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## Halifax and South-Western Railway.

The Nova Scotia Government passed an Order-in-Council, July 30, stating that a proposition for the construction of a railway from Halifax to Yarmouth, with branch lines to such other places as might be decided on by the Government, had been made by W. Mackenzie and D. D. Mann, of Toronto, and R. J. Mackenzie, of Winnipeg, and granting a charter incorporating them as the Halifax and South-Western Ry. Co., under the provisions of an "Act respecting aid to a railway between Halifax and Yarmouth," passed at the last session of the Legislature.

The charter gives the Co. power to build and operate a standard gauge railway from Halifax, through the counties of Halifax, Lunenburg, Queens, Shelburne and Yarmouth to or near Yarmouth, with such branches as may be approved of, and including any railway acquired under the provisions of the charter. Very extensive powers are given in regard to a number of matters, including telegraphs, telephones, ships, mines and real estate; the Co. may carry on the business of an express co., and may operate steamships, ferries, omnibuses, carriages and other conveyances and vehicles, and conduct hotels.

The board of directors shall consist of five members of the Co. until the Government appoints two directors under sec. 6, chap. 3, of the Act of 1901; the head office is to be in Halifax; and the capital is fixed at \$1,000,000, but power is given with the approval of the Government to increase it to \$5,000,000.

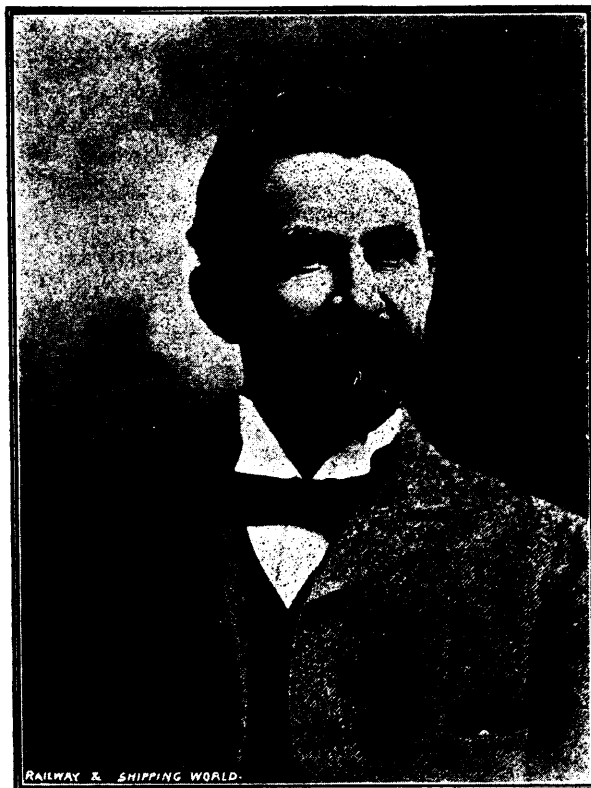
The Co. is given power to acquire the rights of any railway company or of any persons having a charter to build a railway in N.S.; and to enter into traffic agreements with other railway or steamship companies; and empowers any similar companies in N.S. to convey their property to or enter into arrangements with the H. & S. W. R. The Co. is bound to give such traffic arrangements to the Government and other railways as will offer reasonable facilities for traffic, subject to such terms as may be approved of by the Provincial Government.

Right of way is given over Crown lands in or on the line of railway, and the Co. can enter on land on either side of the proposed line and take therefrom, free of cost, any materials available and required for the construction of the railway.

The municipal council of any district through which the line will pass is empowered to grant aid to the Co. on a vote of the taxpayers, in addition to the lands required for the right of way and buildings, which are to be acquired by the vote of the municipal council. These lands are to be paid for by

the municipalities in which they are situated, and the cost of their acquisition shall form a charge on the municipalities, but the lands so acquired are to become vested in the Co. In addition, all the lands necessary for the right of way, station purposes, the track, station and other buildings required for the railway purposes, the rolling stock and equipment, are by the charter to be "for ever free from taxation by any city, town or municipal corporation, or other similar authority, for any purposes whatever."

The Act passed at the last session of the Legislature under which the charter is granted



F. T. GRIFFIN,

Land Commissioner, Canadian Pacific Railway.

gives the Government power to purchase the existing line between Yarmouth and Barrington, 51 miles, now owned by the Messrs. Brill and Fletcher, of Philadelphia, and to arrange for its inclusion in the line to be built by any other contractor, or to accept any portion of any existing line and apply the provisions of the Act thereto. The object of the insertion of these clauses is to ensure the entire 170 miles of line between Halifax and Yarmouth being under one management. The financial arrangements proposed provide for the loan by the Government, to a responsible contractor or company, of cash or Provincial

debentures, not exceeding \$10,000 per mile of line built, for such term as may be fixed by the Government, at 3½% interest and 1½% sinking fund, the principal being secured by a first mortgage of the franchise, the land, buildings, railroad, rolling stock, etc.; and the interest being a first charge on all receipts and revenues. If default be made in the payments the road can be seized under foreclosure and sold; and the contractor has the right to pay off the mortgage by payment of the amount lent, less \$3,200 a mile (that being the subsidy offered for the building of this road under a statute of 1886), together

with any sums paid as a sinking fund. The freight and passenger rates are to be subject to the approval of the Governor-in-Council, who may also appoint two directors on the Board. The contract for the construction of the line has not yet (Aug. 13) been entered into between the Government and Mackenzie, Mann & Co., but it is understood that it will be prepared at an early date.

The map on page 258 was made to show the route proposed for the original Coast Ry. of N.S. This line, already completed from Yarmouth to Barrington, is now known as the Halifax and Yarmouth Ry. The dotted line from Barrington to Halifax, marked "Coast Ry. of N. S." will give a good general idea of the route likely to be used by the Halifax and South-Western Ry.

It is said that Angus Sinclair, Chief Engineer and Manager of Construction of the Inverness and Richmond Ry., will also occupy a similar position on the Halifax and South-Western, and that H.K. Wicksteed, C.E., will make the surveys.

**Kingston and Pembroke Ry.**—A report has been going the rounds of the daily press to the effect that the C.P.R. is about to secure control of the K. & P. Ry., which connects Kingston and Renfrew, Ont.

**Kootenay Ry. and Navigation Co.**—Train service has been discontinued on this line, which extends from Bonner's Ferry, Idaho, to Kuskonook, B.C., and which is a subsidiary of the Great Northern Ry., U.S.A.

**An Early Railway.**—A McKay writes the Moncton, N.B., Times: "On Sept. 14th, 1853, Mrs. Thomas Smith of Shediac, mother of the late Sir Albert J. Smith, turned the first sod, at Point du Chene, of the European and North American Ry. In August, 1857, the road was opened from Shediac to Moncton. On July 18th, 1860, the first train left St. John at 8 a.m. and went over the entire road from St. John to Point du Chene, 108 miles. I was at Salisbury completing my contract of building the station and was on the platform when the train came along."

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## Canadian Excursion Agreement Meeting.

CHAIRMAN, J. H. Walsh, Sherbrooke, Que.  
SECRETARY, A. V. Fabian, Passenger Department  
C.P.R., Montreal.  
NEXT MEETING, probably in March, 1902.

## Canadian Freight Association.

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## Canadian Roadmasters' Association.

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PRESIDENT, J. R. Brennan, Ottawa, Ont.; SECRETARY-  
TREASURER, J. Drinkwater, Winchester, Ont.

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ton Jct., Ont.; T. Graham, Depot Harbor, Ont.; F. J.  
Holloway, Toronto Jct., Ont.; N. Delaire, Montreal.

OFFICIAL ORGAN.—THE RAILWAY & SHIPPING WORLD,  
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NEXT ANNUAL MEETING at Hamilton, Oct. 16, 1901.

## Canadian Society of Civil Engineers.

PRESIDENT, E. H. Keating; VICE-PRESIDENTS, G. H.  
Duggan, E. Marceau, C. H. Rust; TREASURER, H. Irwin;  
SECRETARY, C. H. McLeod; LIBRARIAN, E. A. Rhys-  
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Rogers, C. B. Smith, B. D. McConnell.

MEETINGS AT 877 Dorchester St., Montreal, every  
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## Canadian Ticket Agents' Association.

PRESIDENT, F. W. Churchill, Collingwood, Ont.; 1st  
VICE-PRESIDENT, W. Jackson, Clinton, Ont.; and VICE-  
PRESIDENT, M. McNamara, Walkerton, Ont.; 3rd

VICE-PRESIDENT, W. H. C. MacKay, St. John, N.B.;  
SEC.-TREAS., E. de la Hooke, London, Ont.; AUDITOR,  
S. H. Palmer, St. Thomas, Ont.

EXECUTIVE COMMITTEE, W. F. Egg, Montreal, Chair-  
man; W. H. Harper, Chatham, Ont.; C. E. Morgan,  
Hamilton, Ont.; T. Long, Port Hope, Ont.; J. P.  
Hanley, Kingston, Ont.

NEXT ANNUAL MEETING at Montreal, Nov. 6, 1901.  
OFFICIAL ORGAN.—THE RAILWAY & SHIPPING WORLD,  
Toronto.

## Great Lakes and St. Lawrence River Rate Committee.

CHAIRMAN, A. A. Schantz, Detroit, Mich.  
SECRETARY, G. C. Wells, Passenger Department, C-  
P.R., Montreal.

NEXT MEETING, at Sault Ste. Marie, Ont., probably  
in Feb., 1902.

## National Association Marine Engineers of Canada.

PRESIDENT, W. J. Barton, St. John, N.B.; VICE-  
PRESIDENT, D. McQuade, Collingwood, Ont.; SEC-  
TREAS., J. A. Findlay, Toronto; CONDUCTOR, J. A.  
McArthur, Montreal; DOORKEEPER, N. J. Morrison,  
St. John, N.B.; AUDITOR, D. L. Foley, Toronto.

NEXT ANNUAL MEETING of the Grand Council in  
Toronto, Jan. 1902.

## Niagara Frontier Summer Rate Com- mittee.

CHAIRMAN, T. Henry, Montreal.  
SECRETARY, G. C. Wells, Passenger Department, C-  
P.R., Montreal.

NEXT MEETING, at New York, probably in Jan., 1902.

## Track Supply Association.

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FIRST VICE-PRESIDENT.—R. J. Davidson, Hillburn,  
N. Y.  
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NEXT ANNUAL MEETING at Hamilton, Oct. 16, 1901.

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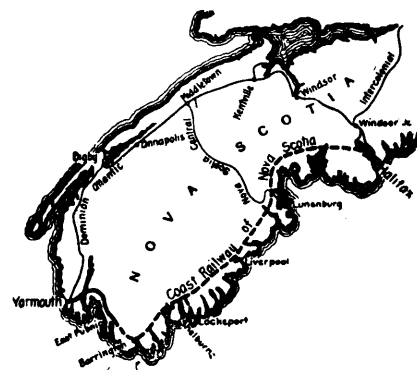
THE RAILWAY AND SHIPPING WORLD,  
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## The Lake Erie & Detroit River Railway.

This Co.'s extension recently opened for  
traffic runs from Ridgeway to the junction  
with the Co.'s leased line, the London and  
Port Stanley Ry. at St. Thomas, Ont., 42.84  
miles. The road parallels the Michigan  
Central Ry. from about 3½ miles east of  
Ridgeway to Shedden, about 31 miles. For  
the first 15 miles of this distance the main  
tracks of the two roads are 171 ft. apart and  
for the remaining 16½ miles 111 ft. apart.  
At Shedden the L.E. & D.R.R. curves south-  
erly and enters St. Thomas about ¼ of a mile  
south of the M.C.R.

Just west of St. Thomas the road crosses  
Kettle creek ravine over a steel viaduct 1,215  
ft. in length and 98 ft. in height from the top  
of pedestal to the base of rail, or about 108  
ft. above the average summer level of the  
creek. The sub-structure consists of two  
abutments and 46 pedestals made of concrete  
masonry. The cost was upwards of \$78,000.  
At Shedden there is an 8 ft. concrete box cul-  
vert over two creeks under an embankment  
20 ft. in height. The remaining culverts,  
with one exception, are cedar box culverts or  
double strength culvert pipe. With the ex-  
ception of one open culvert and Kettle creek  
viaduct there is a solid road-bed for the entire  
distance.

The road is laid with 70 lb. steel rails. All  
switches are provided with split switch rails.



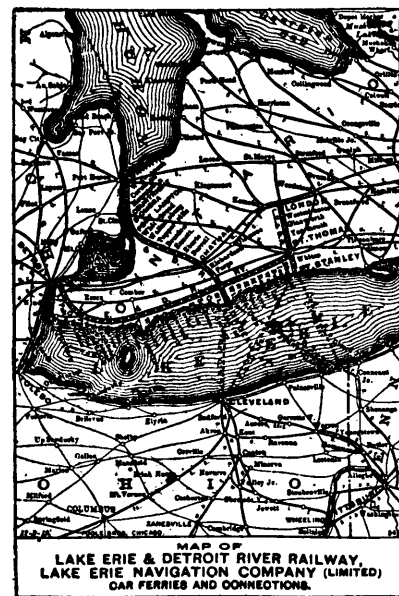
ROUTE OF THE HALIFAX AND SOUTH-  
WESTERN RY.

The road is laid with cedar ties on the tan-  
gents and oak ties on the curves, 16 ties to  
each rail. The railway property is well fenced  
throughout with wire fencing, all of 12 strands  
of wire, with cedar posts and strong gates at  
the farm crossings. The road-bed has re-  
ceived one lift of ballast and the construction  
gang is at work giving it a second lift. When  
this work is completed there will be an aver-  
age depth of 10 ins. of good gravel under the  
ties. The gravel has been procured from a  
pit about 3½ miles west of Ridgeway.

The gradients are very light, about seven  
miles of the road is level track. There is a  
grade of 30 to 37 ft. per mile on three short  
stretches aggregating less than a mile. About  
20 miles of track is practically level, the  
grades being only from 2½ to 10 ft. per mile,  
while on the remaining 14 miles the grades  
average less than 15 ft. per mile. The num-  
ber of curves on the line is 5, aggregating  
about 1¼ miles or a little less than 3%. The  
curve at the junction with the London and  
Port Stanley Ry. has a radius of 1,433 ft. On  
the remaining curves the radius is 5,730 and  
7,640 ft. Two of the tangents are 14 miles  
and 15 miles, respectively, and one other  
seven miles in length.

At the various road crossings steel surface  
guards are used. The station buildings are  
nearing completion, and will be all neat, well  
built frame structures. Sidings are being  
constructed as rapidly as possible to handle  
the expected business economically.

With the exception of the grading and the  
bridge over Kettle creek, St. Thomas, the  
work has all been done by day labor, under



MAP OF  
LAKE ERIE & DETROIT RIVER RAILWAY,  
LAKE ERIE NAVIGATION COMPANY (LIMITED)  
CAR FERRIES AND CONNECTIONS.

competent foremen, Owen McKay, the Co.'s Chief Engineer, having charge of the work.

The extension was inspected by the Dominion Government's inspecting engineer, Mr. Johnston, on June 26th, and passed. Trains commenced running July 1. It is expected to have the extension finally completed by Oct. 15.

The Co. has built a slip at Sarnia for the purpose of operating a car ferry to Port Huron, where connection will be made with the Pere Marquette line, with which traffic arrangements have been concluded. The L.E. & D.R.R. has purchased the International, one of the car ferries formerly operated by the G.T.R., and will place it on the service as soon as the Pere Marquette Rd. has completed its slip at Port Huron. This will provide a new through route for freight between Michigan, via the P.M., and the Ohio lines converging on Conneaut, Ohio, to which point the L.E. & D.R.R. operates a car ferry from its termini at Rondeau and Port Stanley.

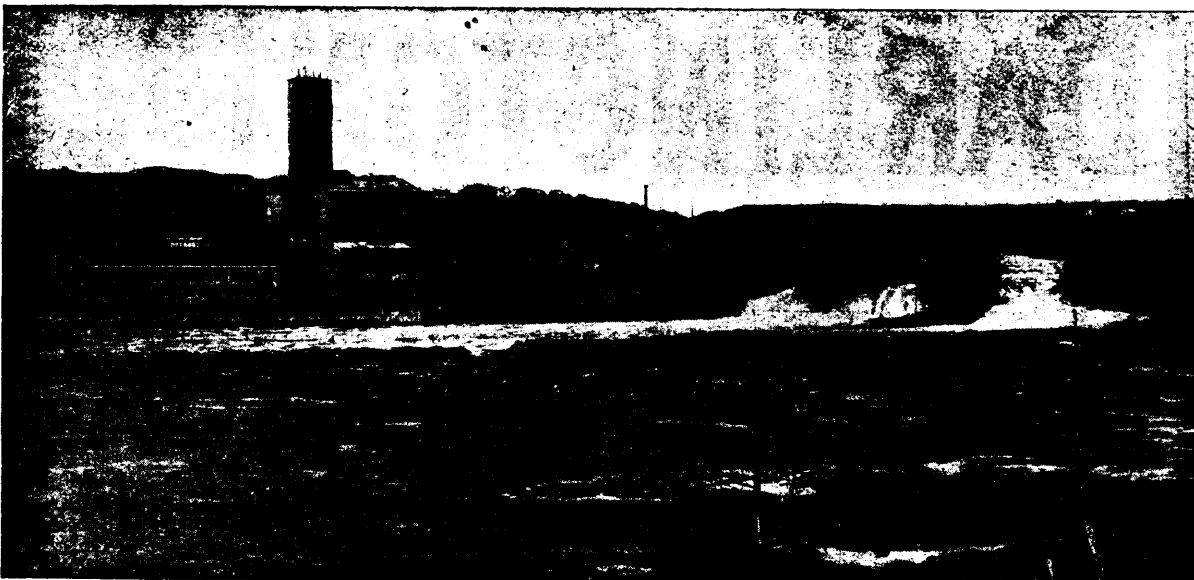
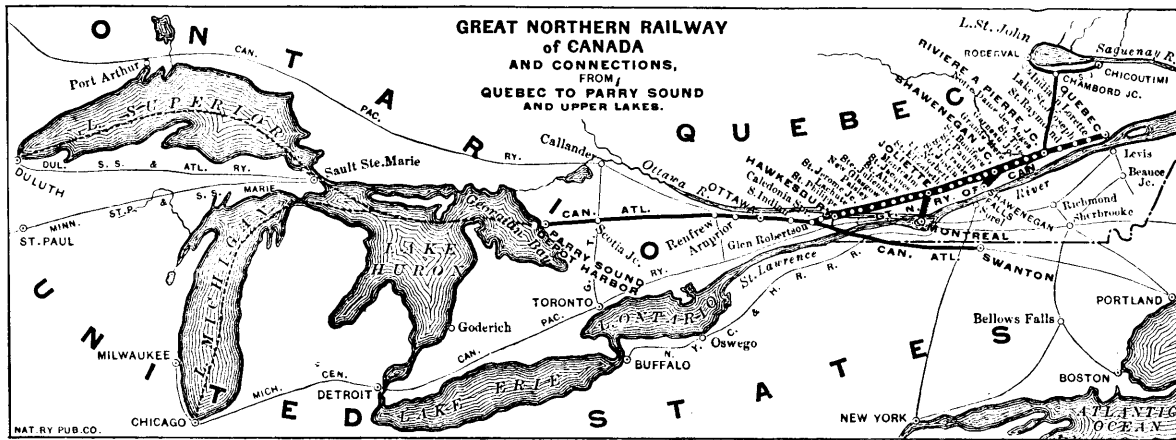
**Great Northern Railway of Canada.**

This recently completed line extends 226 miles from Quebec, 22 ft. above sea level, to Hawkesbury, Que., 228 ft. above sea level. From Quebec to Riviere à Pierre, 58 miles, the Quebec and Lake St. John Ry. is utilized for the present. From Riviere à Pierre to St. Tite, 33 miles, the Great Northern bought the Lower Laurentian Ry. and operates it as part of the main line. On this portion, the railway passes through the growing towns of Notre Dame des Anges, St. Thécle, and St. Tite, other points of importance being Rousseau's Mill and Lac aux Sables. The lumber industry of these various places is very considerable; there are several brick yards, quarries, and charcoal kilns, also, the charcoal being principally used by the Radnor forges. At St. Tite the new portion of the G.N. Ry. begins, and at Garneau Jct. the railway crosses

the C.P.R.'s Piles branch, which runs from Three Rivers to Grand Piles. Garneau Jct.'s importance lies in the fact that it will be the junction point of the cut-off which the G.N.R. proposes to build from St. Catherines on the Q. and L.S.J. Ry., 22 miles from Quebec. This cut-off will shorten the distance between Hawkesbury and Quebec by 15 miles, and the Lower Laurentian Ry. will then be used as a feeder, as it will connect the Lake St. John region with Grand Mere, Shawinigan, and all points between this and Montreal. From Shawinigan Jct. the railway gradually descends for three miles, when it crosses the St. Maurice river on a steel cantilever bridge of 250 ft. span, with two anchor spans of 74 ft. 8 in. each, and one span of 100 ft., with steel trestle approaches. From here can be seen the Grand Mere pulp mills, one of the largest mills in America. The line then gradually rises until one mile west of the bridge a junction is made with a branch one mile in length, running to the important town of Grand Mere. Three miles west of Grand Mere Jct., Shawinigan Jct., a divisional point, is reached. A branch line runs south from here 4½ miles to Shawinigan Falls, whose power, derived from the St. Maurice river, bids fair to eclipse any water power in America. This important town is making giant strides, and from a wilderness three years ago has emerged into a hive of industry, numbering 4,000 people, with churches, banks, saw mills, and an electric railway. The Pittsburgh Reduction Works have here established their works for the treatment of aluminum, and the Belgo Canadian pulp mills in a very

short time will boast of one of the largest plants in America. This branch railway is owned and operated by the G.N.R.

From Shawinigan Jct. to St. Boniface, the line is uniformly level, and passes near the villages of St. Flore and Burrill's siding, where are situated important saw mills. From St. Boniface to Joliette, the country, though level, is broken here and there by deep ravines, which are crossed by steel trestles built to the latest Government specifications. The towns tapped on this portion are Charettes, St. Pauline, St. Ursule, St. Justin, St. Barthelemi, St. Cuthbert, St. Norbert, St. Elizabeth, all growing settlements, populated by an industrious people who live most comfortably from the products of their farms. This portion is one of the very best hay growing sections in Canada. At Joliette, the G. N.R. crosses the C.P.R., and Joliette is the point from where the G.N.R. will deviate, in order to have its line direct into Montreal. This line is now being built by the Chateauguay and Northern Ry. Co., and will be taken over by the G.N.R. as soon as built. From Joliette to St. Jerome the land is again level, with easy grades and curvature, and passes through Montcalm, St. Jaques, whose tobacco trade is now very considerable and gaining in importance every year, St. Alexis, Ste. Julienne, St. Lin, New Glasgow, Ste. Sophie, and Paisley. St. Jerome town is reached from the main line by a branch of 1½ miles, and is a very important point for both the G. N. and C.P. railways. The G.N.R. again crosses the C.P.R., passes through St. Canut and on to Lachute, where the last crossing of the C. P. R. is made. After passing Stonefield, St. Philippe and Grenville, where the Carillon and Grenville Ry. is crossed, the Ottawa river is reached and crossed on a steel bridge consisting of seven spans of 210 ft. each. It is a single track bridge approached on either side by trestles which will eventually be filled in, and is one of the most substantial bridges of its kind in Canada. Some 2,000 ft. west of the bridge a junction is made with the Canada Atlantic Ry., and all grain



GRAND MERE, QUEBEC, ON THE GREAT NORTHERN RY.

# Enameled Iron Station Names.

**Guaranteed not to fade or in any way to perish from exposure.**

As used on the Canadian Pacific & Canadian Northern Railways. Sign 12 ins. high. Letters 9 ins. high. Length according to number of letters in name. The sign shown is 45 ins. long.



Twenty-nine of these signs supplied the C.P.R. Co. for the Crow's Nest Pass Ry. averaged 6 1/2 ft. in length, the longest being 11 ft. 2 ins. & the shortest 3 ft. 9 ins.

Style no. 1, White letters on blue ground.

Mr. Wm. Whyte, Manager of the Canadian Pacific Railway Co.'s lines west of Fort William, writes,—“I have pleasure in stating that I am very well satisfied with the enameled iron signs supplied by the Acton Burrows Co. for station names on the western lines of this Company. They have now been in use for some time & have proved very satisfactory. The lettering is clear & distinct & the signs have proved to be impervious to the weather. They have a brighter & neater appearance & are very much more satisfactory than painted wooden ones, & considering their lasting qualities will be found more economical.”

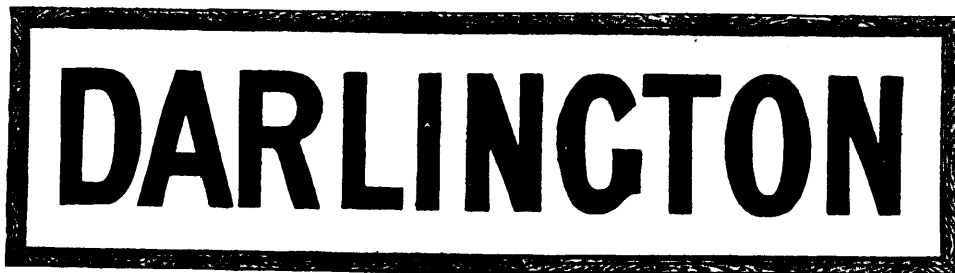
Mr. H. P. Timmerman, General Superintendent of the Atlantic Division of the Canadian Pacific Ry., writes,—“The enameled iron station names supplied by the Acton Burrows Co., in 1898, for a number of stations on this division, have proved very satisfactory. The letters are well formed & distinct, & the signs present a clean, bright appearance, being just as good now as when they were new.”



Style no. 2, as used on the Grand Trunk Ry. System. Black letters on white ground. This sign is 14 ins. high by 7 ft. long. Length varies with number of letters in name of station.



Style no. 3, as used on the Pennsylvania Railroad. White letters on black ground. This sign is 12 ins. high by 6 ft. long. Length varies with number of letters in name of station.



Style no. 4, as used on the Northeastern Railway of England. Dark brown letters on light ground, framed in wood. This sign is 6 x 18 ft.

These signs have long been used on most European railways, & for a number of years on the Pennsylvania R.R., the New York Central & Hudson River R.R., the Manhattan Elevated R.R., the Long Island R.R., & many other lines in the United States. They are also being extensively used in Canada & are giving complete satisfaction as the best outdoor signs produced. They can be made in any color, size, or shape. Estimates promptly furnished on application.

## The Acton Burrows Co., 29 Melinda Street, Toronto.

Importers of Enameled Iron Signs of the best English manufacture.  
Dealers in Lithographed Tin and Iron Signs.



shipped from Quebec is here delivered by the C.A.R. to the G.N.R.

The summit between Riviere à Pierre and Hawkesbury occurs at St. Paulin, 120 miles from Quebec, the elevation being 555 ft. above sea level. From Riviere à Pierre to St. Tite, the maximum grades are 2% and maximum curvature 7°, but the proposed line from St. Catherines on the Q. & L.S.J.R., to Garneau Jct. on the G.N.R., will cut out all these grades and curvature and substitute instead 6/10's grades compensated opposed to east bound traffic and 1% compensated opposed to west bound traffic with a maximum curvature of 4°. From St. Tite to Hawkesbury, with the exception of 1½ miles near Grand Mere where 1.25 grades are used, the maximum gradient is 1% and maximum curvature 6°. With very little expense and by making use of momentum speed, the heavy locomotives now in use on the G.N.R. will be able to haul 1,730 tons per train from Hawkesbury to Quebec, with the exception of the short distance at Grand Mere, where a pusher will have to be resorted to. The embankments are all substantially built, the excavations taken out wide, the drainage is in good condition and when the ballasting,

The Joliette station is built of stone and brick and would be considered a first-class station on any road. When the improvements, now under way, or contemplated, are done, the G.N.R. from Quebec to Montreal will be slightly longer than the C.P.R., but it will have the advantage of being the shortest line between Quebec and Ottawa by several miles.

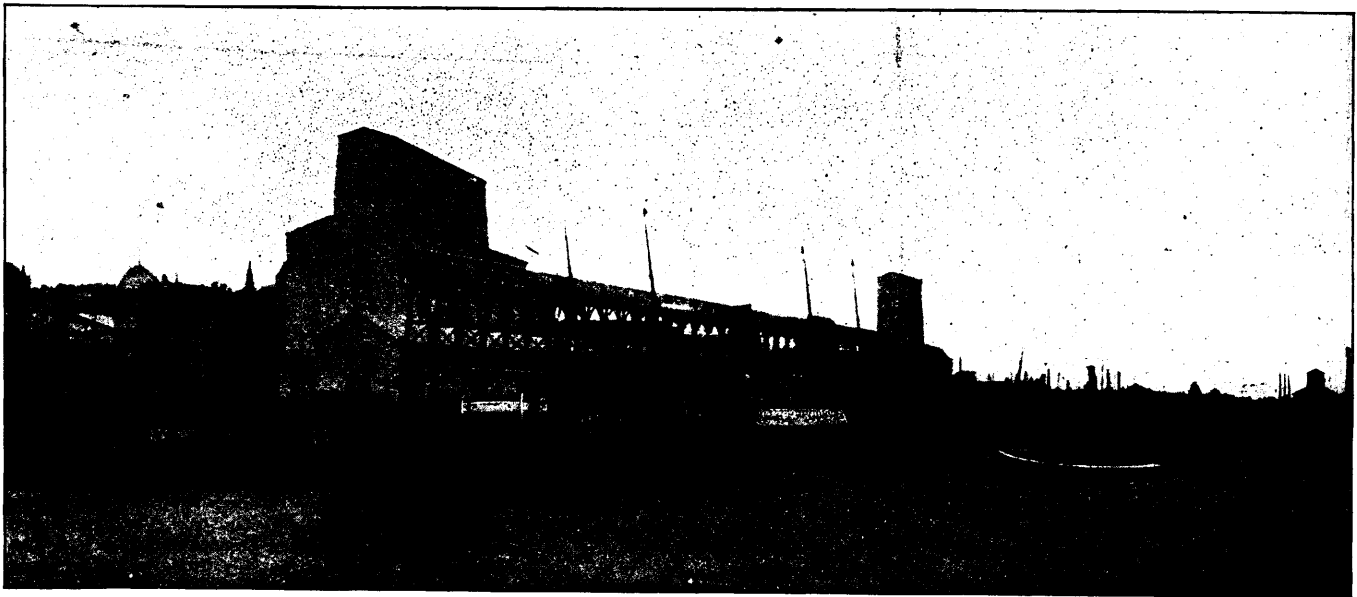
The G.N.R. is in its infancy as yet, but it is gradually spreading in a quiet, unobtrusive way, and will at no distant day form one of the important railway systems of Canada. It has an elevator and up-to-date car shops at Quebec. From its elevator are loaded and despatched weekly steamers of the Leyland line, which has not been backward in recognizing the importance of the port of Quebec, which is fed by the Quebec and Lake St. John, Great Northern, Canadian Pacific, Grand Trunk, Intercolonial and Quebec Central railways. It will be but a very short time before several lines of steamers will doubtless follow the example set by the Leyland line in taking advantage of the natural port of the St. Lawrence, which, in addition to its unrivalled water facilities, also enjoys a much longer season than other ports of the

clutches are provided to enable the machinery to start or stop while the shafting is in motion. The vessels now load on the outer portion of the Louise basin, but it is intended very shortly to build another conveyer from the eastern end of the elevator to enable the Co. to load two vessels at the same time.

We are indebted to Chief Engineer Doucet for the facts above mentioned.

The illustration of the Co.'s Quebec elevator below shows the S.S. Indian, 11,500 tons, of the Leyland line, at the wharf on May 31, loaded with what is said to have been the largest cargo of grain and general merchandise ever taken by the St. Lawrence route. It comprised 217,304 bush. wheat, 44,299 bush. oats, 2,495 bales wood pulp, 922 cases match splints, 80 cases leather, 42 cases boots and shoes, 8,542 bundles, 205 bags and 8,784 pieces chair stock, 18,463 sacks flour, 255 bags oatmeal, 420 tcs. oleo oil, 7,000 pails lard, 25 boxes meat, 50¼ standard birch planks and 615 standard deals.

The Kootenay Central Ry. Co.'s annual meeting will be held at Fort Steele, B. C., Sep. 2.



GREAT NORTHERN ELEVATOR AT QUEBEC.

now being attended to, is finished, the G.N.R. will have one of the best ballasted roads in Canada. The bridges are all built of steel to Government specifications on masonry. Where ravines are crossed, which cannot be filled in, steel trestles of 30 and 60 ft. spans are used. The culverts are built of cedar, but it is intended to replace these with stone or cement arches as repairs are needed. The fencing is mostly with cedar posts. The ties are of black spruce, cedar or tamarac, and the older portion of the road is being entirely re-tied this year. The rails from Riviere à Pierre to St. Boniface are 56 lbs. except at Grand Mere where six miles have been relaid with 70 lbs. From St. Boniface to Montcalm the rails are 70 lbs., from Montcalm to St. Jerome 56 lbs., and from St. Jerome to Hawkesbury 70 lbs. The 70-lb. section is of English make and very similar to the section known as the Canadian Society of Civil Engineers' section, but with a wider base and with angle bars having a substantial bearing on the ties. The telegraph line is operated by the G.N.W.T. Co., which has two wires strung. The sidings are generally 1,600 ft. in length and equal in character to the main line. The stations are substantially built of wood and combine elegance with comfort.

St. Lawrence. The elevator has a capacity of 1,000,000 bush., is thoroughly equipped with all the modern conveniences for handling export grain, and is provided with a marine leg to enable vessels and barges to have their grain unloaded and stored in the elevator. The elevator is of wood covered with corrugated iron; the engine house is of brick. The foundations of both elevator and engine house are of stone built on pile foundations. The elevator contains two tracks capable of holding eight cars which can be unloaded in 12 minutes, and the unloading capacity is 12,000 bush. an hour, but this amount has been exceeded on trial, as 13,000 bush. an hour have already been loaded. The power is derived from a battery of four boilers and one horizontal Corliss engine of 500 h.p. The elevator is supplied with a fire pump of 750 gallons a minute and is equipped throughout with electric light and electric bells. The Quebec Harbour Commissioners have erected a freight shed in connection with the elevator, 500 ft. in length, over which is built a conveyer so that the loading spouts can be moved from one hatch of the vessel to the other, thus enabling vessels to take in their cargo without changing their moorings. All power is transmitted by means of rope drives, and friction

The Master Car and Locomotive Painters' Association of the U.S. and Canada will hold its annual convention at Buffalo, N.Y., Sept. 10 to 14.

New Brunswick Ry.—At the annual meeting at St. John, N.B., Aug 1, the following directors were elected:—Lord Strathcona, R. Meighen, J. Turnbull, J. Hardisty, Montreal; J. S. Kennedy, S. Thorne, J. K. Tod, D. W. James, New York; E. R. Burpee, Bangor; H. H. McLean, J. McMillan, St. John.

Canadian Transfer Co.—G. W. Verral, who has been Superintendent of this Co. for Toronto and Hamilton, with office at Toronto, since he sold out the Verral Transfer Co.'s business in Toronto and Hamilton to the C. T. Co. about a year ago, has resigned, and will in future devote himself to his other interests comprising the Dominion Livery Co., on York St., Toronto, the Verral Storage Co., on Bay St., Toronto, and the Canadian agency for Dunville's Irish Whiskey. He has been succeeded as Superintendent of the C. T. Co. at Toronto and Western agencies by J. Thomson, recently chief clerk of the C. P. R.'s general baggage department at Montreal, and formerly baggage master at Toronto Union Station.



**Canadian Northern Railway Elevator.**

The elevator which is being built at the south-western end of Port Arthur, Ont., is located out in the water nearly half a mile from shore. The dimensions are 100 ft. wide, 250 ft. long, and 175 ft. high above water line. The storage capacity is 1,250,000 bush. The unloading capacity is 250 cars a day, and the loading capacity into steamships 100,000 bush an hour. The elevator is of semi-fireproof type, having a large amount of steel and concrete in its construction; and all wood used, both inside and outside the building, is covered with sheet steel; a minimum rate of insurance will thus be obtained.

The foundation consists of 3,500 piles, driven in clusters of 12, 15 and 20 each. The piles are cut off 2½ ft. under water, then capped with hardwood grillage plank 8 ins. thick, which completely covers the top of clusters. On this, concrete piers are carried to 8 ft. above water level. A heavy frame story, 24 ft. in height, forms the workfloor of the elevator, through which two railway tracks run. Ten cars of grain can be unloaded simultaneously by means of 10 pair of automatic car shovels. On this floor is also erected the cleaning machinery and cleaners, car haul for moving cars, and many other special appliances. Below the workfloor is an 8 ft. basement, having a cement floor. Immediately above the workfloor are located the hopper bottoms of the bins, which are all built by patented fireproof system of steel bands and cement, being in the shape of an inverted pyramid, so that the bins will be absolutely smooth and self-cleaning. From the top of the hopper bottoms, the bins extend to a height of 70 ft. The majority of the bins are 14 ft. square by 70 ft. deep, but a number are subdivided to form smaller ones for the storage of small lots of grain. Above the bins is the cupola, which runs the full length of the building, and is 42 ft. wide by 68 ft. in height. It consists of four stories, the top one being called the lofter head floor. On this story is situated the top of all the lofters and elevating legs, by means of which the grain is carried from tanks in the basement, and discharged into the garners in the story below. The grain from each leg can be discharged into either of two garners by means of switch valves. The story below the lofter head floor is called the garner floor. Here are located the 10 garners, each capable of holding 84,000 lbs. of grain, or more than a full carload. The next story below this is

called the scale floor, where are located 10 hopper scales, each capable of holding and weighing 84,000 lbs. of grain. Below the scale floor is the distributing floor. In this story are located the revolving distributing spouts, connected with each scale, they in turn being connected with the permanent system of spouting, leading from a ring to the different storage bins, so that the grain from each scale can be distributed into 21 different bins. The revolving distributing spout is carried on a vertical shaft resting on ball-bearing step, the spout being counterweighted so that when no grain is passing through it, it raises free from permanent spouting, but on the grain being let down from the scales the revolving spout is weighed down, making a tight connection with the spouts. This revolving spout is connected by light flexible steel cables with a hand wheel and pointer and dial on the scale floor, and is under the perfect and accurate control of the weighman without his having to leave his scale. Connected with this spout is also a lock-up device, connection with which also leads to the scale floor, so that spout once being connected cannot be moved except by the operator on the scale floor. Connection from the switch valve on the lofter floor is also brought down to the scale floor, so that the whole operation of handling and distributing the grain in the cupola is under control of the weighman without leaving his scales. This is claimed to be unquestionably the most perfect system of grain distribution used in any elevator.

The machinery consists of main shaft running the full length of the elevator, located in the basement. All machinery is driven direct from this shaft by rope transmission. Connected to each driving pulley on this shaft is a friction clutch, so that each separate piece of machinery can be stopped or started at will. On the work floor are located three lines of shaft, two to operate automatic car shovels, and one for operating cleaner machines. In the cupola there are no long shafts, each of the elevating legs being driven direct from the main shaft in the basement, by rope drive, to large grooved pulleys at the head of the leg. This avoids any undue friction of machinery by using short shafts only. All bearings are of the highest type of genuine ball and socket ring oiling bearings, which will run on an average six months with one filling of oil. The whole of the machinery is of the very highest class that can be manufactured.

The power plant is located in a brick power

house at the end of the elevator, 45x60 ft. in size, and 17 ft. high. In the power house is located one 750 h.p. engine, three boilers, condenser, boiler feed pump, and one 1,000 gallon underwriters' fire pump; also one 35 h.p. automatic engine, electric generator of 35 k. w. direct connected to shaft of engine; also marble panel switch board, etc. At the end of the power house is located a brick chimney 170 ft. high, having 4½ ft. flue. The outside size at base is 14 ft. square to a height of 20 ft., where the shape changes from square to octagon, and from octagon to round, the round part of the chimney being 150 ft. high, 13½ ft. at the bottom and tapering to 8 ft. at the top.

The whole exterior of the elevator is covered with corrugated sheet steel, and all interior woodwork is covered with crimped sheet steel. All floors are of steel and concrete, and this with the steel and concrete hopper bottoms ensures a practically fireproof elevator.

Plans and specifications for this building were prepared by J. A. Jamieson, of Montreal, who also secured the contract for construction. All the machinery and special labor-saving appliances, as well as the system of fireproofing, are of his design. On account of a large amount of dredging being required before the foundations could be put in, work was late in getting started, but it is now being rushed with a view of getting the elevator ready to handle this season's crop.

**Chicago and Western Indiana Road.**

At a meeting of the directors and officials at Montreal, July 24, there were present:—President Thomas and E. A. Bancroft, General Counsel, C. & W.I.Rd.; G. B. Reeve, 2nd Vice-President, and F. W. Morse, 3rd Vice-President, G.T.R.; President McDoel, and G. W. Kretzinger, General Counsel, Chicago, Indianapolis and Louisville Rd.; President Underwood and O. W. Johnson, General Counsel, Erie Rd.; President Carpenter and O. S. Lyford, General Counsel, Chicago and Eastern Illinois Rd.; President Ramsay, and Col. Blodgett, General Counsel, Wabash Rd. The object of the meeting was to confer as to what was to be done in order to comply with the decision of the Chicago City Council to compel the road to elevate its track between 16th and 23rd streets in that city. The work will doubtless be undertaken at an early date, but the negotiations, which involve a multitude of

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details, have not been finally closed, though it is expected an agreement will be arrived at within the next few weeks. It is said the cost of elevating the road is estimated at about \$6,000,000.

The C. & W.I.Rd. has 16.99 miles of line from Polk st., Chicago, to Dolton, Ill. It has 48.58 miles of branches, and its second, third and fourth tracks and sidings make the total track 218 miles. It owns over 850 acres of land in Chicago, used for right of way, switches and transfer yards, etc., and for stations leased to various companies. The belt division and the Indiana elevator are leased to the Belt Ry. Co. of Chicago, and the rest of the property is leased conjointly by the Chicago and Eastern, the Wabash, the Chicago and Grand Trunk (now the Grand Trunk Western), the Chicago and Erie, the Chicago, Indianapolis and Louisville (each owning \$1,000,000 of the capital stock), the Atchison, Topeka and Santa Fe, and the Elgin, Joliet and Eastern companies, the lessees paying all expenses of operation and maintenance on a mileage basis. The leases are all covered by the mortgage as additional security.

The C.P.R. shops at Winnipeg are very busy getting equipment ready for the enormous grain traffic expected. The ordinary staff of about 450 men has recently been increased by another 100.

The Inverness and Richmond Ry. has received from Rhodes, Curry Co., of Amherst, N.S., the 1st class passenger, coal and box cars recently ordered. No further orders for equipment have yet been placed.

The Newfoundland Ry. is reported to have ordered nine passenger cars. It is also said a number of box and platform cars will be built at its own works, and that several locomotives are to be added to the equipment.

The Mount Sicker railway on Vancouver Island, owned by the Lenora Mount Sicker Copper Mining Co. has two locomotives, Shay geared, one 10 tons and one 20 tons. A passenger coach is to be added to the equipment. The line is 3-ft. gauge.

The Lake Erie and Detroit River Ry. has recently bought three second-hand eight-wheeled mogul locomotives in the U.S., also 50 second-hand platform cars of between 50,-

Curry & Co., Amherst, N.S., for 500 box cars, and another order for 250 has also been placed in Canada.

A report has been going the rounds of the daily press to the effect that the C.P.R. management is considering the practicability of operating its main line trains in the mountain sections of British Columbia by electricity. We are informed that the question of using electricity generated from water power for moving the trains in the mountains was looked into some years ago, but nothing came of it, and nothing further has been done in the matter lately.

J. H. Converse, President of the Baldwin Locomotive Works, says the principal distinction between American and European locomotives is the use in America of the bar frame as contrasted with the plate frame, which latter is a feature of European practice. American locomotives, further, are invariably built with outside cylinders, while in Great Britain and on the European Continent inside cylinders and crank axles are still used to some extent. These two details to-day represent the most radical differences



BALDWIN LOCOMOTIVE FOR CANADA ATLANTIC RY.

### Railway Equipment Notes.

The Midland Ry. of Nova Scotia has added another locomotive to its equipment.

The Thunder Bay, Nepigon and St. Joe Ry. is reported to have bought a locomotive.

The Bruce Mines and Algoma Ry. is in the market for a locomotive and 15 or 20 flat cars.

The C.P.R. is turning out an average of 10 box-cars a day specially for the western grain traffic.

The Cape Breton Ry. Extension Co. has asked tenders for 100 platform cars of 80,000 lbs. capacity.

The Tilsonburg, Lake Erie and Pacific Ry. is reported to have recently added two locomotives to its equipment.

The Canada Atlantic Ry. is reported to have decided to test acetylene gas as a light on one of its passenger coaches.

The Brockville, Westport and Sault Ste. Marie Ry. is about to add a combined mail and baggage car to its equipment.

The Hancock and Calumet Rd., a subsidiary of the C.P.R., is reported to be in the market for a number of steel hopper rock cars.

000 and 60,000 lbs. capacity, which are being fitted with entirely new bodies.

The Grand Forks and Republic Ry., the Canadian portion of which in British Columbia will be known as the Kettle River Valley Ry., will, it is said, start off with the following equipment: two locomotives, one passenger coach, two combination smoking and day coaches, two cabooses, 50 steel ore cars, and about 20 box and platform cars.

The C. P. R. has placed an order in the U. S. for a 91-ton Shay locomotive for use in the Kootenay district, B. C., on which there are 4.2% grades. It will weigh (empty) about 162,000 lbs., will have three cylinders 15 x 17 in.; 12 drivers 40 in. in diam.; boiler, 56 in. in diam.; tank capacity for water 3,500 gals., and coal capacity of 6 tons. It will be equipped with Westinghouse air brakes. See illustration, Jan., pg. 11.

The Intercolonial Ry. has recently received 72 box-cars from Rhodes, Curry & Co., of Amherst, N.S., making 598 delivered out of an order for 1,000. The same line has recently received from other works in Canada six simple consolidation locomotives, making a total of ten out of an order for 20, and 10 box-cars out of an order for 50. Four sleeping cars have been received from the U.S. An order has been placed with Rhodes,

between the American engine and that of other countries.

The Baldwin Locomotive Works Record of Recent Construction, no. 25, contains "Locomotives of the nineteenth and twentieth centuries," a paper read by S. M. Vauclain, at a meeting of the New England Railway Club, Feb. 12 last. The reading of the paper was followed by an interesting discussion on the merits of the different types of locomotives in service in America, Great Britain and elsewhere. The illustrations show the growth of the latest type of engine from Trevethick's original model of 1800—the first engine to run on rails—and Oliver Evans' engine built in Philadelphia in 1804.

The Canadian Northern Ry. Co. has recently placed orders for the 8 first class coaches, 2 combination mail, baggage and express cars, 900 box cars, 60,000 lbs.; 50 flat cars, 80,000 lbs.; 2 sleeping cars, 2 day parlor cars; 2 dining cars; 7 second-class cars, and 60 stock cars, mentioned in our July issue, and has also placed an additional order for 600 box cars, 60,000 lbs. This equipment is in course of delivery and the whole of it will, it is expected, be placed on the line by Jan., 1902. The Co. has purchased material to build at least 100 cars in its Winnipeg shops, and will go on building during nex

winter if it finds it economical to do so. It is also converting a number of platform cars into box cars to meet the immense demand consequent on Manitoba's great harvest.

The Mineral Range Rd., a subsidiary of the C.P.R., has ordered four consolidation and two six-wheel locomotives for Dec. delivery. The consolidation locomotives will weigh 200,000 lbs., with 180,000 lbs. on drivers; will have 20-in. x 30-in. cylinders, 55-in. driving wheels, straight top boilers with working steam pressure of 200 lbs., 375 tubes 2¼ in. diam. and 14 ft. long, fire-boxes 126 in. long and 40 in. wide, tank capacity for 6,000 gals. of water and 10 tons of coal. The switching locomotives will weigh 120,000 lbs.; they will have 19-in. x 26-in. cylinders, 51-in. drivers, straight top boilers with working steam pressure of 180 lbs., 217 tubes 2¼ in. in diam. and 12 ft. long, fire-boxes 108 in. long and 33½ in. wide, tender capacity for 3,000 gals. of water and four tons of coal. All are to be equipped with Westinghouse air brakes.

J. W. Taylor, Secretary of the Master Car Builders' Association, Rookery Building, Chicago, announces that the Rules of Interchange, as revised this year, are now ready for distribution. The prices are the same as heretofore: 25 copies, \$1; 50 copies \$1.75; 100 copies, \$3. Postage is added when books are sent by mail. Mr. Taylor will also receive requests, to be transmitted to Washington, for copies of the pamphlet, issued by the Interstate Commerce Commission, containing the rules which have been compiled for the guidance of the inspectors of the Commission in their examination of cars for defects which violate the Federal laws concerning safety appliances. The Secretary of the Interstate Commerce Commission has agreed to furnish to the members of the Association, without charge, as many copies as they may want.

It is said that the train which will be used by the Duke and Duchess of Cornwall and suite, during their Canadian visit, will consist of eight cars, two of which will be special or private cars, and the balance standard sleepers and diners. All of them are being built by the C.P.R. Co. except one of the private cars, for which the Minister of Railways has placed an order in the U.S. Its general dimensions will be—length, 70 ft.; width, 9 ft. 8 ins.; over sills, height, top of sill to bottom of plate, 6 ft. 6 ins.; height over all, 13 ft. 8 ins.; width of deck openings, 4 ft. 10 ins. It will have iron sill framing, the outside will be sheeted ma-

hogany, and the inside will be finished in red mahogany, except the dining-room, which will be in light oak, the two state-rooms in prima vera, and the kitchen in white oak. The trucks will be standard 6-wheeled, and the wheels 36 ins. steel tired. The car will be fitted with Westinghouse air brakes, and lighted by electricity.

The Wabash Rd. has put in service three observation and cafe cars, one of which has been put on the run between Windsor, Ont., and Buffalo. The cars are over 70 ft. long, and have six-wheel trucks. They are finished in St. Jago mahogany, a light wood, and are carpeted and decorated in green relieved by gold striping and scrolls. At one end of the car are the observation compartments, with room for fourteen in the big easy chairs. At the end of the compartment are two escriptoires, upon which are library shelves, with reading matter. Just adjoining this is the private cafe for eight ladies, furnished with turned leather seats and movable tables. At about the centre of the car are the cafes, with mahogany tables and chairs seating 18. At each end of the cafes are large display cabinets of plate glass, in which are kept the silverware used on the tables. Between the windows are niches, lined with heavy mirrors, for ferns and flowers. At the end of the cafe are mahogany sideboards, covered with shining cut glass and plate glass doors. The kitchens are as complete as those of the big dining cars. The windows are large. The cars are lighted by electricity and have electric fans.

The Canada Atlantic Ry.'s locomotive 619, illustrated on pg. 263, was built by the Baldwin Locomotive Works for fast passenger service between Montreal and Ottawa. Following are the general dimensions:

Cylinders—Diameter (high pressure), 13 in.  
 " (low pressure), 22 in.  
 " Stroke, 26 in.  
 " Valve, balanced piston.  
 Boiler—Diameter, 60 in.  
 " Thickness of sheets, 11-16 in.  
 " Working pressure, 200 lbs.  
 " Fuel, soft coal.  
 Firebox—Material, steel.  
 " Length, 103 3-16 in.  
 " Width, 42½ in.  
 " Depth (front), 71½ in.  
 " (back), 69 in.  
 " Thickness of sheets—sides, 5-16 in.  
 " back, 5-16 in.  
 " crown, ¾ in.  
 " tube, ½ in.  
 Tubes—Material, iron.  
 " Number, 262.  
 " Diameter, 2 in.  
 " Length, 15 ft. 0 in.

Heating surface—Firebox, 171 sq. ft.  
 " Tubes, 2061.8 sq. ft.  
 " Total, 2232.8 sq. ft.  
 " Grate area, 30.2 sq. ft.  
 Driving Wheels—Diameter outside, 78 in.  
 " Diameter of centre, 72 in.  
 " Journals, 8 in. x 12 in.  
 Engine Truck Wheels (front)—Diameter, 36 in.  
 " Journals, 5½ in. x 10 in.  
 Trailing Wheels—Diameter, 54 in.  
 " Journals, 8 in. x 12 in.  
 Wheel base—Driving, 6 ft. 9 in.  
 " Rigid, 13 ft. 9 in.  
 " Total engine, 25 ft. 6 in.  
 " and tender, 52 ft. 6 in.  
 Weight—On driving wheels, 71,600 lbs.  
 " On truck (front), 40,000 lbs.  
 " (trailing wheels), 29,100 lbs.  
 " Total engine, 140,700 lbs.  
 " and tender, 261,000 lbs.  
 Tender—Diameter of Wheels, 36 in.  
 " Journals, 5 in. x 9 in.  
 " Tank capacity, 6,000 gals.

The C.P.R. has since Jan. 1 last built the following equipment at its shops at Montreal and Farnham, Que., and Perth, Ont.:

50 coal cars, 30 tons capacity, 35 ft. long.  
 47 box cars, 30 tons capacity, 35 ft. long.  
 361 flat cars, 30 tons capacity, 35 ft. long.  
 3 boarding cars, 40 ft. long, for dining car crews.

50 ore cars, 30 tons capacity, 26 ft. long.  
 20 standard vans, 33 ft. long.  
 5 loco. flats, 50 tons capacity, 35 ft. long.  
 2 pile drivers, self-propelling, equipped with steam hammers.

10 first-class coaches: standard, 70 ft. 6 ins. long, equipped with wide vestibules and steel platforms, standard C.P.R. 6-wheel trucks with steel-tired wheels. Two of these cars, nos. 610 and 614, are equipped with acetylene gas.

6 fruit express cars, special.  
 6 baggage and express cars, standard, 60 ft. long.

The C.P.R. has placed orders for the following equipment to be built in its shops at Montreal and Farnham, Que., and Perth, Ont.:

3 compartment cars, 70 ft. 6 in. long, with electric light.  
 20 first-class coaches.  
 6 sleeping cars.  
 2 parlor cars.

All the above will be C.P.R. standard finish and equipped with wide vestibules, steel platforms, and 6-wheel trucks with steel-tired wheels.

251 box cars, 30 tons capacity, 35 ft. long.  
 300 box cars, 40 tons capacity, 36 ft. 8 ins. long.  
 20 stock cars, 30 tons capacity, 35 ft. long.  
 15 vans, standard, 33 ft. long.  
 1 derrick.

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THE CHEAPEST AND BEST

For Floors, Roofs and Walls in Offices, Shops, Round-Houses and Freight Sheds is the Expanded Metal System of reinforcing Cinder Concrete and Cementine Mortar.

For Catalogue and Prices Write—

The Expanded Metal and Fireproofing Co., Limited

98 and 100 KING STREET WEST, TORONTO.

The Michigan Central has recently placed several new locomotives on its Canada Southern division to haul heavy passenger trains. Although the locomotives look low-set, the driving wheels are 63 inches diameter, and will readily make the running speed required for the heavy express trains. The traction force is so great that a heavy train can be lifted into running speed within remarkably short distance. The firebox, although placed above the frames, has a depth in front of 76½ inches, and at the back 63½ inches. The cylinder fastenings are remarkably strong, and the frames are of a very substantial character. The leading dimensions are:

Weight in working order—153,700 lbs. Weight on drivers—116,000 lbs. Wheel base—Driving, 15 ft.; rigid, 15 ft.; total, 25 ft. 10 ins.

Diameter of cylinders—19½ ins. Stroke of piston—26 ins. Horizontal thickness of piston—5½ ins. Diameter of piston rod—3½ ins. Size of steam ports—18x1½ ins. Size of exhaust ports—18x2½ ins. Size of bridges—1½ ins. Greatest travel of slide valves—5½ ins. Outside lap of slide valves—½ ins. Inside of slide valves—Line and line. Lead of valves in full gear—Line and line.

Diameter of driving wheels outside of tire—63 ins. Material of driving wheel centers—Cast steel. Tire held by shrinkage. Driving box material—Cast steel. Diameter and length of driving journals—9x11 ins. Diameter and length of main crank-pin journals—6x6 ins.; main side, 6½x5 ins. Diameter and length of side rod crank-pin journals—4½x4 ins.

Engine truck Kind, four-wheel swing bolster; journals, 6x12 ins. Diameter of engine truck wheels—33 ins. Boiler: Style—Extended wagon top. Outside diameter of first ring—62½ ins. Working pressure—200 lbs. Thickness of plates in barrel and outside of firebox—¾, 23-32, ½, 7-16 and 11-16 in. Horizontal seams—Butt joint, sextuple riveted, with welt strips inside and outside. Circumferential seams—Double riveted.

Firebox—Length, 108 ins.; width, 41½ ins.; depth, front, 76½ ins.; back, 63½ ins.; material, steel. Firebox plates, thickness—Sides, 5-16 in.; back, 5-16 in.; crown, ¾ in.; tube sheet, ½ in. Firebox, water space—Front, 4½ in.; sides, 3½ ins.; back, 3½ ins. Firebox, crown staying—radial stays, 1½ ins. diameter. Firebox, staybolts—1 in. diameter.

Tubes—Material, charcoal iron; number, 314; diameter, 2 ins.; length over tube sheets, 176 ins. Fire brick—supported on water tubes. Heating surface—tubes, 2,397.64 sq. ft.; water tubes, 31.25 sq. ft.; firebox, 169.53 sq. ft.; total, 2,598.42 sq. ft.

Grate area—31.18 sq. ft. Ash pan—hopper, with sides operated by steam. Exhaust pipes—Single high. Exhaust nozzles—4½ ins. diameter.

Smoke stack—inside diameter, 16½ and 14 ins.; top above rail, 14 ft. 4½ ins.

Tender: Weight, empty—45,100 lbs. Wheels—number, 8; diameter, 33 ins. Journals—diameter and length, 5 ins. diam. x 9 ins. Wheel base—16 ft. 5½ ins. Tender frame—10-in. steel channels. Water capacity—5,100 U. S. gallons. Coal capacity—8 tons.

Total wheel base of engine and tender 52 ft. 8 ins. Engine supplied with: Westinghouse-American combined brakes on drivers; tender, and for train, Westinghouse 9½-in. air pump; Westinghouse engineers' air signal.

The C.P.R. Co. has not received any new locomotives this year. Twelve simple switching locomotives are being built in the Co.'s shops at Montreal, and 12 heavy passenger locomotives, 6 simple and 6 compound, will be built there this fall. An order has been placed in the U.S. for 8 compound consolidation locomotives with wide fireboxes, and another order has been placed in Canada for 4 compound consolidation locomotives, the whole to be delivered before Oct. 31. An order has also been placed in the U.S. for another Shay locomotive, for use on heavy grades in the Kootenay, B.C., district. It is precisely similar to the one described and illustrated in our Jan. issue, pg. 11 and 13. It is not expected that any further orders for locomotives will be placed by the Co. this year. Following are the general dimensions:

#### SWITCHING LOCOMOTIVES.

Weight on drivers, 120,000 lbs.  
Total weight, 120,000 lbs.  
Diameter of cylinders, 18 in.  
Stroke of pistons, 26 in.  
Diameter of drivers, 51 in.  
Type of boiler, Belpaire extended taper course.  
Working steam pressure, 200 lbs.  
Tubes, number, 239.  
" material, charcoal iron.  
" outside diameter, 2 in.  
" length, 10 ft. 4 5-16 in.  
Firebox, length, 8 ft. 10 7-8 in.  
" width, 3 ft. 6 5-8 in.  
" material, special steel.  
Tank capacity, water, 3,500 impl. gals.  
Coal capacity, 4 tons.  
Air brakes, Driver and W.A.B.

#### SIMPLE AND COMPOUND PASSENGER LOCOMOTIVES.

Type, ten-wheeler.  
Weight on drivers, 122,350 lbs.  
Total weight, 160,850 lbs.  
Diameter of cylinders, Simple 20 in., Compound 21½ and 32 in.  
Stroke of pistons, 26 in.  
Diameter of drivers, 69 in.  
Type of boiler, Radial stayed extended taper course.  
Working steam pressure, 210 lbs.  
Tubes, number, 327.  
" material, charcoal iron.  
" outside diameter, 2 in.  
" length, 13 ft. 2 1-16 in.  
Firebox, length, 10 ft.  
" width, 3 ft. 6 5-8 in.  
" material, special steel.  
Tank capacity, water, 5,000 impl. gals.  
Coal capacity, 9 tons.  
Air brakes, driver and W.A.B.

#### COMPOUND CONSOLIDATION LOCOMOTIVES.

Weight on drivers, 144,000 lbs.  
Total weight, 162,000 lbs.  
Diameter of cylinders, 22 in. and 35 in.  
Stroke of pistons, 28 in.  
Diameter of drivers, 57 in.  
Type of boiler, Radial stay.  
Working steam pressure, 200 lbs.  
Tubes, number, 306.  
" material, charcoal iron.  
" outside diameter, 2 in.  
" length, about 13 ft.  
Firebox, length, 97 in.  
" width, 66 in.  
" material, not decided.  
Tank capacity, water, 5,000 impl. gals.  
Coal capacity, 10 tons.  
Air brakes, Westinghouse.  
Axles, steel.

#### Passenger Traffic Matters.

The New York Central Rd. has opened an uptown ticket office at 2263 St. Catherine st., Montreal, in charge of A. J. Hebert.

It is estimated that the railways operating between Chicago and Buffalo will have expended at least \$200,000 on advertising for the Pan-American Exposition before it is closed.

It is rather a curious paradox that, while the railway advertising man always dwells upon the scenic beauties of his route, he is also especially stressful upon the rapidity with which he can carry you over it.

The Vancouver and Sidney Ry. Co. has issued a booklet containing information regarding a trip over its line and by the steamer Iroquois from Sidney, calling at the Gulf Islands on the way to Nanaimo. It contains a number of excellent illustrations.

The Michigan Central has put on two additional fast trains on the main line between Detroit and Buffalo. They are known as the Michigan Pan-American Flyers. One train leaves Buffalo at 9 a.m., arriving in Detroit at 3.50 p.m., and the other leaves Detroit at 12.35 p.m. arriving at Buffalo at 7.10 p.m.

Daily press reports recently stated that the C.P.R. proposed to increase the present continental service next year to two trains a day each way, one of them fast for through business and the other for local traffic. We are advised that nothing definite has been decided, but that a change will be made if traffic warrants it.

The train service on the newly opened Inverness and Richmond Ry. between Hastings and Broad Cove, N.S., consists of one train daily each way. A connection is made at Mulgrave with the Intercolonial, and passengers and mails are carried between Hastings and Port Hawkesbury by steamer, pending completion of the line between these points.

A new folder recently issued by the G.T.R. describing the attractions of the Orillia and Couchiching portions of the highlands of Ontario, brings to notice a number of quiet holiday resorts not too far away from Toronto, and yet not too extensively patronized by tourists. The illustrations are good and the hotel and the boarding-house information is complete.

The annotated time table of the C.P.R. is a valuable and interesting guide to the coun-

try through which the trans-continental line and its ramifications pass. It now includes for the first time the route of the Crow's Nest Pass line. Two editions are now published, a west bound and an east bound, which makes it much more convenient than formerly, when passengers from the west were obliged to adopt the Chinese manner of reference.

The Intercolonial Ry. has just issued a new illustrated booklet which is superior not only in regard to its description of the points reached by the line, but also in its illustrations and general get-up, to anything that has yet been sent out by that line. There are 34 illustrations giving glimpses of the places reached by the I.C.R. in Quebec, New Brunswick, Nova Scotia and Prince Edward Island, with interesting descriptive notes of each. The front page of the cover is strikingly simple, but most effective. It may be pointed out that the Prince Edward Island views are of places on the P.E.I. Ry., not on the I.C.R., as stated in the booklet.

A new method of depositing round trip special rate excursion tickets, issued on the certificate plan, was put in operation in Chicago recently during the session of the Baptist Young People's Union. Instead of having a central headquarters in the down-town district, where visitors might deposit their tickets and get them when they were ready to depart, the conductor of each train entering the city, took up each ticket before reaching the city. He gave a receipt, with instructions on the back telling the name of the road on which the ticket was good to return and in what railway ticket station the original ticket was held. When the visitor was ready to start for home all he had to do was to make an early start for his train, present his receipt to the ticket agent of a specified road, and get the return portion of his transportation.

#### Newfoundland's Railway Settlement.

The bill to give effect to the new contract between R. G. Reid and the Newfoundland Government, brought before the Legislative Assembly, July 22, was given a third reading July 27, duly passed the Legislative Council, and assent was given to it by the Governor on Aug. 3.

The Premier, in referring to the new contract, said in the Legislature: Mr. Reid has met the public demand in a manly manner, he has respected the vox populi, he therefore is entitled to justice, respect and honor at the hands of the public. He relinquishes his title to the railway for what he paid for it; he might have insisted upon compensation for the loss of its prospective value. He hands back the lands obtained under the 1898 contract for the value that the Government places upon its public lands; he might have insisted upon their value being fixed by arbitration. He does this in the interest of peace and good-will, and in order to secure the co-operation of the Government and of the people of this colony in making his enterprises a success. Unless I am mistaken as to the character of the people of Newfoundland, he shall receive that co-operation; and if the spirit of sentiment that I have just expressed is caught up by this House and applied, we may look forward to a great and striking and permanent improvement in this colony before many years shall have rolled away.

Under the new contract Mr. Reid re-sells and re-conveys to the Government the Newfoundland railway and system as sold and conveyed to him under the contract of 1898, the Government repaying him the \$1,000,000 which he then paid to secure ownership of the line, with interest at the rate of 6% a year. Mr. Reid agrees to operate the railway for a period of 50 years from Aug. 1, 1901, on the terms mentioned in the agreement of 1898. At the end of this term the Government has

the right to acquire the additional rolling stock and other property acquired for the operation of the line and branches at a fair valuation. Mr. Reid relinquishes the land granted to him in 1898, and in consideration of this he is to receive \$850,000; the only land which he will retain being what he is entitled to under the operating agreement of 1893. The railway is to be fenced at the expense of the contractor, the estimated cost being \$100,000; he also retains control of the dock property for 50 years, and will continue to operate the coastal steamship line in conjunction with the railway.

In connection with the telegraph service the Government will resume control on Sept. 1, and the subsidy of \$10,000 a year now paid to Mr. Reid for the performance of the telegraph service will then cease to be paid. The lines taken over include, in addition to the main line, the branch line from Main Gut, Bay St. George to Port au Port, and Mr. Reid is relieved of his obligation to construct additional lines and to maintain offices at Salvage (Bonavista Bay) Moreton's Harbor and Exploits, and Burnt Islands (Notre Dame Bay.) The Government has full power to extend the telegraph lines along the railway tracks, and to take land at a valuation for the purpose of erecting additional offices, or if deemed advisable to establish an independent telegraph line. Mr. Reid will have the free use of a wire for railway purposes, and for the transmission of such messages as relate exclusively to his own business. Provision is made for reference to arbitration of any matters of difference between the parties in regard to the telegraph clauses of the contract.

The sum of \$250,000 originally deposited with the Government as security for the performance of the contract for the construction and equipment of the Northern Ry., is to be held by the Government as security for the

performance of the new contract. The Government agrees that the contract as altered and amended by the present agreement may be assigned and transferred to "The Reid Newfoundland Co." to be incorporated under a charter which forms a schedule to the Act.

The terms upon which Mr. Reid's company will operate the lines for the next 50 years were stipulated in the agreement of 1898, in which 1st class passenger rates were fixed at 3c. a mile and 2nd class at 2c. a mile; freight rates were stipulated not to exceed 3c. a ton a mile for car-load lots for distances exceeding 100 miles, and 4c. for distances between 50 and 100 miles, and a schedule of local freight rates was agreed to.

The steamship service to be established and maintained by Mr. Reid called for the placing of steamers on eight routes, one of them being between Port au Basque and Sydney, N.S., and on these steamers mails were to be carried. Freight and passenger rates on the vessels were fixed, and a service up to a standard and satisfactory to Government inspection was required. Subsidies ranging from \$130 to \$1,500 a trip were to be paid, a condition being that a stated minimum number of trips were to be made by each vessel engaged in the different services. The operation of the different lines of steamers is not interfered with by the new contract, nor are the terms varied.

The Rutland & Noyan Ry. Co.'s annual meeting will be held at Noyan Jct., Que., Sep. 4.

It is proposed to transfer the London, Eng., headquarters of the C.P.R. from King William St., to Trafalgar Square, opposite Charing Cross station, the principal centre of continental and tourist traffic. A branch office will doubtless be maintained in the city.

## RAILWAY FINANCE, MEETINGS, ETC.

**Calgary and Edmonton Ry.**—Net earnings for June, \$10,412.03 against \$11,287.70 in June, 1900, making for the 6 months to June 30, \$95,988, an increase of \$13,160 over corresponding period of 1900.

**An Intercolonial Ry. Rumor.**—In speaking in Halifax, N.S., recently, at a dinner given by directors of the Dominion Atlantic Ry., Premier Murray said there would in the near future be another transcontinental railway in Canada, and hinted that Halifax would be its eastern terminus. A Montreal correspondent says Mr. Murray has been in close communication with W. Mackenzie and D. D. Mann for several months in connection with the line to connect Halifax and Yarmouth, and that he probably has an intimate knowledge of their plans in regard to the Canadian Northern Ry., particularly in regard to its eastern terminus, and infers that Messrs. Mackenzie and Mann have their eyes on the Intercolonial Ry., and will probably endeavor to buy or lease it.

**Lake Champlain and St. Lawrence Jct. Ry.**—The Seminary of Sulpice has taken action against this Co. and against the Montreal and Atlantic Ry. Co., to recover \$106,000 on debentures and interest. The L.C. and S.L.J.R. extends from Stanbridge to St. Guillaume, Que., 61.4 miles, and is leased to the Montreal and Atlantic Ry., which is operated for the owners by the C.P.R. Co.

**The Kootenay and Arrowhead Ry.** shareholders met at the C.P.R. Secretary's office, Montreal, Aug. 13, to decide on the means to be adopted to raise funds to defray the cost of constructing or acquiring and completing the Co.'s railway. A resolution was passed to authorize the issue of bonds not exceeding \$25,000 a mile and to execute the necessary mortgage. The line is under construction as

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Are points of excellence in favor of these oils and greases, which have stood the severest test for years.

These brands with a full line of oils manufactured by the **Imperial Oil Company**

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The best goods are most economical. The names of the best are well known to all marine engineers of experience.

## WHEN YOU GET THERE

You are within from half a minute to fifteen minutes of 77 hotels, 85 clubs, and 31 theaters. All this, provided you arrive in the second city of the world at **Grand Central Station**, this being the Metropolitan terminus of the **New York Central**, which is the only trunk line whose trains enter the city of New York.

The following remark of an experienced traveler tells the whole story:

"For the excellence of its track, the speed of its trains, the safety and comfort of its patrons, the loveliness and variety of its scenery, the number and importance of its cities, and the uniformly correct character of its service, the **New York Central** is not surpassed by any similar institution on either side of the Atlantic."

Call on nearest ticket agent of the C.P.R. or T.H. & B. for further information, or address

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All kinds of... Limited.  
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OFFICE STATIONERY  
and ACCOUNT BOOKS**  
Temple Building, • • Toronto.

a subsidiary of the C.P.R., and will serve an important silver-lead mining district.

**Minneapolis, St. Paul and Sault Ste. Marie Ry.**—In speaking recently of the prospects of this line, President Lowry said: "The crops in the country served by our road are magnificent, and from indications it looks as though the earnings of the road the coming year will be very large. It is probable that the operations for the fiscal year will show a surplus of considerably over \$1,000,000. The intention is to pay dividends on the preferred stock before long, but I cannot say just how soon this may be done. Rates are being maintained by our roads, and they will continue to be maintained unless other roads resort to cutting, in which case we would be compelled to follow. I regard the general condition in the Northwest as being thoroughly sound, and I look for continued prosperity throughout the country."

**New Brunswick Southern Ry.**—J. J. Tucker, M.P., H. F. Puddington and M. B. Edwards were incorporated at the last session of the New Brunswick Legislature under this title to acquire, hold and operate the Shore Line Ry., with all the franchises and property of the Shore Line Co., or any part of the same. The capital is fixed at \$49,000, with power to increase, subject to the approval of the Government.

The three gentlemen named above, with a number of New York capitalists, including Russell Sage and L. P. Morton, were incorporated in 1900 by the Dominion Parliament as the South Shore Line Ry., with a capital of \$1,000,000, for the purpose of acquiring the Shore Line Ry., to connect it with the Washington County Ry., Me., and operate it in connection therewith. The Co. had power to issue bonds to the extent of \$15,000 a mile.

It was reported that the line would be offered for sale on Aug. 10, but no announcement has been made that any sale had been effected. (Aug., pg. 233.)

**Northern Pacific Rd.**—The following new directors are announced for the N.P.; J. J. Hill, President of the Great Northern; H. McK. Twombly, now a director in the Chicago and Northwestern, New York Central, etc.; W. Rockefeller, Standard Oil Co., and a director in the St. Paul; E. H. Harriman, Chairman of the Union Pacific, and S. Rea, a Vice-President of the Pennsylvania.

**Qu'Appelle, Long Lake and Saskatchewan.**—Net loss for June \$9,287.26 against net loss of \$7,612.60 in June, 1900; making for the seven months ended June, a net profit of \$333 against a net loss of \$9,597 for corresponding period of 1900.

**Quebec and Lake St. John Ry.**—Total earnings for 1900, \$375,695, against \$339,285 in 1899.

**St. Lawrence and Adirondack Ry.**—A semi-annual dividend of 2½% has been declared. A. L. Meyer has been elected Vice-President.

**South Shore Ry. (Quebec).**—A Montreal despatch says.—The many rumors which have been in circulation regarding the S.S. Ry. have now been set at rest by the fact that 51% of its stock is controlled by R. J. Campbell, of New York, who is Vice-President of the Cape Breton Ry. Extension Co., of which W. S. Webb, of the New York Central Rd., is President. Thus Mr. Campbell has evidently gained the day, and while H. A. Hodge, Traffic Manager of the Rutland Ry., was petitioning the court to disallow the sale, Mr. Campbell has stepped in and bought up the control of the shares for, it is said, about \$300,000. At a recent meeting of the directors Judge Choquet resigned the Presidency, and was succeeded by A. L. Meyer as President and R. J. Campbell as Vice-President. Mr. Meyer is also Vice-President of the St. Lawrence and Adirondack Ry., of the Do-

minion Securities Company of New York, a director of the Cape Breton Extension Ry., and of other large corporations. The transaction is considered an important factor in the consummation of the Royal Albert bridge. All those interested in the deal are closely connected with W. S. Webb and New York Central interests, and developments may be looked for. New capital will be brought into the corporation, and the line will be completed to Levis, where important connections will be made in the near future. It is generally believed that the New York Central Rd. will eventually gain an independent entrance by it to Montreal over the proposed bridge. Meanwhile the legal end of the fight still continues in the form of an injunction of Mr. Hodge to enjoin the transfer of the estate of the late A. Tourville, the estate of J. L. H. Beauchemin of Sorel, and J. M. Fortier of Montreal, to Mr. Campbell, and of their rights in the South Shore Railway.

**Tilsonburg, Lake Erie and Pacific Ry.**—The following officers were recently elected: President, Jno. Charlton, M.P.; Vice-President, Mr. Thomas, Ingersoll, Ont.; Treasurer, C. C. L. Wilson, Ingersoll; Secretary, T. Jenkins, Toronto; General Manager, J. H. Teall, Tilsonburg; other directors, S. S. Clutton, Vienna; E. V. Tillson, Tilsonburg.

**The Vancouver and Lulu Island Ry. Co.'s** shareholders met at the C.P.R. Secretary's office at Montreal, Aug. 13, and passed a resolution authorizing the issue of bonds to the extent of \$17,500 a mile and the execution of the necessary mortgage. This line, which is under construction, is a subsidiary of the C. P.R. and is to run from Vancouver to the fish canning district at Steveston on the Fraser river and is expected to develop a good traffic.

**Woodstock and Centreville Ry. Co.**—At the adjourned annual meeting in St. John, N.B., recently, the following directors were elected: J. Connor, A. G. Blair, jr.; J. A. Belyea, M. E. Agar, R. W. Balloch, P. O'Mullin, A. B. Connell.

### The Clergue Enterprises in Court.

A preliminary injunction has been granted by Judge Shipman, of the U.S. Circuit Court, at Hartford, Conn., restraining the Consolidated Lake Superior Co. from absorbing the Ontario Lake Superior Co. The proceedings were initiated by A. S. Miller, of New York, in his own behalf as well as in behalf of other shareholders, against the directors of the Consolidated Lake Superior Co., organized under the laws of Connecticut, but having its principal offices in Philadelphia and Sault Ste. Marie, Ont. The Co. was formed for the purpose of carrying on a general commercial and manufacturing business. Its capital up to May 16, 1901, was \$20,000,000, divided into 400,000 shares of \$50 each, of which 120,000 shares were preferred to the extent of 7% of dividends, and 280,000 shares were common. Mr. Miller holds 500 shares of common stock, for which he paid cash, and the promoters and directors of the Co., who control more than two-thirds of the stock are:—F. H. Clergue, Sault Ste. Marie, Ont.; L. Harrison, New Haven, Conn.; E. V. Douglas, F. S. Lewis, H. A. Bermund, J. Butterworth, W. P. Douglas, J. Pitcairn, T. C. Search, S. R. Shepley, and J. S. Schwartz, of Philadelphia. These gentlemen, it is alleged, for the purpose of carrying on the Co.'s business acquired under the name of the Ontario Lake Superior Co., organized in Jan., 1900, large concessions from the Government of Ontario, and various subsidiary companies have been organized in Ontario, and a number of works undertaken, including the Algoma Central and Hudson's Bay Ry., and the Manitoulin and North Shore Ry. It is specifically alleged that the directors of the Consolidated Lake Superior Co.,

"in furtherance of a conspiracy by which the said directors individually acquire large profits" at the expense of the Co., recommended to the stockholders the purchase of the charter and property of the Ontario Lake Superior Co. at an "excessive and unreasonable valuation in excess of the sum which said properties have cost." The Consolidated Lake Superior Co. recently filed a certificate of increase of the capital stock from \$20,000,000 to \$117,000,000, out of which \$35,000,000 was to be issued to the stockholders of the Ontario Lake Superior Co. on the surrender of their \$20,000,000 of stock. Out of this sum it is alleged that there is a profit of \$9,000,000 for the directors.

In the statement of defence Mr. Clergue and his associates state that 85% of the stockholders have voted in favor of the plan for the exchange of stock between the two companies, and that Mr. Miller is practically the only dissident.

### RAILWAY APPOINTMENTS, ETC.

**Atlantic and St. Lawrence Rd.**—G. B. Reeve, Vice-President and General Manager of the G.T.R., has been elected President, and G. P. Westcott, of Portland, Me., Vice-President. This line runs from Portland, Me., to the Canadian boundary, with branches; and in 1858 was leased to the G.T.R. for 999 years.

**Canadian Pacific.**—E. A. James, heretofore Superintendent of the main line between Winnipeg and Brandon, Man., and of branch lines connecting therewith, has been appointed Superintendent of Transportation with office at Winnipeg, reporting to the General Superintendent.

D. G. Ross has been appointed Superintendent of the Thunder Bay, Wabigoon and Rat Portage sections and branch lines connecting therewith. Office at Fort William. This is simply a reappointment, as he has held the position for some time.

Jas. Manson, who until the abolition of the position of Manager of Western lines was chief clerk to the Manager, has been appointed Superintendent of the South-Western and Pembina sections, the Snowflake, Waskada, Emerson, Stonewall, and West Selkirk branches and Winnipeg terminals. Office at Winnipeg.

R. Peard, heretofore Assistant Superintendent of the main line between Winnipeg and Brandon, Man., and of branch lines connecting therewith, has been appointed Superintendent of the Brandon, Minnedosa, Yorkton and Souris sections and branch lines connecting therewith. Office at Brandon.

In consequence of the changes in superintendent's districts in Manitoba, above mentioned, trains in Superintendent Peard's district are now being dispatched from Brandon, with G. M. Sherlock as Chief Dispatcher, instead of from Winnipeg. Trains in Superintendent Manson's district continue to be dispatched from Winnipeg, with J. Barnes as Chief Dispatcher.

T. Kilpatrick, heretofore Acting Superintendent of the Shuswap and Mountain sections of the Pacific division, has been appointed Superintendent, with office at Revelstoke, B.C.

A Winnipeg press despatch says it is understood that if W. Stitt, Assistant General Passenger Agent, Western Division, is appointed General Agent in Australia, the position of Assistant General Passenger Agent, Western Division, will be abolished, and the work will be performed by H. W. Brodie, chief clerk to the General Passenger Agent of the Western lines.

W. Byrd has been appointed General Foreman of Winnipeg shops, succeeding G. Hall, appointed Master Mechanic of the Pacific Division,



R. C. Montgomery, formerly foreman on extra gang on the Sault Ste. Marie branch, has been appointed Assistant Roadmaster at Ottawa.

**Canadian Northern Ry.**—R. Percival, heretofore conductor on the Manitoba and South-Eastern branch, is reported to have been appointed yardmaster at Winnipeg.

A city ticket, freight and telegraph office has been opened at 431 Main St., Winnipeg, with Mr. Attwood as city ticket agent, and Mr. Cameron as city freight agent.

**Central Vermont Ry.**—J. M. Morrison has been appointed Engineer and Superintendent of Structures, and will hereafter have charge of both the engineering and bridge and building departments, vice Jas. A. Sheedy, Superintendent of Bridges and Buildings, resigned to take service with another company. The office of Superintendent of Bridges and Buildings is abolished.

**Chicago, Milwaukee and St. Paul Rd.**—A. H. Rothwell, formerly of Brantford, Ont., has been appointed Contracting Freight Agent at Detroit, Mich.

**G. T. R.**—J. E. Muhlfeld, Master Mechanic at the Point St. Charles shops, Montreal, has resigned. It is said that he is going to enter the service of a locomotive company in the U.S.

W. Jell, heretofore Locomotive Foreman at Fort Erie, Ont., has been appointed Locomotive Foreman at Point Edward Tunnel, succeeding W. Kennedy, appointed Master Mechanic of the Middle and Southern divisions.

W. Loveredge has been appointed Locomotive Foreman at Fort Erie, succeeding W. Jell.

W. C. Starke has been appointed chief clerk to the Car Service Agent, succeeding

F. Price, appointed chief clerk to the General Superintendent.

W. W. Robertson, jr., of the Montreal city ticket office, has been promoted to be chief clerk to City Ticket Agent W. H. Clancey, in place of F. M. Gilman, who has left the employ of the Co. to become City Passenger Agent of the Rutland Ry.

**Intercolonial Ry.**—A Moncton, N.B., despatch says there is an impression in railway circles there that the position of General Superintendent, held by J. E. Price, will be abolished, that three of his clerks have already been given other positions, but that it is not known what appointment will be offered him.

**Mineral Range, Hancock and Calumet.**—W. W. Walker, previously Assistant General Freight Agent, has been appointed General Freight Agent, with office at Duluth, Minn., vice W. Orr, resigned.

**Minneapolis, St. Paul and Sault Ste. Marie Ry.**—W. C. Marshall has been appointed Assistant General Freight Agent, with office at Minneapolis, Minn. J. F. Schurch has been appointed Contracting Freight Agent with office at Minneapolis, succeeding Mr. Marshall.

**New York Central.**—J. N. Sutherland, formerly agent for the Michigan Central Rd., at Tilsonburg, Ont., has been appointed Contracting Agent for the N.Y.C.R., at Toronto.

Wm. Hutchinson has been appointed Private Secretary to President Newman. He was at one time Secretary to A. B. Atwater, then Superintendent on the G.T.R., and now Assistant General Superintendent of the Michigan Central Rd.

**Rutland Rd.**—F. M. Gilman, heretofore chief clerk in the Montreal city passenger office of the G.T.R., has been appointed City

Ticket Agent of the Rutland Rd. with office in St. James St., Montreal. J. M. Ferris, formerly of the Quebec Southern Ry., has been appointed Travelling Freight and Passenger Agent of the Rutland, with headquarters in Montreal.

#### Manual of Statistics.

The Manual of Statistics and Stock Exchange Handbook for 1901, being the 23rd annual issue, has just been published by C. H. Nicoll, 220 Broadway, New York city. The manual reviews the position of the steam and electric railways, transportation companies and all kinds of industrial corporations, the shares or bonds of which are dealt in on the exchanges in the principal cities of North America. Quotations are given showing the movement of stocks on the Montreal and Toronto stock exchanges, and the position of the following companies are dealt with in detail: Canada Atlantic Ry.; Canada Southern Ry.; C.P.R., Central Vermont Ry., Duluth, South Shore and Atlantic Ry., G.T.R., Great Northern Ry. of Canada, Kingston and Pembroke Ry., Minneapolis, St. Paul and Sault Ste. Marie Ry., New York and Ottawa Ry., Toronto, Hamilton and Buffalo Ry., Bell Telephone Co. of Canada, The Consolidated Lake Superior Co. (financing the Clergue enterprises), The Cramp Ontario Steel Co. (Ltd.), The Cuba Co., Dominion Coal Co., Dominion Iron and Steel Co., Quebec Bridge Co. (Ltd.), Richelieu and Ontario Navigation Co., Sault Ste. Marie Bridge Co., Montreal Street Ry. Co. and Toronto Ry. Co.

The Canadian Roadmasters' Association's annual meeting is fixed to be held at Hamilton, Ont., Oct. 16.

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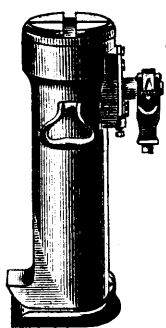
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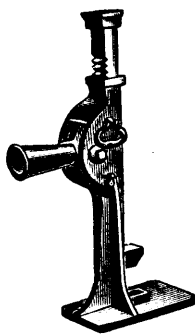
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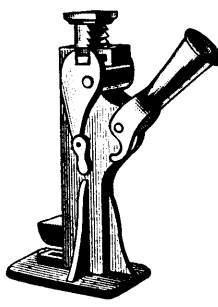
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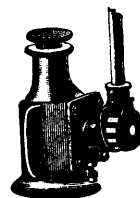
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### Mainly About People.

T. A. Foque, Mechanical Superintendent of the Minneapolis, St. Paul & Sault Ste. Marie Ry., has invented a pneumatic fan.

Lord and Lady Strathcona are expected in Montreal about Sept. 1, in connection with the visit of the Duke and Duchess of Cornwall.

A rumor is current in Montreal that President Shaughnessy, of the C.P.R., will be knighted during the approaching Royal visit.

J. Ross Kerr, General Manager of the street railway system of Kingston, Jamaica, died at the residence of Jas. Ross in Montreal Aug. 4.

Angus A. Grant, railway contractor, who died at Los Angeles, Cal., recently, was a native of Charlottenburg township, Glengarry County, Ont.

The Halifax Chronicle speaks of W. MacKenzie and D. D. Mann as "magnets." That is not what it intended to say, but it is not bad all the same.

M. P. Davis, contractor for the Quebec bridge, was severely cut about the head by a falling bolt, recently, while ascending from the interior of one of the main pier caissons.

W. Rennels, Superintendent of the Moncton and St. Flavie district of the Intercolonial Ry., has been given three months' leave of absence from Aug. 15, and is visiting Great Britain with Mrs. Rennels.

J. M. Daly, who is temporarily employed on the Intercolonial Ry., inaugurating a fast freight system, was until recently Superintendent of Transportation on the Delaware, Lakawanna & Western Rd.

C. McCrery, recently Superintendent of the Dominion Iron & Steel Co., at Sydney, N.S., has been appointed Vice-President and General Manager of the Tennessee Coal, Iron & Rd. Co. at Birmingham, Ala.

A. C. McKellar, formerly Assistant Secretary of the Ottawa Y.M.C.A., who accompanied the first contingent to South Africa, has been appointed Secretary to the General Manager of the Transvaal railways.

G. S. Cantlie, Superintendent of Car Service, C.P.R., was elected a member of the executive committee for 1901-2, of the Railway Transportation Association, at the summer meeting, held at Niagara Falls, recently.

W. Whyte, Assistant to the President of the C.P.R., reached Vladivostok early in Aug., after travelling over the trans-Siberian railway. He expected to sail from Yokohama on Aug. 16, and to reach Montreal early in Sept.

H. P. Dwight, President of the G.N.W. Telegraph Co., who a year or two ago presented a library to the village of Dwight, Muskoka, has established two others at Baysville and Dorset, also in the highlands of Ontario.

L. Trudeau, head roadmaster of the Montreal St. Ry., has resigned to become Superintendent of the electric car service at Bordeaux, France. He has been in the employ of the M.S.R. for 16 years, having started as a conductor.

Jos. Price, Vice-President of the G.T.R., and Managing Director of the English Association of American Bond and Share Holders, Ltd., has been appointed Chairman of the Association in succession to the late chairman, S. Pope, K.C.

E. G. Russell, Manager of the Intercolonial Ry., who has been identified with the work of the Y.M.C.A. in the U.S., has sent a check for \$25 to the Moncton Y.M.C.A. and a letter expressing his interest in the work and his intention to contribute a similar amount each year.

The President of the International Association of Car Accountants has announced the

appointment of committees for 1901-2. The Canadian officials on committees are: on large cars and light loads, W. H. Rosevear, G.T.R., chairman, J. Campbell, I.C.R.; on car service, J. P. Driscoll, C.P.R.

A press report says John Irwin, until recently G.T.R. trainmaster at Durand, Mich., has been appointed Superintendent on the Southern Pacific Ry. We recently heard of his starting to go over the line between El Paso, Texas, and Portland, Oregon, but he had not then been appointed Superintendent.

F. T. Griffin, Land Commissioner of the C.P.R., whose portrait appears on page 257, was born in 1854. He has been in the service of the land department for 18 years, and occupied the position of Assistant Land Commissioner for 9 years until Sept. 1, 1901, when he was appointed Land Commissioner.

Engine-driver Campbell was killed and Fireman Wm. McAuley seriously injured by the derailling of their freight train on the C.P.R. near Proton, Ont., Aug. 10. Campbell was the son of the C.P.R. agent at Cheltenham, Ont., and McAuley is the only son of A. McAuley, C.P.R. roadmaster at Toronto Jct.

J. E. Riley, who was roadmaster on the Northern Pacific Rd. at Winnipeg when the Co.'s Manitoba lines were transferred to the Canadian Northern Ry., and who is now roadmaster of the N.P.R. at East Grand Forks, Minn., was recently presented with an address and a gold-headed cane by the trackmen of the old Manitoba division.

Sir Wm. Van Horne has gone into a submarine signal company, which has been organized at Waterville, Me. He said recently:—"I went into it owing to the interest I feel in the St. Lawrence route, and because the recent discoveries in submarine signalling seem to me to promise just what is necessary for the safety of navigation both on the River and Gulf of St. Lawrence."

Logie Armstrong, youngest son of C. N. Armstrong, the Montreal railway promoter, has received notification of his nomination to a navel cadetship, and will shortly sail for London to pass the necessary examinations. Mr. Armstrong has six sons, all of whom will now be wearing his Majesty's uniform, the five older ones all holding commissions in the regular army or Canadian militia.

Ex-Land Commissioner Hamilton, of the C.P.R., has returned from Europe, and in company with Land Commissioner Griffin is visiting the Bow River, Edmonton and Battleford districts, N.W.T. The present available land area for settlement and cultivation is narrowing down, and it is considered wise to widen the field and amplify the scope of the Co.'s operations in so far as new lands are concerned.

Lord Mount Stephen has given £40,000, the annual revenue of which is to be applied towards the augmentation of the stipends of over 20 ministers of the Church of Scotland, in Aberdeenshire and Banffshire, Scotland, whose parishes are situated in the vicinity of his native district. Each minister will benefit to the extent of £100 annually. The deed constituting the trust states that, in view of the reduction which has taken place in parish ministers' stipends during the last 50 years, Lord Mount Stephen desires to restore the clergy to a position of greater independence.

E. H. Fitzhugh, who has been appointed Assistant to the President of the Southern Pacific Co., was born in Montgomery County, Missouri, in Feb., 1853. He entered railway service in 1873 as clerk in the office of the master car builder, St. Louis, Kansas City and Northern Ry., now a part of the Wabash system. He remained with the Wabash continuously until 1896, having in the meantime risen through the various grades of promotion to

the position of Master of Transportation. In 1896 he was appointed Superintendent of the Middle Division of the G.T.R., and in 1899 he became Vice-President and General Manager of the Central Vermont Ry., which position he resigned to go to the Pacific Coast.

Grant Hall, recently appointed Master Mechanic of the C.P.R.'s Pacific division, was born in Montreal in 1864. He entered the G.T.R. shops at Montreal as an apprentice in 1883. His subsequent record is as follows: May, 1888, to June, 1889, locomotive foreman, C.P.R. at Megantic, Que.; June, 1889, to April, 1890, locomotive foreman, C.P.R., at Brownville Jct., Me.; April, 1890, to Mar., 1893, locomotive foreman, C.P.R. at Windsor St., Montreal; Mar., 1893, to July 31, 1898, general locomotive foreman, I.C.R., at Moncton, N.B.; Sept., 1898, to Jan., 1899, locomotive foreman, C.P.R., Windsor St., Montreal; Jan., 1899, to Feb., 1901, general foreman, C.P.R., MacAdam Jct., N.B., Mar., 1901, to July, 1901, general foreman, C.P.R. shops, Winnipeg; July 26, 1901, to date, master mechanic Pacific Division, C.P.R.

T. R. Ronald, Vice-President; A. Denny, Dumbarton, Scotland, a director, and R. J. Campbell, Secretary of the Dominion Atlantic Ry., recently arrived in Canada from Great Britain for the purpose of inspecting the line. This they have just done, and in the course of their inspection they were received by the Mayor and Corporation of Kentville and presented with an address, and met the employees of the Co.'s shops at a smoking concert. From Kentville the party visited the Cornwallis Valley branch line, and subsequently went over the Central Ry. to Lunenburg, where they visited the D.A.R. str. Prince Edward, which was in port. The trip was brought to a conclusion by a dinner at the Halifax Hotel, Halifax, given by the Co. to representatives of the Government and of the business section of Halifax. Among the toasts proposed was "The railways of Canada, shipping and transportation," proposed by Premier Murray, who referred to the establishment of a second transcontinental railway, the terminus of which he hoped to see in Halifax.

W. G. Neimeyer, General Western Freight and Passenger Agent of the Southern Pacific Rd. at Chicago, has also been placed in charge of the Union Pacific Rd. office, W. H. Knight, representing the latter company, having resigned. D. Miller, second Vice-President of the Great Northern Ry., has been placed in charge as traffic director, of the Burlington, the Great Northern and the Northern Pacific lines, with office in Chicago. For the other lines running to the coast, J. C. Stubbs, third Vice-President of the Southern Pacific, will act in the same capacity, with jurisdiction over the Union Pacific and the Southern Pacific. Mr. Stubbs will also have his office in Chicago. In addition to being traffic director of the three roads, Mr. Miller will have the title of Vice-President of the Burlington. It is understood that the two traffic directors will act in harmony with the traffic officials of other lines and in such a way that there will in effect be a traffic board, which shall have the duty of adjusting all the difficulties which may arise between western lines. It is said that the other members of this board will consist of P. Morton, for the Santa Fe; Vice-President Johnson, for the Rock Island; President Felton, for the Alton; Second Vice-President Harahan, for the Illinois Central; Third Vice-President McCullough, for the Northwestern; Third Vice-President Bird, for the St. Paul, and similar officials on other lines.

In publishing a portrait of E. E. MacLeod, Chairman of the Western Passenger Association, recently, the Chicago Tribune said: "He has risen to his present position in the railway world in comparatively a few years. He has

been Chairman of this important railway association since June, 1899, and has made an excellent record. Every chairman who had preceded him had endless trouble in steering clear of breakers, and nearly all of them came to shipwreck in the course of time. Mr. MacLeod, however, though yet young in years, has thus far kept in smooth water and escaped collisions with derelicts. He was born on Aug. 30, 1866, at Newport, N.S. He entered railway service in 1885 as a clerk in the New England agent's office of the G.T.R. at Boston. After serving a short time as ticket clerk on the Boston & Albany he became Travelling Passenger Agent of the Chicago, Rock Island & Pacific at Boston. From 1892 to 1895 he was Canadian Passenger Agent at Montreal and in 1896 became Travelling Passenger Agent at Pittsburg for the same road. In 1898 he went to Topeka as Assistant General Passenger Agent and shortly afterwards was called to Chicago to become First Assistant General Passenger Agent of the Rock Island. In June, 1899, he succeeded B. D. Caldwell as Chairman of the Western Passenger Association. He is the second eldest son of the Rev. J. M. MacLeod, for many years pastor of Zion Church, Charlotte-town, P.E.I., and now of Vancouver, B.C."

**The International Association of Ticket Agents** will hold its annual convention in Toronto Sept. 11 and 12, the first meeting being fixed for the Pavilion in the Horticultural Gardens at 10 a.m., Sept. 11. A local committee in Toronto, composed of Jno. Foy, chairman; M. C. Dickson, A. H. Notman, H. Foster Chaffee and Acton Burrows, Hon. Sec.-Treas., have arranged for showing the visitors the city thoroughly and for otherwise entertaining them. The executive of the Canadian Ticket Agents' Association have been invited to attend the convention. On Sept. 13 the delegates attending the convention will be taken to Muskoka Wharf on a special train as the guests of the G.T.R. and will have a sail on Lakes Muskoka and Rosseau as the guests of the Muskoka and Georgian Bay Navigation Co.

**Signs for Railways.**—The Railway and Engineering Review, Chicago, says:—"The Acton Burrows Co., Toronto, report prosperous business in the sale of enameled iron station signs, and the testimony of their patrons shows that these signs are proving satisfactory. These people also stand ready to fill orders for enameled iron targets for switchstands. The list of signs advertised includes railway station names, switch targets, whistle and diamond crossing signs, semaphore arms, numbers for sections, mileage, bridges, signal houses, etc.; street car route signs, steamship and ferry signs, express, telegraph and telephone office signs, and advertising signs of every size and color which are made to order. Enameled iron plates for doors of stations, offices, hotels, etc., are carried in stock. The advantages claimed for these signs are that

they never fade nor tarnish, being always bright and attractive, and that they are the only signs that will withstand the effects of weather in all climates. Twenty-nine of these signs, supplied the Canadian Pacific Ry. for the Crow's Nest Pass road, averaged 6½ ft. in length, the longest being 11 ft. 2 ins., and the shortest 3 ft. 9 ins."

**C.P.R. Earnings, Expenses, Etc.**

At a meeting of directors, Aug. 12, the usual dividend of 2% on the preference stock for the ½ year ended June 30 last, was declared. A dividend of 2½% for the same period was declared on the common stock. The results for the fiscal year ended June 30 last were:—

Gross earnings.....		\$30,855,203
Working expenses.....		18,745,828
Net earnings.....		12,109,375
Income from other sources.....		933,425
<b>Total net income.....</b>		<b>\$13,042,800</b>
Less fixed charges, including interest on land bonds.....	\$7,305,835	
Less amount applied against ocean steamships.....	150,000	\$7,455,835

Net revenue available for dividends.... \$5,586,965  
After payment of all dividends declared, the surplus for the year, carried forward, is \$1,114,458.

**Canadian Pacific Railway Land Sales.**

	Acres.		Amount.	
	1900	1901	1900	1901
Jan.....	31,485	27,928	\$100,857.85	\$36,752.54
Feb.....	23,613	29,370	75,771.10	91,189.58
Mar.....	31,183	39,546	99,777.79	122,362.47
April.....	58,457	48,874	181,775.78	152,445.70
May.....	66,057	40,489	214,851.00	129,614.69
June.....	57,831	50,168	188,779.64	161,352.28
July.....	49,715	49,089	129,483.42	154,848.84
	309,341	285,464	\$982,296.76	\$848,566.10

**Grand Trunk Earnings, Expenses, Etc.**

Subject to audit the results of the accounts for the ½ year to June 30, 1901, are as follows:

Gross receipts.....	£2,288,000
Working expenses, including special appropriation of £10,000 to bridge renewal account.....	1,545,000
Net receipts.....	743,000
Net revenue charges for the ½ year, less credits.....	524,500
Deduct: Amounts payable by the Co. under traffic and other agreements— G.T. Western Co..... £6,300 Detroit, Grand Haven & Milwaukee Co..... 18,200	24,500
Surplus for the ½ year.....	£194,000

This surplus added to the balance of £2,500 from Dec. 1900, makes £196,500 available for dividend, which will admit of the payment of the full dividends for the ½ year on the 4% guaranteed stock and the 5% 1st preference stock, leaving a balance of about £6,700 to be carried forward.



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**Career and Character of Abraham Lincoln.**

An address by Joseph Choate, Ambassador to Great Britain, on the career and character of Abraham Lincoln—his early life—his early struggles with the world—his character as developed in the later years of his life and his administration, which placed his name so high on the world's roll of honor and fame, has been published by the Chicago, Milwaukee & St. Paul Railway, and may be had by sending six (6) cents in postage to F. A. Miller, General Passenger Agent, Chicago, Ill.

## RAILWAY DEVELOPMENT.

## Projected Lines, Surveys, Construction, Betterments, Etc.

**Alaska.**—M. J. Heney, who was contractor for the White Pass and Yukon Ry. from Bennett to White Horse, recently arrived in Yukon, having inspected the preliminary survey for a railway between Valdez and Eagle. The survey was made by engineers who located the line for the W.P. and Y. R. They found a pass through Copper River Mountain, the highest altitude of which is 2,400 ft., or 400 ft. less than White Pass. The proposed road will be between 450 and 500 miles long, following the Government trail part of the distance. Mr. Heney figures that he can build the road in two years, by starting construction at both ends. It is said he will go to New York and London this winter to finance the project. (Aug., pg. 225.)

R. Barbier, Manager of the Russo-China Bank of Peking, representative of the Russian Government, and Manager of the Manchurian Ry., who has recently been in the U.S., is credited with a gigantic scheme of railway communication designed to unite Alaska and Siberia, and furnish rail and water connections between Circle City and Vladivostok, the eastern terminus of the Trans-Siberia Ry. at a cost of \$200,000,000.

**Algoma Central and Hudson's Bay Ry.**—There has been completed and is in operation 43 miles of the main line of this railway from Sault Ste. Marie, the present terminus being at Achigan. There is under construction a further distance of 128 miles which will carry the line to Park Lake Jct., the point at which the Michipicoten branch will join the main line. It is expected that rails will be laid on 28 miles of this 128 by the end of Nov., carrying the track to or a little beyond Chippewa river. Grading on the remaining 100 miles will be proceeded with as rapidly as possible, and it is expected that it will be completed by Aug., 1902. Track laying on this portion of the line will be done as fast as the grade is turned over to the Co. The contractors are Fauquier Bros. and Conmee & Bowman. W. Z. Earle is Chief Engineer. The sectional engineers from Goulais to Chippewa river are: C. R. Boucher, E. Force, H. Brunnell, and G. L. Mattice. From Chippewa river to Park Lane Jct. there are division engineers C. Gardin, C. Mitchell, and C. Perry, with J. L. Boyd, F. J. Mackie, G. L. Law, W. V. Taylor, J. Davidson, and W. J. Clifford in charge of sections. H. M. Stone is Bridge Engineer and C. H. Morse is his assistant.

No further contracts have been let, but location surveys are being made for the continuation of the line from Park Lake Jct. to the C.P.R. transcontinental line, by F. E. Simar and A. True, and northerly from the C.P.R. line to James' Bay, the survey is in charge of C. F. Hannington.

The Michipicoten branch from Michipicoten harbor to the Helen Mine is 11 miles long and is open for traffic, one train a day being run in each direction.

Track has been laid for 3 miles on the Josephine branch from its junction with the Michipicoten branch, and we were recently informed that track laying on the remaining 7½ miles would be completed by the end of Aug.

**Atlantic and Lake Superior Ry.**—The bridges referred to in our last issue as being under construction are on the old portion of the line between Caplin and New Carlisle. We were recently advised that the extension from New Carlisle towards Paspébiac had not been commenced, but that it would probably be gone on with this year, as the contract between the Dominion Government and the trustees of the bondholders who have posses-

sion of the railway was about to be signed. C. R. Scoles is General Manager, also contractor. J. M. Shanly is Engineer. (Aug. pg. 225.)

**Brockville, Westport and Sault Ste. Marie Ry.**—The roadbed is being relaid with new ties under the supervision of Roadmaster Stinson.

In reference to the proposed extension northward from Westport, we are informed that it is intended to proceed with this just as soon as legislation can be procured for the reorganization of the Co., and the Government bonus is revoked. (Aug. pg. 225.)

**Bruce Mines and Algoma Ry.**—A contract has been let for the construction of 14½ miles of this line from the C.P.R. at Bruce Mines to Rock Lake, out of 16.6 miles projected from Lake Huron at Bruce Mines to the Rock Lake Mining Co.'s concentrating mill. It is proposed to construct the section from the lake shore to the C.P.R. tracks next spring. Birmingham & MacMartin, of Sault Ste. Marie, are the contractors for the 14½ miles; they have commenced work and the contract calls for completion of the line by Dec. 15. The grading will run about 10,000 cubic yards to the mile, and with the exception of about 10,000 cubic yards of solid rock, is all earth of a clay nature. The structures will be ordinary pile and timber trestles; there will not be any masonry work. The maximum grade will be 1-5%, and the maximum curve 9'. The line will be laid with 56-lb. rails, and will be operated by the Co. in connection with its copper mines. The rolling stock proposed to be purchased for use during the winter consists of one engine and 15 or 20 cars. The line was located by R. K. Russel, who is also engineer in charge of construction. There is a Dominion subsidy of \$28,800 for 9 miles of the railway, and of \$39,000 for 13 miles from the Ontario Legislature. (Aug. pg. 225.)

The officers of the Co. are: President, J. McKay, Sault Ste. Marie, Ont.; Vice-President, S. Skall, Cleveland, Ont.; General Manager, A. S. Burrows, Bruce Mines, Ont.; Treasurer, H. Will, Buffalo, N.Y.; Secretary, L. C. Holden, Sault Ste. Marie, Ont.

**Canadian Northern Ry.**—See pgs. 262 and 279.

**Canada Ry. and Coal Co.**—E. A. Smith, J. Friel and C. N. Skinner were incorporated at the last session of the New Brunswick Legislature under this title to construct a standard gauge railway from a junction with the Central Ry. near the head of Grand Lake, to a junction with the I.C.R., near Moncton. The Co. is also authorized to carry on a coal mining business. The Co. has a capital of \$40,000, and may issue bonds to the extent of \$10,000 a mile of railway constructed, and debentures in respect of its coal lands. The line is to be commenced in two years and completed in five. The name of this Co. was used on pg. 225 of our last issue instead of the New Brunswick Coal and Ry. Co.

**Carleton and Miramichi Ry.**—On this line, which is projected from the C.P.R. at Bristol, N.B., to Foreston, N.B., 26 miles, construction is not likely to be commenced this year, but it is hoped to build 16 miles next year. In 1890 the Dominion Parliament voted a subsidy of \$15,400 for 17 miles from Bristol, and this year the N.B. Legislature voted a subsidy for 10 miles. The objective point of the line is to the fork of the southwest Miramichi, where there is an immense water power and an abundance of black forest for pulp. M. Welch, of Bristol, and T. Lynch, of Fredericton, both lumbermen, are the promoters. (Aug., pg. 227.)

**Cape Breton Ry. Extension Co.**—R. W. Leonard, Chief Engineer and Manager of Construction, has been in Halifax for the

purpose of filing plans and obtaining the approval of the N.S. Government for the portion of the line already located from the Strait of Canso to St. Peters, so that construction may be started without delay. The location survey is being pushed forward, and a party headed by Mr. McCarthy, was working at Lynche's River in Aug.

Seven carloads of steel rails are reported to have been delivered, and E. Van Aken, Manager of the Manhattan Construction Co., says all the rails and other supplies for the construction of the line have been purchased. (June, pg. 226.)

**Chateauguay and Northern Ry.**—F. A. Hibbard is engineer in charge of construction of this line, which is to extend from Montreal to Joliette, 36 miles. It is to be a steam road, and it is understood that it will be leased to the Great Northern Ry. after completion. See under "Great Northern Ry.," pg. 273 (Aug., pg. 227.)

The line will start from the C.P.R., near Moreau St., Hochelaga, Montreal, and run parallel to the Montreal Terminal Ry. to the crossing of the River des Prairies at Charlemagne, thence to L'Assomption, crossing the Montreal-Quebec line of the C.P.R., near L'Epiphanie Station, thence continuing to the Great Northern Ry., near that Co.'s station at Joliette. The bridge across River des Prairies between Bout de L'île and Charlemagne will be a steel structure conformable with the Dominion Government specifications, clause 1, including a roadway 10 ft. wide at each side. The greatest curvature on the line will be 4° and the maximum radiant. 6 per hundred. The rails are to be 70 lbs. to the yard. Smith & Abbott, of New York, were announced as the contractors, but we are informed that a change has been made and that Mr. Abbott is the sole contractor for the whole work, excepting the bridge superstructure.

**Cockburn Island.**—Press reports say that the Clergue interests will build a dock at Cockburn Island, Lake Huron, and a railway thence to the limestone quarries on the island.

**Crawford Bay Ry.**—Col. N.W. Brayton, of Kaslo, B.C., was recently credited by press despatches with stating that 12 miles of this line would be built from Crawford Bay towards the Kootenay river, opposite Fort Steele, this year. On July 30 we were officially informed that no decision had been arrived at in regard to construction. In addition to Col. Brayton, R. Irving, Manager of the Kootenay Ry. and Navigation Co., and A. Wheeler, of Kaslo, are incorporators. (Aug., pg. 230.)

**Crow's Nest Southern Ry.**—See pg. 276.

**Duluth, Virginia and Rainy River.**—This Co., incorporated April 3, 1901, under the laws of Minn., to build from Virginia, Minn., in the Rainy Lake country, has filed amended articles increasing its capital stock from \$1,500,000 to \$2,000,000, and has asked for bids for the first 20 miles of its line. W. H. Cook, Duluth, Minn. is President.

**Edmonton, Yukon and Pacific Ry.**—The right of way for this line from Strathcona to Edmonton, 4½ miles, has been cleared, and the contractor, M. McCrimmon, is pushing on with the grading. The route crosses the Mill Creek twice, and the channel of the creek is diverted in one place. From its entry into the Mill Creek ravine the route is over a succession of gullies sandwiched between hills, which necessitates heavy grading throughout and the construction of several culverts or bridges. The line will cross the Saskatchewan river over the bridge built by the Dominion Government, which was described and illustrated in our issue of Dec., 1898. For the present, until the line is extended westerly the Edmonton station will be on the flat between 1st and 2nd street on the Hudson's Bay pro-

perty between the foot of the hill and the agricultural fair grounds. M. H. McLeod, Mackenzie, Mann & Co.'s Chief Engineer, is in charge of construction. (Aug., pg. 227.)

The original agreement drawn up between the Edmonton Town Council and Mackenzie, Mann & Co. for the construction of this railway from Strathcona to Edmonton, Alberta, was not executed within the time specified owing to delay at the Dominion Public Works Department in drawing up another agreement as to the conditions on which the line could be carried across the bridge across the Saskatchewan. Acting on the verbal promises of the Department that the agreement would be duly executed, Mackenzie, Mann & Co. went on preparing for the construction of the line, but a wash-out on the Calgary and Edmonton Ry. delayed the train carrying the contractors' plant and the work could not be started on the day mentioned in the agreement with the corporation. It was, therefore, necessary that a new contract should be entered into between the town council and Mackenzie, Mann & Co. A new agreement was drawn up and was discussed and signed at a meeting of the council on Aug. 6 at which W. H. Moore, solicitor for Macken-

zie, Mann & Co., was present. The new agreement fixes the time for the completion of the line as Nov. 1, and it is also provided that the charter will not be forfeited if the line is not completed by the date specified. It was stated in reply to a question that the rails would be laid within 10 days of the completion of the grading. M. H. McLeod is chief engineer in charge of construction, and M. McCrimmon is contractor. It is not intended to do more in the way of construction than to complete the line from Strathcona into Edmonton this year; neither will any further surveys be made for the present. (Aug., pg. 227.)

**Fraser River Bridge.**—The approaches for this bridge at New Westminster, B.C., are being located by J. A. L. Waddell, C.E., of Kansas City, Missouri, engineer-in-chief; F. C. Gamble, C.E., Superintendent of the Provincial Public Works, and A. J. Hill, C.E. When the points for the piers are decided on a survey of the river bottom will be made on the profile executed by C. E. Stoess, C.E. The north side approach will be the most difficult, which includes a high bank, and will necessitate a double-ender span with curves up and down the bank after passing over the

C.P.R. right of way. This span will probably be a cantilever one, and will be placed as low as possible. H. P. Bell, C.E., Victoria, will be the engineer in charge of the substructure; Mr. Hare, C.E., will be engineer for the superstructure, and M. J. Maher, C.E., will be the engineer in charge of construction.

The bridge is being built in conformity with sec. 16 of an act passed at the last session of the B.C. Legislature to authorize a loan of \$5,000,000 for the purpose of aiding the construction of railways and other public works. This section gives the Government authority to cause to be built a bridge across the Fraser river in the neighborhood of New Westminster at a cost not exceeding \$500,000, for the purposes of railway, vehicular and passenger traffic and after construction of the same to enter into agreements for the use of the bridge by any railway or other companies or firms, subject to such terms as may be fixed by the Government. It is believed that this bridge will be used by the Great Northern Ry., U.S., to reach Vancouver.

**Grand Forks to Republic.**—The surveys for the line between these points, now being built for the Grand Forks and Kettle River Ry., the B.C. Co., and the Republic and

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Grand Forks Ry., the Washington, U.S., Co., were made by J. Manley, C.E., who is also in charge of construction which is being proceeded with. Contracts have been let on the U.S. section as follows: Beck and Hall, two miles near Curlew; J. A. Musson, two miles near Curlew; J. Lane, two miles between Lambert Creek and Curlew; two miles adjoining, J. Barrow. These are probably sub-contracts, as it is reported that G. S. Deeks & Co. have the contract for the whole line. This line from the International boundary at Carson practically parallels the line now under construction by the Great Northern Ry., U.S., described below. (Aug., pg. 227.)

**Great Northern Ry. of Canada.**—The cut-off proposed to be constructed from Garneau Jct. to St. Catherines on the Quebec and Lake St. John Ry., 22 miles from Quebec, will shorten the distance into Quebec by the G.N.R. 15 miles, as compared with the present route by Riviere à Pierre. The cut-off will be 58 miles in length, and will pass through St. Stanislas, St. Casimer, St. Alban on to St. Catherines. The grades will be 0.6%, compensated opposed to eastbound traffic, and 1% compensated opposed to westbound traffic, and the maximum curvature will be 4°. Contractors have gone over the ground with a view of tendering for the work, and bridge companies have been asked to submit tenders for the superstructures of the bridges, but no contracts have been let.

At the western end of the line it is proposed to extend from Hawkesbury, via Caledonia Springs to South Indian, Ont., where a junction will be effected with the Canada Atlantic Ry., 23 miles from Ottawa. This extension will be 32 miles, the grades and curvature will be about the same as on the cut-off from Garneau Jct. to St. Catherines. A contract for this extension, we are informed, will be let shortly. (Aug., pg. 229.)

The Co. is preparing for a big fall business in grain and is laying three extra tracks into its Quebec elevator.

A complete description of the G.N.R. is given on pg. 259.

**Great Northern Ry., U.S.**—A line is under construction from Marcus, Wash., at the junction of the Columbia and Kettle rivers, on the line of the Spokane Falls and Northern Ry., a subsidiary of the G.N.R., and Midway, on the International boundary, 66 miles; with a branch to Republic, Wash., from Curlew, 20 miles. Of this line 15 miles, from Cascade to Carson, are in B.C., and are being constructed under the charter of the Victoria, Vancouver and Eastern Ry. (See pg. 275.) The G.N.R. desired to tap the Republic country, but although the distance between Marcus and Republic is less than 45 miles, the country is so difficult that about 70 miles of railway has to be constructed to reach it. The sections of the line under contract are from Marcus, Wash., to the International boundary at Cascade, B.C., 26 miles, connecting with the 15 miles being constructed in B.C. by the V.V. and E., to Carson; then commencing at the International boundary at Carson, and proceeding southerly to Curlew, then bending northwesterly to the International boundary at Midway, 25 miles; with a branch from Curlew to Republic, 20 miles. This gives altogether 61 miles of railway in Washington state, and 15 in B.C., making altogether 76 miles under construction. The grade on these sections of the line will not exceed six-tenths of 1%. The line from Marcus to Midway will form part of the route which the G.N.R. Co. contemplates constructing to Vancouver and Victoria, B.C. The line from the International boundary at Midway to Vancouver will be about 335 miles in length, will traverse the Okanagan and Similkameen districts, and will be constructed under the charter of the V.V. and E. Ry. The ferry connection between the mouth of the Fraser river and Sid-

ney, Vancouver island, and the terminals in Victoria, are being constructed under the charter of the Victoria Terminal Ry. and Ferry Co. (Aug., pg. 233.)

**Halifax and Yarmouth.**—R. J. Campbell, Vice-President of the Cape Breton Ry. Extension Co., is reported to have recently stated that he and his associates in the Dominion Securities Co. recently offered the Messrs. Brill and Fletcher, of Philadelphia, \$750,000 for this line from Yarmouth to Barrington.

Mackenzie, Mann & Co. have arranged with the Nova Scotia Government for the construction of the Halifax and Southwestern Ry., and it is likely that they will secure the H. & Y.R. See pg. 257. (Aug., pg. 229.)

**Hillsborough Branch Ry. Co.**—By an act passed at the last session of the New Brunswick Legislature it is provided that the failure to hold the annual meetings of this Co. as provided for by 39 Vic., chap. 57, sec. 8, did not invalidate the charter, and it is enacted that none of the acts or proceedings of the directors shall be in any way affected or impaired by reason of failure to hold the annual meeting.

The Salisbury and Harvey Ry. obtained a Dominion charter in 1900 authorizing it to construct certain branch railways in and around Hillsborough. (May, 1900, pg. 145.)

**Intercolonial Ry.**—An 18-stall roundhouse is being built at Sydney, and the yard is being re-arranged prior to the erection of new station buildings off Ferry St.

C. Schrieber, Deputy Minister of Railways, on returning from his recent inspection, stated that out of the 96 miles of the Cape Breton line, 84 had been laid with new heavy rails.

The building of the ferry landings at Mulgrave and Point Tupper, for the car ferry recently launched at Newcastle-on-Tyne, Eng., is proceeding satisfactorily, according to a statement made by the Deputy Minister of Railways on his return from a recent inspection of the line.

The line from the Straits of Canso, eastward to New Glasgow, General Manager Pottinger says, is to be relaid with new 80-lb. steel rails. He also says that a double track is likely to be built from Halifax to Windsor Jct., where the Dominion Atlantic joins the I.C.R.; and that all the bridges along the line are to be strengthened so as to enable the management to run the heavy new engines right through to Montreal.

It has been reported that the headquarters for the Eastern Division would be removed from New Glasgow to Sydney, but General Manager Pottinger says that no such move is contemplated, the present headquarters being the more central.

Tenders have been received for the construction of a creosoted pile wharf at Pictou, N.S.

At Stellarton an 18-stall roundhouse is in course of construction.

**Interprovincial Bridge.**—It is reported that at the solicitation of the Mayor of Ottawa President Beemer has decided to name the bridge "Alexandra," and will invite the Duke of Cornwall and York to formally designate it. (Aug., pg. 229.)

**Inverness and Richmond Ry.**—An extension of about 4 miles from the south end of this line at Port Hastings, N.S., via Port Hawkesbury, to connect with the I.C.R., near Point Tupper, has just been completed. A four-stall roundhouse and a turntable have been built at the northern terminus at Broad Cove. At the northern end construction has not commenced on the proposed extension from Broad Cove to Cheticamp, and it is said to be doubtful if any work will be done on this section this year. (Aug., pg. 229.)

The Inverness-Richmond Collieries and Ry. Co. of Canada (Ltd.) is a company incor-

porated under the Companies' Act of Great Britain for the purpose of opening up coal mines in the Broad Cove and other districts of Inverness and Richmond, N.S., and of building and operating railways in connection therewith. Under its charter the Co. acquired considerable areas of coal lands in Cape Breton and commenced operations thereon, but no railways were constructed. The Inverness and Richmond Ry. Co. was incorporated by the Nova Scotia Legislature in 1887, and the legislation has been amended from time to time since then. This charter was acquired by Mackenzie, Mann & Co. in 1899 and 56½ miles of line between Port Hastings and Broad Cove have been constructed. Mackenzie, Mann & Co. have purchased the shares of the I. & R. Colliery and Railway Co., and an application is being made for a charter for this Co. under the Ontario Companies' Act, in order that the whole of the enterprises controlled by Mackenzie, Mann & Co. in Cape Breton may be operated together and without having to comply with the formalities of the British laws. Application will in due course be made to the N.S. Government for registration of the new company there.

**James Bay Ry.**—A contract has been let for the construction of about 4½ miles of this line from Quebec siding, on the Canada Atlantic Ry., some 3 or 4 miles east of Rose Point, to the town of Parry Sound. Johnston and Beveridge, of Parry Sound, are the contractors, and Ald. S. R. Poulin, of Ottawa, is interested with them. The contract calls for its completion by Oct. 5. The work is heavy, principally rock, with 6 or 7 trestle bridges from 100 to 300 ft. in length. The line was located by H. K. Wicksteed, C.E., who has since gone to Nova Scotia in connection with the Halifax & South-Western Ry., and the construction is under the charge of R. F. Tate, C.E., of Mackenzie, Mann & Co.'s staff. (Aug., pg. 229.)

**Kingston and Pembroke Ry.**—Surveys for the extension of this line from Sharbot Lake to Lanark, 27 miles, are being made, and F. A. Folger, Jr., General Superintendent, states that the line will most likely be constructed to that point by Christmas. The Co. proposes to carry this extension on to effect a junction with the C.P.R., at Carleton Place, making the length of the extension from Sharbot Lake, 41 miles. The Ontario Legislature gave a bonus of \$75,000 for 25 miles to Lanark, and the Dominion Parliament voted \$131,000 for the whole 41 miles of the line.

The press report that the Co. is contemplating an extension from Sharbot Lake, northwesterly to Palmer's Rapids, about 40 miles, is at least premature. Nothing is likely to be done in that direction in the near future. (Aug., pg. 230.)

**Lake Erie and Detroit River Ry.**—A full description of this Co.'s extension from Ridgeway to St. Thomas is given on pg. 258.

A site has been purchased east of the line, near Pinafore Park, St. Thomas, on which it is proposed to erect a roundhouse.

The Erie and Huron division is to be laid with 70 lb. rails this fall, the present rails weigh 52 lbs. to the yard. New ties are being distributed along the track between Rondeau and Sarnia.

**Manitoulin and North Shore Ry.**—The proposition made by residents of Kincardine asking for an extension of this railway from Owen Sound, down the western shore of Lake Huron to Goderich is being favorably considered and negotiations are in progress between the local municipalities and President F. H. Clergue. It is suggested that the line should join the M. and N. S. Ry. at or near Park Head, between Owen Sound and Wiar-ton, and passing through Southampton, Port Elgin, Underwood, Tiverton and Kincardine, on to Goderich, a distance of about 75 miles.

Goderich and Warton are the terminal points of G.T.R. lines converging on Stratford; while Kincardine and Southampton are the terminal points of G.T.R. branches converging on Harriston and Mount Forest. The proposed line would give a through route along the lake shore, and a connection with the G.T.R. through to Buffalo via Stratford. Notice has not yet been given by the promoters of their intention to apply for a charter to construct this line, but a notice has been published by Goderich people applying for a charter to construct an electric railway over the shore route to Warton, among other lines. (Aug., pg. 235.)

**Midland of Nova Scotia.**—The third span of the bridge over the Shubenacadie River, between Grand Oak and South Maitland, has been floated into position. Two more spans have to be completed and floated out. The bridge will be 1,140 ft. in length, and H. V. Harris, General Manager, says he expects to see it completed by Oct. 1. The portion of the line between Windsor and the Shubenacadie has probably been opened for freight traffic. (Aug., pg. 231.)

**Montreal Bridge Co.**—Mr. Lafleur, acting chief engineer of the Department of Public Works, Ottawa, has recently inspected the site of the proposed bridge at Longueuil with a view of reporting on it to the department. (Aug., pg. 231.)

**The Mount Sicker Ry.**, owned by the Lenora Mount Sicker Copper Mining Co., is 3 ft. gauge. It starts from Mount Sicker Siding, on the Esquimalt and Nanaimo Ry., Vancouver Island, and runs to the Lenora mine, rising 1,400 ft. in 6¼ miles. The steepest grade is 9.5%. About 70 tons of copper ore are being shipped over it daily for the smelter at Tacoma, Wash., and there are 20,000 tons of ore on the dump waiting shipment. The line is being extended from its present starting point at Mount Sicker Siding 5 miles to salt water at Osborne Bay, rising by switch backs 500 ft. over an intervening mountain. The grading has been completed and most of the rails are on hand. It is in-

tended to complete the extension this summer. The Co. has 2 locomotives, Shay geared, one 10 tons, the other 20 tons, and a passenger coach is being added. H. Croft, C.E., Victoria, B.C., is interested.

**The Musquodoboit Ry. Co.** has been merged into the Nova Scotia Eastern Ry. Co. (See pg. 275.)

**Nanaimo-Alberni Ry.**—J. H. Hawthornthwaite has just completed a survey for a more direct route between these two points than has hitherto been thought feasible. He has just reported to the Nanaimo Board of Trade that he has discovered an entirely practicable pass having an easy grade between Mount Arrowsmith and Mount Moriarty, 15 miles south of the present wagon road. This route will open up a considerable extent of fine agricultural country, and a hitherto unexplored mineral belt. (Aug., pg., 231.)

**New Brunswick Ry. and Coal Co.**—E. Hutchison, E. B. Winslow, C. A. C. Bruce, F. Stetson, W. Kitchin, A. P. Barnhill and R. A. Irving, were incorporated under this title at the last session of the N.B. Legislature, for the purpose of constructing a railway from Chipman to Gibson, with branches, and the right to connect with any railway in the Province. The capital is fixed at \$100,000, and the Co. may issue bonds or debentures up to \$250,000; additional bonds may be issued with the approval of the Lieut.-Governor for the purchase of other railways. The Co. has extensive powers under the mining clauses of its charter.

The Co. recently invited tenders to be sent in by Aug. 15, for the construction of the first section of 15 miles of railway from Chipman through the Newcastle coal fields, the tenders to include grading, building of bridges, track-laying, ballasting, building of station houses, water tanks, sleepers, fencing, etc., construction of telephone line and everything required for the complete construction of the railway, with the exception of the rails and fish plates, which will be supplied by the Co. E. G. Evans is engineer in charge.

In our last issue this Co. was erroneously

referred to as the Canada Ry. and Coal Co. (Aug., pg. 225.)

**The Nipissing and James' Bay Ry.** is projected to start from Nipissing Jct., Ont., where the G.T.R. joins the C.P.R., 4.4 miles east of North Bay, and to run via North Bay, and then north to James' Bay. A contract was recently let to J. O. Lepensier for the construction of a section starting 7 miles north of North Bay, but for what distance has not been made public. The work is being proceeded with. H. K. Wicksteed, C.E., made the

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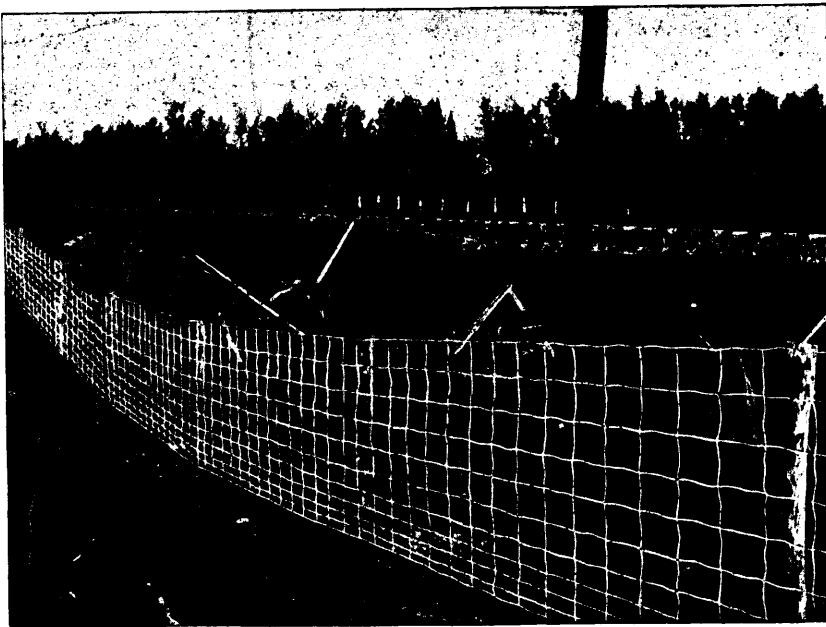
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survey for this section, but has since gone to Nova Scotia in connection with the Halifax and South Western Ry., and the construction is in charge of R. F. Tate, C.E., of MacKenzie, Mann & Co.'s staff. (Aug., pg. 231.)

**Northern Michigan Rd.**—It is said this Co. will commence building within the next four months a road from Sault Ste. Marie to the Straits of Mackinac, and that an order for an ice-crusher to run between Mackinac City and St. Ignace has been placed, which will connect with the Grand Rapids and Indiana Rd. at Mackinac City, now under the control of the Pennsylvania Rd. Co.

**The Nova Scotia Eastern Ry.** is the name under which the companies chartered to build lines from New Glasgow, N.S., and through the Musquodoboit Valley have amalgamated. The shareholders of the latter Co. have, at a meeting recently held in Halifax, agreed to the amalgamation, and confirmed the election of directors as agreed upon at a meeting in Montreal in June. The lines which the Co. is authorized to build under the Act total 210 miles, and will serve the north-eastern part of the mainland. Surveys have been made by Mr. Hendry, C.E., for lines from New Glasgow to Country Harbour, and from Country Harbour Cross Roads to Guysboro, with an extension to the Strait of Canso; and a line to the Musquodoboit Valley from Windsor Jct. Under the amalgamated interests the lines will be so constructed as to give through communication between the Intercolonial at Windsor Jct. and the Strait of Canso, with such branches as have been authorized to connect with the different points mentioned in the charters. H. Donkin, C.E., is making a survey of the route on behalf of the N.S. Government prior to the execution of the contract to build. It is understood that a very favorable route has been located, with grades not exceeding 1% and moderate curves. The President, Hon. J. R. Stratton, Provincial Secretary of Ontario, was in Halifax recently arranging for the contract with the Government, and for the early starting of construction. (Aug., pg. 231.)

**Nova Scotia Southern Ry.**—R. G. Hervey, of Boston, Mass., and associates have recently gone over the route of this line which was partially surveyed last year. It is hardly likely that construction will be gone on with in view of the contract which has been entered into between the N.S. Government and Mackenzie, Mann & Co. (June pg. 176.)

**Pontiac Pacific Jet. Ry.**—On the extension from Aylmer to Hull, Que., track has been laid from Aylmer to Deschenes, and grading has been commenced between Deschenes and Hull. (Aug., pg. 232.)

**Prince Edward Island Ry.**—The construction of the second caisson at the site of the Hillsborough River bridge is under way. It is 59 by 34 ft., and 39 ft. high. Dredging in the river is in progress, and the caissons will be put in position as soon as they are ready. (Aug., pg. 232.)

**The Quebec and James' Bay Ry. Co.** has made a careful exploration of the route of its proposed railway from Roberval, the terminus of the Quebec and Lake St. John Ry., and Nottaway, in James' Bay, a distance of 430 miles. The preliminary surveys show that the line will not be difficult to construct, as the summit between Lake St. John and James' Bay is only 1,300 ft. above sea level, which is said to be 300 ft. lower than that crossed between Quebec and Lake St. John. The grades would be 1% compensated maximum and the curvature would be 6°. Twenty miles are at present under construction by day labor, which it is expected to have completed this year. Surveys for the extension of the line are being made, and 60 miles additional will be located this year. A. E. Doucet, Quebec, is Chief Engineer. (Aug., pg. 233.)

**Quebec and Lake St. John Ry.**—B. A. Scott, Mayor of Roberval, in a recent interview stated that \$750,000 had been expended in improvements on this road during the last few years. The bridges had been strengthened, curves straightened out, and grades reduced, while the line was now being relaid with 80-lb. steel rails. (Aug., pg. 233.)

**Quebec and New Brunswick Ry.**—No construction will be done this year, but location surveys are likely to be made this fall, and it is expected that arrangements will be completed to enable construction to be started next spring. The promoters are making application for a subsidy from the Quebec Government for the 45 miles proposed to be built in that Province. (Aug., pg. 233.)

**St. John Valley Ry. Co.**—G. McAivty, H. D. Troup, J. Manchester, C. N. Skinner, A. I. Truman, A. G. Blair, jr., E. A. Smith, J. M. Smith, and W. W. Allen, were incorporated under this title at the last session of the New Brunswick Legislature to construct certain lines in the St. John Valley. Work to be commenced within two years and completed in six years. The capital is \$90,000, and bonds to the extent of \$15,000 a mile may be issued. (Aug., pg. 233.)

**The Shediac and Coast Ry. Co.** was incorporated by the New Brunswick Legislature in 1899, to build a railway from Shediac to or near Cape Tormentine. The proposed road would be a feeder of the Intercolonial Ry. The population interested in the proposed route number 10,000, and the whole district is settled and is one of the best agricultural districts in the Province. The annual value of the products of the country along the line, a distance of 40 miles, amounts to \$1,000,000, made up as follows: lumber, \$250,000; marketable potatoes, \$100,000; other farm products, \$250,000; fish, comprising canned goods, cod-fish, salmon, herring, smelts, mackerel and oysters, \$410,000. The grind and building stone quarries at Cape Bauld, on the proposed route, are renowned for their excellent quality, but the means of transportation is so limited that they cannot be profitably worked. The annual value of this industry is placed at \$50,000. Coal has been found in considerable quantities at different places along the route, and a few years ago a seam to the depth of 3 ft. was discovered, but owing to the lack of transportation facilities remained undeveloped. There are 61 lobster factories along the proposed line valued at \$43,000; there are 680 boats at these factories; the yearly cost of supplying each boat is estimated at \$700, and these supplies have now all to be teamed in from Shediac and other points. There are a number of other industries which would contribute to give the road a large trade, all of which would find its way to the I.C.R. Taking Moncton as a central point, the distance from there to Cape Tormentine by the Sackville and Cape Tormentine line would be 28 miles longer than by this proposed route and it is claimed that if the facilities for travel between the mainland and Prince Edward Island were improved between Cape Tormentine and Cape Traverse the difference in time would tell materially in favor of the proposed line, and as a winter mail and passenger service to and from P.E.I. it would have advantages over any other route. Subsidies have been granted by the Dominion and N.B. Governments, and a contract has been entered into with each Government. A survey has been made and plans filed. Jas. McQueen, barrister, Shediac, is Secretary of the Co. (Aug., pg. 233.)

**The Sydney and Lousburg Ry.** recently received 12 cars of heavy rails for a siding which it is putting down at the Sydney coke ovens.

**Temiscamingue Ry.**—A. W. Campbell, Engineer of Highways, etc., for the Ontario

Government, who recently visited the Temiscamingue district, says a suitable location has been found for the first 20 miles of the proposed Government railway to connect Old Ontario with the Temiscamingue region. The location chosen by Engineer Russell starts at North bay, and after skirting easterly along Trout lake, turns to the north in the valley of the North river. The 20-mile section carries the line beyond the watershed or height of land immediately north of Lake Nipissing, and it is said that what is the most difficult section of the whole line has been found quite feasible, and will be overcome with lighter gradients than was expected. The line traverses a fine hardwood section of country, with good clay land. Mr. Russell proposes to go on with the reconnaissance work, and will, it is expected, complete the location of a line through to the head of Lake Temiscamingue, a distance of 100 miles, during the present year. (Aug., pg. 233.)

**Thunder Bay, Nipigon and St. Joe Ry.**—D. F. Burk, President, informed us on Aug. 5 that he had just returned with a party from an exploration trip over the southern portion of the projected road; that two exploration surveys had been made this year; that a regular location survey for the first 10 miles was just starting; that construction would commence about the middle of Sept.; that 10 miles of line would be completed this year; and that a locomotive had been bought. (Aug., pg. 233.)

**Tilsonburg, Lake Erie and Pacific Ry.**—Work has been commenced on the extension of this line from Tilsonburg to Ingersoll, Ont., 15 miles by Dart & Hamilton, of Ridgetown, who have the contract for the whole work of clearing the right of way, building culverts, stone work for bridges, ballasting and track-laying. It is to be completed by Nov. 1. The line will run very nearly north from Tilsonburg through the townships of Dereham and West Oxford and the small villages of Ostrander, Mount Elgin and Salford. The maximum gradient will be 1%, and the maximum curve 6 deg. 10 min. The country is quite rolling and the gradients will change very frequently. There will be no large bridges; nothing to exceed 16 ft. in length. The culverts will be mostly iron and concrete. The rails will probably be 65 lbs. There will be about 2 miles of sidings. The south end of the extension near Tilsonburg is not settled, the matter being before the Railway Committee of the Privy Council. Bell & McCubbin, of St. Thomas, are the engineers in charge of construction. (Aug., pg. 233.)

**Vancouver, Westminster and Yukon Ry.**—The Chairman, J. Hendry, of Vancouver, B.C., is reported to have stated recently that construction will commence as soon as rights to enter Vancouver and New Westminster have been obtained; that an engineer is being sent out at once on preliminary survey; that the road has been financed; that all that is being waited for is permission to operate in the cities mentioned, and that the part of the line from Vancouver to the Alaskan boundary will wait until the governments are again interviewed. The Co. was incorporated at the last session of the Dominion Parliament to construct and operate a railway from Vancouver to near the mouth of Fraser River, near New Westminster, also from Vancouver by way of Seymour Creek to Squamish valley, thence through Pemberton meadows to Lillooet, northerly to Quesnel, northwesterly to Hazelton, and northerly to the northern boundary of B.C. east of Teslin Lake; thence northerly to Dawson and along Yukon River to the westerly boundary of Yukon River; also to construct and operate branch lines not exceeding 30 miles in any one case. (June, pg. 177.)

**The Victoria, Vancouver and Eastern Ry.** is constructing so much of its eastern section



this season as is necessary to enable the Great Northern Ry., U.S., to obtain access into Republic, Wash., from Marcus. This will be from the International boundary near Cascade, B.C., along the Kettle river to the International boundary at Carson, a distance of 15 miles. The contractor is P. Siems, who is also reported to have the contract for the portions of the line in Washington territory. The V.V. and E. has several survey parties out under the general charge of J. H. Kennedy, chief engineer, locating the line westerly from Midway, B.C., traversing the Okanagan and Similkameen districts. The distance from Midway to Vancouver is about 335 miles by the route proposed. It is not expected construction will be undertaken on this part of the line this year. Mackenzie, Mann & Co., and the Great Northern Ry., U.S., are jointly interested in the V.V. & E. R.

Negotiations are in progress for the amalgamation of the towns of Grand Forks and Columbia, B.C. The latter town suggests that both places consent to the location of the V.V. & E. depot at the dividing line, and that each town furnish the road free of cost whatever land it may need for station or other purposes, the passenger station to be located in one town, and the freight sheds in the other, subject to the decision of the railway.

**White Pass and Yukon Route.**—Press reports recently stated that during the next two years this railway would be extended 200 miles from White Horse to Fort Selkirk, on the Yukon 200 miles above Dawson, thus ob-

viating the necessity of steamers passing through the Five Finger rapids, where steel cables have to be used to line them up and down. We are informed that the management does not at present contemplate any additional construction.

**Crow's Nest Southern Ry.**—The proceedings instituted by the C.P.R. to stop construction, to which reference was made Aug., pg. 227, arose out of the proposal of the C.N.S.R. to build a spur up the Morrisey creek, for which surveys were made and plans filed at Victoria, June 19. The C.P.R. was also surveying for a line along the creek parallel to the C.N.S.R., and filed its plans at Ottawa, June 6, and at Nelson, June 24. Both companies commenced work, the C.N.S.R. on the north side of the creek, and the C.P.R. on the south side, but at a lower level. With the filing of the injunction the work was stopped by the C.N.S.R. The grounds upon which the C.P.R. wished to have the C.N.S.R. Co. enjoined from entering upon the lands of the B.C. Southern Ry. Co., or interfering with its right-of-way up Morrisey creek, rested largely upon the facts that the former Co. is a competitor, that it will connect its lines with an U.S. company, that its line is being constructed under a B.C. charter, and that according to the Railway Act a company crossing into a foreign country or an adjoining province, must secure the consent of the Dominion Government before starting construction. When the application to make the injunction permanent came up before the court in Victoria, the injunction was dissolved.

The line under construction starts at the International boundary, where connection will be made with a line from Jennings, Montana, now being constructed by the Montana and Great Northern Ry., a company promoted by the Great Northern Ry., U.S., and extend to Michel, B.C., 65 miles. The route to be followed from the International boundary at Tobacco Plains northward to Elko, is through an excellent farming country, though there are numerous indications of the presence of minerals. The principal difficulties of the route will be near Elko, where in rising from the valley of the Kootenay to that of the Elk, a number of step-like terraces are encountered. There will not be much rock work, but a number of cemented gravel cuts will have to be made. Above Elko the line will probably run on the opposite side of the river to the C.P.R. Between Elko and Fernie the grade will traverse bottom land, closely following the course of the river through a heavily timbered tract. From Fernie the river will be followed, and the line will open up a well-timbered country, cedar predominating, with strong mineral indications, and large tracts of land suitable for farming. It is stated that the limit of present construction will be at Fernie, and that the extension to Michel will be proceeded with, probably next year.

The section of the line south of the International boundary is reported to be well under way, and that it will be opened for traffic by winter. The line is for coal and coke traffic only. (Aug., pg. 227.)

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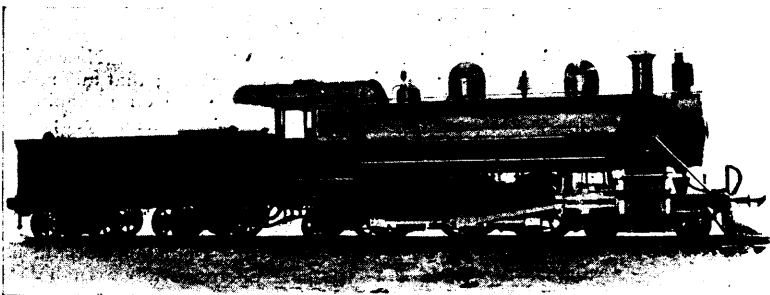
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### Exploring the Hope Mountains.

The British Columbia Government's survey party having charge of the work of finding a feasible pass through the Hope mountain district will take about two months to do the work. The party consists in all of 30 men, in addition to the engineers. Hon. E. Dewdney, C.E., is in charge of the party, the chief engineer is H. Carry, C.E., and the other engineers are F. Moberly, —, Dawson and —, Harvey, C. F. Hannington, C.E., and C. E. Perry, C.E., who were announced last month to take charge of parties, do not appear to be on the work. The party travelled together as far as Hope, where they divided for the purpose of exploring alternative routes.

The reasons for the Government undertaking the survey are being freely discussed in B.C. papers, and very diverse opinions are expressed, but all are agreed that there will be no railway building this year between the Coast and the Kootenay country, under the terms of the Act passed last session. In one of the letters there is a statement made on the authority of Mr. Parkinson, an engineer of experience in the district, that he had personal knowledge of three practicable railway routes through the Hope mountains. Other correspondents also speak of practicable routes which are traversed regularly by persons on foot and on horseback. (Aug., pg. 235.)

Smith Curtis, M.L.A., ex-Minister of Mines for B.C., is conducting an exploration on his own account. According to a Victoria despatch one of the party whom Mr. Dewdney had sent down the pass to prepare the way for his party saw a newly-blazed stake sticking in the ground. On the stake, in bold characters, were the words "Smith Curtis, Aug. 2, 3,950 ft., and don't you forget it." It was enough. Details of the route which he followed were subsequently given by Mr. Curtis at a dinner in Princeton. He set out a few weeks ago, starting from the Princeton side, with two men to assist him; pushed on to the Government town site of Tulameen, and thence up Tulameen river to the new pass on Railroad creek, known as Railroad pass. While the Government party were packing their effects at Hope for their journey, Mr. Curtis was toiling across to the headwaters of the Coquehalla river. Reaching the head of that stream, he followed down its course till he reached Hope; then he returned to Princeton. He stated there that he would go to Victoria and secure the services of a civil engineer, and returning to the country which he has just traversed, would resume his explorations through the mountains. Early in Sept. he will return to Hope, and will take all the levels and gradients up Coquehalla river to the point where he left off. When that is completed he will explore Similkameen pass and Roach River pass, about 40 miles to the south of the route over which he has just travelled, and nearer to the U.S. boundary line. Mr. Curtis, believing that the Government will report in favor of the Spence's bridge route, has undertaken the present trip for the purpose of ascertaining to his own satisfaction whether or not a feasible route exists through these hills for the construction of a railroad.

**Lake Erie and Detroit River Ry.**—Notice is given that pursuant to the Dominion Statutes of 1899, chap. 67, the L.E. & D.R.Ry. Co. and the Erie and Huron Ry. Co. have entered into an agreement for amalgamation with each other under the name of the Lake Erie and Detroit River Ry. Co., the agreement being dated May 23, 1901, approved by order in council, June 20, 1901, and deposited in the office of the Secretary of State. The amalgamated Co., may issue bonds or other securities in addition to its authorized capital stock, to the extent of \$15,000 a mile.

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

**Atlantic Division.**—A considerable amount of betterments is being done on this division. A large number of bridges have been renewed, wood being replaced in many cases with steel on masonry abutments. About 25 miles of track are being ballasted. The new station and terminals at McAdam have been completed, and a house has been built there for the Master Mechanic. Crossing sidings on the main line are being extended so as to facilitate the movement of trains, and a new crossing siding is being put in near McAdam Jct. At West St. John the elevator conveyers are being extended, seven additional spouts are being erected, and three portable trippers are being put in. In addition to the above, plans have been provided for the erection of a new terminal yard, engine house and turntable at Fairville; for the improvement of existing stockyards and the erection of an additional yard that will increase the capacity 100% on the Sand Point wharves, West St. John, for the rearrangement of the tracks on the wharves so as to admit of a large additional number of cars being loaded with one shift, and for the extension of the Rodney wharf slip, West St. John, and other improvements in the winter port terminal.

**The Port Arthur elevator** capacity is to be increased to over 1,000,000 bush. by the erection of an annex elevator of from 500,000 to 700,000 bush capacity.

**The Fort William elevators** have been overhauled in readiness for the enormous wheat crop of the west, and Supt. Sellers says they are prepared to handle 500 cars a day. Electric lights have been placed in each elevator. The Co.'s total storage capacity at Fort William is 5,500,000 bush.

**Branch from Raleigh.**—A survey has been made for a branch running for about 14 miles south from Raleigh, 167.6 miles west from Port Arthur, but it is not expected that it will be built this year. (Aug., pg. 235.)

**Winnipeg Bridge.**—The bridge which is being built over the Red river crosses at the point of the river immediately above the Louise bridge, which the Co. has used under agreement with the city since 1881, but owing to the increase in traffic and the detention to the trans-continental trains it has been found necessary to provide a bridge exclusively for the Co.'s business. This bridge consists of 4 fixed spans of 125 ft., and 1 draw span 250 ft. It is built of masonry piers and abutments on foundations extending to the rock, which has made it an expensive structure but thoroughly permanent. The approach to the bridge has necessitated the construction of a subway for electric cars, under the track across Higgins avenue, the track being carried on steel girders and columns. This has considerably improved the alignment, avoiding all the twists which there are at the Louise bridge. It is expected the work will be completed by the end of the year. It is in charge of the Division Engineer, J. Woodman, under the Chief Engineer.

**West Selkirk Branch.**—It was expected that track laying would be commenced in Aug., but on Aug. 7 we were advised that probably no track would be laid this season. (Aug., pg. 235.)

**Waskada Branch.**—McClutcheon & Fisher, of Winnipeg, have a contract for grading 19 miles from Waskada, Man. It is expected to not complete the grading this season, but it is likely any track will be laid. (Aug., pg. 235.)

**McGregor-Varcoe Branch.**—A contract for 7 miles of grading from the terminus at Wellwood, Man., 26.45 miles from McGregor, has been let to P. R. Lamb, of Winnipeg. The grading has been about half done. It is not expected that any track will be laid this season. (Aug., pg. 235.)

**Branch from Forrest.**—On Aug. 7 we were informed that the contractor, J. D. McArthur, had graded about 20 miles out of the 42 covered by his contract. It is not expected that any track will be laid this year. (Aug., pg. 236.)

**Track-laying on the Manitoba branches** now under construction will be done by the Co., and not by contract.

**Crow's Nest Pass Ry.**—The C.P.R. Co. is said to be negotiating for running privileges over the Kootenay Ry. and Navigation Co.'s line between Sirdar, on the Crow's Nest Pass Ry., and Kuskonook, B.C., with the object of utilizing the Kuskonook terminal facilities and to a certain extent abandoning Kootenay Landing.

**Kootenay and Arrowhead Ry.**—On this line, from Lardo, on Kootenay lake, to Trout lake, B.C., about 38 miles, we were informed on Aug. 12, that grading was well under way, and that about 8 miles of track had been laid. Contractor D. A. Carlson has about 500 men at work. The construction is in charge of J. G. Sullivan, Divisional Engineer of Construction. (June, pg. 178.)

**Vancouver Hotel.**—When at Vancouver recently the General Manager said that work would be started this fall on the enlargement of this hotel, that the additional wing would be built first and then the present building would be altered, in fact rebuilt.

**Vancouver and Lulu Island Ry.**—The construction of the bridge across False Creek, Vancouver, is now under way, and as soon as it is completed the track will be laid from the end of the present track, 5¼ miles from Vancouver, to the site of the bridge across the north arm of the Fraser river, ¾ mile. The contract for this structure will be let at once. The grading from the south side of the north arm of the Fraser to Steveston is well under way and should be completed early in October. As soon as the bridge is completed the track-laying will be proceeded with straight through to Steveston, and it is expected this will be finished in November. The distance from Vancouver to Steveston will be about 15 miles. (Aug., pg. 236.)

**Vancouver to Kitsilano Beach.**—Greer's beach, now known as Kitsilano beach, is about ¾ of a mile from the bridge over False creek, Vancouver, referred to under the head of "Vancouver and Lulu Island Ry." above. Track will be relaid to the beach as soon as the bridge is completed. The spur was graded in 1887, and runs to what may be termed the real terminus of the C.P.R., where it touches the waters of English bay. (Aug., pg. 236.)

### Grand Trunk Betterments, Etc.

**Montreal-Toronto Double Track.**—The only portion of the main line between Montreal and Toronto not double tracked is from Port Hope to Port Union, 46.26 miles. A portion of this, between Whitby Jct. and Port Union, 13.13 miles, is now being double tracked. The 2nd track is being laid alongside the 1st, without any deviation from the original location, but the grades are being changed somewhat. On Aug. 7 we were advised as follows:—"The temporary road bed for the 2nd track has been laid between Pickering and Port Union. The track has been raised about 5 ft., between Rouge river and Port Union, and about 6 ft. across Dunbarton hollow, which is the second sag in the road east of Port Union. There is a considerable cut 2½ miles east of Port Union, which is proceeding somewhat slowly, owing to the hard pan, but, everything considered, fair progress is being made. A temporary structure has been erected near Dufferin, just west of Pickering station, which enables construction trains to pass over. The teams are

making fair progress, grading for the new second track east of Pickering, about 400 ft. having been completed ready for ties and rails. Since the work was started 100,000 cubic yards of material has been moved with the steam shovels, averaging 12,000 cubic yards a week." It is not expected that any double tracking will be done between Port Hope and Whitby Jct. this year, but it is only a question of a comparatively short time when Montreal and Toronto will be connected by a double tracked line. (June pg. 173.)

**Meaford Harbor.**—The improvements at Meaford, Ont., are about completed. The extension of the line to reach the harbor is about 2 miles long and leaves the main line about 1 1/4 miles from the old terminus. The construction has been easy work. M. A. Pigott, of Hamilton is contractor. The old station buildings will be removed to the harbor and remodelled. The elevator at the harbor is about ready to receive grain.

**Southern Division.**—The entire division has been relaid with 80 lb. rails. Ballasting has been completed between Simcoe and Buffalo and part way between St. Thomas and Glencoe. Work on the latter section has been discontinued for the present, but is expected to be resumed shortly.

**Chicago Elevator.**—The Co.'s elevator at 51st. street and Central avenue, was damaged by fire Aug. 2, to the extent of \$75,000.

**Central Vermont Ry.**—The extension from Farnham to Freighsburg, Que., 18 miles is about completed. We are officially informed that there is no truth in the report that a further extension is to be made to Sheldon Jct., Vt. (Aug., pg. 236.)

R. S. Logan, Vice-President and General Manager, recently had a conference with the

Board of Trade of New London, Conn., in reference to a proposal of the Co. to construct a 1,500,000 bush. elevator at an expense of \$500,000. Press reports say that Mr. Logan said the Co. would run at least 500 cars of grain a day into the elevator, and that a line of steamers would be established, and that the G.T.R. would co-operate in the enterprise. In order to make export business profitable it would be necessary to handle the grain promptly and Mr. Logan, asked the city to do away with two grade crossings through the yard. The Board of Trade passed a resolution recommending the city to make an appropriation for the abolition of the crossings. It is not likely that anything will be done about building the elevator until the city takes action as desired.

**Freight Traffic Matters.**

A complaint has been laid before the Interstate Commerce Commission, by G. C. Warren, of Saginaw, Mich., President of the National Hay Association, on behalf of that body, against a number of railways, including, among others, the Michigan Central, Grand Trunk, Wabash, Canadian Pacific, Canada Atlantic, Central Vermont, and the Boston and Maine, for alleged unlawful discrimination against the U.S. in favor of Canada in the transportation of straw and hay into the U.S. The complaint sets forth that "hay and straw" has been moved from the 6th or lowest class of freight to the 5th, thereby increasing the rate by \$1 a ton from Chicago to New York, and in proportion from other points, and that commodity rates are given to Canadian hay, thus discriminating against U.S. hay. So far as the C.P.R. is concerned, the

Freight Traffic Manager said recently that the defence will be a general denial. It had not been drawn up, and when it was, would have to be laid before the Interstate Commerce Commission before it was made public.

Press despatches state that at a recent meeting of the Trunk Line Association at New York, at which the freight traffic managers of the G.T.R. and the C.P.R. were present, it was decided that the question of import rates, and arrangements for 1902, be referred to a committee consisting of at least one representative from each port, that committee to make its report at an adjourned meeting of the general committee to be held not later than Sept. 5. Each company pledges itself that it will not in the meantime quote any rates other than the regular published domestic traffic rates, and will not make any arrangements regarding commissions, cartage, import agencies or allowances of any other character with respect to import traffic leaving foreign ports after Dec. 31, 1901. Both the C.P.R. and the G.T.R. will be represented on the sub-committee. This means that in future the railway companies will handle their own import business. The effect of this will be that the import agents who have hitherto been employed by the trunk lines at the different ports to handle the freight consigned to them will be no longer employed, and the work will be transacted by the companies' own staffs. So far as Canada is concerned the C.P.R. and the G.T.R. handle all their own import freight, but they have not been doing so at Boston, Mass., or New York city, through both of which ports large quantities of freight come into Canada. The new regulation is not likely to come into effect for some time, as some notice will probably be given to the import agents that their services will be dis-

**C. P. R. LANDS.**

The Canadian Pacific Railway lands consist of the odd-numbered sections along the Main Line and Branches, and in Northern Alberta and the Lake Dauphin District. The Railway Lands are for sale at the various agencies of the company in Manitoba and the North-West Territories at the following prices:

Lands in the Province of Manitoba average \$3 to \$6 an acre.

Lands in Assiniboia, east of the 3rd meridian, average \$3 to \$4 an acre

Lands west of the 3rd meridian, including the Calgary District, generally \$3 per acre.

Lands in Northern Alberta and the Lake Dauphin District, \$3 per acre.

**TERMS OF PAYMENT.**

The aggregate amount of purchase money and interest is divided into ten instalments, as shown in the table below; the first to be paid at the time of purchase, the remainder annually thereafter, except in the case of the settler who goes into actual residence on the land and breaks up at least one-sixteenth thereof within one year, who is entitled to have second instalment deferred for two years from date of purchase.

The following table shows the amount of the annual instalments on a quarter section of 160 acres at different prices:

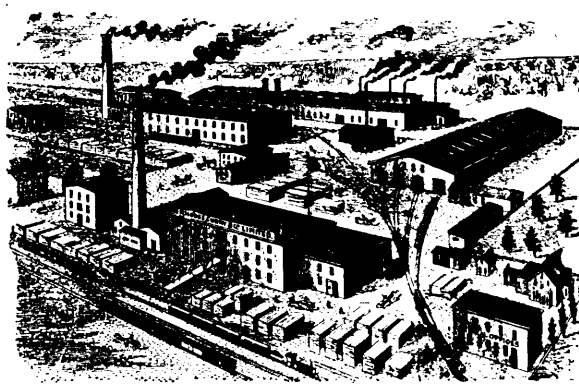
160 acres at \$3.00 per acre, 1st instalment \$71.90, and nine equal instalments of \$60.
160 acres at \$3.50 per acre, 1st instalment \$83.90, and nine equal instalments of \$70.
160 acres at \$4.00 per acre, 1st instalment \$95.85, and nine equal instalments of \$80.
160 acres at \$4.50 per acre, 1st instalment \$107.85, and nine equal instalments of \$90.
160 acres at \$5.00 per acre, 1st instalment \$119.85, and nine equal instalments of \$100.
160 acres at \$5.50 per acre, 1st instalment \$131.80, and nine equal instalments of \$110.
160 acres at \$6.00 per acre, 1st instalment \$143.80, and nine equal instalments of \$120.

**DISCOUNT FOR CASH.** If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. of the amount paid in excess of the usual cash instalment.

Interest at six per cent. will be charged on overdue instalments.

Write for maps and full particulars.

**F. T. GRIFFIN, - Land Commissioner, WINNIPEG.**



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Burlington Elevator, St. Louis, Mo.....	Capacity.....	1,300,000 Bushels
Grand Trunk Elevator, Portland, Me.....	"	1,000,000 "
Export Elevator, Buffalo, N.Y.....	"	1,000,000 "
J. R. Booth Elevator, Depot Harbor, Ontario.....	"	1,000,000 "
Cleveland Elevator Company's Elevator, Cleveland, O.....	"	500,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.....	"	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.....	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.....	"	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.....	"	500,000 "
Northern Grain Co., Manitowoc, Wis.....	"	1,350,000 "
Union Elevator, East St. Louis, Ill.....	"	1,100,000 "
Montreal Warehousing Co.'s Belt Conveyor System.....	"	"

We make a specialty of furnishing . . . . **PLANS AND SPECIFICATIONS.**

**Rhodes, Curry & Co.,**

Ltd.,

**Railway and Street Cars**

of all descriptions.

Special Cars for Coal, Ore, Lumber, &c., with Ball-Bearing Wheels.

pensed with. In reference to the foregoing, the Secretary of the freight department of the Trunk Line Association advised us on Aug. 15 that the subject had been under consideration, but that he was not aware that any conclusive action had been taken.

The following information in regard to the above has been furnished us from an authoritative source. For some years past each of the trunk lines has appointed in the seaboard cities, such as New York, Boston, etc., what are known as "import freight agents." These men are not direct railway employes, but are, as a rule, custom house brokers and forwarders who have a connection or representation in the chief European cities such as London, Liverpool, Manchester, Paris, Berlin, Hamburg, etc. It is necessary, at a large centre like New York, that the custom house work in connection with the importations should be carried on by an organization specially adapted to the business, such as these custom house brokers have, but which the railway companies have not. In connection with their custom house duties, as stated above, they do a forwarding business, and their connection with the importing trade is so close that at times they are able to influence a good deal of traffic to the railway companies, for which, in the past, some railways have paid them a commission varying from 10 to 25% of the railway freight rate. This has of late become rather burdensome on the inland carriers, and an effort is being made to see whether or not the import freight business cannot be handled by the railway companies direct, and without the assistance of these import freight agents, and thus save the inland carriers the commission paid out in this way. So far as the shipping public or importers are concerned, it will have no bearing whatever upon them as they will neither save nor lose by the proposed change.

### Canadian Northern Ry. Construction.

The Co. is reported to have acquired every foot of water front at Port Arthur, Ont., except that owned by the C.P.R., for use as wharf and dock space.

A full description of the elevator being built at Port Arthur is given on pg. 262.

Superintendent Gorrie states that the Co. will probably build a second elevator at Port Arthur, but that it could not be got ready in time to store any of this season's crops.

J. B. O'Brien, Superintendent of Construction, recently stated that the ballasting of the line from Stanley to the Atikokan river had been completed. Ballasting from Port Arthur to Stanley, Ont., has since been gone on with.

On Aug. 19 we were informed that grading and bridging had been completed to 140 miles west of Stanley, Ont., or 159 miles from Port Arthur, and that about 80% of the work had been done on the remaining 128 miles to the crossing of Rainy River. Tracklaying has been completed to 130 miles west of Stanley, and it is expected to have it completed to Rainy River in October, which will give a through line to Winnipeg. (Aug., pg. 226.)

The Rainy lake bridge work is situated across the narrows of Rainy lake, and the railway crosses five islands within the narrows, the distance between the main shores of which is  $2\frac{3}{4}$  miles. In this distance there are  $1\frac{1}{2}$  miles of pile trestle work in six stretches, two of about 500 ft. each, one of 1,000 ft., and one each of 1,800 ft., 1,900 ft., and 2,000 ft. The line cuttings on this work are all bare rock, and this material has been utilized in the approach fills to all this bridge work, and rock filling has been extended over the bare rock bottoms until ground suitable for piling was reached. Piles, however, are driven to some extent into the rock filling, which forms a most excellent founding. The remainder of the piling is driven into a deposit of stiff

blue clay from 12 ft. to 26 ft. in depth above the rock. The most of this bridge work is over water from 25 ft. to 42 ft. deep, and piles up to 55 ft. in length have been used. Two steam pile drivers, a steam hoist, and a large force of men have been engaged on this bridge work all this season. The work is in an advanced stage, and will be completed by the end of Sept. The contractor is J. R. Turnbull, and the work is being carried out under the supervision of T. H. White, C.E., Chief Engineer of the Ontario division. The general drawings and details for the work were prepared by H. Bannister, C.E., at Port Arthur.

The Rainy river, which forms the International boundary between Ontario and Minnesota, is crossed at right angles by one of the most modern, up-to-date pieces of bridge-work on the continent. The crossing occurs between Beaver Mills, on the Canadian side, and Beaudette, on the U.S. side, about 13 miles above the river's mouth at the Lake of the Woods. The bridge at the crossing is 1,080 ft. long between the abutments, and is divided into 6 spans—4 of which are fixed bridges 180 ft. long and two channel spans, each 160 ft. wide in the clear, and covered by a swing span of 360 ft. in length between pier centers. The current in the river at the crossing is very light; seldom exceeding 2 miles an hour, and the average depth of water at its highest stage is about 26 ft., to a very regular bottom of sand, gravel and clay. The difference between high and low water is about 6 ft.

The sub-structure of this bridge work was put in by the Co., from designs by R. F. Tate, C.E., its resident engineer at Toronto, and consists of concrete piers and abutments capped with stone, and all resting on pile foundations. For the center and other piers, piles were first driven at about  $2\frac{3}{4}$  ft. centers about 18 ft. into the bottom of the river, and cut off from 24 ft. to 26 ft. below high water by a circular saw on a vertical shaft. Water-tight caissons were then partly built and floated over the site of the piers, and concrete deposited to about one-third the depth of the water, the caissons being kept built above water as they were lowered. The form of the piers was then placed, and the concrete work continued to completion. The bottoms of the caissons reached their bearings on the piles about 18 ft. above pile cut-offs. The base of rail on the bridge work is 16 ft. above high water. This work was ready for the superstructure on June 13, and was carried out without any mishap of any kind under M. H. MacLeod, C.E., the Co.'s Chief Engineer of lines west of Rainy river, with R. Balfour as superintendent of the work.

The superstructure consists of steel throughout, and proportioned for the heaviest railway load consisting of two consolidation locomotives with their tenders, weighing each 285,600 lbs., followed by a train load of 4,200 lbs. per lineal foot, being class 1 of the Dominion Government specifications. They are all through single track spans. The fixed spans are of the single intersection Pratt designs, pin connections with eyebars on the lower chords and intermediate diagonals of the trusses and boxed riveted work in the top chords, and riveted work in all the other members of the bridge. The height of trusses between pins is from 27 ft. at ends to 35 ft. at middle panels. The swing span is upon the center-bearing principle, adjustable also to practically a rim-bearing one, and the arms of the swing are all rivet connected work. Pin connections are made about the central portion of the bridge, and come into use principally when the bridge is being swung. The swing will be operated by a 35 h.p. gasoline engine and gearing, placed in an operating and observatory building located between the trusses at the middle of the bridge, the floor of which is 25 ft. above the track. The height

of the swing between centers of trusses at the end is 29 ft., and at the centers 65 ft. The bridge is expected to be completed ready for operation early in Sept.

The Co.'s Chief Engineer for all lines west of Rainy river is M. H. MacLeod, with office at Winnipeg. R. J. Mackenzie is in charge of construction.

The Red river is crossed on a skew of  $17^\circ$  from the direction of the current, about 700 ft. below the Broadway highway bridge, between St. Boniface on the east bank and Winnipeg on the west bank, and forms a direct entrance into Winnipeg to the yards and property of the Northern Pacific Ry., now operated by the Canadian Northern Ry. This bridge work is of the most modern type throughout in every way. The river at the crossing on the line of the bridge is  $932\frac{1}{2}$  ft. between abutments, and the bridge is divided into 6 spans—4 of which are fixed bridges 168 ft. long, and 2 are channel spans each 76 ft. wide in the clear at right angles to the current of the river, and covered by a skew swing span of 260 ft. in length between pier centers. The depth of water in the channel spans varies from  $7\frac{1}{2}$  ft. at low water to 32 ft. at high water.

The substructure of the bridge work was put in by Kelly Bros., contractors, of Winnipeg, from designs made at Winnipeg under the supervision of M. H. MacLeod, chief engineer of the Co.'s works west of Rainy river. The abutments and piers are all first-class Ashlar masonry resting on piles throughout, 30 ft. long under abutments, and 20 ft. long under piers, driven through a formation of clay to bedrock. The foundations were put in at low water stage, water-tight timber caissons being used up to 2 ft. above low water, and the masonry begun from the floor of the caissons, and all space between the inside of the caissons and the pier proper filled with stone to the top of the latter. The heart of the center pier is a cylinder of concrete, 14 ft. in diameter. The base of rail on the bridgework is  $9\frac{1}{2}$  ft. above highest water. The substructure is nearing completion, and has been carried on to date without mishap of any kind.

The superstructure is of steel throughout, and is proportioned to the same rolling loads as the Rainy river bridge, being the heaviest loading specified by the Dominion Government. They are all through single track spans, and of similar design to the Rainy river bridge, except that the swing span has rim bearing turntable and a corresponding central panel. The height of the trusses between piers on the fixed spans is 32 ft., with a horizontal top chord; and the swing spans on the arms are 32 ft. deep between chord pins, also with horizontal top chords, but the central panel is 40 ft. deep between similar points. This swing is arranged to operate both by hand or electric power. The entire bridge is expected to be completed by the middle of Sept. There will be a 5 ft. footway on one side of this bridge throughout.

The branch from St. Charles, Man., on the Portage la Prairie branch, about 9 miles south-west of Winnipeg, will not, for the present at least, be built to Carman and thence westerly, as stated last month. It will run about due south-west from St. Charles to township 6, range 2, thence west to the Bates settlement. Some 35 to 40 miles will probably be built this year. It will serve the country between the C.P.R. South-western and Gretna branches. G. H. Strevell, Winnipeg, is contractor. (Aug., pg. 226.)

There is no doubt the Co. intends to resurrect the old Winnipeg and Hudson's Bay Ry., which was built from Winnipeg north-westwardly to the vicinity of Shoal Lake, some 45 miles, but it is not likely that anything will be done this year. It would serve a good district and will, doubtless, be an accomplished fact ere long. (Aug., pg. 226.)

Work is proceeding on the 18 miles extension from Beaver to Gladstone Jct., Man. The contractors are D. Keith, A. C. MacKenzie & Co., and C. W. Wellman. The work is of the usual prairie character, with no bridges of any size. Two stations are to be erected, but they have not yet been located or named. The work is expected to be completed about Oct. 15. (Aug., pg. 226.)

The main line from Gladstone Jct., Man., was completed last year to Erwood, Sask., at the crossing of Red Deer river, 278 miles from Gladstone Jct. The river has been crossed by a wooden trestle, 1,000 ft. long, and a 200 ft. span, and it was expected to complete 60 miles of line beyond Erwood towards Prince Albert this season, which would take the end of the track to the Carrot river district, but work has been much delayed by wet weather. It is expected that the line will be pushed on to Prince Albert next season, and then on to Edmonton. It is expected a survey party will start at Edmonton shortly, working east. (June, pg. 171.)

**London and Port Stanley Ry.**—A conference was held in London, Ont., Aug. 14, between President Walker and General Manager Woollatt of the Lake Erie & Detroit River Ry. and the directors of the London & Port Stanley Ry. to consider the proposed extension of the lease of the latter road to the L. E. & D. R. About seven years ago the L. E. & D. R. R. leased from the City of London the L. & P. S. Ry., for 20 years at about \$12,000 a year. The L. E. & D. R. R. now desires to obtain a lease of the road for 30 years from the present time, and has offered \$17,500 a year for the unexpired 13 years of the present lease, and \$20,000 a year for the following 17 years. At the conference the various points of difference were thoroughly discussed, and concessions were made on both sides. All points were agreed upon except a matter of freight rates, and this was left to the solicitors of the two parties to draft a clause satisfactory to both. It is expected that the lease will go through in the course of a few weeks.

### Montreal Harbor Elevators.

The shipping firms of Montreal attended before the Harbor Commissioners of that city on Aug. 1, and urged that two elevators of 1,000,000 bush. each be placed in the centre of the harbor, rather than the erection of one in the centre and another at Windmill point. The shippers state that one of the reasons why they desire this arrangement is that 16 ocean steamships could be accommodated from elevators at the centre whilst there is only space for two at a time at Windmill point. Further, they urge that the railways would be able to bring in their grain on their own cars to supply steamships, and that lighters would also have access to elevators built in the centre of the harbor. It was also pointed out that a saving of ½c. a bush. would be effected by having both elevators in the centre of the harbor. Nothing was decided and the meeting was adjourned.

At the next meeting, on Aug. 7, G. B. Reeve, 2nd Vice-President and General Manager G.T.R., and T. G. Shaughnessy, President C.P.R., wrote deprecating the erection of an elevator at Windmill point. Mr. Reeve said that under certain conditions the G.T.R. would be prepared to make a proposition for operating an elevator. The Canada Atlantic Ry. Co. is at one with the G.T.R. and the C.P.R. as to the unsuitability of Windmill point as a site for an elevator, and expressed its willingness to enter into an agreement to operate an elevator at a central point.

The Commissioners are going on with the proposal to build an elevator at the centre of the harbor and will receive tenders up to Sept. 1, the structure to be completed by Aug. 1, 1902, the contractor to deposit \$25,000 as security for the carrying out of the contract.

In regard to this work and any further extension of the terminal facilities the Minister of Public Works has written to the Commissioners calling their attention to what is required. Mr. Tarte says in the course of his letter: "Works are going on at both ends of the port. There is trade, and there will be more and more at both ends. It is then necessary that they should be connected by a

satisfactory system of transportation, railway tracks, etc. I suggest the immediate organization by your board of a terminal system which will carry the cars of all the railways, giving to all equal rights and equal justice. This will necessitate, I know, additional works, the widening and enlarging of certain parts of the wharves. Those additional works will be more than repaid by the additional accommodation, and by the cheapening of rates, and handling of goods that they will produce. The C.P.R. are anxious to have access to all parts of the harbor. The G.T.R. and the Canada Atlantic Ry. feel the same necessity. All must be accommodated, as all bring large amounts of traffic to the port. It goes without saying that we must without any delay prepare the plans for the equipment of the works with the most modern appliances in the way of warehouses, freight-sheds, sidings, cranes, etc., so as to cheapen as much as possible the cost of handling freight. A day or two ago I asked Mr. Kennedy to be good enough to apply his energy to the preparation of such a general plan, so that it might be submitted to me, and through me, to my colleagues. The time has come when we must have a 'plan d'ensemble,' upon which the country expects us to decide and to act. I then ask you not to pledge the board to any partial work without having in view the suggestion that I am offering you in this letter. I have already approved of the idea of starting without delay the erection of one elevator in the centre of the harbor. I have not yet been favored with the views of your board as to the plans to be adopted. I think it would be a great deal more satisfactory to come to some understanding on the lines I point out to-day before going any further."

This letter will be the subject of future discussion, but Mr. Kennedy, the Commissioners' engineer, is preparing such a plan as Mr. Tarte asks for. Speaking of his ideas Mr. Kennedy says there will be no elevated system of tracks, and the scheme which will be presented to the Minister will resemble that formulated some time ago by the Canada Atlantic Ry. This provided for the connection of the east and west ends of the port and ready access to Commissioners st., as also to

## MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1899, gives the following statistics for the year:

### CROPS.

ACRES.	AVERAGE YIELD.	TOTAL.
Wheat . . . 1,629,995	17.13 bus.	27,922,230 bus.
Oats . . . . 575,136	38.80 "	22,318,378 "
Barley . . . 182,912	29.4 "	5,379,156 "
Potatoes . . 19,151	168.5 "	3,226,395 "

### STOCK.

Beef Cattle exported during the year	12,000
Stockers exported . . . . .	35,000
Total value dairy products . . . . .	\$470,559 09

### 10,500 FARM LABORERS

Came from Eastern Canada to assist in the harvest fields of Manitoba in 1899—and the demand was not fully satisfied.

### MANITOBA FARMERS ARE PROSPEROUS.

Farmers erected, last year, farm buildings valued at one and one-half million dollars.

**MANITOBA LANDS**—For sale by the Provincial Government. Over 1,600,000 acres of choice land in all parts of the Province are now offered at from \$2.00 to \$5.00 per acre. Payments extend over eight years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.00 and \$3.50 per acre.

**FREE HOMESTEADS** are still available in many parts of the Province.

For full information, maps, etc., **FREE**, address **HON. R. P. ROBLIN**, Minister of Agriculture and Immigration, Winnipeg, Manitoba. Or **JAMES HARTNEY**, Manitoba Emigration Agt., 77 York Street, Toronto, Ont.

## All C.P.R. Agents in MANITOBA, ASSINIBOIA, ALBERTA and BRITISH COLUMBIA

sell through tickets to the Old Country, cheaper than if passengers bought railway tickets to New York or Montreal, and then re-booked.

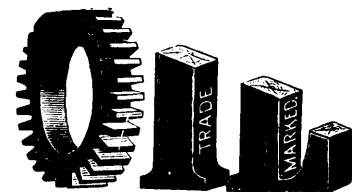
They also sell prepaid tickets to passengers coming from the old country, cheaper than the rate obtainable in Europe, and on favorable terms.

Apply to any agent Port Arthur and west, or to

**W. P. F. CUMMINGS,**

**C.P.R. Offices,  
WINNIPEG.**

## STEAM-BOAT AND RAILWAY



For Heavy, Slow, or Fast Fine

**MACHINERY,  
CYLINDERS,  
ENGINES,  
DYNAMOS.**

**Compression Grease.**

**DIAMOND OILS  
For ELECTRIC RAILWAYS.**

**THE QUEEN CITY OIL CO. LIMITED  
SAM'L. ROGERS PRES. TORONTO**



the ends of the piers. It is proposed, however, that the terminal facilities should be in the hands of a board composed of representatives of the different railways and transportation companies. This board will administer all traffic coming to the port in the interest of every company doing business here. The Commissioners, however, will insist that the control of the terminal facilities shall be in the hands of the board. All business shall be administered by a superintendent, who shall be the servant of the Commissioners and whose duty it shall be to see that every factor in the transportation of the port shall receive justice at the hands of the board, and that none shall have the advantage over any other business interest.

## SHIPPING MATTERS.

### The Channels Below Quebec.

Staff-captain and Surveyor W. T. Maxwell has made the following report to the British Admiralty on the two navigable channels in the St. Lawrence river to Quebec:—

The bifurcation of these channels takes place at about 55 miles north-eastward from Quebec, defined generally by a line drawn from the east end of Ile aux Coudres to St. Anne de la Pocatiere.

The north channel runs on the north side of Ile aux Coudres, and close to the north shore of the St. Lawrence, with depths ranging from 16 to 7 fathoms; and a minimum breadth of one mile, having depths over 5 fathoms at low water springs, round Ile aux Coudres.

Westward of this island there is a minimum breadth of  $1\frac{1}{2}$  miles, within the same limits of depth for a distance of 25 miles to Cap Brule with only one danger; La Longue Pointe reef that extends half a mile from the shore, at  $2\frac{3}{4}$  miles north-eastward of that cape.

The approach to Quebec from this point is by channels on either side of Orleans Island, but as the northern is narrow, the probable intention of the Engineer-in-Chief to the Canadian Government is to utilize the southern of the two, known as North Traverse.

The south channel is entered north of the shoals of Ste. Anne, at the Lower Traverse light vessel, and has a breadth of only 1.5 of a mile for a distance of nearly three miles, and at no part of it till past the west end of Grosse Isle is the passage with depths over 5 fathoms wider than  $\frac{3}{4}$  of a mile.

From a position five miles eastward of Grosse Island, the passage has shoals, with  $2\frac{1}{2}$  to 3 fathoms close to either side as far as Stone Pillars' lighthouse, from which there is a clear channel, one-third of a mile wide, to the south-east extreme of Beangin Bank, where there is a bar over which no greater depth can be taken without great risk, than 23 ft. at low water, and the passage between depth of 18 ft. is only  $1\frac{1}{2}$  cables wide.

There is then a clear passage to the west end of Crane Island, off which a spit extends for  $2\frac{1}{2}$  miles with depths less than 5 fathoms, leaving a channel only 1 cable wide, with greater depths, between it and the shore off St. Thomas.

Shoals with depths of  $4\frac{3}{4}$  fathoms extend in patches  $2\frac{1}{2}$  miles westward of this spit, and from these shoals the passage is clear to Quebec.

It will be seen by the above descriptions that with the greater breadth, the deeper water and the almost complete freedom from danger, within a large limit, given an approach to North Traverse there can be no comparison between the relative merits of the two channels, the northern having all these advantages, and in addition, except around Ile aux Coudres, the tidal streams run generally in the direct line of the channel. The only disadvantage is that the batteries on the north shore and the banks west of the Ile

aux Coudres are in some parts very steep, an objection that could be met by placing a few buoys at the salient points.

It is my opinion, therefore, that it would greatly facilitate the navigation to Quebec, and would greatly conduce to the safer and more speedy navigation to that port, if a channel were dredged from the Eastern narrows, at the west end of Brule Bank to St. Francis, and also through the bar between Madame island reef and Orleans island, which has nearly the depth required, and La Longue Pointe deepened. The last named rocks are sharp pointed and could, I think, be easily removed with modern appliances.

In thick weather the north shore, which is high and bold, could nearly always be kept in sight. Few aids to navigation such as lighthouses, buoys, etc., would be required beyond those already in existence, except the substitution of gaslight buoys and increasing the power of the lights; while in the south channel, which is in many cases far from the land, there is no guide but the light vessels and buoys and very little by the lead.

I have no means of ascertaining the probable cost as it is not the province of a marine surveyor to bore below the surface.

One of the arguments used to me against the north channel was that the depth of water made anchorage inconvenient for sailing vessels becalmed; but in the present day the increased number of steam vessels makes this a matter of small consideration in comparison with the advantages to be gained by the latter.

### The Muskoka Navigation Co.

The absorption of the Muskoka and Georgian Bay Navigation Co. (Ltd.) by the recently formed Muskoka Navigation Co. (Ltd.) has not yet been effected. The latter Company holds a controlling interest in the original Company, which is carrying on the navigation business, whilst the new Company is devoting itself to the development of the hotel business. The officers of the M.N. Co. are: F. J. Phillips, President; Lieut.-Col. H. McLaren, Vice-President; A. P. Cockburn, General Manager, and E. L. Sawyer, Secretary-Treasurer. Mr. Cockburn is also Secretary and Manager of the M. and G.B.N. Co.

The M.N. Co. purchased the str. Charlie M. for the special use of its hotel at Lake Rosseau. It is contemplated, when the formal transfer of the property is made from the M. and G.B.N. Co., to make a number of improvements in several of the vessels, but the plans are not yet sufficiently developed for the officers of the Co. to state what they will be or on what vessels they will be effected. The boats will be operated on their several lines until Oct. 12.

The hotel erected by the M.N. Co., named the Royal Muskoka, is situated on Wrenshall's Point, Lake Rosseau, 28 miles from Muskoka Wharf. It contains 200 bedrooms, from the windows of each of which an unobstructed view of the lake can be obtained. The bedrooms are situated in three-story wings, which lead off at an angle from the rotunda. This rotunda is 80 ft. long by 60 ft. wide, and contains an old-fashioned open fireplace 12 ft. wide. Running round the main building is a verandah 20 ft. wide, and there are, in addition, two promenades, each 12 ft. wide, running out for a distance of 75 ft. into the lake. At the end of each of these promenades is a pavilion 24 ft. in diameter. The building is heated throughout by steam and is lighted by electricity. In the basement is a billiard room 65 by 110 ft. A telegraph office has been located in the building. The hotel grounds are 131 acres in extent, and golf links, tennis courts and bowling greens have been laid out.

The hotel was opened on Aug. 2, and will remain open until Oct. 1, and probably until

the end of that month for the convenience of shooting parties. The manager is J. D. Crawford, formerly of the Westminster Hotel, New York, and previously of the Walton Hotel, Philadelphia.

### Changes in Coasting Regulations.

An order-in-council of April 17, 1883, respecting the coasting trade provided as follows in sec. 12:—"No goods can be carried in any coasting vessel or boat, except such as are laden to be so carried at some port or place in Canada, and no goods shall be taken into or put out of any coasting vessel or boat while on her voyage by river, lake or sea."

By an order-in-council recently passed the section above quoted has been rescinded and the following substituted in lieu thereof:—

"No goods shall be taken into or put out of any coasting vessel or boat, while on her voyage by river, lake, or sea, without permit of the collector or proper officer of Customs.

"No vessel or boat arriving in Canada from a place beyond the limits of Canada shall proceed further coastwise or take or unload cargo, without a special permit from the collector, and the lading, unloading, and conveyance of goods under this section shall be subject to such rules and conditions as the Minister of Customs may from time to time prescribe.

"Unregistered vessels, boats, and scows built in Canada may take bonded goods at a Canadian port on the Yukon River and transport the same to another Canadian port or to a foreign port on the Yukon River under special Customs manifests, in such form and subject to such rules and conditions as shall be prescribed by the Minister of Customs.

"The Minister of Customs is authorized to take such bonds and security as he deems advisable for the performance of the conditions under which unregistered vessels, boats and scows may be permitted to carry bonded goods."

The following rules and conditions are prescribed by the Minister of Customs in respect of the conveyance of goods coastwise by any British registered vessel arriving from a place beyond the limits of Canada at a port in Canada with cargo to be carried in the said vessel to another port in Canada, to be there landed, viz.:

"The goods shall be laden at the Canadian port on the said vessel, under the supervision of a Customs officer, with marks and numbers for their identification, and shall be forwarded under special Customs manifests form A 16, as free goods, and a reference to the lading of 'free goods' on board shall be endorsed on the clearance of the vessel."

### Notices to Mariners.

The Department of Marine has issued the following notices:

No. 49, July 29—Ontario. Shoal off Black Rock, Parry Sound, buoyed. This notice affects Admiralty charts Nos. 1731, 327, and 678; Georgian bay and North channel pilot, 1899, page 234; and part 1 of notice to mariners, No. 17 of 1901.

No. 50, Aug. 1—British Columbia—1. Hand fog horns at Pacific coast light stations. 2. Magnetic variation in Vancouver harbor.

No. 51, Aug. 1—Quebec—1. Additional light at Cape Charles. 2. Gas buoy placed at Upper Traverse. 3. Derelict reported off Matanea. St. Pierre and Miquelon. 4. Intended green sector in Canon point light.

No. 52, Aug. 3—Prince Edward Island. Rearrangement of Cascumpec range lights.

No. 53, Aug. 3—Ontario—1. Kingsville outer range light relighted. 2. Erratum. In notice to mariners, No. 44, of 1901, it is stated that the light shown from a lens lantern at

Footes dock, Algoma park, River St. Mary, was, when the change of lantern was made, a fixed white light. The light has always been, and is now, a fixed red one.

No. 54, Aug. 3—British Columbia—1. Depths in Nanaimo harbor. 2. Position of Nanaimo harbor middle bank pile beacon. 3. Position of No. 9 buoy in Nanaimo harbor.

No. 55, Aug. 6—Quebec. Ship channel in Lake St. Peter.

No. 56, Aug. 6—New Brunswick—1. Ganet rock light, temporary change in character. 2. Richibucto harbor lights changed.

No. 57, Aug. 6—Quebec—1. Trembles shoal gas buoy changed. 2. Mingan channel, rock reported. Nova Scotia—3. Beacon and buoys at mouth of Guysborough harbor.

### Maritime Provinces Shipping.

The Yarmouth Steamship Co., which recently sold its steamers to the Dominion Atlantic Ry. Co., has decided to wind up its affairs in liquidation, and President Bingay has been recommended as liquidator.

The Cape Breton Electric Co. has purchased the ferry steamer Acadia, with five years' docking privileges at North Sydney, for \$10,000. The Co. now has control of all the ferries between Sydney and North Sydney.

The Pickford & Black S.S. Co. has placed the str. Orinoco on the route between Halifax, the West Indies and British Guiana. She is a well-fitted and commodious vessel, and makes the fourth steamer which the Co. has on the route.

The Eastern Coastal Steamship Co., at a recent meeting at Isaac's Harbor, N.S., decided to capitalize at \$30,000, of which \$25,000 are to be paid up. It is proposed to obtain a steamer and J. McMillan was authorized to make arrangements to have one built.

The Plant Line str. Halifax, from Charlottetown, Port Hawkesbury and Halifax, N.S., struck a ledge off Minot's Light, while going into port at Boston, Mass., in a thick fog, early on Aug. 12. She freed herself, however, and was beached in a sinking condition. No lives were lost.

The Ship Glendovey Co. (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$20,000. The provisional directors are: G. E. M. Lewis, of Lewiston, N.S.; B. J. Lewis and F. L. Lewis, of Truro, N.S., and Jno. Lewis and Jno. Lewis, Jr., of Brownville, Me.

Jno. Kennedy, engineer of the Montreal Harbor Commissioners, has been in St. John, N.B., in consultation with the officials of the Imperial Dry Dock Co., and G. Robertson, M.L.A., President of that Co., states as a result that plans will be at once prepared and construction will probably be commenced

in about two months. Tenders are to be asked both for a timber and a concrete dock, but which will be constructed has not been decided. Mr. Kennedy is to submit a written report to the Co.

Under an act passed at the last session of the New Brunswick Legislature, the city of St. John may aid the establishment of a steel shipbuilding plant there, by providing a site at a cost not to exceed \$100,000, the site to revert to the city in the event of a failure to build the works, and by a further grant of \$100,000 on the completion of a machine shop for building marine engines for the vessels constructed in the yard; the bonus may be paid either in one sum or by an annual bonus, or part in cash and part by an annual bonus; and also to exempt the property from all taxes except for school and water supply purposes.

A delegation consisting of representatives of the Halifax City Council and from boards of trade in Nova Scotia waited on the Provincial Government, Aug. 1, in regard to the encouragement of steel shipbuilding in the province. The Mayor of Halifax, the Mayor of Sydney, G. S. Campbell, J. F. Stairs, J. J. Rudolf, of Lunenburg; Judge Chipman, of Kentville, and Mr. Sproull, of Digby, represented the views of the different centres. Premier Murray in reply said the Government recognized the importance of having such an industry as steel shipbuilding established in the province. They had had the matter under consideration for some time and had almost arrived at a decision when they were asked to meet the delegation. It was their desire to do something that would without a doubt bring about the setting up of a plant in Nova Scotia, and they would at a very early date make an announcement of their policy, which he hoped would prove such as to bring about what the delegation urged.

### Province of Quebec Shipping.

The Quebec pilots having recommended that the Reed island lightship be removed some distance south until it would be in 20 fathoms of water, the matter was recently discussed at a meeting of the Quebec Harbor Commissioners, at which the Deputy Minister of Marine was present. No decision has been arrived at.

R. Reford stated at a recent meeting of the Montreal Harbor Commissioners that no less than 12 steamship companies had left the port of Montreal for good during the past eight years. However, the tonnage of the port this year up to July 30 has been higher than in any previous year.

J. McNaught, Vice-President of the Great Northern Ry. of Canada, is endeavoring to establish a line of steamers between Quebec and Manchester in connection with the rail-

way. He says:—"The extension of this service will materially benefit Chicago's lake business by increasing the volume of grain coming from Iowa and Kansas through Chicago, which would otherwise go to Newport News or New Orleans. The six Leyland line boats are running at full capacity, and the Manchester line is certain to obtain full freights."

Hon. R. R. Dobell, who has just returned from England, has been negotiating with the marine underwriters at Lloyds in regard to insurance rates for the St. Lawrence route. He says it was unfortunate that while the negotiations were on news of a series of inopportune accidents, occurring on the river, should arrive.

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## GUIDE TO WINNIPEG, MANITOBA, TERRITORIES.

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They regulate the Bowels.  
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Note the word R.I.P.A.N'S on the packet.  
Send 5 cents to Ripans Chemical Co., No. 10 Spruce St., New York, for 10 samples and 1,000 testimonials.

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Steel Steam Vessels of every description  
Steam Yachts and Launches

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E. L. Bond, Chairman of the Marine Underwriters' Association at Montreal, has informed the Dominion Government that two British marine insurance companies have withdrawn from insuring goods upon open policies inward to the St. Lawrence, and have cancelled all their existing policies relating to the same business. He points out that there is a crying need of investigating the currents prevailing off the Newfoundland coast, so that the charts may be corrected and brought up to date. The present charts show a current of four knots an hour bearing in a southerly direction off Cape Race. Mr. Bond states that at times this current sets in from the south, running in northerly at the rate of four knots an hour. Thus the mariner finds himself in a most difficult position, provided the weather is thick, which is too often the case off this shore. He has calculated on a four knot current running south, while as a matter of fact it may have met a four knot current running north, thus he is struggling with an eight mile error. In addition to the uncertainty as to currents, Mr. Bond claims that the fog-signal at Cape Race is an unsatisfactory one, and that there is a dangerous point at Trepassy Bay, which is under the Newfoundland Government's jurisdiction. The Department of Marine has replied, pointing out that Chief Engineer Anderson is inspecting the whole of the lights on the St. Law-

and the U. S. canals at Sault Ste. Marie during July, being 261,997 tons more than in June. The number of vessels passing through was 3,211, carrying 14,201 passengers.

Wm. Leslie, of Kingston, recently secured the contract to raise one of the Reid steamers plying on the Labrador coast, which was sunk there last fall. To carry out the contract the Collins Bay Wrecking and Towing Co. have sent seven car loads of pontoons from Collins Bay to Newfoundland.

It is reported that the str. Oconta, which struck on Rock Island shoal, Lake Ontario, and sank in 117 ft. of water, 15 years ago, having on board a cargo of silk and cotton goods valued at \$125,000, has been sold to a firm of wreckers at Buffalo, who contemplate raising her and salvaging the cargo.

J. Ripley, superintending engineer of the U. S. canal at Sault Ste. Marie, says that the improvements to be made there will cost \$9,000,000, and will give a 21 ft. channel at low water. The canal at present has cost \$10,000,000. When the improvements are completed, the U. S. canal will have 3 ft. greater depth than the Canadian one.

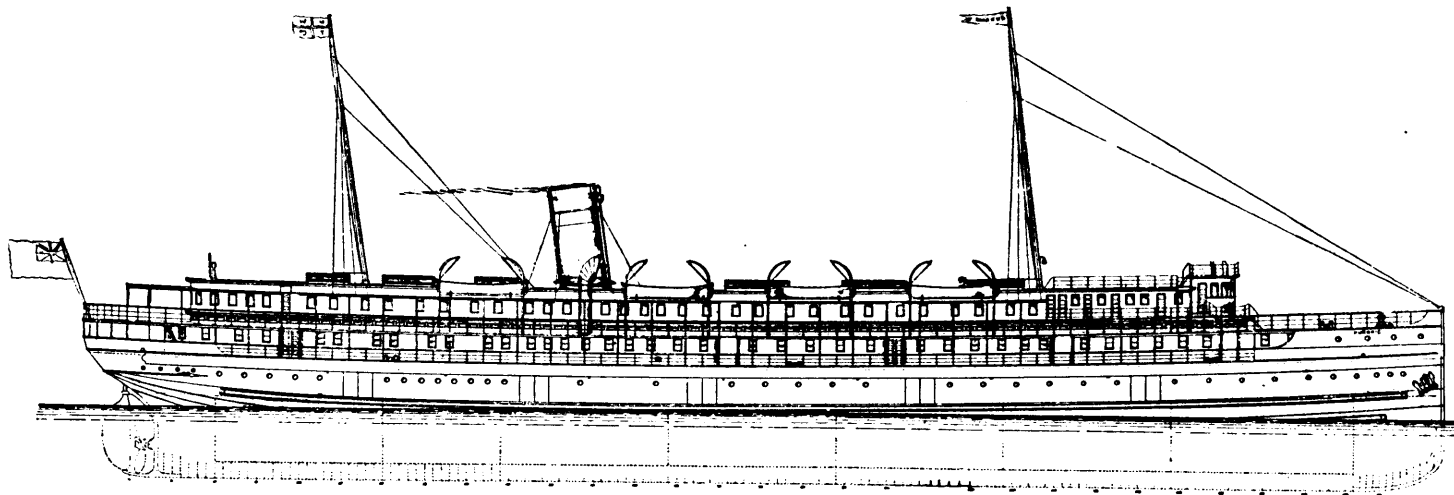
H. S. Folger, General Manager of the Thousand Islands Steamboat Co., has confirmed the report that the Co. intends to build another boat. He says the time has arrived when a large steamer, with a capacity for

ous nor complete. It is contemplated next year to survey Lake Superior.

There has recently been launched on the Muskoka waters a handsome composite steam yacht for W. J. Gage of Toronto, by the Polson Iron Works, Toronto. She is 56 ft. long, 9 ft. beam and has a draft of 3 ft. 6 in. Power is supplied to the screw by a fore and aft compound engine with cylinders 4½ in. and 8 in. diameter by 6 in. stroke, steam being generated by a vertical submerged tubular boiler. The yacht has large cabin accommodation.

The Quebec, Hamilton and Fort William Navigation Co.'s str. Donnacona, Capt. Winter, reached Sydney, N.S., July 30, from Scotland, via Norfolk, Va., and took on a cargo of coal for Montreal. At that port she unloaded and took a general cargo to Hamilton and other lake ports. The Donnacona draws 16 ft. of water and steams 11 knots an hour. She has a capacity of 2,500 tons and will carry iron ore from Lake Superior ports to Hamilton.

Work has been begun at Collingwood, on a steel tow barge for the Algoma Central Ry. Co.'s steamship line. This vessel will be 300 ft. long, 46 ft. beam and 26 ft. deep, with a carrying capacity of 7,000 tons. She will rank among the largest steel tow barges of the lakes and will have all modern appliances.



SCREW STEEL STEAMER HURONIC, BUILDING FOR THE NORTHWEST TRANSPORTATION CO.

rence route, with a view to improving them wherever desirable. During this month he will visit the Straits of Belle Isle to locate the new light promised on the north-east end of Belle Isle. He has recently returned from similar work on the Nova Scotia coast, and a new steam fog-signal will be immediately established at Louisburg, and a steam whistle at Low Point light station, and some improvements made to the lights on that coast, as the immediate result of the visit. The fog siren machinery at Father Point is ready for installation, and siren machinery for Fame Point has been ordered, but the proposed improvement to the lights on the St. Lawrence and Straits of Belle Isle cannot be made until after his inspection.

#### Ontario and the Great Lakes.

The Northern Navigation Co. of Ontario has declared a dividend of 5% for the half year ended June 30 last.

The Puritan, an excursion steamer operated between Buffalo and Crystal Beach, Ont., was recently seriously damaged by fire. She was valued at \$50,000, and the extent of the damage is put at \$10,000.

Official reports show that 4,781,072 tons of freight passed through the Canadian

1,500 people, should be put on the river for special excursions. Nothing, however, has been decided as to the kind of boat that will be built.

The number of cargoes of coal arriving in Owen Sound, Algoma Mills, and Fort William recently has been largely in excess of any previous movement of coal into these ports. It is stated that this rush of coal is due to the C.P.R. having entered into a contract with Ellsworth & Co., of Cleveland, Ohio, for the delivery of 1,000,000 tons during the present season.

Measures are being taken to ascertain how much water flows through Detroit river. It has evidently been brought to the attention of someone that there is a leak in the supply, with a probability of several others eventuating within the next few years, and to such an extent as to affect the level of the lakes. Gauges are being placed for the purpose of measuring the discharge, fluctuation in same, etc.

The hydrographic survey of Lake Huron, which F. Anderson is making on the str. Bayfield, will probably be completed this season. The last survey of the lake was made 60 years ago, at a time when vessels on the inland waters did not draw more than 12 ft., and the work was done hurriedly; the number of soundings made was neither numer-

ous nor complete. It is contemplated next year to survey Lake Superior.

The officers of the Northern Steamship Co., a subsidiary of the Great Northern Ry., U. S., state that it is not correct that they will abandon the Chicago-Buffalo route next year and operate their boats only between Chicago and Mackinac. They say that they were doing a big business on the Chicago-Buffalo run before the boats had been running two weeks, and that there is a constantly increasing demand for first-class steamship communication between the two cities.

Efforts are being made to secure a medal from the U. S. Congress for Capt. McDougall, of the C.P.R. Co.'s str. Athabasca, for saving life in Lake Superior. The Athabasca found the U.S. str. Preston waterlogged during a heavy storm, and Capt. McDougall, after 10 hours' work, rescued 11 of the crew. During the work of rescue the steamers came in contact four times, the Preston being damaged on each occasion. One man was crushed to death between the boats while being transferred from the Preston.

The str. Hero, owned by the Ontario and Bay of Quinte Steamboat Co., which was sunk after being on fire some time ago, at Belleville, has been pumped out and raised.

She has been towed to Deseronto, and it is expected that she will be rebuilt. The upper works have been entirely destroyed, and considerable damage has been done below decks amidships; the wheels, however, are intact. The insurance underwriters have granted the full damages claimed by the owners, \$15,000.

The Toronto Harbor Commissioners' regulations limit the speed at which steamers may navigate the eastern gap, where, at present, some work is going on under the supervision of the Public Works department. For a breach of this regulation Capt. Wigle, of the Niagara, St. Catharines and Toronto Ry. Co.'s str. Lakeside, Capt. Cooney, of the same Co.'s str. Garden City, and Capt. Soames, of the Niagara Navigation Co.'s str. Corona, were recently fined \$20 each without costs, at the Toronto police court.

The U.S. and Dominion Transportation Co. has placed in service this season on its route between Hancock, Houghton and Duluth, Isle Royale, Port Arthur and Fort William, the new str. Argo. She has already proved to be inadequate to meet the demands for accommodation, both for freight and passengers, and the Co. is obtaining figures for a larger boat than the Argo for next season's traffic. It is proposed to put the new boat on the south shore route, the Argo taking the north shore. The Argo is 185 ft. over all, has a gross tonnage of 1,089, and has a speed of 16 miles an hour. On a recent trip to Duluth she had 400 passengers.

C. Counselman, head of the syndicate operating the Northwestern and other steamers between Chicago and European ports, says that the two problems to be solved before success is achieved are the cargo insurance and return cargoes. The present rate of insurance, he says, is simply burglary; it is \$1.25 as against 15c. to 20c. from New York to Europe; a fair rate from Chicago would be 50c. The question of return freights would be easily adjusted if the insurance rates were placed at a satisfactory figure. Capt. Atkinson, of the Northwestern, and Capt. Ross, of the Northman, have resigned their commands as they don't like the lake, river and canal trip.

The Kingston pilots are having considerable discussion among themselves in the press as to the 14 ft. channel in the St. Lawrence and their respective abilities in taking vessels up and down. Outside the personal matters brought into the correspondence by the pilots the important fact is brought out by officers of the Northwestern and the Northman, on the Chicago-European line, that neither of these boats touched bottom while going through the St. Lawrence, and that the passage from Chicago to Montreal is perfectly safe and practicable for vessels drawing 14 ft. of water. The Northwestern went aground owing to a dredge and barge blocking the channel and not because of insufficient depth of water.

A New York despatch says the executive committee of the Canal Association has decided not to advocate the proposed deep waterway plan. The committee came to the conclusion that the interest not only of New York, but of the whole state, would be better served by a 1,000-ton barge canal. There is more or less doubt as to whether the deep waterway proposition can be carried out. The improvement, too, being largely sectional, is meeting with opposition from other ports, competitors of New York. Canal advocates there want an adequate improvement at the earliest possible time. The ship canal, they say, is too remote. Even if undertaken it would be years before it could be completed. If the state should decide to turn over the canals to Government control, that could only be done by passing constitutional amendments in the Legislature, to be approved subsequently by the people, and it would be 1906 at the earliest before the Government

could even start work on the proposed 21 ft. waterway.

The screw steel str. Huronic which is being built at Collingwood, Ont., for the Northwest Transportation Co., is to run from Windsor or Sarnia to Duluth via Mackinac, Sault Ste. Marie, Port Arthur and Fort William. It is expected that she will make 15½ miles an hour loaded and 17½ miles when running light. She will have the highest rating, A1 with a star for 20 years, in the Great Lakes Register and the Bureau Veritas. She is built of open hearth steel throughout and is of the following dimensions: 325 ft. over all; 308 ft. between perpendiculars; 43 ft. beam, and 27 ft. molded depth. The steamer has moderately fine ends and large water ballast capacity. Engines are of the triple expansion type, 26, 42 and 70 by 42 in. stroke, steam being supplied from 4 Scotch boilers, 12 ft. 6 in. in diameter by 12 ft. long, at a pressure of 175 lbs. per square inch. She will have cabin accommodation for 200 saloon passengers, together with large provision for the carrying of steerage passengers, as there is a double tier of cabins. The main dining saloon will be the full width of the lower cabins, thus making it spacious and well lighted. It will be finished in hardwood.

#### Pacific Coast Shipping.

A steamboat for the Yukon River Transportation Co. has recently been completed at Seattle, Wash. She will tow freight barges on the Yukon river.

The Pacific Coast Steamship Co. is stated by J. D. Farrell, President, to be about to enter the Puget Sound trade, for which three or four new vessels will be built. The contracts for these will, it is reported, be placed shortly.

The C.P.N. Co.'s str. R. P. Rithet is now making three trips a week between Victoria and New Westminster, leaving the former port at 7 p.m., on Tuesdays, Thursdays and Saturdays, and the latter on Sundays, Wednesdays and Fridays, also at 7 p.m.

The C.P.N. Co.'s str. Yosemite is to make Vancouver her home port for the future. Owing to the seven-day service now given to Vancouver, an extra steamer is required, and the Yosemite has been moved there. She will engage in excursion or other business offering, and will change with the Charmer on the New Westminster route one day in the week.

At the first annual meeting of the Western Steamboat Co., held in New Westminster recently, it was reported that the Co.'s str. Ramona had made only three trips to Chilliwack, but the results were most encouraging. The following directors were elected for the year: Capt. Young, T. S. Annandale, T. J. Trapp, L. A. Lewis, F. J. Hart and J. A. Cunningham.

The str. J. R. McDonald, which was built in 1890 for the Pennington Navigation Co., rebuilt after being burned in 1893 and placed on the British register at Victoria in 1893, and which has been laid up for some time, has been again altered and fitted up as a passenger boat by the Union Steamship Co. She will be placed on the coast run and will take the place of the Comox.

The str. Cutch, one of the best known vessels in B.C. waters, which was wrecked in Aug., 1900, on the northern route, has been sold by the underwriters to Mr. Clinton, of Cincinnati, Ohio. The vessel when repaired will be transferred to the U.S. flag, and will trade in Alaskan waters. Built in England, the Cutch was first employed in the trade between Bombay and Zanzibar. She was then purchased by the Union Steamship Co., of Vancouver, and for some years was employed on the route between Vancouver and Nan-

### The Canadian Pacific Railway Company.

#### NOTICE TO SHAREHOLDERS.

The Twentieth Annual Meeting of the shareholders of this Company for the election of directors and the transaction of business generally, will be held on Wednesday, the 2nd day of October next, at the principal office of the Company at Montreal at twelve o'clock, noon.

The meeting will be made special for the purpose of considering, and, if deemed advisable, of adopting a resolution authorizing the issue of bonds of the Company under the authority of the Dominion Act, 52 Victoria, Chapter 73, to an amount not exceeding four hundred and eighty thousand pounds sterling, to aid in the acquisition of steam vessels and their equipment, and for securing such issue according to the provisions of the said Act.

The Common Stock Transfer Books will close in London at 3 p.m. on Friday, 23rd August, and in Montreal and New York on Friday, 6th September.

The Preference Stock Books will close at 3 p.m. on Monday, 2nd September. All books will be reopened on Thursday, 3rd October.

By order of the Board,

CHAS. DRINKWATER, Sec.

Montreal, 12th August, 1901.

### The Canadian Pacific Railway Company.

Dividends for the half year ended 30th June, 1901, have been declared as follows:

On the Preference Stock two per cent.

On the Common Stock two and a half per cent.

Warrants for the Common Stock dividend will be mailed on or about 1st October to Shareholders of record at the closing of the books in Montreal, New York and London respectively.

The Preference Stock dividend will be paid on Tuesday, 1st October, to Shareholders of record at the closing of the books at the Company's London Office, 1 Queen Victoria Street, London, E.C.

The Common Stock Transfer books will close in London at 3 p.m. on Friday, 23rd August, and in Montreal and New York on Friday, 6th of September. The Preference Stock books will close at 3 p.m. on Monday, 2nd September.

All books will be re-opened on Thursday, 3rd October. By order of the Board,

CHARLES DRINKWATER,

Montreal, 12th August, 1901.

Secretary.

## PAN-AMERICAN EXPOSITION.

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## THE PLACE VIGER MONTREAL.

A beautiful new hotel just built by the Canadian Pacific Ry., in connection with their new passenger station. The building occupies an entire block and the style of architecture is that of the Chateau period of the French Renaissance. The hotel faces the Viger Gardens, and is thoroughly up-to-date in all its appointments. American tourists will find the Place Viger a most delightful hotel home.

RATES: \$3 UPWARDS.

Special arrangements with large parties and those making prolonged stays. For further information address, Manager, Place Viger Hotel, Montreal.

aimo. When the Klondike business began she was rebuilt and refitted with new boilers, etc., at a cost of \$45,000, and ran to Skagway until she was wrecked.

P. Mercier, C.E., of the Dominion Government engineering department, with headquarters at White Horse, Yukon, when in Montreal recently said the department has been engaged for some time in clearing the rivers of the different obstructions and providing routes along the different creeks and streams. Two hundred boulders have been removed from Thirty Mile river, some of them weighing as much as five tons. Dredging would be exceedingly expensive. Navigation between White Horse and Dawson, 450 miles, is now quite secure. Twenty-eight steamers, 18 of which belong to the British Yukon Navigation Co., are plying between the two points.

The Canadian Pacific Navigation Co. has in contemplation the construction of a new steamer for the gulf ferry service between Vancouver and Victoria. The vessel will be built of steel, the frames and plates will be prepared in the east and shipped to Vancouver where they will be put together. The new boat will have a length of 280 ft., with a breadth of about 29 ft. over the paddle guards, will have three decks, and will be built for speed as well as for comfort. The engines will also be built in the east and shipped to Vancouver for erection on board. Figures have been asked for from eastern builders, but the contract has not yet been placed. It is, however, expected that it will go to the Polson Iron Works, Toronto.

One of the most far-reaching marine transportation deals in the history of the Pacific Coast, involving a consideration of about \$1,000,000, has about been consummated, according to the Seattle Post-Intelligencer. When completed the entire tonnage owned by Dodwell & Co. will have passed into other hands. Already the Oriental ships, including the Olympia, Tacoma and Victoria, operated by Dodwell & Co., under the name of the North American Mail Steamship Co., have been

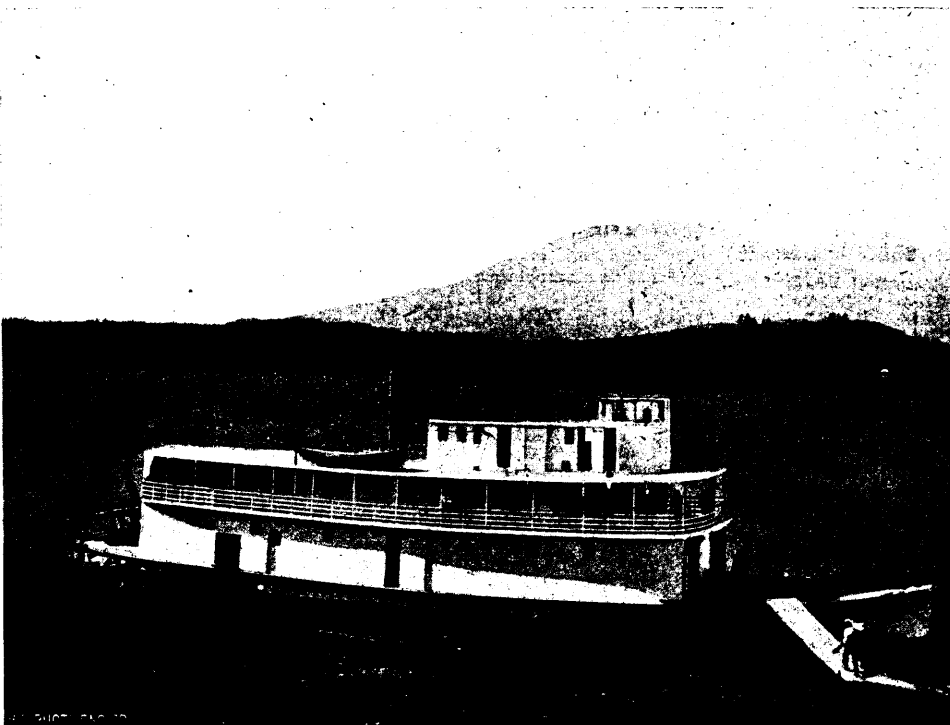


SCOWS LOADING AT BENNETT, B.C., FOR DAWSON, YUKON.

sold to a committee representing the Northern Pacific Rd. The committee has also purchased the str. City of Seattle, owned and operated by Dodwell & Co. between Seattle and Lynn Canal points. The Pacific Coast S.S. Co. is negotiating with the committee for the purchase of the str. City of Seattle, and it is extremely probable that this Alaskan liner will soon be owned and operated by the Pacific Coast S.S. Co., which is also negotiating for the purchase from Dodwell & Co. of the latter's fleet of Sound steamers, which includes the North Pacific, Utopia and Sehome. The deal is likely to be consummated in a

short time. The outcome of the purchases already made and the pending negotiations will probably mean the retirement of Dodwell & Co. from the Alaska and Puget Sound steamship fields. It is understood that they will, for the present at least, continue to operate as agents for the N.P.R., the Oriental liners which they have sold to that Co.

The day when the C.P.R. Empress steamers will meet strong competition in the trans-Pacific trade seems to be near at hand. Not only is the Great Northern Ry. constructing immense ships for the business, but the Pacific Mail Steamship Co. is making preparations along most pretentious lines. The Co. is soon to add a new passenger steamer Korea to its fleet, the vessel having been launched at the Newport News shipbuilding yards in Mar. last. The steamship is 572 ft. long, 63 ft. wide, 40 ft. deep, draws 27 ft. of water and has a displacement of 18,600 tons. She has accommodation for 1,530 passengers, 300 in the first cabin, 30 in the steerage and 1,200 in the Chinese or Oriental department. The Chinese quarters are so arranged that the space may be used for freight if unoccupied by passengers. The Korea will have a speed of between 18 and 20 knots an hour. The power will be furnished by two sets of quadruple expansion, four cylinder vertical engines having cylinders 35, 50, 70 and 100 ins. in diameter, respectively, by 66 ins. stroke, 6 double and 2 single-ended Scotch boilers 16 ft. in diameter, working at a pressure of 200 lbs. to the square inch. There are 2 three-bladed propellers, 19 ft. in diameter. With her sister ship, the Siberia, recently launched, the Korea will be put on the run between San Francisco and Hong-Kong, calling at Honolulu, Yokohama and Nagasaki. These two monster vessels will go to the Pacific coast together some months hence, and will be put into commission at the same time. Together their contract price is \$4,000,000. There is building at New London, Conn., a steamship 630 ft. long and having a displacement of 33,000 tons. She will ply between the San Francisco and Puget Sound for the Great Northern Ry., beginning next year.



THE STEAMER GLEANER FOR ATLIN, ON TAKU ARM, B.C.

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THE BEST FRATERNAL BENEFIT SOCIETY IN EXISTENCE.

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(For \$1,000 Mortuary Benefit.)

Initiation fee (minimum).....	\$ 1 00
Certificate fee.....	1 00
Registration fee.....	1 00
Medical Examination fee.....	1 50
<b>Total minimum cost.....</b>	<b>\$4 50</b>

(For more than \$1,000 Mort. Benefit.)

Cost to take \$2,000 Mort. Benefit..	\$6 00
" " \$3,000 " " "	7 00
" " \$4,000 " " "	9 00
" " \$5,000 " " "	10 00
Sick benefits, when required, cost extra.	

**Benefits given by the I.O.F.**

- 1.—The **Mortuary Benefit** of \$500, \$1,000, \$2,000, \$3,000 \$4,000 or \$5,000.
- 2.—A **Total and Permanent Disability Benefit** of one-half of face value of policy, with exemption from further payment of premiums or Court Dues.
- 3.—An **Old Age Benefit** consisting of exemption from payment of premiums and Court dues after age 70.
- 4.—An **Old Age Disability Benefit** of one-tenth of face value of policy payable yearly for ten years, on being declared totally and permanently disabled by infirmities of age after the seventieth birthday.
- 5.—An **Old Age Pension** payable during disability, which may be taken as a substitute for the Old Age Disability Benefit.
- 6.—**Free Medical Attendance** by Court Physician where not dispensed with by Court by-law; also trained nurses in certain cases.
- 7.—A **Sick Benefit** of \$3 to \$5 per week, subject to provisions of the Constitution and Laws of the Order; optional, and when taken costs extra.
- 8.—A **Burial Benefit** of \$100 at death of a Pensioner.
- 9.—A **Funeral Benefit** of \$50 at death of a member enrolled in Sick and Funeral Benefit Department.
- 10.—**Social and Fraternal Privileges** of the Court Room.

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At 31st December Each Year.

Year.	Total Membership.	Benefits Paid.	Total Surplus.	Surplus per Capita.	Death Rate per 1,000.
1881	1,019	\$ 1,300 00	\$ 4,568 55	\$ 4 48	4.50
1882	1,134	12,058 86	2,967 93	2 61	11.00
1883	2,210	9,493 68	10,857 65	4 91	4.73
1884	2,558	13,914 31	23,081 85	9 01	4.23
1885	3,642	26,576 99	29,802 42	8 18	7.76
1886	5,804	28,499 82	53,981 28	9 30	4.85
1887	7,811	59,014 67	81,384 41	10 44	5.78
1888	11,800	89,018 16	117,821 96	9 98	6.43
1889	17,349	116,787 82	188,130 36	10 84	5.85
1890	24,604	181,846 79	283,967 20	11 54	5.18
1891	32,303	261,436 21	408,798 20	12 65	6.40
1892	43,024	344,748 82	580,597 85	13 49	6.25
1893	54,484	392,185 93	858,857 89	15 76	5.47
1894	70,055	511,162 30	1,187,225 11	16 94	5.47
1895	86,521	685,000 18	1,560,733 46	18 03	5.67
1896	102,838	820,941 91	2,015,484 38	19 60	5.50
1897	124,685	962,225 60	2,558,832 78	20 52	5.56
1898	144,000	1,176,125 14	3,186,370 36	22 12	5.67
1899	163,610	1,430,200 33	3,778,543 58	23 09	6.30
1900	180,717	1,545,145 64	4,483,364 44	24 81	6.53

For Further Information Respecting this Great Fraternal Benefit Society, Apply to  
 Oronhyatekha, M.D., S.C.R., Toronto, Ont. John A. McGillivray, K.C., S.S., Toronto, Ont.  
 James Marshall, 24 Charing Cross, London, Eng. A. E. Stevenson, 431 E. Sixty-Third St., Chicago, Ill.  
 Or Any Officer or Member of the Order.

When a tug assists another tug to tow a raft, the work is performed on the raft and not on the assisted tug, and the claim for services is not a lien on the assisted tug. This is the effect of a decision rendered in the U.S. District Court at Duluth in the case of the Northwestern Fuel Company against the tug Castle.

At the recent annual meeting of the Hudson's Bay Co. the Governor, Lord Strathcona, said: We last year sent out the steamer Erik with supplies to Labrador and Hudson's Bay, but she unfortunately struck on a rock on the outward voyage. The cargo was delivered in good order, but on being overhauled the steamer was found to be so much strained and damaged that she could not be repaired, and was subsequently sold for the benefit of the underwriters. We have since bought the warship Pelican from the Government, and she has been reconstructed and adapted so as to deal with the ice which she will come in contact with in Hudson's Bay. She has been despatched to carry on transport work in the district mentioned.

**Among the Express Companies.**

The Western Ex. Co. has opened a route on the Seattle and International Ry., Darrington branch, between Arlington and Darrington, Wash.

The Dominion Ex. Co. has opened a route on the Lake Erie and Detroit River Ry. extension from Dutton to St. Thomas, Ont., with offices at Highgate, Muirkirk, Rodney, West Lorne, Dutton, Iona, and Shedden.

Vice-President Hannaford, of the Northern Pacific Ex. Co., advised us on Aug. 12 that he knew nothing whatever of the press reports which stated that that Co. would withdraw from Manitoba on Sept. 1, and that so far as he was advised the Co. would continue to operate in Manitoba.

Mackenzie, Mann & Co., who have been incorporated as the Halifax and South Western Ry. Co. by the Nova Scotian Government, have been given power to carry on and transact the business of an express company, or to contract with any other express company, for the carrying on of the express business of the line.

The Canadian and Dominion Ex. companies put the following reduced rates on money orders payable in Canada or the U.S. into effect on Aug. 1:—

\$ 5 and under.....	3 cents.
Over 5 not over \$10.....	6 "
" 10 " 30.....	10 "
" 30 " 50.....	15 "
Over \$50 at same rates.	

**Telegraph and Cable Matters.**

The Superintendent of Government Telegraphs has informed the Public Works Department that the cable between St. Paul's island and Meat Cove, C.B., had been successfully repaired.

The C.P.R. Co.'s telegraph department has built a one wire line along the recently completed extension of the Lake Erie and Detroit River Ry. from Ridgetown to St. Thomas, Ont.

The Governor of Newfoundland, in closing the Legislature recently, stated that wireless telegraphy would be installed along the Labrador coast at an early date. The Legislature has appropriated \$6,000 for this purpose.

Parlours of the legislation under which the Newfoundland telegraph system is to be transferred by R. G. Reid to the Newfound-

land Government, are given on an earlier page of this issue, under the head of Newfoundland's railway settlement.

It is said that a Marconi wireless telegraph tower will be erected in Montreal for experimental purposes, in connection with the river shipping and other important interests. The position has not yet been definitely chosen, but the top of the G.N.W. Telegraph building will probably be selected.

The Pennsylvania Rd. is about to undertake experiments with new telegraph apparatus designed to increase speed of transmission. The principal feature of the new device consists in the use of perforated paper which is to be applied to the instrument, increasing the speed of transmission to about six times the rate at which it is possible to transmit by hand. The perforations are made by an operator working an instrument similar to the ordinary telegraph machine. The object immediately in view is to transact over one wire, between Philadelphia and Pittsburg, the business now requiring four through wires.

The Chicago and Milwaukee Telegraph Company has announced that it will transmit telegrams between Milwaukee and Chicago at the rate of 10c. for 10 words, and 1c. for each additional word. The lines of this Co. have heretofore been used almost exclusively for board of trade business, but have now been opened for a general commercial business. The company accepts and sends any message at the rates quoted, which can be delivered by telephone either in Chicago or Milwaukee. No arrangement has been made for the delivery of messages in any other way than by telephone, but they will be mailed to the persons for whom they are intended if they cannot be reached by telephone.

The Dominion Department of Public Works has been advised that the two sets of Marconi instruments ordered by the Government for experimental tests of wireless telegraphy in the Gulf of St. Lawrence, arrived at Halifax Aug. 3 from London. The instruments were forwarded at once to Gaspé to be taken on board the Government cable steamer Tyrian. Pending their arrival the Tyrian was engaged in repairing the cable line to Anticosti. At Gaspé the instruments will be placed on board the steamer in charge of D. H. Keeley, Superintendent of Government Telegraphs, who will conduct the experiments. The Tyrian's first commission, however, will be to lay the 22 miles of cable which is to connect Belle Isle with the mainland at Chateau Bay.

On July 16 a section of 35 miles was reported as uncompleted on the Government telegraph line to Dawson, and the construction party was then working about 136 miles north of Hazleton. On Aug. 1, it was reported that the line had been completed, but the Deputy Minister of Public Works stated that he could not understand how the statement could have originated, that the portion of the line remaining uncompleted passed through a difficult country, that snow was rendering the construction difficult, and that it would probably be the end of August before the work could be completed. It is said that there will not be any changes on the line between Ashcroft and Quesnel, except opening an office at the 108-mile house. It is also said that the old wire running between Ashcroft and Quesnel will be transferred to the new poles; that local business will be carried on as at present, and that there will be no cutting in on the new line which will be reserved for through business. Ashcroft will be the distributing point for all messages and 4 or 5 operators will be employed there. It is expected that the construction of the Quesnel forks and Mason creek branch will be gone on with as soon as the main line is completed.

Simultaneously with the passing of a vote of £2,000,000 in the British House of Commons for the construction of the Pacific Cable, a proclamation was issued at Ottawa, bringing into effect the Act passed last session, by which Canada became responsible for five-eighths of the cost of the cable. The British Government is advancing a sum representing the cost of the cable and its incidentals. The contract with the Telegraph Construction and Maintenance Co. of London, calls for the completion of the cable on Dec. 31, 1902. The cable will be 7,145 nautical miles in length, commencing at Vancouver, B.C., with a station at Norfolk Island and with branches from Norfolk Island to Australia and New Zealand. It will be paid for in instalments as laid, and when completed will be managed by a board of joint control on which the contributing governments of Great Britain and Canada, of the states of New South Wales, Victoria, Queensland and of the colony of New Zealand will be represented. Great Britain's representatives on the board of management are: Sir Spencer Walpole (chairman), Messrs. Gleadowe and Mercer. Lord Strathcona and A. Lang are Canada's two representatives, while the three Australian states are represented by two members and New Zealand by one. The chairman is allowed a salary of \$3,000 a year. Experts estimate that for the first year of its operation, the cable will show a deficit of \$60,000, of which Canada's share would be about \$16,600. After that they think the cable will be a paying concern.

**Telegraph and Telephone Statistics.**

Geo. Johnson, Dominion Statistician, has furnished the following statement:—

The telegraph system of Canada includes 3,906 miles of land and cable telegraph lines owned by the Dominion Government, and 30,717 miles owned by companies, making a total of 34,623 miles of lines and 84,510 miles of wire. The messages of the signal quarantine and meteorological services, and also the bulletins giving the movements of the fish in the waters in the Gulf of St. Lawrence and other shore lines are transmitted free of toll. Since 1895 the mileage of the lines under control has increased by 1,182 miles, the total sum voted for construction and operation and maintenance of telegraph lines last year amounting to \$527,400. The companies' lines conveyed 4,960,414 messages last year. In 1891 the average number of messages carried annually per office was 1,700, and in 1900 it was 1,850, the number of offices increasing in the period by 198. Per mile of line the number of messages annually increased from 151 in 1891 to 161 in 1900.

The number of telephone instruments in use in 1900 was 52,417, an increase of 18,917 over 1895. Returns show that there were 62 companies in the Dominion, many of them doing private business chiefly, and taking no account of the number of messages transmitted. Some of these are in process of absorption. There are 38 companies which may be deemed to be distinct, and to be doing a public telephone business. These despatched 156,217,627 messages, which is equal to 8 2-10 messages per diem for each subscriber. In 1895 the average was 5 9-10 messages.

**General Telephone Matters.**

A telephone line is to be built from Cambridge, the new Fish river camp, to Thompson's Landing in B.C., which it will connect with the line from Trout Lake to Revelstoke.

Dr. Haanel, the new Dominion Superintendent of Mines, while he was a professor at Victoria College, Cobourg, Ont., about 30 years ago, constructed a telephone inside the building and exhibited it to a party of friends. This



is reported to have taken place before the Bell telephone came out.

The telephone wire in the immediate future is to be used not only for business purposes, but for pleasure. The London, Eng., Electrophone Co. is going to reduce its annual charge from £10 to 50s., and also its service rates, and it offers every telephone subscriber the advantage of its electrophone, which will enable subscribers to sit at home and listen to anything from a sermon to a music hall song.

A member of the Rat Portage, Ont., town council has given notice of a motion to annul the agreement between the town and the Citizens' Telephone and Electric Co.; also to instruct the town solicitor to prepare a bill to be submitted at the next session of the Ontario Legislature to give the town the right to construct and operate a telephone system to Keewatin, Mikado Peninsula, the Sultana Mine, and Rainy Lake.

The Niagara Falls Home Telephone Co. Ltd., has been incorporated under the Ontario Companies Act with an authorized capital of \$40,000 and head office at Niagara Falls, Ont. The provisional directors are W. R. Campbell and M. B. Butler, of Niagara Falls, N.Y.; L. McGlashan, A. Fraser and E. S. Fraser, of Niagara Falls, Ont. The other incorporator is T. M. Brush, of Elyria, Ohio. The Co. is empowered to carry on in the town of Niagara Falls, in the village of Niagara Falls, in the village of Chippawa and in the township of Stamford, the general business of a telephone company.

The first case decided under the amendment to the Ontario Assessment Act passed last session, was one in which the Bell Telephone Co. appealed against the assessment of its poles, wires, and other property by the Court of Revision for the township of Winchester, Ont. The Court of Revision assessed the property at its full value as a going concern, and the Bell Telephone Co., in appealing against this valuation, contended that the clause inserted in the Assessment Act by the Legislature, although very wide in its language, is still not effective to render nugatory the decisions of the Court of Appeal of Ontario, which previous to its passage had held that these properties must be assessed on what is known as the "scrap iron basis," and Judge Liddell, after going very fully into the merits of the argument, gave judgment to the effect that the contention of the Co. is correct, and that the language of the recent change cannot be said to have over-ridden the Court of Appeal decisions, and he, therefore, reversed and directed the property to be assessed at its value as "scrap iron."

### Bell Long Distance Telephones.

Since the beginning of this year the Bell Telephone Co. has made a number of extensions and improvements to its long distance system, among which the following may be mentioned as the most important:

Additional circuits have been constructed on nearly all of the routes out of Toronto and Montreal to handle the increased business. In the Ontario dept. the principal of these are:—A no. 10 copper line from Toronto to Windsor; no. 12 copper lines from Hamilton to Buffalo; Toronto to Newmarket; Toronto to Port Hope; Toronto to Guelph.

The Co. has taken over the plant of the Victoria Telephone Company which has been operating in the counties of Victoria, Ontario, and York, Ont., for some years, and a line will be built from Newmarket to Brown's Hill to connect with the lines formerly owned by that Co., with an office on it at Mount Albert.

The Co. has converted nearly all of its single lines in Ontario to metallic, which has improved the service to a great extent.

In the Eastern Dept. no. 12 copper lines have been constructed between Ottawa and Cornwall; between Montreal and St. Hyacinthe; between St. Jerome and Ste. Agathe des Monts, and between Sherbrooke and Thetford Mines. It is also proposed to string a direct wire between Farnham and Granby.

The line from Montreal to Ste. Martine has

been extended through Howick and Brysonville to Ormstown, with offices at Brysonville, Howick and Howick Station.

A line of no 8 B.W.G. copper (weighing 400 lbs. to the mile) is under construction between Montreal and Rouses Point, where it will connect with the lines of the American Telephone and Telegraph Co., and will furnish perfect service to all parts of the U.S.

## ENAMELED IRON PLATES

For Doors, etc., in Stations, Steamships, Ferries, Hotels, Offices, etc., carried in Stock for Prompt Delivery.

Any of these Plates can be shipped on the day an order is received.

### SMOKING ROOM

Size 23 x 3½ inches. Oblong, fancy ends, white ground, blue letters, lined & tipped:

Agent's Office.	Waiting Room.
Express Office.	General Waiting Room.
Freight Office.	Ladies' Waiting Room.
General Offices.	Men's Waiting Room.
Private Office.	Dining Room.
Ticket Office.	Lunch Room.
Telegraph Office.	Restaurant.
Baggage Room.	Ladies' Toilet.
Smoking Room.	Men's Toilet.
Smoking Prohibited. No Admittance.	
Trespassers Prosecuted.	

### NO ADMITTANCE

Size 10 x 2½ inches. Oblong, oval ends, white ground, blue letters, lined & tipped, hollowed:

Bar Room.	Men.
Luggage Room.	Private.
Office.	No Admittance.
Refreshments.	No Road.
Exit.	Boarding House.
Fire Escape.	Private Board.
Lavatory.	Dressmaking.
Ladies.	Fresh to Day.
Women.	Teas Provided.
Gentlemen.	Please Shut the Gate.

Size 14 x 3 inches. Oblong, oval ends, white ground, blue letters, lined and tipped.

No Admittance.

### STICK NO BILLS

Size 18 x 3½ inches. Oblong, square ends, white ground, blue letters, lined & tipped.

Furnished Apartments. Stick no Bills. Please Shut the Door.



Oval, size 2 x 3 inches, white ground, blue letters, tipped, hollowed, lettered **Push, Pull**, as above.

Oblong, square ends, size 3 x 1½ inches, white ground, blue letters, tipped, lettered **Push, Pull**, as above.

Perpendicular, square ends, size 12 x 3 inches, white ground, blue letters, lined & tipped, lettered perpendicularly, **Push, Pull**.

Oblong, square ends, size 12 x 3 inches, white ground, blue letters, lined and tipped, lettered horizontally, **Push, Pull**.

Oblong, fancy ends, size 3 x 1½ inches, white ground, blue letters, lined and tipped, lettered **Push, Pull**.

## ENAMELED IRON SIGNS.

For Steam & Electric Railways, Steamship, Express, Telegraph, Telephone & Advertising Purposes, of every description, size & color, made to order.

Railway Station Names, Switch Targets, Semaphore Arms, Whistle & Diamond Crossing Signs, Numbers for Railway Bridges, Sections, Mileage Signal Houses, etc.; Street Car Route Signs; Steamship & Ferry Signs; Express, Telegraph & Telephone Office Signs; Agency, Office, Store, Wagon, Cart & Advertising Signs; Street Names & Numbers; Door Numbers.

These signs last practically for ever, they never fade or tarnish, they are ever bright and attractive, they are absolutely impervious to heat or cold, they are the only signs that will withstand the effects of weather in all climates.

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<b>Aerated Waters</b> E. L. Drewry ..... Winnipeg.	<b>Hardware</b> Rice Lewis & Son ..... Toronto. The Hudson's Bay Company.....	<b>Shafting</b> Rice Lewis & Son ..... Toronto.
<b>Air Brakes &amp; Fittings</b> Westinghouse Mfg. Co. .... Hamilton, Ont.	<b>Headlights</b> Noah L. Piper & Sons ..... Toronto.	<b>Shingles</b> The Haliburton Lumber Company..... Toronto.
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