those circumstances there was nothing for it but judgment, good lookout and caution. Captain Elworthy, of the Kilkeel, is exonerated, but his attention is called to the fact of there being no communication with his whistle, the cord being disconnected, and the court considers that it is part of a master's duty to attend to details of this description before getting under way. The court, however, does not consider that, in this case, the above fact contributed to the accident."

Vessels Removed from the Register.

The following vessels were removed from the Canadian register during Jan. and Feb., for the reasons assigned: Steam—Calluna, Richibucto, N.B., 15 tons, wrecked; Carlton, Hamilton, Ont., 6 tons, out of existence; Gertrude, Toronto, 51 tons, out of existence; Mascotte, Toronto, 33 tons, out of existence; Telegram, Collingwood, Ont., 134 tons, wrecked; Thistle, Toronto, 68 tons, out of existence; Warton Belle, Owen Sound, 59 tons, broken up. Sailing—Acacia, Kingston,

Ont., 188 tons, foundered; Atalaya, Lunenburg, N.S., 79 tons, transferred to Newfoundland; Bee, Chatham, N.B., 11 tons, broken up; Bessie A., Parrsboro, N.S., 96 tons, wrecked; Bonnie Lin, Barrington, N.S., 10 tons, foundered; Carrie L. Smith, St. John, N.B., 600 tons, wrecked; Carrie May, Yarmouth, N.S., 25 tons, broken up; Eliza M., Chatham, N.B., 18 tons, broken up; France and Russie, Charlottetown, P.E.I., 27 tons, broken up; Freddie G., Digby, N.S., 18 tons, broken up; Hornet, Windsor, N.S., 26 tons, wrecked; Idle Wild, Kingston, Ont., 19 tons, broken up; Lark, Barrington, N.S., 13 tons, condemned; Lolita A., Liverpool, N.S., 159 tons, abandoned at sea; Maggie Smith, Port Hawkesbury, N.S., 83 tons, wrecked; Monkland, Chatham, N.B., broken up; Murdock Finlayson, Arichat, N.S., 80 tons, wrecked; Osberga, Maitland, N.S., 1,116 tons, foundered; Prudent, St. John, N.B., 117 tons, wrecked; Regina B., Port Hawkesbury, N.S., 81 tons, sunk in collision; Robert S. Besnard, Parrsboro, N.S., 1,142 tons, sold to foreigners; Savona, Maitland, N.S., 1,584 tons, stranded; Sea Gull, Maitland, N.S., 25 tons, broken up; Strathisla, Maitland, N.S., 1,280 tons, sold to foreigners; Willie M., Barrington, N.S., 24 tons, wrecked; Wood Bros., Parrsboro, N.S., 68 tons, wrecked.

Among the Express Companies.

L. R. Hight has been appointed Agent Canadian Northern Ex. Co., vice H. E. Baker, resigned.

The Board of Railway Commissioners issued order 6366, Feb. 22, on the application of the Dominion and Canadian Ex. companies, postponing from Mar. 1 to May 1 the effective date of order 6167, Feb. 4, ordering express companies subject to the Board's jurisdiction to carry acetylene gas under certain rules and regulations therein quoted.

Five express companies doing business in Ontario paid by way of taxation into the provincial treasury, \$6,375 during the financial year ended Dec. 31, 1908. The amount paid by the several companies is shown by the public accounts just presented to the Legislature to have been: American Ex. Co., \$925; Canadian Ex. Co., \$1,800; Canadian Northern Ex. Co., \$925; Dominion Ex. Co., \$1,925; United States Ex. Co., \$800.

Telegraph and Cable Matters.

The annual meeting of the Association of Railway Telegraph Superintendents will be held at Detroit, Mich., June 23, 24 and 25.

The Old Time Telegraphers' and Historical Association will meet this year at Atlantic City, N.J. The date has not yet been fixed.

W. C. Furness, manager G.N.W. Telegraph Co.'s office, London, Ont., who had been confined to his home by illness, was moved to the hospital there recently.

The Northern Commercial Telegraph Co. is reported to have awarded a contract to M. Connolly, Montreal, for the erection of about 1,000 miles of telegraph line from Point Levis, Que., to Windsor, Ont.

An unconfirmed report stated, recently, that wireless telegraph messages have been exchanged between the Marconi stations at Glace Bay, N.S., and the Eiffel Tower, Paris, France, thus creating a new record.

The Ontario Government collected \$1,292.24 from telegraph companies doing business in the province during 1908, the amount paid being: North American Telegraph Co., \$100; Dominion Telegraph Co., \$475; Montreal and G.N.W. Telegraph Co., \$717.24.

The death was recently announced of M. Laberge, at Chateaugay, Que., aged 68. He was one of the party who, under C. Buckley, Chief Engineer, explored the Yukon Territory in 1865, in connection with the Western Union Telegraph Co.'s proposed telegraph line to Europe, by way of British Columbia, Alaska and Siberia.

Lyman Dwight, who died at Detroit, Mich., Mar. 4, aged 72, was a brother of H. P. Dwight, President G.N.W. Telegraph Co., Toronto. He was a telegraph operator in Toronto over 50 years ago, and was transferred to Buffalo, N.Y., where he had charge of the Montreal Telegraph Co.'s office until 1868, being, subsequently, moved to Detroit, Mich., in a similar capacity, where he remained until his retirement from active work a few years ago.

John Murray, one of the veteran telegraphers of Canada, died at Montreal, Mar. 9, aged 72, after a long illness. He came to Canada in 1854, and was responsible for the erection of the first telephone lines in Montreal in 1879, this being the first circuit to be operated in

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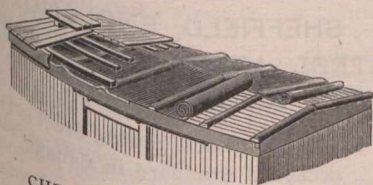
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the Dominion. He was at one time manager of the old City and District Telegraph Co., Montreal. One of his sons, R. Murray, is assistant to J. Kent, manager C.P.R. Telegraphs.

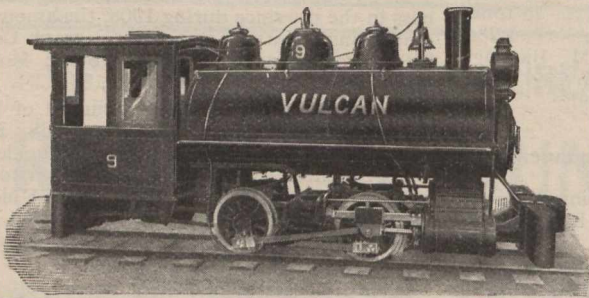
The Minister of Marine and Fisheries stated in the House of Commons recently, that the U.S. Government asked permission to lay a

cable through Hecate strait and Dixon channel—Canadian waters—and that the permission had been granted. This cable duplicated a part of the outside cable already established between Seattle and Alaska. No request had been made for permission to lay a cable between Vancouver Island and the mainland.

G. Burnett, who died at Buffalo, N.Y., Mar. 4, aged 71, was employed as a telegraph operator in Toronto in 1857, and was subsequently engaged as an operator in the Western States. He succeeded L. Dwight, whose death on the same day is mentioned elsewhere, in charge of the old Montreal Telegraph Co.'s office at Buffalo, N.Y., in 1868.

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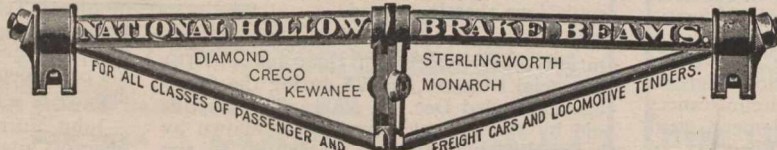
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and retained that position until his death. At the time of the war he joined the U.S. Military Telegraph Corps, but returned to the north before the war closed.

Owing to the illness of P. W. Snider, C.P.R. Telegraph Superintendent, St. John, N.B., which has since resulted fatally, F. G. Mahon, Inspector of the Eastern Division, Montreal, was recently temporarily appointed in his place; and the following temporary appointments were made as a consequence: F. N. Caisse, head of the Montreal office, to be Inspector there; J. Mitchell, head of the night service, to be head of the Montreal office; A. M. Bennie to be head of the night service, and A. E. Jarvis to be head of the traffic department, assisted by J. Fortier.

The Newfoundland Premier recently announced that his Government had agreed upon a contract with the Commercial Cable Co., for the extension of one of its cables into the colony and thence to New York, to be completed by Aug. 1. The President of the company, when questioned on the subject, said that the company had agreed to cut one of its cables at Flemish Cap, about 300 miles east of Newfoundland, and attach to the European end a new cable extending to St. John's, Nfld., and thence to New York. He claimed that this was the ideal route for a European-U.S. cable, as it divided the distance between Ireland and New York more equally than any other route. This work would have been undertaken before, but that the Anglo-American Telegraph Co. had the sole landing right in Newfoundland. This

right, which was for 50 years, has just expired. The new cable to be laid will be about 1,700 miles, the section to be put out of operation between Flemish Cap and Canso, N.S., being about 900 miles, which will be recovered if possible, and utilized elsewhere.

The board of conciliation, consisting of Judge McGibbon, Chairman; J. F. MacKay, for the company, and J. G. O'Donoghue for the men, which has been enquiring into the complaints of the M. C. Rd. telegraph operators against the Great North Western Telegraph Co., concluded its sittings recently. The operators claimed that up to Sept. 12, 1907, they had been in receipt of certain commissions from the G.N.W. Co. for work done, and this had been discontinued without notice. The Industrial Disputes Investigation Act provides that 30 days' notice is required of such alteration, and until that notice the relation of employer and employe shall continue. Notice of discontinuance of the payment by the Telegraph Co. was given Sept. 12, 1907, to date from Sept. 1 of the same year. The company claimed that the notice severed the relations between it and the operators, after which the M.C. Rd. was compelled to furnish operators for the work, and if anyone was liable, the M.C. Rd. was. The board found that as the Telegraph Co. admitted the operators were employed by it to Sept. 12, 1907, it was liable for the difference between the amount of the commissions received on the 10% basis from the M.C. Rd. from Sept., 1907, to Nov., 1908, and for what should have been received on the old basis,

and for all commissions from Nov., 1908, to the present time.

Grand Trunk Pacific Ry. Telegraphs.

The G.T.P.R. Telegraph Department during 1908 erected and completed pole lines carrying two wires from Winnipeg, Man., to Battle River, Sask., 675 miles, and from Fort William West, Ont., to Lake Superior Jct., 200 miles. During the current year, the following work will be undertaken: Erection of one no. 8 galvanized wire and one 210 hard-drawn copper wire, from Winnipeg, Man., to Edmonton, Alta., 800 miles; erection of pole carrying two wires from Battle River, Sask., to Edmonton, Alta., 120 miles, and from Edmonton to Wolf Creek, 123 miles; erection of pole lines and wires from Melville to Yorkton, Sask., 40 miles; from Melville to Regina, Sask., 110 miles; from Wainwright to Calgary, Alta., 175 miles, and from the main line to Brandon, Man., 25 miles.

It is expected that construction of the telegraph line on the National Transcontinental Ry., between Winnipeg and Lake Superior Jct., will be completed in July, when direct communication will be established between Winnipeg, Man., and Fort William, Ont., over National Transcontinental-G.T.P. wires.

The construction of telegraph lines on several sections east of Lake Superior Jct. is proceeding rapidly, and also along several sections in New Brunswick and Quebec.

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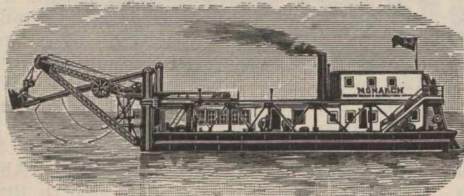
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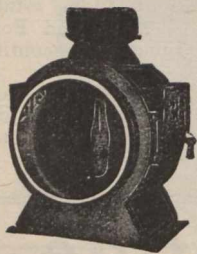
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Lights, Contractors' and Wrecking

Canadian Fairbanks Co., Ltd. Montreal.
 F. H. Hopkins & Co. Montreal.
 Mussels Limited. Montreal.

Locomotive Cranes

American Hoist and Derrick Co. St. Paul, Minn.

Locomotive Driver Brake Shoe

American Brake & Shoe F'dry Co. Mahwah, N.J.
 Canada Iron Corporation, Ltd. Montreal.

Locomotive Gauges

Taylor & Arnold. Montreal.

Locomotive Lagging and Covering

Taylor & Arnold. Montreal.

Locomotive Pop Valves

Taylor & Arnold. Montreal.

Locomotives (Compressed Air)

Burnham, Williams & Co. Philadelphia, Pa.
 Canadian Locomotive Co. Kingston, Ont.
 Montreal Locomotive Works (Ltd.) Montreal.

Locomotives (Electric)

Burnham, Williams & Co. Philadelphia, Pa.
 Montreal Locomotive Works (Ltd.) Montreal.

Locomotives (Logging)

Burnham, Williams & Co. Philadelphia, Pa.
 Canadian Locomotive Co. Kingston, Ont.

Locomotives (Rack)

Burnham, Williams & Co. Philadelphia, Pa.
 Canadian Locomotive Co. Kingston, Ont.
 Montreal Locomotive Works (Ltd.) Montreal.

Locomotives (Steam)

American Car and Equipment Co. Chicago, Ill.
 Burnham, Williams & Co. Philadelphia, Pa.
 Canadian Fairbanks Co., Ltd. Montreal.
 Canadian Locomotive Co. Kingston, Ont.
 J. T. Gardner. Chicago, Ill.
 Hotchkiss, Blue & Co. Chicago, Ill.
 Montreal Locomotive Works (Ltd.) Montreal.
 Vulcan Iron Works. Wilkesbarre, Pa.

Locomotive Staybolts

Falls Hollow Staybolt Co. Cuyahoga Falls, Ohio.
 Flannery Bolt Co. Pittsburg, Pa.

Lubricators

The Holden Co., Ltd. Montreal.
 McCord & Co. Chicago, Ill.
 Taylor & Arnold. Montreal.

Lumber

Parry Sound Lumber Co. Toronto.

Machinery, Marine

Sheriffs Mfg. Co. Milwaukee, Wis.

Machinery Special

Miller Bros. & Toms. Montreal.

Machinery, Transmission

Miller Bros. & Toms. Montreal.

Machinery, Wood and Iron Working

Canadian Fairbanks Co., Ltd. Montreal.

Manganese Steel Castings

Montreal Steel Works. Montreal.

Manhole Frames and Covers

American Brake Shoe & F'dry Co. Mahwah, N.J.
 Canada Iron Corporation, Ltd. Montreal.

Marine Repairs

Goldschmidt Thermit Co. Toronto.

Marine Supplies

Rice Lewis & Son. Toronto.

Measuring Tapes

Luftkin Rule Co. Saginaw, Mich.

Metals

Goldschmidt Thermit Co. Toronto.

Milepost Numbers

Acton Burrows Limited. Toronto.

Motors

Canadian Fairbanks Co., Ltd. Montreal.
 McCord & Co. Chicago, Ill.

Motors, Electric

Northern Electric and Manfg. Co., Ltd., Montreal.

Nickel

The Orford Copper Co. New York.

Nickel for Nickel Steel

The Orford Copper Co. New York.

Numbers

Acton Burrows Limited. Toronto.

Nut Locks

Positive Lock Washer Co. Newark, N.J.

Nuts, Square and Hexagon

Montreal Rolling Mills Co. Montreal.
 Toronto Bolt and Forging Co. Toronto.

Oakum

The Hudson's Bay Company. Montreal.

Office Fittings

Canadian Office & School Furniture Co. Preston, Ont.

Office Signs

Acton Burrows Limited. Toronto.

Oil Tanks

S. F. Bowser & Co., Limited. Toronto.

Oils

Galena Signal Oil Co. Franklin, Pa., and Toronto.

Packing

Canadian Fairbanks Co., Ltd. Montreal.
 The N. L. Piper Railway Supply Co. Toronto.

Patterns

Hamilton Pattern Works. Hamilton, Ont.

Pinch Bars

The N. L. Piper Railway Supply Co. Toronto.

Pipe Stocks

Butterfield & Co. Rock Island, Que.

Platforms, Steel

Standard Coupler Co. New York City.

Ploughs, Contractors'

Mussels Limited. Montreal.
 Toronto Pressed Steel Co. Toronto.

Pneumatic Tools

The Holden Co., Ltd. Montreal.

Porter

E. L. Drewry. Winnipeg.

Portable Boilers

Babcock & Wilcox (Ltd.) Montreal.

Printing

The Hunter-Rose Co. Toronto.
 The Mail Job Printing Company. Toronto.

Propeller Wheels

Sheriffs Mfg. Co. Milwaukee, Wis.

Pumps

S. F. Bowser & Co., Limited. Toronto.
 Canadian Fairbanks Co. Montreal.
 Ontario Wind Engine and Pump Co. Toronto.
 James Smart Mfg. Co. Brockville, Ont.

Pumps (Centrifugal)

M. Beatty & Sons. Welland, Ont.

Rail Benders, Roller

F. H. Hopkins & Co. Montreal.
 Montreal Steel Works. Montreal.

Rails (new)

Dominion Iron and Steel Co. Sydney, N.S.
 Drummond, McCall & Co. Montreal.
 J. T. Gardner. Chicago, Ill.
 J. J. Gartshore. Toronto.
 F. H. Hopkins & Co. Montreal.

Rails (for relaying)

F. H. Hopkins & Co. Montreal.
 J. J. Gartshore. Toronto.
 Mussels Limited. Montreal.
 Jas. W. Pyke & Co. Montreal.

Rail Joints

Goldschmidt Thermit Co. Toronto.
 The Rail Joint Co. of Canada. Montreal.

Railway Pile Drivers

F. H. Hopkins & Co. Montreal.
 Mussels Limited. Montreal.

Railway Supplies

Canadian Fairbanks Co. Montreal.
 The Hiram L. Piper Co. Toronto.
 The N. L. Piper Railway Supply Co. Toronto.
 Rice Lewis & Son. Toronto.

Ranges

Stearnes Steel Range Co. Chicago, Ill.

Reamers

Butterfield & Co. Rock Island, Que.

Rivets, Boiler, Bridge and Structural

Montreal Rolling Mills Co. Montreal.
 Toronto Bolt and Forging Co. Toronto.

Rolled Wheels

Standard Steel Works Co. Philadelphia, Pa.

Roof Trusses

Canadian Bridge Co. Walkerville, Ont.
 Dominion Bridge Co. Montreal.

Rope

F. H. Hopkins & Co. Montreal.
 The Hudson's Bay Co. Montreal.

Rotary Snow Ploughs

Crossen Car Mfg. Co. Cobourg, Ont.

Saw Steel

Montreal Steel Works. Montreal.

Scales

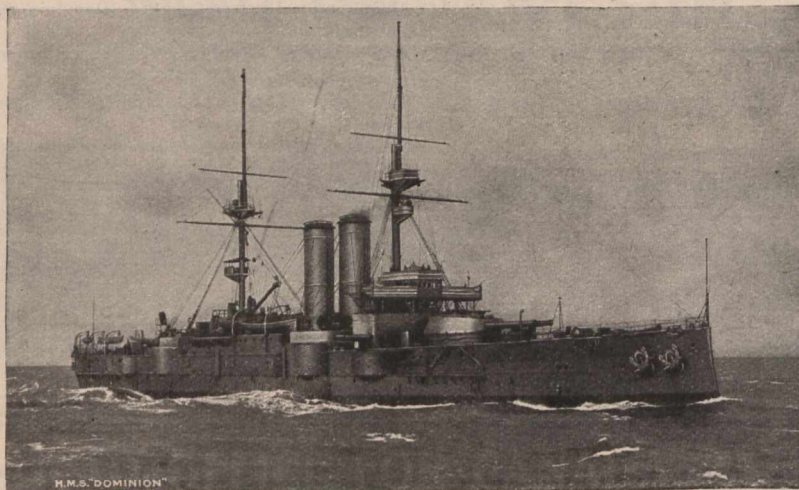
Canadian Fairbanks Co., Ltd. Montreal.

Scoria Blocks

W. H. Knowlton. Toronto.

Scrapers (Wheel and Drag)

F. H. Hopkins & Co. Montreal.
 Mussels Limited. Montreal.
 Toronto Pressed Steel Co. Toronto.



H.M.S. "DOMINION"

BABCOCK & WILCOX

LIMITED

PATENT WATER-TUBE BOILERS

(Over 7,000,000 H.P. in use)

FOR MARINE AND STATIONARY PURPOSES

This cut shows H.M.S. "Dominion," in which are installed sixteen "B. & W." boilers—these are the standard adopted by the British Admiralty.

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