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Vol. 1. No. 4.

TORONTO, CANADA, JUNE, 1898.

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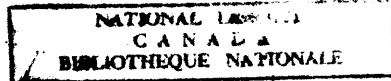
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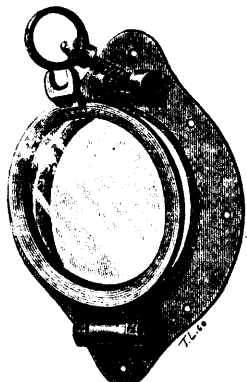
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THE Railway and Shipping World

Devoted to Steam & Electric Railway, Shipping, Express, Telegraph & Telephone Interests.

VOL. 1. NO. 4.

TORONTO, CANADA, JUNE, 1898.

\$1 A YEAR.

The G.T.R.'s. General Manager.

Chas. M. Hays was born at Rock Island, Ill., in 1856, & on Nov. 10, 1873, entered the Passenger Department of the Atlantic & Pacific Ry. at St. Louis, Mo.; from Jan. 2, 1874, to Mar. 9, 1874, he was employed in the auditor's office, & from Mar. 9, 1874, to Jan. 1, 1877, as clerk in the General Superintendent's office of the same road; from Jan. 1, 1877 to April 1, 1884, he was Secretary to the General Manager of the Missouri Pacific Ry.; & from April 1, 1884 to Oct. 1, 1886, Secretary to the General Manager of the Wabash, St. Louis & Pacific Ry.; from Oct. 1, 1886, to July 1, 1887, he was Assistant General Manager of the same road; from July 1, 1887 to July 1, 1889, he was General Manager of the Wabash Western Ry.; on July 1, 1889, he was appointed General Manager of the Wabash Railroad Co. (successor to the Wabash Western & Wabash R'ys.); & in Feb., 1894 was appointed Vice-President & General Manager of the Wabash Railroad. On Dec., 31, 1895, he severed his connection with the Wabash Co. to accept the position of General Manager of the G. T. R. System, under a 5 years' contract, at a salary of \$25,000 a year.

Mr. Hays married Clara J., daughter of Wm. H. Gregg, St. Louis, Mo., & is a Presbyterian. His residence is 320 Drummond St., Montreal.

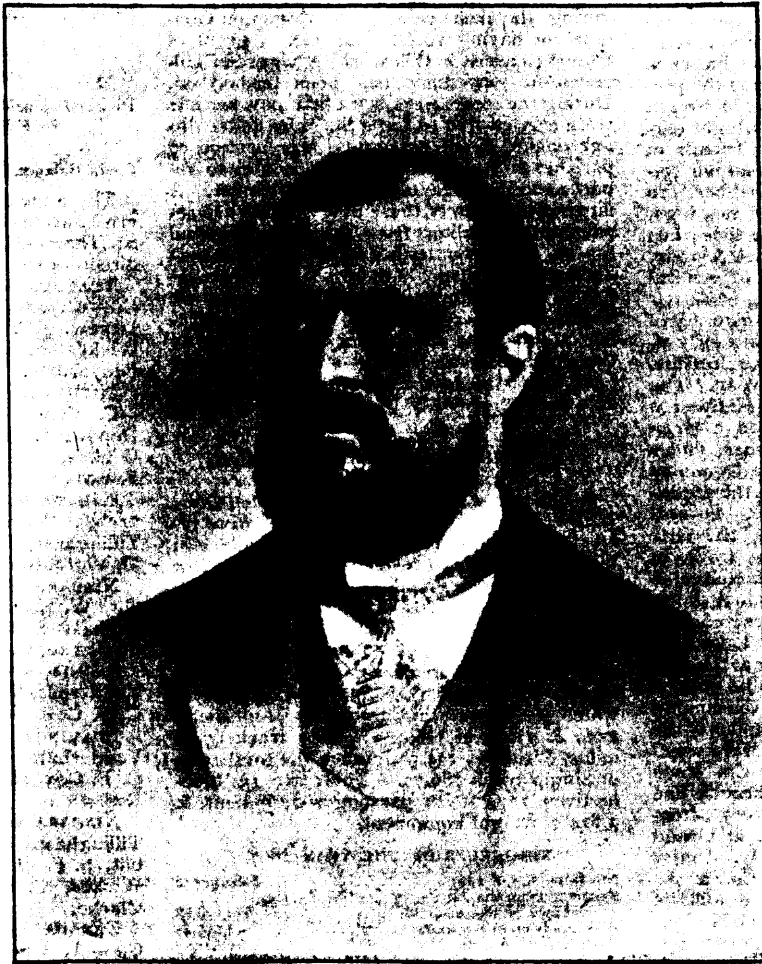
A contemporary, in speaking of Mr. Hays recently, said:—"There is no doubt at all about the fact that he is a great railway manager. He took charge of the G. T. when it was losing money right & left, & has already brought it to a point where revenue & expenditures meet. This is a great feather in the cap of the Manager, for no one had ever succeeded in doing it before.

"One of the great troubles with the G. T. used to be that it was managed from England. The Manager in Canada had to write or cable home whenever there was anything to be done that was at all out of the ordinary, & the consequence was that important moves were delayed so long that opportunities were always being lost.

"When Mr. Hays took charge of the road he stipulated on having autocratic authority to follow out his own ideas in his own way. There was some demur at this, but the power he sought for was finally conceded to him, & the result is seen."

Manitoba's Hudson's Bay Line.

In explaining to the Legislature recently the Government's proposal to aid in the extension of the Dauphin railway to the Great Saskatchewan, Premier Greenway said:—"I do not care what the reports will estimate as the length of navigation in Hudson's Bay, certain facts have been established which cannot be gainsaid. Ever since I was a member of a committee of the House of Com-



CHARLES M. HAYS.

mons in 1876, which received evidence on this matter, in view of the fact that the supplies for this country came in by the Bay for 200 years, I have been convinced that the route was to a great extent practicable; & I believe that we will find that navigation is possible for a considerable period each year. Mr. Hind, who appeared before the committee, showed that the straits were navigable for 4 months in the year.

"The other day I received a photograph which I will be pleased to show members, of

one of the new steamers that have been built to cut through the ice on the great lakes. It is perfectly marvellous to find what these steamers are able to do in this way, cutting through ice three feet thick. With these improvements it is impossible to say the advances that a few years may make.

"Thus we are not going to the Saskatchewan only to develop the country on both sides of the line; & here let me say that the line will pass through a portion of the Carrot River valley, a large, fertile district containing over a million acres of land. This is bound to be rapidly settled up, giving business to the line & extending the trade of Winnipeg & the whole Province. It is to our advantage to open up these lands & get the benefit of the trade, even though they may lie beyond the bounds of our own Province. Now that we are getting the Dominion authorities to treat us a little more reasonably in regard to our lands & what the Province ought to have in this respect, it is to be hoped they will take a reasonable view of this part of the question also & extend the boundaries of our Province to Hudson's Bay.

"No matter what view may be taken of the suitability of this land for grain growing there must be in the north large areas of land suitable for grazing cattle. If these areas do not extend down to the Bay they will extend to within say 200 miles of it, which will leave 400 miles or more from the boundary of the Province to the Bay suitable for raising cattle. These can be shipped out by the direct route from the Bay instead of going by the longer, more southern route. Besides this there are the possibilities for dairy produce. We do not know as yet what those wide areas are capable of, but we know that when the road reaches the Saskatchewan, settlers will go into that country & its capabilities will soon be made known & developed.

W. E. DAVIS, General Passenger & Ticket Agent G.T.R., Montreal, writes:—"I have just had an opportunity of examining the May copy of THE RAILWAY & SHIPPING WORLD, & find much information therein of interest. I enclose subscription for a year. In sending the paper to my address will you kindly have the wrapper marked 'Personal,' as so many papers come to my office that I do not see."

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TORONTO, CANADA, JUNE, 1898.

FINANCE, MEETINGS, &c.

Quebec & Lake St. John Railway.

At the annual meeting of shareholders at Quebec, May 12, the following directors were elected: F. Ross, G. Lemoine, T. A. Piddington, Hon. P. Garneau, J. T. Ross, E. Beaudet, G. Moir, Hon. J. Tessier, E. Hanson, & F. W. Ross, in addition to the non-elective members of the Board, who are Hon. S. N. Parent, Mayor of Quebec; A. Robitaille, M.P.P., representing the Provincial Government, & Judge J. A. Gagne, representing Chicoutimi.

Following are extracts from the annual report: "The number of passengers carried during the year on the whole system has been 153,669, as compared with 130,009 in the previous year, and the number of tons of freight 199,441, as against 150,346. The freight carried in 1897 consisted of 2,020 carloads of cordwood & 740 of pulp wood, making 49,680 tons, 4,623 carloads of sawn lumber, 170 of square timber, 456 of ties, 366 of saw logs, equal to 67,416,000 feet, or 98,094 tons; 603 carloads of pulp & paper, 288 of brick & stone, 54 of cheese, 36 of grain & 1,966 of general merchandise or 51,667 tons, making in all 11,322 carloads or 199,441 tons. The quantity of cheese carried by the railway is constantly increasing, amounting last year to 2,082,676 lbs. against 1,421,459 in the previous year. The value of this was about \$200,000, in addition to which the railway also transported a large amount of butter in refrigerator cars, under the terms of an agreement with the Dominion Government, which is doing everything possible to promote the dairy industry. Several new mills have been built during the year 1897, & are giving an increasing traffic in sawn lumber. The pulp mill at Chicoutimi is completed, & is shipping its product daily. Another pulp mill is about to be erected near Roberval, & a chemical pulp mill at Lake Bouchette, & the extensive water power at the Jacques Cartier River is also likely to be utilized for manufacturing purposes during the coming year. An additional section of 10 miles of the Great Northern Ry. from Grand Mere westward has been completed by that Co. since the last annual report, & also a branch line into the Grand Mere pulp mills. Very extensive paper mills have been erected at Grand Mere, and will be in operation in July. Under an agreement between the Pulp Co. & the G. N. Ry., all the business of these mills is being carried over a portion of the G. N. Ry., which the Q. & L. St. J. Ry. is now operating. The new section of the G. N. Ry. also runs close to the Shawenagan Falls, a very fine water power which has recently been sold by the Provincial Government to a company, with the undertaking that \$4,000 will be expended in erecting manufacturing industries. The extension of the Great Northern road to a connection with the Parry Sound Ry. is not being pushed as rapidly as might be desired. This is much to be regretted, as the volume of traffic coming from Parry Sound eastward is already exceeding all expectations, 5 large steamships being now employed in carrying grain, flour & other freight between Chicago & Duluth & Parry Sound."

In connection with James Bay the report says: "During last year the Provincial Government sent an exploring party from Lake St. John to James Bay, through the centre of the large territory recently acquired by the Province in that district, covering an area of 70,000,000 acres. The result of this exploration proves that this immense country is much more valuable than has hitherto been supposed, the land being very level, well timbered, having a good soil & a climate quite as temperate as that of the Lake St. John district, & a snow fall about half that of Montreal. It is also reported to be rich in minerals. The exploration also proved the existence of an excellent route for a railway from Roberval to the mouth of the Nottaway River on James Bay, where there is a harbor having 27 ft. of water, with about 4,000 miles of coast line tributary to any railway which may be built there. This route will pass over a summit 300 ft. lower than that crossed between Quebec & Lake St. John, & will admit of the construction of a railway with very easy gradients. A charter for the construction of this road is held by the G. N. Co., & should it be carried out, must greatly enhance the value of the Lake St. John property.

"The settlement of the Lake St. John district has made very satisfactory progress during the past year. The Dominion Government having voted your Co. a grant of \$8,000 to assist in this work, a vigorous colonization movement has been pushed on. During the year 1,272 bona fide new settlers were carried free to Lake St. John under this agreement, & 191 delegates, representing 97 parishes & States, visited the country to report as to its advantages for settlement. A large proportion of these new settlers are repatriated Canadians from the New England States. The country is now becoming so well known that we may look for a very large influx of new settlers; already this spring we have sent in 291. The arrangements for carrying on this work are now very satisfactory, as there are several lines of steamers running from Roberval to the different points available for settlement."

Canada Southern Railway.

At the annual meeting at St. Thomas, Ont., June 1, the old directors & officers were re-elected as follows: President, C. Vanderbilt, New York; Vice-President, C. F. Cox, New York; Secretary, Nicol Kingsmill, Toronto; other directors, W. K. Vanderbilt, C. M. Depew, S. F. Barger, E. A. Wickes, J. E. Brown, New York; J. Tillinghast, Buffalo.

The number of miles of road in the C. S. Ry. system at the close of 1897 was 457.30, of which 380.04 were in Canada, 65.61 in Michigan, & 11.65 in Ohio. Second track 97.56 miles, & sidings 234.91, makes the total miles of single track 789.77. There are 151 locomotives, 117 cars of passenger equipment, & 3,814 of freight equipment.

RESOURCES OF THE YEAR 1897.

Net Earnings of 1897	\$282,402.16
Received from the Michigan Central Ry. Co., balance of 1896 account	153,636.68
Receipts from other sources	12,815.93
Cash & Cash Assets, Dec. 31, 1896	7,631.25
	\$456,486.02

DISPOSITION OF RESOURCES.

Dividend 24, paid Feb. 1, 1897	\$150,000.00
" 25, paid Aug. 1, "	150,000.00
Balance of Net Earnings, 1897, due from Michigan Central Ry. Co.	132,244.07
Cash & Cash Assets, Dec. 31, 1897	24,241.95
	\$456,486.02

CONDENSED BALANCE SHEET, DEC. 31, 1897.

ASSETS.	
Construction & Equipment	\$28,567,393.16
CAPITAL STOCKS	
Toledo, Canada So. & Det. Ry. Co.	\$1,547,662.50

Canada Southern Bridge Co.	450,000.00
Michigan Midland & Canada R.R. Co.	275,425.00
Leamington & St. Clair Ry. Co.	50,000.00
Sarnia, Chatham & Erie Ry. Co.	33,000.00
Niagara River Bridge Co.	700,000.00
	3,056,087.50

FIRST MORTGAGE BONDS:

Toledo, Canada So. & Det. Ry. Co.	1,511,737.50
Canada Southern Bridge Co.	1,000,000.00
Michigan Midland & Canada R.R. Co.	343,635.00
Sarnia, Chatham & Erie Ry. Co.	66,000.00
	2,901,372.50
Other Investments	40,521.68
Accounts Receivable	940.00
Due from Michigan Central R.R. Co.	132,244.07
Cash & Cash Assets	24,241.95
	\$34,731,800.86

LIABILITIES.

Capital Stock	\$15,000,000.00
New 1st Mortgage Bonds	13,925,000.00
" and " "	5,650,000.00
Old 2nd " " outstanding	2,131.47
Dividend 26, payable Feb. 1, 1898	150,000.00
Dividends unclaimed	174.25
Accounts payable	894.48
Income Account	3,600.66
	\$34,731,800.86

INCOME ACCOUNT.

Balance shown Jan. 1, 1897	\$ 19,553.84
Net Earnings of 1897	282,402.16
Other Income	1,644.66
	\$303,600.66

LESS:

Dividend 25, paid Aug. 1, 1897, 1%	\$150,000.00
" 26, paid Feb. 1, 1898, 1%	150,000.00
	300,000.00

Credit Balance, Dec. 31, 1897	\$ 3,600.66
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The annual meetings of the Canada Southern's various auxiliary companies was held at St. Thomas, June 1 & 2, when the following directors were elected:

TOLEDO, CANADA SOUTHERN & DETROIT RY. CO.—C. Vanderbilt, W. K. Vanderbilt, C. M. Depew, J. Tillinghast, S. F. Barger, E. A. Wickes, E. D. Worcester, C. F. Cox, H. B. Ledyard.

MICHIGAN, MIDLAND & CANADA R.R. CO.—C. Vanderbilt, W. K. Vanderbilt, C. M. Depew, J. Tillinghast, S. F. Barger, E. A. Wickes, E. D. Worcester, C. C. Clarke, C. F. Cox.

CANADA SOUTHERN BRIDGE CO.—C. Vanderbilt, W. K. Vanderbilt, C. M. Depew, J. Tillinghast, S. F. Barger, E. A. Wickes, E. D. Worcester, C. F. Cox, H. B. Ledyard.

NIAGARA RIVER BRIDGE CO.—C. Vanderbilt, W. K. Vanderbilt, C. M. Depew, J. Tillinghast, S. F. Barger, E. D. Worcester, C. C. Clarke, C. F. Cox, H. B. Ledyard.

SARNIA, CHATHAM & ERIE RY. CO.—C. Vanderbilt, W. K. Vanderbilt, J. Tillinghast, C. F. Cox, N. Kingsmill.

LEAMINGTON & ST. CLAIR RY. CO.—C. Vanderbilt, W. K. Vanderbilt, C. M. Depew, C. F. Cox, N. Kingsmill, J. J. Kingsmill, J. Ross.

NIAGARA GRAND ISLAND BRIDGE CO.—J. Tillinghast, C. Vanderbilt, W. K. Vanderbilt, S. F. Barger, E. D. Worcester, E. A. Wickes, C. F. Cox, C. M. Depew, C. C. Clarke.

CANADA & MICHIGAN BRIDGE & TUNNEL CO.—A. Onderdonk, D. O. Mills, J. Ross, N. Kingsmill, J. J. Kingsmill, G. S. MacKay, W. P. Torrance, W. H. Onderdonk, J. L. Onderdonk.

The last mentioned Co. has not yet passed under the control of the Canada Southern system, but it probably will.

Qu'Appelle, Long Lake & Saskatchewan.

—The net loss in operating this line for April was \$677.99, as against net earnings of \$4,401.42 for the corresponding period. This is attributable to the cessation of traffic consequent on the partial destruction of the South Saskatchewan bridge.

Grand Trunk Interest, Rentals, &c.

Following is a statement of the annual interest on loan capital & debenture stock of the Co., as shown in the last annual report :—

Date of Maturity.		Amount.	Annual Interest.	
		£	£	s. d.
BONDS AT SIX PER CENT.				
July, 1919	Second Equipment Bonds	414,300	24,858	0 0
June, 1898	Hamilton & North Western	409,400	24,564	0 0
	Northern Third Mortgage	15,900	954	0 0
BONDS AT FIVE PER CENT.				
July, 1902	Northern First Mortgage	611,100	30,555	0 0
Jan., 1912	Midland Consolidated	1,072,100	53,605	0 0
May, 1908	Sectional	458,600	22,930	0 0
Jan., 1902	Montreal & Champlain Junction	103,100	5,155	0 0
Aug., 1903	Grand Trunk, Georgian Bay, & Lake Erie	187,500	9,375	0 0
BONDS AT VARYING RATE.				
Extended to 1901	Wellington, Grey & Bruce	100,500	4,140	12 0
Total Bonds		£3,372,500		
DEBENTURE STOCKS AT FIVE PER CENT.				
Perpetual	Grand Trunk	4,270,375	213,518	15 0
"	Great Western	2,723,080	136,154	0 0
DEBENTURE STOCKS AT FOUR PER CENT.				
"	Grand Trunk Consolidated	12,098,393	483,935	14 5
"	Northern	347,990	13,919	12 0
Total Debenture Stocks		£19,439,838		
Total Bonds & Debenture Stocks		£22,812,338		
Matured Bonds not presented for payment		2,200	£1,023,664	13 5
Total		£22,814,538		

The annual charge for rentals of leased lines & interest on outstanding bonds, &c., of controlled lines is as follows :—

	Amount Outstanding.	Annual Charge.		
		Rate.	Amount.	
	£ s.		£ s. d.	
RENTALS CHARGED IN NET REVENUE ACCOUNT.				
999 years	Atlantic & St. Lawrence	1,132,918	6	67,975 1 7
Shares	Chicago, Detroit, & Canada Grand Trunk Junction	117,977	10	4,719 2 0
Rental	Buffalo & Lake Huron	1,288,893	—	70,000 0 0
		£2,539,788		£142,694 3 7
Jan., 1902	Michigan Air Line	£144,700	5	£7,235 0 0
*BONDS &c. OF CONTROLLED LINES.				
Jan., 1900	Chicago & Grand Trunk, 1st Mortgage	979,459	6	58,767 10 10
" 1922	Chicago & Grand Trunk, 2nd Mortgage	633,916	5	31,695 16 0
£298,100	Grand Trunk Junction Bonds	494,200	5	24,710 0 0
Jan., 1901				
£196,100				
Jan., 1934	Detroit, Grand Haven, & Milwaukee Equipment	405,205	6	24,312 6 0
Nov., 1918	Detroit, Grand Haven, & Milwaukee Consolidated	590,856	6	35,451 7 2
Oct., 1900	Detroit, Grand Haven, & Milwaukee, Mowatt's Mortgage	30,000	5	1,500 0 0
		£3,133,636		*£176,437 0 0

SUMMARY OF ANNUAL INTEREST & RENTALS AT DECEMBER 31, 1897.

Interest on loans & debenture stock	£1,023,665
Rentals	142,694
Interest on Michigan Air Line bonds	7,235
Interest on bonds, &c., of controlled lines	*176,437
	£1,350,031
Annual Interest sanctioned but unexercised at Dec. 31, 1897	74,659
Total Annual Interest sanctioned at Dec. 31, 1897	£1,424,690

*This is a contingent liability, as the G.T.Co. is only responsible for this interest when the respective companies fail to earn it, & then only so far as it is responsible under traffic & other agreements.

Manitoba to Hudson's Bay.

Following are the various offers which the Province of Manitoba has made to secure a railway to Hudson's Bay :—1885, a bonus of \$1,000,000 Manitoba debentures payable in 25 years with interest at 4%.

1886, a guarantee of 4% for 25 years on the company's bonds for \$4,500,000, equal to a charge of \$180,000 a year. This was amended in 1887, but the guarantee of 4% on \$4,500,000 remained.

1890, cash bonus of \$3,000 a mile for 250 miles, a total of \$750,000 or a guarantee of interest at 4% for 20 years on bonds of the

company for \$5,600 a mile for the road within the province, which at 250 miles would be \$1,400,000, or \$56,000 a year.

1891, a cash grant of \$1,500,000 for a complete line to the Bay.

Quebec, Montmorency & Charlevoix.

At an adjourned special meeting of shareholders May 26, it was decided to exercise the rights vested in the Co., & to acquire the franchise & property of the Quebec District Ry. Co. before July 1—(Official). Further particulars as to the intentions of the Co. will be found on another page of this issue, in the department devoted to electric railways.

C.P.R. Earnings & Expenses.

The gross earnings, working expenses, net profits & increases over 1897 from Jan. 1, 1898, are as under :

	Earnings.	Expenses.	Net Profits.	Increase.
Jan.	\$1,672,372.04	\$1,156,744.45	\$515,627.59	\$142,284.49
Feb.	1,494,596.98	1,070,929.64	423,667.36	38,844.28
Mar.	2,079,479.06	1,326,245.55	753,233.51	233,020.67
April.	1,958,461.88	1,241,371.19	717,090.69	89,973.35

\$7,204,909.96 \$4,795,290.81 \$2,409,619.15 \$504,122.79

The approximate traffic earnings for May, 1898, were \$2,229,000, against \$1,948,000 in May, 1897, an increase of \$281,000.

Grand Trunk Earnings.

These figures include the G.T. of Canada, the Chicago & G.T., & the Detroit, Grand Haven & Milwaukee Rys.

	1898	1897	Increase.
Jan.	\$1,916,332	\$1,639,614	\$276,718
Feb.	1,674,453	1,522,246	152,207
Mar.	2,048,970	1,803,279	245,691
April	1,918,477	1,776,840	141,637
May	1,940,960	1,774,802	166,178
	\$9,499,212	\$8,516,781	\$982,431

C.P.R. Reports Wanted.

The Editor of THE RAILWAY & SHIPPING WORLD wants, to complete a file, a copy of the C.P.R. Co's. annual reports for 1881, 1882, 1883, 1884 & 1886, together with the proceedings of the annual meetings at which these reports were adopted. Anyone who can supply any or all of these is requested to communicate with the Editor.

Financial Notes, &c.

British Columbia Railway Aid.—A return recently presented to the Legislature shows that the amount of railway bonds guaranteed by the Government is \$647,072, bonds of Nakusp & Slocan; annual interest on bonds Shuswap & Okanagan, \$49,990, terminating in 17 years; Nakusp & Slocan, 4 per cent, \$25,882, terminating in 20 years; & Victoria & Sydney 2 per cent. \$6,000, terminating in 19 years, a total of \$81,875. Against this the Province annually receives 40% of the gross earnings of the Shuswap & Okanagan & Nakusp & Slocan. The amount of land set apart for subsidizing railways is 2,719,087 acres conveyed, & 3,656,040 acres reserved.

Brockville, Westport & Sault Ste. Marie.—At a recent meeting of directors at Brockville, J. G. Leiper resigned as President & was succeeded by E. R. Dick, of 310 Chestnut street, Philadelphia, Pa., who was also elected a Director.

Calgary and Edmonton net earnings for April were \$25,721.96, as against \$10,995.05 for corresponding period.

Central Ontario.—The annual meeting was held at Trenton, May 18. The directors elected & officers appointed at a subsequent meeting of directors are :—President, S. Burke, Cleveland, Ohio; Vice-President, H. S. Johnson, Cleveland; and other directors, C. W. Bingham & H. P. McIntosh, Cleveland; G. G. Allen, Akron, O.; T. G. Blackstock, Toronto; G. Collins, Trenton; Genl. Supt. & Sec., G. Collins, Trenton; Treasurer, R. H. Spencer, Trenton. It was decided to extend the line from the present terminus at Coe Hill northerly to Bancroft, 18 miles. (Official.)

Dominion Atlantic receipts for the 4 months to the end of April were \$136,459, as against \$128,414 for corresponding period of 1897.

The Dominion Government has decided to pay the award of the Exchequer Court in favor of this Co., & to pay it \$100,000 for commutation of its privileges in respect of the drawback of customs and import duties.

Duluth, South Shore & Atlantic net earnings for the 4 months to the end of March were \$111,149, as against \$65,023 for the corresponding period.

Kingston & Pembroke.—We made some reference in our May issue to the legislation this Co. is securing at Ottawa. It may be added that the road was originally bonded for \$572,000 in 30-year 6% bonds, but no interest has been paid for the last 5 years. Some months ago the road went into the hands of a receiver, but that official had no power to sell the line. As a means of relief, it is proposed to allow the stock, amounting to \$5,000,000, to be reduced one-half, to issue preferred stock to an amount sufficient to pay off all liabilities, amounting to about \$150,000, & to discharge the overdue interest charge on the bonds. It is then proposed that bondholders surrender their 6% bonds for new ones at 3%. The difference of 3% for the unexpired portion of the 30 years is to be capitalized & distributed pro rata among the present holders of the bonds.

Lake Erie & Detroit River.—At the recent annual meeting at Walkerville, the following were elected: President, F. H. Walker; Vice-President, Dr. S. A. King; Managing Director, E. C. Walker; Treasurer, J. H. Walker; Secretary, Henry Lye; Solicitor, J. H. Coburn. The latter succeeds J. Leggat.

Manitoba & Northwestern.—In reference to the paragraph in our May issue, pg. 63, it may be stated that no action has been taken by the Manitoba Government on this Co.'s proposal to give the Government 590,000 acres of land at \$2 an acre, in extinction of its debt of \$1,185,000, which would leave the Co. 110,000 acres to sell. The proposal was made too late in the recent session for the Government to deal with it, so that nothing definite can be done before next session, even should the Government be favorable to the proposal, of which as yet there is no indication.—(Official.)

Minneapolis, St Paul & Sault Ste. Marie net earnings for March were \$149,600, as against \$111,700 for the corresponding period.

Quebec Central net earnings for the three months to the end of March was \$10,397, as against \$13,559 for corresponding period.

PASSENGER MATTERS,

The G.T.R. Baggage Department.

A new edition of the revised rules & regulations of the Baggage Department has recently been issued by the General Baggage Agent, J. E. Quick, who, in response to an enquiry as to what important changes have been made, writes us as follows:

The Baggage Department has been practically reorganized throughout with a view of the betterment of the service. In all journeys undertaken for pleasure or profit, the baggage question is an important one, because upon its convenient, safe, & prompt transportation the success & satisfaction of such journeys almost entirely depend. To promote these results in the highest degree possible is the object of these instructions. The most important change of interest to the travelling public is the improved method of checking in the way of the introduction of card checks in the place of brass checks. The present system, as nearly every one who has had baggage checked is aware, consists of a brass check which simply bears the number & the name of the road issuing it. them.

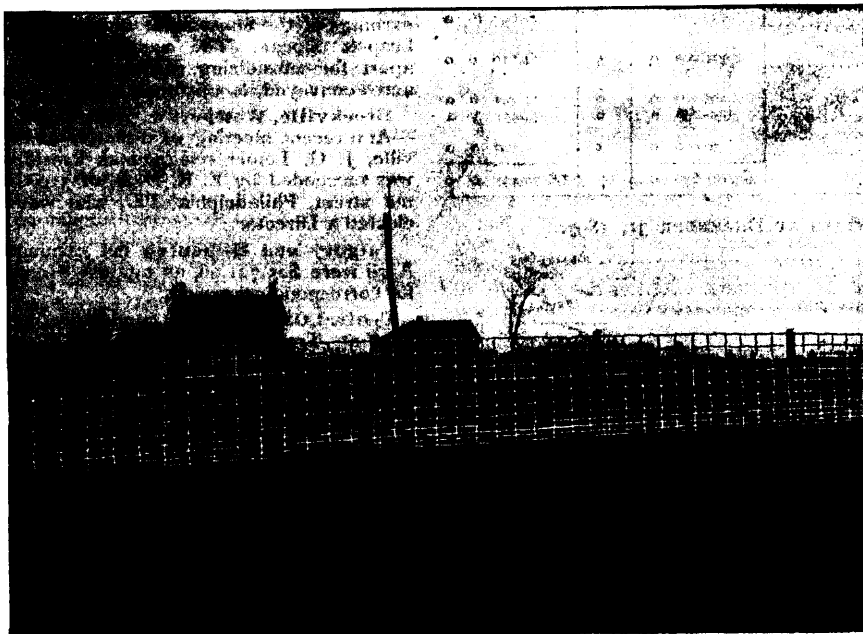
In addition to being cumbersome & unwieldy to carry, it gives no information to the passenger as to the destination the baggage is checked to, & passengers receiving one of these for baggage feel that they only have a check calling for a certain piece of baggage, but are not at all certain that it is checked to the correct destination, or that they will find it at proper station when they arrive at destination, & feel more or less uneasy until baggage is again in their possession.

The new system that I have introduced is as follows: The check in itself is a neat card-board check, convenient to carry, with a good plain number, & with blank space, in which

the baggagemaster must write the name of station destined for fully, so that passenger receiving check for baggage can see at once whether it is checked to proper destination or not. The strap portion of this check, bearing the same destination & number, is placed on a brass holder provided for that purpose, & attached to baggage. The advantages of this check over the old brass check are manifold. In addition to the convenience of handling & assured correctness of checking to a passenger, it is a much safer check to the railway company, & will avoid a great many vexatious delays & much unnecessary tracing for baggage by the railway company. These card checks are issued to the different stations from the General Baggage Office, & a correct record of such issue is kept, so that in case of a piece of baggage being short, a telegram to the General Baggage Agent, giving number of check, will enable him at once to trace same, as it will give him the starting point for such tracing.

It is the desire of the Management, in addition to systematizing the manner of checking & handling baggage, to avoid vexatious delays, to impress upon the staff the importance of handling baggage as carefully as circumstances will allow, & all cases of careless & rough handling will be investigated & severely dealt with.

The handling of baggage in England & on the European continent is generally more carefully performed than in America. This is not due so much to a higher standard of service as to the improved facilities for handling, to the fact that the men so employed have no other duties to perform, that the character of the baggage is not so heavy and unwieldy to handle, & that more time is granted for the work. Much of the complaint against the rough handling of baggage on our American railways is due to the high speed of trains demanded by the public for their accommodation & the rapidity required in consequence in the handling of baggage. The generous allowance of 150 lbs. free has also much to do with the matter. It is no uncommon thing for baggagemen to have offered to them trunks weighing from 200 to 250 lbs. each, &



The following leading railroads of Canada are using Page fencing in quantities of from 1 mile to 100: Canadian Pacific; Grand Trunk; Intercolonial; Lake Erie & Detroit River; United Counties; Canada Atlantic; St. Lawrence & Adirondack; Michigan Central; Manitoba & Northwestern; East Richelieu Valley; Toronto, Hamilton & Buffalo; Thousand Islands; Crow's Nest Pass.

For further particulars send to the Page Wire Fence Co., Ltd., Walkerville, Ont.

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705 Main St., Winnipeg.

compared to the small steamer-shaped trunk carried by Europeans, it is easy to understand why they cannot be lifted & handled with the same ease & safety. Passengers often complain of the manner in which their heavy packages are handled, without taking into consideration that they themselves are often to blame by appearing at the baggage room only one or two minutes before the departure of the train. Witness the excited crowd in the baggage room at a large station a few minutes before train time, with uplifted hands, all calling & shouting at the same time that their baggage must positively go on that certain train. How much trouble & anxiety could have been avoided by the admirable plan of having the baggage checked direct from the house by the transfer company.

Many of the packages containing baggage are unreasonably bulky; others, again, are insecurely fastened, or are too frail to withstand the ordinary usages of travel. In the practical operation of handling, a single employe is frequently called upon to load & unload trucks unassisted. When this is the case he is very often able, from the weight or bulk of a package, to exercise force enough to precipitate it to the ground; he cannot lift it or carry it, & when this is the case, the package, unless well secured, is very likely to

carriage of the passenger himself, so greatly concerns the traveller as the provision made for handling his personal baggage, & so far as the stockholder is concerned, the effective management of the baggage department directly & greatly effects the usefulness of his property & the income he derives from its operation.

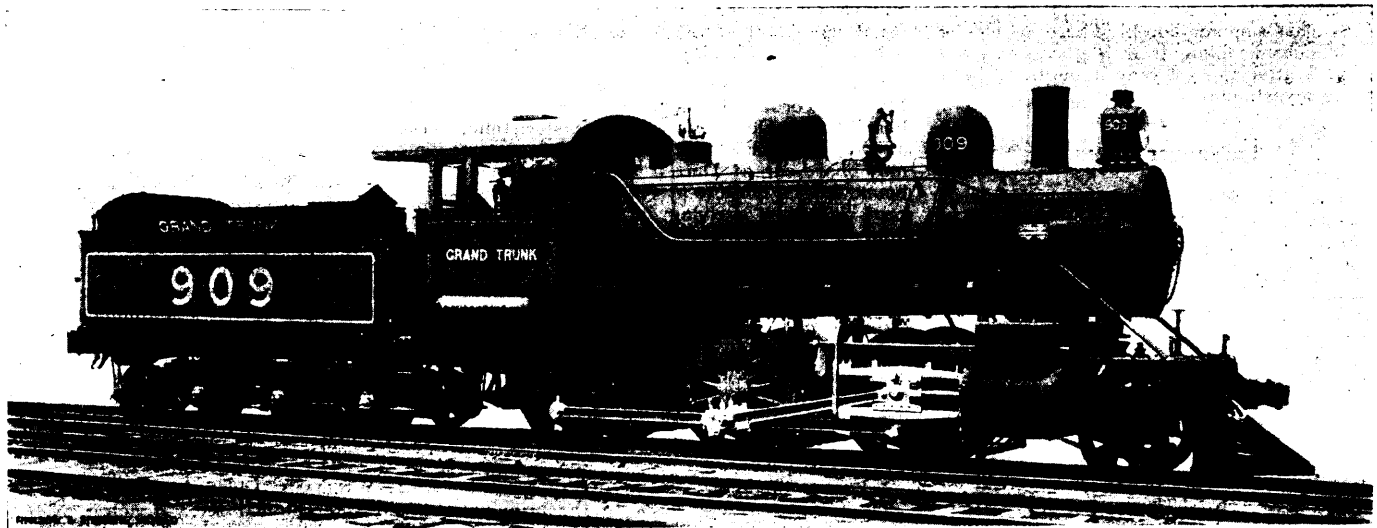
"The baggage department, while once considered a department of protection, may now be considered one of both protection & revenue; for while the exemption of the company from claims, account damage, loss & detention must necessarily be secured by some comprehensive plan of handling & billing, coupled with the vigilance & care of its employes, the revenue collected from the charges for excess & storage & from the transportation of milk is sure to show equally satisfactory & improved results on the side of revenue."

The perplexities of the baggage business are many, & the difficulties are understood only by those having charge of its affairs. Many curious & interesting examples of complication could be given to prove that they are not far removed from the proverbial Chinese puzzle. The business of handling & checking baggage must be quickly performed, & while the railway cannot enforce regulations which in any way affect the public's con-

mistakes in identification when having their baggage checked at the baggage-room. Through the checking & the rechecking of the piece at the various junction points, the trace becomes difficult, & it may finally be located in California while the real owner is mourning its loss at some remote point in Canada. I enclose the Preface to the Book of Rules, which gives the gist of what is expected of employes in this department.

PREFACE.

"The relations & responsibilities of common carriers to the travelling public are such as require from the carrier the most constant & watchful care of the property of the traveller. As station baggage agents & train baggage-men you are entrusted with the safe keeping & proper transportation of effects which are valuable to the owners. Nothing can be more annoying to the traveller than the loss, abuse, or delay to his baggage. You are, therefore, expected and required by the Co. to become thoroughly familiar with the following rules & regulations in order to insure careful handling, proper protection & safe delivery of baggage, etc., entrusted to your care. The proper collection & reporting of all excess baggage, & the safe keeping of all excess baggage & C.O.D. checks, are matters that require the



A RECENTLY COMPLETED GRAND TRUNK MOGUL LOCOMOTIVE.

that the fault does not rest so much with the railway company as with the owner. If the former exercises every precaution in handling, consistent with the nature of the business & the amount of time & force available, every condition of care & diligence has been satisfied. If injury occurs under these circumstances in consequence of the package being insecure or unreasonably heavy or bulky, the fault lies with the passenger & not with the carrier.

The quantity of baggage handled by the railroads of the U.S. is enormous. M. M. Kirkman, Second Vice-President C. & N. W. Ry., in his book on the Science of Railways, says:

"The baggage of railways exceeds, generally, the express traffic; it is also of much greater value relatively, yet in its handling only a few officials are employed, while in the conduct of an equal amount of express business many supervising managers of high business capacity are engaged & paid salary commensurate therewith. The baggage traffic of railways may be said to represent an unknown quantity in their affairs, & while it seemingly offers only a limited field of inquiry, it is really extended in its scope & presents many interesting & curious problems. No phase of railway management, it may be said, save the be injured. In the latter case it is apparent

venience, it must at the same time adopt all necessary precautions for the care of property entrusted to its keeping. Passengers do not view with equanimity delays or damage to their baggage, & the inconvenience & annoyance resulting in consequence cannot be alleviated by an explanation of the cause. Safety is only secured by the careful observation of all rules and regulations for the government of the business, & the unceasing vigilance of all employes connected with this branch of the service. If the reports to the General Baggage Agent are always complete & accurate, & the check supply carefully protected & mismatched checks avoided; if the checking is always accurate according to the route & destination of ticket, & the baggage is carefully handled while in transit & guarded while stored at stations, it can be stated that loss, damage or delay could only occur through some unforeseen accident in the operation of the trains. But with the great volume of property handled, & the limited time in which the work must be performed, it is impossible, even under a most thorough & complete system, to prevent occasional mishaps. Passengers themselves frequently contribute to these. On account of the similarity in the shape & appearance in valises & trunks, & in the absence of marking, passengers often make

utmost care on the part of station baggage agents. While employed by the Co. you must try & give satisfaction to the public & establish a reputation for courtesy & civility to everyone. You are expected to be polite at all times, & to answer civilly all questions addressed to you, & if unable to give any necessary information, endeavor, when practicable, to obtain it. Endeavor to make this line popular, because its business is dependent on the good-will of the people."

It recently came out before the Public Accounts Committee in Ottawa that certain Dominion Government officials who hold railway passes use them when travelling on Government business & charge the country the amount they otherwise would have paid for fare.

The C.P.R.'s Summer Tours pamphlet comes out in 4 parts this season, divided as follows:—1. Quebec, Maritime Provinces, White Mountain & Atlantic Sea Coast. 2. The holiday resorts of Ontario, Niagara, The River St. Lawrence, Ottawa & Montreal. 3. The Upper Lakes. 4. Across the Continent to Banff, Glacier, Kootenay & the Pacific Coast. The four appear in different & attractive covers,

Muskoka Travel.

The G. T. R. has recently put out some very handsome literature about Muskoka, & also advertised this beautiful district in U. S. publications to a considerable extent, the effect of which should be seen by a considerable increase in the number of visitors from the U. S. this season. But the Muskoka travel will never assume the proportions that the attractiveness & health-giving qualities of the district entitle it to until first-class hotel accommodation is provided. There are lots of small hotels in the district now, many of them inferior, a few fairly good, but none on the scale required. The English syndicate, represented by R. D. McGibbon, of Montreal, which announced its intention of building a series of hotels in Canada, was figuring on one for Muskoka, but nothing further has been done. It is hardly likely that the G. T. R. will build one, as the management is understood to be opposed to the Co. going into the hotel business, but the Co. is so vitally interested in Muskoka travel that it is to be expected it would aid in such an enterprise by a liberal bonus, & the Muskoka Navigation Co. might do the same. What is wanted is an hotel somewhere in the vicinity of Port Carling, to cost, including equipment, from \$75,000 to \$100,000, with up-to-date plumbing & sanitation, & to be run in every respect as a first-class summer hotel. There should be no difficulty in filling it with guests at good rates, & after the 1st year it ought to be a paying investment.

Passenger Notes.

The C.P.R. Soo train now leaves Montreal at 10 p.m., instead of 9, 10 p.m.

A general change of time went into effect on the G.T.R. & C.P.R. June 5.

A daily service has been established on the C.P.R., Shuswap & Okanagan branch.

The G.T.R. has issued orders to its agents to stop receiving large amounts of U.S. money, as the banks will not accept the same.

Commencing June 27, the C.P.R. will have a daily parlor car service, except Sunday, between Montreal & Old Orchard, both ways.

Beginning July 1, Pullman sleepers will be run on the G.T.R. between Toronto & Gananoque, instead of Kingston as in former years.

The G.T.R. has arranged for about 30 excursions to the Guelph Agricultural College

from various parts of Ontario during this month.

The C.P.R. now runs a special train from Fort William on Mondays, on arrival of steamer from Owen Sound, arriving at Winnipeg about noon next day.

The G.T.R. has decided to discontinue the through Seaside Special, running last summer from Chicago to Portland, by way of Montreal. It will, however, run through weekly sleepers during the coming season.

"Quebec, Summer & Winter," issued by the C.P.R. Passenger Department, has reached its 8th edition, appearing in handsome new type, & with up-to-date information.

Commencing June 15, the C.P.R. will run a through sleeper from Montreal for Portland. On & after June 26 it will run through to Old Orchard. There will be a similar northbound service.

The G.T.R. passenger literature for this season is a great improvement over previous years, especially in regard to the quality of the illustrations. H. R. Charlton, who is now in charge of this branch, is certainly doing very effective service.

The C.P.R.'s 1st eastbound sleeper will leave Montreal for St. Andrews Thursday, June 30, the next one Friday, July 8, & every Friday thereafter until Sept. 2. The 1st westbound sleeper will leave St. Andrews July 4 & every Monday thereafter till Sept. 5.

The C.P.R. is now running special sleepers between Toronto & Detroit, both ways. Eastbound leaves Detroit 12.35 a.m., eastern time, arriving in Toronto 8.05 a.m. Passengers may board car at Detroit at 9 p.m. Westbound leaves Toronto at 8.10 p.m. daily, except Saturday, arriving in Detroit at 3.15 a.m. Passengers may remain in car till 8 a.m.

The General Manager of the Wagner Palace Car Co. has issued the following instructions: "Rooms having 3 berths will be termed drawing-rooms; rooms having 2 berths & rooms now known as compartments will be termed staterooms; cars heretofore termed drawing-room cars will be termed parlor cars, and rooms in these cars will be termed compartments.

"East to the West" is the title of a handsome 100-page guide book to the principal cities of the Straits Settlements, China & Japan, & incidentally the C.P.R. transcontinental route, written by Eliza Ruhamah Scidmore, & published by the C.P.R. Passen-

ger Department. The covers, in colors, are very striking, the book is charmingly written & profusely illustrated.

The territory of H. Parry, General Agent of the New York Central at Buffalo, now includes the Province of Ontario as far east as Peterboro' & Cobourg. No change has been made in the agent at Toronto, J. J. McCarthy, who heretofore has held the title of Canadian Passenger Agent, but is now styled Canadian Agent, with office at Toronto, & jurisdiction over Ontario as far east as Cobourg.

The G.T.R. has made a contract with the Grand Rapids & Indiana by which it can give better service to Michigan points & also to Canada. Since May 15 the G. T. has been running through sleeping cars from Chicago to Montreal over its new connection, & also in connection with the Lehigh Valley to New York. By an arrangement with the Detroit & Mackinac & Flint & Pere Marquette roads the G.T. expects to secure the principal share of the travel from the territory around Ludington & Sheboygan.

The Wabash put its spring schedule in force June 5, its principal feature being the new fast train, "The Continental Limited," which is being operated as a daily through train between St. Louis & Chicago & New York & Boston. It is a splendid train, with wide vestibule equipment, the whole train, including the coaches, being operated through without change, dining cars being attached. This, with other through trains, is being run over the G.T.R. Southern Division via St. Thomas.

The U.S. Joint Traffic Association recommends to the lines in its jurisdiction the following rates for passenger train service for the U.S. military & naval forces & their equipments & supplies: Passenger fare of 1½c. per mile per capita, including the carriage in the cars, with the troops, of their personal effects & equipments. For animals, supplies & equipage, when transported in the same trains which carry troops, 20c. per car per mile. No mileage to be computed at less than 25 miles. Sleeping car fares to be charged additional, as may be agreed on with sleeping car companies.

T. WILLIAMS, Chief Accountant & Treasurer, Intercolonial Ry., Moncton, N.B., in remitting his subscription, says:—"I am much pleased with THE RAILWAY & SHIPPING WORLD, which, if kept up to its present standard, should prove a great success."

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I. C. R. Refreshment Cars.

Three 1st class passenger coaches on this line were recently converted into combined dining & restaurant cars, the object being to accommodate at a counter passengers who do not want to sit down to a regular dining car meal. The floor plan on this page is made from a drawing supplied by F. R. F. Brown, under whose direction the cars were converted, & who recently retired from the Mechanical Superintendency of the Intercolonial.

Each car is fitted with a standard, full-sized range, with steam table & other fittings, so that these may be used again if it is decided to replace the cars with 1st class, full length, dining cars, in which case the same kitchen & refrigerator equipment would be put in the larger cars, & the 18 ft. counter from the restaurant end would also be used. Four tables, it will be seen, are provided in the dining-room. These cars have been put on as an experiment, & while probably ample to meet the requirements during winter, it is possible larger ones will be built when the demand increases sufficiently. No changes were made in the framing or other parts of the car bodies, except where necessary to put in the new fittings.

A B. C. Switching Locomotive.

The new Vancouver Coal Mining & Land Co., Nanaimo, B.C., has recently received from the Baldwin Locomotive Works a 6-coupled switching locomotive. The cylinders

are 15x22 ins.; driving wheels 42 ins. outside diam.; centres 36 ins. diam. Wheel base of engine 10 ft. Driving wheel base 10 ft. Weight in working order about 74,000 lbs.; on driving wheels the same.

The boiler is of homogeneous cast steel, $\frac{3}{4}$ in. thick, form straight, with 1 dome placed centrally; waist 42 ins. diameter at smoke-box end, and telescoping back. Tubes of iron, no. 13, w.g., 102 in no., 2 ins. diam. & 11 ft. $1\frac{1}{4}$ ins. long. Fire-box 64 $\frac{1}{2}$ ins. long & 34 $\frac{3}{4}$ in. wide inside, of homogeneous cast steel; side & back sheets $\frac{3}{8}$ in. thick; crown sheets $\frac{3}{4}$ in. thick; flue sheet $\frac{1}{2}$ in. thick.

Stack, straight; grates, rocking & drop; smoke-box extended.

Tires of cast steel 3 ins. thick, front & back flanged 5 $\frac{1}{2}$ ins. wide; main pair flues 6 $\frac{1}{2}$ ins. wide. Axles of steel or hammered iron; journal 6 ins. diam. & 8 ins. long.

Tank, 900 galls. capacity, carried on boiler.

Grand Trunk Notes.

New Pullman cars are to be put on G. T. trains nos. 14 & 15, & new Pullman buffet cars are to be put on between Toronto & Brockville.

Our May issue (pg. 61) contained a description of the mogul locomotives recently built for the G. T. R. We were unable to obtain a photograph in time to accompany the description, so it is now given on page 89.

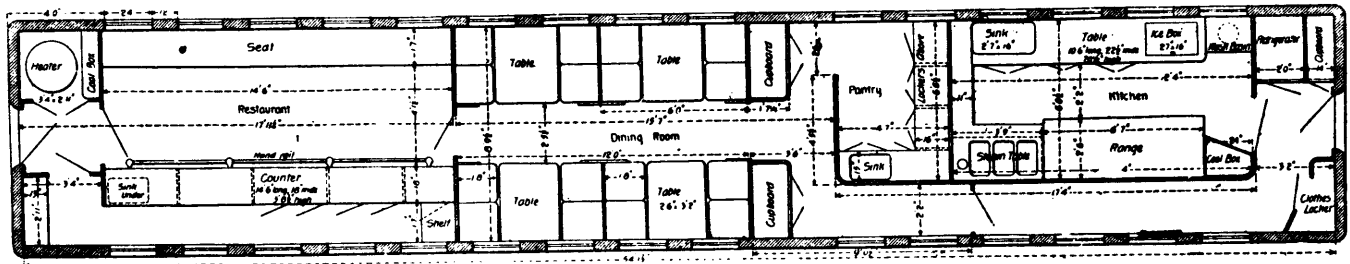
From the activity displayed in the shops of the Grand Trunk at Point St. Charles, Montreal, there is not likely to be any holidays again this season. What with the construc-

tion of freight cars & locomotives, both passenger & freight, in addition to the ordinary repair work, the men have their hands full. In the third week of May the G. T. R. gave an order to the Michigan-Peninsular Car Co., Detroit, Mich., for 250 stock cars & 250 box cars, each car of 30 tons capacity. An order has been given to the Co.'s own Car Department to arrange for the construction of 250 refrigerator cars & 60 cinder dump cars at the Co.'s shops in Canada. (Official.)

The G. T. R. has had constructed at its London car shops 3 cars, known as the "road department equipment." They consist of a dining, kitchen & sleeping car. The kitchen car is fitted up with a large steel range, & a refrigerator in one end, while in the centre is the sink. A neat pantry & cupboard are also at hand. Pots, frying pans, dishes of all kinds & every utensil to prepare & serve an excellent meal are at the convenience of the cook. A large carving table stands on one side of the car. A cook will be taken along to look after this department. Each of the cars is supplied with a water-tank of 100 gallons' capacity, & all are well lighted & ventilated. The men, when on the road, will just work the regulation day hours, & then repair to their department cars, which will be side-tracked until the repairs or track laying is finished. A 2nd set of cars is under construction.

Canadian Pacific Items.

The C.P.R. has decided to make black the standard color for its trucks.



INTERCOLONIAL RAILWAY.—COMBINED DINING AND RESTAURANT CAR.

J. Osborne, Assistant to the Vice-President, is devoting considerable time to equipment matters, having especial oversight of the shops at Montreal, Perth & Farnham.

The Co.'s Perth shops are turning out from 8 to 10 a day of the 30 ton, 35 ft. box cars, of which 1,000 are being built. The last 300 of the order will be equipped with metal instead of wooden bolsters.

The Co. has adopted the consolidation type of locomotive, with compound cylinder, as the standard for its freight service. Since last September an engine a week has been turned out of the Co.'s Montreal shops.

The C.P.R. is building a lot of baggage cars, which are not provided with either platforms or hoods. This, it is said, reduces the weight about 1 $\frac{1}{2}$ ton, & does not rob them of any decided advantage in construction, as the platform & hood are of no use on a baggage car. A passage way is provided with cars attached to them by rubber diaphragms attached to the ends of the doors.

All the Co.'s passenger cars were put through the shops between October last & the end of May, with the result that the effective equipment is made about a third greater without adding to the no. of cars, as the whole equipment is now in condition for continuous use during the busy summer months & will not require to go into the shops again until winter. Special attention is now being paid to getting the locomotives overhauled, so that they will all be in first-class condition for the fall freight rush.

The 10 sleeping cars now being completed in the Montreal shops will be far ahead of any now in use by the Co., which is saying a good deal. The interior decorations have been carried out under the personal supervision of Theodore Jongers, a member of the firm of Irene & Co., of Paris. He is a brother of the Professor of Modern Languages at McGill University, Montreal; & another brother is the celebrated portrait painter. A portion of the decorations was brought over from Paris. The carving is being done in the Co.'s shops.

It may safely be said that no system of electric lighting for passenger cars has been so far perfected as to warrant its general adoption in America or elsewhere. The C. P. R. has been experimenting for some time with a United States system of generating electricity from the axle, & has had it in operation on the sleeping-car Winchester, running between Montreal and Toronto, for the past two or three months. The test has been so far satisfactory as to justify a further trial, & the same system is now being placed on 10 sleepers now being built at the Co.'s Montreal shops. On the results obtained with these will no doubt depend the decision of the management as to the general adoption of the system. Vice-President Shaughnessy's private car Champlain is being equipped with an English system of car lighting by electricity from the axle, the same which is in use on some 70 lines in Great Britain, & is also used on the Queen's private train.

W. McWOOD, Superintendent Car, Department G.T.R., Montreal, writes:—"I have now received several copies of THE RAILWAY & SHIPPING WORLD, & consider it a very good production."

L. H. WHEATON, Superintendent & Chief Engineer, Coast Ry. of N.S., writes:—"I am glad to know that you are publishing a paper devoted to the interests of the transportation companies in Canada, & have no doubt it will meet with success. It should certainly be to the interest of every transportation man in Canada to subscribe to this paper, & it should be a good medium for advertising."



TENDERS FOR STEEL RAILS.

SEALED TENDERS addressed to the undersigned, & endorsed "Tenders for Steel Rails," will be received up to noon on Tuesday, August 2, next, for the supply of—

1,000 Tons of 50-lb. Steel Rails & fastenings to be delivered C.I.F. on the Prince Edward Island Railway wharf at Summerside, Prince Edward Island.

5,000 Tons of 80-lb. Steel Rails & fastenings to be delivered on the Intercolonial Railway wharf at St. John, New Brunswick.

All the above to be delivered in the month of April, 1899.

Specifications, Conditions, Forms of Tender & all other information will be furnished after June 30, 1898, on application at the office of the High Commissioner for Canada, London, England.

By order,

L. K. JONES, Secretary.

Department of Railways & Canals, Ottawa, June 1, 1898.

A HAMILTON INDUSTRY.

The Westinghouse Co's. Works.

In previous issues we have dealt with the Westinghouse Manufacturing Co's. air brake industry at Hamilton, Ont., & to avoid repetition we will refer readers to our March issue, pg. 15, & May, pg. 60.

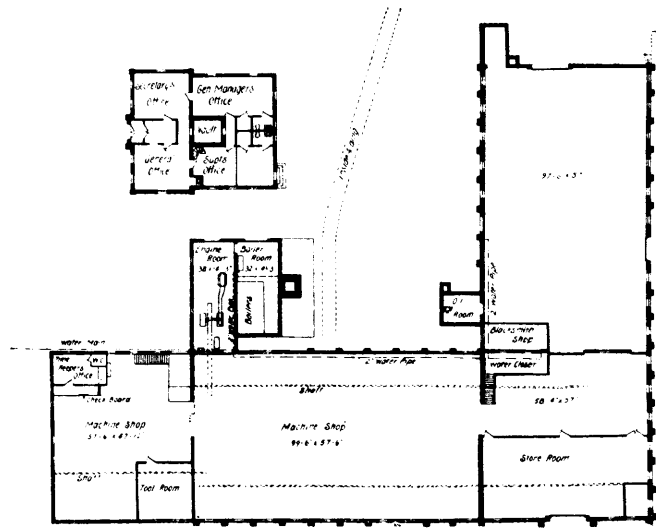
In 1895 the Co., having made large contracts with the Grand Trunk, Canadian Pacific & Intercolonial decided to organize a company in Canada & to establish works at Hamilton. A suitable property was purchased there in Oct., 1896. On Jan. 27, 1897, the Westinghouse Mfg. Co., Ltd., was incorporated by Dominion Letters Patent, with a capital stock of \$500,000. The works began operations on Feb. 8, & the first shipment of air brakes was made on April 1. On this & following page we give a ground plan of the works & exterior & interior views, reproduced from photographs. The works comprise office building 40x48 ft.; machine shop, 95x57 ft.; pump & tool room, 57x47 ft.; store & packing room, 58x57 ft.; & warehouse 97x57 ft. The plant is thoroughly equipped with the most modern appliances for producing air brake apparatus. A large portion of the machinery is of special design, being in many cases duplicates of apparatus for similar purposes used by the home company at Pittsburg; while many of the general tools were purchased from manufacturers in Canada. The Canadian Co. started under the most favorable auspices. The capacity of the plant is in excess of 10,000 freight car equipments a year, in addition to locomotive & passenger brakes, so that it is fully adequate to all possible requirements of the Dominion.

The Hamilton establishment, as a manufactory, is a model machine shop, & the buildings, which are well-lighted & cleanly in every

& T. H. & B. R. By some it is regarded as the most important addition of recent date to the manufacturing interests of Canada.

The officers of the Co. are:—G. Westinghouse, President; H. H. Westinghouse, Vice-President; J. Caldwell, Treasurer; G. F. Evans, Manager; P. J. Myler, Secretary &

what account should the wages & expenses of general & local storekeepers, etc., be charged?" & "The minimum amount for which one road may make a bill upon another on account of overcharge & loss & damage claims." The voting rule was amended so as to give each member the right to vote on all questions. Heretofore each system has been allowed only one vote on matters of policy. After electing the following officers the convention adjourned to meet in Montreal in June, 1899: President, P. A. Hewitt, C.C.C. & St. L., Cincinnati, Ohio; vice-president, H. D. Bulkley, B. & O., Baltimore, Md.; second vice-president, Daniel Jones, Philadelphia & Reading, Philadelphia, Pa.; secretary & treasurer, C. G. Phillips, Chicago & Northwestern, Chicago. Executive Committee: H. A. Rubidge, Chicago & Eastern Illinois, Chicago; C. J. Pollock, M. K. & T., St. Louis, Mo., & W. B. Bend, Chicago Great Western, St. Paul, Minn.—*Railway Age.*



PLAN OF THE WESTINGHOUSE WORKS AT HAMILTON.

Assistant Treasurer. Messrs. Evans & Myler reside in Hamilton, where they administer the affairs of the Co. in a manner which appears to be equally satisfactory to its shareholders & to its customers.

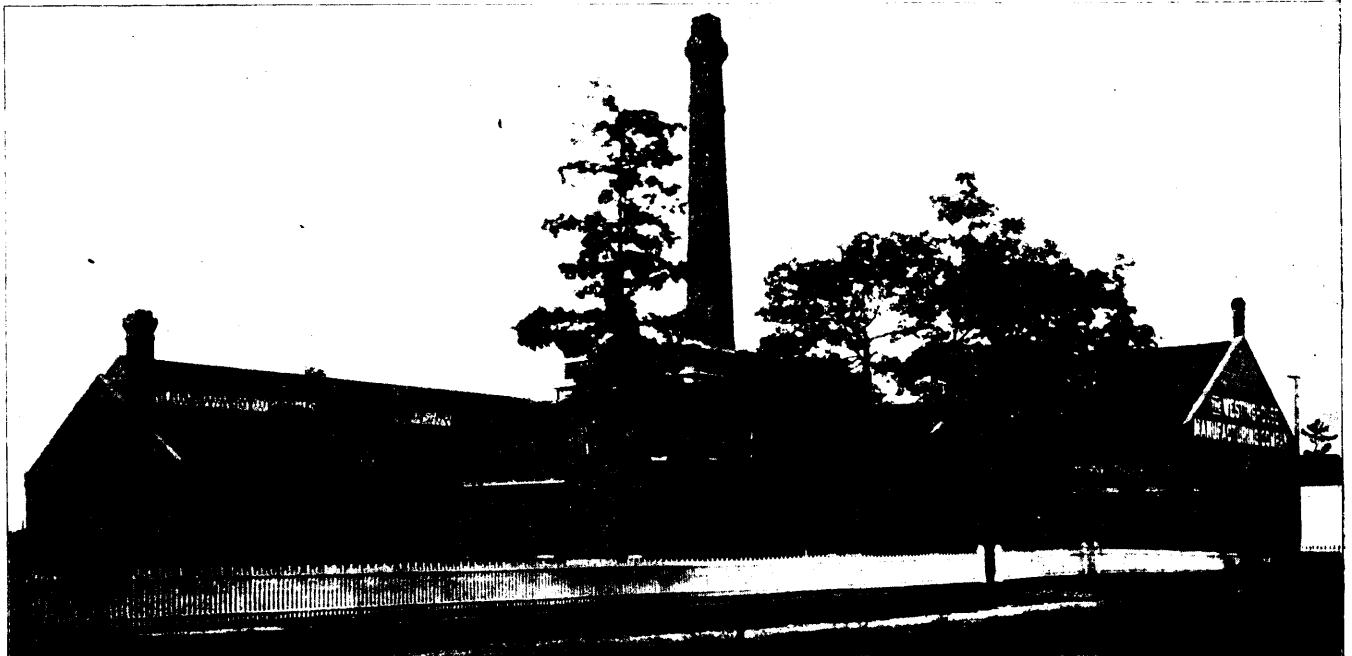
Association of Ry. Accounting Officers.

Over 200 delegates attended the annual convention of the Association of American Railway Accounting Officers at Atlantic City, N. J., May 25 & 26, at which the following subjects were considered: "Classification of operating expenses," "Train & locomotive

ger station the first house built in 1827 on the site of the present city. If any reader knows of an older one, he is requested to send the information to the Editor.

It would also be interesting to ascertain the oldest building in Canada, originally erected & since continuously used as a passenger station. Readers are requested to assist in this by sending in names & dates of erection of any very early ones they know of, so that accurate information may be obtained.

F. W. HALES, Secretary Charlottetown Steam Navigation Co., P.E.I., in remitting



THE WESTINGHOUSE MANUFACTURING CO'S WORKS, HAMILTON, ONT.

respect, have been adapted in every particular to the requirements of the Co., not only with a view to facilitating its own interest, but also with due regard for the comfort & health of the employees. The works are situated in the eastern part of the city & in close proximity to the tracks of the G.T.R., C.P.R., M.C.R.,

mileage," "Loss & damage claims," "Car accounting," "Car mileage bureau," "Bills of car repairs," "Classification of construction & operating expenses for electrical railways," "To what account should street lights prescribed by municipal ordinance maintained at highway crossings be charged?" "To

his subscription, writes:—"I congratulate you on your success with THE RAILWAY & SHIPPING WORLD. If you can keep it up, as well supplied with useful & entertaining information, you will deserve well from the community. I trust you will obtain a large subscription list."



INTERIOR OF MACHINE SHOP, WESTINGHOUSE WORKS, HAMILTON.

RAILWAY APPOINTMENTS, &c.

Canadian Pacific.—J. Murray, Superintendent at Winnipeg, who has been on leave of absence for some months, owing to illness, during which he visited Great Britain, has been appointed Track Inspector for all C.P.R. lines west of Fort William. His duties are to go over the road on a hand-car with each of the roadmasters & make a critical examination of every foreman's section, reporting to the Manager on the comparative efficiency of each foreman's division or roadmaster's section, observing carefully not only the condition of the track, but the condition of fencing, telegraph line & all other particulars. He will also make recommendation as to the number of men necessary in his opinion for the maintenance of each section summer & winter. This is a new appointment. E. A. James, formerly Chief Dispatcher at Winnipeg, who has been Acting Superintendent during Mr. Murray's leave of absence, will now be appointed Superintendent of the main line between Winnipeg & Brandon & tributary branches. (Official.)

Grand Trunk.—C. J. Crowley, who has been for many years in the G.T. service, & for some time past has been Resident Engineer of the Middle Division, with headquarters at Toronto, has resigned, much to the regret of the management, as he intends to reside in England. He is succeeded by F. L. Somerville, who has been assistant to Chief Engineer Hobson at Montreal.

W. White, Chief Operator at Bonaventure Station, Montreal, has been appointed Private Secretary to G.T.R. General Superintendent McGuigan. A. H. Lander succeeds Mr. White at the Chief Operator's desk at Bonaventure.

Wm. Yule, of Palmerston, Inspector of Bridges for the Northern branches, has been transferred to Stratford, Ont., to succeed J. C. Sanderson, who has gone to St. Thomas as Inspector of Stations & Bridges on the Southern Division. Mr. Yule will act as Station & Bridge Inspector for the line between Stratford & Sarnia, Goderich & Buffalo, & the Northern branches.

C. A. Hight is appointed solicitor in charge of the Co.'s legal business in New England, with headquarters at Portland, Me., vice A. A. Strout, deceased, to whom he formerly acted as assistant.

McKenzie & Mann's Manitoba Line.—S. J. Jackson, M.P.P. for Rockwood, Man., has been appointed Purchasing Agent at Winnipeg for the McKenzie & Mann roads, includ-

ing the Dauphin & the Winnipeg & South Eastern. Mr. Jackson, who was one of Winnipeg's earliest merchants in the seventies, has for several years past been farming near Stonewall, Man. He has represented that district in the Legislative Assembly since 1883, & was Speaker of the House for several years.

Wagner Palace Car Co.—A. G. Adams has been appointed general accountant with office at New York, vice T. D. Boak, accountant, resigned.

Minneapolis, St. Paul & Sault Ste. Marie Ry.—Thos. Green has been appointed Acting Chief Engineer, vice W. W. Rich, previously Chief Engineer. W. R. Collins has been appointed Freight Claims Agent, vice A. H. Bode.

Death of E. D. Boswell.

E. D. Boswell, President of the Temiscouata Ry., died suddenly at Riviere du Loup, P.Q., June 4, aged 47. He was the grandson of the late Capt. Boswell, of the Royal Navy, & was born and educated at Cobourg, Ont., where his family had resided for many years. At an early age he entered the employ of the Bank of Toronto, where his conspicuous business ability & attractive personality won him rapid promotion. When stationed at Montreal he held a prominent position as an athlete, being especially proficient as an oars-

man. He filled many important posts for the bank, & was manager of the branch at St. Catharines when he resigned his position to enter the employ of Chas. Riordon. For some time Mr. Boswell held a responsible office in the Cosgrave Brewing & Malting Co., then under the control of Mr. Riordon, & left for Quebec at the time of the founding of the Temiscouata Ry., in which enterprise he was associated with his brother-in-law, the late Hector Cameron, C. Riordon, & J. J. Macdonald. He took up his residence at Riviere du Loup, where he lived until his death. He leaves no family; his wife, nee Miss Young, of Quebec, died several years ago.

Personal Mention.

J. W. Swan, of Norway, Ont., has been appointed G.T.R. photographer

D. E. Brown, C.P.R. Agent at Hong Kong, is in England on a protracted holiday.

The Minister of Railways, Mr. Blair, expects to go to England shortly with his family.

Jas. Leeming, recently appointed General Freight Agent of the Erie Ry., is a native of Brantford, Ont.

Lady Mount Stephen was presented to her Majesty at the Drawing Room last month, by Lady Northcote, on her marriage.

Passenger Traffic Manager McNicoll, of the C.P.R., recently underwent a slight operation, rendered necessary through an accident whereby he injured his leg.

President J. J. Hill, of the U. S. Great Northern, has leased from the Quebec Government the salmon fishing privileges of the St. John River, on the north shore, for \$3,000 a year for 10 years.

J. F. Shaughnessy, a brother of Vice-President Shaughnessy, of the C.P.R., has been appointed Purchasing Agent of the Minneapolis, St. Paul & Sault Ste. Marie, in place of T. A. Switz, resigned.

R. N. Stevens, I.C.R. Mechanical Foreman at Truro, N.S., died May 11 of paralysis. He was 64 years old, & had been connected with the I.C.R. since it was opened & was engineer of the first train out to Coldbrook. He left a wife & family.

Wm. McKenzie, of McKenzie & Mann, left for England May 21, in connection with his various enterprises. It is understood that financial arrangements in connection with the building of the Ontario & Rainy River, the Winnipeg & South Eastern & the Dauphin railways, are the principal objects of his trip.

W. R. Baker, General Manager of the



INTERIOR OF WAREHOUSE, WESTINGHOUSE WORKS, HAMILTON.

Manitoba & N. W. Ry., recently underwent an operation in Winnipeg General Hospital for a tumor in the calf of his leg, caused by a blow from a cricket ball. He lost a good deal of blood, & the wound did not heal at all satisfactorily at first, but he is now getting along favorably.

J. W. C. Haldane, C. E., of Liverpool, Eng., left there June 2, for a tour in Canada, with the object of gaining special information regarding the C.P.R. system. He will travel over the Co's. whole area as far as Vancouver. The knowledge thus obtained of the line; the country through which it passes; & its steamship connections with England, Japan & Australia, is intended for future use in new literary projects.

A. G. Wand has been appointed General Agent for North America of the London & North Western Ry. (Eng.), Caledonia Ry. (Scotland), & Great Southern & Western Ry. (Ireland), to succeed C. A. Barattoni, deceased. Mr. Wand has been in the service of the L. & N. W. nearly 25 years, and was transferred to New York from the London office of the Co. when the late agent was appointed in 1887.

A newspaper rumor at the end of May appointed B. B. Osler, Q.C., of Toronto, General Counsel of the G.T.R. at a salary of \$20,000 a year, to succeed John Bell, Q.C., of Belleville. We are in a position to say the rumor had no foundation in fact & it has already been denied by Mr. Osler. No doubt he will continue to receive briefs from the G.T. as in the recent case of Hannaford vs. the G.T.R., in which he represented the defendant at Sarnia Assizes.

A report was recently sent out from Moncton, N.B., to the effect that Collingwood Schreiber, Deputy Minister & Chief Engineer of the Department of Railways, was to be superannuated & succeeded by D. Pottinger, at present General Manager of the Intercolonial, who, in turn, was to be succeeded by J. E. Price, now District Superintendent at Truro, N.S. It is not thought in the best informed quarters that there was any foundation for the rumor. In any event Mr. Pottinger would not be given the dual position at Ottawa, as he is not an engineer.

Sir Wm. Van Horne left for England May 20, accompanied by R. B. Angus, another C.P.R. director. Of course, the dailies have been busy with "authentic" reasons for the trip. First it was the Manitoba & Northwestern Ry. bonds that had to be looked after; then they had gone to float the bonds of the Laurentide Pulp Co., & this was followed by the "positive information" that it was in connection with the establishment of a fast Atlantic service. The fact is, that business has very little to do with Sir William's trip. He has been far from well lately. Early in the spring he suffered from bronchial trouble, relief from which was sought in a brief sojourn at Atlantic City. Later the trouble was diagnosed as catarrhal fever; hence the ocean trip. Sir William's visit will be only a brief one; he is expected back before the end of June.

OPERATING.

The C.P.R. Graphic Car Record.

In the early history of railways in this country it was customary for them to do their business in their own cars, transferring freight destined to stations on a connecting road at the junction point of the two roads. While this system had the advantage of keeping at home the equipment of each road, it resulted in the very slow movement of freight, which became more & more annoying as the volume of traffic increased, so that the railways found it to their advantage to allow their cars to run through to the destination of the freight without transfer. The result of this is, that at present the cars of any one company may be scattered all over the country, & located on as many as 200 different lines. The control of the movements & the distribution of freight cars were at that time under the superintendents, while the computing of mileage & other statistics in connection with the same was done by the car accountant, who was under the control of the auditor. The general superintendent's duties were very numerous, & the greater part of his time was given to looking after the running of his trains, examining bridges, the condition of the roadbed, etc., so much so, that the handling and distribution of the cars received little attention, & was often entirely overlooked, in fact, in some instances the greater part of the distribution was done by yardmen & agents. As a natural result the expenditure for mileage of foreign cars increased very rapidly, while his own cars were allowed to remain on other roads just as long as they wished without any request being made for their return. Moreover, no check whatever was kept on foreign roads to see if they paid a fair amount for the use of the cars. The car accountant was not responsible for this state of things, as he considered it was his duty to only compile the mileage statements, the expenditure for mileage being a matter entirely under the control of the operating department, with which it was not his duty to interfere.

The general managers, however, noticed that in many cases half-a-million dollars annually was being paid out of the treasury for mileage, & were, therefore, confronted with the problem how to change this debit to a credit. The reply was—Improve the movements of cars belonging to your company by getting them home from foreign roads & reduce, as far as possible, the use of other roads' cars on your line, improve the time of through freight, & thereby improve the service. The first step towards the accomplishment of this result was to organize & fully equip the car service department. The head of this department is known as the manager of transportation, or superintendent of car service, & has been given full charge of the distribution & use of all passenger & freight car equipment, & the movement of time or fast freight, also the compiling of mileage & statistical statements. The duties of this of-

ficial have increased to such an extent on many of the large railways that it has been found necessary to appoint two subordinate officers, so as to relieve him of some of the routine work, & thus allow him to give more attention to the more important part of his duties. The two subordinate officers are known as car accountant & car distributor. The car distributor is, as a rule, immediately under the control of the head of the department; in fact, in many cases it is found necessary for him to be in the same room or office, so that the cars may be distributed to the best advantage & under the personal supervision of the head of the department. The car accountant's office may be divided into two parts, viz., mileage & record. In the 1st-mentioned is compiled statements of the mileage made by the different classes of cars on each division, section or branch, & the mileage of trains & locomotives, which information is extensively used by the accounting officers. The mileage made by other roads' cars on the line is computed, for which a stated rate per mile is paid, & monthly accounts issued for same. The record part of the office may be considered the most important, & is certainly the most interesting to the head of the department. It consists of a complete record being kept of the daily movement & location of each & every car upon the road, & may be considered a check on the distribution & handling of the cars on the line. The car accountant is called upon daily to give a variety of information regarding the location of the equipment. He must know what cars owned by his company are located in any foreign territory, where a large shipment is in sight to be loaded to or via his line, so that arrangements can be made to have his company's cars supplied for the shipment; watch the movements of the cars on foreign roads, & "catch on" to any abuse of them, & call the attention of the guilty parties to same; trace or write to foreign roads for cars delayed & endeavor to secure their return home, also issue to agents tracers for cars delayed over a certain period at stations on the line, & when the explanations given are not considered satisfactory, the tracers are referred to the head of the department for his action. He must also be able to supply at a moment's notice the location of the equipment owned by the company, which, perhaps, may be considered one of the most difficult problems with which car accountants have been confronted. It has been recognized by the managers of the principal railways that it is of the utmost importance to the welfare of their roads that the car accountants be placed in a position to instantly supply the various information called for, & therefore, no expense has been spared experimenting with many different systems, but, unfortunately, not altogether with success.

The movements of the cars have heretofore been generally kept in books specially ruled for that purpose, which method of car recording has been acknowledged to be unsuitable for this age, & everybody has felt the need of a change, so that car accountants, alive to

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the fact, have been endeavoring to evolve a more suitable system. The system that has been considered to be the nearest approach to success is known as the Graphic Car Record System, but this system has also got its drawbacks, which the car accountants have been endeavoring to overcome during the past two years. This system, which has been in use on the C.P.R. for several years, is a very radical change from the old book form of records, as the use of books & pens is abolished. It consists of:—

1st. A box 8 ins. deep, 14 ins. wide, & 36 ins. long, which is divided longitudinally by copper wires into 10 equal spaces, each space 1 inch wide.

2nd. A stick 8 ins. long, 1 in. wide, $\frac{1}{4}$ in. thick for 1 in. from each end, & $\frac{1}{8}$ in. for the 6 ins. in the centre. A groove is cut at each end to allow a piece of cardboard to be inserted. One end of the stick is flat, on which a piece of paper representing the car number is glued, the color of the paper designating the class of car; a brass nail is also inserted in that end so that any particular stick may be readily taken from the case. The other end is slightly bevelled so as to admit of it being quickly placed in the case.

3rd. A piece of cardboard $6\frac{1}{4}$ ins. long & 1 in. wide, which may be inserted in the grooves in the stick. The stick is the same length as the depth of the case, & the same width as the distance between the copper wires, so as to allow of it being placed in the box.

The box is built on an angle of 45° to prevent the stick from dropping out. The movements of the cars are entered on the cardboard, which is inserted in the stick, those of loaded cars in black pencil, & empty cars in blue. To facilitate the recording of the movements of the cars, the stations are designated by numbers & the junction, or interchange points, with other roads, by symbols. The boxes are divided into 10 divisions by copper wire, so that the stick may be filed according to the ending unit of the number shown on end of stick; for example, stick no. 12201 would be placed in the 1st division, & stick no. 12205 in the 5th division. In this way, if 400 sticks were in the case only an average of 40 would be examined for any particular number. As many of the boxes as are necessary are placed on a stand built for that purpose, & are again subdivided into sections by movable trays to suit requirements. The clerks have then before them one large case divided into sections & stations of the road, the sections of stations running in proper order from east to west. Branches intervening are allotted a box next to the station at which the branch connects with the main line, & all the cars represented by the sticks are located in the case in the same section or station as the car is located on the line. There is also another small case set apart for cars on foreign roads, each road being assigned a space commensurate with its requirements.

The movements of the cars are recorded from the train conductors reports, & one division of the case, representing a division of the road, is under the charge of one clerk, who records the movements of all the cars on the reports for that division. Thus, the reports are handled only by that clerk, instead of perhaps by several, as is the case when the book records are used. The saving of time is obvious. When the car moves from one station or section of the line to another, the movement is entered on the stick, which is also moved in the case, so that the work of locating the cars is always being done, & the car accountant can at any time say where the equipment is. This can not be done from the book record without a great deal of labor. It may be claimed that a clerk cannot record as many movements of cars by the graphic car record system as by the book system, but a prominent car accountant who adopted

this system 4 years ago states that one of his clerks records 1,200 movements daily, which is more than can be claimed for the book record.

There are many benefits to be derived from the graphic car record system, one of which is, that cars delayed on a division where cars are required can be traced without interfering with the clerk recording the movements of the cars in that particular case; for example, a road running from Chicago to California may, at certain seasons of the year, require cars in California, while a large surplus of cars are on their tracks in the vicinity of Chicago; therefore, that part of the case in which the sticks represent the cars in Chicago territory is not interfered with, while the tracing for cars delayed on other divisions in the vicinity of where they are required is being done. This would be an utter impossibility with the book record. Another good point of the graphic system is that the movements made by 1 car during 8 or 10 months & sometimes during 18 months may be entered on one paper. This overcomes the principal objection to the book record, which necessitates bringing forward the movements from one month to another at the expense of a great deal of time & clerical labor.

The Grand Trunk's New Rules.

As announced in our May issue, pg. 68, it was decided that the new rules of the G.T.R. Transportation Department would be put into effect on July 1. These rules are practically the standard code of the American Ry. Association, & have been printed & distributed to the employees. Directly the announcement was made, objection was raised, not by any considerable body of the men, but by the few agitators who are always looking for trouble, certain members of Parliament were loaded up with the idea that startling & unprecedented innovations were to be made, that the System was to be Americanised, & that the management was attempting an unwarranted departure from what was spoken of as a tried & satisfactory system. Member after member got up in the House & spoke in this strain, & though the rules had received the assent of the Governor-in-Council, not even the Premier or the Minister of Railways seemed to understand the question, or to be able to justify the Government in agreeing to the changes.

No one would go further than we would in condemning any attempt to "Americanise" the G.T.R. system, if that meant the displacement of competent Canadians, & the employment of United Statesers in their places, & while there may be ground for discussion of the policy of the present G. T. R. management on that score, the matter under consideration does not involve anything of the sort. The standard code of the American Ry. Association is not in any sense a new thing; it is the result of years of study by the most competent operating officials in America; it is in use on over 170,000 miles of railway in the United States; it is already in force on at least two railways operating in Canada, the St. Lawrence & Adirondack & the Northern Pacific, & we believe it is of the utmost importance that it should be put in force on every other railway in Canada with as little delay as possible, specially on those lines which run into the U.S. The standard rules of the American Association are now undergoing revision by a committee of which T. Tait, Manager of the C. P. R. Eastern Lines, is a member. As soon as this revision has been completed, it is probable the rules will be put in force on all the C.P.R. lines.

While thoroughly in accord with the policy of putting the standard rules in force, it seems to us that the G.T.R. operating officials were perhaps in a little too great a hurry, & that they would have done better had they not at-

tempted to work under the changed rules almost immediately after having them printed or distributed. Two or even three months delay would have made but little difference, & it would have given the men a better opportunity to post themselves. This has since been realized by the officials, the result being that the coming into operation of the new rules has been postponed from July 1 until a date hereafter to be determined. In the meantime each employe required to be familiar with the rules, has been notified to study them carefully, to embrace every opportunity to attend the schools of instruction at the several terminals, & to spare no effort to familiarize himself with the rules, so that he will be prepared for the examination which he must pass satisfactorily before the rules become effective.

In speaking of the new rules recently, a G.T.R. operating official said that the present system in use on that line was not only different from that employed in the U.S., but was not uniform throughout the G.T.R. system. In the matter of train orders, he said, the method of despatching a train differs on three branches of the system. On the Great Western branch the duplicate telegraph order was employed; on the Grand Trunk proper the red & white rear flag & lamp signals were used; while on the Northern the old "Smith & Brown" system was adhered to that had been preserved from the days of pioneer rail-roading. Under the "Smith & Brown" system, trains were named after the conductor who had charge of them, instead of by numbers. The new train order system, which has been adopted from the American Ry. Association, provides absolute security to passengers, as the engineers & conductors on each train are provided with a copy of the running orders issued, which is a much better method than trusting to an engineer to stand still until the despatcher gives him orders to move.

The difference between the rules in vogue in Canada & in the U.S. was a great source of inconvenience to the G.T. management. A Canadian train crew could not pass over Suspension Bridge & take a train into the yards on the U.S. side, because they did not understand the signals. The G.T., therefore, had to keep a crew of men on the Canadian side who understood the American rules, & placed them in charge of every train crossing the line. The same state of affairs existed at Fort Erie, though on the C. & G. T. the Canadian rules are in force.

It is confessed that the alteration in the hand-lamp signalling is most material, but the G.T. official said the change would have to be made some time, & the men had better learn the new procedure. In this department of signalling the American code has superseded the Canadian.

The objection taken by the men, that the signal to be given from the top of a freight train to let the engineer know it has parted involves danger in its execution, is flatly contradicted by the official, who says the signal was specially contrived that it might be executed while sitting down, in which position a brakeman is safe from being pitched to the ground.

The new rule no. 36 has been the chief cause of complaint among the dissatisfied men. It refers to brakemen & conductors in charge of freight trains, & says: "They must ride on top of the trains as much as possible where they can apply the brakes, if necessary, & see that their brakemen do their duty; they must require all of their brakemen to be on top of the train at least one-half mile before arriving at & while passing all stations & stopping places, descending or ascending grades, or at any point or time when extra precaution is necessary to ensure safety." This rule, said the official, merely requires of brakemen & conductors to do their duty. They cannot attend to their train while lounging in the cab

or the caboose, & so long as brake-handlers are on the roofs of cars, men must get out in the cold to twist them up. A sarcastic official remarked that when the Co. introduced air brakes on its freight cars it would not trouble the brakemen any longer.

In conclusion, the official stated that he thought the dissatisfied employees were most dull not to see that if they become acquainted with & used to working under the American Railway Association rules they would have a new field of enterprise open to them.

The C. P. R. trains using the G. T. R. tracks between Hamilton & Toronto will have to be run under the standard code of the American Ry. Association as soon as it goes into force on the G.T.R.

Train Signal Lamps.

The change in train signal lamps, which the principal Canadian railways are adopting in order to conform to the standard code of the American Railway Association, requires 2 tail lamps to be carried at rear end of all trains, held in brackets which fit into slots in corner of cars; these lamps are fitted with 4 lenses, 1 red, 2 green, & 1 white.

The code requires that 2 red lights shall be shown to rear when trains are running, showing green to side & green to driver; & when train runs into siding to allow a following train to pass, the lamps require to be turned in the brackets, showing 2 green lights to rear, green to side & white to driver. This change, from green to white, indicates to driver that rear end of train is standing clear of main line, & when driver of train following sees 2 green lights he knows train ahead is standing on siding clear of main line. After following train has passed, & driver of side-tracked train wishes to pull out, he can see from cab whether he has proper running colors behind, as if train hands have not turned lamps showing red to rear, he still sees white lights & knows the rear end of his train is not protected.

The code also requires that 2 engine signal lamps be carried, 1 on each side of boiler of engine, which are constructed so as to be changeable from green to white, or white to green; lights show forward & to side. When a train is run in 2 or more sections, all running on the same schedule time, the forward sections require to show green lights to side & ahead, indicating that a train is following running on the same schedule time & entitled to the same time-table rights as the train carrying the signals. An extra or special train is required to carry white lights on each side of boiler, showing white to side & ahead.

Noah L. Piper & Son, of Toronto, have invented both combination tail & engine signal lamps which conform to the rules exactly, & large orders have been placed with them by the C.P.R. & other roads. In their engine signal lamps the color can be changed from green to white or white to green, by simply lowering or raising the slides containing the colored glass.

The C.P.R. have also adopted a cupola lamp (also invented by Noah L. Piper & Son) which is placed on the top of the cupola of freight vans. This lamp is fitted with 6 in. lenses, & by an ingenious contrivance the colors can be changed to suit whichever way the van is running, showing red behind & green to driver when train is running, & when in on siding, green behind & white to driver. Freight trains carry one of these lamps on the van in addition to regulation tail lamps, & by this arrangement of lights the rear end of a freight train is readily distinguished from a passenger train, & indicates to driver when leaving yard that he has his complete train, as this lamp being on the top of cupola it can be always seen from cab, even when tail lamps could not, owing to train being in between 2 sidings full of box cars.

The C.P.R. Mountain Division.

In a recent interview Supt. Duchesney, who has charge of the Mountain Division of the C.P.R. at Donald, said: "I expect a few heavy slides to come down as soon as the hot weather begins. But we have arranged to avoid some of the worst of them this year, & I have a big stock of powder on hand to handle them with. I would rather fight the snow-slides now than the floods later on. The traffic has so increased that it will not stand much delay. Our daily average on the main line over the division between Donald & Kamloops is 180 full cars of freight, to say nothing of our own freight, rock, timber & supplies of all kinds & the passenger trains. During one 24 hours last week 260 full cars passed over the main line of the division. We have just received some fine new engines from Montreal, & expect 8 or 10 more for the mountain work. I am not in a position to say whether or not the workshops will be removed from Donald to Revelstoke this season. The matter was shelved in the spring, but will be decided pretty soon, & I am likely to hear at any time. In my opinion, the shops should be at Revelstoke, which is the most central point from which to handle the mountain division."

The Intercolonial Porters.

In the House of Commons, June 4, E. F. Clarke, M.P., brought up again the subject of the alleged displacement of colored porters in the sleeping car service of the Intercolonial Ry. He read a letter from C. T. Dixon, now of Toronto, saying that out of 6 colored porters, of whom he was one, who were formerly employed on the road, none were at present employed in the same capacity & only 3 in any capacity at all. Dixon charged there had been an attempt to draw the color line, as he said the men were summarily dismissed without any complaint against them. The Minister of Railways said he had no further information on the subject since receiving the letter of Superintendent Archibald, of the sleeping car service. Accompanying that was one from General Manager Pottinger, who said there were then more colored men in the employ of the I.C.R. than for some time previously. The Minister assured the house there was no disposition at all to draw the color line, & that when the service was reorganized for the summer travel, if there was any foundation for a complaint, there would be an opportunity to rectify it. He promised the matter would receive his attention.

The Montreal & Ottawa Ry., extending from Ottawa to Vaudreuil, which is expected to be opened for traffic some time in July, will become part of the C.P.R.'s Eastern Division, under the immediate jurisdiction of Superintendent H. B. Spencer, at Ottawa. At present the completed portion of the line between Vaudreuil & Plantagenet is attached

to the Ontario & Quebec Division. It is not the intention to run the Atlantic & Pacific trans-continental express trains over the new line, & they will continue to run between Montreal & Ottawa via Calumet. (Official.)

C.P.R. Cheques.—A general circular has been issued by the C.P.R. to merchants, storekeepers & dealers along its lines, giving a list of banks which have arranged to cash the Co's paymasters' wages cheques without charge. Practically every chartered bank will take them; & the circular says: "Merchants & others can safely accept these cheques from employes on the same terms as the banks, and it is hoped that those doing business along the line will aid the Co. in facilitating the negotiation of these cheques, without charge."

CONSTRUCTION & BETTERMENT.

The Cassiar Central Railway.

This Co. has decided to make Glenora, B.C., the starting point of its line which is to connect the Stikine River with Dease Lake. It is said Glenora has exceptionally good facilities for landing passengers & freight, & that it affords the Co. the best point to start from in order to ascend by slow degrees & easy gradients the high bench lands to the north towards Dease Lake. The Co. has erected warehouses & offices there & it is its intention to commence the erection of a wharf almost immediately. The railway work will be commenced at a very early date. In a recent interview, in the Vancouver World, the Manager of the Co., H. Hirschell Cohen, whose headquarters are at Victoria, B.C., said:—"We have sent in prospectors, assayers with a complete plant, surveyors, etc. The General Manager in Cassiar is E. D. Sell, who was formerly in the service of the Transvaal Gold Fields, Ltd., at Johannesburg, & that Co., which has large interests in the Cassiar Central, sent him from Johannesburg to B.C. expressly to exploit the Cassiar district. The interior headquarters have been established at Dease Lake, which will be the end of the railway line, & the Co's men are already dispersed over the country engaged in prospecting & mining work. The Co. has sent, & will continue to send, large supplies of stores to Glenora in order to give prospectors who will winter in the Cassiar every facility as well as to provide food for its own men, who will continue to work on through the winter months developing its properties. The Co's operations will naturally conduce to a very large increase of mining enterprises, since it will be its policy to assist the development of the mining resources of the country, not only inside the immediate limits affected by the charter, but also the enormous area which must find an outlet along our railway. It will maintain, however, one starting point for supplies, & in view of this & the prospect of controlling there so many separate concerns in the country, a central distributing point

Ambrose Kent & Sons

Manufacturing Jewellers,
156 Yonge St., Toronto.



We have been appointed official
watch inspectors to the Grand Trunk
Railway for Toronto and York.

INSURE IN

The Canadian Railway Accident Insurance Co.

OTTAWA, ONT. A PURELY CANADIAN CO.

Authorized Capital - - \$500,000.
Subscribed Capital - - \$175,000.

J. W. McRAE, President.
HON. E. H. BRONSON, Treasurer.
JOHN EMO, General Manager.
JOHN P. DICKSON, Secretary.

We make a specialty of Railroad Employees Insurance, also issue all classes of personal accident insurance. Policies containing all the latest and up-to-date features at rates as low as consistent with safety.

HEAD OFFICE:
26 Wellington St., Ottawa, Ont.

became absolutely necessary. This point the Co. has decided shall be at Glenora.

"The road, according to the preliminary survey, will be 99 miles long. It will be narrow gauge & we hope to have 50 or 60 miles of it completed in the next 12 months—you can safely say before August, 1899. Probably the whole of it will be done by that time. By connecting the Stikine with Dease Lake by a railway, we connect the waterway of the Stikine, 133 miles, with further navigable water on Dease Lake, Dease River & the Liard, Pelly & Frances Rivers. The railway commends itself by passing through an attractive, but virtually unexplored territory, which, it is believed, will be found to be rich in minerals, &, therefore, we expect to be in the best position to command the trade of the northwest country between Klondike & the Mackenzie River, whereas, the lines from Dyea & Skaguay will, if built, tap only a narrow strip between Dawson City & the coast.

"The country is perfectly open to everyone, & the Co. is only too ready to afford every prospector all facilities for following his calling in the Cassiar. The Co. has made no designations whatever at the present time. By the charter we have 700,000 acres in the country when we choose to designate, but we haven't yet designated, &, therefore, have acquired no rights, & the whole country is still open to everyone, & even when we do designate, prior rights have always to be respected & awarded. Statements to the contrary have been made by people ignorant of the Co.'s charter, & actually of the benefit the Co. will be to miners & prospectors generally. I may say that I am very confident that within 18 months from now we shall afford employment to between 1,000 & 2,000 men in the Cassiar country.

"Among the principal financial supporters of the Co. are: The Transvaal Goldfields Co. of London & Johannesburg; L. Neuman, of A. L. Hirsch & Co.; G. Imroth, & L. Ebrlich, of London; Compagnie Commerciale General de Paris, London, & many other well-known African companies."

Work on C.P.R. Lines.

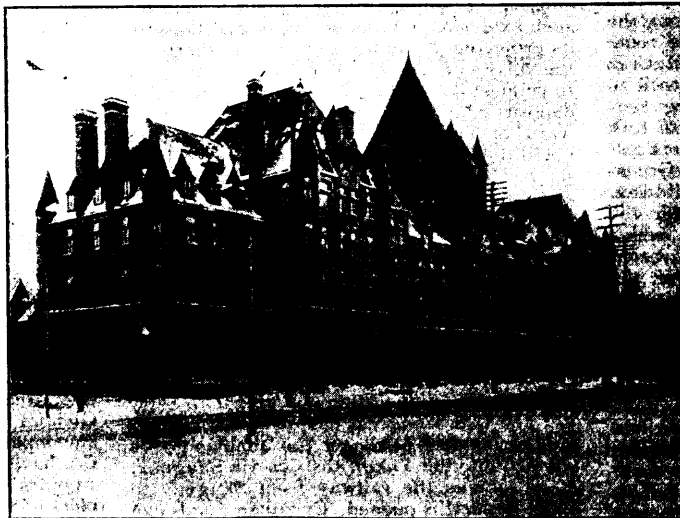
Atlantic Division.—The Co. has under way the work of ballasting to extend over 100 miles of the main line between St. John, N.B., & Megantic, fully completing the same in every particular; also the laying down of 53 additional miles of 73 lb. steel rails on the same portion of the line, which will almost complete the changing of the 56 lb. rails. It is also expected to add some 5 miles of sidings & yard extensions to facilitate the handling of the winter steamship traffic, & the elevator capacity at West St. John is to be increased to 1,000,000 bushels.

Considerable filling of trestles & erection of masonry & steel in place of wooden structures is being done, a list of which would occupy too much space; suffice it to say, there will not remain a wooden bridge or trestle of any importance on the whole of the line between St. John & Megantic when the season's operations are concluded. These works, more or less, extend to all parts of the Atlantic Division, but the particular portion upon which heavy expenditures are being made is between St. John & Megantic, over which passes the increasing winter port steamship traffic, of which a very large increase is expected next winter through the port of St. John. (Official.)

Viger Square Station, Montreal.—This magnificent building, which also contains a terminal hotel, is rapidly approaching completion & it is expected that both the station & hotel will be ready for opening in August. A view of the Craig St. front of the building, facing Viger Square, is given on this page.

Windsor St. Station, Montreal.—It has been well known for some time that this station is very inadequate for the amount of business centering there, & it is said it has practically been decided to build an addition entailing an outlay of \$250,000, or possibly more. The extension will be west on Osborne street & will make the building just twice its present size. It will be built of precisely the same material, & in the same style, & when finished will make one of the most complete & up-to-date railway offices & station on this continent. When questioned on the subject Vice-President Shaughnessy said: "The project will finally be carried out, but at present no details can be given."

Galt Bridge.—The masonry contract for the improvements to the bridge at Galt, Ont., has been let to E. Chalmers, of Owen Sound. It amounts to about \$20,000.



C.P.R. STATION AND HOTEL, VIGER SQUARE, MONTREAL.

Branch from Hartney.—At the last session of the Manitoba Legislature aid was given to the Northern Pacific to the extent of \$1,750 a mile & a further bonus of \$20,000 towards building a branch from Belmont to Hartney. And now so important & valuable is this part of the country, & the traffic from it being looked upon as worth having, that the C.P.R. is also reaching out to it, & will build a spur line from Hartney, running easterly, for about 20 miles. This line is only a few miles north of the N.P. extension & parallels it for that distance. (Unofficial.)

Winnipeg Station.—Owing to the enormous increase in the C.P.R. traffic the advisability of increasing the size of this station has been under consideration for some time past. It is said plans have been prepared for a 100 ft. extension eastward of the present building.

Western Division.—In speaking of his recent inspection of this Division, Vice-President Shaughnessy says: "Everything is in first-class shape. The improvements have been continual for some time past, & we propose to spend a large sum during the next few months in the construction of additional sidings to facilitate the quicker passage of traffic. The question of a double track between Winnipeg & Fort William has not yet been decided, but all the improvements east of Winnipeg are constructed in a manner to

be suitable for a double track whenever we consider the traffic is sufficiently large in volume to warrant the expenditure for such work."

Calgary Workshops.—The town of Calgary, Alberta, has granted a bonus of \$25,000, in return for which the C.P.R. will expend there as follows, exclusive of cost of tools & machinery: Round-house; \$50,000; coal pockets, pump-house, track & ash-pits, \$8,000; tracks, from \$25,000 to \$30,000. The Co. agrees to maintain its repair shops, division points, &c., there for 25 years, or to forfeit \$1,000 a year.

Crow's Nest Pass Branch.—Up to June 15 track had been laid to 118 miles west of Lethbridge. Vice-President Shaughnessy recently went over the whole route of the line from Lethbridge to Kootenay Lake, & expressed himself as well satisfied with the progress that has been made. He expected last summer that by the first of this year the road would be completed over the summit of the Rockies, but owing to the difficulties experienced on account of the inclement weather it was found impossible to accomplish as much as was desired. However, the grading was progressing very well, & he had no reason to feel disappointed on that score. The grading had been well advanced to Kootenay Lake, the present terminus, which will be reached with the track this year. Two years is the time which the Co. has to complete the road to Nelson, & the work will be finished well within that time, although there are many difficulties to be overcome which will require a high degree of engineering skill.

The highest point on the branch is at a point about 1½ miles east of Bull Head Prairie, where the road reaches an altitude of 4,330 ft. above sea level. Crow's Nest Mountain is 8,800 ft. above sea level.

A Western M.P. recently mentioned in the House of Commons the rumor that the C.P.R. intended not to build the last 50 miles of the Crow's Nest Pass Ry., from the crossing of Kootenay River along the west side of Kootenay Lake & on to Nelson, & that a steamboat service would be substituted for it. The Minister of Railways pointed out that the steamboat service was provided for in the contract, pending the completion of the line west of Goat Hill Landing, to which point the rails are to be laid this season. It is almost needless to add that there is not the slightest intention of shirking the construction of the western end of the line, which the Co. requires to give it through connection with its Columbia & Kootenay & Robson & Rosland branches, & with the extension of the Boundary Creek district, & on to the foot of Okanagan Lake.

The C.P.R. proposes to build a reservoir 2 1-3 miles southeast of Cranbrook at an elevation of 270 feet above the town-site, as a means of providing the town with a water supply. The reservoir will have a storage capacity of 1,200,000 gallons of water, affording a sufficient supply for a city of 10,000 inhabitants.

Columbia & Western Ry.—Superintendent Gutelius has been instructed to proceed with the widening of the gauge of this line between Rosland & Trail, on the completion of which the train service between Rosland & Robson will be greatly improved.

When appearing before the Railway Committee at Ottawa last session in opposition to D. C. Corbin's application for a charter to

enable him to build into the Boundary Creek district of B.C., Vice-President Shaughnessy pledged himself that if the application was refused the C.P.R. Co. would build in there this year. This pledge has been promptly redeemed, the Co. having already let a contract for about 100 miles of line from the Columbia River at Robson to Midway on Kettle River, the route being shown on the map of the Kootenay District presented with this issue. The contract has been given on schedule prices to a syndicate composed of McKenzie & Mann, of Toronto & Montreal; Foley Bros., of St. Paul, Minn., who have been contracting on the Crow's Nest line; & P. Larson, of Larson & Conelly, one of the largest firms of railway contractors in the west. The work is to be completed by the end of the year. W. F. Tye, C.E., will have charge of the work for the C.P.R.

It is believed that the cost of the 100 miles will average \$30,000, an aggregate of \$3,000,000. The construction of the line from Robson to Christina Lake will require engineering skill of a high order. McCrae Pass, which is 13 miles in length, is even more difficult than the C.P.R. pass in the Rocky Mountains. There will be a number of tunnels & numerous bridges & every mile will represent a vast outlay. From Robson the line will run along the Columbia River to Dog Creek. The route from there on is up Dog Creek to McCrea Creek Pass, thence down McCrea Creek to Christina Lake to Cascada City; along Kettle River to Grand Forks; up the north fork & Brown's Creek to Eholt Pass; down Eholt Creek to Boundary Creek, & through Greenwood, Anaconda & Boundary Falls to Midway.

The construction will be done under the charter of the Columbia & Western Ry., which is the property of the C.P.R. By a recent arrangement with the B.C. Government, the C. & W. Co. surrendered its right to a land grant of 20,000 acres, accepting in lieu of it a cash subsidy of \$4,000 a mile.

In a recent interview Vice-President Shaughnessy, in reply to several questions regarding the railway situation in the Boundary Creek country & Mr. Corbin's desire to build into that region, said in substance that he did not know of any arrangement that had been or would likely be made between the C.P.R. & Mr. Corbin by which the latter would use the C.P.R. tracks along the Kettle River as far as Midway, nor did he know of the reported deal in which the C.P.R. would gain an entrance to Spokane over the Spokane Falls & Northern tracks on a basis advantageous to the Canadian route. He remarked that to have granted to Mr. Corbin a railway charter along the Kettle River valley would have been a terrible mistake on the part of Parliament. Had Mr. Corbin been given the right to build this line, he said, the ores of the Boundary Creek country would, to a great extent, have been smelted at Northport instead of on this side of the international boundary.

The total distance between Robson & Penticton, at the foot of Okanagan Lake, is estimated at 216 miles. From Midway to Penticton it is expected a line will be built under the charter of the Vancouver, Victoria & Eastern, which is controlled by McKenzie & Mann.

Colossal Expenditure.—In a recent interview Vice-President Shaughnessy stated that the work the Co. is now carrying out in the West will involve an expenditure of at least \$25,000,000, of which \$15,000,000 has already been provided for, & the remaining \$10,000,000 will be provided as soon as it is required.

H. W. Van Every has been appointed agent for the Ogdensburg & Lake Champlain Ry., with headquarters at Toronto.

H. D. Annable has been appointed Traveling Agent of the C.P.R. at Montreal, succeeding J. E. Millward, deceased.

Construction & Betterment Notes.

Atlantic & Lake Superior.—This line is now in operation between Metapedia Station, on the Intercolonial, & New Carlisle, 98 miles. The eastern terminus will be Gaspé Basin, 80 miles from New Carlisle, & it is expected to build 20 miles or more of 1st-class road in that direction this year. The country in that region is more beautiful than any person who has not seen it has any idea of. The Co. has purchased from the C.P.R. the line between Sorel & Yamaska, including the bridge over Yamaska River, & acquires the Government subsidy of \$50,000 for the reconstruction of the bridge. This purchased line will form a part of the A. & L. S. Co.'s line between Montreal & Lévis, the proposed termini between Montreal & Gaspé, the Co. having by its charter power to acquire running rights over the I.C.R. between Lévis & Metapedia. Considerable work was done on the Montreal-Lévis line last autumn, & the Co. announces its intention of resuming work very soon, so as to construct the line as far as Lévis this year. (Official.)

Bay of Quinte.—At the last session of the Ontario Legislature this Co. was voted a subsidy of \$90,000, being \$3,000 a mile for such extension or branches of, or additions to, its projected & authorized line northerly of the village of Tweed as will enable the Co. to connect its existing line with the iron ore deposits or other mineral lands lying northward of Tweed, in renewal of the amount voted the K. N. & W. Ry. in 1893. We have so far been unable to ascertain anything as to the intentions of the Co. in regard to this work.

British Yukon.—Chrysler & Bethune, Ottawa, solicitors for this Co., make this announcement:—"The Co. is actively engaged in the construction of its railway from Skaguay through the White Pass to Lake Bennett & onward to Fort Selkirk. The portion of the line between Skaguay & Lake Bennett will be completed & in operation not later than Sept. 1. The U.S. Congress has passed a law extending bonding privileges to Canadian goods shipped into the Yukon district via Skaguay, & as soon as the railway from Skaguay to Lake Bennett is opened, Canadian goods can be shipped through in bond without payment of U.S. duties. Shippers & travellers may rely upon this route being opened as stated."

Steamers arriving at Vancouver & Victoria during the 1st week of June reported that when they left Skaguay work was in full swing on this line, some 700 men & 300 horses being employed. The men were getting \$3 a day, paying \$1 for board, & the Co.'s officials stated that 1,000 would be put on if they could be got.

It is said the charter of the British Yukon Co. has been secured by the Pacific & Arctic Rys. & Navigation Co., of West Virginia, & that the work above referred to is being done by it.

The British Yukon Mining, Trading & Transportation Co., sometimes called the Duke of Teck's Co., from the fact that his name is 1st on the list of incorporators, was incorporated by the Dominion Parliament in 1897. In addition to extensive powers as to mining, trading, & operating vessels, the Co. is authorised to build & operate a railway of any gauge it may elect from a point in B.C. or in the N.W.T., near the north-western or western boundary of B.C., between 134° & 136° west longitude, near the head of the Lynn Canal, or at some point in a n.e. direction therefrom, across the White Pass, thence northerly & westerly to Fort Selkirk. The Co.'s capital stock is £1,000,000 sterling.

Canada Atlantic.—President Booth visited Quebec recently & had a conference with President Garneau & Manager Scott of the Great Northern with reference to pushing

work on the latter road so as to give the Canada Atlantic connection with Quebec city.

The Canada Eastern has built a commodious wharf at Marysville, N.B., the old one being out of date.

Canadian Yukon.—In our May issue information was given of a contract having been made between the B.C. Government & Mackenzie & Mann for the construction of a line from an ocean port in B.C. to Teslin Lake, the Province of B. C. giving a subsidy of \$1,600,000. It was also stated as probable that the Dominion Parliament would aid the work with a land grant & a postal subsidy. The Dominion Government, however, decided not to submit any proposition to Parliament, & at the end of May it was announced from Ottawa that Mackenzie & Mann had notified the B. C. Government of their intention to abandon the contract. On June 10 Faith Fenton sent a dispatch from Glenora to the Globe, stating that Mackenzie & Mann had stopped work & withdrawn their outfit. A meeting at Glenora passed resolutions urging the Dominion & B. C. Governments to aid Mackenzie & Mann to complete the wagon road from Glenora to Teslin Lake, 14 miles only of which have been built. The dispatch added that Mackenzie & Mann had ceased giving the men supplies, & that the situation was critical. D. D. Mann reached Victoria June 9 to confer with the B. C. Government, but no announcement of the result has been made.

The Hudson's Bay Co. with its unending enterprise is putting a pack train of from 200 to 300 horses on the trail between Glenora & Teslin Lake.

The Supplementary Dominion Estimates provide \$5,000 towards defraying the expenses of an exploratory survey to ascertain the most practicable route for an all-Canadian railway from some point on an existing railway into the Klondike district.

The Stikine River Journal, Fort Wrangel, of June 4, says, on the authority of J. H. Russell, who has built a brewery & hotel at Glenora:—"There are about 2,000 persons encamped at Glenora. McKenzie, Mann & Co. have 250 men at work on the wagon road 12 miles out of Glenora. It was to be completed to the summit by June 4. Neil Keith, Superintendent of Construction, told Mr. Russell the road would be completed to Lake Teslin by July 4. People are already packing over the trail from Glenora to Lake Teslin. At Glenora McKenzie, Mann & Co. have 4 warehouses 50 x 100 ft. stored full & 3 at Shakesville. They had cleared, when Mr. Russell left, about 7 miles of the right of way out of Glenora, & have some 200 men at work on it all the time."

Central Ontario.—This line runs from Picton to Coe Hill, Ont., 104 miles. At the recent annual meeting it was decided to extend it 18½ miles, from Coe Hill to Bancroft, but no definite decision has been come to as to when this will be done. It is quite likely that a preliminary survey, & possibly a location, will be made this summer, but no further work will be done until next season at earliest, when it is possible that construction will take place. (Official.)

Great Northern.—The title of this line is really a misnomer. It belonged to roads chartered to run north, but which have been diverted into another channel, the chartered name not having been changed. The charter (Dominion, 1892,) authorized the construction of a line from Hawkesbury, Ont., including a bridge over the Ottawa River, near that point, to a point on the Quebec & Lake St. John Ry., in the vicinity of Quebec city, a distance of about 226 miles, 55 of which have been completed & accepted by the Dominion & Provincial Governments. For the present it is intended to build only 73 additional, as that mileage will suffice, by utilizing 58 miles

of the Q. & L. St. J. & 40 miles of the Lower Laurentian, to make the required connection between Quebec & Hawkesbury, where the line will connect with the Canada Atlantic for Ottawa & Parry Sound. These several links will form a new trunk line, 553 miles in length, between Quebec & Parry Sound, made up as follows:

The Q. & L. St. J. Ry. runs for the 1st 58 miles from Quebec in a nearly westerly direction to Rivière à Pierre Jct., 58 miles.

From Rivière à Pierre westward, the Lower Laurentian Ry. is completed to St. Tite, near the River St. Maurice, & the G.N. thence to Shawanegan, 50 miles.

A link is being constructed from Shawanegan to Montcalm, near Joliette, about 53 miles.

From Montcalm to St. Jérôme, the G.N. Ry. is built 28 miles.

A link will have to be built from St. Jérôme to Grenville on the River Ottawa, & a bridge over that river to Hawkesbury, where a very favorable location has been surveyed, 35 miles.

From Hawkesbury, the Canada Atlantic Ry. is built to Ottawa, 84 miles.

From Ottawa, the Ottawa, Arnprior & Parry Sound Ry. is built to Parry Sound, 265 miles.

This gives a total mileage of 578 miles, which it is proposed to reduce later on to 553 miles by building two short links, one between Lake Simon & the Batiscan River, the other to shorten the mileage between Hawkesbury & Ottawa. (Official.)

We are unable to give any particulars at present as to the progress of construction on this line, but some reference to it will be found in the report of the annual meeting of the Q. & L. St. J. Ry., on pg. 86 of this issue.

This Co. has asked the city of Quebec for \$200,000 30-year 3½% debenture bonds, of which \$50,000 is to be used for the Hawkesbury bridge, \$50,000 for workshops in Quebec, & \$100,000 for completing the line. The City Council has decided to ask authority from the Legislature to subscribe to \$200,000 capital stock of the Co., payable only upon completion of the line, so as to form a through route from Quebec to Parry Sound & the building of the workshops in the city.

Iroindale, Ottawa & Bancroft.—This line is projected to run from a junction on the G.T.R.'s Lindsay-Haliburton branch easterly to Brockville. At present it is completed & in operation from the G.T.R. Jct. to Baptiste, near Bancroft, 45 miles. At the last session of the Ontario Legislature it was voted a bonus of \$30,000, being \$3,000 a mile for a 10-mile extension from a point 45 miles from Iroindale, at the end of the portion to which aid was granted in 1896, & thence easterly. It is not expected that any work will be done on the extension this year. (Official.)

Intercolonial.—The contract for the deep water terminus at North Sydney has been let to M. J. Ross & J. B. McManus, of North Sydney. The work consists of grading & laying about ½ a mile of track from the station to the wharf & on the wharf, the building of a new wharf & retaining crib work & filling in between the crib work & the old wharf. (Official.)

The I.C.R. station at Moncton, N.B., now approaching completion, is a handsome building of buff brick, with red sandstone trimmings. The interior is finished in B.C. cedar & Douglas fir. The lower ceilings are of wood, the walls being wainscotted the whole height to the ceiling with panels. The extreme length is 195 ft., width 47 ft. The ground floor has the following accommodation: Express office, 39½ x 9 ft.; refreshment room, 26 x 34 ft.; ladies' waiting room, 30 x 33 ft.; ladies' parlor, 17½ x 22 ft.; ladies' lavatories; vestibule, 14¾ x 21¾ ft.; ticket office, 7½ x 21½ ft.; agent's office, 6½ x 14½ ft.; parcels, 10½ x 10½ ft.; men's waiting room,

30 x 33 ft.; smoking room, 17½ x 22 ft.; men's lavatories, mail & baggage, 32 x 34 ft. On the first floor is accommodation for Trackmaster, W. U. Telegraph Co., Train Dispatcher, trainmen, etc. The plans were made under the direction of the ex-Chief Engineer P. S. Archibald, in 1896, the contract being carried out by Rhodes, Curry & Co., of Amherst, N.S.

Lake Erie & Detroit River.—Two by-laws to aid the proposed extension of this line from Rridgetown to St. Thomas have been defeated. As mentioned in our last issue on May 11, the ratepayers of Dutton defeated a \$5,000 by-law, & on May 27 a \$20,000 by-law was defeated by St. Thomas ratepayers.

The L. E. & D. Ry. slip dock at Port Stanley is expected to be completed by Aug. 1. The Shenango line of car ferries will operate between Port Stanley & Cleveland, Ohio. The ferries have a capacity of 28 loaded cars.

Lake Manitoba Ry. & Canal Co.—Work on the extension from Sifton to the Saskatchewan River is under way in charge of R. J. McKenzie. A yard has been laid out at Sifton. It is expected about 80 miles will be built this year & the balance of 60 miles next year. Contractor Buchanan brought in his outfit from the Crow's Nest Pass & is at work on this line.

Michigan Central.—A press statement that the main line of the Canada Southern between Essex & Taylor, 65 miles, would be double-tracked this season would appear to be without foundation; at least, Division Superintendent Morford, at St. Thomas, informs he had not heard of it. Of the 226 miles between Windsor & Suspension Bridge, N.Y., 93.6 miles have double-track, viz: Windsor to Essex, 16 miles; Dutton to Springfield, 32.1 miles; & Cayuga to Suspension Bridge, N.Y., 45.5 miles. (Official.)

Midland of Nova Scotia.—Location surveys are in progress for this line from Windsor east 60 miles via Kennetcook River to Truro. The contract for building has been let to W. G. Reid, of Montreal, who has sublet in part to Fitzpatrick Bros. The work is not difficult. There will be a bridge on the Subenacadie River, expected to cost between \$60,000 & \$100,000. Bids have been asked for equipment. The road is to be completed Sep. 9. It will furnish an air line from Sydney to Boston, & will pass through a fertile & populous country which should afford much local traffic.

Musquodoboit.—At the last session of the Nova Scotia Legislature a charter was granted for a railway from the Musquodoboit Valley to some point on the I.C.R. It is proposed for the road to run from Parker's Corner to Windsor, about 40 miles. A survey is now in progress under W. Yorston, C.E. (Unofficial.)

Nelson & Bedlington.—Surveys are reported to have been commenced for this line from Bonner's Ferry, Idaho, on the Northern Pacific, north through the valley of the Kootenay River to Kootenay Lake, B.C., a distance of 52 miles. N. D. Miller, Chief Engineer, Nelson, B.C.

New York & Ottawa.—As mentioned in our May issue, pg. 68, track was laid last fall for 53 miles between Cornwall & the junction of the Canada Atlantic, at Hawthorne, about 5 miles from Ottawa, & ballasting is being pushed ahead. On May 30, the Railway Committee of the Privy Council granted the Co. permission to cross the Canada Atlantic tracks at grade, near Hawthorne, where connection will be made with the Montreal & Ottawa Ry. (C.P.R.) over the tracks & new Rideau Bridge of which Co. the N.Y. & O. will run as far as the deep cut, from which point the Canada Atlantic tracks will be used into that Co.'s station at the Canal Basin in Ottawa. The application for a grade crossing was opposed by the Canada Atlantic, on the

ground that the large and increasing traffic of its line at that suburban point would render a level crossing dangerous. It asked that the applicant be compelled to make an overhead crossing. The Deputy Minister of Railways examined the site, reporting in favor of a level crossing, which the Committee ordered, stipulating that the N. Y. & O. should put in the best possible equipment, maintain signals, &c., & pay the cost of the application, some \$500.

The St. Lawrence Bridge at Cornwall is being pushed with all possible speed. It will be 842 ft. long over the north channel & 1,110 ft. over the south channel, crossing from a point about a mile above the town of Cornwall to Cornwall Island & from the south side of the Island to the U.S. shore.

Northern Pacific.—J. R. McArthur, contractor for the 50 mile branch from Belmont to Hartney, Man., commenced grading June 13, & expects to complete it by the middle of October. The Ry. Co. supplies the ties & rails. G. A. Simpson, C.E., is in charge of the work for the Co., & D. D. McArthur, the contractor's brother, is manager for him.

Ottawa Central Station.—The C.P.R. & New York & Ottawa Ry. have secured permission to use the Dominion Government land leased to the Canada Atlantic & Ottawa, Arnprior & Parry Sound Rys., & also the Central Station at the canal basin. The application of the C.P.R. & N.Y. & O.R. was based on a claim to use the land as joint tenants with the C.A.R. & O., A. & P.S.R. These claims were argued at length, & the committee was asked to recognize the principles of their application & then the railways would get to work & settle the details of the agreement among themselves. The committee was also asked for an interim order allowing the two new railways the right to take possession, without prejudice to either party, pending the final settlement of the terms. On the other side it was claimed that Mr. Booth's roads should be treated as the primary tenants, who take all the risks of the lease, & that it was impossible to fix the terms, as it is not yet known what will be the character of the business done. The Minister of Railways announced that the claim of joint tenancy could not be entertained. Mr. Osler added that he hoped it would not hurt the dignity of the other roads to come in as Mr. Booth's tenants, to which Mr. Clark replied that it was dividends they wanted, not dignity. After considerable cross firing & persuasion on the part of Mr. Blair, Mr. Osler, on behalf of his client, stated that the C.A.R. would handle the trains of the 2 new roads. Mr. Blair urged him to name a rental pending a permanent agreement. This Mr. Osler did not appear inclined to do, but at length \$1,500 a month from each of the 2 roads was agreed upon. This arrangement is merely temporary, & if a less sum is agreed upon the difference will be refunded. The matter will come up again before the Railway Committee on September 6, when the Committee will fix the permanent rental, if the 3 lines interested do not come to an agreement in the meantime.

Pembroke Southern.—We have been unable to verify the press report that a contract for building this line from Pembroke to Golden Lake, Ont., has been entered into. We have written several letters to the Manager of the Co., but they have not elicited any reply.

St. Thomas, Ont., Union Station.—A press report that a movement is on foot to build a union station to accommodate the G.T., the Wabash, the C.P. & the Lake Erie & Detroit River Rys., is probably without foundation. A prominent C.P.R. official, who would be likely to know if such a thing was on foot, says there is nothing in it.

The Toronto, Hamilton & Buffalo & the C.P.R. are cramped for track room at Hunter St. station, Hamilton. Options have been obtained for the purchase of property on the

south side of Hunter street, between James & Catharine streets, & it is possible the station property will be extended. The matter has been under consideration by the T., H. & B. Board for some time. (Unofficial.)

Vancouver, Victoria & Eastern.—This line is projected to run from the Mainland coast of B.C. in the neighborhood of English Bluff, near Point Roberts, via Chilliwack, to Penticton, approximately 230 miles, thence to the Boundary Creek district, approximately 100 miles. The charter is controlled by McKenzie & Mann, & the B.C. Government has granted a cash bonus of \$4,000 a mile for the whole distance from the coast to Boundary Creek, where it will connect with the Columbia & Western, which the C.P.R. has just placed under contract, & thence with the Crow's Nest, thus affording a second through line from the Pacific Coast to the Prairies. It is believed that McKenzie & Mann have made arrangements with the B.C. Government which will ensure the immediate construction of the line from Penticton to Boundary & also a start on the work in other sections from the coast eastward. See C.P.R. map of Kootenay district presented with this issue.

Wabash.—A press item was recently published to the effect that this Co. was about to erect a repair shop at St. Thomas, Ont. Nothing definite has yet been decided on. (Official.)

Washington County. The C.P.R. is getting a connection at St. Stephen, N.B., with the Washington County Ry. This line, the contractors for which are the J. P. McDonald Co., Calais, Me., connects at Washington Jct. with the Maine Central, whence it runs to Calais, 102 miles. Seventeen miles from Calais it turns & runs to Eastport, 17 miles, making a total mileage of 119 miles. Connection is made with the C.P.R. at St. Stephen's, over the St. Stephen & Middleton branch, 4 miles in length, now under lease to the C.P.R., & a short piece of the St. Croix & Penobscot road from Calais about 2 miles west. (Official.)

It is said that the Washington County line is controlled by Russell Sage, of New York, who also controls the Shore Line from St. Stephen to St. John, N.B.

Winnipeg & Southeastern.—Work was commenced about the middle of May on the first 35 miles, between a point about three miles S.E. of St. Boniface, & St. Anne, which has been awarded to contractors Sinnott, Fisher & Strelvel. In places the country is said to be pretty wet owing to little or no drainage having been done, but the railway drains & culverts will make these spots rapidly disappear. R. J. McKenzie is in charge of construction, Mr. Bruce being the engineer. It is said property has been secured in St. Boniface for terminal purposes, & that a bridge may be built across the Red River between St. Boniface & Winnipeg. Surveys will be made during the summer between the end of the 80 miles to be built this season at White-mouth Lake & Lake of the Woods. As explained in our May issue, pg. 65, Whitemouth Lake is a common point from which the line can be continued about 25 miles across the narrows of the Lake of the Woods, or, if this route is found impracticable, it can be carried through Minnesota, which, however, would lengthen the distance about 35 miles. The decision of the Manitoba Government as to which route should be adopted is to be given by Jan. 1 next.

Grand Trunk Items.

The largest round-house on the system is to be built at the east end of the Sarnia tunnel.

The rumor that the Co. is about to double track its line between Hamilton & Niagara Falls is said to be without foundation. (Official.)

Work on the Victoria Jubilee Bridge at Montreal is proceeding very satisfactorily. Twelve of the 24 spans are in place & the rest should be up by the end of August.

The Montreal City Council's offer of a free site for the Co.'s general offices, consisting of 199 ft. on McGill St. & 135 ft. on St. Paul & William Sts. respectively, having been accepted, work will be gone on with as soon as possible. The Co. agrees to put up a building to cost not less than \$250,000, the assessment to be levied on that amount only for 20 years & the plans to be approved by the City Council. The arrangement will have to be ratified by the Legislature, but the Co. is willing to take an interim agreement from the city & start construction.

News of the Lines.

Cobourg, Northumberland & Pacific.—This Co. was incorporated in 1889 to construct a line from Cobourg Harbor, Ont., to the River Trent, to the Ont. & Quebec branch of the C.P.R., & to the mining regions of Marmora & Belmont. By subsequent legislation in 1891, 1892, & 1894 the charter was revived & powers given for extension to the mineral lands of Hastings County, & for leasing the line to the C.P.R. The Dominion Parliament has authorized assistance to the extent of \$3,200 a mile for 50 miles from Cobourg to Central Ontario Jct. on the C.P.R., with a further subsidy of 50% on cost in excess of \$15,000 a mile, the total subsidy not to exceed \$6,400 a mile. Municipalities on the route have voted their bonds for \$93,500. A contract has been made with the C.P.R. to lease the line, when completed, to that Co. for 999 years, the C.P.R. to provide rolling stock & equipment, pay rates & taxes, & pay the C. N. & P. R. Co. 40% of gross earnings. The C. N. & P. R. Co. has recently, through its contractor, C. H. Bower, issued on the London market £151,200 5% perpetual 1st mortgage debentures of £100 each at £102. Subscriptions were invited up to June 16, but at the time of writing (June 23) the result was not known here. Should the issue be successful, it is understood construction will be proceeded with at once. The directors of the Co. are R. Mulholland, Peterboro; W. J. Crossen & G. Guillet, Cobourg; J. B. Carlow, Township of Percy; E. Cochrane, M.P., & W. W. Armstrong, Campbellford. The Toronto General Trusts Co. is trustee for the debenture holders. Sir Douglas Fox, M.I.C.E., is Consulting Engineer in England, and F. Turner, C.E., Toronto, is Engineer to the Co. (Official.)

Grand Trunk.—In the case of E. P. Hannaford, ex-Chief Engineer of this Co., against the Co., for gravel & other material taken from his land at Blackwell for use in the construction of the Sarnia Tunnel connection in 1891, & which was heard at Sarnia Assizes early in May, judgment has been given for plaintiff with costs, the counter claim of the Co. being dismissed with costs. It is said the Co. will appeal.

In the case of E. P. Hannaford against the Co. for alleged wrongful dismissal, the evidence of President Sir C. Rivers-Wilson & ex-General Manager Seargeant, taken in England by commission, was read in Court in Montreal, June 8. Mr. Seargeant denied all knowledge of the Co.'s employes working at Mr. Hannaford's house & of Mr. Hannaford having used the Co.'s material for private purposes. Some witnesses were examined & Judge Davidson said he would hear the arguments later in the month.

F. Dupont has taken an action for \$10,000 against the G.T.R. on account of the death of his son, the late F. Dupont, M.P., from injuries sustained in an accident near Sherbrooke.

A bill designed to prevent the G. T. R. from securing control of the Central Vermont

has passed both branches of the Vermont Legislature & been signed by the Governor. It provides that no alien railway company shall be interested in the stock of any Vermont railway hereafter reorganized under Vermont laws, without leave of the Legislature, or shall own or acquire title thereof.

Great Northwest Central.—At the recent Dominion session the Co. was empowered to issue preferential debentures for \$12,000 a mile for the portion already built, & what may be placed under construction, these debentures to supersede to that extent the existing bonding power. The existing bonds are to be got in by the Co. & deposited with the High Court of Justice of Ontario, & the amount of claim of any claimant on existing bonds is to be paid either in money or new bonds. The new bonds will take priority of the old bonds. The proceeds of the new bonds are to be applied 1st to the extension of 10 miles of the line from its present terminus at Hamiota, Man., which is to be completed by Dec. 31 next, & afterwards in payment of charges on the old bonds. The time for construction of the next 20 miles beyond Hamiota, which includes the 10 miles above mentioned, is extended to Aug. 1, 1899, & the date for the completion of the whole line is further extended for 5 years from that date. A. Charlebois, who was the contractor for the portion of the line so far built, 56 miles, & who has been in litigation with the Co. for years, recently obtained from a local judge at Ottawa an ex-parte injunction, restraining the Co. from raising money for any purpose, & from transferring shares, J. B. Delap, who has invested heavily in the road, being made a party to the suit. Charlebois claims he is the owner of all the capital stock of the Co., by reason of the Imperial Privy Council having set aside the contract, which he alleges was the consideration for which he parted with the shares. Pending the receipt of the Privy Council order the injunction has been continued, & it is of course hampering the Co.'s operations. A representative of the Co. informs us that it is the intention to go on with the work as soon as possible, but if anything should prevent the new bonds being issued the obligation to build 10 miles this year will lapse. A. F. McCallum, C.E., is now going over the proposed route between Hamiota & the western boundary of Manitoba with a view to securing a final location of the extension. (Official.)

Montreal & Sorel.—A Montreal telegram says:—Negotiations are pending for the purchase of the Montreal & Sorel Ry. by the Atlantic & Lake Superior Ry. The M. & S. Ry. has never been prosperous, but its absorption by the A. & L. S. will remove a competitor for part of the distance to be traversed by the latter. If the negotiations are completed, Mayor Prefontaine, who is one of the directors of the A. & L. S., will go to England to endeavor to obtain the capital for the road. A necessary part of the scheme, however, is an \$8,000,000 bridge at Longueuil, & it is not probable that this can be floated just yet. The M. & S. Ry. runs from St. Lambert, 6½ miles south of Montreal, to Sorel, 45 miles. From St. Lambert it gains access to Montreal over the G.T. tracks & Victoria Bridge. We fail to see why, as stated in the dispatch, another bridge is necessary.

Pontiac & Pacific Jct. Ry., & Ottawa & Gatineau Ry.—Special general meetings of the shareholders of both of these companies were called to be held in Montreal, June 1. In each case the objects stated were precisely the same, to authorize the issue of \$500,000 1st mortgage bonds of each company, to build the Interprovincial Bridge across the Ottawa River between Nepean Point & Hull. Application to the Secretary of the two companies has failed to elicit any information as to the result of the meetings.

A C.P.R. Inspection Trip.

Vice-President Shaughnessy returned to Montreal June 20, after a month's absence in the west. From Montreal he went via Toronto, Chicago & St. Paul, thence taking the Minneapolis St. Paul & Sault Ste. Marie line to Portal & on to the main line of the C.P.R. at Pasqua, Assa. He again left the main line at Dunmore, proceeding to Lethbridge, & from there over the Crow's Nest line for the distance the track was then laid, 116 miles, continuing on to the Kootenay district, where he inspected the Columbia & Kootenay, Columbia & Western, Slocan Lake & Nakusp & Slocan branches, then on to the main line at Revelstoke, visiting Vancouver & Victoria & returning by Winnipeg & the north shore of Lake Superior.

On his return to Montreal he spoke of his trip as being a very satisfactory one, having found the system in first-class condition from Montreal to the Pacific. He was struck with the evidences of prosperity on every hand, & there was every indication that during the coming summer there would be a bountiful harvest & that the people of the Northwest would be in a satisfactory condition so far as the crops were concerned.

In answer to a question in regard to the solution of the smelter question & the profitable production of the low grade ores of British Columbia, he said the C.P.R. had taken steps to do the best possible for the country, & it remained to be seen what the results would be. The Trail smelter would be blown in July 1, after a thorough re-arrangement of the plant, & it was expected that the results would be of a satisfactory nature. This is the property which was purchased some time ago from Mr. Heinze, & the proposition was to make it profitable for the mines to ship their ores there for smelting. At present an average of 225 tons of ore is being shipped to the smelter each day, mostly from 3 or 4 mines, but it is expected that later on a larger number of mines will be shipping. The heaviest shippers at present are the War Eagle & Centre Star mines. The re-arrangement of the smelter is expected to bring about the most satisfactory results.

The Vice-President was very much pleased with the progress British Columbia was making. No other concern, said he, was in a position to judge of this so thoroughly as was the C.P.R. Co., whose interests in B. C. now are simply enormous, & still they are extending & spreading out in every direction. Said Mr. Shaughnessy: "The people of B.C., generally are not aware of the fact that the works that the C.P.R. are carrying on this year in the West will involve an expenditure of at least \$25,000,000. Of this \$15,000,000 has already been provided for, & \$10,000,000 more will be forthcoming as soon as it is required. Referring to the progress Vancouver was making, Mr. Shaughnessy stated that since his visit there last September he had observed a great change, & all for the better. He had never wavered in his opinion with regard to Vancouver, & that was that it was certain to become Canada's Liverpool on the Pacific coast.

While it was true that the Klondike boom had subsided for the time being, Mr. Shaughnessy thought the general improvement all along the line in business would make up for the loss in that respect. In conclusion, he remarked that the outlook for business generally, from one end of Canada to the other, was never more hopeful than it is at the present time. This is possibly the most prosperous time that Canada has ever enjoyed, & it is likely to last for some time.

The fast C.P.R. service between Montreal & the Pacific coast, of which something has been said, is at present under consideration, but nothing has yet been definitely decided in regard to it.

The Crow's Nest Pass Commission.

On returning to Montreal recently from his western inspection trip, Vice-President Shaughnessy of the C.P.R. was interviewed in reference to the Crow's Nest Pass Commission report.

"In the 1st place," said Mr. Shaughnessy, "I have been travelling; in the 2nd, I have not seen the report of Judge Dugas in its entirety. What I have seen have been extracts from that report, something of the discussion in the House, & certain comments in the papers. I prefer not to go into the question at the present. If, after I am seized of the full report in question, it seems necessary for the C.P.R. to make defence, I will not be slow in doing so."

Reference was made to the deaths of the two men from diphtheria under conditions suggesting the grossest cruelty & inhumanity.

"I have no objection to refer to these two cases," Mr. Shaughnessy remarked, "but observe that I am not going into the general question. If any person, in whatever capacity has been guilty of cruelty in the cases you mention, the C.P.R. will consider it an imperative duty that such person or persons be punished. But it is not for the Co. to punish; it is for the authorities to take the matter up, & I understand that the Government, before the close of the session, gave a pledge in the House that an investigation would be made. We are thoroughly in accord with public opinion on this point. I venture to think I know the conditions which prevail in railway construction a little better than some of the critics. These two men, when they started out, probably did not know the nature of their disease. They were ill, & they wanted relief. But the moment the character of the disease was discovered, no camp along the line would take them in. Why? Not because the men in such camps were inhuman. But self-preservation is the first law of nature. This law exerts itself in a railway camp precisely as it exerts itself, say, on Dorchester street in this city. Suppose application be made to the private residents of Dorchester street on behalf of two men suffering with smallpox or diphtheria, that they be given shelter, how many do you think would respond to such an appeal? Not one, I venture to say; & this not because they were at all inhuman, but because of the imperative law of self-preservation. These men would not be taken into any of these camps; they could not be received into any of the tent hospitals, because there were other patients there who would be liable to catch the disease. Mind, I say the cases were heartrending; but it will remain for this Government investigation to show that anything more could have been done under the circumstances of the case. I do not know if there was negligence or cruelty which might have been avoided under the peculiar circumstances, but if so, then the guilty party should be punished."

To the remark that as the public money had been given for the construction of the road, & that therefore the public had an immediate interest in having all the circumstances in connection with the employment & treatment of the men fully disclosed, Mr. Shaughnessy said that this reference to public money having been given was just what he objected to. "Why, the Co. gives back to the Government & the country far more than it receives. A subsidy is granted; but the Co., in a low schedule of rates & concessions, gives an ample—a full equivalent—for what it receives. The construction of the Crow's Nest Pass Ry. is simply a bargain, which we are carrying out. Whether the money be public or private, every man connected with the work, in whatever capacity, should receive fair play. That is certainly the desire of the Co. I do not urge the point that it is not public money

to justify any improper treatment of any man; but the contention in this regard is misleading. The Co., I may say, is no novice in the matter of railway construction. We pretend to know a little about it. We have employed hundreds of thousands of men. At present there are between 4,000 & 5,000 men employed on the Crow's Nest Pass Ry., which I expect will reach Kootenay Lake this fall. The work is proceeding satisfactorily; all is harmonious; it was never anything else as far as the Co. was concerned. At the time of these complaints there were between 2,000 & 3,000 men working away with the utmost content. I would not be understood as criticizing the judicial report at all, for I have not seen it in its entirety; but I may remark that the clause providing for the fare for the return journey is a perfectly proper one, for if it were not inserted in the agreement with the men, not a few of them, ill-selected, unfit for the work, not understanding the conditions, would be demanding to get home the second day. It is one thing to put that clause in the agreement to ensure some degree of permanency in the employment, & another thing to enforce it when the work is done. But the wages offered were the highest in Canada, & that is why so many flocked to the work. I am not aware that even at home, & without the deductions which have been enumerated, & working 20 days in the month, laboring men are able to save a great deal at the end of a given period of work."

Mr. Shaughnessy also made the remark that it was contrary to the experience of railway construction that when men chose to leave work they were fed by the camps along the way. "Such a practice would have the most demoralizing effect. It is no slight thing to handle 5,000 men. You must have strict rules; & when I say that no man in Canada need be idle at present, I mean no man who is willing to work. I do not mean loafers or vagabonds, who only mean to give trouble. I am speaking in a general way with respect to public works of any kind."—Montreal Witness.

Across the Plains by the C.P.R.

Westward from Manitoba it is easy to realize that Canada has the greatest railway system in the world. The night, the long day, & again the night over the level prairie, the winding, straining climb among the mountain peaks, where the clouds settle in the thin atmosphere a mile above the ocean level, the giddy descent from ledge to ledge, skirting along the mountain sides high above the swift rivers & mirror-like expanses, tunneling projecting crags, bridging dizzy gorges, & falling gently with the more subdued landscape, to where the salt tides rise & fall on the western shore of the continent—these tell of a heroic struggle with nature in her grandeur & her greatness. Awakening on the prairie, the first impression is that of an open sea.—S. T. Wood, in Toronto Globe.

A Russian Air Brake Contract.

For some months negotiations have been going on between representatives of the Manchurian Ry. in Russia & the Westinghouse Air Brake Co. of Pittsburgh & the Westinghouse Brake Co. of London, Eng., for the purchase of a large quantity of Westinghouse air brakes. A deal has just been closed by which the Manchurian Ry. purchases between \$2,000,000 & \$3,000,000 worth of Westinghouse air brakes. The placing of this contract means that shops for the making of these air brakes will be built in Russia, probably in St. Petersburg, by the Westinghouse Air Brake Co. The contract is the largest that has ever been placed for air brakes & means that other roads throughout Europe will probably adopt this brake.

Along the Winnipeg & Southeastern.

In speaking in the Manitoba Legislature recently on the proposal to aid in the construction of a railway southeasterly from Winnipeg, Mr. Greenway said: "This road will be a great advantage to Winnipeg for the reason that it will connect it with a country of great resources. There is building up now even under unfavorable circumstances a little place down there called Mine Centre. The population of the settlement is about 1,500 people. They get their supplies, no doubt, for a short season of the year, from Canada, but at certain times their supplies are purchased from U.S. cities. It is a very great advantage to Winnipeg that this district should be connected with it. One of the most important things we can undertake to do is to provide all the facilities we possibly can for making Winnipeg the great distributing centre of all the surrounding country.

"Perhaps we do not always realize just what that country is. I was curious to look into the matter myself, & I have the opinions of some gentlemen who have traversed the country, & who have something to say in regard to it. They refer first of all to the timber which is to be found there. In that regard I believe the Canadian lumbermen have been husbanding our own timber & drawing their supplies from U.S. territory, & that in the Rainy River country the timber is almost intact."

Surveyor Dawson gives the same opinion respecting the country. He says: "There appears to be a large extent of good land northwest from Rainy River, & there are doubtless large tracts of good land in other parts of the territory, & it is said that the country is very good for agricultural purposes. I think it is generally admitted by those who have looked into it that there is a very fine area adjacent to the river of agricultural lands."

Hon. Mr. Hardy says: "There is a stretch of 80 miles along the Canadian bank of unparalleled fertility, capable of maintaining at least 500,000 people. Wheat threshes out 30 or 40 bushels to the acre. The balance may be called mining or timber districts, with parcels of land capable of being converted to agricultural uses."

Frank Yeigh estimates "the total area of the Rainy River to be 22,500 square miles. The Rainy River takes its course through a rich valley of over 80 miles, & is eminently adapted to support a large agricultural population. Land fronting on the river fit for settlement reaches back 20 or 30 miles from the river. The greater part of this land requires little or no drainage. Very little snow."

Mr. Blue, Director of Mines, Ontario, says: "I saw lands equal to the best in Ontario."

The representative of that district in the Local Legislature, says: "The belt of good land is not confined to the valley of the river, but extends northeast along the shore of the Lake of the Woods & for a considerable distance along the northern shore of Rainy Lake. I estimate the agricultural belt is equal to an area of 140 miles in length by 40 miles in width, or 4,084,000 acres. This by no means includes all the good lands in the district; there are other valleys of excellent land, but none so large as Rainy River valley. The valleys of the Kawawagamog and Seine Rivers, emptying into Rainy Lake for instance. The means of access to this agricultural belt is by way of Rat Portage & Lake of the Woods. Too much cannot be said in praise of this country & its resources as a home for the settler. That it will yet contain millions of people I have not the slightest doubt."

I have a very large number of these extracts, but do not propose to detain the House by reading them all.

As regards the mineral wealth of this country only little is known, but that is sufficient to indicate that considerable traffic must take place over a railway passing through

this territory, & it is safe to assume that a large portion of the produce required must come from Winnipeg or the fertile region about Rainy River. There are numerous mining camps springing up, & the town of Mine Centre on Vermillion Lake is a prosperous place, from which & to which considerable is drawn. Immense quantities of supplies are now drawn from Tower, Minnesota, which on the opening up of this country must be drawn from Winnipeg for the territory now supplied. Numerous small towns would spring up & the mining industry would receive such an impetus that the trade of Winnipeg would be materially improved, & the produce of Manitoba farmers go to feed the miners of Ontario.

Dominion Railway Legislation.

Following is a list of acts relating to railways passed at the recent session of the Dominion Parliament:—

Respecting the Lake Erie & Detroit River Ry. Co.

Respecting the Hudson's Bay & Pacific Ry. Co.

Respecting the Ontario & Rainy River Ry. Co.

Respecting the Columbia & Western Ry. Co.

Respecting the B. C. Southern Ry. Co.

To confirm agreement between the St. Stephen & Milltown Ry. Co. & the C.P.R. Co.

Respecting the C.P.R. Co.

Respecting the Calgary & Edmonton Ry. Co.

Respecting the Edmonton District Ry. Co.

Respecting the Brandon & South-Western Ry. Co.

To incorporate the Miles Canyon & Lewes River Tramway Co.

Respecting the Montfort Colonization Ry. Co., & to change its name to the Montfort & Gatineau Colonization Ry. Co.

Respecting the Nakusp & Slocan Ry. Co.

Respecting the Kingston & Pembroke Ry. Co.

To incorporate the Windsor & Detroit Union Bridge Co.

Respecting the St. John Bridge & Ry. Extension Co.

To incorporate the Montreal & James Bay Ry. Co.

Respecting the Brockville & St. Lawrence Bridge Co.

Respecting the Lake Manitoba Ry. & Canal Co.

To incorporate the Seven Miles Canyon & White Horse Tramway Co.

Respecting the Ottawa & New York Ry. Co.

To incorporate the London & Lake Huron Ry. Co.

Respecting the Vancouver, Victoria & Eastern Ry. & Navigation Co.

Respecting the Canada Atlantic Ry. Co.

To incorporate the Timagami Ry. Co.

To incorporate the Canada Atlantic Transit Co.

To incorporate the Toronto & Hudson Bay Ry. Co.

To authorize the Canada Eastern Ry. Co. to convey its railway to the Alexander Gibson Ry. & Mfg. Co.

To incorporate the Lake Bennett & Klondike Ry. & Tramway Co.

Respecting the Saskatchewan Ry. & Mining Co.

Respecting the London & Lake Huron Ry. Co.

Respecting the transport contract between her Majesty & the Winnipeg Great Northern Ry. Co.

Respecting the repayment of the moneys advanced to the St. John Bridge & Ry. Extension Co.

To confirm a certain award in favor of the Dominion Atlantic Ry. Co.

Incorporating the Western Alberta Ry. Co. To further amend the Railway Act.

To incorporate the Ottawa Inter-Provincial Bridge Co.

Respecting the Montreal & Southern Counties Ry. Co.

Respecting the Montreal & Province Line Ry. Co.

Respecting the Great North-West Central Ry. Co.

Lunenburg Marine Railway.

The port of Lunenburg, N.S., 45 miles west of Halifax, & the most important fishing centre in the Dominion, has lately had completed the most up-to-date marine railway in the Maritime Provinces. It is constructed specially for handling the bank fishing fleet & vessels engaged in the West India trade, although it can accommodate vessels of 400 tons capacity. There are 2 cradles, 120 ft. & 75 ft. in length on one track. These cradles can be operated separately or together, at will. The foundation is of piling driven to bedrock, & all the timber used in the construction of the track is pitch pine & hard wood, sheathed from low water mark outward with zinc & iron over felt. The hauling is done by a pair of horizontal coupled reversible engines of the most improved pattern. No expense was spared in the construction, & it is considered as good a wooden railway as can possibly be built. It is owned by the Lunenburg Marine Railway Co., & cost \$20,000.

C.P.R. Land Sales.

	Acres.		Amount.	
	1898	1897	1898	1897
Jan.	21,044	9,943	\$73,924.00	\$33,872.00
Feb.	20,559	8,163	66,399.00	27,573.00
Mar.	35,421	8,727	109,010.00	29,080.33
April.	43,145	10,785	140,275.84	37,745.69
May.	43,148	15,802	13,783,500	51,508.00

There are 41 ships engaged in the ocean cable telegraph service. The total capital invested in the submarine lines is estimated at \$200,000,000 & the number of lines is 1,305, of which 37 are over 1,000 miles long & 93 over 500 miles.

Kingsmill, Saunders & Torrance, solicitors for the Canada Southern Ry., have sent J. Montgomery, from their Toronto office, to take charge of their St. Thomas office, where the local railway work is transacted. He succeeds Mr. Plunkett, the previous clerk in charge.

A report sent out from Vancouver to the effect that the C.P.R. steamships Athenian & Tartar were to be leased to the U. S. Government for the carriage of troops to Manila is not believed to have any foundation in fact, as the C.P.R. officials most likely to know of such a matter deny it emphatically.

The Government has acquired 9 Wagner cars to be attached to the Maritime express running between Montreal & Halifax on the Intercolonial. They consist of 6 sleeping & 3 dining cars, their total value being placed at about \$175,000. The sleeping cars are named the Raritan, Raleigh, Riauke, Inca & Inex, & the dining cars are nos. 600, 402 & 403. They are identical with the Wagner cars running on the Lake Shore between New York & Chicago.

In answer to Mr. Ganong, M.P., the Minister of Public Works recently stated in the House of Commons that in June, 1897, a cursory survey was made with the S.S. Newfield, which was then on the ground engaged in cable repairs, with a view to ascertain the cost of establishing telegraph communication by cable between Deer Island, Charlotte County, N.B., & a point on the mainland near Eastport, Me. The approximate cost was placed at \$3,500, which would include telephone communication between the fishing villages on the island & the landing-place of the cable.

NOTICES TO MARINERS.

By the Dominion Department of Marine.

All bearings, unless otherwise noted, are magnetic & are given from seaward, miles are nautical miles, heights are above high water, & all depths are at mean low water.

No. 21, May 4.—Temporary Range Lights—Main Channel, Parry Sound.—On the western Lyon rock has been erected a white-washed pyramidal beacon which from a height of 20 ft. above water exhibits a fixed white light visible in the line of the range towards Gordon rock channel 6 miles. On the south end of the large heavily timbered island next north-east of Knightsleigh Island has been erected a similar beacon which also from a height of 20 ft. above water exhibits a fixed white light visible in the line of range 6 miles. These two lights in one bearing S.E. by E. lead through the channel at Gordon rock in 5 fathoms least water. On the south-east side of Harold Point (Kill Bear Point) has been erected a whitewashed pyramidal beacon surmounted by a pole which from a height of 25 ft. above the water exhibits a fixed white light visible in the line of range 8 miles. On the main land 1,300 ft. N.E. by E. $\frac{3}{4}$ E. from the front light is erected an exactly similar beacon & pole which from a height of 50 ft. above the water exhibits a fixed white light visible in the line of range 8 miles. These two beacons & lights in one bearing N.E. by E. $\frac{3}{4}$ E. lead fairly between Nias Islands & Carling Rock on the north-west & Rose Island, Hugh Rock & Cameron Island on the south-east. In passing through the channel the range should be held exactly on to lead past a rock with 19 ft. water on it (black buoy) lying east 2,000 ft. from the east side of Nias Island & also to lead past a rock with 16 ft. water on it (red flag buoy) lying W. by S. $\frac{3}{4}$ S. 2,000 ft. from Cameron Island beacon. These rocks lie only 50 yards off the line of range, one on each side.

SAILING DIRECTIONS.—A vessel entering Parry Sound after passing the 15 ft. spot off Hooper Island should either return to the Jones Island—Gordon rock range, or bring the above range on bearing S.E. by E. to pass through the Gordon rock channel. Keep this on until the lights on Harold Point are seen clear of the south-east point of Nias Island, when haul up for Hugh Rock light bearing E. $\frac{1}{4}$ N. until the lights on Harold Point come in line bearing N.E. by E. $\frac{3}{4}$ E. Keep them exactly on until abreast of Cameron Island when proceed as directed in Notice to Mariners no. 15 of 1898. If leaving Parry Sound, before passing Cameron Island, see that the Harold Point range is exactly on bearing N.E. by E. $\frac{3}{4}$ E. Keep it so until between Hugh & Gordon Rock, when haul up for Gordon Rock bearing W. $\frac{1}{4}$ N. until the Lyon Rock range comes on to lead through Gordon Rock channel bearing S.E. by E.

Steer on this range (Red rock light should be seen a little on the port bow) until the Jones Island—Gordon Rock range comes on, when haul over for Twin Hoopers for a short time to avoid the 15 ft. spot off Hooper Island. When Pancake Island comes abreast (it can generally be made out even on a dark night) a vessel will be abreast of the shoal & may haul over to get the range on again & she must keep it so. This affects Admiralty charts 327 & 1731.

No. 22, May 10.—Color of Buoy on Middle Ground, Midland Harbour.—1. The buoy on Midland Bay shoal, Midland Harbour, Georgian Bay, is a red spar buoy & not a black buoy as shown on charts. This affects Admiralty charts 327, 678 & 2102.

2.—Russell Island (Upper) Light no. 12.—Notice has been received from the U.S. Lighthouse Board that on or about May 5, 1893, the fixed red lantern light will be moved to & established on the structure on the upper end of

the shoal at the head of Russell Island, & about 3,600 ft. N. by E. $\frac{3}{4}$ E. from Russell Island light no. 11, with which it will form a range to guide in the St. Clair River above the head of the shoal. The light will be 14 ft. above water. The structure consists of a crib, in 15 ft. of water, surmounted by a white lantern house, from the top of which the light will be shown. This affects Admiralty charts 330, 332 & 678.

No. 23, May 10.—Government Rifle Range, McNab's Island, N.S.—1. The usual annual notice has been issued by the Chief Staff Officer of the Imperial troops in garrison at Halifax with reference to target practice on McNab's Island, commencing May 10, as follows: Owing to the extreme range of the Lee-Metford or magazine rifle, with which the musketry training of the troops will in future be conducted, & with a view to the better protection of the public, it has been found necessary to demarcate more clearly the area of water seawards, & to the south of above ranges, liable to be struck by spent or ricochet bullets. This area has been marked by four spar buoys, placed at intervals between the Thrum Cap Shoal & the Eastern Passage, at a distance of 3,000 yards from the stop butts. The buoys mark the extreme limits of the danger zone. The spars are painted red, & are surmounted by cross heads painted red & white. Any ship or boat passing inside these buoys, during the hours of practice, incurs serious risk, & no attempt should, under any circumstances, be made to cross the aforesaid area as long as the red flag hoisted at the south end of McNab's Island is left flying.

2.—No Hand Fog Horn at Cape Gaspe Light Station, N.S.—There is no hand fog horn at Cape Gaspe light station, as stated in the Canadian list of lights & fog signals. A statement to this effect in the column, under the no. 509 in the 1897 list, should be struck out.

No. 24, May 14.—Navigation on the Stikine River, B.C.—The Department of Marine has made arrangements for a system of signalling at Little Canyon on the Stikine River to prevent collisions. Immediately after the opening of navigation a station will be established at each end of the Canyon, at which signals will be displayed for the guidance of vessels. A white ball or disc hoisted on the top of a mast will denote that the channel is clear, & that a vessel may enter the Canyon from the end at which the ball is displayed. A black drum or square will denote that the channel is not clear & a vessel must not enter the Canyon on any consideration when the drum is displayed. The drum & ball shown together will be a signal between the two stations for information of the signal men, & no vessel may enter the Canyon when this signal is shown. In the event of vessels approaching the Canyon from both ends simultaneously, the upward bound vessel will be held below the Canyon until the descending vessel has run the Canyon. One prolonged blast of a steamer's whistle will be a request to the signal men to give the all clear signal. In any other part of the river within Canadian territory if a vessel is warping up, a downward bound vessel must keep clear of her & her warping lines, stopping & tying up if necessary to prevent collision. In the event of 2 vessels simultaneously approaching where warping is required, the upward bound vessel must allow the downward bound vessel to pass before running out her warping lines. Two long blasts followed by 2 short blasts of a steamer's whistle will be a signal that she is actually engaged in warping.

No. 25, May 14.—British Columbia.—**1.—Dangerous Rocks in Race Passage.**—Information has been received from the Commander of H.M. surveying ship Egeria of the location of a dangerous rock with 10 ft. water on it at low water spring tides in Race Pas-

sage, Johnstone Strait. This is the rock reported by the Master of the ship Richard III., as described in Notice to Mariners no. 14 of 1898. It occupies nearly the position given on Admiralty chart no. 581 as 7 fathoms, Ripple shoal, & bears S. 42° $30'$ W. from the extreme of Eden point, Thurlow island, distant 1.2 miles. Also of a pinnacle rock with 20 ft. water on it in the position occupied by 9 fathoms on Admiralty chart 581, with the extreme of Eden point bearing N. 23° E. distant 0.95 mile, or $4\frac{1}{2}$ cables from the 10 ft. rock.

2.—Buoyage of Northern Channels.—**1. RIPPLE ROCK.**—A steel can buoy, painted in red & black horizontal bands, was on April 23rd moored in 6 fathoms water near the 10 ft. spot on Ripple shoal above described. Lat. N. 30° $24'$ $0''$; Long. W. 125° $51'$ $20''$. This affects Admiralty charts 581 & 1917, & B.C. Pilot, 1888, pg. 207.

2. DALL PATCH.—A square, steel platform buoy, surmounted by a pyramidal wooden slatwork with a diamond-shaped topmark, the whole painted in red & black horizontal bands was, on April 25 moored on Dall Patch, Seaforth Channel, to replace the less conspicuous spar buoy heretofore maintained there. The buoy is moored in 2 fathoms water close to the more easterly and shoaler part of the patch. Lat. N. 52° $13'$ $0''$; Long. W. 128° $11'$ $1''$. This affects Admiralty charts 1923 B & 2449, & B. C. Pilot, 1888, pg. 372.

3.—Hewitt Rock.—A black steel can buoy was, on April 25 moored in 3 fathoms on Hewitt rock, Hiekish narrows, Finlayson channel. Lat. N. 52° $52'$ $50''$; Long. W. 128° $30'$ $40''$. This affects Admiralty chart 1923 B. & B. C. Pilot, 1888, pg. 387.

4.—Dangers in Alice Arm & Approach.—**1. PADDY PASSAGE UNSAFE.**—Paddy passage, on the east side of Brooke island, Observatory Inlet, is reported by local Indians to be unsafe for navigation, & should not be used until examined.

2. ROCK OFF LARCOM ISLAND.—The rock marked awash on Admiralty chart 2458, off the south-east extremity of Larcom island, shows 3 ft. at high water.

3. ROCK OFF SOUTH END OF LIDDLE ISLAND.—A rock, drying about 6 ft. at low water, lies $1\frac{1}{2}$ cables west from the south extreme of Liddle Island. A line from the north extreme of Perry Bay Point past the south extreme of Liddle Island passes through the rock.

4. ROCK IN PASSAGE BETWEEN LIDDLE ISLAND AND DAVIES POINT.—A rock on which a depth of 10 ft. at low water has been found lies between Liddle island & the point separating Hastings arm from Alice arm, which will hereafter be known as Davies point. The rock lies nearly in the middle of the passage, where 16 fathoms are shown on the chart. The channel on the west side of the rock is recommended, being the wider, with six fathoms in the middle. There is a ridge between the island & the point with a greatest depth of 8 fathoms. Sextant angles to locate the rock are as follows: Hans point & Davies point, 83° ; Davies point & east tangent Brooke island 109° $52'$.

5. ALICE ROCK.—A dangerous rock, with 7 ft. on it at low water, exists in Alice arm, $1\frac{1}{4}$ miles north of Liddle island, almost in mid-channel, & nearly where the soundings of 39 fathoms, no bottom, is shown on the chart. There is deep water between the rock & the point on the western shore, & 13 fathoms between the rock & the eastern shore. The west tangent of Liddle island is one with the west tangent of Brooke island clears the rock $\frac{1}{2}$ cable to the eastward. The channel east of the rock is the wider & should be used. Sextant angles to locate the 7-ft. spot are as follows: Hans point & tangent of point north of Sophy island, 154° $18'$; last named point & Davies point 36° $9'$.

This affects Admiralty charts 2431 & 2458, & B. C. Pilot, 1888, pgs. 477 & 478.

No. 26.—May 17.—Changes in Yellow Island Light, B.C.—It is intended to replace the present revolving light on Yellow Island, southern entrance to Baynes Sound, by range lights arranged to clear Maple Spit. The present revolving light will consequently be permanently discontinued on or about May 17. Pending the construction of the range light towers a fixed white light will be shown from the present lighthouse tower, visible 7 miles from all points seaward. Further notice will be given of the establishment of the proposed range lights. This affects Admiralty charts 580 & 1917, B. C. Pilot, 1833, with supplements, pg. 156, & Canadian List of Lights & Fog Signals 1192.

No. 27, May 31.—Navigation in U. S. Waters.—1. Masters of Canadian vessels sailing to U. S. ports are warned that in consequence of the existence of war with Spain, the U. S. Government has discontinued the exhibition of several lighthouses on the U. S. coasts, has taken up several buoys, and has laid submarine mines in many harbors. It is therefore necessary for masters to keep themselves informed respecting the latest regulations issued by the U. S. Government for the safe navigation of the coasts and harbors of that country during the continuance of the war, and they are especially cautioned not to approach fortified harbors at night, no entrance being allowed between 8 p.m. & 4 a.m., & a risk of being fired upon being incurred in the event of violation of the published regulations.

Newfoundland.—Alteration in color of day marks, St. John's Harbor.—2. Notice has been received from the Newfoundland Government that on or about April 30 last the color of the day marks on the 2 leading light structures in the harbor were changed from black & white to white. This affects Admiralty charts 296, 298 & 2902, & Newfoundland & Labrador Pilot, 1897, pg. 422.

Richelleu & Ontario Navigation Co.

G. A. Browne, Assistant Traffic Manager, has been appointed Traffic Manager, to succeed Alex. Milloy, who has been pensioned by the Co. after a continuous service of over 50 years. On retiring, Mr. Milloy issued the following circular to passenger & ticket agents: "After over 50 years of active service, increasing infirmity compels me to pass to the retired list of the Co. I have served so long. In doing so, it is a pleasure for me to issue one more circular to my old friends, the passenger & ticket agents of Canada & the U.S. Although I will not be personally with you in the future as in days gone by, I will ever continue to watch & take a deep interest in all that concerns our vocation. It will also be a great enjoyment for me to recall the many gatherings we have had; the many consultations for mutual benefit; the many social reunions at which, amid quip & yarn & other entertainment, the inner feeling which gave zest to everything, was that we were brothers a'. I believe in this sentiment of brotherhood. It smooths much of the friction of our business life, it is conducive to honorable dealings & to the best interests of the public, as well as of our employers & ourselves, & I trust that it will long continue a leading feature with the members of our craft, in their intercourse with each other.

"On this occasion I am sure I have only to ask & you will gladly accord to my successor in office, G. A. Browne, the same consideration & courtesy which has always been so cheerfully extended to myself; & if, in the conduct of your work, it should also be in your power to do a good turn for my old Co., with its improving service; & if you can occasionally call a pleasant thought for its long-time traffic manager, I will esteem these kind actions on your part very highly, & feel that you

are doing for me what I would in like case do for you. Trusting that success & happiness may attend you & yours, I remain, your old friend, A. MILLOY."

The Co.'s steamer Toronto, now being built at the city after which it is named, will be launched June 21, & it is said an effort will be made to have her in commission by August. She is to run between Toronto & Prescott, where passengers will be transferred to the Co.'s smaller boats, in which they will run the rapids. The Co. is contemplating building another boat of the same size for the same route, to be ready some time next year.

The Co. has decided to meet the competition of the railways on all its boats while the rate cutting lasts. The single rate put in force by the Co. is \$5 from Toronto to Montreal, the same as the railways, this rate being good on all boats except the Hamilton, where the rate is \$4.50.

The Co. is having its head offices in St. Paul street, Montreal, thoroughly renovated & altered after the fire of last winter. At the up-town ticket & stock transfer office even greater changes are being made, & soon the office of the past will have been transformed into one of the handsomest ticket offices in the Dominion.

The name of the Co.'s steamer Passport has been changed to the Caspian, & she will appear on the river this season practically a new boat.

The Co.'s steamer Canada had a collision on the night of May 16 with an ocean vessel which was anchored in the St. Lawrence. The hull was not damaged, but the paddle-box & the railings were smashed. She put into Sorel to be fixed up, & the Quebec took her place on the Montreal-Quebec line.

A B.C. Wrecking Tug.

The latest addition to R. Dunsmuir & Son's fleet is the tug Pilot, the hull of which has been built under the supervision of Capt. J. S. Gibson, at Chemainus, B.C., where she was launched May 30, after she was towed to Victoria for completion. She will be fitted with the most modern appliances, including a towing machine, which is the latest device known to shipbuilders. It consists of a small steam engine fashioned somewhat after the style of a winch, which replaces the solid bits usually used. By using this machine there is no strain on the tug or its tow, as the drum of the machine gives & takes as the hawser is tightened or slackened. She will have a large electric light plant with a 3,000 candle power searchlight, a patent windlass, & a large quantity of wrecking appliances, so that she may be a wrecker as well as a tug. She is 132 ft. long, 24 ft. on the beam, 12 ft. 6 in. deep, & has an 8 in. close frame. Her keel is 14x20, her keelson 18x20, & sister keelsons 18x18, making a most solid backbone. In her hull 168,000 ft. of lumber have been used, 5,000 locust treenails & 15 tons of copper & iron fastenings. Her engines & boilers are ready, & will be put in at once, & a force of shipwrights put to work on her to finish her. She will be ready for service about the middle of July.

The Pilot is to be fashioned somewhat differently from the usual style in which tugs are built, & the forward part housed in from the bow to the towing machines, only the space aft being left open to allow play to the hawser. A hurricane deck will cover the forward house, & on this will be built a wheel house & chart room similar to that of the Lorne. She is built expressly for ocean towing, taking long tows, such as to Alaska or San Francisco, & for wrecking purposes, in which work she will undoubtedly be of much profit to her owners; for since the Whitelaw was lost there has been no wrecking vessel on the B.C. coast. She will have 2 masts & be schooner rigged. The crew will have quarters in the

after hold & the officers & engineers in the deck houses forward.—Victoria Colonist.

The C.P.R. Kootenay Steamers.

Capt. Short, the pioneer commander on the C.P.R. steamers on the Columbia River & Arrow Lakes, has been given the command of one of the steel steamers built by the C.P.R. to run on the Stikine River between Wrangel and Glenora. Capt. Short was in command of the Lytton in 1890-91, before the Columbia was built, & stuck to the old boat till very recently, when Capt. Gore, of the Nakusp, became Commodore on Capt. Troup's removal to Vancouver to establish the C.P.R. Co.'s fleet of Stikine River steamers, when Capt. Short took command of the Kootenay. The Columbia & the Nakusp were both burned to the water's edge, the former near Waneta in 1894 & the latter at Arrowhead last December; but the old Lytton is still in active service. She has never met with a serious accident, Capt. Short being one of the most careful as well as most courteous pilots on the river. Capt. Short succeeded on the Kootenay by Capt. J. Whitmore, who for years filled the position of Mate on the Nakusp & latterly as Capt. of the Lytton. Mate McLennan, of the Lytton, has been promoted as Capt. of that boat. Albert Forslund is Capt. of the Rosslund, & Capt. Fraser has charge of the cargo steamer Trail.—Vancouver News-Advertiser.

Recent Dominion Legislation.

Among the Acts passed at the recent session of the Dominion Parliament were the following:—

Further to amend the Act respecting Government harbors, piers & breakwaters.

Further to amend the Act respecting certificates to masters & mates of ships.

Respecting the inspection of steamboats & the examination & licensing of engineers employed on them.

To incorporate the Klondike & Peace River Gold Mining, Land & Transportation Co.

To authorize the Quebec Harbor Commissioners to borrow money.

To authorize certain contracts with steamship companies for cold storage accommodation.

To grant further aid to the Harbor Commissioners of Montreal.

To incorporate the Lake Champlain & St. Lawrence Ship Canal Co.

Respecting the Montreal, Ottawa & Georgian Bay Canal Co.

The Fast Atlantic Service.

A London cablegram of June 7 says:—Messrs. Petersen have failed to satisfy the Canadian Government, as they undertook to do before May 31, of the completion of the underwriting of \$6,250,000 of capital in the new company. This failure causes to lapse the supplementary contract by which the Government extended the time for building, & made other concessions. The general outside idea is that this lapse of the supplementary contract frees the Government's hands. On the contrary, Mr. Petersen now falls back on his original contract. Unless he is bought out, no fresh steps to carry out the service can be taken until he absolutely fails to place two steamers on the route in July, 1899, though everyone realizes that it will be physically impossible to build the steamers in the time.

Among the legislation of the recent Dominion session was an act to incorporate the Dawson City & Victoria Telegraph Co., & one to incorporate the Northern Commercial Telegraph Co.

The Edmonton-Yukon Route.

A. C. Waters, of the Alaska Trading & Mining Co., wrote us from Edmonton, Alberta, May 26, as follows: "Next week the machinery & fittings for our large screw propeller that will run from Ft. Smith to Peel River will leave Athabasca Landing, together with another flat boat on which I am taking 6 large draft horses & 3 waggons & 200 bushels of oats. These teams will be used at the Portage at Smith's Landing, 16 miles. The hull of this boat is completed, & as soon as the machinery is placed on it on the other side of Smith's Landing, & the cabin placed on it, we will be ready. This will not leave Ft. Smith until June 25, on account of the ice on Great Slave Lake, which goes out from about June 15 to 25. The boat will be ready to start on schedule time, & several days before.

"We have completed at Athabasca Landing a 40-ft. screw-wheel boat that will remain there until June 10, to take any passengers & tow any freight that goes down & is ready at that date. This boat makes connections with the large boat at Ft. Smith. Passengers will be taken to Grand Rapids, towed in a 45-ft. flat boat the same as the Hudson's Bay Co. uses. Our guide here takes this flat bottom boat through the Rapids from Grand Rapids to Ft. McMurray, while the 40-ft. screw-wheel steamer is lined down light. At McMurray this steamer tows the boat to Smith's Landing, making connections with the large boat. This 40-ft. boat is taken across the portage, where we have trucks & horses. This boat will attend to the towing during the busy time, & when the big boat returns with any passengers from Peel River will take the same on this side & tow them back to McMurray. From McMurray to Grand Rapids passengers are tracked to Grand Rapids, 87 miles; this is the weak point in this route, but it is by no means an unpleasant trip when in experienced hands.

"We have just sent to Athabasca Landing the machinery for a 50 ft. flat-bottom, paddle-wheel boat. This will be built inside of 30 days, & will run to Grand Rapids, where flat boats will be taken to McMurray, & then the steamer to Smith's Landing, making connection again with the large boat. This may seem complicated, but it is the way I manage it to get the boats in their places & at the same time make money.

"After this 50 ft. paddle-wheel steamer is completed & makes a trip, I will place it on the run from McMurray to Smith's Landing, & shall build another small 50 ft. boat of the same kind to use on the run from Athabasca Landing to Grand Rapids, while the 40 ft. screw boat will be placed on Great Slave Lake permanently for towing purposes.

"The run from Grand Rapids to McMurray will probably always have to be made with 40 ft. flat boats, & to avoid changing cargo so often, it is better for the passengers to get in them at the Landing & be towed down to the Rapids, & then run through to McMurray, where they can take the steamer.

"You can rely on it, I can get passengers & freight through to Peel River & in good time. I have over 20 at the Landing who will go down with us next week. I brought the machinery & fittings complete for 3 boats from the U.S., beds, pilot wheels, &c., & have the same, over 16 tons, now at Athabasca Landing.

"The run from Athabasca Landing to Grand Rapids, 167 miles, is good, smooth sailing. The small Pelican Rapids, which do not amount to much, are in this run. From Grand Rapids to McMurray there is one rapid after another, which necessitates a guide. From McMurray to Smith's Landing, 287 miles, is good water, perfectly safe. There are two ways of making the Smith's Rapids, by making several short portages or by going over the 16 miles. From Smith's Landing

down is good water navigation. Great Slave Lake gets very rough at times, & is as bad as any other large lake. The side of the lake is rocky for a considerable part of the distance. There is a stretch of 30 miles, where a boat has to run before one finds a place to get into should a storm come up.

"From Edmonton to Athabasca Landing, 98 miles overland, freighters have been charging 1c. a lb. There are plenty of freighters, & now they are hauling for 75c. per 100 lbs."

If readers will refer to the map of the routes to the Yukon gold fields published with the March issue of THE RAILWAY & SHIPPING WORLD they will find it useful in connection with the above article.

Cariboo-Omenica Chartered Co.

At the recent session of the B. C. Legislature F. Owen, W. J. Stokes, R. G. Newman, Lord Henry Fitzgerald, R. P. Sellon, C. V. Paull, H. Walters & G. Whitehead, all of London, Eng., were incorporated as the Cariboo-Omenica Chartered Co. The Co. contracts to execute works of improvement necessary to render navigation possible, & to establish & maintain during the season of 1898, 1899 & 1900, regular steamboat communication between Quesnelmouth, Cariboo district, & North Tacla Lake, Omenica district, via the Fraser River, the Lower Nechaco River, the Stuart River, the Thatcher River & lake, & the Middle River; the means of communication employed to be fit & proper for the safe navigation of the waters to be traversed & to provide suitable accommodation for the carriage of freight & passengers; & the contractors undertake, as common carriers, the carriage of passengers & freight between the points mentioned.

The contractors also agree to engage, equip, transport & maintain during the working portions of 1898, 1899 & 1900, corresponding as nearly as may be with the season of navigation, an exploring party for the exploration of the Omenica, Cassiar & Cariboo districts, to continuously & efficiently explore in one or all of these districts during the whole of the seasons.

The contractors also contract to examine & explore the north fork of the Fraser River, lying between Fort George & the Giscomb portage, & ascertain the extent to which such portion of the river is navigable, & so soon as may be possible after such fact is ascertained; to establish steamboat communication between the said points, & to maintain such communication regularly during the seasons 1898, 1899 & 1900, which shall not have elapsed at the time such fitness for navigation shall have been ascertained.

In return for these privileges the government agrees to allow the Co. to purchase 6 tracts of land in the districts named, each tract to consist of not more than 640 acres, & the right of passage along waterways & highways traversed by the Co.

B.C. Freight and Shipping Report.

R. P. Rithet & Co., Victoria, B.C., say under date of May 31: The activity noted in our last circular has not been maintained. Indeed, practically nothing has been done in chartering from San Francisco, & any fixtures reported have been for the Columbia River & Puget Sound. Spot rates are high, but as low as 31s. 3d. has been done from Tacoma to Portland at charterers option, Sept.-Oct. loading. Lumber tonnage continues scarce. Thus for many destinations freights are more or less nominal, but the tendency of the market is towards greater ease, & in some instances quite substantial reductions have been made on the quotations previously current. Business is also more limited in scope, which accounts for the smaller list of charters annexed.

OCEAN, LAKE & RIVER.

British Columbia & the Yukon.

The B.C. Iron Works Co. has built a steamboat, the Marquis of Dufferin, for the British America corporation.

All the leading transportation companies of Vancouver, San Francisco & Seattle have agreed to make the rate to Dawson via St. Michael's \$300 first-class & \$250 second.

The Bennett Lake & Klondike Navigation Co., headquarters at Victoria, B.C., announces that 3 swift steamers will shortly be running from the head of Lake Bennett to Dawson City.

The Stikine River steamer Skagit Chief ran against a rock recently, and had her escape pipe blown off. All the live stock in her hold were killed by being scalded to death. The vessel suffered other injuries.

Two barges, one 100 ft. long, the other smaller, built for the British-American Corporation, were launched at Vancouver June 4. The smaller one will be placed inside the larger for towing to St. Michaels. They are to be used on the Yukon.

The Klondike, Yukon & Stewart River Pioneers' stern-wheel steamer James Domville, built at Vancouver, was launched early in June, & is now on her way to St. Michaels in tow of the S. S. Manauense. She will run on the Yukon & tributary streams.

The C.P.R. Co.'s stern-wheeler steamer Yukon is making splendid time on the Stikine. On June 1 she left Wrangel at 1.30 a.m., with her usual load of passengers & freight. She discharged at Glenora, reloaded & got back to Wrangel at 9.20 p.m. the next day, making her time for the round trip less than 44 hours.

The Casca Trading & Transportation Co. has been incorporated under the B.C. Companies Act, with a capital of \$100,000, & headquarters at Glenora. Amongst its objects are the carrying on of business as wharfinger, forwarding & shipping agent, also as carrier by land & water, underwriter & insurer of ships.

The C.P.R. stern-wheel steamer Tyrrell was launched in Vancouver June 6. Her steel hull & machinery were built in Toronto by the Polson Engine Works. (See our April issue, pg. 50). The C.P.R.'s other 2 stern-wheel steamers, of which the steel hulls were also built in Toronto, are now being put together at Vancouver.

On May 17 the Passenger Department of the C.P.R. issued the following circular: The Stikine River is open for navigation & the C.P.R. Steamer Hamlin has just returned to Wrangel, having made the round trip between Wrangel & Glenora in 3½ days. It is expected the trip will soon be made regularly in less time. It is stated that a number of contractors are putting teams on the Glenora-Teslin trail.

The supplementary Dominion estimates provide \$14,000 for Stikine River examination, &c., & Chief Engineer Anderson, of the Marine Department, left Vancouver at the end of April for the north coast, after arranging for a new light at Garry Point, at the mouth of the Fraser. He went to Wrangel on the Quadra, intending on the way to inspect the coast & arrange for its proper buoying & lighting.

At Vancouver, May 20, Commissioner Chipman, of the Hudson's Bay Co., christened the Co.'s 2nd north coast river steamer, Strathcona, when she had her trial trip on Burrard Inlet, with the Commissioner & an influential party on board. The Strathcona was chartered by the Ocean Navigation Co. for the transportation of the Yukon force on the Stikine River from Wrangel to Glenora. Captain Odin commands her.

At the end of May the Canadian Development Co.'s stern-wheel steamer Victorian,

built in Victoria, was given her trial trip, & a few days later was sent north to her route on the Stikine. She is 147 ft. long, & 33 ft. 4 ins. beam, registered tonnage 450 tons, draught about 17 ins. The lower deck & hold will carry about 250 tons of freight, & on the upper deck there is accommodation for about 250 passengers. Capt. Foster is in command.

The regulations adopted by the treasury department at Washington to govern the transshipment of goods at Wrangel up the Stikine River to the Yukon are said to be of such a character as to meet every requirement for the Canadian Yukon trade. It is expressly provided that goods arriving in a British vessel may tranship at Wrangel under customs supervision into another British vessel, & this river boat may proceed up the river, with permission to land to purchase fuel & supplies & for passengers to land temporarily.

The Alpha, an iron screw, bark-rigged steamer, 653 tons gross, & 514 tons net register, owned by Pickford & Black, of Halifax, N.S., & formerly running between Halifax & Bermuda, is to be put on between Victoria, B.C., & St. Michaels, Alaska. She left Halifax May 6 for Victoria, from which port she will tow to St. Michaels, the Yukon & Hootalinqua River Navigation Co.'s stern-wheel steamer, Reindeer, which will run on the Yukon between St. Michaels & Dawson City. It is expected the Alpha will make 2 trips during the season to St. Michaels, from which point her passengers & freight will be taken up the Yukon by the Reindeer. The latter steamer, recently built in Victoria, is 135 ft. long by 22 ft. beam, & has a speed of 15 knots in smooth water.

The Union S.S. Co.'s steamer Cutch, formerly used between Vancouver & Nanaimo, has been remodelled & improved at a cost of about \$40,000, & is to be put on between Vancouver & Wrangel, where with the same Co.'s steamer Coquitlam she will connect with its 3 Stikine River boats. The Cutch has had new boilers put in, the engines & machinery have been overhauled, electric light & heating plants have been installed, & cabin accommodation for about 60 has been provided on the upper & lower decks, together with accommodation for about 140 second-class passengers. She is expected to average 14 miles an hour on the northern trip. H. Newcome, her former Captain, is again in charge, with Mr. Saunders as 1st officer & Mr. Kick as chief engineer.

The Klondike Trading & Transportation Co.'s stern-wheel steamer Iskoot, recently built in Vancouver, left there May 30 under her own steam, for Wrangel, Capt. Gray in command. She is 145 ft. long, 31 ft. 5 in. beam, powerfully engined, supplied with electric light, including a searchlight, & has capacity for 200 passengers & 125 tons of freight. The Nahleen, a sister boat, owned by the same Co., was completed about 2 weeks later. The Iskoot went ashore on June 1 in Kuna-lone Inlet, on the north side of Granville Channel, about 5 or 6 miles from the mouth of the Stikine, & is likely to become a total wreck. It is said the pilot, Capt. O'Brien mistook the Inlet for the mouth of the river. The Iskoot is listed badly & has a large hole in her bottom on the starboard side. The tug Chieftain & a barge were secured at Essington to take out her machinery & stores.

Lake Superior to the Rockies.

This season promises to be the busiest in the steamboat line in the history of the Lake of the Woods.

The Hudson's Bay Co. is offering its Saskatchewan River stern-wheel, steamboats, Northwest, Northcote & Marquis, for sale by tender.

One of the latest industries that has taken up the attention of Winnipeg's mechanics is a boat for the Athabasca River which will be driven like a tandem bicycle. The pedals, cranks, sprocket wheels & chains are exactly as on a high-g geared tandem, but the rear axle is bevel-g geared to a shaft which drives a 3 blade screw at high speed. Sails & oars are also provided, so that the traveller has a choice of 3 kinds of motive power.

Pilot W. D. Clark reports that he was successful beyond expectations in removing 7 of the worst boulders from the channel in the Grand Rapids of the Athabasca River. As a result, boats can now be run with their cargoes, & 6 days' hard work can be accomplished in 2. Clark had to stop work owing to the scarcity of dog feed & the water rising on the ice. He thinks \$2,000 would make a channel that boats could drift through with full cargoes.

The Pioneer Steam Navigation Co., Wabigoon, Ont., is building 2 propellers, each 65 ft. long, with 12 ft. beam. One will run on Rainy Lake, the other on Wabigoon Lake in conjunction with the Co.'s other 2 steamers,

making a through connection from Wabigoon to Fort Frances & Mine Centre in 20 hours. This new route is directly through the Wabigoon & Manitou mining districts, & will provide transportation for places which have hitherto been practically inaccessible.

The Maritime Provinces.

The steamer Victoria commenced running on the St. John River route May 24.

The S. S. Marion has begun her trips from New Glasgow to Pictou, N.S. for the season. Capt. McDonald is in charge.

The public are anxiously awaiting the arrival of the new boat for the Guysboro, Mulgrave & Port Hood service.

Capt. R. Pratt, of Cheverie, N.S., is building a steamer to run between there & Windsor, N.S., & one trip a week to St. John, N.B.

The S. S. Evangeline, belonging to the Dominion Atlantic Ry., is making regular trips between Parrsboro & Kingsport, N.S.

Capt. Michean, late of the S. S. Blue Hill, will command the steamer lately purchased in Quebec for the Mulgrave & St. Peter's route.

Capt. Rudolf of New Glasgow, N.S., thinks of placing the S. S. Mayflower on a route between Pugwash & some point in P.E.I.

G. F. Baird, St. John, has secured the subsidy for running the S. S. Monticello between Dalhousie, N.B., & Gaspé. The S. S. Admiral formerly ran on the route.

It is reported that the Dominion Atlantic Ry. will shortly give up Yarmouth as the place for the arrival & departure of its boats, & that Digby will be the point selected.

Letters patent have been granted incorporating J. T. Burchell, of New Campbellton, J. J. Moffatt, John Vooght, of North Sydney; N. McDonald, of Sydney, & A. C. Bertram, of North Sydney, N.S., as the Bras d'Or Steamboat Co., Capital, \$20,000.

The Nova Steamship Co. has been incorporated with a capital stock of \$50,000, & headquarters at Halifax, to operate steamships & other vessels for general transportation purposes. The incorporators are J. T. Hamilton, A. E. Jones, G. Musgrave, R. T. Braine & F. J. Phelan, of Halifax.

It is now anticipated by the Yarmouth Steamship Co. that the new steamer Express will shortly leave England for Yarmouth, N.S., in command of Capt. E. O. Smith, & she will be put upon the south shore service of the line,

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& may be transferred to the service between Yarmouth & Boston in conjunction with the steamers Boston & Yarmouth, should the business of the Co. warrant taking such a step.

The steamer Weymouth will run between Sydney, North Sydney, C.B., & Aspy Bay & intermediate points along the eastern shore of Victoria County, in place of the Arcadia, which has been running there for the past 2 or 3 seasons. Capt. Carlin of Sydney will command her. This is a most convenient route by which tourists can visit the well-known & interesting scenery & the excellent fishing grounds around Cape North, Ingonish & St. Ann's, in northern Cape Breton.

Dominion letters patent have been issued to the following companies: The Ship Africa Co., capital \$5,000. The Ship Ontario Co., capital \$3,000. The Ship Bristol Co., capital \$5,000. The Ship Hamburg Co., capital \$10,000. The Ship Austria Co., capital \$10,000. The Ship Swansea Co., capital \$4,000. The Ship Persia Co., capital \$5,000. The Ship Plymouth Co., capital \$5,000, & The Ship Avon Co., capital \$2,000. The incorporators of these nine companies are the same for each company, & are G. W. Churchill, J. Churchill, E. Churchill, L. M. Churchill, & W. C. Churchill, all of Hantsport, N.S.

A number of promotions are expected to take place in the service of the Dominion Atlantic Ry. when the new steamers Prince George & Prince Arthur have been put on the service. Capt. A. N. McGray, of the Prince Edward, is slated for the captaincy of the Prince George, recently launched at Hull, Eng., & the command of the Prince Arthur will probably fall to either Chief Officer Kinney, of the Prince Ed ward, or to the present skipper of the sidewheeler Prince Rupert, running between Digby, N.S., & St. John, N.B. Second Officer Stanwood, of the Prince Edward, stands a good show for promotion this summer, when the new boats are commissioned.

Ontario & the Great Lakes.

Capt. Henry Donaldson, well-known as a steamboat master on Lake Ontario, died at Toronto recently.

The Wahnapiatae Navigation Co. is being wound up by the liquidators, F. Cochrane & B. Chapin, of Sudbury.

Donnelly Bros., of Kingston, have sold the steamer Cambria to G. Palmer, of Toronto, & others. She will ply between Buffalo & Point Avenue Park this season.

The Minister of Public Works recently stated that he quite realized the importance of having a dry dock at Owen Sound, but he had no proposal to make regarding it.

The steamer Carmona, of the Brown Line, is being almost rebuilt at Collingwood. She is to be completed early in July, when she will ply between Detroit, Sarnia, Goderich & Southampton.

It is said the traffic on the Welland canal this year has so far been the greatest in the history of that waterway. The immense quantity of grain going to the sea-board accounts for this.

Capt. Finlay McKay, of Belle Ewart, one of the pioneer navigators of Lake Simcoe, died recently, aged 78. He had been successively captain of the steamers Morning, Simcoe, Victoria, Emily May & Orillia.

The steamer Empress of India is on her usual route between Toronto & Port Dalhousie. She had extensive repairs made to her this spring, & it is said that next year it is proposed to build an entirely new hull for her.

Parliament has voted \$2,000 for repairs to Burlington Channel. The Minister of Public Works says it is intended to do the most urgent work this season, & next year he will

ask for a much larger sum for improvements, as the piers are rotten.

Superintendent Boyd, of the Sault Ste. Marie canal, gives us the following statistics of the business which passed through the canal last season. No. of lockages, 2,976; no. of craft, 4,386; total tonnage, 3,804,361; Canadian tonnage, 408,232; average time of locking 13 min., 58 seconds.

The Lake Temiscamingue Navigation Co., with a capital stock of \$25,000, has been incorporated, with headquarters at Ottawa, to carry on the business of navigation, including passenger & freight traffic, towing, etc. The incorporators are: John, Jas., & David Gillies, of Carleton Place; L. Laconture, of Montreal, & J. O. Blouin, of Baie des Peres.

In a recent discussion in Parliament on the estimate of \$30,000 for Collingwood Harbor, the Minister of Public Works said the present contract, which would cost \$144,000, would give a depth of 18 ft. in the outside harbor & 16 in the inner one. The Government had been asked to make the depth 20 ft., which would cost \$100,000, but he had not accepted the suggestion.

The Prescott & Lake Superior Navigation Co. has been incorporated, with a capital stock of \$100,000 & headquarters at Prescott, Ont; to acquire & operate steamships & other vessels for general transportation purposes. The applicants for incorporation were the following: J. D. Reid, of Cardinal; G. F. Benson, of Montreal; D. Gow, of Cardinal; Geo. Hall, of Ogdensburg; & J. K. Dowsley, of Prescott.

The Minister of Public Works recently announced in Parliament that an arrangement was made to expend \$25,000 in harbor improvements at Port Burwell, on condition that certain parties interested in the coal trade contributed \$50,000 for the same purpose. The parties agreed to do so, but backed out. Notwithstanding that, Mr. Tarte says he will go on and spend the \$25,000 in view of the importance of the harbor.

A paragraph has been going the rounds of the press stating that a Toronto shipbuilding firm had secured a contract from the St. Lawrence & Chicago Steam Navigation Co. to build a large grain carrier, the dimensions & other particulars being given. J. H. G. Hagarty, the Manager of the Navigation Co., emphatically denies that a contract has been entered into. He says his Co. asked for bids, but that nothing further has been done.

The steamer Eurydice, the property of Sylvester Bros., Toronto, has been sold to Campbell & Rosenecke, of Buffalo, for, it is said \$6,000. She has been the subject of considerable litigation recently. Last summer she was sold to parties at Port Stanley for \$10,000. The purchasers afterwards refused to receive her & took action against the owners. The new purchasers, it is said, will run her between Buffalo & Chippewa as an excursion steamer.

A steamer, the White Star, has recently been built in Montreal by W. C. White. She is constructed of steel, is 166 ft. long, 42 ft. beam, & has a tonnage of 228 net. Her engines, which are of about 180 nominal h.p., were built in Scotland, & her boilers are of the Scotch type. She will run as an excursion steamer between Grimsby Park, Lorne Park & Toronto, & will be permitted to carry 800 excursionists. Capt. Boyd, of Toronto, formerly on the Greyhound, has been appointed to her command.

The C.P.R. steamer Athabasca has been supplied with a direct connected lighting unit consisting of a 500-light incandescent dynamo, direct connected to a 50 h.p. high speed Ideal engine. This unit, which is very compact, occupies a floor space of less than 6x9 ft. The dynamo is of the latest steel frame multi-

polar type, with ventilated armature. A marble switchboard, on which are mounted a standard equipment of instruments, is also part of the new equipment, which is said to be the most complete on any of the steamers now running on the upper lakes.

On May 31 there was a long discussion in the House of Commons of the scheme to construct a ship canal from the Ottawa River to Georgian Bay. The Premier questioned if there was evidence as to the correctness of the estimated cost of \$17,000,000 & as to the probability of it being a commercial success. If the Government was satisfied that the conditions could be fulfilled, the request for a Government guarantee of interest on \$17,000,000 at 2% was a moderate request.

The annual miles-ton report of the Canadian & U. S. canals at Sault Ste. Marie for 1897 shows an enormous increase in the amount & value of freight which passed to & from Lake Superior last year, over any previous season. In 1896 the value of all articles was given at \$159,575,129.43. In 1897 it amounted to the stupendous sum of \$218,235,927.77, an increase of \$58,660,798.34. With an increase of 2,743,694 net tons, or 11% in freight carried in comparison with the season of 1896, the rate per mile-ton was materially lowered, it being .83 mill in 1897, while it was .99 mill in 1896.

The Province of Quebec.

The Dominion Parliament has voted \$7,000 for the establishment of a marine biological station in the Gulf of St. Lawrence.

The Montreal Hotel & Navigation Co. has been incorporated with a capital stock of \$25,000 & headquarters at Montreal, to acquire & operate athletic grounds, hotels, refreshment-rooms & parks. The incorporators are: C. H. Catelli, W. L. Hogg, H. Laporte, & J. P. Mularkey, of Montreal; & W. D. Harris, of Ottawa.

The Dominion Parliament has passed a bill to incorporate the Lake Champlain & St. Lawrence Ship Canal Co. to build a canal from the St. Lawrence River, at Montreal, to Lake Champlain, over a route which has been endorsed by the Deep Waterways Commission. The Co. is to be capitalized at \$6,000,000, & the Government is given power to take over the work at any time on giving 30 days' notice.

A barge service has been commenced between Coteau & Montreal for the western grain, which is being brought over the Ottawa, Arnprior & Parry Sound & Canada Atlantic Rs. The grain, which has so far been taken for Montreal by these roads, has been carried from Coteau over the G.T.R. In future it will all be taken to the Canada Atlantic elevator at Coteau & there transferred to barges, in which it will be taken to Montreal & delivered at the ship's side.

Government Steamer for P.E.I.

The Dominion Government steamer Stanley, which has rendered satisfactory service for some years in maintaining winter communication between Prince Edward Island & the mainland, has been found altogether too small to cope with the increasing trade between these points, & the Minister of Marine has, therefore, deemed it advisable to procure a larger and more powerful vessel.

Parliament, at its recent session, appropriated \$180,000 for the purpose of its construction, & Captain McElhinney, Nautical Adviser to the Department of Marine, is now in Glasgow, Scotland, preparing plans & specifications & inviting tenders for the construction of such a steamer as is contemplated. The Stanley was built according to the plans & under the direction of Captain McElhinney.

ELECTRIC RAILWAYS.

Mimico Sunday Car Case.

At Toronto, June 15, County Judge McDougall quashed the indictment against the Toronto & Mimico Electric Ry. Co. for running cars on Sundays. The decision is due to the finding that the indictment was faulty in two particulars. It was based on a section which is an amendment to the Lord's Day Act, & then asks for a penalty as provided under the criminal code, which, the Judge holds, cannot be consistent, as the breach of the statute should be punished in accordance with the provisions of the Lord's Day Act, but as there is a difficulty in bringing up a corporation under the latter act, according to the holding of Judge McDougall, the point will probably be carried to the Court of Appeal for adjustment. It was also found that the prosecution was delayed beyond the statutory limit.

This judgment is on a motion to quash an indictment preferred at the December Sessions, 1897, against the T. & M. E. Ry. Co. The alleged offence set out in the indictment read:—That the defendant, at the Township of Etobicoke, in the County of York, on June 27, 1897, being the Lord's Day, did unlawfully & without excuse disobey a statute or act of the Legislature of Ontario, 60 Victoria, cap. 14, section 95, by unlawfully running cars or trams, & unlawfully & wilfully carrying passengers thereon, the same not being necessary for the purpose of keeping the track clear of snow or ice or for other acts of necessity or charity, & that the T. & M. E. Ry. & L. Co. did thereby commit an indictable offence contrary to the Criminal Code, sec. 138.

Section 138 of the Code reads as follows:—“Every one is guilty of an indictable offence & liable to 1 year's imprisonment who, without lawful excuse, disobeys any act of the Parliament of Canada or of any Legislature in Canada by wilfully doing any act which it forbids, or omitting to do any act which it requires to be done, unless some penalty or other mode of punishment is expressly provided by law.”

Section 95, cap. 14, of 60 Victoria, of Ontario, for the breach of which the defendants were indicted, reads as follows:—“No street car company or tramway company, or any electrical railway company, except where it shall be necessary for the purpose of keeping the tracks clear of snow or ice or for other acts of necessity or charity, shall run cars or trams upon the Lord's Day. The foregoing shall not apply to companies which have before April 1, 1897, regularly run cars on Sunday, nor shall it confer any rights so as to run cars on the Lord's Day not now possessed by them, nor shall it affect or apply to any company which has by its charter or any special act the right or authority to run cars on Sunday, nor shall it affect the right (if any) of the Toronto Ry. Co. to run cars upon the Lord's Day, if or when sanctioned by the vote of the electors under 55 Victoria, cap. 99, & 57 Victoria, cap. 93, but this proviso shall not confer upon the Toronto Ry. Co. any right to run cars upon the Lord's Day which it does not now possess (if any) if sanctioned by such vote, nor shall this section apply to or affect any of the provisions of the Electric Railway Act of 1895.”

The defendant's counsel took 5 objections to the indictment, as follows:

1. The indictment does not show that the defendant did not prior to April 1, 1897, regularly run on Sunday.

2. The statute contains other exceptions, & the indictment does not show that the defendant does not come within the exceptions.

3. The statute is an amendment to an act of the Province, being Chap. 203 of the Revised Statutes of Ontario (1887), “An act to

prevent the profanation of the Lord's Day,” & the act provides a penalty or mode of punishment for disobedience thereto. The act has now been repealed by the Revised Statutes of Ontario (1897), & no prosecution can be continued thereunder.

4. The indictment does not allege that no penalty or other mode of punishment for the disobedience of the statute was expressly provided by law.

5. The prosecution was not commenced within 1 month after the commission of the offence.

The Judge holds that the 3rd & 5th objections go to the root of the whole matter, & if they can be sustained it would be unnecessary to consider the others. He then set out his decision, that sec. 95 is undoubtedly an amendment, relating to the observance of the Lord's Day, having been added after it was shown in the Hamilton S. Ry. case that the general prohibition of the Lord's Day Act did not apply to a company incorporated for the purpose of operating street cars. He continues: “If sec. 95, cap 14 of the statute of 1897, from the date of its being assented to, should be read into the Lord's Day Act as it stood upon that date, it is contended the present indictment will not lie, because the Lord's Day Act provides its own penalties & procedure for breaches of its provisions, & therefore, the case falls within the exception of the latter part of sec. 138 of the code.”

The Judge quotes authorities, & argues that amendments passed to statutes are usually directed against defects which have since come into notice since the statutes were passed. He holds that sec. 95 is clearly an enactment in *pari materia* with the Lord's Day Act, & the two acts, together with section 136 of the Electric Railway Act, which deals with Sunday traffic upon railways coming within the act, form one homogeneous & consistent body of law, & each of them may explain every other part of the common system to which they belong. “It is, in my opinion,” he continues, “only carrying out the clear intention of the Legislature to read all the amendments contained in that act into the proper statutes, even though such statute intended to be amended may not be expressly named in the amending clause.”

Judge McDougall then quotes Lord Mansfield: “Where there are different statutes in *pari materia*, though made at different times, or even expired, & not referring to each other, they shall be taken and construed together as one system & as explanatory of each other.”

“If, then,” he continues, “sec. 95 of the Act of 1897 is to be read as forming part of the Lord's Day Act from April 13, 1897 (the date of its sanction), the prosecution for the alleged offence committed by the defendant is governed by the provisions of the Lord's Day Act. The remedy given is to proceed summarily before a justice of the peace, & the penalty is a fine not exceeding \$40, to be collected by distress, but if default is made in payment, & distress fails to realize the fine, imprisonment may be imposed.”

The Judge holds that the 5th objection, that the prosecution was not commenced within 1 month after the offence was committed, holds good, as the date of the latter was June 27, & the indictment was not found until December.

The indictment is, therefore, quashed, but without costs, the defendant succeeding upon the 3rd and 5th objections.

The case was argued at the last general sessions by J. Bicknell for the defendant, & Crown Attorney Dewart for the Crown.

Judge McDougall, the day after the delivery of the above judgment, granted the County Crown Attorney's motion for a reserved case, which he did with much doubt as to his jurisdiction, expressing the opinion, however, that the points were important & that the

Court of Appeal could decide the question of jurisdiction.

It is a notable fact that all Canadian street railways have done an excellent business this year. In Montreal & Toronto the earnings have been running away ahead of a year ago, & the same is reported from Hamilton, London, St. John & Halifax. The returns all over certainly afford a very fair indication of prosperity.

Electric Railway Legislation.

The following Acts were passed at the recent Dominion session:—

Respecting the Montreal Island Belt Line Ry. Co.

Respecting the Intercolonial Radial Ry. Co. To incorporate the Dawson City Electric Lighting & Tramway Co.

To incorporate the Three Rivers & North Shore Electric Ry. Co.

To incorporate the Seven Miles Canyon & White Horse Tramway Co.

Respecting the Queenston Heights Bridge Co.

British Columbia Lines.

B. C. Electric Ry.—The half-yearly interest on the 4½% debentures & the 6% income bonds due May 15 has been paid at the offices of Spurling & Co., London, Eng.

The Vancouver City Railway & Light Committee has been discussing with the City Solicitor the proposed extension of the speed limit to be granted to the B. C. E. R. Co. for running its cars in the city. Finding that there was insufficient data on which to act, within the experience of the city itself, the Clerk was instructed to write all the leading cities of Eastern Canada & the U.S. to ascertain the rate of speed permitted by civic authorities compatible with the public safety.

On May 24 an electric car with 60 passengers was proceeding from Vancouver to New Westminster at a rapid rate, when the axle broke & the car completely overturned. The occupants were jumbled together as the car, still on its side, ploughed along the side of the track. Miraculous as it seems, nobody was killed, though several were more or less injured. Many were cut by broken glass.

The Maritime Provinces.

St. John Ry.—The annual meeting which was to have taken place June 8 has been adjourned till July 6. The annual statement & report will consequently not be issued till that date. It is understood the Co. has had a very satisfactory year. A dividend of 3% for the 6 months ending April 30 has been declared, payable June 15. This is an increase over the first half of the year of ½%.

Ontario Lines.

Amherstburg, Windsor & Harrow.—A company in Detroit has made a proposition to build an electric railway from Amherstburg to Windsor & Harrow, & wants a bonus of \$15,000. Several bridges would be required.

Berlin & Waterloo St. Ry.—A press report that the G.T.R. has obtained an option on this line & that it will be extended to Preston, lacks confirmation.

Brantford Electric St. Ry.—J. Easton, who was so badly injured in a street railway accident 2 years ago in West Brantford, has settled with the Co., getting \$4,000 in full of all claims, defendant to pay all costs. The sensational law suit to recover damages will be well remembered. The jury awarded Easton the immense verdict of \$12,000, which

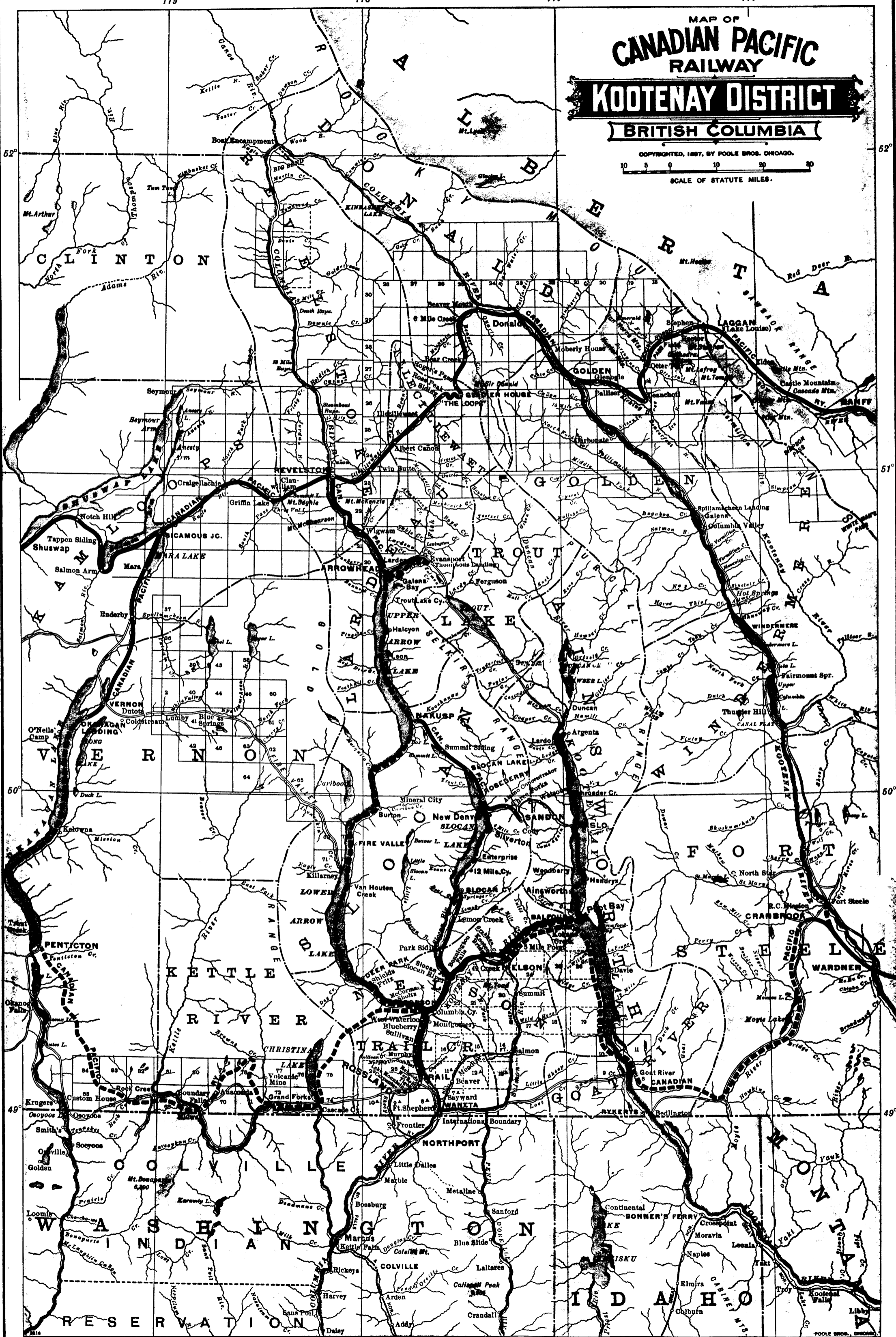
MAP OF CANADIAN PACIFIC RAILWAY

KOOTENAY DISTRICT

BRITISH COLUMBIA

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SCALE OF STATUTE MILES.



was reduced to \$9,000 by the appeal court. After that the St. Ry. Co. assigned, & since then Easton has got nothing except \$1,500 paid without prejudice during the proceedings.

Bobcaygeon & Peterboro'.—At a recent meeting in Bobcaygeon the following were elected as officers of the Co. which proposes to build an electric line between Bobcaygeon & Peterboro': W. C. Moore, President; S. H. Thorne, Vice-Pres.; Rev. Mr. Innis & J. T. Robinson, Directors; W. J. Read, Sec. Treas.

Galt & Preston Electric Ry.—A by-law for \$12,000 bonus was carried in Waterloo June 10. This is the town's share towards the \$40,000 asked from Waterloo & Berlin by the Ry. Co., which will give both towns C.P.R. connections. If Berlin carries its by-law for the balance, \$28,000, it is said the C.P.R. will be installed in the twin towns by September next.

The Hamilton Radial Electric Ry. directors went over the road recently in a special fast car, fitted up to make the trip from Burlington to Hamilton and vice versa in, at most, 25 minutes. Two of these cars have been fitted up, having new trucks with wheels considerably larger than the old ones & motors of 50 h.p. The Company expects to be off Sherman Avenue very soon & running over the new Birch Avenue subway line. The G.T.R. workmen have completed one subway, & have the other nearly finished. They will do away with the dangerous level crossing. Nearly all the property owners over the new line have been settled with, & those who will not settle have been served with expropriation notices. One man wants at the rate of \$20,000 an acre for a small piece of land.

Hamilton St. Ry.—In the consideration of the application of this Co. for better terms at a recent meeting of the City finance committee, the question of municipal control was brought prominently before the aldermen. Not a single member favored the granting of the Co.'s application, although Ald. Hobson believed that the city, now having a good bargain, should extend the franchise. Several members considered that the City should acquire the franchise. After a long discussion, the committee decided to recommend that steps be taken to acquire the franchise. The committee will employ an expert to value the system.

The H.S.R. Co. has given the City notice that it "protests against the agreement between the City & the Hamilton Radial E. Ry. Co., on the ground that it is illegal, & if the provisions thereof are attempted to be carried out will interfere with the rights & property of the St. Ry. Co." The Co. will resist any attempt to interfere with its rights.

Kingston Electric Ry.—The Kingston branch of the Lord's Day Alliance, through the Secretary of the Provincial Lord's Day Alliance, recently applied to the Attorney-General for a fiat to take proceedings against the S. R. Co. for running cars on Sunday, May 22. The Attorney-General's reply was: "It appears the Co. have no intention or systematically running its cars on Sunday. Though the cars ran on the Sunday preceding the Queen's Birthday, this was in consequence of there being a large number of volunteers in Kingston, and many visitors who were desirous of seeing the camp. Under these circumstances it is thought a fiat should not be granted on the present application, but should the cars at any time be run regularly on Sundays a fiat will be granted."

The London Street Ry. Co.—The earnings for May were \$7,695.65, compared with \$7,312.38 in May, 1897, an increase of \$383.27.

Niagara Falls Park & River Ry.—The Co. is making some improvements in the power house, by installing two 500 h.p. power generators for the purpose of selling power

for commerce, etc. Already 400 h. p. of this has been contracted for, & it is probable the whole of the 1,000 h. p. will be in use in a very short time. The Co. has facilities for another 1,000 h.p. should requirements demand them. (Official).

For some time past negotiations have been going on between Manager Phillips, of the N. F. P. & R. Ry. & Mr. Bostwick, of the Upper Suspension Bridge Co., with reference to the Ry. Co. obtaining the right of way over the bridge, so as to run its electric cars over to Niagara Falls, N.Y., where it will have a station in the park. Early in May a conference was held between E. B. Osler, President; W. Hendrie, Vice-President; H. C. Hammond, Manager, & W. Phillips, Manager, representing the N. F. P. & R. Ry., & the President & directors of the Bridge Co., at which an agreement was effected. The Ry. Co. expect to have its cars into Niagara Falls, N.Y., before the end of June. (Official).

The N. F. P. & R. Ry. has entered into traffic arrangements with the Gorge Road across the river for the season of 1898, by which round trip tickets are sold at reduced rates. The N. Y. Central Ry. is issuing round trip tickets for both sides of the river.

Peterboro' to Chemong & Lakefield.—In reference to what we said about this project in our May issue, page 80, it may be added that the town of Peterboro' offered a bonus of \$20,000 to the project, but hedged it round with so many provisos that the promoter of the scheme could not see his way clear to accept it. The matter at present is in statu quo, & will probably remain so until the money market gets easier. (Official).

St. Thomas Electric Ry.—A correspondent writes: "There is one thing I have been anxious to know ever since the road was begun, but have been afraid to mention it in this righteous city. It is this: Will the cars of the St. T. E. Ry. run on Sunday? I hope they will. But I don't expect they will. Public morals are so very immaculate in this saintly city that it would never do to endanger them by allowing electric cars to run on Sunday."

This road, which was commenced Mar. 24 & is 6 miles long, has been about completed. The first car ran June 15, & the formal opening will be on July 5.

Smith's Falls, Rideau & Southern Ry.—The paragraph published in our May issue, pg. 81, on the authority of The Kingston News, saying that a contract had been let to a U. S. Company to build this line, was incorrect. We were unable to verify it before publication, but have now learned that the S. F. R. & S. Directors have been negotiating with a United States firm in regard to construction, but that since the declaration of war they have been unable to proceed with negotiations. The directors are anxious to arrange for construction in the town of Smith's Falls, & from there to the Rideau Lakes, which are fast becoming important summer resorts. There are a number of villages en route. (Official).

Strathroy & Western Counties Ry.—In 1893 the Ontario Legislature incorporated the Strathroy & Western Counties Ry. Co. with power to construct & operate a steam or electric railway from St. Thomas via Strathroy & Arkona to Forest or some point in the township of Bosanquet. The provisional directors were C. Grist, J. Cox, C. Bixel, W. J. Dyas, D. M. Cameron, W. Geddes & R. Pincombe, of Strathroy; Dr. J. A. McLeay, of Watford, & G. M. Everest, of Arkona. Work was to be commenced in 3 years, & completed in six years, but the time has been extended, & will expire next year. It is said work will be commenced this year on a portion of the line from Strathroy to a point on the C.P.R., and there is a strong

desire to have the portion from Strathroy to some point in Bosanquet also constructed. C. Gustin, of Valley Grove, is taking an active interest in the matter, & would be pleased to consult any others who feel interested. The line would doubtless have a large summer traffic between London & the Lake.

Toronto Ry. Co.—The gross earnings for the first five months of 1897 & 1898 are as follows:

	1897	1898	Increase.
Jan'y....	\$74,545.55	\$86,562.36	\$12,016.81
Feb'y....	69,744.61	82,402.19	12,657.58
March....	78,891.45	92,818.12	13,426.67
April....	73,756.38	86,898.83	13,142.45
May....	82,461.51	92,670.35	10,208.84

The City Treasurer of Toronto says in his recent annual report:—"The revenue from the St. Ry. under its contract with the City amounted last year to \$145,673, an increase of \$6,751 over 1896, \$85,673 of which was percentage of gross receipts, & \$60,000 mileage. This year the estimated revenue from St. Ry. services is \$154,000, an estimated increase of \$8,327 over last year. During last year the service was extended by the introduction of Sunday cars. While the Sunday service has been taken advantage of by the citizens generally, & has evidently been popular, it is too soon to form an estimate of the general effect on the revenue from this special source. It is due to the working staff of the road, the conductors & motormen, to acknowledge their exceptional courtesy to the public in the carrying out of their arduous and sometimes trying duties. A tabulated statement shows that the mileage & percentage have increased from \$55,134 & \$65,239 respectively in 1892 to \$64,000 & \$90,000 (estimated) in 1898.

The Court of Appeal has set aside the decision of the board of County Judges in the T. R. Co.'s appeal against the assessment of its rails, poles & wires at \$84,860 & \$79,254, in wards 1 & 2 respectively. Acting upon the authority of the court, the City Clerk has amended the assessment roll by restoring these amounts, & has also amended the collector's rolls accordingly. It has been decided by the T. Ry. Co. to appeal to the Imperial Privy Council, & Wm. Laidlaw, Q.C., is preparing to start for England in order to move for permission to enter an appeal. The Corporation Counsel has advised that the City Council authorize him to contest the application of Mr. Laidlaw, upon grounds which he believes to be unassailable.

The Mayor & City Engineer of Toronto recently received communications from Manager Keating of the T. Ry. Co., asking that bicyclists be kept off that portion of the public streets upon which the Co.'s rails are laid, & which are known as the track allowances. The letter to the City Engineer is as follows:—"I enclose copy of the resolution passed by the directors of the T. Ry. Co., at its last meeting with reference to this matter. While the Co. is willing to give fair & reasonable consideration to the privileges of all persons who ride bicycles on the streets, it complains that the provision embodied in the agreement with the city & in the act of incorporation, that cars shall have the right of way, & that their operation shall not be delayed or obstructed, has been constantly violated by some of the bicyclists, & it is thought the city authorities should discourage as much as possible the riding of bicycles on the street railway portion of the roadway, & should forbid bicycle riding on the strip between the tracks. I understand that in some American cities ordinances have been passed making it an offence to ride bicycles on the strip between the street railway tracks, & subjecting any person offending to arrest & fine. You will, I think, admit that it is unreasonable that the ordinary speed & operation of cars which accommodate 75,000 to 80,000 passengers daily should

be delayed or interfered with by persons who are constantly taking the risk of riding bicycles immediately in front of the cars as well as on the strip between the tracks. The matter seems to be of such importance that I would respectfully suggest the advisability of your consulting with the legal department of the city, & that the Council should devise some way to regulate the speed & system of bicycle riding on streets in order to reduce the great & increasing danger arising from the use of the track allowances for this purpose. I shall be pleased to meet any committee that may be appointed for dealing with the matter in order to discuss the whole question. I may mention that instructions have been given to change the jets on the trolley sprinklers so as to water the portion of the track allowance lying between the Street Railway Company tracks in accordance with the agreement between the Co. & the City. Will you please give this matter your most careful consideration, & I hope that some reasonable & proper means may be devised to check the fast & often reckless riding of bicycles on the track allowance & to prevent bicyclists from using the strip between the tracks."

The City Solicitor informed the Council that, without having looked up the law, he was of opinion that the Co. has no power under the charter to water the streets, & as the only right to do so is that under the agreement with the City, the Co. can only water such portions of the streets as the City directs. The Co. has been notified that the city will not allow it to carry out the policy indicated in Mr. Keating's letter.

Wm. Banks, a Toronto newspaper man, has been employed by the T. R. Co. to take charge of its excursion business during the summer. The Co. proposes to greatly extend its business in this direction, both in connection with the new pleasure ground at Munro Park & the other resorts adjacent to the city.

Conductor McMurray has been awarded a bronze medal for conspicuous bravery in saving the life of Motorman Cruise, by freeing him from a live wire in March last.

Quebec Lines.

La Patrie & Scotstown.—It is proposed to build an electric railway between La Patrie & Scotstown.

The Montreal & Southern Counties Ry. Co. has secured Dominion legislation empowering it to issue preference stock to construct an electric railway from La Prairie to Montreal.

Montreal Park & Island Ry.—As far as we can ascertain, the story that this line was about to be purchased by the Montreal Street Ry. Co. was made out of whole cloth. On June 7, at a meeting of the shareholders & creditors of the M. P. & I. Ry., President Holt explained that although the road was thoroughly equipped & the receipts increasing, certain old liabilities had to be met shortly, & this hampered the directorate. Further, large blocks of stock had been issued to the original promoters, & he, with his fellow directors, believed that in fairness to all concerned a reorganization of the Co. was absolutely necessary. A committee representing the different interests involved was appointed to draft a plan of the reorganization as follows:—H. S. Holt, for the directors; Mr. Beique, Q.C., for the bondholders & Montreal Construction Co.; Mr. Geoffron, for the Banque du Peuple & the Seminary of Quebec, & W. Strachan, for the shareholders. In order to facilitate matters & make things run easy, the trustees of the bonds were appointed to act as receivers & will manage the road until the plan of reorganization is com-

plete. The trustees are, for the original bonds, E. Hanson & S. H. Ewing, & for the new issue A. A. Thibaudeau & D. Morrice.

C. A. E. Carr, Superintendent of the London, Ont., Street Ry. Co., has been appointed Superintendent of the M. P. & I. Ry., in succession to A. J. Corriveau, who recently resigned. Mr. Carr still retains his position with the London Co., & will manage both jointly. The new Manager of the M. P. & I. will be remembered as having been Secretary to H. A. Everett.

The constantly increasing traffic on the lines of the M. P. & I. Ry. warranted the Co. in commencing in the middle of May a quick & frequent service, so that the public can take advantage of the beautiful scenery through the country. Cars run on Sundays round the mountain, cemeteries & Lachine lines every 15 minutes, & on Back River & St. Laurent-Cartier Ville every 20 minutes. On week days cars run round the mountain, cemeteries & Lachine lines every 20 minutes, & Back River & St. Laurent-Cartier Ville every 40 minutes. These latter lines, as well as the Lachine line, are now operated with high speed cars.

The case of the M. P. & I. Ry. Co. & the Town of St. Louis came up in the Court of Appeal May 26 as an appeal from a judgment of the Superior Court condemning the Co. to carry out within a delay of 2 months its obligations towards the municipality of St. Louis, the obligations including the sale of tickets at a reduced rate, a 5-minute service on St. Lawrence-st., & the granting of transfer tickets to the cars of the M. S. Ry. Co. without extra charge. After hearing argument the Court took the case en delibere.

Mrs. E. M. Aulton recently obtained \$6,000 damages against the M. P. & I. Ry.

Montreal St. Ry.—In 8 months Montrealers have spent over \$900,000 in street car fares, an increase of \$80,681.00 over the corresponding time last year. During May the earnings of the street railway reached \$123,508.09, against \$110,819.37 the month previous & \$116,337.03 for May, 1897. The average daily earnings of the railway during the 8 months were \$3,712.45, and the average daily increase, \$332.03. The monthly earnings in detail, with comparisons, are as follows:

	1897.	1896.	Increase.
Oct. . . .	\$116,292.09	\$109,110.38	\$ 7,182.71
Nov. . . .	110,929.60	100,818.57	10,111.03
Dec. . . .	113,128.91	103,116.02	10,012.89
Jan. . . .	110,140.83	89,620.55	10,520.28
Feb. . . .	102,625.49	89,951.68	12,673.81
Mar. . . .	114,677.91	99,441.87	15,236.04
Apl. . . .	110,819.37	103,045.93	7,773.44
May. . . .	123,508.09	116,337.03	7,171.06
	\$902,123.29	\$821,442.03	\$80,681.26

The M. S. Ry. will shortly inaugurate a couple of changes in its service in the city, which will considerably facilitate the means of inter-urban communication. Rails are being laid on Place d'Armes Hill, connecting Craig & St. James streets, & when completed the Bleury & St. Catherine cars will run over the new line. This will greatly shorten the present circuitous route taken by these cars, & will be a further advance in the direction of rapid transit. Another change will be made in the extension of the Bleury & Park avenue line from Craig street to the river front by way of Craig & McGill streets. The new service from the Exhibition grounds to the water front will be practically the first cross-town car line in Montreal.

A deputation from the municipality of Verdun recently asked the Provincial Government that the charter of the M. S. Ry. Co. be extended to allow it to run to that suburb of the city, & also that the village be empowered to borrow \$10,000 to assist in the work.

The Recorder of Montreal has given judgment against the M. S. Ry. Co. for the nominal sum of \$25 & costs for refusing to build & operate its line up Cote des Neiges Hill, as agreed in its contract with the City, within a certain space of time that expired on May 1, 1897. In his judgment the Recorder refers to the fact that although the Secretary & the President of the Company have signed the specifications upon which the by-law which contains the section providing for the building of the line was based, they now claim that the City could only call for such a line by means of a simple resolution, so that the by-law passed for that purpose must be illegal. The Recorder holds that though everything that may be decided upon by the passing of a by-law might not be legally decided upon by the passing of a simple resolution, there is no doubt that as long as a decision reached by a simple resolution is legal, a similar decision reached by a by-law must be legal. But all these objections on the part of the Co., states the Recorder, dwindle into insignificance before the one prominent one, namely, that such a line would be too dangerous. The Co. brought up all sorts of expert witnesses to support this view, but the City, on the other hand, brought its own experts to prove that the new street car line in Quebec is built with much shorter curves, much steeper hills, & much shorter declines & inclines than would mark the line in question in Montreal. In addition to this, Mr. McKenna, of Cote des Neiges, has sworn that in 1892 the Co. itself had made overtures to the municipality for the building of a line like the one which it now objects to, & that in May, 1893, the Co. accepted the terms offered by the municipality of Cote des Neiges for the building of the line, & never made any mention of the danger. In short, the Recorder says: The preponderance of testimony shows that it there is to be any danger attached to the line, that danger can only be caused by negligence, ignorance or imprudence on the part of the Co., its engineers, or other employes, & to this all institutions of a similar nature are liable. He regretted exceedingly to be compelled to find the Co. guilty, because, as a rule, it had fulfilled its duties towards the City well; but it had neglected its agreement with the City, in this instance, & without being able to prove that there was really anything to prevent its carrying out its obligations.

The proposed bridge over the canal will be 217 ft. in length & 44 in width, & will cost \$85,000. It will have 2 tracks for electric cars, a double road for vehicles, & space for foot passengers. Two electric motors of 50 h.p. will supply the power.

The North Shore Electric Ry. Co. has been incorporated to build from Three Rivers to Montreal. Among the incorporators are Hon. W. Owens, Westmount; Hon. V. W. Larue, Quebec; W. Strachan, R. Prefontaine, T. Gauthier & A. J. Corriveau, Montreal.

Quebec City & Suburbs.—At a special general meeting of shareholders of the Quebec, Montmorency & Charlevoix Ry. May 26, it was decided to exercise the rights vested in the Co. & to acquire the Quebec District Ry. by July 1. The Co. will then control the Quebec City Electric Ry., & will commence operations to electrify the Q., M. & C. steam road to St. Anne de Beaupre, 21 miles from Quebec. It is expected that the steam road will be electrified as far as the Falls of Montmorency, 9 miles, this summer, & that the change to St. Anne de Beaupre will be completed for the summer of 1899. It is not likely that the city electric system will be extended this season. (Official.)

An extension of the Q., M. & C. line from St. Anne de Beaupre to Murray Bay is said to be contemplated in the near future. (See April issue, pg. 54.)

TELEGRAPHS & CABLES.

The Western Union's B.C. Cable.

The cables which will be used by the Western Union Telegraph Co. to establish connection between Seattle, Wash., & Victoria, B.C., have been completed. One section to be laid between Port Angeles, Wash., & Vancouver Island is 20 miles in length, the other, which will be laid across Puget Sound from Seattle, is 9 miles. The former required 6 cars of 60,000 lbs. capacity, & the latter 3 cars, to transport them to Seattle from Trenton, N.J., where they were made, with the exception of the core, consisting of 3 small insulated conductors, which was made in England. Each cable was loaded on the cars in the shape of the figure 8, layer upon layer, back & forth. Upright boards were placed along the sides of the cars to give greater capacity, & a temporary roof built over the cable. The entire cable weighs 421,080 lbs. It was made at the rate of about a mile a day.

During the entire process of manufacture the Western Union Co. had an electrical expert on the ground to see there was no flaw or defect in its construction. He was equipped with the most delicate appliances for detecting defects. The cable as it was made passed into a large tank of water, & from there to a small room, in which, all day long, sat the expert, notebook in hand, ready to jot down any indication of a flaw that might be shown by the delicately-adjusted galvanometer. An electrical current was constantly passing through the cable, & if at any time the slightest blemish had occurred, the current, assisted by the water, would have sought it out, & a telltale kick in the mirror of the galvanometer would have thrown a beam of light reflected by it upon a graduated scale. The expert had little to do, however, & his notebook was a blank so far as flaws were concerned, for so accurately was the work done that not a single blemish was found throughout the entire 29 miles of cable.

The very best gutta percha was used for insulating the 3 conductors of which the cable consists. Ordinarily one thinks of gutta percha & India rubber as identical, but as a fact they are widely different. Gutta percha is far superior for submarine cables, because of its electrical properties. It is carefully prepared & applied to the copper wire forming the conductor in such a way as to make a uniform coating to prevent the leakage of electricity. In this cable 3 conductors were covered & then twisted together, forming the cable proper. The conductors were a little more than $\frac{1}{4}$ of an inch in diameter, made of the finest copper wire. The gutta percha covering increased the size of each to $\frac{1}{4}$ of an inch. Around the conductors after they were twisted together were wrapped layers of Jute twine, forming what is technically known as the "jute bedding." The object of this was to protect the insulation from the outside wire known as the armoring, as the cable is to be laid along the bottom of the Sound, & may come in contact with jagged rocks, & possibly be suspended here & there between rough crags for several hundred feet. This armor is made by winding about the jute bedding 14 wires nearly as large as a lead pencil. This wire was previously treated with the double galvanizing process, to prevent the action of the sea water upon the steel. This latter covering was what gave the cable its silvery glistening serpentine appearance as it curled & twisted through the cupola of the building.

The nine miles of cable provided for Puget Sound is divided into 7 sections of various lengths, the 8th, a 20 miles section stretching from Port Angeles, Wash., to Albert Head, Vancouver Island, from which point there is a short land line into Victoria. The new route embraces Tacoma, Seattle, Port Townsend,

Port Blakeley, Port Ludlow & Port Angeles, in Washington, & is the first line the Western Union has opened to British Columbia. The course for the cable was surveyed last December, when the deepest sounding showed 80 fathoms. Owing to the comparatively shallow water, & the numerous currents & the general strain upon anything submerged in Puget Sound, this cable is exceptionally strong & heavy.

Heretofore, Victoria has had but one telegraph connection with the mainland of B.C., viz., the C.P.R. route via the E. & N. Ry. to Departure Bay, thence by the C.P.R. cable to Vancouver. That cable has recently been replaced by a new one, & by relaying the old one between Beachy Point & Port Crescent, Wash., the C.P.R. has secured an alternative route to the south.

The Western Union is also about to secure connection with Vancouver City, by building a line from Wooley, Wash., via Fairhaven, Blaine & New Westminster. The C.P.R. has connection in this direction by means of the Postal Telegraph between Vancouver & Tacoma. The Puget Sound Telegraph Co. has a line down the Sound shores of the Straits by way of Seattle & Port Townsend, extending to Cape Flattery.

We are not indebted to the Western Union Co. for the foregoing information, as, although we sent several letters to different officials of that Co., asking for particulars, no reply was received. The President of the Western Union & some of his subordinate officers do not seem to act on the principle that civil communications demand a reply.

C.P.R. Telegraphs in B.C.

Quickly following on the laying of the C.P.R. Co.'s new cables connecting Vancouver Island with the mainland comes the announcement of some important reductions in the tariffs from B.C. coast cities to various U.S. points. The Co. recently announced that the rates to the various States, which have been \$1.25 day & \$1 night, will now be \$1 both day & night for a message of 10 words. Thus, New York, Chicago, St. Louis, New Orleans, etc., may be reached for 25c. each less than the former tariff. The rate to Seattle & Tacoma, which has been 60c. day & 40c. night, has been brought down to 40c & 30c. Port Townsend, which has been 85c. will now be 25c., while Dungeness & Port Angeles, which have been \$1.10, will also have a 25c. rate. The Co. is enabled to lower these rates owing to the new direct connection.

The Victoria Colonist gives a brief resume of the telegraphic history of that city since the C.P.R. took over the B.C. telegraph system from the Dominion Government in 1886. It says: "At that time the only outlet was from Victoria by road to Saanich Arm, which was crossed by a short cable, thence by wire along the road to Nanaimo, thence by wire & cable across channels & 2 islands, then a plunge under the Gulf of Georgia to Point Gray, 15 miles from Vancouver, where a trail through the woods brought it to a highway bound for New Westminster. This was the regulating point, & at the boundary the Canadian line was spliced to the Western Union wire, which took it through a heavily wooded country to Seattle, from which point telegrams were distributed over the country. At that time it cost 90c. to telegraph to Seattle, \$1.25 to San Francisco & \$1.50 to eastern points. In 1886, when the C.P.R. assumed control, local rates in B.C. were immediately reduced 50%. San Francisco was put down to \$1, & Seattle to 75c. In 1887 San Francisco was reduced to 75c., with 60c. night rate, Seattle 60c. day & 40c. night, New York & other eastern U.S. points to \$1.25 per day & \$1 night, Montreal & other eastern Canadian points \$1 day & 75c. night, which rates are

now further reduced as shown above. The California & Oregon rates have not yet been interfered with.

"The rates enjoyed by Canadians compare well with those prevailing on the U.S. side of the line. San Francisco is a large city & has 2 big telegraph companies operating out of it. The rate from there to New York (about 3,500 miles) is \$1 both day & night. Victoria is a small city, with a much less number of telegrams, & yet Victorians have for years been able to telegraph to Sydney, N.S., the farthest easterly point of the Dominion & some 4,500 miles distant by wire, at a rate of \$1 day & 75c. night for messages of 10 words. The C.P.R., therefore, with its monopoly has been giving the people a very much longer service for considerably less money than has been enjoyed by U.S. cities in much more thickly populated states. The C.P.R. has been gradually but steadily improving its wire service out of this city for years, until now it is claimed to be strictly first-class.

"It has been the aim of the C.P.R. people to make the burden as light as possible on their customers. It must be borne in mind that, up to a very recent date, Victoria & Vancouver were the only 2 cities which made any money for the Co.; outside those points it was all expense. Hundreds of miles of wire had to be maintained through an exceedingly rough & sparsely populated country to keep us in touch with the outside world. The Co. now feels itself in a position to grant one of its periodical concessions in a further reduction of certain rates, & no doubt, the public will heartily appreciate the fact."

The Pacific Cable.

In the House of Commons, May 26, Mr. Casey brought the subject of the proposed cable between Vancouver & Australia to the attention of the House, & urged the Government to co-operate in carrying out the project.

Sir Chas. Tupper endorsed the scheme, which he characterized as a very important one, & recalled Mr. Chamberlain's statement to the Australian & Canadian delegates, that, after a study of the matter, he was convinced it entailed practically no financial responsibility. In response to a demand for tenders, the India Rubber & Gutta Percha Cable Works, of England, had offered to carry out the work for a million dollars less than Sir Sandford Fleming had estimated the cable would cost. In view of that fact, he regretted Sir Wilfrid Laurier's refusal to pledge Canadian co-operation in the carrying out of the scheme, because of distrust of the promoters' estimates.

Sir Richard Cartwright took the ground that of the 3 principal parties concerned—Australia, Great Britain & Canada—this country was the least interested in the scheme. Canada should, therefore, only be called upon to contribute to the cost in proportion to the benefit which it derived from the cable. The Government, so far, had not found it possible to come to an understanding with the other parties to the scheme, but they had not abandoned the hope that, ultimately, it might be carried to a successful issue. Although the matter was in the air, it had not crystallized as yet, & the Government could not, therefore, make any announcement at the present time.

Mr. McNeill urged the Government not to be apathetic in the matter, otherwise the opponents of the scheme would be encouraged to place obstacles in its way.

The cable steamer Francois Arago recently came into St. John, N.B., having on board 200 miles of the French cable, which she took up on Grand Banks for the purpose of repairing. She left a few days later to relay it.

C. P. R. Telegraph Notes.

M. T. Quigley, of the C.P.R. Telegraph staff in Vancouver, has been appointed Local Manager of the Vancouver office, in place of T. W. Dowling, who has been given another position in the operating department.

Owing to the great increase in press matter created by the war now in progress, the different Montreal newspapers have deemed it necessary to have operators placed in their offices to receive the bulletins direct. Consequently the C.P.R. Telegraph Department is at present minus some of its expert machines.

The old cable between Vancouver & Nanaimo, which was taken up by the C.P.R. recently, after the laying of the new one, has been relaid by the Co. between Beachy Bay, Vancouver Island, & Port Crescent, Wash., where it connects with the Postal Telegraph lines. At the other end a short land line connects it from Beachy Bay to Victoria.

An exclusive contract has been made between the C.P.R. & the Lake Manitoba Ry. & Canal Co., for the interchange of telegraph business, under which all business originating on the latter Co's. line will be handed over to the C.P.R. at Portage la Prairie, Man., to which point the C.P.R. has built an additional wire from Winnipeg to handle this business.

Owing to the large increase in traffic on the Ontario & Quebec division of the C.P.R. the telegraph work of the operating department has increased to such an extent as to render additional facilities absolutely necessary. An additional wire is being strung from Montreal to Megantic & another one from Farnham via Montreal, Smith's Falls, Toronto & Schaw to Hamilton, Ont.

Very satisfactory progress is being made in stringing the C.P.R.'s copper wire between Montreal & Vancouver, about half of the total distance of 2,900 miles being already completed. The new wire is already in use between Ottawa & Sudbury & between Fort William & Winnipeg, & it is confidently expected that by the middle of June it will be working through from Montreal to Winnipeg. West of Winnipeg the pole line is being largely reconstructed, which is delaying the stringing of the wire. All but 6 car-loads of the wire, representing some 760 miles, have been shipped & the intention is to have the whole work completed through to Vancouver by about Aug 1. The rapidity with which this important work is being carried out reflects great credit on Electrician Camp & the several division superintendents through whose territory the line passes.

Telegraph Office Changes.**GREAT NORTH-WESTERN.**

OPENED.—Little Metis Lighthouse, Que.; Chaudiere Basin, Que.; Ahmic Harbor, Ont.; Muskoka Wharf, Ont.; Tobermory, Ont.; Victoria, B.C.

CLOSED.—Avonmore, Ont.; Stonehaven, N.B.; Waupoos, Ont.

CANADIAN PACIFIC.

OPENED.—Bull's Head, N.W.T.; Altamont, Man.; Okotoks, Alta.; International Pier, N.S.; Garden River, Ont.; Leonard, Ont.; Margach, Ont.; Niagara-on-the-Lake, Ont.; Queenston, Ont.; Papineauville Station, Ont. CLOSED.—Oakville, Man.; West Lynne, Man.; Cutler, Ont.; Farran's Point, Ont.

The majority of people look upon it as a trivial offence to throw a stone at a telegraph wire, but under the new criminal code the penalty is 3 months, or \$50, & if you injure the wire or one of the glass insulators, the penalty is 2 years in a penitentiary.

EXPRESS.**The Dominion Company.**

This Co. announces the opening of a route on the C.P.R. between Slocan City & Slocan Jct., B.C., also on the entire Counties Ry. between Iberville & Henriville, Que. Routes have been reopened for the season of navigation on the Toronto, Port Dalhousie & St. Catharines Steamboat Line, the Bay of Quinte Steamboat Line, the Georgian Bay Transit Co., & the North Shore Navigation Co.

R. E. Helme has been appointed Route Agent, with headquarters at London, Ont., & will have charge of the following territory: Credit Valley Section of C.P.R. between Galt, Ont., & Detroit, Mich., inclusive, including Ingersoll Branch; Lake Erie & Detroit River Ry., including London & Port Stanley Division; Erie & Huron Ry., & the following stage routes: from Galt to Hespeler, from Galt to Waterloo, from Ayr to Brantford, & from St. Thomas to Aylmer.

H. Henderson has been appointed Acting Route Agent for the territory of New Brunswick & Nova Scotia, with headquarters at St. John, N.B., vice R. J. Smith, resigned.

W. J. Kirby has been appointed Acting Route Agent, with headquarters at Winnipeg, & has charge of the following territory: all offices on main line of C.P.R. between Fort William & Moose Jaw, inclusive; Gretna & Emerson, Stonewall, West Selkirk, Pembina, South-Western, Pipestone, Esteven, Pasqua & North Portal, & Prince Albert Branches: Manitoba & North-Western Ry., Lake Dauphin Ry., & G.N.-W. Central Ry.

A. Devitt, with headquarters removed to Revelstoke, B.C., has charge of the following territory: all offices on main line of C.P.R. west of Moose Jaw to Revelstoke inclusive; Lethbridge, Edmonton & Macleod Branches, & all offices in Kootenay District.

E. J. Millard having been assigned to other duties, A. W. Lee has been appointed Route Agent, with headquarters at Seattle, Wash., & will have charge of all offices in B.C. west of Revelstoke, & all offices in State of Washington.

Shipments to Yukon.—Until such time as some regular line of transportation is established and which has complied with the requirements of the Department of Customs, shipments cannot be forwarded "In Bond" beyond the terminal point or office of this Co. on the Pacific Coast.

The Co. has inaugurated a free collection & delivery system at Rat Portage, Ont.

The Western Express Co. has re-opened a route on the Duluth, South Shore & Atlantic Bessemer Branch, between Bessemer Jct. & Bessemer, Mich.

The Ontario Express & Transportation Co., which made such a sensational attempt to open up business over the G.T.R. a few years ago, by equipping & opening up some hundreds of offices all over Ontario, but which at the last moment was refused permission by the management of the G.T.R. to do business over its lines, has declared a first & final dividend of 12% on the amount of capital stock paid up.

On June 5 the Pacific Express Co. which operates on all lines of the Wabash & Missouri Pacific Systems in the southwest & on the Union Pacific System in the northwest to Portland, Ore., & beyond, having some 3,000 offices, extended its service over the Southern Division of the G.T.R., & is now handling business on Wabash trains running through Canada. Local agencies have been established at all points between Windsor & Niagara Falls, Ont., & Route Agent C. E. Johnson has been going over the route instructing the agents.

TELEPHONES.**Pelee Island Telephone Cable.**

The Government is about to relay the Pelee Island telephone cable. This time it will be placed east of Point Pelee bar out to the dummy light, where an instrument will be placed, thence south of the "middle ground" to Pelee Island light. Whether it will be landed at Brown's dock, on the east side of Pelee Island, & thence by land to the lighthouse, is not yet quite decided. This change in the cable will remove it from the anchorage off Point Pelee in Pigeon Bay, where it has often been broken & greatly strained by vessels dragging their anchors over it. It will give a much needed station at the dummy light, & lying south of the "middle ground" will be sheltered during winter from the drifting ice floes, which, driven by the westerly gales, grind over the reefs, wearing & twisting the cable on the rocky bottom.

Nova Scotia Telephone Co.

This Co. is completing a branch line of about 25 miles to establish communication between Halifax & the pilot stations at Chebucto Head Light & Sambro, with connections at Ferguson's Cove, Herring Cove, Portuguese Cove & Ketch Harbor. This line will prove of very great service to the shipping community in the vicinity of Halifax. The Co. is also planning extensions & improvements to its system in Pictou County. A metallic switch board is being constructed in Montreal for its New Glasgow exchange. A new switchboard is also to be placed in the Westville office, which will give the patrons a much better service than they now enjoy. A lot of new business has been secured in Pictou & important extensions of the lines are to be made in that town.

The Bell Telephone Co. has opened an office in Brownsville, Ont.

The Fort Wrangel & Glenora Telephone, Telegraph & Electric Lighting Co. has been incorporated, with headquarters in Wrangel.

The Metis Telephone Co., Metis, Que., has been incorporated with a capital of \$2,500, to build & operate a telephone line in the counties of Matane & Rimouski.

The Little Salmon River Telephone Co., Sussex, N.B., has been given supplementary letters patent to enable it to extend its lines into adjoining municipalities.

England is said to have only about 75,000 telephones in use, while Canada has about 40,000. Government control is said to hamper the use of the telephone in England. France has but 35,000, while Germany has 140,000, & the United States 900,000. Sweden has 50,000, & Switzerland 30,000. Little Denmark has 15,000.

The Pan Handle Ry. is putting in telephones at points where improvements are in progress & in this way furnishing a means for facilitating the movement of trains without the expense of telegraph operators, which has been the custom heretofore. This is only one of many cases in which the telephone is crowding out the telegraph.

The People's Telephone Co., of Windsor, Ont., has been incorporated, with power to operate a telephone system in Windsor, Walkerville & Sandwich, the provisional directors being R. H. Evans & L. S. Larabee, of Detroit, Mich., W. A. Fraser, of the Lansing, Mich., Telephone Co., A. H. Clarke, W. J. Pulling & W. J. McKee, M.L.A., Windsor.

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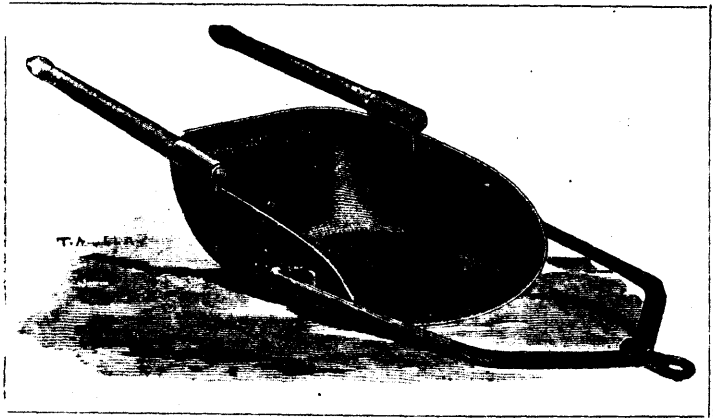
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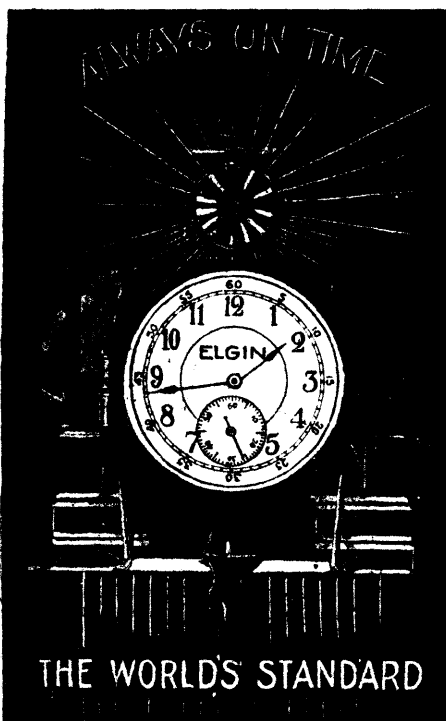


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