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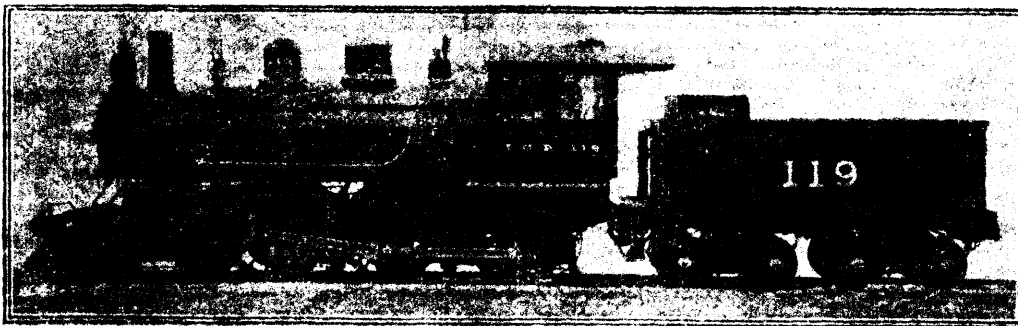
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## RAILWAY BLACKSMITHING.

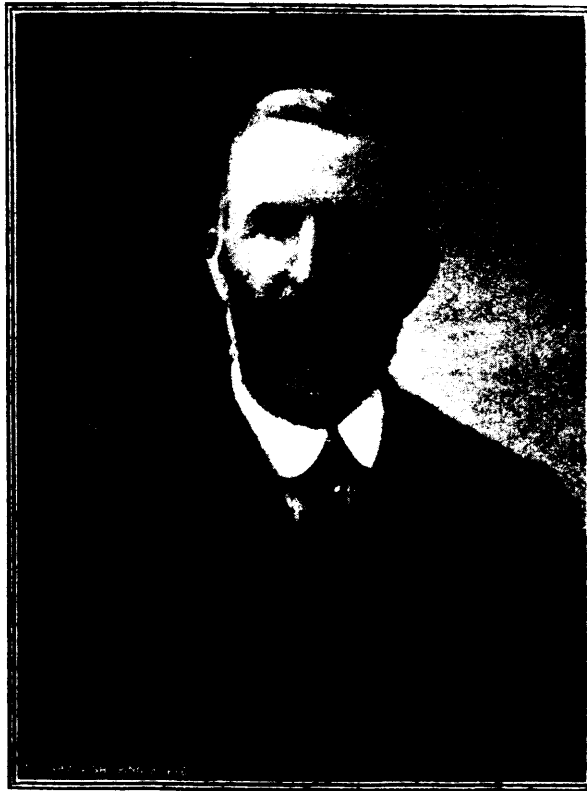
By D. B. Swinton, Master Blacksmith, C.P.R.

Since the earliest ages amongst all the industrial arts, the work of the blacksmith has always been considered one of the most important, and while its importance is quite as prominent in later years in the construction of railway cars, on account of the immense amount of material to be handled and the tremendous cost of that material, it has to some extent changed in character. It has partially lost its constructive character, that is, articles or pieces of work, which were formerly built by welding together bars or other prepared pieces, are in later years replaced in many instances by steel castings, or are re-designed to permit of their being built up, or composed of castings and bars of wrought iron readily made by bending and working from such bars of mercantile sizes in stock by the aid of special machinery and tools devised for the purpose, thus enabling them to be produced in large quantities at very low cost. Thus by far the greater part of the weight of wrought iron, used in car work, has little or no work upon it, except such as bending, upsetting, or other operations that can be done by machinery, and the blacksmith is rapidly developing into an iron former rather than an iron welder.

It must not for an instant be supposed that a lesser degree of intelligence is required for the production of such work as compared with the old system. Such an idea would be very misleading. The only difference is that the machine and the man working it simply replace the striker and helper, who largely supplied the force while the smith furnished the skill. The skill is now employed in the design and formation of dies suitable for the purpose of manufacturing each piece successfully, and in the knowledge, experience, and mechanical instinct which can tell at a glance what can and what cannot be done by properly designed dies. Any lack in these requirements generally furnishes work for another department, to repair or rebuild the machine, besides failing to produce the desired result at satisfactory cost and time.

Material being one of the important points in forgings, great care should be exercised in seeing that the quality of material used is up to the standard, and it would be to the advantage of railway companies to have a well regulated system of testing all iron and steel as soon as received from the manufacturer, and also to have pieces stamped with makers' name or brand. This would perhaps entail a small additional cost which would more than

pay for itself in the quality of the material we would receive if this system were adopted. It is also important to examine the bar iron supplied, to see that it is correct as to size within certain limits, which formerly was not necessary and therefore calls for more accurate work in the rolling mills. If the bars are variable as to diameter, those which are too large, when gripped by the holding dies, form a fin between the faces of the dies bringing undue strain upon the machine, frequently causing a breakdown. In addition, the bulk of iron in



P. S. ARCHIBALD, M. CAN. SOC. C.E.

a given length, automatically measured off by the machine, is greater than that furnished by the bar of correct size and the excess overflows the forming dies and stops or breaks the machine. If the bar is too small, the gripping dies fail to hold it, and the forming dies push it out. Thus a limit in diameter of about 1-64" above and below correct size is as much as can be allowed.

The next step that should be considered is the handling of material. This being one of the chief items of expense in connection with forgings, especially car forgings, it is necessary to have the material piled in a convenient

place, where it can be easily carried to the machines, as all extra handling adds very much to the cost of cars, and in shop arrangement too great deliberation cannot be given to this point, for by it the employment of many laborers can be obviated.

A noticeable fact about blacksmithing is, that although the construction of rolling stock for these last 10 years or so has been tending towards more metal each year in the construction of cars, and while the malleable iron foundries have taken advantage of the condition of affairs to increase the size of their buildings from 50 to 100%, the smith shop has remained about the same as regards floor space. Certainly the introduction of modern machinery in the shop has supplied this want to a large extent, and has been the means of increasing the output of forgings and reducing the cost of same to such an extent as almost to revolutionize blacksmithing, and when the mild steel industries of the country have been fully developed, the opportunities of the smith shop will still be greater.

As an illustration of machine work, we will take an ordinary M.C.B. coupler pocket 1"x4", and follow it through the different necessary operations to completion. The material, which comes from the rolling mills cut to length, is carried to the furnace, which is located as near as possible to the machine, the furnace being of such size as to take the entire bar and heat it thoroughly from end to end, 15 or 20 bars being usually heated at one operation, the number depending largely upon the size of the furnace. When properly heated (a matter which can only be determined by experience and thorough acquaintance with the different grades of iron) the bars are moved and quickly placed upon the bulldozer machine, the machine having been fitted up with the necessary forming dies while the iron was being heated. By an ingenious arrangement of dies, the iron, by one stroke of the machine, is bent in the form of a U, then, being placed in another position, another stroke gibs the ends and shears them to the proper length, and a third movement of the bulldozer punches the holes by which the coupler pocket is to be riveted to the coupler; all these operations being completed at one heat. After cooling, the pocket is taken to another part of the shop, where the pneumatic riveters are located, and is quickly attached to the coupler by two 1 1/8" rivets and is ready to be applied to the car. A variation in the manufacture of these pockets, and one that is practised by many railways is made by upsetting the ends of the iron before being bent, drilling or punching holes and then bending it as before described,

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toria, B.C., J. J. Martin; Vancouver, B.C., L. M.  
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## RAILWAY BLACKSMITHING.

(Continued from page 401.)

which method has its friends and advocates.  
But without question the one first described is  
the most economical, and gives just as good  
results as any.

Truss rods for cars and bridges, which re-  
quire to be made larger, where screwed on  
ends, in order to give as large a body of iron  
at the base of the thread as in the body of the  
rod, were formerly made by having iron of

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the larger diameter welded on to the body of  
the rod. This is now accomplished in a much  
more satisfactory and economical manner, by  
being upset or enlarged in a machine special-  
ly for that purpose. The iron being heated  
to the proper length of the bar, to provide the  
necessary amount of material for the enlarge-  
ment, is removed from the furnace and quick-  
ly placed in the upsetting machine, where in a  
few seconds it is formed to the desired larger  
diameter, with a nicely rounded end to facili-  
tate the screwing. This it will readily be seen  
is a great improvement on the old method of  
welding, which was not always certain of  
perfectly standing the strains upon it, occa-  
sionally giving way at the weld.

Arch bars for the common diamond freight  
car truck, which are almost universally used  
to-day, were formerly made by hand, requir-  
ing a skilled mechanic to give his immediate  
supervision to the work, in order that the bars  
might be bent at the proper angles, and all  
be, as far as possible with handwork, made  
uniform. This method gave place at a later  
date to that of bending the bars (on forms  
built up for that purpose) with a series of  
levers and rollers, but this was still too slow  
and not always accurate. The up-to-date  
method takes the bars, which are furnished  
from the rolling mills cut to the proper length,  
and places a number of them in the furnace,  
which heats them from end to end very rapid-  
ly. Again the forming machine, called bull-  
dozer, is called into service, having been pre-  
pared with dies of the proper form while the  
bars are being heated. The heated bars are

quickly removed from the furnace by two men, with tongs specially formed for this purpose, and are placed in the bulldozer, care being taken to properly centre the bar on the machine and to see that it lies level, then by one stroke of the bulldozer the bar is bent into the required shape, and the six holes punched in it, thus completing at one operation, and in a few seconds, what formerly required an hour or two to form.

It will readily be seen that the bulldozer is a very important factor in the railway blacksmith shop to-day, as the two articles referred to, the M.C.B. coupler pocket and arch bar, are only instances of a large number of like articles that go into the making of a car. The coupler carry irons, body bolsters, U bolts, angle irons, corner bands and numerous other articles are rapidly turned out by this wonder of modern blacksmithing. In addition to the great economy of production accomplished by this machine, the uniformity in size and shape of all of its products is another constant recommendation in its favor, and one that is

to be the case, good blacksmiths never before being in such demand as at present, and never having been paid such good wages as at the present time.

Like all other products of the mechanical art, improvements in blacksmithing go on so rapidly that no one man can say that he is fully conversant with them all, and it is hoped by the writer that the discussion which will follow this paper will bring out many descriptions and references to better and more economical methods of manufacture as would indicate that the railway blacksmith is as progressive and up-to-date in the Dominion as in any other part of the world.

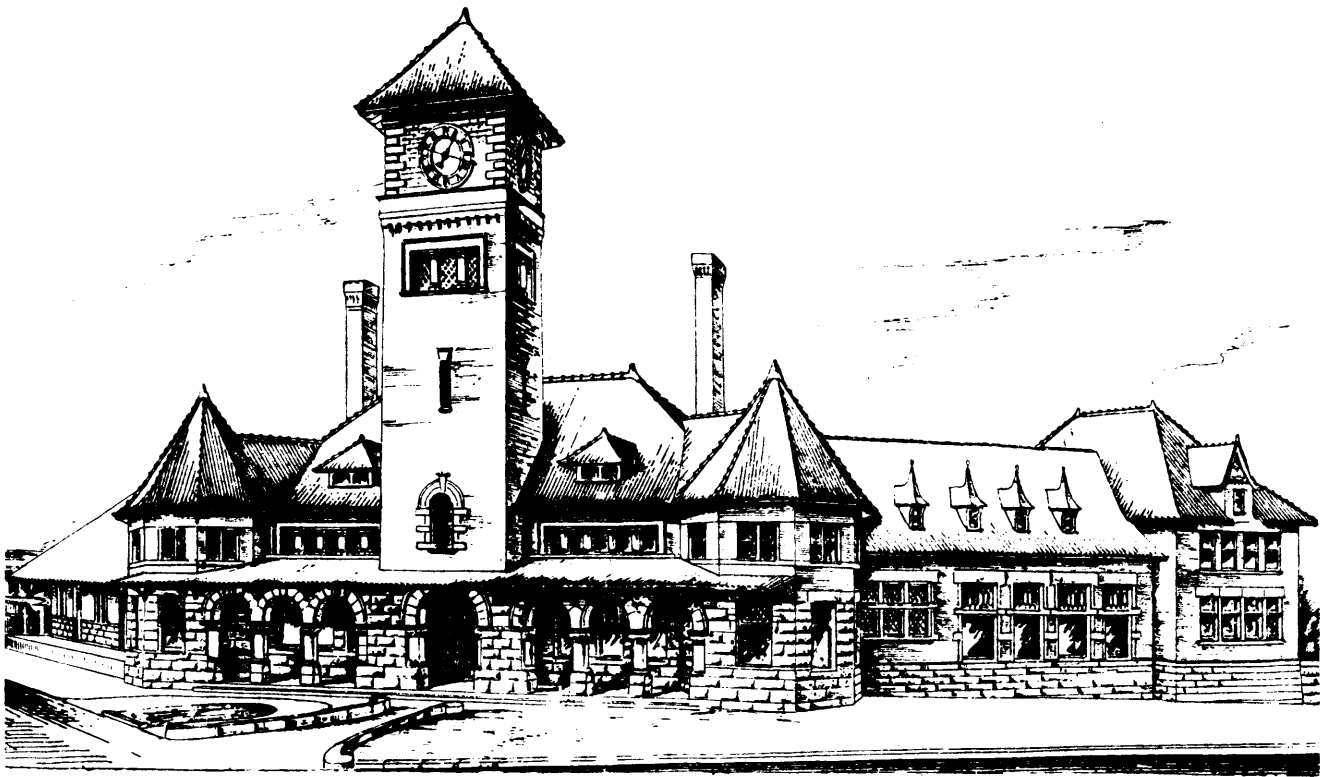
The foregoing paper was read before a recent meeting of the Canadian Railway Club.

### Grand Trunk Ry. Betterments, Etc.

**Portland Station.**—The new station which the Co. intends erecting at Portland, Me., will, in every sense of the word, be modern and up-to-date. It will extend along India st.,

In the northwest corner will be the men's smoking room. South of the general waiting room will be the dining room, 32 by 33 ft. This will be finished in marble similar to the waiting room, and will have a seating capacity of 32 people, as well as a luncheon counter. Along the Fore st. side will be the room for the baggage, express, telegraph and customs rooms. Spier & Rohn, Detroit, Mich., are the architects.

**Montreal Y.M.C.A. Building.**—The new building for the Railway Young Men's Christian Association, illustrations of which are given on pages 405 and 407, will be erected on the corner of Sebastopol and Leber streets, Point St. Charles. The building, which is of simple design, consists of a centre building three stories high above the ground floor, with a wing on each side of same, one story high above the ground floor. The ground floor will be about three steps below the level of the street, and will be entered from Sebastopol st., in the centre of the main building. The base of main build-



THE GRAND TRUNK RAILWAY'S NEW STATION AT PORTLAND, ME.

very much appreciated by the men who do the assembling.

While the bulldozer is probably the most important machine in the car blacksmith shop, another smaller but very useful one is the eye-bolt machine, which takes a bar of iron, which is straight when it is put in the machine, and in a few seconds turns a perfectly formed eye upon it, bends hooks for brake hangers, bends iron into a U or stirrup like form, which is also much used for brake hangers, turns iron into the necessary shape for links ready to be welded up, and does a variety of other complicated operations. There are several other machines used in blacksmithing, some being operated by compressed air, a great many for riveting, hoisting, spring making, etc.

It was not to be expected, of course, that when these machines were first installed in the shops that they were not met with some opposition by the craft, it being considered by the workmen that they would crowd out the employment of a large number of men, as in other lines of industry. This has proven not

140 ft., and the same distance on Fore st., and will be set back from the sidewalk 20 ft.; the front of the station, 90 ft. long, will run from India st. to Fore st. at an angle of 45° to each street. The Romanesque style of architecture will be used. The material for the exterior will be granite and fire-flashed mottled pressed brick. The roof will be covered with Spanish tile. The main waiting room will be 36 by 72 ft., and will be 30 ft. high where the groined arches intersect to form the ceiling. Above the lobby will be a row of clerestory windows glazed with leaded glass. The walls of the waiting room, to the height of 12 ft., will be of white marble, and above that will be of decorated plaster. The floors will be of mosaic tile. At the south end of the waiting room will be a niche 7 by 18 ft. for a large fireplace; the corresponding niche at the north end will be for a news and parcel stand. The ticket office will be in the back of the room, opposite the main entrance; this will be built of marble and bronze, 12 ft. high. In the southwest corner of the waiting room will be the ladies' room with toilet adjoining.

ing and wings will be of rock face ashlar, and the whole of the superstructure of brick. The wing on the left of the entrance contains a dining room on the ground floor and library on the first floor; this library has a lofty ceiling, and one end of it is divided into two stories and arranged as a stack room for books. An independent entrance to the library and dining room is made from Leber st., so that parties can use either without entering the main building, at the same time an entrance to both library and dining room is provided from main building. The wing on the right of the entrance contains a plunge bath and shower baths, closets, lockers, etc., on the ground floor, and a gymnasium and hall with lofty ceiling on the first floor. The ground floor of the main building contains a kitchen and serving room in connection with dining room, caretaker's rooms, bowling alley, and also an emergency hospital fitted with suitable appliances for dealing with emergency cases. From the main entrance on Sebastopol st. a wide staircase leads up to the ground floor of main building. Immediately opposite the

# **Galena-Signal Oil Company,**

**Franklin, Pa., and Toronto, Ont.**

**Successor to Galena Oil Company and  
Signal Oil Company, sole Manufacturer  
of the celebrated Galena Coach, Engine  
and Car Oils, and Sibley's Perfection  
Valve and Signal Oils.**

**CHARLES MILLER,**  
**PRESIDENT.**

head of this staircase is a reception hall, about 26 ft. square, with large fireplace. On the right of the reception hall is a game and recreation room, 28 x 44 ft., and on the left are the parlor, boys' rooms and lecture room. The main staircase leads direct from the reception hall to the upper stories, and alongside of the staircase on first floor is the Secretary's office and a small committee room. The second floor of the main building contains three large class rooms, a ladies' room and lavatory, also a dormitory containing 19 bed rooms, besides cupboards for linen, etc. The third floor is divided into three large dormitories, containing in all 47 bed rooms with wash room and lavatory, linen closets, etc. The privileges and membership in this building will be open to residents of Point St. Charles. Tenders for this building amounting to \$35,000 have been received. Towards this amount the G. T. R. has furnished site and \$15,000; the Y. M. C. A. of Montreal has provided \$15,000; an additional \$10,000 will be required to open the building free of debt, and provide for furnishings, etc. The building committee consists of R. S. Logan, Chairman; A. Maver, T. McHattie, A. Crampton, W. H. Blackaller, L. H. Packard, R. Munro, D. W. Ross, J. W. Knox, D. Bentley, G. W. Birks, D. A. Budge.

**Bonaventure Station.**—Plans are under consideration for a complete rearrangement of the office accommodation at Bonaventure station, Montreal. In the original layout of the offices considerable space was wasted, and the rooms are now overcrowded. The object of the proposed rearrangement is to modernize the inside of the building and provide additional accommodation for several of the departments.

**Montreal Harbor Front Tracks.**—The Co. has been granted permission to lay a track to connect its system with the Ogilvie Flour

Mills Co.'s mill at Windmill Point, at a rental of \$50 a year, the track to be removable at six months' notice.

**Kingston Subway.**—The Frontenac county council proposes applying to the Railway Committee of the Privy Council for an order compelling the Co. to construct a subway under its tracks at the Montreal st. crossing just outside Kingston, Ont.

**Peterboro to Midland.**—In connection with the negotiations that have been going on with the C. P. R., by which that Co. will have an entrance into Midland, it is understood that, in the event of an agreement being reached, the G. T. R. line will be double-tracked between Peterboro and Midland, Ont.

**Northern Division Stations.**—A new station has been completed at Stayner, Ont., and a new building at Alliston is in course of erection.

**Toronto.**—The improvement of the yards at Don station, Toronto, have been completed with the exception of the laying of one line of rails. (Oct., pg. 340.)

The Co. has acquired from the Ontario Government a 21-years' lease, with option of purchase at the end of five or ten years at a fixed price, or by arbitration at the end of the term, of the site of the old Parliament build-



GRAND TRUNK RAILWAY BRANCH Y.M.C.A., MONTREAL.

ings. The land acquired has a frontage of 954 ft. to Front st., and a depth of 427 ft. to Wellington st. The Co. has also secured options on blocks of adjoining land westerly from John st. to Windsor st., and running from Front st. to Esplanade st. The land acquired will be utilized as freight yards, plans for which are being prepared. It is proposed to transfer the freight offices to the new site, and to utilize the present freight offices in addition to the accommodation at the Union station. In carrying out the alterations it is stated that the site now acquired will be cut down to the level of the present tracks, and the soil taken out will be used to fill in the shallow water between Spadina avenue and Bathurst st., thus reclaiming about 40 acres, which will be used as a shunting yard. The reclaimed land will be supported at the bay front by a cement and artificial stone wall.

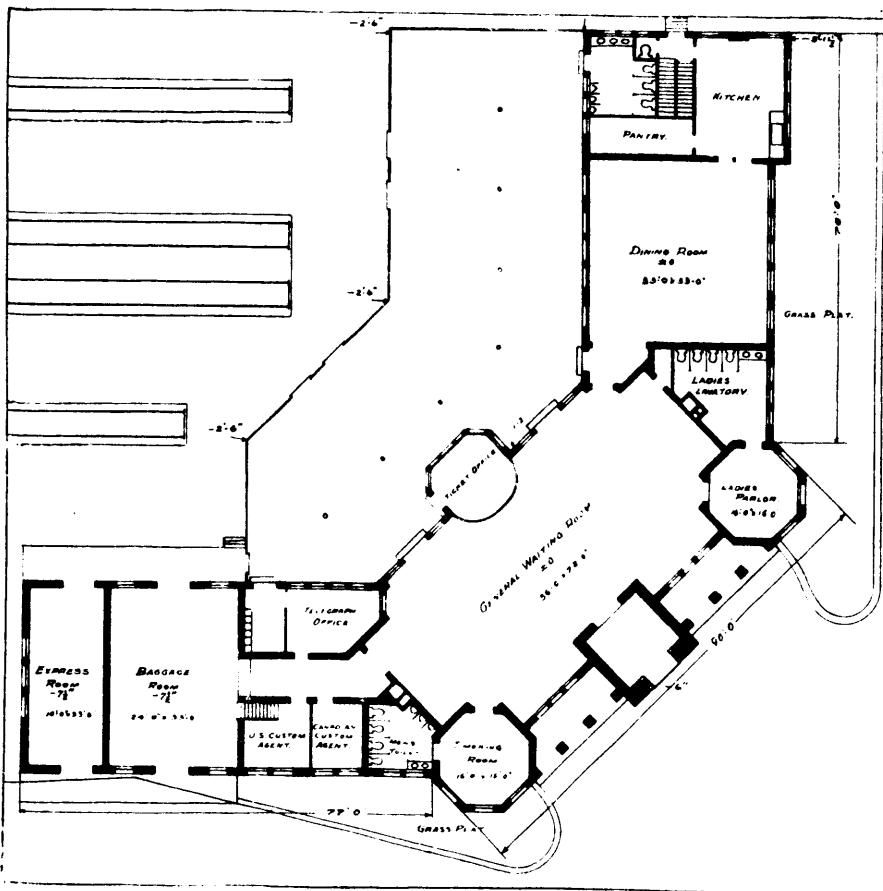
**Hamilton Freight Yards.**—It is proposed to construct a switch along Caroline st., and extending to the Copp foundry, on York st., for the accommodation of the west-end manufacturers.

In connection with the extension of the yards on Ferguson ave., for which the Co. has purchased a block of land between Robert and Barton streets, in line with the present yards, the city council is asked to permit the closing of Robert st. between Ferguson ave., about halfway to Elgin st., the Co. to pay for the land thereby acquired, so that it may be thrown into the yard area. The old freight shed is to be torn down and a new shed 40 ft. wide, and extending the whole length of the present yard and the acquired property, will be built if the required consent to the closing of the road is obtained. When the work on the yard is completed it is the intention of the Co. to transfer the whole freight business there, and to use the existing freight sheds on Strachan st. for storage purposes.

**Hamilton-Niagara Falls Double-Tracking.**—It is not expected that this work will be completed this year. Owing to the heavy character of the work and the difficulty of obtaining men, there has been delay in getting on with the cuttings. (Oct., pg. 341.)

**Bridge Strengthening, Southern Division.**—The new bridge at Cayuga, Ont., is completed, and work has been commenced in renewing the bridge at Tillsonburg.

**Brantford Deviation.**—The deviation, which will take the Niagara to Windsor main line through Brantford, leaves the present main line at milepost 59.50 from Niagara Falls, near Lynden station, and connects with the present branch from Harrisburg, about 3 1/4 miles from that place, involving 4.12 miles of new construction. The new line will have a maximum gradient of 1.4 ft. to the mile, and the greatest curvature will be 1° 20' at Lynden station. There will be no bridges on the route, but there will be some iron pipe culverts with masonry ends. A portion of the branch line to Tillsonburg, and the section of



G.T.R. NEW STATION AT PORTLAND, ME., GROUND FLOOR PLAN.



# ENAMELED IRON TELEGRAPH SIGNS.

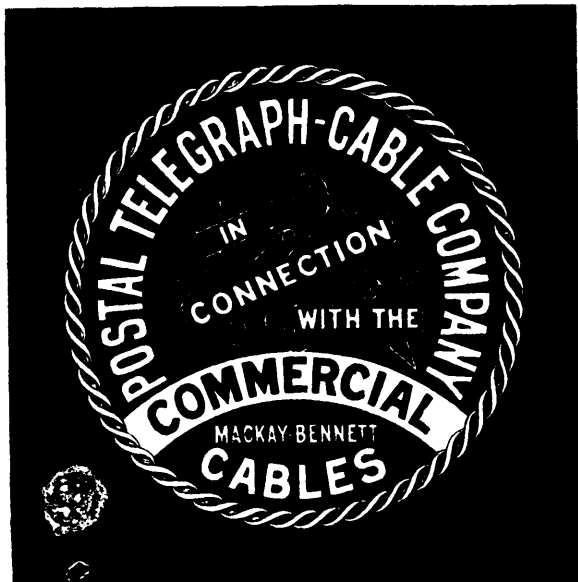
*The only signs that are absolutely impervious to the weather.*



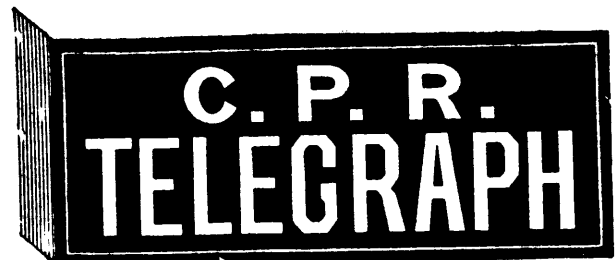
No. 1.—Double, 10 x 13 ins., including flange, white letters on blue ground.



No. 3.—Double, 21½ x 10 ins., including flange, white letters on blue ground.



No. 2.—Single, 30 x 30 ins., white letters on blue ground.



No. 4.—Double, 22 x 8 ins., including flange, white letters on blue ground.



No. 5.—Single, 24 x 12 ins., white letters on blue ground.

Enamelled Iron Signs can be made in any shape, size or colors. Blue and white make the most striking contrast.

Prices and further particulars supplied on application.

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

Importers of Enamelled Iron Signs of the best English manufacture.

the Buffalo-Goderich line to Paris will be used in connection with the new construction. On these lines new superstructures will be provided for all the bridges. A proposal to lift the track 6½ ft. at Grand River bridge, south of Paris, and to reduce the approach grades is under consideration. The contractors for the new construction between Lynden and the Harrisburg branch are: earthwork, J. A. Dart, Tillsonburg, Ont.; bridges and masonry, Hon. Wm. Gibson, Beamsville, Ont. We were advised Oct. 16 that about two-thirds of the earthwork had been completed, and that with good weather and a sufficiency of labor it was expected to have this work completed by the first week in Dec. (Oct., pg. 341.)

**Port Huron-Chicago Double-Tracking.**—At the meetings of the subsidiary companies recently held in Detroit, it was stated that of the 335 miles of track between Port Huron and Chicago, the double-track was completed and in operation for 157 miles. Many of the heavy gradients have been cut down to enable locomotives to handle more loaded cars, while at Flint, Mich., a detour of 10 miles has been made to escape a particularly heavy grade, the new part being intended for freight and mixed trains, while the old part will be given over to passenger traffic. (Oct., pg. 341.)

**Chicago Track Elevation.**—It is expected that the work of elevating the tracks of the five companies incorporated under the title of the Chicago and Western Indiana Terminal Co., in Chicago, Ill., will be commenced at

an early date. For the past two years engineers have been preparing plans, and officials have been purchasing the land required, and it is stated that all the details will be completed by the end of the year. A meeting of the executive heads of the companies will be held in New York shortly to arrange for financing the work. F. W. Morse, Third Vice-President, has, under C. M. Hays, Second Vice-President and General Manager, charge of the matter for the G.T.R.

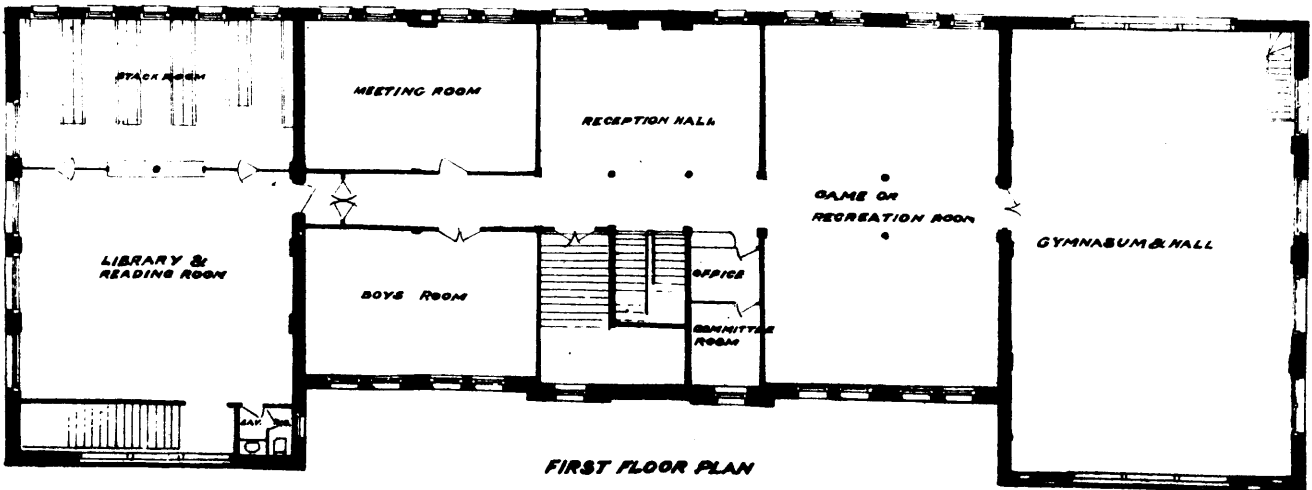
**The Central Vermont Ry.** has completed plans for a new freight shed at New London, Conn.

**The Mica Boiler Covering Co.** of Montreal reports business as exceedingly good. Among its various contracts are: The Verdun asylum, the St. Lawrence Sugar Refining Co., the Montreal Street Ry. western powerhouse, the Customs examining warehouse and the Wire and Cable Co.'s factory. In Toronto it has recently completed a large contract for the Canada Foundry Co. The English house has covered all the pipes, cylinders, etc., on H.M.S. Lancaster; and has secured the contract for H.M. cruisers Suffolk and Berwick. It has also completed a very large order received from the War Office for the Woolwich arsenal, and the Waltham Abbey powder works; and has also secured contracts from several electrical companies. It is expected that the English house will erect a warehouse on the Manchester ship canal.

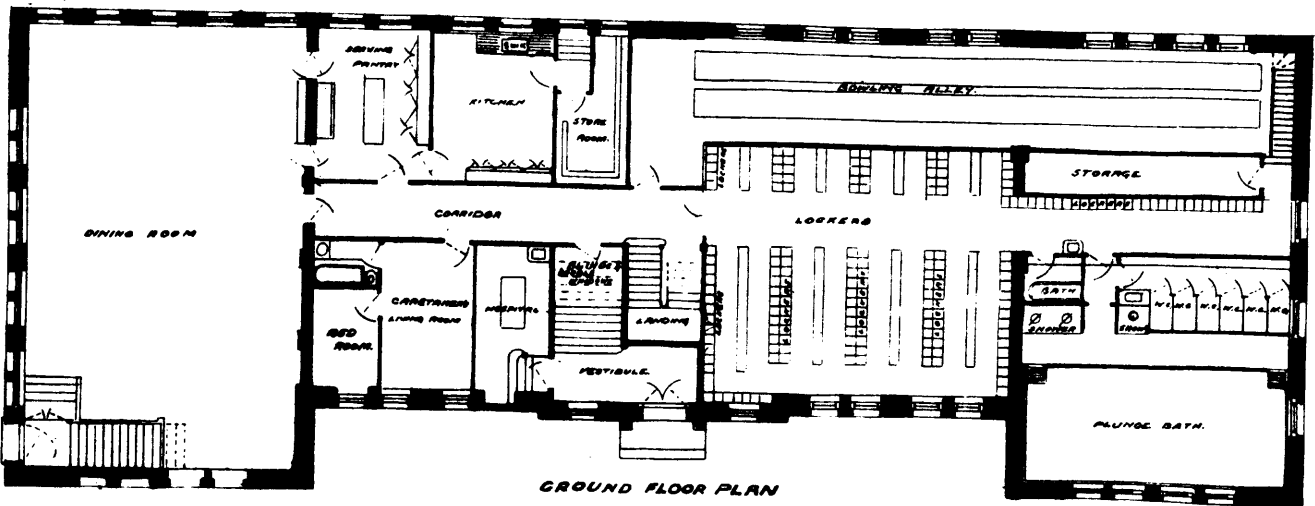
**RAILWAY FINANCE, MEETINGS, ETC.**

**B.C. Electric Ry. Co.**—At an extraordinary general meeting in London, Eng., in Oct., R. M. Horne-Payne, Chairman, in proposing a resolution authorizing the board to create and issue, subject and in addition to the issue of £250,000 4½ % 1st mortgage debentures of the Co., further debentures for securing the payment of the principal sum of £220,000, and to apply the same, or any part thereof, to purchasing shares in the capital of the Vancouver Power Co. (Ltd.), or in any manner the directors may consider conducive to the prosperity of the Co., explained that it was practically the same as that passed on April 24 last, the only difference being that that authorized the board to lend the money to the Vancouver Co., while the present resolution was for authority to purchase the shares of the company. The board had decided that the latter was the more convenient method of financing the water-power scheme. The resolution was agreed to.

**Brockville, Westport and Sault Ste. Marie Ry.**—In connection with the case of the Knickerbocker Trust Co. of Philadelphia, against the B.W. and S.S.M. Ry. Co., C. N. Armstrong, of Montreal, seeks to intervene to prevent the proposed sale, on the ground that in 1895 he accepted an offer of the investment company, one of the plaintiffs in the action, for the purchase of its interest in the line, which sale was subsequently ratified by the directors. Mr. Armstrong tendered the amount of the purchase money but it was re-



FIRST FLOOR PLAN



GROUND FLOOR PLAN

GRAND TRUNK RAILWAY BRANCH Y.M.C.A., POINT ST. CHARLES, MONTREAL.

fused, and no attempt was made to enforce the agreement.

**Calgary and Edmonton Ry.**—Net earnings for Sept. \$18,685.41, against \$4,888.55 for Sept., 1901. Net earnings for nine months ended Sept. 30, \$204,304.96, against \$124,351.60.

In the action brought by the Co. against the Crown in respect to the land grant of 6,400 acres a mile, the Court of Exchequer was asked to declare that the grant should be free from reservation of mines and minerals. Judgment has been given for the Crown, it being held that the grant to the Co. did not place it in any better position than if a purchase of the lands had been made. If the land had been purchased the mines and minerals would have been reserved to the Crown.

See also under C. and E. R. Bonds and C. and E. R. meeting.

**Canada Northern Ry.**—Gross receipts are as follows:—

	1902.	1901.	Increase.
July.....	\$132,300	\$ 87,200	\$45,100
Aug.....	130,900	97,000	33,900
Sept.....	209,300	103,300	106,000
	\$472,500	\$287,500	\$185,000

The net earnings for July and Aug. were reported to be \$99,600, an increase of \$23,239 over same period 1901. In 1902 there were 1,244 miles of track being operated against 828 in 1901.

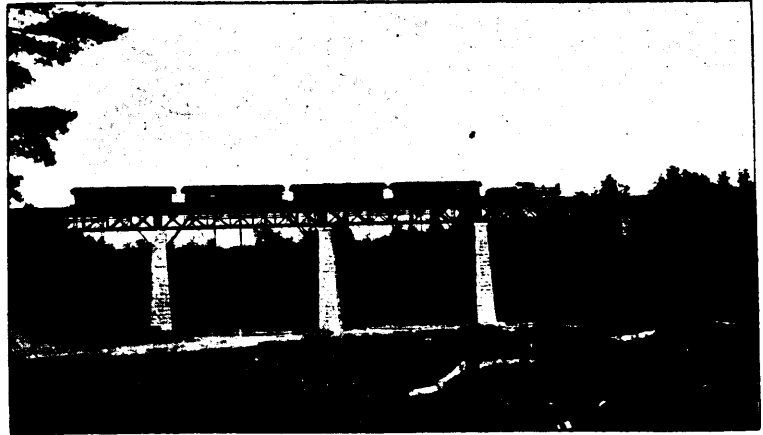
**Cape Breton Ry.**—Bondholders have been requested to deposit their securities with the Trust Co. of the Republic, with a view of securing the interests of the bondholders in the undertaking, and of having formulated a suitable plan under which the affairs of the Co. "may be continued, consolidated, reorganized or readjusted."

**Central Ontario Ry.**—A number of suits have been entered in the Ontario courts with a view of determining the rights and interests of certain bond and shareholders. There were also injunctions to prevent the holding of meetings called, but none of these proceedings have affected the operation of the line under the management of G. Collins. The sale of the line which was ordered by the courts on the application of the Toronto General Trusts Corporation as trustee for the bondholders, has not taken place. During the proceedings S. J. Ritchie, Akron, Ohio, acquired the shares and bonds held by Mr. Bingham, of Cleveland, Ohio, and his associates, thus securing control. The places of the directors representing the Bingham interests were taken by S. J. Ritchie, L. A. Ritchie, T. M. Kirkwood and R. Fraser, but an injunction was obtained to prevent them from acting on account of some alleged informality in connection with their election. Chief Justice Meredith has suggested a settlement of the matters in dispute, and pending negotiations the actions stand over.

**The Cuba Co.** recently held its annual meeting in Jersey City, N.J., and re-elected directors as follows: President, Sir Wm. Van Horne; 1st Vice-President, Gen. G. M. Dodge; other directors, Hon. W. C. Whitney, Gen. S. Thomas, T. F. Ryan, G. C. Haven, E. J. Berwind, P. A. B. Widener, W. L. Elkins, H. Walters, and H. L. Terry. The other officers are: 2nd Vice-President, J. K. Corbiere; Assistant to President, P. Farquhar; Secretary, T. S. Beatty; Treasurer, H. M. Francis.

The Cuba Railroad Co. has been incorporated under the laws of New Jersey, with a capital of \$20,000,000, of which \$10,000,000 is 6% cumulative preferred stock, and the balance common, for the purpose of acquiring the lines of railway constructed by the Cuba Co. Its directors are: C. T. Barney, W. L. Bull, G. Carter, H. S. Dimock, and F. B. Lord. The Cuba Rd. Co. will be an operating company, the Cuba Co. being more of a development company.

## THOROLD CEMENT



G.T.R. BRIDGE, NEAR OAKVILLE, ONT.

MASONRY WORK BUILT WITH THOROLD CEMENT, HON. WM. GIBSON, CONTRACTOR.

GIBSON'S QUARRIES,  
BEAMSVILLE, ONT., Nov. 10, 1896.

It gives me the greatest pleasure to testify to the good qualities of the Thorold Hydraulic Cement. During the past 13 years I have bought it almost exclusively, having used between 45,000 and 50,000 barrels, in building the Masonry of the St. Clair Tunnel at Sarnia and in Port Huron, as well as many Bridges and Culverts on the Grand Trunk Railway System, the Lake Erie and Detroit River Railway Bridges and Culverts, many County Bridges, as well as Section J of the Welland Canal; and in each and every case it has met with the approval of the Engineer in charge.  
WM. GIBSON, Contractor.



ABERDEEN BRIDGE, OAKVILLE, ONT.

MASONRY WORK BUILT WITH THOROLD CEMENT, HON. WM. GIBSON, CONTRACTOR.

The new bridge is a splendid structure, and is undoubtedly a credit to the town of Oakville and the Council of the County of Halton, who have aided them in erecting it. The bridge has a clear span of 115 feet between the abutments, and is 118 feet over all. It has a 16-foot roadway and two 4-foot sidewalks. It is a deck swing steel bridge with riveted Warren truss girders. It swings in either direction upon a central pier 17 feet in diameter at the top and 19 feet at the bottom. The central pier and abutments are of solid masonry laid in **THOROLD CEMENT**. The masonry work was done by Mr. William Gibson, M.P., Grimsby, and the superstructure put up by the Central Bridge and Engineering Company of Peterboro'.—*Toronto Globe, September 19, 1894.*

ESTATE OF JOHN BATTLE,  
(Successors to late John Battle)

### THOROLD AND PORTLAND CEMENTS, THOROLD, ONT.

WRITE US FOR PRICES AND FULL PARTICULARS.

**Donington Atlantic Ry.**—Gross earnings for Sept. \$122,000, against \$136,389 for Sept., 1901; making for nine months ended Sept. 30 \$756,400, against \$755,156 for same period 1901.

**Elgin and Havelock Ry.**—A syndicate of Halifax, N.S., capitalists, including B. F. Pearson, has acquired the bonds of this Co., and is endeavoring to float a company to operate it in connection with the Havelock Mineral Springs Co., at Havelock, N.B. The line is in operation from Elgin, N.B., to Petitediac Jct., on the I.C.R., thence to Havelock, 27 miles, and from Havelock to Keith's Mills, 1 mile; and has 2 miles of sidings, all of which is laid with 46 and 56 lb. steel rails. Its rolling stock comprises 2 locomotives, 1 first class car, 1 baggage, mail and express car, 1 box car, 7 platform cars, 1 snow plough and 1 flanger. Financial statement: capital subscribed, \$125,000; paid up, \$43,000; subsidies—Dominion, \$82,652.82, including \$44,252.82 value of rails; New Brunswick, \$107,500; municipal, \$13,000; total capital, \$328,152.82; paid up \$246,152.82; floating debt, \$3,968.75. Total cost of railway and equipment \$586,904.09. Operations for year ended June 30, 1901: Train mileage, mixed trains, 14,472 miles; passengers carried, 4,090; freight carried, 7,622 tons. Passenger receipts, \$1,226.56; freight receipts, \$5,267.03; mail and express, \$491.87; other sources, \$1,600; total, \$7,001.46. Net loss, \$3,968.75.

**Equinault and Nanaimo Ry.**—J. Duns-muir, President, has secured the Hubbard interests in the E. and N. Ry., and the collieries worked in connection with it, and is now sole owner of the line.

**Grand Trunk Ry.**—C. M. Hays, 2nd Vice-President and General Manager, states that the G.T.R. has completed its arrangements to secure complete control of the Detroit and Toledo Shore Line, an electric railway extending from Toledo, Ohio, to Trenton, Mich. The line is a standard gauge double track and built to the highest class specifications. It was one of the lines, control of which was obtained by the Everett-Moore syndicate, of Cleveland, Ohio, and had an outstanding indebtedness of \$1,500,000. It is proposed to issue \$2,000,000 of bonds to clear off this indebtedness and to extend the line from Trenton into Detroit. The object of the G.T.R. in acquiring the line, said Mr. Hays, in an interview, was to obtain an entrance to the Ohio coalfields.

The G.T.R. dividend record is as follows:—Full 4% on guaranteed stock has been paid since 1889 in semi-annual dividends. In 1899 4% was paid on 1st preferred; in 1900, 5½%, and in 1901, 6%. The second preferred paid 3¼% in 1900, 3% in 1901, and will now receive its full 5% for 1902, the first instalment of 3% having been declared in May, 1902. The last year that the full dividend was paid was 1883.—Montreal Herald.

**Great Northern Ry. of Canada.**—A meeting of the shareholders was called for Nov. 14 to ratify an agreement for the purchase of the Montford and Gatineau Colonization Ry., which extends from Montford Jct., on the C.P.R., to Arundel, Que., 33 miles, all of which and .42 miles of sidings is laid with 56 lb. steel rails. It has a paid up capital of \$18,317, bonded debt of \$231,000, and a floating indebtedness of \$287,748.76, on which the interest charges are 7%. From subsidies \$167,440 was paid by the Dominion Parliament and \$168,395.80 by the Quebec Legislature. The total cost of the line and rolling stock was \$533,731.16. The rolling stock comprises 4 locomotives, 2 first class cars, 1 baggage, mail and express car, 2 cattle and box cars, 18 platform cars, 1 conductor's van, 1 snow plough, and 1 flanger. Operations for the year ended June 30, 1901—Train mileage—passenger, 21,034; freight, 31,204; pas-

sengers carried, 8,200; freight carried, 27,185 tons. Earnings: passengers, \$5,727.30; freight, \$14,238.86; mails and express, \$491.94; other sources, \$714.57; total \$21,172.67; working expenses, \$22,559.19; net loss, \$1,386.52.

**Halifax Electric Tramway Co.**—Gross receipts from railway:

	1902.	1901.	Increase or Decrease.
Jan.	\$10,674.58	\$9,543.14	\$1,131.44+
Feb.	8,408.59	8,042.11	436.28+
Mar.	9,761.57	9,448.32	313.25+
Apr.	10,026.66	9,370.08	655.58+
May.	11,128.66	9,407.15	1,699.51+
June.	11,628.19	11,339.52	188.67+
July.	14,834.69	14,203.82	630.87+
Aug.	17,177.12	16,330.23	846.89+
Sept.	17,494.21	16,547.68	946.53+
Oct.	11,382.25	12,581.25	1,198.98-
	\$112,413.32	\$106,873.08	\$5,540.24+

The decrease in the receipts for Oct. is accounted for by the extra traffic in 1901, due to the visit of the Prince and Princess of Wales.

**Hamilton, Ont., Electric Railways.**—The mileage and percentage paid to the city for the three months ended Sept. 30, by the H. St. Ry. was \$5,203.42, against \$5,003.69 in 1901. The Hamilton Radial Ry. paid the city \$148 for street mileage for the quarter ended Oct. 13, 1902.

**Hull Electric Ry.**—A writ has been issued by E. Hanson & Co., brokers, Montreal, against the Hull Electric Co., to recover \$562,772 for amounts advanced on notes during the construction of the railway.

**Iroindale, Baneroff and Ottawa Ry.**—A. M. Dymond, K.C., Law Clerk of the Ontario Legislature, has been appointed to adjust the claims for wages filed in the Treasury against the subsidies voted at the last session of the Legislature. The total amount of the claims, of which notice had been given, was deducted from the subsidies due, before the scrip was handed over, and Mr. Dymond's duty is to apportion this amount among the various claimants.

Some matters in connection with the financing of the construction of this line have been brought before the courts in connection with the winding up in liquidation of the estate of the late A. D. Benjamin, Toronto. Mr. Benjamin advanced \$69,000 to the Co., receiving as security two notes of \$34,500, endorsed by the late C. J. Pusey, the promoter and President of the Co., and \$300,000 of the 1st mortgage bonds. At the same time J. H. Plummer, formerly Assistant General Manager of the Bank of Commerce, advanced \$34,500, receiving a note for that amount similarly endorsed, and \$150,000 of the 1st mortgage bonds. These amounts became due Sept. 1, 1899, but neither principal nor interest had been paid. Subsequently Messrs. Benjamin and Plummer agreed to finance the construction of an additional five miles of line, and in respect of this \$63,000 and interest was due, about \$43,000 being due to Mr. Benjamin. Mr. Benjamin pledged the notes and bonds he held to Mr. Plummer for advances, on which there was due \$50,000; and the Bank of British North America also had an interest in the securities for advances to Mr. Benjamin, in respect of which Mr. Plummer had paid \$10,000 for an option. An offer was made to the liquidator of \$500 for the equity of the Benjamin estate in the bonds, together with the renouncing of a claim of \$36,000 against the estate. The matter will be submitted to the creditors before it is accepted. In addition to these charges on the \$450,000 of the Co.'s bonds, Z. A. Lash, K.C., and H. S. Mara, hold a second mortgage to cover advances of \$75,000.

**Kent Northern Ry.**—A syndicate of New Brunswick capitalists has purchased the Kent Northern Ry., and it is understood that the proceedings being taken in the courts to have

the line sold in the interest of the bondholders are in connection with this sale. The sale has been ordered to satisfy the bondholders' claim for \$270,000 principal, and \$101,000 for interest. By a recent order of the court rails to the value of \$6,000, owned by the Department of Railways, have been exempted from the sale, and \$350 is to be retained from the proceeds of the sale to satisfy the Department's claim for car service. The K.N. Ry. is operated from Kent Jct., on the I.C.R., to Richibucto, 27 miles, and there is an extension of 7 miles to St. Louis, known as the Richibucto and St. Louis Ry. which though operated by the K. N. Ry., is not involved in the present sale. There are 2 miles of sidings on the two lines, and the whole track is laid with 56 lb. rails. The K.N. Ry. has a paid up capital of \$50,000, and received by way of loan from the Dominion rails to the value of \$58,334.27, and a subsidy of \$135,000 from the N.B. Legislature. The total paid up capital is \$243,334.27, and the total cost of the line and its equipment was \$296,000. The equipment consists of 2 locomotives, 1 first class car, 1 baggage car, 1 box car, 4 flat cars, 2 snow ploughs, and 1 flanger. Operations for year ended June 30, 1901:—(R. and St. L. Ry. figures included); train mileage—mixed trains, 18,000 miles; passengers carried, 5,795; freight carried, 4,070 tons; passenger receipts, \$3,597.53; freight receipts, \$6,946.88; mails and express, \$842.40; total, \$11,386.81; net receipts, \$1,706.81.

**Kettle Valley Lines.**—C. F. Packard, formerly in the employ of the commissary department of the Co. during construction, has entered an action to recover \$25,000 for malicious prosecution. When construction was completed in April there was an amount of \$239.28 not accounted for, and Packard was arrested in connection therewith, but on the case being heard at the County Court at Grand Forks, B.C., a verdict of acquittal was recorded. The present action was then entered.

**The Lake Erie and Detroit River Ry. Co.** has offered the Chatham city council \$2,500 as compensation for loss of taxes due to the removal of the repair shops of the old Erie and Huron Ry. The offer has been declined, and a suggestion made that the matter be left to the Railway Committee of the Privy Council if an arrangement cannot be effected.

F. H. Walker, President, stated, Oct. 28, that the Pere Marquette Rd., which has a traffic agreement with the L. E. and D. R. Ry., had acquired a portion of the stock of the railway, and that the line would be extended from St. Thomas to opposite Buffalo. At present the P. M. Rd. transfers to the Michigan Central and Wabash railroads between 60,000 and 70,000 cars of freight originating on its line and destined for eastern points. The P. M. Rd. is controlled by a Boston and New York syndicate, whose interests are pooled, and it is reported that the Pennsylvania Rd. is seeking to secure the control.

The L.E. and D.R.R. Co. has deposited with the Secretary of State at Ottawa a mortgage dated Aug. 2, 1902, to the National Trust Co., Ltd., as trustee, securing an issue of bonds at the rate of \$15,000 a mile of the Co.'s lines.

**London, Ont., Street Ry.**—Traffic receipts:

	1902.	1901.	Increase or Decrease.
Jan.	\$ 9,980.93	\$ 9,255.74	\$ 725.19+
Feb.	8,740.45	8,145.70	594.69+
Mar.	10,108.54	9,204.54	814.00+
Apr.	9,646.42	9,495.68	150.74+
May.	11,970.88	10,003.16	1,967.72+
June.	12,819.56	13,917.23	1,097.67-
July.	15,215.04	14,241.13	973.91+
Aug.	14,768.20	14,038.15	730.05+
Sept.	17,784.19	14,612.46	3,171.73+
Oct.	11,645.46	10,104.99	1,540.77+
	\$122,679.67	\$114,029.65	\$8,650.02+

**Magnetawan Ry.**—At the recent annual meeting the following officers and directors were elected: President, J. Sharpe, Burk's Falls, Ont.; Vice-President, A. White, Toronto; Treasurer, H. W. Cooper, Montreal; other directors, W. Wainwright, Montreal; W. R. Tiffin, Allandale; G. C. Jones, Toronto; W. H. Biggar, Belleville, Ont.; Secretary, T. Waterson, Montreal.

**Montford and Gatineau Ry.**—The shareholders met Oct. 20 and ratified the sale of the line to the Great Northern Ry. of Canada. See also Great Northern Ry.

**Montreal St. Ry.**—Jas. Ross and W. Mackenzie paid certain sums to the Dominion Government as duty on rails used for this line, subsequently the Government refunded \$50,000, but the contractors claimed a balance of principal, with interest from the date of payment, by a petition of right. The case was dismissed by the Court of Exchequer, and now the Supreme Court has dismissed the appeal made from that decision.

For the year ended Aug. 30, 1902, the proportion to be paid to the city out of the Co.'s earnings amounted to \$94,895.84, an increase of \$8,000 over the amount paid in 1901.

**Peterboro' Radial Ry.**—The officers for the current year are: President, J. C. Shook; Vice-President, T. E. Bradburn; Secretary-Treasurer, G. M. Roger; other directors, G. W. Hatton, S. D. Hall, C. H. Bradburn, D. Davidson; auditor, J. Crane. The directors were authorized to effect a sale to the National Construction Co. in the event of its taking advantage of its option to purchase the charter of the P. R. Ry., and the line, etc., of the Peterboro' and Ashburnham Ry., which is owned by the P. R. Ry. It is understood that the National Construction Co.'s option expired Oct. 1. (Aug., pg. 267.)

**Qu'Appelle, Long Lake and Saskatchewan Ry.**—Net loss for Sept., \$273.78, against a net loss of \$2,133.33 for Aug., 1901. Net earnings for nine months ended Sept. 30, \$63,397.01, against a net loss of \$7,187.91 in 1901.

**Quebec Central Ry.**—Gross earnings for Sept., \$72,162.87; working expenses, \$42,231.22; net earnings, \$29,931.65; against \$66,025.00 gross, and \$27,392.87 net for Sept., 1901. Gross earnings for nine months ended Sept. 30, \$508,847.67; net earnings, \$167,862.51, against \$481,223.88 gross, and \$164,708.21 net for same period, 1901.

**Quebec and Lake St. John Ry.**—Earnings for Aug., \$43,871, against \$43,348 in Aug., 1901; making for eight months ended Aug. 31, \$263,645, against \$230,571 for the same period, 1901.

**Sherbrooke, Que., Street Ry.**—Press reports state that a company is in course of formation to take over the S. S. Ry., the Electric Light Co., and the People's Telephone Co.

**Shore Line Ry.**—The New Brunswick courts have approved of the report of H. H. McLean, K.C., and Russell Sage, the receivers, and fixed their remuneration at \$4,000 for the former and \$1,000 for the latter.

**Shuswap and Okanagan Ry.**—Net receipts for six months ended June 30, \$6,016, against \$5,809 for same period of 1901.

**South Shore Ry.**—The Quebec Court of Appeal has decided against the appeal of the South Shore Ry. Co. against the decision of the Superior Court, declining to order the G.T.R. to allow the S.S.R. trains to be operated over the G.T.R. lines from St. Lambert to Bonaventure station, Montreal. The S.S.R. had an agreement with the G.T.R. to operate its trains over this piece of line, but C. M. Hays refused to be bound by it, on the ground that it was not authorized by the directors of the G.T.R. The difference between the com-

panies arose over the transfer of the control of the S.S.R. to interests opposed to the G.T.R.

The question of the ownership of the majority of shares of the Co. will be decided in the Supreme Court, the necessary writs having been served upon H. A. Hodge and his co-directors, who are in possession, at the instance of R. Sutro and his associates who claim the control.

A suit has been entered in the Quebec courts by Flett, Falconer & Cook, Montreal, attorneys for R. Sutro, of New York city, and his associates, who claim to be directors of the S.S. Ry., calling on H. A. Hodge, President of the Quebec Southern Ry., and his co-directors, who also claim to be directors of the S.S. Ry., and to have amalgamated it with the Quebec Southern Ry., to hand over to them all the property of the S.S. Ry., and for an accounting of the assets. The National Trust Co. is also called upon to turn over an issue of \$3,500,000 of bonds which are being prepared for the market, and to bring up the deed of trust for cancellation. The plaintiffs also ask for \$200,000 damages.

**Spokane Falls and Northern Ry.**—The Great Northern Ry. Co., U.S.A., which holds the \$2,800,000 of bonds of this Co., has acquired the whole of the share capital ex-

cept about 20 shares. The S. F. and N. Ry. also operates the Nelson and Fort Shepherd Ry., the Red Mountain Ry., and the Vancouver, Victoria and Eastern Ry. in B.C.

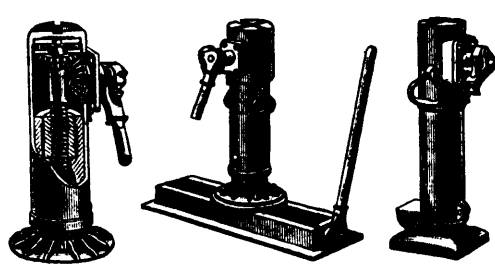
**St. Lawrence and Adirondack Ry.**—At the recent annual meeting in Montreal the following were elected directors: W. Seward Webb, C. M. Depew, S. R. Calloway, G. Bird, C. G. Morgan, New York city; E. Van Essen, Boston, Mass.; G. T. Jarvis and A. G. Adams, Rutland, Vt.; and M. E. McClary. For the year ended June 30 last, the Co. reports a deficit of \$67,965, having earned above fixed charges, \$4,910. The surplus of \$41,754 of 1901 has been wiped out with the payment of the dividends begun under the Webb-Meyer regime. Gross earnings increased about \$17,000 for the year.

"The wretched scandal connected with the advance of St. L. and A.R. stock has been recalled by the publication of the quarterly report of the Co. It will be recalled that the stock was advanced to something like 135, and that the Co. paid dividends at the rate of 5% per annum. The report for the quarter ended June 30 shows gross earnings of \$56,386; operating expenses, \$45,866; net earnings, \$10,520. The total income was \$10,874, and fixed charges \$20,570, leaving a deficit of \$9,705. There is a law of the State which renders payment of unearned dividends

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a very serious offence. The scandal in connection with the St. L. and A. has been smothered, but as the statement shows, it was an outrageous performance all the way through."—New York Herald.

The St. Thomas Electric Ry. fell into the possession of the city Nov. 17, when it had ceased to be operated for 60 days, and the city council has decided to put it in good condition and operate it as a civic enterprise

**Toronto Railway Co.**—Car earnings compared with previous year:—

	1902.	Increase or Decrease
January	\$137,135.21	\$15,478.01+
February	127,981.01	18,468.50+
March	141,681.22	17,182.23+
April	134,946.56	9,940.56+
May	145,595.54	17,634.60+
June	132,265.85	5,888.74—
July	162,472.12	12,840.88+
August	165,164.57	11,683.95+
September	196,010.37	35,578.48+
October	155,150.17	2,636.66+
	\$1,496,402.62	\$135,555.13+

At a recent meeting the directors were authorized to increase the capital stock from \$6,000,000 to \$7,000,000. The new stock will be offered to existing shareholders at par in the proportion of one share of new to six of old. The new stock is to be used for development purposes. A special meeting ratified the increase of capital.

**Toronto, Hamilton and Buffalo Ry.**—Earnings for Oct., \$43,801.42, against \$54,724.74, for Oct., 1901, making for five months ended Oct 30, \$176,581.25, against \$203,174.84 for same period of 1901.

**Victoria Terminal Ry. and Ferry Co.**—A. Guthrie, St. Paul, Minn., of the Great Northern Ry., U.S.A.; J. Hendry, President of the Vancouver, Westminster, Yukon and Northern Ry. Co., and J. Jeffray, of Vancouver, have acquired the charter of the Victoria Terminal Ry. and Ferry Co. The sale embraces a controlling interest in the Victoria Terminal and Sidney Ry., and its terminals, the railway ferry connecting Sidney with the mainland, and the Delta extension, which runs 17 miles from the mouth of the Fraser river to Cloverdale.

**White Pass and Yukon Ry.**—Gross earnings from July 1 to Sept. 30, \$896,155.

**Canada Eastern Ry.**—A company has been organized in St. John, N.B., to take over the Alex. Gibson properties, which include, in addition to a cotton mill, a grist mill, lumber mills, the town of Marysville, 200,000 acres of lumber mills, and the Canada Eastern Ry., which extends from Fredericton to Loggieville, N.B., 124 miles. The new company will have a capital of \$6,000,000, to include \$1,000,000 of bonds, \$2,000,000 of preferred and \$3,000,000 of common stock. It is said the negotiations for the taking over of the Canada Eastern Ry. by the C.P.R. have been suspended.

### The Newfoundland Railway Award.

The arbitrators appointed to decide on the amount due to the Reid Newfoundland Co. came to a unanimous finding, after an exhaustive hearing, their award being that the Government should pay to the Co. \$291,927, in respect of stations, piers and wharves, fences and snow-fences, and \$562,203 in respect of the difference in value of the equipment; each party to pay its own costs. The Government is to retain \$48,550 out of the first sum until title is given to certain properties, and \$100,000 out of the second amount as security for the completion of certain works by Sept. 1, 1903.

The Newfoundland papers speak of the arbitration as having been most satisfactorily done, the St. John's Evening Herald stating "that they were unanimous is no less creditable to the arbitrators themselves, as evidencing the liberal and impartial spirit in which

they approached their task, than it is advantageous to the colony in preventing a continuance of a costly and vexatious legal struggle." Referring to the arbitrators particularly the Herald says:—"Of Mr. Archibald, especially, it must be said that he had been placed in a somewhat trying situation, from which he has emerged in a manner that reflects the greatest credit on him. Chosen after objection had been formally made to Sir Sandford Fleming, and at a time when somewhat bitter feelings had been aroused, it is only just to Mr. Archibald to say that his conduct of affairs as chairman of the tribunal and his part in determining the award have been such as accord with what might be expected in one holding so judicial a post. Mr. Lyttleton's conspicuous ability, wide experience and force of character proved invaluable, and Mr. Gregory, an engineer and a lawyer, put his training in both respects to good use in analyzing a claim that has been reduced nearly two-thirds, even against his own principal."

### TRANSPORTATION APPOINTMENTS.

**Canadian Northern Ry.**—J. T. Arundel has been appointed Superintendent of Winnipeg terminals and lines west of Winnipeg. Office at Winnipeg.

A. J. Gorrie, heretofore Superintendent at Winnipeg, has been appointed Superintendent of the Port Arthur terminals and lines east of Winnipeg. Office at Port Arthur, Ont.

**Canadian Pacific Ry.**—H. O. Wilson, heretofore chief clerk in the Manager of Transportation's office, has been appointed Stationery Agent, vice G. A. Macdonald, resigned.

Frank Lee has been appointed Signal Engineer with office at Montreal. He will have general supervision over all interlocking, switch, train order, yard limit, or other signals as assigned, and will report to the Engineer Maintenance of Way.

A. C. Lancey, heretofore chief of the secret service staff at Winnipeg, has been appointed Chief Inspector of the staff on lines east of Port Arthur, Ont., with headquarters at Montreal. He is succeeded at Winnipeg by Inspector J. Guertin, of Montreal.

A. G. Ardagh, has been appointed Resident Engineer districts 8 and 9. Office at Toronto.

C. B. Brown has been appointed Resident Engineer districts 10 and 11. Office at London.

J. T. Arundel having resigned to enter the service of the Canadian Northern Ry., F. Dillinger has been appointed acting Superintendent of district 20. Office at Winnipeg.

Press reports say that W. H. Gardiner, heretofore chief clerk to the Assistant General Freight Agent at Vancouver, has been appointed General Agent of the Freight Department at Seattle, Wash., vice J. Armstrong, resigned to become General Agent of the Freight Department of the Wisconsin Central Rd. at Seattle.

Press reports say that J. Halstead, of Winnipeg, has been appointed chief clerk to the Assistant General Freight Agent at Vancouver, vice W. H. Gardiner promoted.

**Central Ontario Ry.**—S. J. Ritchie has been elected Vice-President, with headquarters at Akron, Ohio. G. Collins, heretofore General Superintendent, has been appointed Receiver and Manager, with headquarters at Trenton, Ont.

**Chicago, Rock Island and Pacific Rd.**—A. Jackson, heretofore Travelling Passenger Agent at Montreal, is reported to have been appointed City Passenger Agent at Buffalo, N.Y., in place of J. V. Tedford, who has been made Travelling Passenger Agent of the New York state district, with office at New York.

**Grand Trunk Ry.**—C. Slaght, heretofore

acting Night Yardmaster at Windsor, Ont., has been appointed General Yardmaster.

T. Vicary has been appointed Night Yardmaster, succeeding I. Wheeler, acting Night Yardmaster.

The following agents have been installed:—Lisgar, Que., J. A. Asselin; South Durham, Que., A. Lalonde; Lakefield, Ont., J. A. Brooks; Goodwood, Ont., J. W. Elliott; Hawkestone, Ont., F. W. Bowles; Mandamin, Ont., W. F. Wilson; Niagara Falls, Passenger, Ont., W. J. Hamilton; Park Head Jct., Ont., J. Hogarth; Burt, Mich., H. A. Shoemaker; Haslett Park, Mich., F. R. Gilbert; Morrice, Mich., J. B. Jenkins; Perrinton, Mich., H. W. Cook; Slocum, Mich., H. E. Waggar; Vickeryville, Mich., A. H. Taylor.

**Great Northern Ry. of Canada.**—B. Bourgeois has been appointed Paymaster, vice E. A. Shee, resigned.

**Halifax Tramway Co.**—T. H. Burgess, who has been in the Co.'s. service for 10 years, is reported to have been appointed Inspector.

**Intercolonial Ry.**—Thomas Dunning, of St. John, N.B., is reported to have been appointed Cashier, vice C. D. Thompson, deceased.

V. Z. Caracristi, Chief Draughtsman, has resigned to enter the service of the Baltimore and Ohio Rd.

**Inverness Ry. and Coal Co.**—Roderick McNeil has been appointed Roadmaster, vice M. S. Beaton, resigned.

**Ottawa Northern and Western Ry.**—F. M. Spaidal, Trainmaster of the C.P.R. at Ottawa, has also been appointed Trainmaster of the O.N. and W. Ry., and the Pontiac Pacific Jct. Ry., vice F. Dillinger, transferred to the C.P.R. Western Division.

**Pittsburg, Shawmut and Northern Rd.**—C. H. Bevington, formerly Master of Transportation on the G.T.R., and latterly Superintendent of the Rutland Rd., is reported to have been appointed Superintendent of the P.S. and N.R.

**Temiskaming and Northern Ontario Ry.**—Dr. McMurchy, of North Bay, Ont., has been appointed Physician and Surgeon.

### Mainly About People.

Sir Wm. Van Horne sailed from New York, Nov. 8, for Cuba, and will remain there for some time.

Evan Price, District Superintendent I.C.R. at Campbellton, N.B., is recovering from an attack of fever.

P. A. Peterson, formerly Chief Engineer of the C.P.R., has returned to Montreal from a business trip to Mexico.

E. T. Wetmore, for 10 years Accountant of the Shore Line Ry., New Brunswick, died at Carleton, N.B., Nov. 12.

C. F. Sise, Jr., Superintendent of Toll Lines for the Bell Telephone Co., was married at Montreal recently to Miss Scott.

G. H. Webster, General Tie Agent of the C.P.R., is spending some time on the Pacific division, arranging contracts for 1903.

Jno. Foy, General Manager of the Niagara Navigation Co., left Toronto Nov. 23, for a short visit to West Baden Springs, Ind.

J. Frederickson, for half a century a well-known ship builder in the Maritime Provinces, died at St. John, N.B., recently, aged 90.

A. R. Creelman, K.C., Chief Solicitor, C.P.R., and Mrs. Creelman have taken up their residence at 76 Redpath street, Montreal.

J. Manson, Superintendent of the C.P.R. at Toronto, and Mrs. Manson have taken up their residence at 1508 King street west, Toronto.

N. Green, of Waterford, Ont., who died recently at Panama, N.Y., was father of C.

K. Green, Traction Manager of the Hamilton Street Ry.

T. C. Jones, until recently in the C.P.R. land department at Winnipeg, died at his brother's residence, Scottstown, Que., November 11.

G. E. Muir, President of the Montreal Coal and Towing Co., Montreal, was accidentally killed, Nov. 15, by the discharge of a rifle he was cleaning.

C. C. Chipman, Commissioner of the Hudson's Bay Co., left Winnipeg, Nov. 4, en route to England, to consult with the Governor and committee of the Co.

A. Nicholl, representative of the marine underwriters on the Montreal Board of Trade, died suddenly on his way home to Westmount, Oct. 29, aged 69.

H. E. Everett, of the Everett-Moore Syndicate, which controls the London, Ont., Street Ry., has resigned the presidency of the Federal Telephone Co. and the Cuyahoga Telephone Co.

P. S. Archibald, C.E., of Moncton, N.B., recently spent some time on the Algoma Cen-

tral Ry. It is said he was adjusting difficulties between the Co. and some of its contractors.

H. M. Percy, B.Sc., mechanical engineer, a son of C. Percy, Auditor of the G.T.R. at Montreal, was killed by some machinery falling upon him at the Caledonia Iron Works there recently.

Miss Esme Baker, daughter of F. Baker, of the C.P.R., Vancouver, B.C., went to England recently in company with her uncle, Archer Baker, European Traffic Agent, C.P.R., London.

G. H. Ham, C.P.R. Advertising Agent, has returned to Montreal after an absence of two months at the Pacific Coast. He is still suffering from the injury he received from a fall at New Westminster.

S. R. Callaway, President of the American Locomotive Co., and Mrs. Callaway have been visiting Canadian relatives, and prior to returning to New York entertained a number of them at Hamilton, Ont.

C. A. Bramble, of the C.P.R., is preparing a lecture upon Canadian big game, which will

be illustrated by photographs taken by himself during his numerous hunting trips through the forests and mountains and on the plains.

R. M. McLeod, formerly train dispatcher on the Northern Pacific Rd. lines in Manitoba, at Portage la Prairie, has been appointed Assistant Superintendent of the Montana division of the N.P.R., with office at Livingstone, Mont.

The funeral of John W. Mackay, who died in London, Eng., July 29, took place in New York on Nov. 12. C. R. Hosmer, a director of the C.P.R., and associated with the late Mr. Mackay in his telegraph enterprises, attended the funeral.

J. M. Herbert, formerly Superintendent of the eastern division G.T.R., and now with the Denver and Rio Grande Rd., will assume the duties formerly discharged by the President before his headquarters were removed to New York.

S. J. Dawson, who died in Ottawa Nov. 1, aged 80, explored the country from Lake Superior westward to the Saskatchewan in 1857, and in 1868 commenced the construc-

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## Car Heating.

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tion of the Dawson route from Port Arthur, Ont., to the Red River.

John Brown, C.P.R. ticket agent at Stratford, Ont., has been again selected as Liberal candidate for the representation of North Perth in the Ontario Legislature, vacant by the unseating of J. Monteith, who defeated Mr. Brown at the last election.

Miss M. Bermingham, sister of C. Bermingham, Managing Director of the Canadian Locomotive Co., was married at Kingston, Ont., recently to Major Henri Panet, D.S.O., Royal Canadian Artillery, Staff Adjutant of the Royal Military College at Kingston.

D. B. Hanna, Third Vice-President Canadian Northern Ry., has been presented with a gold watch and a silver tea service by the commercial, financial and shipping interests of Winnipeg on his removal to Toronto. Mrs. Hanna was presented with a diamond sunburst brooch or pendant.

A. J. Taylor, Canadian Freight and Passenger Agent, Chicago, Milwaukee and St. Paul Ry., returned to his office in Toronto Nov. 10, after an absence occasioned by an attack of typhoid. He, however, found it necessary to take a rest, and spent the last two weeks of Nov. at Preston Springs, Ont.

C. E. Bradbury, Assistant General Superintendent of the Government telegraph lines and cable service in British North Borneo, who has been on a visit to Vancouver, B.C., recently, was at one time a train dispatcher on the C.P.R. at Vancouver, and later in the C.P.R. telegraph service at Medicine Hat, Assa.

The following engineers are in the Canadian Northern Ry. Co.'s service under M. H. McLeod, Chief Engineer:—L. A. Darey, G. F. Hanning, N. B. Gauvreau, W. Burns, A. G. Macfarlane, W. F. C. Parsons, A. Fraser, J. Armstrong, W. H. Hutton, W. L. Mackenzie, M. C. Macfarlane, H. L. Vercoe, and R. D. Willson.

F. W. Egan, General Superintendent of the Great Northern Ry., U.S.A., got separated from a shooting party at Belton, Mont., Nov. 4. Search parties have failed to locate him, and it is feared he got caught in a snow storm and is dead. Mr. Egan was at one time a train dispatcher for the C.P.R. at Winnipeg.

F. Dillinger, who has been appointed acting Superintendent of the 20th district C.P.R. at Winnipeg, Man., is 33 years of age. He joined the C.P.R. staff about five years ago, and until April, 1902, was a train dispatcher at Ottawa. Since then he has been successively acting Superintendent at Chapeau, Ont., and Trainmaster Ottawa, Northern and Western Ry. and Pontiac Pacific Ry. at Ottawa.

Harry A. Norton, who has just returned from an extended trip abroad, says the American industrial invasion of Europe is no dream as far as Canada and the Norton ball-bearing jacks are concerned, as the Coaticook, Que., plant has many new and important European contracts in addition to recent extensive foreign shipments, which shows that Canadian-made jacks are successfully meeting the competition of foreign markets.

R. Dowle, until recently Manager of the Great Eastern Fast Freight Line, died at Buffalo, N.Y., late in Oct., aged 65. He was born in England, and commenced his railway career on the Great Western Ry., at Slough Jct., Eng., and subsequently engaged in contracting, building the Northampton and Banbury Jct. Ry. Coming out to Canada in the early sixties, he joined the staff of the Great Western Ry. at Hamilton, and occupied a number of important positions, finally becoming Assistant General Freight Agent. On the amalgamation with the G.T.R., he was appointed Manager of the Great Eastern Fast

Freight Line at Detroit, Mich., and removed to Buffalo when the offices were transferred there. This line was merged into the National Dispatch line in March last.

A. J. Gorrie, who has been appointed Superintendent of the Ontario division, Canadian Northern Ry., was born at Raith, Kirkcaldy, Scotland, Dec. 10, 1868, and commenced his railway career in May, 1883, as clerk in the office of the General Goods Manager, Caledonian Ry., at Glasgow, and served with various departments and at several stations of that Co., coming to Canada in May, 1892, since which his record has been: 1892 to Aug., 1894, clerk in Superintendent's office, C.P.R., at Fort William, Ont.; Aug., 1894, to Oct., 1899, chief clerk and accountant, same office; Oct., 1899, to July, 1900, in charge of the operating department, Canadian Northern Ry., at Winnipeg, under the General Superintendent; July, 1900, to Feb., 1902, Superintendent, Port Arthur, Duluth and Western Ry., at Port Arthur, Ont. (now part of the Canadian Northern Ry.); Feb., 1902, to Nov., 1902, Superintendent, Canadian Northern Ry., at Winnipeg.

P. S. Archibald, C.E., whose portrait appears on the first page of this issue, was born at Truro, N.S., March 21, 1848, and was educated at the Truro model and normal schools. He joined the survey staff of the I.C.R. in 1867, under Sir Sandford Fleming, as chairman, and was appointed Assistant Engineer in 1871, since which his record has been: 1873 to 1874, Engineer in Charge of Construction, I.C.R., between Amherst and Truro, N.S.; 1874, to 1878, Assistant to the Chief Engineer of Maintenance of Way, I.C.R., at Moncton, N.B.; 1878 to 1879, Acting Chief Engineer, I.C.R., at Moncton; 1879 to 1897, Chief Engineer, I.C.R., at Moncton. Since 1897 he has been practising as a consulting engineer, with office at Moncton. He was a member of the Commission appointed in 1894 to enquire into the freight rates charged by the C.P.R. in Manitoba and the Northwest Territories. In 1901 he was Chief Engineer in charge of the preliminary surveys and the preparation of plans for the projected bridge over the Strait of Canso, and in 1902 was appointed third arbitrator in connection with the \$2,000,000 claim of R. G. Reid against the Newfoundland Government. He is a member of the Canadian and the American Societies of Civil Engineers.

#### December Birthdays.

Many happy returns of the day to A. H. Anderson, Cashier, Paymaster, and Purchasing Agent, Quebec Central Ry., at Sherbrooke, Que., born at Cookshire, Que., Dec. 19, 1859.

D. Brown, First Assistant General Freight Agent, Grand Trunk Ry. at Chicago, born at Glasgow, Scotland, Dec. 21, 1843.

J. C. M. Buntzen, General Manager British Columbia Electric Ry Co., at Vancouver, born at Copenhagen, Denmark, Dec. 16, 1859.

P. E. Demers, Trainmaster, Central Vermont Ry., at Farnham, Que., born there Dec. 10, 1859.

H. P. Dwight, President Great Northwestern Telegraph Co., Toronto, born at Belleville, Jefferson Co., N.Y., Dec. 23, 1828.

P. Gifkins, General Manager Dominion Atlantic Ry. at Kentville, N.S., born at Harpenden, Herts, England, Dec. 25, 1850.

A. J. Gorrie, Superintendent Canadian Northern Ry. at Fort William, Ont., born at Raith, Kirkcaldy, Scotland, Dec. 10, 1868.

D. B. Hanna, Third Vice-President, Canadian Northern Ry. at Toronto, born at Thornliebank, Scotland, Dec. 20, 1858.

S. P. Howard, Assistant General Freight Agent C.P.R. at Montreal, born there Dec. 30, 1865.

R. R. Jamieson, Division Superintendent C.P.R. at Cranbrook, B.C., born at Westover, Ont., Dec. 12, 1856.

W. Kennedy, Master Mechanic Middle Division G.T.R. at Toronto, born at Belleville, Ont., Dec. 23, 1869.

J. Niblock, Superintendent C.P.R. at Calgary, Alta., born in York County, Ont., Dec. 21, 1849.

J. V. Paul, Locomotive Fuel Inspector C.P.R. at Montreal, born at Mokelumne Hill, Cal., Dec. 29, 1863.

A. Price, Superintendent C.P.R. at Toronto, born Dec. 6, 1861.

C. Schrieber, C.E., Deputy Minister of Railways and Canals, Ottawa, Ont., born at Bradwell, Essex, Eng., Dec. 14, 1831.

A. J. Shulman, City Passenger and Freight Agent C.P.R. at Buffalo, N.Y., born at Syracuse, N.Y., Dec. 11, 1873.

A. J. H. Stewart, Secretary Gulf Shore Ry. at Bathurst, N.B., born at Dalhousie, N.B., Dec. 3, 1860.

C. E. E. Ussher, General Passenger Agent C.P.R. Lines East of Lake Superior, at Montreal, born at Niagara Falls, Ont., Dec. 20, 1857.

B. D. Webber, General Manager Canadian Pacific Dispatch at Boston, Mass., born at Beverley, Mass., Dec. 3, 1851.

#### G.T.R. Subsidiary Companies.

The annual meetings of the G.T.R. subsidiary companies were held at Detroit, Mich., recently. The officers and directors for the current year are as follows:

GRAND TRUNK WESTERN RY.—President and General Manager, C. M. Hays, Montreal; other directors: F. H. McGuigan, F. W. Morse (advisory), Montreal; Hon. E. W. Wright, Alma, Mich.; E. W. Meddaugh, W. J. Spicer, Detroit, Mich.; L. R. Skinner, Valparaiso, Ind.; Secretary-Treasurer, J. H. Muir, Detroit.

DETROIT, GRAND HAVEN AND MILWAUKEE RY.—President and General Manager, C. M. Hays; other directors: F. W. Morse, F. H. McGuigan, J. Hobson, J. W. Loud, Montreal; E. W. Meddaugh, W. J. Spicer, J. Pridgeon, jr., A. P. Sherritt, Detroit, Mich.; Secretary-Treasurer, J. H. Muir.

TOLEDO, SAGINAW AND MUSKOGON RY.—President and General Manager, C. M. Hays; other directors: F. W. Morse, F. H. McGuigan, C. Perey, Montreal; E. W. Meddaugh, C. J. Church, C. W. Middleton, Greenville, Mich.; Secretary-Treasurer, J. H. Muir.

GRAND TRUNK JUNCTION RY. CO.—President, C. M. Hays; other directors: F. W. Morse, E. W. Meddaugh, W. J. Spicer, F. A. Howe; Secretary, J. H. Muir.

CHICAGO, DETROIT AND CANADA GRAND TRUNK JUNCTION RY. CO.—President, C. M. Hays; Vice-President, J. Bell, K.C.; Belleville; other directors: F. W. Morse, E. W. Meddaugh, W. J. Spicer; Secretary, J. H. Muir; Treasurer, F. Scott.

MICHIGAN AIR LINE.—President, C. M. Hays; other directors: J. Bell, K.C.; E. W. Meddaugh, W. J. Spicer; Secretary, J. H. Muir; Treasurer, F. Scott.

ST. CLAIR TUNNEL CO.—President, C. M. Hays; Vice-President, J. Bell, K.C.; other directors: F. W. Morse, F. H. McGuigan, J. Hobson, E. W. Meddaugh, W. J. Spicer; Secretary, J. H. Muir; Treasurer, F. Scott.

INTERNATIONAL BRIDGE CO.—President, C. M. Hays; Vice-President, J. Bell, K.C.; other directors: F. W. Morse, F. H. McGuigan, J. Hobson, H. W. Sprague, E. W. Meddaugh, Secretary, J. H. Muir; Treasurer, F. Scott.



**Canadian Ticket Agents' Association.**

The sixteenth annual meeting, held at Washington, D.C., Oct. 20, was more largely attended than any previous one, there being 210 persons in the party. The following members went on the trip:—G. N. Asselstine, C.P.R., Gananoque, and wife; T. E. Attwood, C.P.R., Walkerton; A. H. Baird, C.P.R., Paris; W. A. Becker, M.C.R., Bismarck, and wife; E. R. Blow, C.P.R., Whitby; J. L. Boyes, G.T.R., Napanee; A. C. Brown, C.P.R., Guelph, and wife; John Brown, C.P.R., Stratford, and wife; W. Bunton, G.T.R., Peterboro'; J. A. Burgess, C.P.R., Wallaceburg; R. H. Carney, G.T.R., Sault Ste. Marie, and wife; J. Carter, C.P.R., Sundridge, and wife; B. Caswell, C.P.R., Smith's Falls; R. R. Casement, C.P.R., Madoc, and wife; F. R. Chalmers, C.P.R., Morrisburg, and wife; F. W. Churchill, C.P.R., Collingwood; R. Clanahan, C.P.R., Glencoe, and wife; C. R. Clarke, G.T.R., Port Huron, Mich., and wife; J. Clark, C.P.R., Renfrew, and wife; C. R. Coleman, C.P.R., Truro, N.S.; J. D. Conway, G.T.R., Hespeler; R. Cox, C.P.R., Enterprise; R. J. Craig, C.P.R.,

Cobourg, and wife; A. J. Davis, C.P.R., Port Perry, and wife; E. De La Hooke, G.T.R., London, and wife; J. Douglas, G.T.R., Dobbinton, Ont.; E. R. Dransfield, Webster's Ticket Agency, Toronto, and wife; A. W. Edgecombe, C.P.R., Fredericton, N.B., and wife; W. F. Egg, C.P.R., Montreal; W. L. Fenwick, C.P.R., Niagara Falls, Ont.; D. H. Flack, G.T.R., Cornwall; C. H. Foss, G.T.R., Sherbrooke, and wife; W. Fulton, C.P.R., London, and wife; J. A. Goodearle, N.Y.C.R., Kingston, and wife; A. Grant, C.P.R., Perth; J. A. Hacking, G.T.R., Listowel, and niece, Miss Datum; M. A. Halliday, C.P.R., Chesley, and wife; J. P. Hanley, G.T.R., Kingston, J. Harcourt, G.T.R., Port Hope and wife; W. B. Hart, C.P.R., Perth, and wife; C. E. Horning, G.T.R., London, and wife; J. Houston, C.P.R., London, and wife; J. B. Hunt, G.T.R., Owen Sound, and wife; W. H. Hurst, C.P.R., Gore Bay, Ont.; E. H. Jackson, C.P.R., Simcoe, and wife; J. H. Jackson, C.P.R., Georgetown; W. Jackson, C.P.R., Clinton, and wife; R. A. Jamieson, C.P.R., Arnprior; J. H. H. Jury, G.T.R., Bowmanville, and wife; J. F. Kellock, G.T.R., Perth, and wife; G. D. La

Course, G.T.R., Berlin; W. Lahey, C.P.R., Brantford, and wife; W. H. McCaw, G.T.R., Port Perry, and wife; W. H. McFarlane, C.P.R., Paisley, and wife; W. H. McGannon, G.T.R., Morrisburg; W. McIlroy, C.P.R., Galt, and wife; A. McKean, C.P.R., Mount Forest, and wife; L. T. McLandress, M.C.R., Alvinston, and wife; E. McLaughlin, C.P.R., Napanee; S. McMorine, C.P.R., Richmond; M. McNamara, G.T.R., Walkerton, and wife; W. A. MacCallum, C.P.R., Buckingham, and wife; R. Macfarlane, jr., C.P.R., Durham; W. H. C. MacKay, C.P.R., St. John, N.B.; J. I. Martin, C.A.R., Pembroke, and wife; R. A. Mason, C.P.R., Markham, and wife; T. C. Matchett, C.P.R., Lindsay, and wife; J. D. Meekison, C.P.R., Strathroy, and wife; W. H. Montgomery, G.T.R., Galt, and wife; W. B. Moorhouse, C.P.R., Sault Ste. Marie, and wife; C. E. Morgan, G.T.R., Hamilton; S. B. Morris, C.P.R., Rodney; R. L. Mortimer, G.T.R., Shelburne, and wife; C. A. Nettleton, C.P.R., Penetanguishene and wife; J. Nicoll, G.T.R., Brantford; N. Page, C.P.R., Hull, Que., and wife; R. J. Parker, G.T.R., Forest; L. Peine, C.P.R., New Hamburg

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== IT STANDS ALONE ==  
The BEST in the WORLD.

and wife; R. P. Perry, C.P.R., Bracebridge; H. J. Pettypiece, C.P.R., Forest, and wife; W. W. Porte, C.P.R., Brighton, and wife; J. I. Robinson, C.P.R., Sydney, N.B.; A. J. Roos, C.P.R., Berlin and wife; J. W. Ryder, G.T.R., Toronto, and wife; B. J. Sharp, C.P.R., Sussex, N.B., and wife; J. H. Sherin, C.P.R., Lakefield, and wife; C. L. Singer, M.C.R., St. Thomas, and wife; D. Smith, C.P.R., Tilbury, and wife; H. Stewart, C.P.R., Seaforth, and wife; J. R. Tierney, C.P.R., Arnprior, and wife; B. Travers, G.T.R., Paris, and wife; Dr. H. A. Turner, C.P.R., Millbrook, and wife; W. Ward, G.T.R., Dresden, and wife; H. F. Whittier, G.T.R., Trenton, and wife; J. C. Whitchele, C.P.R., Parry Sound, and wife; A. H. Wittmaak, C.P.R., Hespeler, and wife; C. C. Young, L.E. and D.R.R., London, and wife; R. W. Youngs, L.E. and D.R.R., Ridgetown.

The following were guests of the Association: B. H. Bennett, G.A., Chicago and North Western Ry., Toronto, and wife; C. Cameron, director, Northern Navigation Co., Collingwood, and daughter, Mrs. Holmes, Toronto; J. W. Cauvin, Advertising Agent, R. and O. Navigation Co., Montreal; C. E. A. Carr, General Manager, London Street Ry. Co., London; W. T. Dockrill, T.P.A., C.P.R., Toronto, and wife; G. H. Doherty, Niagara Navigation Co., Toronto; J. F. Dolan, C.P.A., R. and O. Navigation Co., Montreal, and wife; J. W. Donald, D.P.A., Chicago and Alton Rd., Buffalo, N.Y., and wife; L. Drago, C.P.A., New York Central Rd., Toronto, and wife; C. B. Foster, D.P.A., C.P.R., St. John, N.B.; C. W. Graves, D. F. and P.A., Great Northern Ry., U.S., Toronto, and wife; A. Lalonde, C.P. and F.A., Boston and Maine Rd., Montreal, and wife; A. J. McDougall, G.E.P.A., Illinois Central Rd., New York; A. Monteith, Muskoka and Georgian Bay Navigation Co.; A. H. Notman, A.G.P.A., C.P.R., Toronto; C. A. Pison, General Agent, White Star Line, Toronto; H. A. Price, A.G.P.A., Canadian Government Rys., Montreal, and wife; S. J. Sharp, Western Manager, Elder, Dempster & Co. S.S. Lines, Toronto, and wife; Dr. Shaw, Clinton, and wife; H. E. Tupper, G.E.P.D., Denver and Rio Grande Rd., New York, and the Editor and Publisher of the RAILWAY AND SHIPPING WORLD, Toronto.

The party met at Niagara Falls, N.Y., on Oct. 17. During the day a number accepted the invitation of the Niagara Gorge Rd., and took a trip over it from Niagara Falls to Lewiston, N.Y., and return. At about 10



W. JACKSON,  
Retiring President C. T. A. Association.

p.m. the special train, consisting of eight Pullman sleepers, a smoking and baggage car and a refreshment car was placed at Niagara Falls station. Secretary De La Hooke had carefully located the berths in advance, the cars were conspicuously numbered and the party were settled on board very quickly and comfortably. G. R. Chesbrough, Western Passenger Agent of the Lehigh Valley Rd. at Buffalo, and R. S. Lewis, Canadian Passenger Agent at Toronto, joined the party here to represent their company, whose guests the Association were. Niagara Falls was left at 3 a.m. Oct. 18, and at about 6 a.m. Geneva, N.Y., was reached. Here the party was joined by C. S. Lee, General Passenger Agent; A. A. Heard, Assistant General Passenger Agent; J. H. Seal, Superintendent of Dining Cars; A. W. Nonnemacher, General Baggage Agent; and S. B. Noble, Secretary to the General Passenger Agent of the Lehigh Valley Rd. Breakfast was served in the L.V.R. dining-room at Geneva, and a basket of luscious grapes, grown close by, was presented to each lady by A. A. Heard on behalf of the L.V.R. Wilkes-Barre, Pa., was reached shortly after noon, where luncheon was served in the L.V.R. dining-room. South Bethlehem, Pa., was reached about 5 p.m., the run from Geneva having been greatly enjoyed. To the great majority of the party, who had not been over the route before, the charming scenery of the Susquehanna, Wyoming and Lehigh valleys was a revelation. The scenic attractions of the route are undoubtedly very great. The track is in excellent condition for fast running, being ballasted with stone and equipped throughout with automatic electric block signals. At South Bethlehem the party was met by E. Ramsay, ticket agent of the Philadelphia and Reading Rd. at Chestnut Hill, Philadelphia; W. B. Cenard, ticket agent of the Philadelphia and Reading Rd. at the Reading terminal, Philadelphia, and W. M. McCormick, Assistant General Ticket Agent of the Philadelphia and Reading Rd. at Philadelphia, who represented the Quaker City Association of Railway Men, and invited the C.T.A.A. party to accept its hospitality on visiting Philadelphia. From South Bethlehem the special train proceeded over the Philadelphia & Reading Rd. to Philadelphia, Pa., and thence over the Baltimore and Ohio Rd. to Washington, D.C., which was reached a little after 9 p.m. Special electric cars were taken from the station to the Ebbitt House, the headquarters chosen

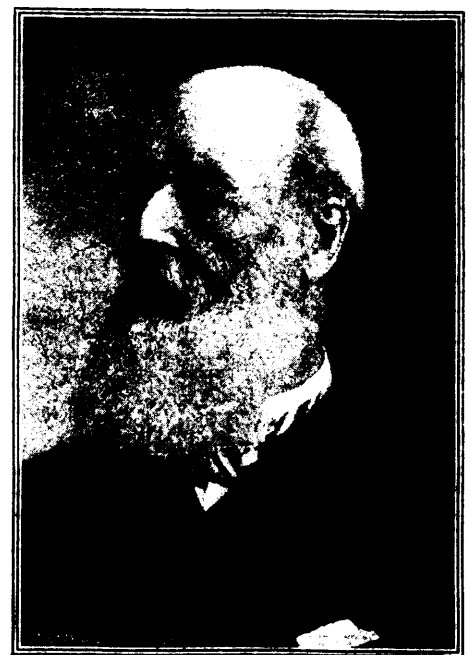
for the Association. Sunday, Oct. 19, was spent quietly in Washington. On Oct. 20

THE ANNUAL MEETING

was held at the Ebbitt House. On taking the chair President W. Jackson said: We have with us to-day quite a number of new members, and I presume they have often asked the question, What is the object of this Association? What good has it done and what does it hope to accomplish? In the first place, I would like to say that the stock-in-trade of a ticket agent's business is the knowledge of the geography of the railway world, a knowledge of which is of vast importance to himself and the company he represents. How is that knowledge to be obtained? Not by sitting in your office and studying time-tables, circulars and pamphlets, but by getting out over the systems with which you do business every time you get the opportunity. Knowledge is power, and the agent who is able to speak from the book generally gets the confidence of the travelling public. Supposing a passenger should come into your office next week and ask for information in reference to a trip to New York, what would be the result? You would at once become enthusiastic, you would tell him that the Lehigh Valley was the only road; you would tell him about the splendid roadbed, the magnificent scenery, the handsome and comfortable train service, the polite officials, and in a few minutes you would convince him that it was his duty to make that trip. The ticket business is on a level with the mercantile business, the one has merchandise to sell, the other has transportation to sell. When a merchant opens up business his first step is to supply his establishment with the best goods to be obtained. His next step is to engage assistants familiar with the goods which he has to sell. Why should not the ticket agent be thoroughly familiar with transportation? It is just on such a trip as this that he gets a great deal of information which constitutes his stock-in-trade. Then again, take the social side of our Association. For the past 16 years I have had the privilege of attending every gathering, and during that length of time I have formed many friendships, which I hope will not be severed for many a long year. We meet together as a large and happy family, renew friendships, exchange ideas,



M. MCNAMARA,  
President Elect C. T. A. Association.

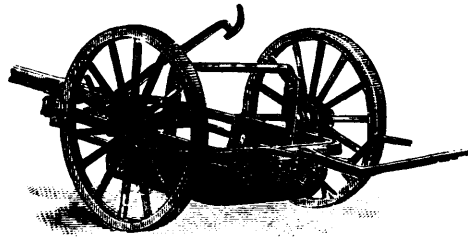


EDWARD DE LA HOOKE,  
Secretary-Treasurer C. T. A. Association.

and when we scatter to our homes we do so with new life, new ambitions, and in every way better fitted to take up our duties.

Secretary-Treasurer De La Hooke reported that at last year's meeting there were 156 members in good standing, this year 24 new members have joined, but from various causes there was a lapse of 10 of the old ones, leaving a net gain of 14, and a total membership of 170, which is a record, but five of this number have not yet paid their subscriptions for 1902, and unless the amount due is paid before the end of the year their names will be struck off the roll. It would save time and postage were members to be a little more prompt—many men had to be prompted five times before remitting. In future the copy of the official journal, THE RAILWAY AND SHIPPING WORLD, will not be sent to members until after their subscription, which is due on Jan. 1, is paid. Three members have died during the past year, W. G. Stovel, Walkerton, Ont.; Dr. Hayes, Simcoe, Ont.; and W. E. Gladney, Marmora, Ont. The funds of the Association are in good condition, the receipts for the year were \$356.50, which, with balance of \$221.81 brought forward, and balance from the last annual dinner of \$37.75, makes \$617.06. The expenses were \$341.89, thus leaving a balance on hand of \$275.17.

C. S. Lee, General Passenger Agent of the Lehigh Valley Rd., addressed the meeting as follows:—Representing the Lehigh Valley Rd. I am particularly gratified that the members of the Canadian Ticket Agents' Association have considered it advisable to use our road, in connection with the Philadelphia & Reading and Baltimore & Ohio, in order to visit this historic city of Washington. If I am not mistaken, this is the first time that any foreign association has visited the United States for the purpose of holding its annual convention, and it is therefore an additional compliment to us that we have had the pleasure of escorting you over our lines. It is difficult for the public to understand the exacting duties of a ticket agent's life. As a general rule his duties keep him occupied from early morning until late at night, with a slight intermission for meals. By the public he is expected to know, not only everything about the railway, from the building of it until it is in full operation, but he is also expected to know everything about everything else in the world, and I presume that if the questions asked the average ticket agent in a day could be put into book form they would prove most interesting reading. In order to gain this knowledge, the ticket agent must be continually on the alert for information, and must make himself familiar, not only with the details of his office, but also with the routes, and every part of the country which the traveler is liable to penetrate. Naturally, the average agent is unable to gain anything but theoretical knowledge, because his time is so occupied, and often his means are so limited that he cannot travel and see for himself the places he must tell others about, in order to gain patronage for the railways, and give the public the information it desires. I look upon these trips and conventions of railway people, and particularly those in the traffic business, as educational, trips that should be taken whenever it is possible to do so, to see how other people do their work, how they live, and the nature of their surroundings. By getting away from our particular environment, seeing other countries and other people, we become more familiar with the outside world, and not only make better men for our employers, but we are able to do more intelligent work, thereby gaining advancement for ourselves and more money for our companies. It therefore affords me special pleasure to assist you in gaining any knowledge which you feel would be of interest to you and of education in your business. The officers of your Association have given much thought and a great deal of time and attention to the matter of providing for your



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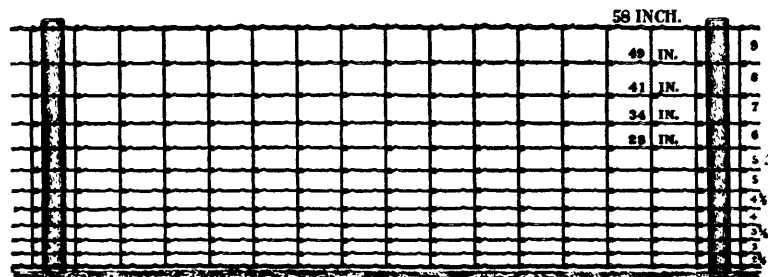
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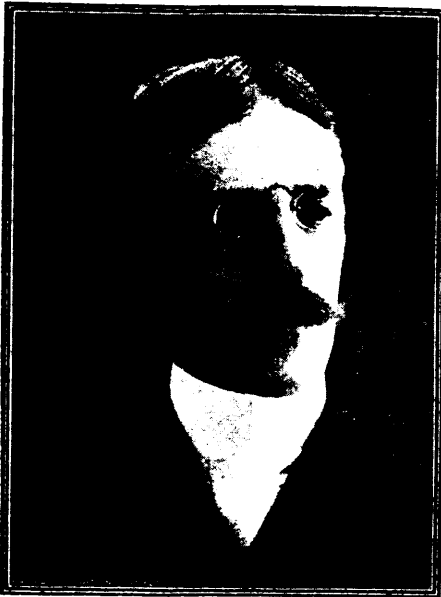
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W. H. A. MACKAY,  
First Vice-President C. T. A. Association.

enjoyment on this trip, and I do not believe that many of you realize how much actual labor this entails, or how many details have to be carefully considered, hence I hope you will agree with me in the statement that they have planned about all you could well expect to see in the short time at your disposal. If your time had not been limited we should have been very glad, from a personal as well as a railway standpoint, to have shown you more of the interesting places along the route you have just travelled from Suspension Bridge. The Lehigh Valley Rd., as you know, has its western terminus at Suspension Bridge, passing through Niagara Falls and Buffalo, to the city of New York. Leaving Buffalo, the line traverses the interesting agricultural portion of the state of New York. At Rochester Jct. a branch line connects with the city of Rochester, and with several thrifty towns south of this point. At Geneva the line enters the lake region of New York state, which region is almost gridironed by the tracks of the L.V.R. On the shores of these lakes special

attention is given to the raising of small fruits, grapes particularly being grown in large quantities. In that section are also to be found many interesting summer places, which, during the season, are crowded with tourists from the cities, who enjoy the boating, fishing, driving and other outdoor recreations. Further on we come to Ithaca, where is located Cornell university, which at present has over 3,000 students enrolled. The site of the university is unquestionably the finest in the country, being on a high hill, commanding a superb view of Cayuga lake and the surrounding country. At Sayre station we pass from the state of New York into the state of Pennsylvania. Here the L.V.R. has immense shops, where locomotives and cars are built and repaired. From this point the L.V.R. follows the Susquehanna river through a beautiful agricultural district, with ever-changing views, to the city of Wilkes-Barre, which is in the heart of the great anthracite coal-mining region of Pennsylvania. In this city, in the year 1808, the first attempt to burn anthracite coal in a grate was made. From Pittston, near Wilkes-Barre, the road has two lines over Noscoc mountain, one line being used exclusively for freight traffic and the other for passenger traffic. The line used for passenger traffic has a gradient of over 90 ft. to the mile, and at the top of the mountain reaches an elevation of over 1,700 ft. above sea level. Near the top of the mountain is located the Glen Summit hotel, a large summer resort. After descending the mountain the line follows the course of the Lehigh river to Mauch Chunk, where anthracite coal was discovered in 1791 by a hunter named Philip Genter, and which, as you have probably noticed, is an extremely interesting place from a scenic point of view, known and advertised as "the Switzerland of America." At Mauch Chunk there is the unique switchback railway, claimed to be the oldest railway in America. It was built in 1827 for the purpose of conveying coal from the mountain mines to the canal level, but for years has been used as a scenic and pleasure railway. The line ascends Mt. Pisgah, descends by gravity to the foot of the plain, then climbs Mt. Jefferson, arriving at Summit hill, from which point the return trip is made by gravity. The highest altitude attained is 1,700 ft. above sea level. Thousands of tourists from New York, Philadelphia and other points all over the country visit this place every year. From Mauch Chunk all the way to the Delaware river, at which point is located Easton, we pass through many thriving towns and villages showing great activity, and the constant growth and establishment of iron, slate, cement and other industries. At Bethlehem, where connection is made with the Philadelphia and Reading Ry. for Philadelphia and points south, is located the Bethlehem steel works, which turn out much of the armour-plate for the building of war vessels and the forging of great guns for their armament. From Bethlehem the line of the L.V.R. proper proceeds to the city of New York, but passengers for Philadelphia, Baltimore and Washington remain in through cars which run to Philadelphia over the Philadelphia and Reading Ry. Philadelphia, which you will visit later, is a typical American city, and many interesting events which are closely interwoven with the history of the U.S., were enacted there. I understand that the local committees at Philadelphia have arranged a programme for your entertainment which will give you an opportunity of seeing the many points of interest in that historic place. This city of Washington also contains many historical and interesting places, and the programme as outlined will largely give you an idea of what is to be seen here. To properly look over the government buildings, and visit the other interesting places, days, and even weeks, might be well spent, but with the short



C. E. MORGAN,  
Second Vice-President C. T. A. Association.

time at your disposal I think the best has been made of it. We consider our passenger traffic from Canada a very valuable asset, and have always endeavoured to take good care of it. Our agency, in charge of our mutual friend, R. S. Lewis, is highly profitable, and to representatives as well posted as you gentlemen, we need not say anything of the standard of our service to the seaboard, beyond that it will remain, with your assistance, the popular route. I desire, as General Passenger Agent of the L.V.R., and speaking as I hope to do for our connections, the Philadelphia and Reading, and Baltimore and Ohio, to again express to you my appreciation of the compliment your Association has paid us in holding its annual meeting in our capital and selecting our lines to transport you, and to hope that everything may be so satisfactory that your Association may pay us another visit at some future day, when we shall have more time to help you in gaining



W. H. HARPER,  
Third Vice-President C. T. A. Association.



W. BUNTON,  
Chairman Executive Committee, C. T. A. Association.

information, and in seeing a great many interesting places which, at this time, you only have opportunity for partially investigating.

On motion of H. J. Pettypiece and W. Bunton, it was resolved that the thanks of the Association be tendered to C. S. Lee, General Passenger Agent of the Lehigh Valley Rd., for the very instructive and interesting address with which he has favored the meeting, also that the Association place on record an expression of the debt of gratitude it owes to Mr. Lee and other officials of the L.V.R. for the courtesies and hospitalities so kindly and lavishly extended to the Association. The transportation facilities and accompanying conveniences placed at the Association's disposal have never been excelled, and the attention and kindness of the various officials detailed to look after the members' welfare has been all that could be desired or expected. The predominating feature of our remembrance of this outing will be a feeling of gratefulness to the L.V.R., accompanied by the hope that the Association may be able in some way to reciprocate in a suitable manner. The Association desires also to convey to Mr. Lee and his fellow-officials the sincere thanks and hearty goodwill of the ladies who have graced this convention with their presence and benign influence, and to assure Mr. Lee that so long as any of the members are spared to perform their important duties, the L.V.R. will not be without friends in the land of the maple leaf.

Votes of thanks were passed to F. W. Churchill for his services as President during 1900 and 1901, and to W. F. Egg for his services in connection with the meeting at Montreal in 1901.

F. W. Churchill suggested the appointment of a committee to consider the establishment of a co-operative insurance plan. The sug-

gestion was acted upon, and the President appointed F. W. Churchill, S. B. Morris, W. Bunton, W. McLlroy and W. H. McFarlane as the committee.

On motion of L. T. McLandress, the executive committee was requested to provide banners to be displayed on the outside of the special trains during future annual trips.

Communications were read from Sydney, N.S.; Portland, Me.; Milwaukee, Wis., and Sault Ste. Marie, Ont., inviting the Association for its 1903 meeting. The vote resulted as follows: Sydney, 59; Portland, 24; Milwaukee, 5; Sault Ste. Marie, 3.

The election of officers resulted as follows: President, M. McNamara, Walkerton, Ont.; 1st Vice-President, W. H. C. McKay, St. John, N.B.; 2nd Vice-President, C. E. Morgan, Hamilton, Ont.; 3rd Vice-President, W. H. Harper, Chatham, Ont.; Secretary-Treasurer, E. De La Hooke, London, Ont.; Auditor, R. J. Craig, Cobourg, Ont.; Executive Committee, W. Bunton, Peterboro, Ont., Chairman; W. Jackson, Clinton, Ont.; J. I. Robinson, Sydney, N.S.; J. W. Ryder, Toronto; C. C. Young, London, Ont.

Votes of thanks were passed to the retiring President, W. Jackson, to the managements of the lines over which the Association travelled in connection with the meeting, and to those who sent invitations for next year's meeting.

In the afternoon the party did the "seeing Washington trip" on special electric cars, which took some two hours in traversing the most interesting portions of the city, a lecturer with a megaphone being on each car to call attention to the buildings and historic sites, etc. This outing was very much enjoyed.

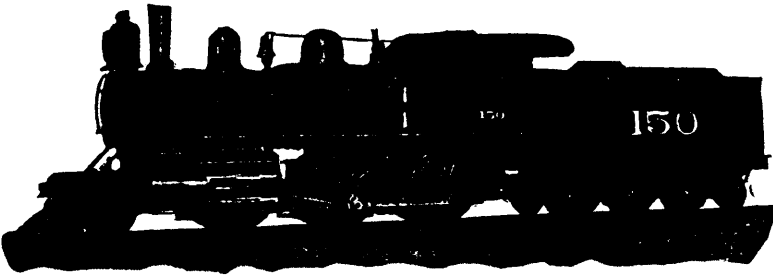
On returning to the hotel a number of presentations were made by the Association and

its guests to the Lehigh Valley officials:—C. S. Lee was given a handsome French gilt clock; A. A. Heard, a silver hot-water urn; G. R. Chesbrough, a silver flask; R. S. Lewis, a silk fob chain with gold locket; J. H. Seale, a silver matchbox; J. L. Kirkpatrick, a silver match safe, and S. B. Noble, gold cuff buttons.

THE ANNUAL DINNER

was held at the Ebbitt House, Washington, Oct. 20, at 9 p.m. In addition to most of the male members of the Association and the guests whose names have already been given there were present a number of Washington and Philadelphia railway officials, etc. President Jackson occupied the chair. Following is the toast list: The President of the United States. The King. The General Passenger Agents, proposed by F.W. Churchill, and responded to by C. S. Lee, G.P.A., Lehigh Valley Rd.; G. Hannah, P.M., Allan Steamship Line; S. H. Hardwick, G.P.A., Southern Ry.; A. A. Heard, A.G.P.A., Lehigh Valley Rd.; and S. G. Hatch, A.G.P.A., Illinois Central Rd. Our Guests, proposed by S. B. Morris, and responded to by A. H. Notman, A.G.P.A., C.P.R.; H. A. Price, A.G.P.A., Canadian Government Rys.; C. B. Foster, D.P.A., C.P.R.; H. J. Ball, G.E.P.A., Delaware, Lackawanna and Western Rd.; C. Cameron, Northern Navigation Co., A. J. McDougall, G.E.P.A., Illinois Central Rd.; and L. Drago, C.P.A., New York Central Rd. The Ladies, responded to by F. W. Churchill and W. H. C. Mackay, and the Press, responded to by local representatives.

On Oct. 21 most of the party drove round Washington in "coaches," and in the afternoon went by electric railway to Mount Vernon, Va., visiting the home and burial place of George Washington and the national ceme-



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tery at Arlington. In the evening a visit was paid to the magnificent library of Congress, one of the most interesting features of the trip. On Oct. 22 a trip was taken by the Washington Southern Ry. to Richmond, Va., where a number of points of interest were visited. The meals, which were taken at Murphy's hotel, were very unsatisfactory, and it was evident that the proprietor did not expect to see any of the party again and treated them accordingly.

On Oct. 23 Washington was left at 8 a. m., and Philadelphia reached at 11.15 a. m., where an enthusiastic welcome was received from representatives of the Trades League and of the Quaker City Association of Railroad Men. As many of the party as could be accommodated made their headquarters at the Hotel Hanover. After luncheon, escorted by the representatives above mentioned, the party was escorted to the city hall, where a very pleasing welcome was accorded by Mayor Ashbridge. Following this a visit was paid to Wanamaker's store, Independence hall and other interesting places. In the evening special electric cars conveyed the party to the splendid building of the Pennsylvania Rd., Y. M. C. A., in West Philadelphia, where they were tendered a reception, which was followed by a very enjoyable concert in the auditorium, after which refreshments were served. The short stay in Philadelphia was much appreciated, the local committee, of which C. G. Cadwallader, Secretary of the International Association of Ticket Agents, was Chairman, having made most excellent arrangements. W. B. Cenard and E. Ramsay, of the Philadelphia and Reading Rd., were also very energetic.

On Oct. 24 the party went to Camden, N. J., across the Delaware river from Philadelphia, and took a special train tendered by the Philadelphia and Reading Rd. for Atlantic city, doing the 55 miles in 50 minutes, the regular schedule time. This run has been made in 44½ minutes, but the train bearing the C. T. A. A. was an unusually heavy one. E. J. Weeks, General Passenger Agent of the Philadelphia and Reading, accompanied the party, and renewed many old acquaintances among those whom he frequently met when General Agent of the New York Central's passenger department at Buffalo. Some time was spent on the piers and board walk at Atlantic City, the party divided up between the Wiltshire and the Kenilworth for luncheon, and Philadelphia was reached again about 5 p. m. Dinner was taken in the waiting-room of the Reading terminal, which had been specially fitted up, and at 7 p. m. the party boarded the Lehigh Valley special, which had waited for them since their arrival from Washington. Suspension Bridge was reached on Oct. 25 at 6.50 a. m., where the party dispersed.

This was the first occasion on which the Association had met outside Canada, so that it was a new experience to many. As in previous years the veteran Secretary-Treasurer, E. De La Hooke, had taken infinite pains in perfecting the arrangements and the hearty appreciation of the members was shown by the enthusiasm with which he was unanimously re-elected. The retiring President, W. Jackson, and the President-elect, M. McNamara, performed their duties most satisfactorily, and gave a thorough go to the proceedings. Dr. Shaw, of Clinton, proved a most valuable addition to the party, and his services so cheerfully rendered were much appreciated by quite a number who were affected by the change of climate, etc. It would be impossible to speak too approvingly of the magnificent manner in which the Lehigh Valley Rd. carried out its programme. Nothing that could add to the comfort of the party was overlooked by C. S. Lee, who was with them for four days, proving himself to be thoroughly at home as a host, a charming

companion and keenly alive to the possibilities of Canadian travel over his lines.

Unfortunately the Ebbitt House, the Washington headquarters, proved far from satisfactory, and certainly a very large majority of the party were glad to see the last of it. People who had written in advance for rooms with baths, and who received replies that accommodation had been reserved for them, found on arrival that the reservations desired had not been made. The house is an old one, not at all up-to-date, and the rooms and meals were very disappointing. Added to this some of the clerks were impolite and disobliging, and generally no efforts appeared to be made to give satisfaction. Canadian money was absolutely refused at par, yet some of it was handed out to a well-known Toronto ticket agent in part change for a large U. S. bill, and later on when he was settling his account the clerk refused to accept it back from him in payment. Almost everyone in Washington with whom the party came in contact, with the exception of the local railway officials, were evidently bent on extorting all they could and cared nothing for the value of such a visit from ticket agents. It is certain that the party came back even more enthusiastically Canadian than when they went away, and thoroughly satisfied with their homes on this side of the line.

### GRAND TRUNK PACIFIC RAILWAY.

On Nov. 20 it was announced in London, Eng., that application would be made to the Dominion Parliament to incorporate a company in alliance with the G. T. R. to build a line from some point on the G. T. R. to the Pacific Coast. On Nov. 22 C. M. Hays, Second Vice-President and General Manager of the G. T. R., gave out the following typewritten statement to newspaper representatives in Montreal:

"Yes, there is a substantial basis for the cable message from London, to which you refer, as it relates to a project that our board of directors has had under consideration for some time past, and this company is now prepared to go right ahead with a railway extending from North Bay or Gravenhurst, Ont., on our present line, through that portion of Northern Ontario familiarly known as New Ontario, through Manitoba and Saskatchewan, Assiniboia, Alberta, via Peace river, or Pine river passes, and through British Columbia to either Bute inlet or Port Simpson, on the Pacific coast, as may be determined later on. Like our Grand Trunk Western Ry., extending from Port Huron on the Detroit river, to Chicago, this new line will be constructed under a separate corporate name, to be the Grand Trunk Pacific Ry. Co., and will be of the most modern and up-to-date character, having in view, especially, low grades, long tangents, steel bridges, heavy rails, etc., as well as ample station facilities and equipment for the handling of both freight and passenger business, in fact, the road will be of the highest standard in every respect. No one who has been studying the wonderful developments that have taken place in the Northwest during the past few years can fail to be deeply impressed with the growth of this extensive and rich territory, and our directors feel that in view of the apparent need of additional railway facilities, and in order to guarantee to the present G. T. System direct connection with that very important and growing section of Canada, the only wise policy is to take active steps toward this extension, which, I may add, will be commenced as soon as the necessary legislation has been obtained from the Government."

Mr. Hays was subsequently interviewed by representatives of the Montreal papers and said: "I cannot go very much into the details of the project as yet. We have been making great

improvements on our road of late, such as double-tracking from Montreal to Toronto and Hamilton and Niagara Falls. We have an arrangement with the city of Montreal for improvements here, which will be advantageous both to the city and to the road. We are entrenched in the central portion of Ontario, the manufacturing district, but when it comes to taking goods to the west we only get the haul as far as North Bay. Under the circumstances it has been felt that further development was necessary, and hence the present scheme. It will be a separate corporation, with headquarters at Montreal, so as to facilitate business and avoid delay such as might occur if the head office were across the ocean. The new corporation will enter into exclusive traffic arrangements with the G. T. R."

In answer to further questions, Mr. Hays stated that the cost of the line would probably be from \$75,000,000 to \$100,000,000. The names of the applicants for the charter would be announced later. The question of asking the Dominion and Provincial governments for subsidies would be determined later. There was no intention of using the Canadian Northern Ry. The G. T. Pacific would be independent of that or any other line. There was lots of room in the Northwest for three or even more roads. The G. T. R. did not require the Canada Atlantic and Great Northern to use as connecting links to enter Quebec and secure another terminal, as it already had excellent accommodation in Quebec, as well as in Montreal, and that in Montreal would be added to as was being done at Windmill point.

As to the route, it had been only mapped out in general outline. The existing G. T. R. North Bay line would form the base of the system, so to speak, and connect it with the lines that operate in the manufacturing districts of Ontario and Quebec, and furnish the machinery and supplies that would go westward in return for the grain that would come east for shipment. The new line would run northwesterly through the Timiskaming region, the Albany valley and Manitoba, across the waters of Lake Winnipeg at their narrowest point, and through Saskatchewan, Assiniboia and Alberta. Sometimes it would tap existing centres of population, but more frequently it would go through regions which were but sparsely inhabited, and would have spurs and branches connecting with the flourishing places which have grown up in what a quarter of a century ago was a wilderness. It might be said in general terms to follow the lines of the route projected by Sir Sandford Fleming in the seventies. It was by no means certain whether the route through the Rockies would be by way of the Pine river pass, with terminus at Bute inlet, or further north by way of Peace river, with outlet at Port Simpson. An opinion prevailed, but it lacked the confirmation of competent engineering experts, that the more northerly route would involve the fewest cuttings and engineering feats of difficulty. It would be necessary to obtain legislation before starting a survey, which would be carried on from several points, probably from both ends and from the middle. In this the G. T. R. would be able to avail itself of work done by the C. P. R., the survey of which was an immense undertaking, especially owing to the difficulty of getting in supplies. The G. T. R. was in a much better position and would take advantage of these conditions. Mr. Hays stated that he thought the line would be completed in about five years from the beginning of the survey. When the Pacific was reached steamship connection would be required and would be established. The project had been under consideration by the G. T. R. directorate for a considerable period, and was fully discussed during Mr. Hays' recent visit to England.



The Minister of Railways, Hon. A. G. Blair, in an interview said he knew what was coming, as Mr. Hays had discussed it with him on several occasions, but until a definite conclusion was reached by the company he had not felt at liberty to speak of it. In his judgment the development of the Canadian Northwest and British Columbia would be so rapid in the next few years as to afford ample traffic for three transcontinental lines, and he was glad to know that the G.T.R. would seek to share in that development. To build a railway from Gravenhurst or North Bay through New Ontario, across Manitoba and the Territories to the Pacific coast via the Pine or Peace river passes would not be less than 2,500 miles. It was a pretty big undertaking, but it has been done before, and could certainly be accomplished again. The C.P.R. was built in six years, and he thought that with the improvements in mechanical devices and railway construction which have been so marked in the past few years, the new line could be constructed within five years, and at an average cost of, say, \$25,000 a mile. It would cost much more in the section north of Lake Superior and in the Rockies, but that extra expense would be counterbalanced by the cheaper construction across the prairies. He was told that north of the C.P.R. Lake Superior section there was considerable level land, and the cost of building might not be as great there as is anticipated. No assurances had been given as to a Federal subsidy, but he did not suppose the promoters would object to receiving one. He understood several Canadians would be on the directorate, and he would not be surprised if the major portion of the stock would be owned in Canada. Mr. Blair added:—"I have never disguised my own view that if Mr. Booth desires to dispose of his property the Canada Atlantic Ry. should be acquired as part of the Intercolonial Ry. I hold firmly to the opinion that the Government system of railways should be extended to the Great Lakes. If the Intercolonial were projected into Ontario it would show the people of the premier province how deeply their interests are bound up with the Government railway system. However, nothing is being done in this direction at present."

Sir Thomas Shaughnessy, President of the C.P.R., said to interviewers for the Montreal

dailies:—"Our Grand Trunk friends are undertaking a very big contract. There is nothing in the announcement that need cause the Canadian Pacific the slightest concern. In this vast country of ours there is room for a great many miles of railway. Twenty years ago when the C.P.R. enterprise was inaugurated, the entire country from Pembroke to the Pacific Coast, a distance of upwards of 2,500 miles, was a bleak waste, practically uninhabited. To-day the C.P.R. operates in that territory over 6,000 miles of railway, main line and branches, and this mileage is being increased year by year. The construction of a line north of us will involve years of labor and millions upon millions of capital. A feature of the announcement is the absence of any reference to Government bonuses or subventions. The G.T.R. Co. has declared its determination to build, so that any aid toward the enterprise from either the Dominion or Provincial governments is not asked or required, and this is just as it should be from the standpoint of the public as well as of existing railways. As Mr. Hays says, the conditions have changed enormously since the pioneer road was constructed, and circumstances that made Government co-operation absolutely essential to the carrying out of the original C.P.R. enterprise no longer exist."

W. Mackenzie, President of the Canadian Northern Ry., was interviewed by the Toronto Globe, but refused to say that negotiations between the G.T.R. and the C.N.R. companies would not result in the absorption of the latter road by the G.T.R. He did say, however, that the G.T.R. Co. had no connection with the C.N. at that date. "The work of the extension of the C.N.R. to the east will be commenced very shortly," said Mr. Mackenzie, "and we intend before long to reach Toronto, Montreal and Quebec and Ottawa. We have already carried on a large amount of surveying work, and are following this up with all possible haste." Upon being asked as to the plans of the railway for the west, he declared that the road would be pushed through irrespective of what action any other company might take. He expected that even in the near future the C.N.R. would be a transcontinental road. "Then Mr. Hays' railway will parallel yours?" said the reporter. "Wouldn't it be better to say 'Mr. Hays' scheme will parallel our railway?'" asked



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Mr. Mackenzie. Continuing, he said that he believed that Mr. Hays had stated that the G.T.R. would not use the C.N.R., and that this statement must be accepted. "We have the charters, the locations, profiles and maps prepared," he said. "We have the right to either of the Peace River, Pine River or Yellowhead passes in the Rockies, under the Edmonton, Yukon & Pacific charter, a small section of which line is in operation, and with all this work accomplished we are not likely to stop now."

F. W. Morse, Third Vice-President, and W. Wainwright, General Assistant and Comptroller of the G.T.R., arrived in Winnipeg Nov. 24, almost simultaneously with Mr. Hays' announcement, having travelled from Montreal to Port Arthur by the C.P.R., and from Port Arthur to Winnipeg by the Canadian Northern Ry., being accompanied over the latter line by its General Superintendent, E. A. James. Mr. Morse stated that their trip was in connection with the proposed new line, which would run north of the C.P.R. main line, and that no negotiations were on for the purchase of the Canadian Northern Ry. They left Winnipeg the following day for the West via the C.P.R.

The daily papers have published a large amount of matter about the G.T.R.'s announcement, and have outlined all sorts of plans, illustrated by maps showing the supposed route to be taken, almost the whole of which is necessarily based on conjecture. We have given Mr. Hays' statement, which, boiled down, is that the G.T.R. has decided to build a line either from Gravenhurst or North Bay, Ont., to Bute Inlet, B.C., and that work will be gone on with as soon as legislation can be obtained and surveys made. Pending further announcements from the G.T.R., any statements as to route, etc., would be entirely matters of conjecture, and we therefore prefer to defer further reference to the matter until we are in possession of official information. That negotiations will be carried on between the G.T.R. and the Canadian Northern Ry. is not at all unlikely, and it would not be at all a matter of surprise if the latter road with its franchises, etc., should be taken over by the G.T.R. Possibly the G.T.R. might also find use for the Algoma Central Ry. and its subsidiary, the Manitoulin and North Shore Ry. Senator Cox, who is President of the Canadian Bank of Commerce, the Canadian Northern Ry.'s bankers, and Jas. Ross, of Montreal, are freely mentioned as likely to be among the incorporators of the G.T. Pacific Ry. Co.

In connection with this new development Mackenzie, Mann & Co.'s operations in the west are of interest. Since the completion of the Ontario and Rainy River Ry., now absorbed by the Canadian Northern Ry., the construction engaged in by Mackenzie, Mann & Co. in the west, with the exception of some 50 miles of grading beyond Erwood, Sask., last year's track end, has been in the direction of completing C. N. R. branches in Manitoba, and in developing the Edmonton, Yukon and Pacific Ry., which the C.N. Ry. has power to absorb. Under the E.Y. and P. Ry. charter some four or five miles have been built, from Strathcona, on the Calgary and Edmonton Ry., into Edmonton, Alta., and the E.Y. and P.R. Co. entered into an agreement with the B.C. Government, confirmed at the last session of the B.C. Legislature, to construct a line from Bute Inlet, on the Pacific coast, for 480 miles to the interprovincial boundary, via Yellowhead pass. This company has parliamentary authority to use also the Peace river pass if thought desirable. The carrying out of the agreement with the B.C. Government depends upon the securing of a Dominion subsidy, in addition to the \$5,000 a mile voted by the B.C. Legislature. The E.Y. and P. Ry. Co., though a Mackenzie, Mann & Co. enterprise, is as yet indepen-

dent of the Canadian Northern Ry. Co. This latter company only became a transcontinental possibility by an act passed at the last session of the Dominion Parliament, when its route to the Pacific coast was fixed via the Pine river pass. Under these two acts Mackenzie, Mann & Co.'s lines can reach the Pacific coast by either of three routes, and may use two of them; one, the Pine river pass, given to the C.N. Ry. by act of Parliament, and the other, the Yellowhead pass, fixed by the conditional agreement entered into with the B.C. Government. The Yellowhead pass has an altitude of 3,738 ft., and is also the pass by which the Canada Central Ry. Co., incorporated at the last session of the Dominion Parliament, desires to construct a line. The Peace river pass is about 2,800 ft. above sea level, and is the point aimed at by the Trans-Canada Ry. Co. and the Pacific, Northern and Omenica Ry. Co.; while the Pine river pass has an altitude of 2,000 ft. Surveys of all of these passes were made, on a more or less complete scale, prior to the construction of the C.P.R. Some interesting information about the various northern routes to the Pacific, enumerating the surveys made for the Dominion Government up to 1880, the height of the various passes, etc., will be found in our Sept. issue, pg. 319.

The G.T.R.'s intention to extend to the Pacific Coast is undoubtedly the most important event in the Canadian railway world since the Dominion Government entered into a contract with the C.P.R. syndicate in 1881. It means the opening up of a vast undeveloped territory with great potential wealth, an important addition to Canada's railway mileage, the expenditure of a vast sum of money in a short space of time, a large demand for construction material and equipment, employment for a large army of men during construction, and afterwards for a large staff in every department of railway service. To the pioneer line, the C.P.R., the results will undoubtedly be very beneficial. That line will have to be depended on to a large extent for taking in supplies, material, etc. The G.T.R. Pacific route, as outlined by Mr. Hays, will not interfere with the territory now tributary to the C.P.R., on the contrary it will aid in the development of lands included in the C.P.R. grant.

**Biographical Directory of Railway Officials.**—The latest edition of this work, published from the offices of the Railway Age, Chicago, contains the main facts in the careers of 5,000 railway officials in Canada, the United States and Mexico. The biographical notices are arranged alphabetically, the present position of each official following his name, and then is given concisely the important data showing the steps by which that position was reached. It is a book of interest and value to railway officials, and to all interested in such enterprises, and contains material from which a Samuel Smiles could have written additional volumes to "Self Help" and the "Lives of the Engineers."

The Ontario Commissioner of Public Works has intimated that he has had under consideration the desirability of initiating legislation with a view of vesting in the department additional powers in regard to electric railways. The increasing number of these lines renders it necessary that the general public should be fully protected, and means taken for the inspection of the roadbed and cars so that the safety and comfort of the passengers of the lines may be assured.

At the annual convention of the Railway Transportation Association held recently in Buffalo, N.Y., the following Canadian lines were represented: C.P.R., by J. B. Driscoll; Quebec and Lake St. John Ry., by J. Bain; Quebec Central Ry., by A. S. Hobson; Toronto, Hamilton and Buffalo Ry., by G. W. Wilson.

### Railway Equipment Notes.

The Mineral Range Ry. during Oct. added 7 flat cars and 100 ore cars to its equipment.

The C.P.R. added to its equipment during Oct., 11 loco. flat cars and 150 box cars, 80,000 lbs.

The Canadian Northern Ry. added three 2nd-class cars and three baggage, mail, and express cars to its equipment during Oct.

The G.T.R. added to its equipment during Oct., 5 baggage cars; 1 official car, Musko-ka; 172 box cars, 60,000 lbs.; 120 flat cars, 60,000 lbs.; 60 coal cars, double drop bottom, 80,000 lbs., and 1 auxiliary.

The Safety Car Heating and Lighting Co., New York, has issued a booklet explanatory of the Pintsch system of car and buoy lighting which it operates. The booklet is illustrated with cuts of the compressing plants which have been established at the principal railway centers of the continent. Of the 63 plants installed in America, two are in Canada, viz., Moncton, N.B., and Montreal.

The Baldwin Locomotive Works is carrying out extensive improvements to its works and plant at Philadelphia. Most of these are in the nature of additions to, or remodeling of, the present buildings and the rearrangement of the plant and machinery, so as to provide for more economical work. It is the intention to transfer the whole of the heavy forge work to the Standard Steel Works at Lewiston, Pa., which is chiefly owned by the firm, where a good deal of it is done at present. Several streets have been closed with the approval of the city authorities, to allow of the improvements to be made. Among the new buildings being erected are a six-story elevator and transfer house, a power house, a boiler shop, a machine shop, a tender shop and an engine house and finishing shop. The new engine house will have room for 27 locomotives, and will be fitted with an 80-ft. turntable. The present capacity of the works is 30 locomotives a week, exclusive of the smaller electric, mine locomotives, etc. When the new improvements are completed the capacity will be increased to 36, and the force of men will be increased from 12,500 to about 15,000.

**Moody's Manual of Corporation Securities.** for 1902, being the third annual number, has recently been issued by J. Moody & Co., 35 Nassau St., New York. The manual contains a great deal of information relating to exchanges, government securities, railway securities, electric railway securities, telephone, telegraph and cable companies, and industrial securities generally, such as is useful to the investor or the business man. It contains 2,200 pages 6½ by 9½ ins., and is well printed and bound. Among the 10,000 companies, of which it is claimed records are given, reference is made to 26 Canadian railways, 1 security-holding company, the Dominion Securities Co. of New Jersey; a dozen electric railways, 3 steamship companies; the Bell Telephone Co.; the Canadian B.C. and Dawson City Telegraph Co., the Dominion Telegraph Co., and a large number of power-transmission and general industrial companies operating in Canada. In a number of instances the information given is not up-to-date, but this, to a certain extent, can be accounted for by the exigencies of the make-up, and the dates at which the different sections have to go to press.

J. Earls, Manager Car Service Department, Canadian Freight Association, has issued a circular to coal merchants and others asking them to use every exertion to have coal cars promptly unloaded so that the railway companies may not be inconvenienced in handling the coal traffic by cars being held longer than is absolutely necessary for unloading.



**Grain Elevator Notes.**

The Lake of the Woods Milling Co. has completed an elevator at Brookdale, Man.

The 2,000,000 bush. annex to the C.P.R. Elevator B, at Fort William, Ont., is expected to be completed by Feb. 1, 1903.

The Ogilvie Flour Mills Co. has completed the erection of an additional large elevator at Winnipeg, and is installing the machinery. The elevator is expected to be ready for use early in Dec.

The Canadian Northern Elevator Co. has erected elevators of 25,000 bush. capacity each at Oak Bluff, Sanford, Branheld, Sperling and Carman, Man., on the Carman branch of the Canadian Northern Ry.

The annex to C.P.R. Elevator D, at Fort William, with a capacity of 3,500,000 bush., was expected to be completed by Dec. 1. The workhouse at this elevator, which was destroyed by fire in the spring, has been reconstructed.

The C.P.R. cleaning elevator at Port Arthur, operated by J. G. King, has been undergoing a number of improvements which have recently been completed. Under the new arrangement it is possible to unload an 80,000 lb. car in seven minutes, less than half the time formerly occupied.

The total elevator accommodation in Manitoba and the N.W.T., and at Fort William and Port Arthur, Ont., available for storage when the new grain began to come in was:—

Elevators on C.P.R. lines.....	16,000,000	bush.
"    "    C.N.R. ....	3,000,000	"
C.P.R. elevators at Fort William.....	4,000,000	"
C.N.R. elevator at Port Arthur.....	1,500,000	"
	<b>24,500,000</b>	

In addition, the C.P.R. expects to have ready early in Dec. a 3,500,000 bush. annex to Elevator D, at Fort William; later on the C.N.R. 2,500,000 bush. addition to its Port Arthur elevator will be completed, and in Feb. a 2,000,000 bush. addition to C.P.R. Elevator B at Fort William is to be opened. This will increase the total storage capacity to 32,500,000 bush.

Work on the Canadian Niagara power plant is progressing rapidly. The tunnel will have a length of 2,200 ft. from the wheel-pit to the base of the Horseshoe fall, where it will discharge into the lower Niagara river. From the shaft to the pit is about 900 ft., and of this there remains only 48 ft. to be blown out. From the shaft to the portal is about 1,300 ft., and of this about 200 ft. remain to be taken out. For the entire length the bottom bench remains to be taken out, but this can be removed quite rapidly. When this bench is removed the stone will be used for concrete work and backing.



Department of Railways and Canals, Canada.

**TENDERS FOR STEEL RAILS.**

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for Steel Rails," will be received at this office up to sixteen o'clock on 15th January, 1903, for 25,000 tons of 80-lb. Steel Rails for the Intercolonial Railway.

All the above to be delivered on or before 31st May, 1903.

Conditions, forms of tender and all other information will be furnished on application at this office.

By order,

L. K. JONES, Secretary.

Department of Railways and Canals,  
Ottawa, 17th November, 1902.

Newspapers inserting this advertisement without authority from the Department will not be paid for it.

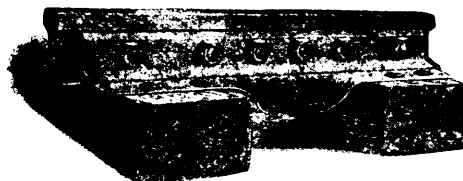


PAGE FENCE ON G.T.R., NEAR SOUTH PARKDALE, ONT.

Page coiled wire Fencing is in use on practically every railroad, both great and small, in Canada, and some of the railroads have in the neighborhood of a thousand miles of it. It is found that it wears so much better than any other fence that there is no comparison. We can supply any height and weight wanted, and either galvanized or painted. We also supply metal gates that do not sag, burn or rot. Prices compare favorably with any.

**THE PAGE WIRE FENCE CO., Limited, - Walkerville, Ont., Montreal, P.Q., St. John, N.B.**

**BONZANO RAIL JOINT**



Was Awarded the only Medal and Diploma for Rail Joints at the National Export Exposition Philadelphia, 1899;

Also the Highest Medal awarded for Rail Splices at the Paris Exposition, 1900.

Nearly one million of these joints are now in use. None of the splices have broken, and no rails have broken inside the splices. Low joints are impossible, nor can spreading of tracks take place at the splice. The joint is absolutely as strong as the rail. By its use the track labor saved will alone amount to a sum that will pay the cost of renewals of rails and splices.

In use on the following railroads: The Pennsylvania, Baltimore and Ohio, Canadian Pacific, Southern Pacific, Cuba Railway, Chicago & Alton, Southern Railway, Intercolonial Railway, Grand Trunk, Wisconsin Central, Michigan Central, Choctaw, Oklahoma & Gulf.

**THE BONZANO RAIL JOINT.**

A. BONZANO and THOS. G. CLARKE, Joint Owners of Canadian Patent No. 55,700,  
**MONTREAL ROLLING MILLS CO., Montreal,**  
Sole Manufacturers and Sales Agents for the Dominion of Canada,  
East of Sudbury.

**THE CANADA SWITCH AND SPRING CO. Limited**

CANAL BANK, PT. ST. CHARLES, MONTREAL.

MANUFACTURERS OF

**STEEL CASTINGS**

(Open Hearth System)

**Springs, Frogs Interlocking Plants Installed  
Switches Jenne Track Jacks, Etc.**

**FOR STEAM AND ELECTRIC RAILWAYS.**

## SHIPPING MATTERS.

**The Dominion Government and Transportation.**

In consequence of the retirement of J. I. Tarte from the office of Minister of Public Works in the Dominion Government, a re-arrangement is to be made of the duties of Department of Public Works and of the Department of Marine and Fisheries. Hitherto there has been a certain amount of conflict of authority between the two departments, and to a certain extent also with the Department of Railways and Canals. Under the new allotment of duties the improvements of the St. Lawrence River, and the building and maintenance of wharves in Dominion waters will be transferred from the Department of Public Works to the Department of Marine. This will give the Department of Marine control of water transportation, but until all the details are arranged, and the arrangement confirmed by act of Parliament, the full effect of the proposed changes cannot be stated. Under the new plan Hon. Jas. Sutherland, who succeeded Sir Louis Davies as Minister of Marine and Fisheries, becomes Minister of Public Works, and Hon. R. Prefontaine, of Montreal, received the appointment of Minister of Marine and Fisheries.

Referring to his six years' tenure of the office of Minister of Public Works, Mr. Tarte recently said the great object he had been working for was the advancement of our natural means of transportation, and a great deal had been accomplished in that time. The port of Montreal was in a fair way of being efficiently equipped, a work in which the G.T.R. and the C.P.R. were assisting. The Harbor Commission was completing the wharves and an elevator, and only permanent warehouses were required. The deepening and widening of the St. Lawrence channel from Quebec to Montreal was about half finished, and there had been provided for the completion of the work a fleet of dredges, tugs and stoneraisers unequalled on the continent. The dockyard at Sorel was equipped to do all repairs to this fleet and make such additions as were necessary. The harbor works at Port Colborne, Ont., were about three-fourths done, and considerable improvements had commenced at Goderich, Meaford, Collingwood, Midland, and Parry Sound. A good deal would have to be done at Fort William and Port Arthur, which he had resolved to have done. Other works were on hand at St. John, N.B., and other ports, all having for an object the improvement of our waterways. It was his object to have from the west to the east, from one end of the country to the other, a complete system of transportation, and he wished that his successor might be able to accomplish more than he had done.

On assuming his duties as Minister of Marine, Hon. R. Prefontaine referred to their increased importance. He expressed the hope that Parliament would authorize the establishment of at least the nucleus of a navy. He advocated the founding of a school of navigation in Montreal for the training of men for both ocean and inland navigation. Mr. Prefontaine has since made an inspection of the St. Lawrence from Montreal to Rimouski.

**Notices to Mariners.**

The Department of Marine has issued the following notices to mariners:—

No. 96. Oct. 22.—Ontario—320. Lake Erie, east end, Waverley shoal, gas buoy established. 321. St. Clair river, Sarnia, location of shoal.

No. 97. Oct. 23.—Nova Scotia—329. Cape Breton, Cape la Ronde, characteristic of light to be changed.

No. 98. Oct. 27.—New Brunswick—331. Northumberland strait, Richibucto harbor entrance, South Beach, amended particulars of range lights.

No. 99. Oct. 27.—British Columbia—332. Strait of Georgia, Porter Pass, Galiano island, range lights established.

No. 100. Oct. 28.—Nova Scotia—333. Cabot Strait, St. Paul island, Atlantic cove, marine signal station. Prince Edward Island—334. Northumberland Strait, Wood islands harbor, range lights established, buoy and sailing directions. 335. Northumberland strait, Wood islands harbor, beacon established.

No. 101. Oct. 29.—Ontario—336. River St. Mary, Pointe aux Pins, light improved.

No. 102. Nov. 3.—British Columbia—338. Strait of Georgia, Baynes Sound, buoys to mark prize-firing base. 339. Queen Charlotte Sound, Sealed passage and north channel, rocks.

No. 103. Nov. 8.—Ontario—340. River St. Lawrence, Farran point, gas buoy discontinued. 341. River St. Lawrence, head of Farran point channel, gas buoy established. 342. River St. Lawrence, head of Galops canal, light established. 343. River St. Lawrence, west of Galops canal, north channel dyke, light established. 344. River St. Lawrence, between the head of Galops canal and Prescott, north channel described. 345. River St. Lawrence, head of north channel, Galops, buoyage changed.

No. 104. Nov. 6.—New Brunswick—346. Bay of Fundy, Passamaquoddy bay, entrance to St. Andrew's harbor, wreckage removed. Prince Edward Island—347. Gulf of St. Lawrence, Murray harbor, Beach point, height of front range lighthouse reduced. 348. Northumberland strait, Miminegash, change in lights, buoys.

No. 105. Nov. 6.—British Columbia—350. Queen Charlotte sound, new channel, rocks.

The following notices have been issued by the U.S. Hydrographic department:—

No. 44. Nov. 1.—Lake Superior—1633. Portage Lake ship canals, upper entrance, directions for avoiding sunken wreck. Lake Michigan—1634.—Green Bay and Strait of Mackinac, winter buoyage. Lake Erie—1637. Wreck of W. H. Stevens, buoy. Lake Ontario—1638. Galloo island shoal, gas buoy no. 1 re-established.

No. 45. Nov. 8.—St. Clair river—1688. Sarnia, Black river shoal, gas buoy moved. Lake Erie and Detroit river—1689. Winter changes in aids to navigation. 1692. South-east shoal lightship to Long point; wreck of H. A. Barr.

No. 46. Nov. 15.—Lake Erie—1750. Seneca shoal and other gas buoys, winter buoyage. 1751. Wreck of the steamer C. B. Lockwood, buoys established, additional information. Lake Ontario—1752. Port Credit, sand bar reported.

**Maritime Provinces and Newfoundland.**

The Eastern Steamship Co. is having built at Chester, Pa., a steamer for the St. John, N.B.—Boston route.

The Insular Steamship Co. is negotiating for the building of a large steamer to replace the Westport on the St. Mary's Bay—St. John, N.B., route.

A proposition is under consideration at North Sydney, N.S., for the construction of a marine railway capable of taking vessels up to 4,000 tons.

Smith Bros., of Halifax, are having built a 60 ft. steamer at Yarmouth, N.S., somewhat similar to the Nelson and Lenore, previously built for them there.

The Cumberland Ry. and Coal Co. is having two coal carrying barges of 1,200 tons

capacity built at Parrsboro, N.S. They are expected to be launched by Dec. 30.

The Reid Newfoundland Co. has added to its fleet during the year the str. Virginia Lake, 760 tons, which has been utilized on the route between St. John's and the Labrador coast.

The tug Petrel of the Collins' Bay Rafting Co., has been fitted up for wrecking purposes, and will be stationed on the Newfoundland coast for the winter in charge of Capt. Wm. Leslie.

The Lady Laurier, a cable and lighthouse supply steamer for the Maritime Provinces, recently launched at Paisley, Scotland, for the Dominion Government, was christened by Miss Gibson, daughter of Hon. W. Gibson, Beamsville, Ont.

The Provincial Wrecking Co. is being formed at Yarmouth, N.S., and it is proposed to apply for a charter of incorporation at the next session of the Nova Scotia Legislature. J. E. Nickerson is Manager and W. W. Wilson Secretary-Treasurer of the provisional organization.

Recent press reports stated that the steamers of the Plant line had been sold to the Eastern Steamship Co., which, during the past year, has absorbed a number of lines trading between U.S. and Maritime Province ports. We are officially informed that the reports were entirely unfounded.

A plan is under consideration of the steamship companies engaged in the St. John river trade to amalgamate, with a view of providing a better and more regular service, night as well as day, and to regulate rates. According to present plans there are 11 steamers likely to be running between Indiantown and river points.

Among recent launches in the Maritime Provinces have been the following: schooner Lady of Avon at Hantsport, N.S.; schooner Leslie L. at Shelburne, N.S.; barkentine Ladysmith at Lower Economy, N.S.; schooner Ambition, on the LaHave river, N.S.; schooner Manhattan at Lunenburg, N.S.; and a tug Lord Kitchener at St. John, N.B.

A deputation from St. John, N.B., has had an interview with a number of the Dominion Ministers in reference to the projected dry dock at St. John. G. Robinson, who is the chief promoter of the dock company, asked that Dominion aid be extended to the project to the extent of 3% on the proposed outlay of \$1,000,000 instead of 2% already promised.

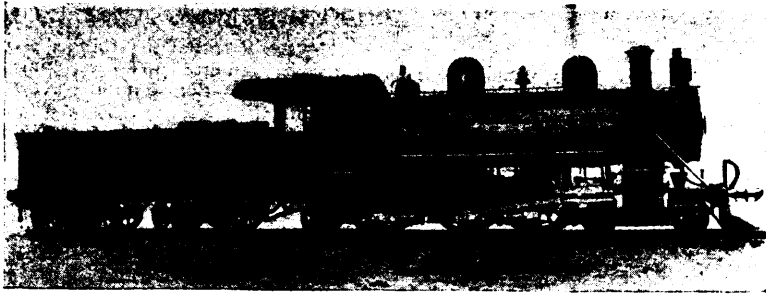
The str. Mira, under charter to the Dominion Coal Co., which went ashore on Chebogue point, N.S., in Feb., has been released, and the underwriters will pay \$50,000 to Capt. Reid, of Sarnia, Ont., who had charge of the salvage operations. The operation was one of the most difficult attempted on the coast. The Mira is being towed to New York to be repaired.

The People's Line Steamboat Co., of St. John, N.B., is looking for two steamers, one to place on the route of the recently burned Star, and the second to make the night run between St. John and Fredericton. Representatives of the company recently inspected a steamer with a capacity of 700 passengers in New York, and are in treaty for the purchase of the City of Owen Sound, belonging to the Algoma Navigation Co. of Owen Sound, Ont.

The Princess Steamship Co. (Ltd.) has been incorporated under the New Brunswick Companies' Act, to carry on a general navigation business on the St. John river. The provisional directors are H. A. McKeown, W. G. Dunlop, S. J. Thorne, B. VanWart, of St. John; T. Fulton, Sheffield, N.B. The Co. has a capital of \$15,000, and has purchased the str. Queen, of Montreal, from the Montreal and Cornwall Navigation Co. The Queen is a sidewheel steamer, built at Valleyfield, Que.,

## BALDWIN LOCOMOTIVE WORKS.

SINGLE EXPANSION AND COMPOUND LOCOMOTIVES.

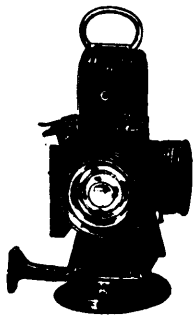


**Broad and Narrow Gauge Locomotives; Mine and Furnace Locomotives; Compressed Air Locomotives; Steam Cars and Tramway Locomotives; Plantation Locomotives; Oil Burning Locomotives.**

Adapted to every variety of service, and built accurately to gauges and templates after standard designs or to railroad companies' drawings. Like parts of different engines of same class perfectly interchangeable.

**Electric Locomotives and Electric Car Trucks with Westinghouse Motors.**

Burnham, Williams, & Co., - - Philadelphia, Pa., U.S.A.



Standard Classification Lamp, Registered.

**The N. L. Piper Railway Supply Co.**

LIMITED

314 Front St. West, - - TORONTO

MANUFACTURERS OF

**RAILWAY LAMPS AND SIGNALS**

DEALERS IN

**CHIMNEYS, WICK, BURNERS, ETC.**

**Eugene F. Phillips Electrical Works, Limited,**  
MONTREAL, CANADA.

**BARE AND INSULATED ELECTRIC WIRE**

Electric Light Line Wire, Incandescent and Flexible Cords,

**RAILWAY FEEDER AND TROLLEY WIRE**

Americanite, Magnet, Office and Annunciator Wires,  
Cables for Aerial and Underground Use.

**M. BEATTY & SONS**

WELLAND, ONTARIO.

**DREDGES, DITCHERS, DERRICKS and STEAM SHOVELS**

OF VARIOUS STYLES AND SIZES TO SUIT ANY WORK

Submarine Rock Drilling Machinery, Hoisting Engines, Suspension Cableways, Horse-Power Hoisters, Gang Stone Saws, Centrifugal Pumps for Water, Sand and Gold Mining, and other Contractors' Plant.



## 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 Manitoba and Assiniboia average \$3 to \$6 an acre.

Lands in Alberta and Saskatchewan with the exception of some special locations where prices range from \$3.50 to \$5.00 per acre, generally \$3.00 per acre.

### TERMS OF PAYMENT.

In the case of an actual settler who goes into residence upon and cultivates the land, 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 second two years from date of purchase, and the remainder annually thereafter.

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.

Purchasers who do not undertake to go into residence on the land within one year from date of purchase are required to pay one-sixth of the purchase money down and the balance in five equal annual instalments with interest at the rate of six per cent. per annum.

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.

**Edward L. Drewry**

**REDWOOD BREWERY,**

Fine - Winnipeg, Manitoba

**ALES, EXTRA PORTER**

... AND ...

**PREMIUM LAGER.**

*Most Extensive and Complete Brewery and Malthouses in Western Canada.*

**CHOICE MALT FOR SALE.**

Manufacturer of the Celebrated

Golden Key Brand . . . **AERATED WATERS.**

**TORONTO ENGRAVING CO.**  
DESIGNERS, ENGRAVERS,  
ELECTROTYPERS.  
**92 BAY ST.**

in 1897, her dimensions being: length, 121.2 ft.; breadth, 22.4 ft.; depth, 7 ft.; tonnage—gross, 332 tons; register, 192 tons.

J. Osborne, General Superintendent C.P.R. at St. John, N.B., has outlined a plan for the improvement of the harbor there. He suggests the construction of a dyke from the Carleton shore near Fort Dufferin to Partridge island, and a second from Red Head bank, connecting with the first at Partridge island. These dykes would be carried to a height of about 10 ft. above high water mark, and would be provided with locks to admit the passage of vessels. The effect of the construction of these dykes would be to minimize the rise and fall of the tide to about 6 ft. instead of from 22 to 28 ft. at present, to do away with the necessity of dredging, and to provide accommodation for increased numbers of steamers. The railway companies could run their tracks on the top of the dykes, and warehouses could also be erected. The plan in effect is to turn the harbor into a gigantic floating dock.

### Province of Quebec Shipping.

The Richelieu and Ontario Navigation Co. has purchased the Mullin wharf at Sorel.

The Richelieu and Ontario Navigation Co. has declared a half-yearly dividend of 3%.

A contract for the repairs to locks one and two on the Lachine canal, Montreal, has been let to Quinlan & Robertson.

The Richelieu and Ontario Navigation Co.'s str. Quebec ran ashore in a snowstorm near Varennes, Nov. 12, but was towed off without damage.

The Great Lakes and St. Lawrence river Transportation Co. has purchased from King Bros. the Lake Metapedia seigniory, with a view of entering the lumber business.

The Richelieu and Ontario Navigation Co.'s new str. Montreal is being completed at Sorel. The decoration and furnishing of the steamer is well advanced, and everything will be completed prior to the opening of navigation in 1903.

The lake-built steamers Minnetonka and Minnewaska, which were taken in sections through the St. Lawrence canals and put together at Quebec, are carrying grain from Quebec to Great Britain in connection with the Great Lakes and St. Lawrence River Transportation Co.'s fleet.

A company is in course of formation at Hedleyville to construct an extensive system of wharves, sheds, elevators, stockyards, etc., on the north side of the mouth of St. Charles river, facing the Louise embankment, Quebec. The Hedleyville council has given the promoters 15 years' exemption from taxation for the project.

Reports presented to the Montreal Harbor Commission, show that up to Oct. 31 the revenue amounted to \$240,534, against \$196,446 for same period in 1901. The number of sea-going vessels using the port was 685, having a tonnage of 1,385,315 tons, an increase of 9 vessels and 64,104 tons over 1901; while the inland vessels using the port numbered 8,281, having a tonnage of 1,664,096; an increase of 755 vessels and 157,421 tons over 1901.

T. J. Darling of Montreal, has been working on the suggestion of Hon. J. I. Tarte that the navigation of the St. Lawrence would be improved by the construction of a dam at Cap Charles, 112 miles below Quebec. Mr. Darling proposes the construction of dams at a number of points on the river, the effect of which, he says, would be to provide a 33 ft. channel up to St. Mary's current, between Montreal and Hochelaga. He has submitted a plan to the Montreal Harbor

Commission, which has referred it to the engineer.

The experiments with acetylene gas, as an illuminant for gas buoys and lighthouses on the St. Lawrence, are giving satisfaction to the officers of the Department of Marine as well as to the shipmasters. Lieut.-Col. Anderson, Chief Engineer of the Department, referring to the tests at the Father Point lighthouse, says acetylene gas gave a light visible at a distance of 28 miles. It is understood that the change in the illuminant of the gas buoys will be made gradually. Lieut.-Col. Anderson is perfecting a plan for an apparatus to be used for the equipment of the small lighthouses for acetylene gas.

### Ontario and the Great Lakes.

The Ottawa Forwarding Co.'s freight str. Harry Bate is to be rebuilt at Ottawa during the winter at a cost of about \$15,000.

The Turret Crown has been aground at Harbor Beach, Mich., and the Turret Court at Port Arthur, Ont. Neither sustained any material damage.

The coal-handling plant at Rondeau, Ont., for the Lake Erie and Detroit River Ry., has been completed, and the port will be made a regular coal port.

The Lake Michigan steamship lines, controlling 37 steamers and two tugs, have combined, the capital of the combination being put at \$5,000,000.

The marine railway at Kingston is being put in order and will be utilized during the winter by the Kingston and Montreal Forwarding Co.'s steamers.

The hydrographic survey str. Bayfield has completed its work for the season, having been engaged on Lake Superior between Sault Ste. Marie and Michipicoten.

New boilers are about to be placed in the G.T.R. ferry, Lansdowne, at Windsor. The Great Western, as well as the Lansdowne, are to be fitted with electric light.

The C.P.R. str. Alberta struck a rock during a severe storm on Lake Huron during a recent trip, but no damage beyond the loss of a blade of her propeller was done.

It is proposed to lay up the four turret steamers at Owen Sound for the winter. For the future the steamers will be taken to the coast and put in the coasting trade for the winter.

The Department of Marine has authorized the maintenance of the lighthouses on the upper waters of Lake Superior to Dec. 12, so as to prolong the season of navigation as much as possible.

A press report states that the str. Cambria, after a lengthened career of mishaps, culminating in her sinking in Martindale's pond, on the Welland canal, is to be raised and taken to Buffalo.

The report that it is the intention of the Northern Navigation Co. to rebuild its str. United Empire, operated on the North West Transportation Co.'s service, is denied by President J. J. Long.

The Montreal Transportation Co.'s barge Hamilton has landed a 71,000 bush. cargo of wheat at Montreal from Fort William, this being the largest cargo ever brought through the inland waterways.

R. O. McKay and W. Magee have returned to Hamilton from Great Britain, and report that orders have been placed for the construction of two steamers for the New Ontario Steamship Co. The new steamers will be placed in service early next year.

The Booth line is building a steamer to be placed on the Lake Superior service next season, to have a speed of 16 miles an hour. It

is proposed to put in operation a round-lake service by extending the route from Houghton to Sault Ste. Marie and Port Arthur.

The steam barge Owen, built at Chatham, Ont., in 1884, and owned by W. Simmons, Kingston, Ont., went ashore on Gull shoal, Point Petre, recently and became a total wreck. She had on board 5,000 bush. of wheat, which with the vessel was uninsured.

Excavations are to be commenced during the winter at Sault Ste. Marie, Mich., on the preparatory work for the widening of the U.S. canal at that point. The U.S. engineer in charge of the canal is agitating for a new lock capable of passing vessels drawing 21 ft.

The steam barge Alberta, belonging to Capt. Smith, Kingston, and built at Cape Vincent, U.S.A., in 1886, was burned recently near Trenton, Ont. The Alberta, which was of 88 tons register, was engaged in the grain-carrying trade between Bay of Quinte points and Kingston.

The St. Lawrence and Chicago Navigation Co. proposes issuing 1,500 shares of stock in the proportion of two shares of new stock to five of old at par to shareholders of record of Dec. 15. The proceeds of the sale of new shares will go towards the building of a steamer at Collingwood.

The lease of the ferry between Prescott, Ont., and Ogdensburg, N.Y., now held by the C.P.R. Passengers and Transfer Co., is about to expire, and the Thousand Island Steamboat Co. is negotiating for a lease. The ferry is controlled by the C.P.R. and the New York Central Rd.

The traffic on Lake Timiskaming is controlled by the Lumsden line, which operates one passenger steamer, the Meteor, and a number of barges and scows. The lake is so shallow at the different landing-places that freight and passengers have to be taken ashore in lumbermen's "pointers."

Four dredges have been working during the season at Fort William and Port Arthur, deepening the channels, so as to permit vessels drawing 22 ft. to get alongside the docks. A basin has been dredged at the junction of the Kaministiquia and Mission rivers to permit 500 ft. steamers to turn in the river.

The Dominion Department of Public Works is building a spoon dredge, with a capacity of 800 cubic yards a day, on Lake Timiskaming, for the purpose of dredging at Haileybury, and New Liskeard, Ont., and Baie des Peres, Que. The dredge is 70 ft. long, 25 ft. beam, and with the tug-boat and tenders will cost \$80,000.

The Lake Erie Coal Co. (Ltd.) has been incorporated under the Ontario Companies' Act, with E. C. Walker, W. Woollatt, A. Leslie, of Walkerville, Ont; F. H. Walker and J. H. Walker, of Detroit, Mich., as provisional directors, to mine and deal in coal, and in connection with such business to own steam and other vessels. The capital is fixed at \$100,000.

The Canadian Shipbuilding Co. (Ltd.) has been incorporated under the Ontario Companies' Act, with a capital of \$1,000,000, to carry on a shipbuilding, general navigation, elevator and terminal business, or to acquire shares in such companies, or similar companies. The provisional directors are F. Nicholls, W. Mackenzie, Hon. G. A. Cox, W. R. Brock, M.P., and W. D. Matthews, of Toronto.

The U.S. engineering department has asked for bids for the construction of three dredging plants for the purpose of dredging the shoal in the middle ground of the mouth of Black river, in St. Clair river. The channel will be dredged to a width of 1,500 ft., and next year it is proposed to dredge other shallow places in the channel to a width of 900 ft. and a depth of 21 ft. The Canadian channel is at

present superior to the U.S. one and is used by two-thirds of the shipping.

The str. Tadenac has been built in Toronto for the St. Lawrence and Chicago Navigation Co. On being launched she was named by Miss Hagarty, daughter of J. Hagarty, Manager of the Co. The Tadenac has the following dimensions: length, 257 ft. over all; breadth, 43 ft.; depth, 25 ft.; 6 in. The boiler has a steam pressure of 170 lbs. to the square inch. The Tadenac will carry 105,000 bush. when fully loaded, and 70,000 on a 14 ft. draught when passing through the canals.

The shipments of Canadian grain from Fort William and Port Arthur from Sept. 1, 1901 to Sept. 1, 1902, were 29,754,574 bush. of wheat, 1,085,555 bush. of oats and 52,185 bush. of barley, total 30,892,314 bush., which was distributed as follows:—By train to eastern points 1,545,086 bush.; to U.S. ports, 10,584,570; to Midland, 5,765,051; to Kingston, 5,555,053; to Depot Harbor, 2,634,171; to Goderich, 2,110,213; to Owen Sound, 1,572,733; to Meaford, 650,351; and to Point Edward, 475,172.

The traffic passing through the Canadian and the U.S. canals at Sault Ste. Marie, from the opening of navigation to Oct. 31, was 30,931,216 tons against 24,543,610 tons in 1901. The following are the figures for the Canadian canal:

	1902.	1901.	Increase or Decrease.
April 5 to May 31.....	532,188	151,679	380,509+
June.....	1,118,564	1,235,055	116,491-
July.....	523,936	276,624	247,312+
Aug.....	639,858	295,175	344,683+
Sept.....	560,031	201,229	358,802+
Oct.....	664,713	354,383	250,330+
	3,979,290	2,514,145	1,465,145+

+Increase. —Decrease.

The Inland Lakes Transportation Co. (Ltd.), has been incorporated under the Ontario Companies' Act, for the purpose of carrying on a general navigation and grain carrying business on the great lakes. The capital of the Co. is fixed at \$1,000,000, and it is proposed to make Collingwood the Ontario terminus of the line. The provisional directors are: J. J. Daly, M. Straus, of Chicago, Ill.; F. A. Bassett, A. A. Bond, of Collingwood, Ont.; H. Pedwell, Thornbury, Ont.; J. Murphy, Meaford, Ont.; F. V. Clisdell, J. R. Bond and J. W. Curry, Toronto. Nearly one-half of the capital is reported to be already subscribed, some \$60,000 having been taken in Collingwood. An agent of the promoters has been in Great Britain looking for suitable vessels, and an unconfirmed press report says he has secured two steel steamers hitherto engaged in the Baltic grain trade, 308 ft. long and 44 ft. beam, and that they will be brought out as soon as navigation opens in the spring. As steamers of these dimensions are too large to pass the canals they would have to be cut in two at Montreal, and it is said they will be put together again at Buffalo, contracts for that purpose being reported to have been signed.

**Manitoba and Northwest Territories.**

L. S. Ainsworth, of Portland, Ore., visited Edmonton, Alta., recently to inspect the Saskatchewan river, with a view of ascertaining the size and power of steamers which could be operated on it. He says that Portland owners will place steamers on the river in the spring.

The Pelican Lake Steamboat and Trading Co. (Ltd.) has been incorporated under the Manitoba Companies' Act, with a capital of \$2,000, to carry on a general navigation business on Pelican lake. The provisional directors are: A. Bell, J. Yellowlees, G. Overend, W. Ross, of Ninette; D. Dalgleish, of Margaret, and the offices of the Co. are at Ninette.

T. Kelly, contractor for the improvements at St. Andrew's rapids, on the Red river below Winnipeg, states there has not been any delay in prosecuting the work. During the summer, he says, there was \$30,000 worth of plant in operation at the works, and as many teams and men were employed as could be used to advantage. During the past two years the water on the Red River has been higher than for many years past, thus adding considerably to the difficulties of the work.

**B.C. and Pacific Coast Shipping.**

The last vessels from Dawson reached Whitehorse Nov. 4, and a few days later the river was frozen solid, the str. Lafrance being caught in the ice near Minto.

The str. Rustler, trading on the Lynn canal, was burned to the water edge on the Lynn canal Oct. 28, a couple of hours after reaching port from Skagway.

E. P. Lavis, of Dawson, has invented a new paddle wheel for river steamers. He claims that by it one-third more power will be furnished than by the ordinary pattern.

The Puget Sound Navigation Co.'s str. Rosalie, running between Victoria, B.C., and Seattle, Wash., collided with and sunk the freight str. Fingal in Victoria harbor Nov. 12.

An engineer from the Dominion Department of Public Works has been over the upper Columbia river from Revelstoke to Death Rapids, B.C., with a view of reporting on the improvements necessary to meet the requirements of navigation. Some improvements are to be carried out this season.

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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 "
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### G.T.R. SEMI-ANNUAL MEETING.

At the semi-annual meeting in London, Eng., Oct. 13, the President in moving the adoption of the report and accounts, which were published in our last issue, said:—"The Co.'s record for the first half of 1902 is again one of progress and prosperity. The revenue shows a substantial increase over the corresponding ½ year of 1901, with the result that we are enabled to recommend you to declare the full dividend for the ½ year on the 2nd preference stock, which has not received any dividend whatever out of the revenue of the first ½ of the year since 1883. The gross receipts for the ½ year were £2,377,201, against £2,287,795 for 1901. The number of passenger carried was greater by 320,414, with an increase of receipts of £49,352, and tons of freight moved showed an increase of 61,275, with an increase in receipts of £36,698. There was also an increase of £4,855 in receipts for mails and express, but there was a slight decrease of £1,499 under the head of miscellaneous receipts. Working expenses, not including taxes, were £1,590,013, against £1,531,261 in 1901, but the percentage proportion of working expenses to gross receipts showed a slight reduction. There was an increase in expenditure on maintenance of way and structures of £18,624, and in charges for maintenance of equipment of £92,061, made up of £19,939 in respect of motive power department, and £72,122 in respect of car department. Owing to the great demand for, and the difficulty of obtaining delivery of, material of all kinds, it was found impossible during the past ½ year to proceed as rapidly as was desirable with rebuilding the locomotives and cars, but the engine renewal fund was increased by £68,643, and the car renewal fund by £117,720, and those funds stood at June 30 last respectively at £148,455 and £164,726 which are available for the replacement of the stock, and rapid progress is now being made with the renewals. The return of the rolling stock shows that the normal official stock remains at the same amount as in preceding years, but the figures may, to a certain degree, mislead you; for, while the number of cars and locomotives are substantially the same as they were some years ago, they represent a far larger amount of hauling power of locomotives and capacity of cars. A few years ago we built no cars of greater capacity than 20 tons, and most of them were only of 10 tons capacity, but now we build none less than 30 tons, and our locomotives, which a few years ago weighed 47 tons, now weigh 91. As a set-off against the increases mentioned, the cost of conducting transportation was reduced by £51,622, notwithstanding the increase in the number of passengers and tons of freight carried. During the ½ year, although there was an increase of 10½ millions in the number of tons moved one mile, the freight train mileage was reduced by 728,213 miles, which means that the average freight train load was increased by something like 17%, of which about 3% was due to the increased number of cars per train, and the remainder to the increased average in the number of tons carried per car. This shows not only the advantage derived from the use of larger cars and more powerful engines, but that our officers must have paid great attention to the loading of the cars. The average cost for fuel for locomotives, which is the most important item under the head of conducting transportation, showed an increase of 4%, but notwithstanding the increase in the price, a saving of £14,607 has been effected in the total, owing to the reduced train mileage. These satisfactory results amply justify the policy we have been steadily pursuing of freely applying our resources in prosperous times on the improvement of permanent way and rolling stock.

But these economies could not have been so largely effected without the intelligence and energy which our officers brought to bear upon their work. Another considerable reduction appears under the head of conducting transportation in respect of the balance of car mileage, which shows a decrease of £13,731, equal to 37%. This is the balance paid to private owners and other companies for their cars running over our line in excess of the amount received from other companies for our cars running over their lines. A useful reform has just been effected by the various railway companies, acting in combination, with reference to the movement of the cars of the companies when travelling over the lines of other companies. Under the system in operation prior to July 1 last, railway companies were allowed three-fifths of a cent a mile on cars run loaded or empty while upon the lines of other companies, but they received no compensation whatever when the cars were delayed, and it very frequently happened that, when cars were delivered to our connections instead of the contents being unloaded and warehoused, or otherwise disposed of, they have been allowed to stand as long as two or three months, and sometimes, in extreme cases, as long as six months, the cars being practically used as warehouses, for which we received no compensation, at a time, too, when our own traffic was suffering from scarcity of cars. Under that system there was no inducement to the foreign companies to return our cars; on the contrary, there was every inducement for them to keep them. Cars of the G.T.R. would go wandering all over the west and south of America, and it has been the habit of some of the larger companies to employ inspectors to go all over the country and hunt up and bring back their cars, which had been lost perhaps for months and months. There have been many attempts to bring about a change in the system, but up to recently without result, owing to the opposition of the lines which only carried the traffic for a short distance, having perhaps insufficient equipment and inadequate warehouse accommodation, but the scarcity of cars, brought about by the prosperity of the country for the last two or three years, has emphasized the necessity for a change, and finally a scheme, known as the "Per Diem" system, has been adopted by the American Railway Association, and came into operation on July 1 last. Under the new system the mileage rate as between railway companies has been abolished, and a fixed rate of 20c. a day, whether the car is moved or not, substituted, to be increased to \$1 a day when the car is detained for more than 30 days. It is thought that the new system will be of great benefit to lines like the G.T.R. having a large equipment, not only in the reduction of the amount paid to other companies, but also by insuring the prompt return of cars, and so enabling the Co. to have more cars available for traffic requirements in times of pressure. We are advised that the alteration has already had this effect during the three months it has been in operation. The balance from revenue to net revenue account showed an increase of £30,406; net revenue charges increased by £3,917, but the payments under the agreements with the G.T. Western and the Detroit, Grand Haven and Milwaukee companies were less by £9,685, so that the actual net revenue charges were reduced by £5,768. I cannot mention the G.T. Western Co. without again congratulating the shareholders upon the reorganization of that Co.—the old Chicago and G.T. Co.—which took place two or three years ago. The result has been the disappearance of the payments under the traffic agreements which used to weigh upon us so disastrously in past years, and there is now no charge whatever against us in connection with the G.T. Western. The credits to net revenue account increased by £16,964,

the result being that the amount available for dividend out of the working for the ½ year was increased by £53,138.

The expenditure on capital account, apart from the charge for the acquisition of outstanding securities, has only amounted to £40,868, which was reduced by the premium on debenture stock sold during the ½ year to £24,308. We continue to be careful to keep the expenditure on capital account at the lowest possible point. The expenditure has been mainly in connection with the doubling of the track between Montreal and Toronto, and Hamilton and Niagara Falls. There is a small amount of £2,735 charged to capital account for air brakes and automatic couplings, with which we were obliged to equip our rolling stock under the American law, but that item will disappear from our accounts in the future, as the work is now practically completed. Then there is a small charge under the head of new works of £2,618 in respect of the new general offices at Montreal. That is also a charge which will not return, for the building is now completed and the staff entered into occupation on June 1 last, and the change has been found of great convenience to the Co. We have charged one-half of the cost of the building to revenue and one-half to capital, but the annual charge to revenue in respect of the capital outlay will be very small, in consequence of the saving which will be effected by the concentration in the new building of outlying offices. During the ½ year we expended on capital account £30,968 on double track and improved gradients. At the last meeting I explained to you the position of our line as regards double track, and informed you that it was intended to proceed at once with the completion of the doubling of the line between Montreal and Toronto, in which there was still a break between Whitby and Port Hope, about 33 miles. That work has been put in hand, but, owing to wet weather and the difficulty of obtaining labor, we have not been able to make the progress we expected. It is, however, hoped that with favorable weather we shall complete this year about 8 miles from Whitby, eastward, and the remaining 25 miles will, no doubt, be available for traffic in the course of next year. The doubling of the line between Hamilton and Niagara Falls is practically finished as far as grading is concerned, but, owing to the difficulty of obtaining delivery of material for certain bridges, the completion of this work will be somewhat delayed. Our receipts on capital account have been increased by the issue of £414,003 of 4% debenture stock. That issue is not really any addition to capital, but is on account of the £500,000 of 4% debenture stock required to be issued for the purpose of providing for the repayment of bonds bearing a higher rate of interest. £522,200 of Northern Ry. 5% 1st mortgage bonds became due July 1, the interest on which was £26,110 a year, and as the annual interest on the £500,000 of 4% debenture stock only amounts to £20,000, a saving of annual interest of over £6,000 a year has resulted from that transaction.

An interesting discussion has taken place lately in the press as to the apportionment by railway companies of expenditure as between capital and revenue, and as to the relative merits of American and British railway finance. I am not prepared to take a hand in the controversy, because I consider it impossible to dogmatise upon the question or to lay down any fixed and immutable rules. What I hold is that those who are responsible for the finance of a railway company must be guided by the peculiar circumstances of their own company, the condition of the times, and also by a general consideration of the interests of their proprietors in the future as well as in the present. And when I speak of the future I have observed that certain writers in the course of this controversy



have advanced, in more or less veiled terms, the doctrine that the duties of directors are confined almost exclusively to the interests of what they call the present as distinguished from future shareholders. That is a doctrine which it seems to me rather smacks of the irresponsible speculator than of the bona fide investor because when you speak of future shareholders, is it not the case that a very large proportion of our shareholders have been shareholders for a long time? The number of holdings of G.T.R. securities is something like 40,000, and I believe that a large proportion have been held for many years past, and, in many cases, very likely were inherited, and I further venture to predict that a multitude of our present shareholders will continue to be our shareholders in the future, so long as they continue to have confidence in the management, and will transmit their holdings to their children and to their children's children. Therefore, exercising as we directors do a trust on behalf of the proprietors, not for to-day only, we hold that our finance must be not a hand-to-mouth finance, not a day-to-day finance, but a finance founded on principles of foresight and prudence, and with a due consideration for the special conditions and requirements of our Co. To bring up and maintain our roads and their equipment to the highest degree of efficiency, without unduly mortgaging the resources of the future by adding to our capital charges, and at the same time to satisfy the reasonable current expectations of our shareholders have been the objects for which we have labored, and I venture to think that, thanks in a great measure, no doubt, to the favorable times through which we have been passing, our efforts have not been unattended with success. My remarks are addressed more particularly to some of the holders of junior securities, who indulge in occasional grumbles, and perhaps, not unnaturally, are a little impatient. I do not think they altogether realize what the necessities of our Co. are as contrasted with the financial difficulties which are the natural consequence of our heavy overweighted capital.

There has been for some time past considerable discussion in Montreal as to harbor facilities, and several schemes have been considered, having for their object the affording of increased elevator and wharfage accommodation, principally in connection with the Windmill Point wharves and basins, which are close to the city end of the Victoria Jubilee bridge and the G.T.R. property at Point St. Charles. A short time ago an arrangement was made between the Harbor Commissioners and a U.S. syndicate for the erection of an elevator at this point, and some small amount of work in connection with it was executed, but for some reason or other nothing further was done until recently when we made an arrangement with the Harbor commissioners under which they have agreed to extend the wharves so that the length will be 1,500 ft., and to raise them to the level of the wharves immediately in front of the city and to lease them to the Co. free for 40 years; we, on our part, undertake to erect on the property a steel fireproof elevator of 1,000,000 bush capacity. It is expected that the extension and raising of the wharf by the city will be completed within the next two years, but it was considered advisable to put in the foundations for the elevator before the raising of the wharf was carried out, and we have already put that portion of the work in hand. The depth of water at the wharf will be sufficient to accommodate steamers of large carrying capacity, and the addition of these facilities will enable the Co. to handle a much larger quantity of grain through the port than has previously been the case. This is a matter of special interest to the shareholders, because it has been occasionally imputed to the G.T.R. that it has used Portland to the dis-

advantage of the Canadian ports. Portland was from the very inception of the G.T.R., under the auspices of the Canadian Government, the only outlet during the winter for its

traffic on the Atlantic. We found ourselves at Portland, and we made the utmost possible use of Portland, with advantage to ourselves, and to Canada as well. At the same time I

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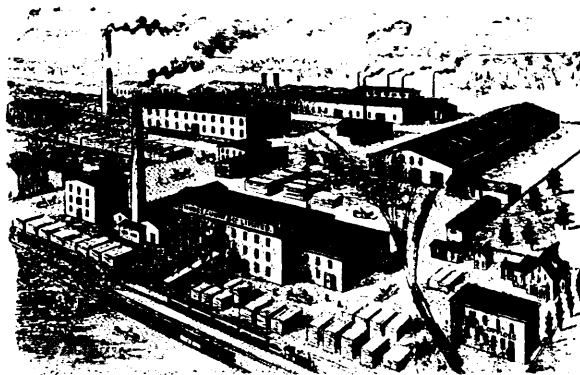
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# BOOKBINDING

am very glad that the opportunity has been afforded us of establishing ourselves now in the harbor of Montreal, in an eminently advantageous position. An agreement has been entered into with the city which will be of the greatest possible advantage both to it and to us, and will, I hope, tend to our popularity in Canada.

At our last general meeting, I ventured on the cautious prediction that we might within reasonable limits, by which I meant in the period immediately ahead of us, hope for the continuance of the good times which we were then experiencing. The result has so far borne out what I then said, and, whatever the future may have in store for us, up to the present business is still on the increase. From July 1 last up to Oct. 7 our traffic returns show a gross increase in respect of the G. T. R., the G. T. W., and the Detroit, Grand Haven and Milwaukee, of £122,060. The increased passenger and express earnings last ½-year specially reflect, even to a greater extent, perhaps, than the freight earnings, the continued prosperity and good business prevailing in every direction. We were apprehensive that when we reached the period comparing with the heavy passenger traffic resulting from the Pan-American exposition of last year, decreases would appear in passenger earnings, but there were only two weeks in which such was the case, and our reports of the passenger traffic on the occasion of the Toronto fair, which was held in Sept., show over 30,000 more passengers carried this year than last. The same proportionate increase occurs with the less important fairs, such as at London, Stratford and other places. An increase in passenger traffic is an excellent indication of the prosperity of the country, because it means ready money, and shows that people have the means to travel, and they only travel when they have money to pay for tickets. The freight earnings showed a very satisfactory increase, considering the shortage in the corn crop, which materially affected our exports, this class of traffic showing a decrease of 210,000 tons, as compared with the same period of last year. But the total increased tonnage carried was 61,000 in excess of last year. This is a particularly favorable feature in the situation, because what was lost in corn—which is not one of the most profitable classes of our business—has been more than compensated for by the carriage of a miscellaneous traffic of a more remunerative character. An interesting return has been prepared by our traffic department affording an illustration of the remarkable development of business in Canada. It appears that during 1901 no less than 115 new industries were established, or put in course of establishment, along our lines in Canada, representing a capital of \$5,541,000, and 51 industries along our lines in the U.S. with a capital invested of \$1,985,000, making a total capitalization of \$7,526,000. These establishments comprise many large works and manufactures such as pulp works, electric lighting works, cement works, steel works, lumber mills, butter factories, saw mills, tanning establishments, carpet factories, and others of a miscellaneous and widely differing character, ranging from these larger works which I have mentioned down to coffin and pickle factories. It would be difficult to afford a more practical illustration of the recent prosperous conditions of the times, and of the increased earning power of the G. T. R. arising therefrom." Sir Rivers concluded by moving the adoption of the report, etc., and that the following dividends be paid: 4% guaranteed stock 2%; 1st preference stock, 2½%; 2nd preference stock, 2½%, which was carried after a brief discussion, during which a shareholder complained that the third preference and common stockholders were not being fairly treated. In reply, Sir Rivers defended the directors' action and

pointed out that when the present board took office the third preference were quoted at about 12, while now they stand at about 43.

**Calgary and Edmonton Ry. Report.**

At the adjourned meeting in Toronto, Nov. 10, the following report was presented for the year ended June 30: The gross earnings, after deducting earnings from Government service, were \$536,521.10, against \$399,481.59 for the previous year, an increase of 34.30%. The total expenses for the year were \$275,981.56, against \$227,532.82 for the previous year, an increase of 21.29%. The percentage of expenses to earnings for the year was 51.44%, against 56.95% for the previous year. The net earnings for the year were \$260,539.54, against \$171,948.77 for the previous year. The earnings from passenger traffic (including Government service) were \$169,996.19, against \$119,610.72 for the previous year, an increase of 42.12%. Freight, express, mail and miscellaneous earnings (including Government service) were \$377,829.98, against \$286,742.11, an increase of 31.76%. The increase in gross earnings is very satisfactory, and is due to the natural increase in the Co.'s business. The increase of \$48,448.74 in operating expenses is for the most part due to increased traffic. Of this amount \$21,509.34 is applicable to increase in expenditure for maintenance of way and structures, and \$14,979.43 for motive power. Owing to heavy freshets which occurred twice this spring and once later in the summer, carrying away one span of the bridge over the Old Man's river, and the approaches to both Sheep creek and Bow river bridge, also considerably damaging the piers and abutments, a very considerable sum will have to be expended during the current year for building a new bridge over the Old Man's river and for repairing the other structures. Although the expenditure for putting the roadbed in proper shape will be very heavy, the directors consider that owing to the large number of settlers going in along the line and the large increase in general business, the Co. will be in a fair position to meet these expenditures.

**EARNINGS.**

Balance brought forward.....	\$ 77,364 97
Passenger.....	\$169,996 19
Freight.....	364,680 38
Express.....	4,890 84
Mail.....	7,354 90
Miscellaneous.....	894 86
	\$547,826 17
Less amount of Government service included in above.....	11,305 07
	\$536,521 10
	\$613,886 07

**OPERATING EXPENSES.**

General and legal expenses.....	\$ 6,823 29
Conducting of transportation.....	50,817 31
Management expenses.....	5,250 17
Motive power.....	70,848 52
Maintenance of way and structures.....	130,875 47
Maintenance of cars.....	11,400 80
	\$275,981 56
Balance to interest account.....	\$377,904 51
	\$613,886 07

**INTEREST ACCOUNT.**

Balance from earnings.....	\$377,904 51
Interest received.....	2,260 65
	\$400,165 16
2% in cash paid on account, Jan. 1, 1902, coupon.....	£22,434 0 0
2% in cash on account July 1, coupon.....	22,434 0 0
	£44,868 0 0
Less Government subsidy for year, \$80,000.....	16,438 7 2
	£28,429 12 10 \$138,670 46

Expenses re service of coupon (London).....	1,097 27
Balance carried forward.....	200,406 43
	\$340,174 16

**ASSETS.**

Cost of road.....	\$6,472,013 33
Sundry debtors.....	108,035 33
Cash in bank.....	91,240 98
Suspense account, interest unpaid.....	818,841 00
Southern extension.....	1,393 91
	\$7,494,533 55

**LIABILITIES.**

Capital stock paid up.....	\$1,000,000 00
First mortgage bonds.....	5,474,513 33
Coupons due and not presented.....	774 79
Interest unpaid.....	818,841 00
Profit and loss account.....	200,406 43
	\$7,494,533 55

The directors and officers for the current year were re-elected as follows:—President, H. C. Hammond; Vice-President, N. Kingsmill; Secretary, R. A. Smith; other directors, E. B. Osler, D. W. Saunders, W. P. Torrance, C. E. L. Porteous.

**Calgary and Edmonton Ry. Bonds.**

A meeting of the bondholders was held in London, Eng., in Oct., "to consider the present position of the company, to appoint a committee to arrange either for the sale of the property or the future working of the line, and generally for the protection of the bondholders' interests." The following letter, addressed to the bondholders by Osler & Hammond, Toronto, was read by the Chairman, who explained that E. B. Osler, though in England, could not attend the meetings being a director both of the Calgary and Edmonton Ry. Co. and of the C.P.R. Co.:

"As you are aware, this road has been operated for the past six years by the C.P.R. Co., that Co. having provided all the rolling stock, and given to the C. and E. Co. a most favorable division of gross earnings. The term of this agreement has expired, and the road is being operated on a month-to-month agreement. The C.P.R. Co. have notified the C. and E. Co. that they will not continue operating in the future on the same favorable terms as to division of gross earnings, and, further, that if they are to operate the road in future, it will be necessary for them to have an agreement extending over a long period of years. Should an agreement of this nature be made, it will be necessary for the bondholders to agree to scale down the interest on their bonds. Failing being able to make an agreement with the C.P.R. Co., the C. and E. Co. must at once arrange to operate its road as an independent property, and must provide for rolling stock, car shops, etc. This will involve the raising of a considerable sum of money. The road suffered from serious damage by floods this summer, and money must be provided to replace the bridges and culverts washed away, and to put the road-bed in proper condition. For this \$150,000 is required. For car shops and rolling stock the lowest estimate would be \$900,000. Of this amount, however, probably \$600,000 could be raised by means of a car trust, leaving \$450,000 as the amount required to be raised at once to enable the road to be operated as an independent line; and further, if the road is to be maintained as an independent property it will be necessary to provide for the building of two or three branch lines north of Calgary and eastwards into territory which now supplies a considerable share of the Co.'s business, but which will be occupied by another company if this Co. does not, in the near future provide for these necessary extensions. As the C. and E. bonds are so scattered, we think that it will be necessary to call a meet-

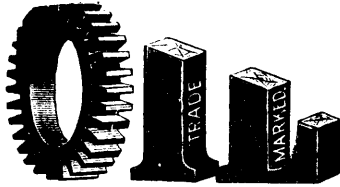


ing of the bondholders and submit to them the present position, and probably it will be wise to have a small committee appointed on behalf of the bondholders to act in their interests, and determine as to the future policy. We enclose you memos from Mr. Brooks, Engineer of the C. and E. Ry., giving his statement as to the rolling stock required and work to be done on the road." The Chairman, G. Grinnel-Milne, said the arrangement between the C. and E. R. Co. and the C.P.R. Co. had been equally advantageous to the latter company, which had a large quantity of land to develop north and northwest of the C. and E. line, and that without this line the C.P.R. Co. would have to build a line for

itself. He also pointed out the Canadian Northern Ry. and the Great Northern Ry., U.S.A., as other strings to their bow. R. Harrison, B. Schlesinger and W. Trotter, of London, Eng., and Jas. Ross, of Montreal, were appointed a committee, with power to add to their number, to represent the debenture-holders and protect their interests and to endeavor to make arrangements for the future operation of the railway. The committee has since announced that Chaplin, Milne, Grenfell & Co., London, Eng., are prepared to receive, for the committee, the bonds and the certificates representing unpaid interest. The committee recommends the bondholders to deposit their securities

without delay, as it is in their interest that, in the negotiations for the future operation of the railway, the committee should have the combined support of all the bondholders.

The Secretary-Treasurer of the Canadian Roadmasters' Association has issued a circular to the members stating that on Oct. 15, the date fixed for the meeting at Hamilton, Ont., only three members were present. He requests each member to suggest a time and place for a meeting, and points out that about the middle of Dec., at Ottawa, might be convenient, but that that will be decided by the majority of replies received.



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## MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1901, gives the following statistics for the year:

CROPS.		
ACRES.	AVERAGE YIELD.	TOTAL.
Wheat..... 2,011,835	25.1 bus.	50,502,085 bus.
Oats..... 680,951	40.3 "	27,796,588 "
Barley..... 191,009	34.2 "	6,536,155 "
Potatoes... 24,429	196. "	4,797,433 "

**STOCK.**  
Number of stock in the Province, July 1, 1901:  
Horses..... 142,080 Sheep..... 22,960  
Cattle..... 263,168 Pigs..... 94,680  
Value of Dairy Products..... \$26,314

**18,375 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, this 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 \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

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

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All C.P.R. Agents in  
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BRITISH COLUMBIA**

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Hot Springs.  
Memphis, Tenn.  
Cincinnati, Ohio.  
Louisville, Ky.  
New Orleans, La.

Chicago, Ill.  
St. Louis, Mo.  
Peoria, Ill.  
Evansville, Ind.  
Nashville, Tenn.  
Atlanta, Ga.  
Jacksonville, Fla.  
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The following remark of an experienced traveler tells the whole story:

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

**LOUIS DRAGO,** Genl. Passr. Agent, TORONTO, ONT.  
**H. PARRY,** Genl. Agent, BUFFALO, N.Y.

**GEORGE H. DANIELS,** Genl. Passr. Agent, Grand Central Station, NEW YORK.

**Montreal Street Railway Report.**

The report for the year ended Sept. 30, presented at the annual meeting, Nov. 5, shows net earnings of \$911,032.27, against \$795,413.20 last year. After providing for percentage on earnings accrued to the city, and interest on bonds and loans, the directors declared four quarterly dividends, amounting to \$600,000, and in view of the Co. assuming its own fire insurance risk, placed \$100,000 additional to the credit of the fire insurance fund, leaving a surplus of \$965.70, which has been transferred to the general surplus account. \$7,290.20, expended during the year on special renewals, has been charged against the contingent account. The Co.'s earnings continue to increase in a satisfactory ratio, and operating expenses per cent. of gross earnings show a substantial decrease. Owing to the heavy expenditure required to place the Park & Island system in thorough repair, the total revenue from these lines has been absorbed, and in consequence the M.S.R. Co. has not received any interest on the M.P. & I.R. Co.'s stock and bonds owned by it. The directors issued during the year \$1,500,000 of 4½% debenture bonds to pay off the loan incurred by the purchase of the M.P. & I. Ry. Co., and other purposes of that railway. These bonds were subscribed for by shareholders at par. Owing to unexpected delays in the delivery of electrical machinery, the whole of the water power contracted for will not be in use till Nov. 1. The company has, however, gradually increased the use of power from this source during the year. Several new extensions to the Co.'s system, amounting to 14 miles of track, have been constructed and put in operation during the year, and the rolling stock has been increased by the addition of 29 motor cars. During the past year the Co. has paid the city of Montreal: Tax on earnings and other taxes, \$127,257.85; on account of snow clearing \$50,771.66; total \$178,029.51.

Following are comparisons: Gross receipts \$2,046,208.59, against \$1,900,680.09 for previous year; increase 7.66%. Operating expenses \$1,135,176.32, against \$1,105,266.89; increase 2.70%. Operating expenses per cent. of car earnings 56.39%, against 58.52%. Net earnings \$911,032.27, against \$795,413.20; increase 14.54%. Net income per cent. of capital 11.68%, against 11.80%. Passengers carried 49,947,467, against 46,741,660, increase 6.86%. Transfers 15,077,511, against 14,215,784.

**ASSETS.**

Cost of road and equipment:	
Construction, etc.	\$3,539,822 91
Equipment, etc.	3,063,067 58
Real estate and buildings	1,616,925 37
M.P. & I. Ry. Co.'s stock and bonds	1,159,297 40
	<b>\$9,379,113 26</b>
Stores	76,085 61
Accounts receivable	57,277 12
M.P. & I. Ry. Co.	122,501 02
Cash in bank and in hand	95,382 58
Cash on deposit with city of Montreal	25,000 00
Cash (fire insurance fund)	100,000 00
Balance new stock call unpaid	
	<b>\$ 476,246 33</b>
	<b>\$9,855,359 59</b>

**LIABILITIES.**

Capital stock	\$6,000,000 00
Bonds	2,473,333 33
Mortgages	6,934 51
	<b>\$8,479,267 84</b>
Bank of Montreal loan	
Accounts and wages payable	100,807 78
Accrued interest on bonds	33,275 00
Accrued tax on earnings	101,747 72
Employees' securities	8,480 60
Unclaimed dividends	1,956 57
Unredeemed tickets	20,400 80
Suspense account	62,490 23
Montreal P. & I. Ry. Co.	
Dividend payable Nov. 1, 1902	150,000 00
	<b>\$ 479,167 70</b>

Contingent account	18,766 22
Fire insurance fund	204,221 92
Surplus	508,835 91
	<b>\$9,855,359 59</b>

**PROFIT AND LOSS ACCOUNT.**

City percentage on earnings	\$ 95,115 31
Interest on bonds and loans	114,951 26
Dividends—(payable quarterly)	600,000 00
Transferred to fire insurance fund	100,000 00
contingent account	
surplus account	965 70
	<b>\$ 911,032 27</b>

The directors and officers were re-elected as follows: President, Hon. L. J. Forget; Vice-President, Jas. Ross; other directors, K. W. Blackwell, F. C. Henshaw, H. M. Allan; General Manager, F. L. Wanklyn; Secretary-Treasurer, W. G. Ross.

**Newspaper Transcontinental Lines.**

In connection with the recent speeches of the Minister of Railways, in which he spoke of a desire to see the day when a Government railway would be extended across Canada, the daily papers have been busy, not only extending the Intercolonial Ry. to the Georgian Bay, via the Canada Atlantic, but suggesting its extension to the Pacific coast, by a series of absorptions of existing lines, and pieces of new construction. The Minister, while denying that the I.C.R. had purchased, or agreed to purchase the C.A. Ry., expressed himself as being favourable to doing so, and added that some of his colleagues in the Cabinet also favoured it. At the same time he denied that there were any negotiations in progress for making the I.C.R. part of a Government transcontinental route. The project outlined for this scheme involved the Canada Atlantic, the Manitoulin and North Shore, the Algoma Central and Hudson Bay railways, and the Mackenzie, Mann & Co.'s lines—the James Bay, the Canadian Northern and the Edmonton, Yukon and Pacific railways. The interesting amalgamations were to take place in Ontario, the story being in effect that the Canada Atlantic Ry., which the Webb syndicate had an option on early in the year, would be acquired; that the James Bay Ry., which is in operation from Quebec Siding on the Canada Atlantic Ry., into Parry Sound, Ont., would be extended to Sudbury, where a junction would be effected with the Manitoulin and North Shore Ry. The M. & N. S. Ry. was to be pushed through to a junction with the Algoma Central and Hudson Bay Ry., Goulais river, or, as it is now called, Searchmount, being suggested as the point of junction. The A.C. and H.B. Ry. would be completed to the C.P.R. transcontinental line at White River, from which place a line would be built to connect with the Ontario section of the C.N.R., at Port Arthur, or some other convenient point. All of which is very interesting from a daily newspaper point of view, but, according to Mr. Blair, without any foundation in fact, so far as the I.C.R. and the Department of Railways is concerned.

Other papers credit Mackenzie, Mann & Co. with being desirous of carrying out the same proposition for the building of the easterly connection of the Canadian Northern Ry., leaving out, of course, the I.C.R. part. It is understood that negotiations were carried on for some time by Mackenzie, Mann & Co., with a view of acquiring the Canada Atlantic Ry., and proceeded a considerable length, but it was felt undesirable to close up the matter until more of the C.N.R. was completed. The negotiations are therefore in abeyance, and the only foundation for the daily papers recalling them at the present time is that the Clergue interests are completing surveys for the extension of the Mani-

oulin and North Shore Ry. to a junction with the Algoma Central, and for extending the latter to the C.P.R., and that Mackenzie, Mann & Co.'s engineers are in the field to the east of Port Arthur. It is easy to build transcontinental lines on paper in order to fit in with the movements of survey staffs, etc., but these lines so mapped out will scarcely ever bear critical examination. The object of Mackenzie, Mann & Co. is to have a transcontinental line—D. D. Mann says it will be completed in six years—but they have their own ideas as to its route, and are carefully working it out piece by piece without regard to the railway builders of the daily press.

Since the above was put in type the G.T.R. has announced its intention of building to the Pacific Coast, particulars of which are given on another page.

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

Gross earnings, working expenses, net profits, increases or decreases over 1901-02, from July 1, 1902:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease
July	\$3,246,620.51	\$2,070,909.26	\$1,175,711.25	\$79,844.32+
Aug.	3,554,184.56	2,101,283 11	1,362,901 45	57,269 36+
Sept.	3,651,481.42	2,240,726.92	1,410,754.50	58,022.78+

\$10,452,286.49 \$6,502,919.29 \$3,949,367.20 \$195,136.46+

Approximate earnings for Oct., \$4,166,000, against \$3,573,000 for Sept., 1901.

The mileage was increased in Sept. to 7,638.

**DULUTH, SOUTH SHORE AND ATLANTIC RY.**

—Gross earnings for Sept., \$241,617.43; net earnings, \$97,867.97, against \$241,440.24 gross and \$105,171.75 for Sept., 1901. Net earnings for three months ended Sept. 30, \$327,815.76, against \$312,956.33. Approximate earnings for Oct. \$259,206, against \$231,159.

MINERAL RANGE RY.—Approximate earnings for Oct., \$48,978, against \$54,027 for Oct., 1901.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Sept., \$723,294.17; net earnings, \$401,559.66; against \$566,750 63 gross and \$333,061.28 net for Sept. 1901. Net earnings for three months ended Sept. 30 \$941,345 61, against \$777,311.53 for same period 1901. Approximate earnings for Oct., \$774,166, against \$639,812 for Oct., 1901.

**Canadian Pacific Railway Land Sales.**

	Acres.		Amount.	
	1901-02	1902-03	1901-02	1902-03
July	155,344.93	49,089.96	\$562,876.50	\$154,646.84
Aug.	130,723.83	50,747.82	473,064.85	165,871.16
Sept.	145,535.83	60,660.46	542,811.11	197,057.61
Oct.	270,616.23	159,372.96	952,045.35	465,655.62
	<b>702,220.82</b>	<b>310,472.20</b>	<b>\$2,531,397.81</b>	<b>\$973,230.23</b>

**Grand Trunk Ry. Earnings, Expenses, &c**

The following statement of earnings, supplied from the Montreal office, includes the G. T. of Canada, the G. T. Western, & the Detroit, Grand Haven & Milwaukee Rys.

	1902.	1901.	Increase.	Decrease.
Jan.	\$2,278,978	\$2,244,117	\$36,861	
Feb.	2,018,926	2,005,341	13,585	
Mar.	2,537,873	2,386,090	151,783	
April.	2,436,756	2,365,491	71,265	
May.	2,574,108	2,343,535	230,663	
June.	2,593,824	2,377,204	176,620	
July.	2,580,422	2,365,970	214,452	
Aug.	2,719,302	2,615,140	73,063	
Sept.	2,884,405	2,628,773	255,632	
Oct.	2,959,358	2,719,910	239,448	

\$25,501,043 \$24,056,771 \$1,444,272

The following figures are issued from the London, Eng., office:

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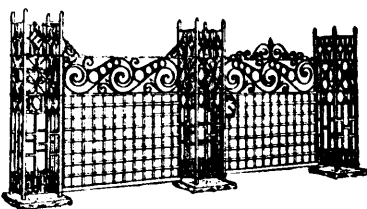
It was lately awarded the only Gold Medal in its section at the Pan-American Exposition, and was a prize winner at Paris.

The Mica Covering is largely used by Railways in Canada, Great Britain and India, also by the British Admiralty.

Write for list of large users, catalogues and prices.

**Mica Boiler Covering Co.,**  
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Celebrated for its home com-  
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station. The building occupies an entire block and  
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of the French Renaissance. The hotel faces the  
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Capital authorized \$4,000,000  
Capital (paid up) 2,500,000  
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Man.; Calgary, Alta.; Edmonton, Alta.; Ferguson, B.C.;  
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Alta.; Vancouver, B.C.; Victoria, B.C.; Wetaskiwin, Alta.; Win-  
nipeg, Man.

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Sterling exchange bought and sold. Letters of credit issued  
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OTTAWA, ONTARIO.



The Leading Hotel of the  
Capital of Canada  
F. X. ST. JACQUES - - - Proprietor

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from July 1 to Sept. 30 :

	1902.	1901.	In-crease.	De-crease.
Grand Trunk.....	£1,384,629	£1,292,193	£92,436	.....
G. T. Western.....	233,452	217,859	15,593	.....
D. G. H. & M.....	65,644	59,826	5,818	.....
Total.....	£1,683,725	£1,569,878	£113,847	.....

GRAND TRUNK RY. CO.

Revenue statement for Sept. :

	1902.	1901.	Increase.	Decrease.
Gross receipts.....	£486,600	£437,100	£49,500	.....
Working expenses.....	301,000	268,900	32,100	.....
Net profit.....	£185,600	£168,200	£17,400	.....

Aggregate July 1 to Sept. 30, 1902:

	1902.	1901.	Increase.	Decrease.
Gross receipts.....	£1,384,200	£1,292,100	£92,100	.....
Working expenses.....	892,800	835,300	57,500	.....
Net profit.....	£491,400	£456,800	£34,600	.....

GRAND TRUNK WESTERN RY.

Revenue statement for Sept. :

	1902.	1901.	Increase.	Decrease.
Gross receipts.....	£281,500	£284,900	.....	£3,400
Working expenses.....	72,000	67,500	4,500	.....
Net profit.....	£9,500	£17,400	.....	£7,900

Aggregate July 1 to Sept. 30, 1902 :

	1902.	1901.	Increase.	Decrease.
Gross receipts.....	£223,200	£217,800	£5,400	.....
Working expenses.....	211,900	199,700	21,200	.....
Net profit.....	£21,300	£27,100	.....	£5,800

DETROIT, GRAND HAVEN AND MILWAUKEE RY.

Revenue statement for Sept. :

	1902.	1901.	Increase.	Decrease.
Gross receipts.....	£24,600	£18,100	£6,500	.....
Working expenses.....	15,900	13,600	2,300	.....
Net profit.....	£8,700	£4,500	£4,200	.....

Aggregate July 1 to Sept. 30, 1902 :

	1902.	1901.	Increase.	Decrease.
Gross receipts.....	£65,200	£59,700	£5,500	.....
Working expenses.....	43,800	42,200	1,600	.....
Net profit.....	£21,400	£17,500	£3,900	.....

Note—There were 26 working days in 1902 compared with 25 working days in 1901.

The Montreal St. Ry. Co. has issued an order to the effect that when a car is full the conductor is not to stop for more passengers. It is explained that there are sufficient cars on the routes to carry all the people if they will exercise a little patience.

Among the Express Companies.

The Canadian Northern Ex. Co. has opened an office at Neepawa, Man.

The Dominion Ex. Co. has opened offices at Clarenceville, Henryville and Sabrevois, Que.

The Western Ex. Co. has opened offices at Stubeen, Mich., Bismarck, Carpio, Flaxton and Lehr, N.D.

The Western Ex. Co. has given notice that it will not pay money orders issued by the Alaska Pacific Ex. Co.

The winter rates for the routes of the Alaska Pacific Ex. Co. from Vancouver, B.C., went into effect Oct. 25.

The Western Ex. Co. has placed its service on the Bismarck extension of the Minneapolis, St. Paul and Sault Ste. Marie Ry., and has opened an office at Bismarck, N.D.

The Alaska Pacific Ex. Co. has placed its service on the Alaska Commercial Co.'s str. Bertha, sailing monthly between Seattle, Wash., and points in Alaska as far west as Kodiak.

The Alaska Pacific Ex. Co. has completed arrangements for a stage every other day between Whitehorse and Dawson, Yukon, commencing Dec. 1. If the business warrants it a daily service each way will be given.

The Western Ex. Co. has opened routes on the Manistique, Marquette and Northern Ry. between Manistique, and Shingleton, Mich., and on the Minneapolis, St. Paul and Sault Ste. Marie Ry. between Braddock and Bismarck, N.D.

W. J. Sloan, agent of the Great Northern Ex. Co. at New Westminster, B.C., has been committed for trial at the assizes on charges of obtaining about \$800 by means of forgery and false pretences in connection with his duties as express agent.

The Dominion Ex. Co. has closed its routes for the season on the boats of the Niagara Navigation Co., and the Niagara, St. Catharines and Toronto Navigation Co., and the offices in connection with the former at Queenston and Niagara-on-the-Lake.

The Dominion Ex. Co. has reopened the route on the Quebec Southern Ry. between Quebec Southern Jct. and Clarenceville, Que., from which it withdrew earlier in the year. In the interval this portion of the Q.S. Ry. has been served by the American Ex. Co.

The Dominion Ex. Co. is establishing a number of depots in Winnipeg, where packages will be received for shipment, receipts being given. The depots will be visited at intervals during the day by the Co.'s wagons and the parcels removed to the central office.

The Alaska Pacific Ex. Co. has placed its service on the Pacific Packing and Navigation Co.'s steamers plying between Seattle, Wash., and all Alaskan points. Offices have been opened at Sitka and Valdez, Alaska, the Co.'s messengers on the steamers distributing express packages at other points.

The Dominion Ex. Co.'s building at the Union station, Toronto, described in our July issue, has been completed. The upstairs story has been allotted to the Auditor, W. H. Burr, who has removed there with his staff from the 5th floor of the Union station. J. A. Boswell, Superintendent of the Ontario division, and his staff, have removed from the McKinnon building, Toronto, to a portion of the quarters formerly occupied by the Auditor's department in the Union station building.

Telegraph and Cable Matters.

The Inverness Ry. and Coal Co. is stringing its telegraph line from Port Hastings to Broad Cove, N.S.

J. D. Gaines, who had charge of the Commercial Cable Co.'s office at Canso, N.S., has been appointed Superintendent of the Pacific Commercial Cable Co.'s office at Honolulu.

C. H. Mackay has been elected President of the Postal Telegraph & Cable Co., the Commercial Cable Co., and the Pacific Commercial Cable Co. in succession to his late father.

The cable str. Tyrian has completed laying the 10 miles of cable from Grosse Isle to Bryan island in the Magdalen islands, and from Bryan island to Heath point, Anticosti island, 104 miles.

The C.P.R. telegraph department purposes stringing a new copper wire from Fort William, Ont., to Winnipeg, Man., and from Calgary to Edmonton, Alta. The work will be gone on with at once.

The commercial telegraphers of the U.S. have formed themselves into a union with the object of obtaining better pay and shorter

hours. The best men receive \$75 a month and work 9½ hours a day.

The U.S. Court of Appeals at Chicago has decided, on the appeal of the Western Union Telegraph Co., that a telegraph company has a right of property in the news it collects, even after it has been published on the tickers rented to its patrons.

D. H. Keeley, Superintendent of Government telegraphs, reports that the wireless telegraph stations at Belle Isle strait are doing good work, and that it is probable all the Government signal stations in the Gulf of St. Lawrence will be similarly equipped.

The rate between Canadian points and places in Australia and New Zealand over the new cable from Bamfield creek, B.C., across the Pacific ocean, has been fixed by the Pacific Cable Board at 99 cents a word, the rate charged by the old route being \$1.50.

W. C. Burton, chief operator of the commercial news department of the Western Union Telegraph Co., New York, who was born at Carlisle, Wentworth county, Ont., Oct. 7, 1864, has been elected state senator from the sixth district of King's county, N.Y.

The Government telegraph line, from 150-mile house, on the Ashcroft-Dawson line, to Quesnel Forks, B.C., 64½ miles, has been completed. Offices have been opened at Harper's Camp, and at Quesnel Forks. J. Shields, of Ashcroft, was the contractor. It is suggested by the mine owners in the district that the line should be equipped for telephone service.

R. Bain, hitherto in charge of the French Telegraph-Cable Co.'s office in New York, has been appointed clerk in charge of the all-British Pacific cable at Bamfield creek, B.C., and A. J. Godwin, of London, Eng., is assistant. D. Cuthbert, hitherto in charge of the Direct Cable Co.'s office at Ballinskellig, Ireland, has been appointed in charge of the station at Fanning island.

The cable str. Silverton is laying the section of the Pacific Commercial Cable Co.'s cable from San Francisco to Honolulu; the Colonia is loading the section to be laid from Honolulu to Midway island, at London, Eng. The Silverton will lay the section between Midway and Guam, and the Colonia the final section between Guam and Luzon in the Philippines. The work is expected to be completed by July, 1904.

Signor Marconi, the inventor of the wireless telegraphic system being installed at Glace Bay, arrived at Sydney, N.S., Oct. 31, on board the Italian cruiser Carlos Alberto, having been experimenting with the Poldhu station in Cornwall, England, all the way across. He at once proceeded to perfect the installation of the instruments at the Glace Bay station, and promised to make a public statement as soon as this work had been completed and communication opened with England.

The Great Northwestern Telegraph Co. has entered into an exclusive and permanent arrangement with the Canadian Northern Ry. for connection and interchange of business at Winnipeg, under which the G.N.W.T. Co. will on Dec. 13, transfer to the C.N.R. all its offices in Manitoba except Winnipeg. The G.N.W.T. Co. is building a line on the highway west of the Red River between Winnipeg and the International boundary, which will be used instead of the present line to connect with the Western Union system for all points in the United States and Eastern Canada. The effect of the arrangement is that the C.N.R. Co.'s telegraph department becomes practically a part of the Western Union and G.N.W.T. system.

The Marconi Wireless Telegraph Co. of Canada (Ltd.) has been incorporated under the Ontario Companies' Act, with a capital of

ASSESSMENT SYSTEM



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THE BEST FRATERNAL BENEFIT SOCIETY IN EXISTENCE.

**Cost to Join the I.O.F.**

(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 cost's 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.

**The Members, the Benefits, and the Surplus**

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	23,091 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	590,567 85	13 49	6.25
1893	54,484	392,185 93	858,857 89	15 76	5.47
1894	70,056	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	992,225 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.

\$5,000,000 to establish an overland system of wireless telegraphy in Canada. The provisional directors are: W. R. Green, New York; J. N. Greenshields, K.C., Montreal; W. Barwick, K.C., H. C. Osborne and J. Payne, Toronto. The company, which is a subsidiary of the parent company in England, proposes to establish a system of wireless telegraphy across Canada from Glace Bay, N.S., to Victoria, B.C. It is proposed to equip central stations at Halifax, St. John, Quebec, Montreal, Kingston, Toronto, Hamilton, London, Sault Ste. Marie, Port Arthur, Winnipeg, Regina, Calgary, Revelstoke, Kamloops, Vancouver and Victoria, with connections therefrom to smaller stations. J. N. Greenshields claims there is no longer any doubt regarding the success of the Marconi system, and that with the installation of the overland system a 60% reduction in the cost of commercial messages would be effected.

The all-British Pacific cable was completed Oct. 30, when the cable str. Anglia reached Fanning island from Suva. The total length of the cable is 7,986 nautical miles, and \$12,125,750 was paid by the British Government to the Telegraph Construction and Maintenance Co. for the work. This includes not only the cable and the shore plant, but the building and fitting of a cable steamer for repair work. The cost of the cable is to be borne by the Canadian, Australian and Imperial Governments, but the latter is advancing the whole cost. The first message over the line was sent to the King in London, and subsequently one was received at Ottawa by the Governor-General sent by Sir Sandford Fleming from Ottawa. It was transmitted eastwardly across the Atlantic to Great Britain, thence to South Africa across the Indian ocean to Australia, then along the new cable to Bamfield creek, and by the C.P.R. telegraphs to Ottawa. The circuit was completed in 10 hours, the greater portion of which was expended in receptions and transmissions at the various repeating stations. Sir Sandford Fleming advocated the construction of a trans-Pacific cable as far back as 1879, and was a consistent advocate of it until the plan was endorsed at the Colonial conference in 1895. The officials are making complete tests of the cable, which was taken over on Nov. 20, and declared open for general use.

### General Telephone Matters.

The Bell Telephone Co. is repairing its line between Quebec and Montreal.

A project is under consideration for installing a telephone service at Kintore, Ont.

The Dominion Coal Co. is installing a telephone system at its different stores at Glace Bay, N.S.

A telephone system is being installed at McGregor, Man. B. A. Rose has charge of the work.

J. E. Bull, the Bell Telephone Co.'s manager at Guelph, Ont., has been transferred to Calgary, Alta.

The Bell Telephone Co. is contemplating stringing a line from Almonte to Clayton, Ont., in the spring.

The Bell Telephone Co. is applying to the Kingston, Ont., city council for permission to put a portion of its wires underground.

The Bell Telephone Co. has extended its line from Collingwood to Duntroon, Ont., where a local office has been opened.

H. N. Dignan, of St. Thomas, Ont., has been appointed line superintendent of the Bell Telephone Co. for the Harriston, Ont., district.

The Bell Telephone Co. has made application to the Collingwood, Ont., town council for permission to erect poles on a number of streets.

The Eastern Telephone Co. has fully completed the installation of its new metallic service from its new offices in Sydney, N.S., to its subscribers.

The Bell Telephone Co. has made an offer to the Hamilton, Ont., city council for a renewal of its franchise, but its consideration has been adjourned.

The Winnipeg city council proposes to install a telephone system of its own to connect the city hall, and all the buildings, etc., owned by the city.

The town council of Tunbridge Wells, Eng., which opened a municipal telephone exchange in 1901, has decided to sell it to the National Telephone Co.

J. I. Dixon, chief clerk in the Bell Telephone Co.'s office at London, Ont., has been appointed manager of the Brantford, Ont., office, vice J. F. Gardner, appointed to a district managership.

The Bell Telephone Co. has extended its long distance line to Bracebridge, Ont., and communication can now be had with Severn Bridge, Gravenhurst and Bracebridge, the rates being 45c., 50c. and 55c. respectively from Toronto.

The equipment for municipal telephone systems is being installed at Port Arthur and Fort William, Ont., over 100 instruments being reported to be installed up to Nov. 1. The Bell Telephone Co. has exchanges in operation in both towns.

L. B. McFarlane, General Superintendent of the Bell Telephone Co., and F. G. Walsh, District Superintendent at Winnipeg, have been inspecting the territory between Winnipeg and Carman, Man., with a view of establishing a long distance line.

A local telephone line has been installed in Gladstone, Man., with 72 subscribers; together with a line between Gladstone and Plumas, Man., to which the farmers subscribe. Dr. Smith, of Gladstone, is Manager of the Company owning the lines.

The Bell Telephone Co. is having surveys made from Sault Ste. Marie, Ont., along the north shore of Lake Huron, with a view of constructing a long distance line to Sudbury. The work now proposed to be done is to string a trunk line to Thessalon, and to connect up the several local independent lines in the little places en route.

The Bell Telephone Co., in connection with the completion of its long distance line from Winnipeg to the International boundary, and making connection with the U.S. system at Neche, N.D., has opened long distance stations at La Salle, Morris, Rosenfeld, Altona and Gretna; and at Plum Coulee, Winkler and Morden, with a branch line.

The New Brunswick Telephone Co. is pushing forward the work in connection with the installation of a metallic circuit in St. John, N.B. The cables in the underground conduits connecting with the new office building have been laid, and the stringing of the wires on the poles outside the conduit area is in progress. The whole service is expected to be completed by the end of the year.

A meeting was held at Singhampton, Ont., recently, when it was decided to form a company to construct a telephone line to Collingwood, via Duntroon and Glen Huron. A deputation subsequently explained the project to the Collingwood town council and secured permission to place poles on the streets, subject to such terms as may be hereafter agreed upon.

The Canadian Machine Telephone Co. has opened an office at 386 Bank st., Ottawa, Ont., and proposes to establish an experimental plant in that city, if suitable arrangements can be made. The city engineer re-

cently visited Piqua, Ohio, where there is an experimental plant, and in a report to the Mayor, says that the tests made showed the system to be quick and accurate, with sounds easily transmitted, "in fact quite as good as the present city service, which is unquestionably first-class."

P. Latzke, a U.S. expert in telephone matters, was asked by the Mayor of Ottawa to report on the cost of a municipal system for that city. In reply, he estimated the cost of equipment for 3,000 to 3,500 subscribers at \$360,000, and said the annual cost to each subscriber would vary with the actual number of subscribers—the more subscribers the higher the rates. He would consider it unwise, when everything in the telephone business was in an experimental stage, for the city to undertake the installation and management of a municipal plant, neither would he recommend the execution of a five or 10 year contract with the Bell Telephone Co.

The special committee appointed by the Hamilton city council to discuss the telephone question, has had a meeting with O. W. Rogers, promoter of the Modern Telephone Co., which offers to supply a telephone service at \$15 a year in business houses and \$10 a year in residences. Mr. Rogers went into details before the committee and claimed that the estimates he had made were rather over than under the mark. The committee will probably visit New York, where the automatic machine proposed to be adopted can be seen in operation, and make some investigation as to the correctness of the figures submitted before making a report to the council. The proceedings before the committee, according to the daily press reports, were very lively. In the course of the discussion Mr. Rogers said the franchise agreement drawn up by the city showed the Bell Co.'s influence plainly, whereupon Mayor Hendrie retorted that Mr. Rogers came from a country where corporation officials were considered to be crooked, and he seemed to imagine the same was true in Canada. Mr. Rogers apologized for the statement, and the discussion went on.

### British Columbia Telephones, Limited.

The following report for the year ended June 30 was presented at the annual meeting in Huddersfield, Eng., Oct. 23: The number of subscribers on the books of the subsidiary companies shows an increase of 355 over a year ago. The extension of the system and the continually increasing number of subscribers have required further capital outlay amounting to £18,829 during the year. The connecting of Victoria with Nanaimo was carried out early in Dec. last, and the directors are assured that the new line has worked very satisfactorily. As in previous years, provision has been made for depreciation on construction, working and movable plant, office furniture, etc., before arriving at the profits of the subsidiary companies. The competition which greatly reduced the profits of the subsidiary companies working in the Kootenay district last year, has ceased, and the directors hope that the provisional arrangement referred to in their last report will be completed at an early date. It is proposed to make a further call of £2 10s. a share on the ordinary shares issued last year. This will be payable in the early part of Jan., and will be used in paying off the opposing company, referred to above, whose business was acquired. The profits for the year (including £287 1s. 1d. brought from last year's account), after deducting the expenses of the English offices, amount to £12,590 14s. 11d., out of which have been paid: Interest on debenture stock to June 30, 1902, £1,269 18s. 3d.; dividend on preference shares to June 30, 1902, £1,693 4s. 4d.; interim dividend on ordinary



shares at 8% per annum for 6 months to Dec. 31, 1901, £1,625 4s. 4d., leaving a balance of £8,002 8s. 0d. The directors recommend that this be appropriated as follows: To transfer to the reserve fund, £5,000; in payment of a dividend on the ordinary shares at 8% per annum free from tax, for the half-year ended June 30, 1902, £1,779 13s. 10d.; to provide for directors' remuneration and to carry forward to next year's account, £1,222 14s. 2d.

The balance sheet shows the capital and liabilities of the Co. to be £122,727 0s. 7d. The assets are shares in the Victoria & Esquimaux Telephone Co. and the New Westminster & Burrard Inlet Telephone Co., which includes the shares in subsidiary companies, £88,380 3s., profits from and amounts owing by subsidiary companies £34,346 17s. 7d.

The directors are in England: E. Gray, W. E. Wimpenny, J. Wheatley; in Vancouver, W. Farrell, Dr. J. M. Lefevre. The Construction Superintendent and Manager in B.C. is H. W. Kent.

### Municipal Telephones in Glasgow.

An account was recently given of the failure of the Corporation of Glasgow, Scotland, to make the tramways system pay. The figures and facts were supplied by a correspondent of "The London Times," a sufficient guarantee of their correctness. In the same article, this correspondent, who has been conducting a thorough examination into the municipalization of public utilities throughout Great Britain, treated of the but recently installed municipal telephone system. As far as its financial success goes it is not as fair an object for criticism as the tramways, which have been in operation for years, and have been exploited the world over as the most successful attempt at municipalization ever known. The telephones are a newer venture and the system has hardly had an opportunity of getting on its feet yet. Still, as far as it has gone the results are not cheering.

The principal reason why Glasgow went into the telephone business was the inefficiency of the service provided by the National Telephone Co. and its high cost. The National does not appear to have been as progressive as it might have been. But it was not solely responsible for the failure to install an up-to-date service. In 1896, with a desire to improve its service, it made an application to the Corporation for permission to put its wires underground. This permission was refused. It was refused because the advocates of the municipalization of the telephone service realized that if the National Co. was granted permission to place its wires underground, the establishment of a municipal service on a satisfactory financial basis would be a most precarious undertaking. The National Co., thus refused permission to bring its service up-to-date, was compelled to retain its costly system of overhead wires. A rearrangement of the service was attempted, and in effecting it with speed further complications, which made the service even less satisfactory, were encountered.

In the meantime the Glasgow council, partly responsible for this inefficiency, had spent £16,000 in securing the right to construct a municipal telephone service from Parliament. This it secured, but attached to it is the proviso that after December 31, 1913, the Postmaster-General may purchase at a fair market price "all such plant as is suitable for actual requirements." With only 13 years of operation assured, the Corporation entered upon an investment of £120,000. It proved insufficient, and during the first nine months nearly £200,000 was spent. But while these figures are interesting, the results of the first nine months' working are more so. A surplus of £398 7s. 10½d. is reported. But, strangely enough, no allowance

is made for depreciation, and the receipts of £28,171 13s. 5d. included £12,417 1s. 5d. for rentals paid but not yet earned, and £1,658 8s. 1½ for trunk and telegram fees collected on behalf of the Post-office, and which will have to be handed over less a small commission. The profit was merely a paper profit, and had, in view of the fact that the system was just getting under way, no right of existence at all. The Corporation rate represents a reduction of £4 15s. a year on the National rate. Included in the £5 rate are certain trunk privileges, and it is stated that in some instances the cost of this, which the Corporation has to meet, has entirely wiped out the subscription rate, so that the subscriber has been receiving his telephone at the cost of the citizens of Glasgow. In view of this it has already been suggested that the rate should be increased. The indications are that the telephone system will not be enumerated as a paying investment instead of being credited as claimed, with the saving of £25,000 a year to the ratepayer. This saving is, of course, computed by taking the number of National subscribers and multiplying it by the reduction in rates. But this saving has not, and will

not, be effected for the simple reason that 3,000 of the odd 4,000 of the National's subscribers have been compelled to install both services. Consequently, instead of saving the ratepayers £25,000, the effect has been to add a burden of £15,000 to the telephone expense of 3,000 of them. Cities which have "enjoyed" the privilege of telephone competition will keenly recognize this effect.

Probably three-quarters of the population of Glasgow is not interested in telephones at all, and would not be if the rate was made half of what it now is. Yet if there is a loss they will be compelled to foot their share of it without having received any of the benefit.—Montreal Gazette.

### PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

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	Duff Manufacturing Co. ....	Allegheny, Pa.
	W. H. C. Musson & Co. ....	Montreal.
	A. O. Norton. ....	Coaticook, Que.
<b>Track Tools</b>	Canada Switch and Spring Co. ....	Montreal.
	James Cooper. ....	Montreal.
	Rice Lewis & Son. ....	Toronto.
	W. H. C. Musson & Co. ....	Montreal.
<b>Tramway Equipment</b>	James Cooper. ....	Montreal.
	J. J. Gartshore. ....	Toronto.
<b>Trucks (Electric Car)</b>	Baldwin Locomotive Works. ....	Philadelphia, Pa.
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	The Queen City Oil Co. ....	Toronto.
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<b>Wines and Liquors</b>	The Hudson's Bay Company. ....	
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	W. H. C. Musson & Co. ....	Montreal.
	The Wire and Cable Co. ....	Montreal.
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<b>Wire, Electric</b>	E. F. Phillips Electrical Works, Ltd. ....	Montreal.
	The Wire and Cable Co. ....	Montreal.
<b>Wire, Insulated Copper</b>	E. F. Phillips Electrical Works, Ltd. ....	Montreal.
<b>Wire, Telegraph and Telephone</b>	E. F. Phillips Electrical Works, Ltd. ....	Montreal.
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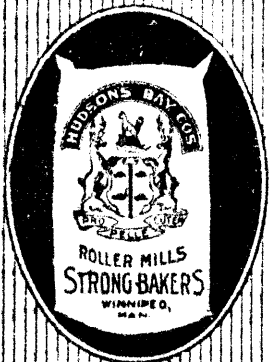
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