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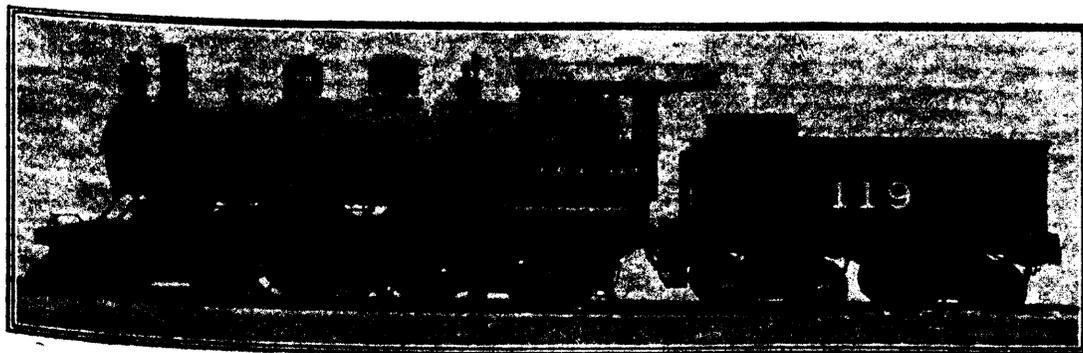
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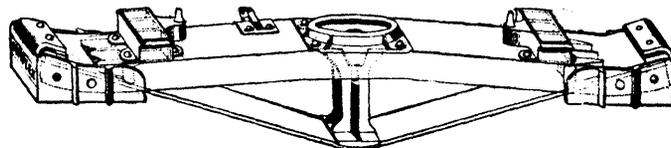
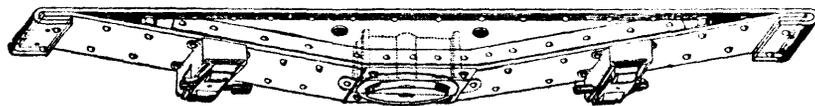
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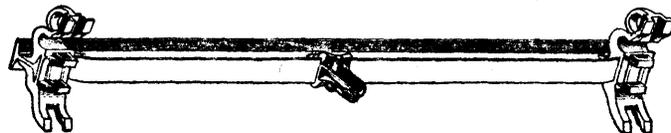
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TORONTO, CANADA, APRIL, 1904.

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The Canadian Pacific Ry. Shops.

By Henry Goldmark, C.E., Member American Society of Civil Engineers.

The Angus shops are situated on the Quebec line of the C.P.R. in Hochelaga ward, Montreal, about 2½ miles from the Place Viger station. The site is a plateau with an average elevation of about 127 ft. above sea level. It is very nearly level, having a general slope of about 1-10 of 1% towards the river. The property is a rectangular plot, about 4,700 ft. long and 2,000 ft. wide, its longer axis running northeast and southwest. The connection of the shop tracks with the main line of the railway is at the northwest corner; the steep gradient of the road making any other connection impracticable.

Although the contour of the ground is favorable and the necessary grading comparatively moderate in amount, much expense had to be incurred in order to procure safe foundations. This was due to the fact that the solid rock bottom is from 8 to 20 ft. below the ground line (except in the case of one or two shops), while the blue clay overlying the same is altogether too soft to support the foundations of the buildings. The extra expense involved in these extra foundations was nearly \$80,000. In a few cases ordinary piles capped with concrete were used, but almost all the important shops are built on what may be called a dry wall foundation. For each wall a trench 3 to 4 ft. wide was excavated to bed rock and filled to a level of 5 ft. below the ground with large flat quarry stones laid dry. On this subfoundation the ordinary masonry walls were reared. As the ground was thoroughly saturated with water, this work was expensive and tedious. It is believed, however, that on the whole this was the most economical and suitable foundation that could be used. This was especially the case as the stone for these foundations, as likewise for all rubble and concrete work, was taken from a limestone quarry on the shop grounds about a quarter of a mile from the buildings. Near the freight car shop is an outcrop of the hard trap rock locally known as Banc-rouge, involving about 8,000 cubic yards of rock excavation. The eastern portion of the ground was wooded, and had to be cleared, while a part of the central portion was swampy, requiring a moderate amount of gravel filling. For surface drainage several open ditches, 4 to 5 ft. wide, were built, but these also drain territory belonging to other owners north of the shop grounds. The surface drainage of the central part of the grounds will go into the sewers referred to later in this paper, which connect with the city system. The

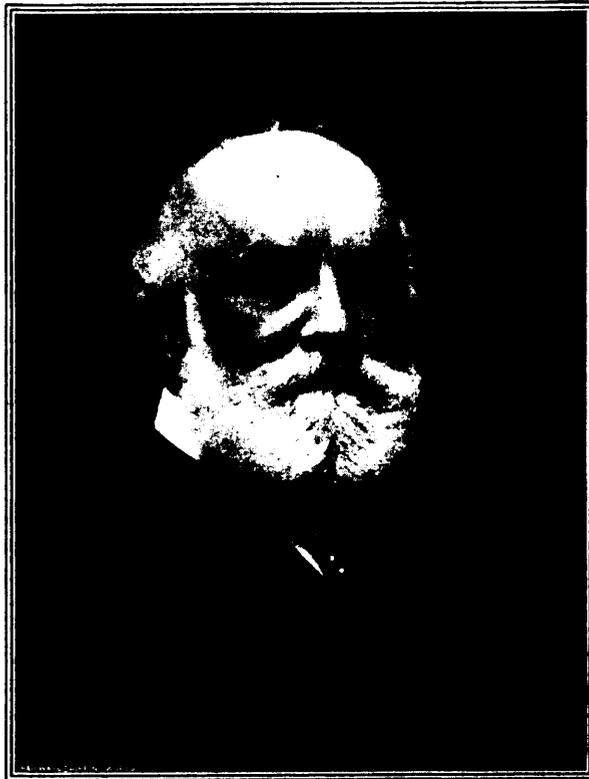
main purpose of the shops sewers is, however, the carrying off of wastes.

The Angus shops are intended primarily for the maintenance and repairs of the rolling stock in use on the eastern half of the transcontinental railway; in addition to this, provision has been made for the construction of a considerable number of new locomotives, passenger and freight cars. Besides this, a separate building is devoted to the manufacture of frogs and switches, while the machine shop and foundry will turn out many miscellaneous articles required in operating the railway, and in new construction. The general stores are

kilns. Locomotive work is mainly concentrated in the large locomotive, machine and erecting shop, while the blacksmith shop and grey iron foundry, with its pattern shop and storage building serve for car work as well as engine construction.

The arrangement of the buildings with reference to one another and the best methods of moving the material within the shop grounds was of the first importance and became the subject of extended investigation. It was influenced largely by the shape of the property, and the position of the main line tracks, as well as the ground available for storage. The future enlargement of the shops had also to be considered. Every building is, in fact, so arranged as to allow future enlargement, while suitable locations have been reserved for additional buildings. The main point to be considered in the arrangement was, however, the economical and direct handling of the material from the raw state to its incorporation into the finished car or engine. The general lay-out may be called a combination of the longitudinal and transverse system. The tracks running parallel to the buildings and to the long axis of the shop grounds form the principal means of access. As may be seen by reference to the plan, most of the buildings are arranged along a transverse avenue, 80 ft. wide. On this avenue, popularly called the "Midway," the usual transfer table is discarded in favor of a 10-ton overhead electric travelling crane, running on structural steel supports over 1,000 ft. long. It is believed that this crane will prove a most valuable adjunct in handling material between the different shops. It is supplemented by a surface track with turntables on the "Midway." A similar outdoor crane serves the stock yard adjacent to the grey iron foundry.

The different classes of the work may be briefly indicated. The building of freight cars is one of the most important functions the shops will have to fulfil. A large and increasing number are a necessity to the road, while existing facilities in Canada are meagre, and the prevailing duty makes importation from the U.S. expensive, besides being opposed to the policy of the railway to have all possible work done within the Dominion. The proposed output is 25 to 30 cars per day, requiring in the aggregate a very large amount of lumber and iron. The large wood storage grounds indicated will probably prove scanty rather than too liberal. This lumber will all of it pass through the planing mill, though a large proportion of it must first be dried in the larger or soft-wood kiln. The finished timbers emerge from the west end of the mill, and pass on to the freight car shop; a small



THE HON. A. G. BLAIR, K.C.,
Chief Railway Commissioner for Canada.

to serve the entire system, while the general offices will serve as headquarters for the Superintendent of Rolling Stock, the Master Car Builder and the General Storekeeper. The shops naturally fall into three classes; 1st, those devoted exclusively to car work; 2nd, to locomotive construction and repair; the 3rd being common to both departments. The first class comprises the planing mill and cabinet shop, the passenger car shops, freight car shop, truck shop and car machine shop, as well as the wheel foundry and the dry

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The Canadian Pacific Ry. Shops.

(Continued from page 109.)

transfer table assisting the movement. The iron work for freight cars is forged in the blacksmith shop, or cast in the grey iron foundry and machined in the car machine shop, whence it goes to the truck shop or the freight car shop for final use. In the truck shop the trucks for the freight cars, as well as for the coaches, are put together. The chilled wheels are to be cast in the well-equipped wheel foundry, with a capacity of 300 wheels a day. The wheels are bored and pressed on the axles in the west end of the truck shop,

Alphabetical List of Advertisers.

Advertiser	Page
W. Abbott, Montreal.....	140
The Accident and Guarantee Co. of Canada.....	142
American Locomotive Co., New York.....	Cover 4
Babcock & Wilcox (Ltd.), Montreal.....	144
Baldwin Locomotive Works, Philadelphia, Pa.....	148
Bell Telephone Co. of Canada.....	148
Bradstreet Company.....	149
The Acton Burrows Co., Toronto.....	Cover 1
Canadian Locomotive Co., Kingston, Ont.....	Cover 1
Canadian Northern Railway.....	118
Canadian Pacific Railway Land Department.....	130
Canadian Railway Accident Insurance Co.....	Cover 1
Canadian Shipbuilding Co.....	134
Canadian Steel and Wire Co., Hamilton.....	130
W. H. Coddington, Hamilton.....	140
B. J. Coghlin & Co., Montreal.....	140
James Cooper, Montreal.....	140
Dominion Bridge Co., Montreal.....	138
Dominion Steamship Line.....	130
Dominion Wire Rope Co., Montreal.....	134
Dominion Wire Rope Co., Montreal.....	134
E. L. Drewry, Winnipeg, Man.....	132
Drummond, McCall & Co., Montreal.....	130
Expanded Metal and Fireproofing Co., Toronto.....	134
Firstbrook Box Co., Toronto.....	118
Galena Signal Oil Co., Franklin, Pa.....	146
J. J. Gartshore, Toronto.....	146
Government of Manitoba.....	130
The B. Greening Wire Co., Hamilton, Ont.....	140
Gutta Percha and Rubber Mfg. Co. of Toronto.....	138
Holland Portable Light Works, Montreal.....	132
Holt, Renfrew & Co., Toronto.....	Cover 4
Hudson's Bay Company.....	Cover 4
Hunter, Rose Co., Toronto.....	142
James Hutton & Co., Montreal.....	142
Illinois Central Railroad.....	132
Imperial Bank of Canada.....	142
Intercolonial Railway.....	128
International Mercantile Marine Co.....	126
Wm. Jessop & Sons (Ltd.), Sheffield, Eng.....	136
Lima Locomotive & Machine Co. Lima, Ohio.....	138
Lehigh Valley Railroad.....	Cover 1
Rice Lewis & Son, Toronto.....	Cover 1
Locomotive and Machine Co. of Montreal.....	132
London Guarantee and Accident Co., Toronto.....	142
Mail Job Printing Co., Toronto.....	Cover 1
McCaskill, Douglal & Co., Montreal.....	Cover 1
John S. Metcalf Co., Chicago, Ill.....	138
Mica Boiler Covering Co., Montreal.....	134
Midland Towing and Wrecking Co.....	140
Montreal Steel Works, Montreal.....	142
James Morrison Brass Mfg. Co., Toronto.....	142
T. A. Morrison & Co., Montreal.....	142
W. H. C. Mussen & Co., Montreal.....	138
New York Central Railroad.....	136
Northern Electric and Manufacturing Co., Montreal.....	114
A. O. Norton, Coaticook, Que.....	142
Ontario Wind Engine and Pump Co., Toronto.....	132
Page Wire Fence Co., Walkerville.....	140
Eugene F. Phillips Electrical Works, Montreal.....	130
The Hiram L. Piper Co., Montreal.....	118
N. L. Piper Railway Supply Co., Toronto.....	142
Place Viger Hotel, Montreal.....	136
Polson Iron Works, Toronto.....	134
J. W. Pyke & Co., Montreal.....	138
Queen City Oil Co., Toronto.....	136
Rhodes, Curry & Co., Amherst, N. S.....	142
Russell House, Ottawa.....	132
St. Thomas Brass Co., St. Thomas, Ont.....	134
Safety Car Heating & Lighting Co., New York.....	116
Saxon Engine Works, Chemnitz, Germany.....	Cover 2
Simplex Railway Appliance Co., Montreal.....	Cover 2
Sonne Awning, Tent & Tarpaulin Co., Montreal.....	140
J. & J. Taylor, Toronto.....	142
Toronto Engraving Co., Toronto.....	Cover 1
Travelers' Insurance Co., Montreal.....	Cover 2
Westinghouse Manufacturing Co., Hamilton.....	Cover 2
Wire & Cable Co., Montreal.....	134

which is provided with all necessary machinery for this purpose. The completed truck goes to the freight car shop where the car bodies are erected on it. There are four tracks for erecting purposes, each 540 ft. long, and two intermediate tracks for bringing in supplies. Six travelling cranes fitted with air hoists will handle the heavier material.

The material for the passenger car shops is prepared in the mill and the cabinet shop; the mahogany and other hard woods being dried in the small kiln and stored in the hardwood storage, which forms the first floor of the upholstery shop. The coach shops are served by an electric transfer table 75 ft. long, operated through an overhead trolley by a 20 h.p. alternating current motor. The coach shops are 100 ft. wide; each shop has 28 tracks, spaced 24 ft. apart, centre to centre.

The locomotive shop is of the longitudinal type, with three bays, each 1,165 ft. long, of which about 300 ft. is devoted to the boiler and tank work. There are three bays: the erecting bay, 80 ft. wide; an adjacent machine shop bay, 50 ft. wide, and a third bay,

25 ft. wide, with an overhead gallery of the same width to be used for lighter machinery. In the erecting shop there are three tracks with pits, and two intermediate supply tracks. The locomotives are handled by two 60-ton electric travelling cranes, each having a 10-ton auxiliary hoist. In the boiler shop there is a 20-ton travelling crane on the same runway, and numerous jib cranes. In the machine shop there is one 15-ton crane, and one 10-ton crane, 50 ft. span. All these cranes are driven by continuous current motors, the voltage being 250. Besides this, the boiler shop has a hydraulic crane in the riveting tower to serve the riveter.

In the designing of the buildings, adaptation to their respective uses, and economy in both first cost and maintenance, were the prime considerations. It is hoped, however, that the appearance of the buildings is not objectionable, though perhaps not æsthetically pleasing. Some care was indeed taken to avoid disfiguring construction. Among the principal requirements to be met in the construction may be mentioned the necessity for good lighting in all parts of the buildings and in all weathers. To insure this the brick walls are pierced with as much window surface as appeared safe without endangering their safety. Steel frame construction for the side walls was, however, not used, the walls being self-supported and also carrying the trusses, except in the south wall of the locomotive shop. The windows occupy about 50% of the wall surface. In addition to this, almost all the buildings have skylights. These generally run transversely, extending half the width of the buildings. As there is a skylight in every bay, and its width is half the width of the bay, the skylight area is about 25% of the total roof area. These skylights are of galvanized iron framing, and covered with $\frac{3}{8}$ in. rough-cast glass laid in putty. The panes are two ft. wide and in one piece for each half skylight, avoiding all joints in the glass. A revolving ventilator is generally fitted to each skylight. Another important requirement was the greatest possible safety against destruction by fire, consistent with reasonable economy. The buildings are all of them of a simple, strong construction in conformity with the rules for slow burning mill construction as developed by the Massachusetts Mill Owners' Mutual Insurance Companies. The walls are of hard-burned brick, laid in Portland cement mortar. They are from 12 to 16 ins. thick, with pilasters about 20 ft. apart. In the arrangement of the roof framing and the spacing of the supporting columns, the demand of the operating department with regard to the lay-out of the machinery had to be considered, and the result is in some cases a compromise between its requirements and economy in construction. It is believed, however, that as built, no important requirement in the use of the shops has been sacrificed. The framing of the roofs is of three kinds; 1st, a column and girder construction (usually in timber), as in the truck shop and frog shop, the passenger car shops and the cabinet shop; 2nd, a roof frame consisting of Howe trusses supported on steel columns, as in the freight car shop, planing mill and car machine shop; 3rd, heavy steel columns and trusses are used, as in the locomotive shop, foundries and blacksmith shop. It may be added that the wooden Howe trusses in the car shops were adopted instead of steel trusses mainly to save time. The saving in cost did not exceed 12½%. In the outcome there was probably no saving of time from the use of timber, but on the other hand, no great disadvantage resulted from using this form of construction. The heavy timber girder and post construction, as used in the truck shop, etc., was adopted, as being cheaper and better than truss work, and its use is believed to be fully justified. The principles of mill construction

were fully carried out; the purlines in no case being less than 6x12 ins., and in many buildings 8x16 ins. They are spaced from 8 to 10 ft. apart. The roof boards are 3 ins. thick in all cases. In the locomotive shop they are 11 ins. wide with tongue and groove. In most of the other buildings this roofing was built up of strips of 3x3, laid with broken joints in random lengths, and well nailed horizontally and vertically. These strips were surfaced on three sides, but were not tongued and grooved. On top of the boards a four-ply tar and gravel roofing of standard construction was laid. There is a galvanized iron flashing around the skylights, but there are no gutters or downspouts. The flooring throughout consists of 3 ins. unmatched plank, nailed to cedar sleepers 4 ft. apart and bedded in from 15 to 18 ins. cinders. It may be added that the roof loads were taken at 70 lbs. per sq. ft. (total loading), and the stresses in the timber beams at 1,500 lbs. per sq. in. The structural steel is of simple construction, though every attempt was made to secure rigidity, especially where crane runways had to be supported. Tensile stresses are 15,000 lbs. per sq. in. on the net section, and compressive stresses 12,000 lbs. reduced for length. In the crane runway girders the tensile stresses were reduced to 12,500 lbs. per sq. in.

The heating of the shops was the subject of an extended study, in order to determine the most practicable and feasible system. This question was necessarily taken up in connection with the design of the power plant. The economy of producing power in an independent station is dependent on the utilization of the exhaust steam for heating. As exhaust steam possesses from 85% to 90% of the heat units contained in the steam before it has passed through the engines, it is clear that every consideration of economy will lead to its utilization if possible. Whether any additional boilers will be required over and above those necessary for power will depend, of course, on the amount of power, the size of the shops, and the prevailing temperature. In the Angus shops, about 26,000,000 cubic feet had to be heated in the various shops, while the h.p. installed in the engine room of the power house is nearly 3,000. A somewhat careful calculation, based upon the prevailing practice, and a study of the temperatures in Montreal as recorded by McGill University for many years past, led to the conclusion that about 2,400 boiler h.p. would be required, and that the heating requirements were very nearly the same as the power requirements under average weather conditions. The choice lay between three systems of heating: the hot blast, ordinary direct steam radiation and a hot water system. In the first, exhaust and live steam are taken to one or more points in each building, and used there to heat coils of steam pipe, and also to drive a small engine operating a fan. Air is taken either from outdoors or from the inside of the building, drawn by the fan over the heating coils so as to be warmed to about 130 degrees, and then blown through ducts over or above ground to different parts of the building. This is the system finally adopted for all the buildings, though the hot water system presented some advantages. The requisite radiating surface for heating by hot water, is, however, difficult to obtain, and the cost of the system is considerably greater. In the arrangement of the pipes care was taken to proportion them in such a way as to utilize the exhaust steam as much as possible. In extreme weather certain portions of the buildings will have to be heated by live steam by day as well as by night. A considerable amount of economy was possible in proportioning the pipes to fit the estimated amount of exhaust steam, rather than the total that might possibly be available. The steam pipes are carried from the power house to the several buildings in a tunnel 6 ft. high and

4½ ft. wide, built of brick. A few of the smaller mains are, however, carried under ground in wooden boxes.

All the steam for power, whether for mechanical or lighting purposes, and also for heating, will be generated in the central power plant. The boiler room contains four 415 h.p. Babcock & Wilcox boilers built for 160 lbs. pressure, and also one 320 h.p. high pressure boiler built for 300 lbs. working pressure. The latter will be used for testing the completed locomotive boilers in the boiler shop, the steam being conveyed in a special 4 in. high pressure main. All the boilers are fitted with Babcock & Wilcox patent superheaters, to superheat the steam 150 degrees Fahrenheit. Neemes patent shear cut shaking grates, manufactured by the Babcock & Wilcox Co. are used instead of the ordinary grate bars. There will be installed in connection with the boilers a fuel economiser of 480 pipes for heating the feed water by means of the waste gases from the boilers. There will also be installed a mechanical draft plant, consisting of two 200 inch special steel plate fans, each directly connected to a navy-type, double enclosed, vertical engine 8 by 5½ ins. The outlet from the fans to be connected into a steel plate stack, 8 ft. in diameter. The induced draft plant and stack is carried on steel work above the economiser to minimize floor space. The boilers and superheaters, induced draft plant, feed pumps, and piping in the boiler room are to be installed by Babcock & Wilcox, Ltd.

The engine and generator equipment is as follows: Three 750 h.p. cross compound engines, non-condensing, connected to 500 k.w. alternating current generators. These have a voltage of 600, and a frequency of 7,200 alternations a minute. The speed of the units is 150. An auxiliary unit of half this size with a simple engine is provided. These generators provide all current for lighting as well as for power, excepting that necessary for cranes and a limited number of variable speed tools. For these, two units are provided, each being a 300 h.p. simple engine direct connected to a d.c. generator producing 250 volts. The speed of these engines is 180. The distribution from the power house to the different shops is by bare wire on steel poles. The motor equipment in the different shops is not yet fully worked out. The larger engines will have individual motors, but group driving will be used for smaller tools, the smallest motor being 10 h.p.

The sewerage system is rather extensive but simple in its character. Two main lines of sewers are carried transversely, connecting with the city sewer on Nolan st. They begin with a diameter of 8 in. at the northern part of the grounds, and increase to 3 by 2 ft. They are connected with all lavatories, etc., and also serve to a limited extent for surface drainage.

The city provides two systems of water mains—one for ordinary uses at a pressure of about 35 lbs.; the other for fire purposes only with a pressure of 90 lbs. a square inch. There are two entirely separate systems of mains all over the grounds for these two services. The supply system has a 6 in. main on the midway, with smaller mains diverging to the different buildings. The fire service consists of a 12 in. main on the midway, and 8, 10 and 12 in. mains encircling the various buildings. About 60 three-way hydrants are placed at different points in the grounds, and are about 150 ft. apart. With the fire mains is also connected the sprinkling system. About 13,000 automatic sprinklers are put in all the buildings, their arrangement being strictly in accordance with the specifications of the underwriters. Two 1,500-gallon underwriters' pumps are placed in the power house as auxiliary measures in connection with the fire service. In addition to the city water supply, the shops have their own supply of water,

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PRESIDENT.

which consists of 2 artesian wells, 6 in. in diameter and 55 ft. deep, sunk through the lime stone rock close to the power house. It is believed that these will furnish nearly 20,000 gallons an hour of very pure water. As a further safeguard against fire, an open reservoir, 66 ft. in diameter with a capacity of 500,000 U.S. gallons, has been provided. A 75,000-gallon steel tank, 50 ft. in height, serves to maintain a uniform head on the supply pipes and gives additional storage.

The general welfare of the employes has been looked after to an unusual degree. A very complete system of lavatories is provided; the latest sanitary plumbing will be installed, and the lavatories are in every case under the same roof as the main building, thus obviating the necessity for the men to go out of doors, which in this climate is very objectionable in winter. The system of heating also provides most excellent ventilation. Individual clothes' lockers made of open iron work will be provided to hold the men's outer clothing while they are at work, while the drinking water taken from the artesian wells will be purer than that obtainable anywhere else in the city.

It is impossible in this brief paper to refer to the machinery to be installed in the different buildings. In passing, mention may be made of the wheel foundry equipment. This is the well-known rectangular system, and it is hoped will produce car wheels very economically and of high grade. The grey iron foundry, in like manner, is to be equipped according to the latest and best practice. The large locomotive shop is to be fitted with latest machinery and tools working high-grade steels at the highest cutting speeds called for by proper economy. The boiler shop at the west end of the locomotive shop will have a 17 ft. gap hydraulic elevator with a 65 ft. riveting tower for holding the 25-ton hydraulic cranes. The pressure in the accumulator will be 1,500 lbs. per square inch. The blacksmith shop is being equipped with oil furnaces throughout. There will be an overhead system of exhausts, and a blast system for introducing air. Shavings will be removed from the planing mill and cabinet shop by the exhaust fan system, and carried to the power house for consumption under several of the boilers. These are simply a few of the salient features that may be mentioned in connection with the equipment.

The Ticket Agents' Illicit Lobsters.

The St. John, N.B., Sun, of Feb. 2, says:—"A way back in October the Canadian Ticket Agents' Association visited St. John and the members were taken to Westfield, where by the hospitality of the local officials they were treated to a first-class clam bake. The visitors enjoyed the spread, and especially the lobsters which were mixed up with the clams, and which tasted just right. But these same lobsters have been lying heavily on the digestive organs of some people ever since that clam bake took place, and are now causing trouble. The Department of Fisheries heard of the hearty manner with which the lobsters were eaten by the visitors, and upon investigation found that these fish were out of season. Then followed a letter of instructions to Capt. Pratt of the Curlew, whose duty it is to see that Col. Tucker's pets receive fair treatment. In consequence of this letter Capt. Pratt laid information before Magistrate Harrison at Westfield to the effect that lobsters were eaten at that place during the close season. C. B. Foster, of the C.P.R., and Charles Jackson, restaurant keeper, were named as responsible for the bill of fare and summonses were issued, asking them to account for the break. The hearing was to have been held at Westfield this week, but has been adjourned till next month."

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

Atlantic and Northwest Ry.—Application will be made next session of the Dominion Parliament for an act extending the time for the completion of the lines authorized to be constructed in New Brunswick and Quebec, by the act of 1879 and the subsequent amending acts.

Windsor St. Station, Montreal.—Press reports recently stated that notwithstanding the fact that the original buildings at this station had been doubled, there was congestion in every department, and that there were in the engineer's office complete plans for the enlargement and alteration of the buildings, which would completely alter the aspect of the place. The report went on to give details of the alterations which would be made, and how the site of the old Olivet Baptist church, which had been purchased, and a site on Donegani st., which was to be acquired in the near future, were to be utilized, and added that the improvements, when completed, would cost about \$750,000. We were officially informed, Feb. 22, that nothing had been done towards any enlargement of the station, and that no plans had been prepared.

Piles Junction to Grand Mère.—The C.P.R. will apply this session of the Dominion Parliament for an act extending the time for the commencement and completion of a line from near Piles Junction on the North Shore Ry., or from the Piles branch northwesterly to Shawenegan Falls, thence northeasterly to Grand Mère, Que.

Ottawa, Northern and Western Ry.—Application will be made this session of the Dominion Parliament for an act authorizing the Company to construct an extension of its line from Maniwaki to James Bay, Que.; a branch line from the main line from Ottawa to Lake Temiscamingue, Que., with power to construct other branch lines. An extension of time for the completion of lines previously authorized will also be asked.

The extension of the Ottawa, Northern and Western Ry. from Gracefield to Maniwaki, Que., was put in operation Feb. 8, and trains are running daily from Ottawa to Maniwaki. (Jan., pg. 23).

North Bay Improvements.—The old roundhouse has been torn down, and the new roundhouse south of the tracks is in use. The General Superintendent, Resident Engineer and Master Mechanic retain offices in the old station building, but the district Superintendent and the operating staffs have moved into the new station. (Dec., 1903, pg. 422).

Fort William to Winnipeg Grade Reduction.—The reduction of grade, etc., on the line between Fort William and Winnipeg, which was commenced in 1903, will be pushed to completion during the year. (Nov., 1903, pg. 385).

Scoville Lake Bridge.—The Company proposes to recover the engine which went through the bridge at Scoville lake, Ont., in 1903, as early as possible. It is the intention to fill in the trestle bridge work at this point so as to make a solid embankment, but no decision has been reached as to when this work will be taken in hand. A temporary trestle bridge and embankment was constructed to enable the traffic to be carried on. (Sept., 1903, pg. 309).

Winnipeg Subway.—The agreement with the city respecting the construction of the subway at Main st., has been finally approved, and the plans signed by the Mayor. The agreement provides for the construction of a steel and concrete subway, to consist of five arches, one in the centre for the street railway tracks, one at each side for vehicular traffic, and one at either side of these for the sidewalks. From the top of the arch to the surface of the roadway is 14½ ft., and the

sidewalk arches will have a clearance of 8½ ft. The walls or columns supporting the arches will be about 2½ ft. thick at the base for the centre ones, and 2 ft. for those at the sides. The heavier construction of this structure will require the sinking of the roadway 11½ ft., and of the sidewalks 7 ft., or one foot more than was contemplated in the original plan for a steel girder structure. The agreement calls for the completion of the work by Nov. Tenders will be asked for at once and construction will be gone on with immediately. (Oct., 1903, pg. 355).

Winnipeg Station and Hotel.—Tenders were recently called for by the Division Engineer at Winnipeg for the removal of several buildings on Higgins ave., which occupy a portion of the site of the station building and hotel which the Company will erect. The buildings are to be removed immediately so that the work of erecting the station can be gone on with at once. It is expected to get the station building completed this year, but it is not likely that any work will be done on the hotel beyond the foundations during this year. (Oct., 1903, pg. 355).

Pipestone Branch.—At the conclusion of the season's work of 1903 the grading on the extension of the Pipestone branch had been completed west from Arcola to Regina, Assa., 113 miles, and track had been laid east from Regina to Creelman, 40.7 miles. Track will be laid on the remaining 72.3 miles as early as possible this year. (Jan., pg. 23).

Pheasant Hills Branch.—Track was laid, Dec. 31, 1903, to Esterhazy, Assa., 120 miles from Kirkella, Man., and grading had been completed to Jumping Deer creek, 27.3 miles further. Track will be laid on this as early as possible in the spring, and it is expected to complete the grading and tracklaying for 40 miles beyond Jumping Deer during the year. (Jan., pg. 23).

Manitoba and Northwestern Ry.—Application will be made this session of the Dominion Parliament for an act authorizing the construction of a branch line from near Sheho, Assa., westerly and northwesterly, but southward of Quill lakes, for 100 miles; a branch from Churchbridge, southerly to a junction with the Pheasant hills branch of the C.P.R., near Cutarm creek, with power to construct other branches.

Track will be laid during the summer to mileage 76 from Yorkton, Assa., in the vicinity of the Quill lakes, to which point grading was completed in 1903. Twelve miles of track were laid on this during 1903, to Sheho, about 46 miles from Yorkton, leaving about 30 miles on which track will be laid this year. The question of a further extension of this line is not being considered at present. (Sept., 1903, pg. 309).

Moose Jaw to Swift Current Grade Reduction.—The grade reduction work which was started during 1903 on this section of the line, 112.3 miles, will be completed during the current year. (Nov., 1903, pg. 385).

Calgary Station.—It is proposed to erect a new station building at Calgary, Alta., but nothing is likely to be done this year, the Company's plans not having been sufficiently matured.

Land and Irrigation Department Offices.—A new building will be erected at Calgary, Alta., during the year for the use of the C.P.R. Land Department, which now has its headquarters at Winnipeg, and for the B.C. Land and Irrigation Department, now at Calgary.

Calgary Shops.—A contract has been let to T. Thomkins, of Brockville, Ont., for the erection of shops at Calgary for the purpose of doing running and general repairs.

Macleod Extension.—A press report recently stated that "The C.P.R. will most likely begin work on the extension of the

Crow's Nest Pass Ry. into Macleod during the coming spring." The C.P.R. has been operating its trains in and out of Macleod for some years, it being on the dividing line between the Lethbridge and Cranbrook sections. The line to Calgary joins the line from Medicine Hat to the Crow's Nest Pass line 1.1 miles from Macleod.

Branch from Lacombe.—Surveys have been completed for a branch line easterly from Lacombe, 114 miles from Calgary, Alta., and we were advised Mar. 9 that it had been decided to proceed with the construction of 25 miles during this year. A contract had not at that date been let.

Branch from Wetaskiwin.—It has been decided to construct during the year a branch 25 miles easterly from Wetaskiwin, 152 miles from Calgary, Alta. Surveys for this line have been made, but we were advised Mar. 9 that the contract had not been let. (Jan., pg. 23.)

British Columbia Southern Ry.—Application will be made during the current session of the Dominion Parliament for an act extending the time within which the company may construct the eastern and western sections of its line; and extending the time for the commencement of construction of the branch lines from its main line, and also from its authorized railway from Fort Steele to Golden, B.C.

Revelstoke Yards.—The work of rearranging and enlarging the yard at Revelstoke, B.C., will be gone on with during the year.

Pacific Division.—During the current year it is proposed to relay a considerable mileage with heavier steel, and to do a good deal of ballasting at various points throughout the division.

The principal work which will be gone on with during the year on this division will be replacing with permanent structures the present bridges along the line at Kamloops lake.

Vancouver Hotel.—With reference to the completion of the hotel at Vancouver, it has been decided that nothing will be done in the way of removing the old portion of the building, and replacing it with a new wing to conform to the new structure, until after the tourist season is over. (Dec., 1903, pg. 422).

Tourist Hotel at Victoria.—The details of the plans for the proposed tourist hotel at Victoria, B.C., are being worked out by F. M. Rattenbury, architect, Victoria. The new hotel will be a seven story building of cut stone, dressed and rock faced, with a slanting slate roof, in the French Renaissance style, somewhat in the style of the Chateau Frontenac. The front of the hotel will face the harbor, the main entrance being in the centre, with square towers at either end, which will have snuffer turrets of the baronial style. It will have a frontage of 230 ft., a total depth of 200 ft., and will be built on three sides of a square. This portion will contain all the public rooms and bedrooms for 175 guests. The remaining wing will front on Douglas st., and will be entirely given over to bedrooms, having accommodation for an additional 175 guests. The central portion enclosed by the building will be laid out as a palm garden. The foundations for the wing now to be erected are to be built under the direction of the C.P.R. engineering staff, and will be gone on with early in the spring. The interior accommodation will include a large hall in the old English style, which will lead into the glass-roofed palm garden, which will be decorated in Chinese style. The dining-room will be 50 ft. by 100 ft., and there will also be on the ground floor a ladies' saloon,

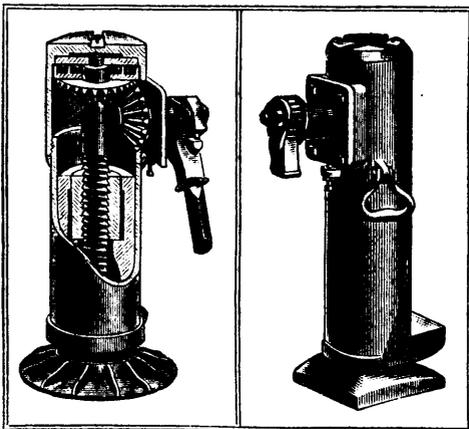
to be decorated in Marie Antoinette style, together with a reading room and library. In the basement there will be a grill room, billiard room, Turkish bath, lounge room, and bar. The five upper floors will be devoted to bedrooms, which will be large, airy rooms, provided with open fire places, cupboards and bathrooms. The rooms will be all direct lighted, and there will be a direct elevator service from the kitchen so as to permit of meals being served in the rooms. (Dec., 1903, pg. 422).

C.P.R. Irrigation Work.

The irrigation project upon which the C.P.R. has embarked in the Northwest Territories, is the largest of the kind as yet attempted on the continent. The area proposed to be reclaimed by the plan is some 3,000,000 acres, about 4,700 square miles, in extent, and lies between Medicine Hat, Assa., and Calgary, Alta., being intersected by the C.P.R. transcontinental line. The soil generally throughout the area is first class, but during the majority of years the rainfall is insufficient to mature crops, and as a consequence very little settlement has taken place. The C.P.R. proposes to reclaim this area by means of irrigation and thereby promote its settlement. The water is to be obtained from the Bow river, near Calgary, and construction of the first section of the undertaking is about to be proceeded with. This section involves the construction of a main canal 20 miles in length, with a bed width of 60 ft., and carrying water to a depth of 10 ft., in addition to about 100 miles of secondary canals. The completion of this section of the project is estimated to involve an expenditure of \$1,300,000. The work of constructing the head gates and river protection is in hand, and tenders for the construction of the main

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and secondary canals are under consideration. Tenders for this work have been considered and that of a firm at Vancouver, B.C., will probably be accepted.

The completion of the first section will irrigate about 300,000 acres, and render a contiguous area of about 400,000 acres available for grazing and dairy farming. If this section of the work proves a success, additional sections will be added until about 1,500,000 acres of the block will be brought under irrigation, the remaining 1,500,000 acres being available for grazing and dairy farming. The estimated cost of the completed scheme as a whole is between \$4,000,000 and \$5,000,000. J. S. Dennis, Superintendent of Irrigation and B.C. Land Commissioner, Calgary, Alta., has charge of the work.

G.T.R. SEMI-ANNUAL MEETING.

At the semi-annual meeting in London, Eng., Mar. 8, the following report was presented for the half-year ended Dec. 31, 1903. The following summary shows a comparison of the half-year's revenue account with that of the corresponding half-year ended Dec. 31, 1902:

Dec. 31, 1902.		Dec. 31, 1903.	
£2,811,878	Gross receipts	£3,138,468	2 4
1,974,821	Working expenses of 70.55% compared with 70.23% in 1902	2,214,084	8 7
837,057	Net traffic receipts	924,383	13 9
12,931	Add—Amount received from the International Bridge Co., Toledo, Saginaw, and Muskegon bonds.	12,930	12 9
371	Interest on bonds of Central Vermont Ry.	404	0 5
6,507	Interest on securities of controlled lines and on St. Clair tunnel bonds acquired by the issue of Grand Trunk 4% debenture stock	6,506	14 3
61,866	Balance of general interest account	61,865	10 5
17,752		7,164	4 10
£936,484	Net revenue receipts	£1,013,254	16 5

Following are the net revenue charges for the half-year, compared with the corresponding period:

Dec. 31, 1902.		Dec. 31, 1903.	
£ 77,603	Rents (leased lines)	£ 77,603	0 9
478,721	Interest on debenture stocks and bonds of the Co.	488,720	19 11
52,033	Interest on debenture stock and bonds of lines consolidated with the G.T.Ry.	48,550	7 4
608,357	Detroit, Grand Haven and Milwaukee Surplus	614,874	8 0
2,022	Advanced to the Detroit, Grand Haven and Milwaukee Co. towards payment of interest on its bonds, under agreements, half-year to Dec. 31, 1903.	464	2 3
610,379		614,410	5 9
326,105	Leaving a surplus of	398,844	10 8
£936,484		£1,013,254	16 5

Adding the balance of £5,541 18s. 5d. at the credit of net revenue account June 30, 1903, to the above surplus for the past half-year of £398,844 10s. 8d., the total amount available for dividend is £404,386 9s. 1d., from which the directors recommend the payment of the following dividends, viz:

Half-year's dividend on the 4% guaranteed stock	£109,763	17 6
Half-year's dividend on the first preference stock	85,420	15 0
Half-year's dividend on the second preference stock	63,210	0 4
Dividend of 2% on third preference stock	143,292	14 4
	£401,687	7 2

leaving a balance of £2,699 18s. 11d. to be carried forward to next half-year's accounts.

Following table exhibits a comparison of the receipts for the half-years ended Dec. 31, 1903 and 1902:

Description of Receipts.	1902.		1903.	
	Increase.	Decrease.	Increase.	Decrease.
Passengers	£ 844,717	£ 90,533	£ 935,450	£ 141,736
Mails and express	141,736	16,820	158,556	216,467
Freight and live stock	1,755,488	69,937	1,971,955	7,707
Miscellaneous	9,937	—	7,707	—
	£2,811,878	£ 336,590	£3,138,468	—

TRAFFIC STATISTICS.

Description of Receipts.	1902.		1903.	
	Increase.	Decrease.	Increase.	Decrease.
Passengers carried per passenger	4,687,651	451,422	5,139,073	38,734
Average fare per passenger	3s. 7½d.	3d.	3s. 7½d.	3d.
Tons of freight and live stock	6,148,530	590,172	6,738,702	88,814
Average rate per ton	1s. 3½d.	1s. 3½d.	1s. 3½d.	1s. 3½d.
Tons carried one mile	1,336,650,504	70,075,044	1,406,763,548	5,661
Earnings per train mile	72.11d.	5.66d.	77.77d.	—

The average rate per ton per mile on the entire freight business was 0.68 of a cent, compared with 0.64 of a cent in the corresponding half-year.

The working expenses, excluding taxes, amounted in the half-year to £2,175,214, or 69.31% of the gross receipts, as compared with £1,937,527, or 68.91% in the corresponding half-year; an increase in amount of £237,687, and in proportion to the gross receipts of 0.40%.

The following table exhibits a comparison of the revenue expenditure, including taxes, for the half-years ended Dec. 31, 1903 and 1902:

Description of Expenditure.	1902.		1903.	
	Increase.	Decrease.	Increase.	Decrease.
Maintenance of way, and structures	£ 58,302	£ 814	£ 57,688	£ 814
Maintenance of equipment	310,420	52,485	362,905	179,616
Conducting transportation	1,005,716	6,400	1,185,332	6,400
General expenses	37,994	1,576	60,266	1,576
Taxes	38,870	—	38,870	—
Total	£1,974,821	£239,263	£2,214,084	0,32
Percentage of gross receipts	70.23	0.32	70.23	4.22d.
Expenditure per train-mile	50.64d.	—	50.64d.	—

The train mileage of the half-year compared with that for the half-year ended Dec. 31, 1902, as follows:—

Description of Mileage.	1902.		1903.	
	Increase.	Decrease.	Increase.	Decrease.
Passenger	3,759,666	178,497	3,938,103	203,386
Freight	5,151,052	442,258	5,354,432	55,522
Mixed trains	442,258	—	392,736	—
Total	9,352,974	336,355	9,685,271	—

The increase in the maintenance of equipment and the cost of conducting transportation arises from the increased price of materials of all descriptions and the higher wages paid to all classes of employes, causes which have affected the working expenses of the whole of the railways in the northern portion of the American continent.

From the foregoing statements it will be observed that the G.T.R. gross receipts for the half-year show an increase of £326,590, or 11.61%; the working expenses, including

taxes, an increase of £239,263, or 12.12%. The train mileage shows an increase of 326,355, or 3.49%.

There has been an increase of four miles in the length of lines worked by the Company caused by the construction of a connection from Brantford to Lynden on the main line between Niagara Falls and Sarnia.

The total charges to capital account for the half-year were £512,874 13s. 4d. Of this £18,674 2s. 0d. was for discount and commission on £754,378 4% guaranteed stock issued under the prospectus of Sept. 25, 1903, less premium on £215,000 4% debenture stock and £45,000 4% guaranteed stock sold during the half-year.

The actual expenditure on capital account was as follows:—

New works	£ 36,140	11 9
Double track	144,164	0 7
New rolling stock	299,877	1 1
Land purchased	14,018	17 11
	£494,200	11 4

The balance of £177,700 Grand Trunk, Georgian Bay, and Lake Erie 5% first mortgage bonds outstanding matured on Aug. 1, last, and have all been paid off.

The equipment has been increased in the past half-year by the purchase of 500 double-hopper steel coal cars, 500 double-hopper wooden coal cars, 500 box cars, and 300 cattle cars, the cost of which, £299,877 1s. 1d., has been charged to capital account.

Twenty-nine locomotives, 356 box cars, 22 refrigerator cars, and 4 work cars have been built in the Company's shops during the half-year on revenue account, and at Dec. 31 there remained an amount of £51,027 17s. 6d. at the credit of the engine and car renewal funds applicable to future renewals.

The doubling and deviation of the remaining portion of the track between Montreal and Toronto (Whitby to Port Hope) has been practically completed, and freight trains commenced to use the new lines on Dec. 1. In order to facilitate the handling of the traffic through the Sarnia tunnel and over the Victoria Jubilee bridge at Montreal, it has been found necessary to double the line between Sarnia and Kingscourt Junction, 20½ miles, and between St. Lambert and St. John's, 21 miles, which has been carried out during the half-year. Satisfactory progress has been made during the half-year in the work of renewing the bridges between Montreal and Hamilton and on the southern division. In addition to the half-yearly proportion of the cost of renewing these bridges, £30,000 has been specially charged against revenue, and credited to the renewal of bridges account in the accounts of the past half-year.

The gross receipts of the G.T. Western Ry. Co. for the half-year were £580,684, against £496,642 in 1902, and the working expenses were £498,571, against £426,743, leaving a net profit of £82,113, against £69,899, compared with the corresponding period of 1902. The net revenue charges for the half-year were £79,922, against £69,281, so that there was, on Dec. 31, a net revenue credit of £2,191, which is carried forward, as compared with £618 for the corresponding half-year of 1902. The number of passengers carried during the half-year was 874,338, against 766,250, an increase of 14.10%; and the passenger train receipts, including mails and express receipts, were £174,536, against £168,384, an increase of 3.65%. The quantity of freight moved during the half-year was 1,306,552, against 1,309,181 tons, an increase of 6.67%, and the receipts from this traffic were £405,637, against £328,039, an increase of 23.66%.

The gross receipts of the Detroit, Grand Haven and Milwaukee Ry. for the half-year were £142,283 against £128,575 in 1902; the working expenses were £104,948, against £93,551; thus leaving a balance of £37,335, against £35,024, and showing an increase in net revenue of £2,311, compared with the cor-

responding half-year of 1902. The net revenue charges for the half-year were £36,871, against £37,046 in 1902, so that there was a net revenue surplus of £464, as compared with a deficiency of £2,022 for the corresponding period of 1902. The number of passengers carried during the half-year was 399,302, against 394,614, an increase of 1.19%; and the passenger receipts, including mails and express receipts, were £64,316, against £57,162, an increase of 12.51%. The quantity of freight moved was 470,601 tons, against 363,597 tons in 1902, an increase of 29.43%; and

the receipts from freight traffic were £76,417, against £70,158 in 1902, an increase of 8.92%.

The death of E. W. Meddaugh, who for many years acted as General Solicitor in respect of the lines west of the Detroit and St. Clair rivers, is much regretted by the board, who had great confidence in his remarkable abilities, high character and entire devotion to the interests of the Company. The Directors have to report with extreme regret that, owing to ill-health, Jos. Price has resigned his position of Vice-President, retaining, however, his seat on the board. A. W. Smithers

has been elected by the Directors Vice-President. G. Allen resigned his seat on the board Dec. 28 last. The retiring Directors are A. Hubbard, Sir H. M. Jackson, L. J. Sergeant and Lord Welby, all of whom, being eligible, offer themselves for re-election. F. Whinney, one of the auditors in London, and C. Percy, one of the auditors in Canada, also retire and offer themselves for re-election.

The following are extracts from appended REPORTS OF OFFICIALS. The Chief Engineer reports that the charges

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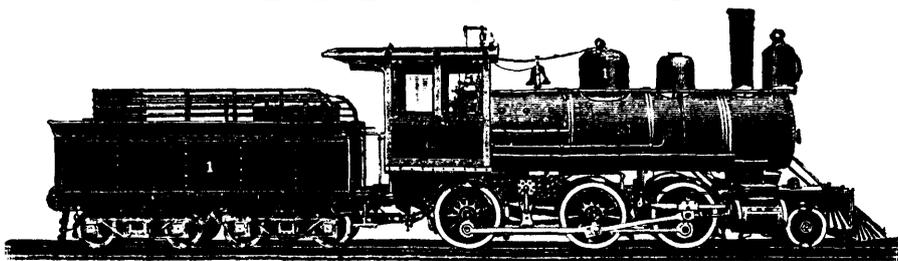


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for maintenance and renewals on the G.T.R. east of the Detroit and St. Clair rivers, on the Detroit and Michigan Air Line, and the Cincinnati, Saginaw and Mackinaw Divisions in Michigan were \$169,041.30 above those for the year 1902. The items of expenditure showing an increase over those of the preceding year are repairs of roadway, superintendence, ballast and ballasting, clearing snow, renewal of rails, repairs and renewals of bridges, culverts and telegraph lines and stationery, printing and sundries. The doubling of the track between Montreal and Toronto has been finished, as well as the short section between St. Catharines and the Welland canal; there is therefore now a continuous double track between Montreal and the Niagara frontier. A second track has also been completed between Sarnia and Kingscourt, 20.65 miles; and for 20.67 miles between St. Lambert and St. John's, on what was formerly known as the Montreal and Champlain Ry. between Montreal and Rouse's Point. This was brought into service on Dec. 20. The Brantford and Lynden connection has also been finished, and was brought into service on Oct. 20. Its length is 4.09 miles. The repairs of roadway, ballast and ballasting, clearing snow, renewals of rails and ties, including their proportion of the cost of superintendence, amounted to \$2,243,207.82 in 1903 for 3,562 miles of track, being at the rate of \$629.76 per mile; in 1902 the number of miles maintained was 3,558, at a cost of \$2,077,982.67, or at the rate of \$584.03 per mile. The replacement of old iron bridges, by steel structures, between Montreal and Sarnia, and between Komoka and Windsor, is still in progress. New stations have been built at Island Pond, Lake, Gore, Actonvale, Walker's Cut, Black River, Breault's Mills, St. Remi, Beaconsfield, Mallorytown, Lansdowne, Whitby Junction, Maple, Caledon East, Milton, Alliston, Hamburg, Ridgeway, Dunnville, Pt. Abino and Lorraine—21 stations in all. The materials used for renewals and repairs of main tracks and sidings were: New steel rails in main tracks, 31,711 tons; re-rolled steel rails in main tracks, 39 tons; partially worn steel rails laid in branch lines and sidings, 19,233 tons; new ties in tracks, 1,242,505; ballast, 693,097 cubic yards.

The Superintendent of Motive Power reports expenditure, mileage, etc., as follows:

Half-year ended.	Total Expenditure.	Train Mileage.	Rate of Expenses per Mile.		
			Train	Engine	Car.
Dec., 1903.	Dollars, 3,840,737	9,685,277	Cents 39.66	Cents 30.81	Cents 2.37
1902.	3,238,129	9,358,916	34.60	27.21	2.01

An increase in expenditure of \$602,608.00 or 18.61%, compared with an increase in train miles of 326,355 or 3.49%.

The average number of cars moved per train was.....	Passenger Trains	Freight Trains	Mixed Trains
	And for the corresponding period.....	4.6	26.2
	4.5	27.2	9.5

During the half-year 24 engines were scrapped or sold. Seven mogul compound freight engines and 19 switching engines were turned out new at the Company's Works, Point St. Charles, and three switching engines were turned out new at the Comstock at Dec. 31, 1903, was 806 engines, against the official figure of 803, being a surplus of 3 engines.

An increase in expenditure of \$196,734, or 26.57%, with an increase in car miles of 600,378, or 3.72%. The car statistics show that new, and 22 refrigerator cars, were built shops at cost of revenue. In addition 500 double hopper steel coal, 500 double hopper

wooden coal, 500 box and 300 stock cars were purchased, and charged to capital.

The comparative cost of repairs per train, engine and car mile was:—

All repairing charges, including shop machinery, tools, and marine equipment, etc.	1903.		1902.	
	Cents.	d. stig.	Cents.	d. stig.
Repairs and renewals of Locomotives.	6.12	3.02	6.32	3.12
Train	4.75	2.34	4.97	2.45
Engine	0.37	0.18	0.37	0.18
Car	1.00	0.51	1.00	0.51

The Superintendent of Car Department reports the expenditure, mileage, etc., as follows:—	1903.		1902.	
	Cents.	d. stig.	Cents.	d. stig.
Repairs and renewals of Locomotives.	8.56	4.22	8.23	4.06
Train	6.65	3.38	6.47	3.19
Engine	0.51	0.24	0.48	0.24
Car	1.40	0.41	1.28	0.63

Total Miles run by Cars.	1903.		1902.	
	Passenger.	Freight.	Passenger.	Freight.
Total	18,076,642	142,982,900	161,959,542	142,982,900
Cost per Mile.	Dollars, 937.047	740.363	968.477	791.390

The revenue account for the half-year is as follows:

RECEIPTS.	£	s.	d.
On account of:—	941,075	10	9
Passengers	1,898	2	7
Less—International bridge tolls	3,947	7	11
St. Clair tunnel tolls	5,845	10	6
Mails and express	9,320	0	3
Freight and live stock	156,535	18	9
Less—Cartage, etc.	2,056	266	9
International bridge tolls	55,942	6	10
St. Clair tunnel tolls	11,474	2	2
Miscellaneous receipts, rents, tolls, etc.	16,804	14	6
Total	84,311	3	6
1903.	1,971,955	5	10
1902.	747,066	17	6
Total	£3,138,468	2	4

EXPENDITURE, DEC. 31ST, 1903.	£	s.	d.
On account of:—	19,861	17	7
Maintenance of way and structures	17,777	557	688
Maintenance of equipment	11,567	362	904
Conducting transportation	37,777	1,185	331
General expenses	2,211	69	289
Total working expenses	69,311	2,175	213
Taxes	1,244	38	870
Total	70,555	2,214	084
Balance to net revenue account.	924,383	13	0
Total	£3,138,468	2	4

The President, Sir C. Rivers Wilson, in moving the adoption of the report, said it showed revenue and profits in excess of those of any previous half-year. The large falling away of the revenue during the last two months was solely attributable to the extraordinary severity of the weather, but there was no reason to suppose that when the unusual stress of weather ceased traffic would not be returned in the same proportion as before. There would be some leeway to make up, but the year was yet young, there still being ten months before them. The gross receipts for the half year were £3,138,468, an increase of 11.61%, compared with the corresponding half-year of 1902. Passenger traffic showed an increase of 10.72%, the total number carried being 5,139,073 at an average fare of 3s. 7¼d. Notwithstanding the large increase in passengers carried the passenger train mileage only increased 4.75%, the receipts per passenger train mile increasing from 4s. 5¼d. in 1902 to 4s. 9d. in 1903. It was expected that considerable benefit would accrue to this branch of the Company's business during 1904 by reason of the holding of the St. Louis Exhibition. Receipts from mails and express traffic increased £16,820, while freight and live stock totalled £1,971,955, an increase of 12.33%. The number of tons carried was 6,738,702, an increase of 590,172, and there was also an increase of 1¼d. in the average rate received per ton. The rate was 5s. 10¼d., which was the highest rate received in any half-year for the past five years, being 0.68 of a cent per ton per mile, against 0.64 of a cent in the same half-year of 1902. The average load per car was 9.84 tons, which was the highest load the Company had ever carried. This was due in a great measure to the larger capacity of the cars now being constructed, which were replacing old cars of lighter capacity, and to the great care exercised in the matter of loading the cars. It could not be expected that large increases in gross receipts could be earned without proportionate increase in expenditure. This general increase in the expenditure has, however, been accentuated by an advance in the price of materials generally, and to a still greater extent by the increased wages of all classes of employes, which it had been necessary to grant owing to the great demand for labor of every description. The total working expenses were £2,214,084, an increase of 70.23%, the proportion to gross receipts being 70.55%, compared with 70.23% in 1902. The expenditure on maintenance of way and structures showed a decrease of £814, but even under this head there had been an increase in wages of £24,000, which was, however, counterbalanced by reductions in other items of expenditure. Maintenance of equipment showed an increase of £52,485, partly due to the increased mileage run, but largely accounted for by the increased wages paid, and a larger expenditure on repairs to equipment. During the year 49 locomotives, 20 passenger cars, and 1,341 freight cars had been turned out at the Company's shops. The cost of conducting transportation was responsible for three-fourths of the total increase in expenses during the half-year, or £179,616. Of this £92,712 represented increased cost of coal, £15,800 being increased mileage run to accommodate increased traffic, and with the exception of a slight increase in the cost of labor in handling, the balance of £76,912 is due to higher prices. The anticipations of the directors that there would be a considerable saving on fuel account in 1904, will, to a considerable extent, not be realized, as during Jan. and Feb. the locomotive power had to be doubled and even triplicated on the trains the Company was able to run. Employes' wages, under this head, showed an increase of £40,762, about 11%. The result of the operation of the railway for the past half-year was a

net profit of £924,383, which was increased by the credits to net revenue to £1,013,254, an increase of £76,771, compared with 1902. The net revenue charges were £614,874, compared with £608,357, an increase of £6,517, leaving the surplus on the G.T. proper £398,380, against £328,126, an increase of £70,254. The Detroit, Grand Haven and Milwaukee Ry. showed a surplus of £464, which, added to the surplus on the G.T. proper, makes a total of £398,844, and, including the balance brought forward from the previous half-year, there is a total amount available for dividend of £404,386, out of which the directors recommend the payment of the full dividends for the half-year on the guaranteed and first and second preference stocks, and a dividend of 2% for the year on the third preference stock for the first time in the history of the Company. The actual expenditure on capital account was £494,200, which was larger than usual, but it was an essential expenditure, owing to the necessity of handling the traffic efficiently and economically. The principal item was £299,877, in respect of the expenditure on coal cars, box cars and cattle cars. As an evidence of the conservative policy which the directors had consistently pursued in regard to capital expenditure, we would like to say that, although from 1895, when they took office, to 1903 the freight traffic receipts increased about 70%, the additions to the freight car stock at the cost of capital only amounted to 20%. No locomotives or passenger cars have been charged to capital during that period. The only other important charge to capital is for double-track, amounting to £144,164. During the half-year, the doubling of the track of the remaining link between Montreal and Toronto—from Whitty to Port Hope—had been completed, and they now had a continuous double track between Montreal and Niagara Falls, a distance of over 400 miles, which would be of very great assistance in the operation of the road, and the expenditure incurred would be amply repaid by the savings which would be effected in the handling of the traffic. The directors regretted the retirement of Jos. Price from the Vice-Presidency. Mr. Price had been associated more or less with this Company for many years. As far back as 1864 he became Treasurer and afterwards General Manager of the Great Western Ry. of Canada. Afterwards he continued to take a great interest in the G.T.R., and during the past nine years he has been a director. Whilst deeply lamenting the cause of his retirement from the more active duties of the Vice-Presidency on account of ill-health, the directors still cherish the expectation and hope that he may still remain with them to guide them by his advice and experience as an ordinary director. The directors had chosen as his successor in the vice-presidency Alfred Smithers, who had been a director for nine years.

The report was adopted and resolutions declaring dividends as recommended in the report, and re-electing the retiring directors and auditors were passed.

Montreal Warehousing Co.—The directors and officers for the current year are: President, C. M. Hays; Vice-President, W. M. Ramsay; other directors: F. W. Morse, J. W. Loud and W. Wainwright; Secretary and Manager, G. H. Hanna. The annual meeting of shareholders was held in Montreal Mar. 3.

As an operating company the Lake Erie and Detroit River Ry. ceased to exist on Mar. 1, when the Pere Marquette Rd. took possession under the trackage agreement, and it is now being operated by the Pere Marquette Rd., and the line is designated the Buffalo division of the Pere Marquette Rd. This order does not apply to the London and Port Stanley Ry., which is leased from the city of London.

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LOCOMOTIVE HEADLIGHT

Grand Trunk Pacific Railway.

The ordinary half-yearly meeting of the shareholders of the G.T.R. Co. was held in London, Eng., Mar. 8, and was called somewhat earlier than usual in order to ratify the agreement with the Dominion Government respecting the construction of the G.T. Pacific Ry.

The directors presented a special report dealing with this question which contained the following:—"In view of the great and rapidly growing development of the Northwest Territory of Canada, the Government have recognized the urgent necessity of obtaining increased railway communication with and within that region. It is equally in the interest of the G.T.R. Co., and, indeed, a necessity, to secure for itself a participation in the advantages offered by these provinces. An act of incorporation, promoted by the G.T.Ry. Co., has accordingly been obtained for the G.T. Pacific Ry. Co., and agreements have been entered into between the Government and the G.T.P. Ry. Co. under which a transcontinental railway will be constructed, extending from New Brunswick to the Pacific coast, passing through the most fertile portions of the Northwest. These agreements, which secure substantial advantages to the G.T.R. Co., contain certain conditions which require the approval of the proprietors."

Then follows a summary of the main points in the agreement of July 29, 1903, and the report proceeds:—"It will be noticed in the principal agreement that the G.T.P. Ry. Co. had to deposit, within 30 days, \$5,000,000 in cash or Government securities. That Company was not in a position to make this deposit, and applied to the G.T. Ry. Co. for its assistance. The directors of the G.T. Ry. Co., as an earnest of the intention of that Company to support the scheme, made an interim deposit by allotting to the Finance Minister as nominee of the Government £1,000,000 4% guaranteed stock, this allotment, however, being conditional upon ratification by the proprietors. By the supplemental agreement the deposit is to be made in cash or approved securities, consequently the proprietors will not be asked to ratify the conditional allotment of 4% guaranteed stock, which will therefore be cancelled; but inasmuch as the G.T.P. Ry. Co. will be unable to provide the deposit without the assistance of the G.T. Ry. Co., the proprietors will be asked to give the directors authority to take such steps as they may find necessary to enable the deposit to be made in accordance with the agreements. In pursuance of the agreements, the deposit will be released by instalments when it is shown to the satisfaction of the Government that the rolling stock has been provided, and that only \$5,000,000 remain to be expended for the completion of the western division. It should be mentioned in consideration of the guarantees and other assistance given the G.T. Ry. Co. is to receive the whole of the \$25,000,000 of common stock of the G.T.P. Ry. Co."

The terms of the original agreement were given in our issue of Aug., 1903, and a supplemental agreement dated Feb. 18 has since been entered into. Under this agreement the date for the completion of the western division from Winnipeg west is extended to Dec. 1, 1911; the Company is given power to lease from the Commissioners portions of the Eastern division as completed upon such terms as may be agreed upon; it is provided that the deposit shall be returned to the Company on the completion of the Western division and the expenditure of \$15,000,000 on rolling stock, even if the Eastern division be not then completed, less any amounts forfeited by reason of non-compliance with other terms of the contract, and the deposit may be released by instalments on its being shown that by its application the Western division may be com-

pleted and the rolling stock acquired; that the restriction of the 75% guarantee of bonds to \$30,000 a mile on the mountain section shall not be operative, but that it shall be to the extent of 75% of the cost of construction; that the guarantee of bonds for the prairie section shall be at the rate of \$13,000 a mile; that the Government shall not exercise its rights to foreclosure on account of nonpayment of interest until it should be in default for five years, in addition to the amount which the Company is permitted to defer or capitalize, or from the payment of which it has not been relieved. Other clauses make provision for the taking possession of the line by the Government, and for the subsequent release to the Company when the surplus tolls and revenues shall have paid off all arrears of interest, giving power to sell, or otherwise dispose of the \$25,000,000 of common stock except so far as the 1,000 shares to be held by the directors, and the stock necessary to be held by the G.T.R. to control the policy of the Company; providing for the G.T. Pacific Ry. Co. having running rights for 50 years, on terms to be arranged, at the expiration of the first 50 years, should the Government decide to operate the eastern section itself; providing for the taking over by the Government of any branch lines constructed by the G.T.P. Ry. Co. from the Eastern section at the end of 50 years, if the Government then decides to operate the line itself.

Sir C. Rivers Wilson, President, in explaining the contract, said in April, 1903, he told the shareholders that he believed such a project might be carried through without in any way engaging the credit of the G.T.R. Co. Such was his conviction, founded upon reasonable data, but he appeared to have been over sanguine, as it was found impossible to carry the measure through the Dominion Parliament without imposing some obligations on that Company. The original idea was to construct a line from near North Bay, Ont., on the G.T.R., to the Pacific coast, but the Government made it a condition of granting the charter that the line should be constructed easterly to Quebec and Moncton, N.B., effecting there a junction with the Intercolonial Ry. to Halifax, N.S., and St. John, N.B. As a result of the negotiations certain agreements were entered into with the Government, which were incorporated in an act, and that act together with the act incorporating the G.T.P. Ry. Co. received the royal assent Oct. 24, 1903. These acts, and the agreements confirmed by them, were discussed at length during an unusually prolonged session. The acts provided that the construction of the proposed line would be carried through by a combination or partnership between the Government and the G.T.P. Ry. Co., the latter being supported by the influence and connections of the G.T. Ry. Co. The President continued: "In the meantime a great and unfavorable change had occurred in the financial position of the markets of the world, and the directors, in the interests of the shareholders, came to the conclusion that certain modifications in the agreement were imperative in order to safeguard the credit of the Company. The chief modification was that relating to the conditions which were imposed on G.T.P. Ry. Co. for making the deposit. Negotiations were accordingly resumed, and the result is embodied in the second or supplementary agreement, which, read together with the first agreement, we now submit for approval."

After describing the course of the new line, and the terms on which it would be built, the President continued: "I have alluded to the obligation imposed on the G.T. Pacific Ry. Co. of making a deposit as evidence of its bona fides. This deposit, which was to be made within 30 days of the passing of the act was to consist of \$5,000,000 in cash or Government securities. I am bound to record my

opinion that this was an extremely onerous and unreasonable demand, and I may in passing contrast it with similar obligation on the C.P.R. at the inception of its undertaking, which was confined to \$1,000,000 in cash or approved securities, without having behind it the support of a powerful corporation like the Company now promoting the G.T.P. Ry. Co. This obligation was, however, reluctantly accepted in the early stages of the negotiations. It must have been obvious that the G.T.P. Ry. Co., which had not even been organized, was not in a position within the limited period exacted to make the deposit, and when the G.T.R. Co. was approached for aid in that direction, it was unable to act without first obtaining the sanction of its shareholders for which a certain time was required. In order to show no lack of faith on the part of the promoters, and in order to satisfy the conditions of the contract, an interim and conditional deposit was made by the G.T. Ry. Co. of £1,000,000 4% guaranteed stock, subject to subsequent approval of the shareholders and confirmation by Parliament. The approval, however, of this arrangement by the shareholders of the G.T. Ry. Co. will not be required and the conditional deposit already made will be cancelled. In substitution thereof it is now provided by the supplemental agreement, that the deposit shall be made in cash or approved securities, and the G.T.R. Co. will, subject to your approval, make the necessary arrangements for complying with the requirements of the agreement. The deposit will be released as soon as rolling stock for the equipment of the road has been provided."

The agreements were subjected to a good deal of hostile criticism, an amendment being proposed by G. Allan, son of G. Allan, who had resigned his position on the directorate as a protest against the confirmation of the agreement by the shareholders. The amendment was voted down, and after an explanation of a number of points in the agreement by C. M. Hays, 2nd Vice-President and General Manager, a resolution approving of the action of the directors and confirming the agreement, was passed.

The speech of the Governor-General at the opening of the Dominion Parliament Mar. 11 contained a reference to the approval by the shareholders of the G.T.R. of the G.T. Pacific Ry. agreement, and stated it would be submitted to Parliament for ratification early in the session.

The bill confirming the additional agreement has been formally introduced.

C. M. Hays, 2nd Vice-President and General Manager G.T.R., returned to Montreal from England Mar. 19. In an interview he said: "The G.T. Pacific project will now go through in its entirety so far as the G.T.R. Co. is concerned. The G.T.R. Co. has done its part, it now remains for the Federal Government to carry out its share of the undertaking. So far as we are concerned there will be no elimination in the undertaking. The meeting at which the project was thoroughly discussed was more largely attended than any meeting of the shareholders in recent years, and the utmost interest was evinced on all hands in the scheme. There were no ulterior considerations presented to the shareholders, and they accepted the scheme simply as it had come from the joint conferences of the company and the Government. Regarding the work of construction Mr. Hays stated that the surveys were proceeding, and he expected that construction on the Western section would be begun before the fall. He did not care to say anything regarding the terminals or the routes at present, but said that all the details would be settled in good time."

In the Ontario Legislature Mar. 18 the Premier, replying to a question, stated that the subject of a grant to the G.T. Pacific Ry. was discussed informally on one or two occa-

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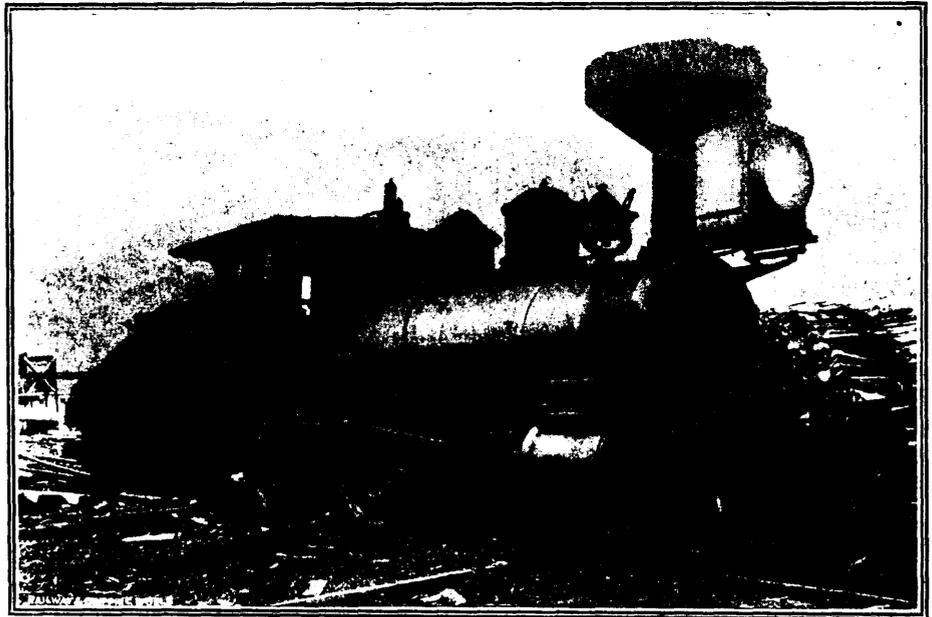
Offices: Street Railway Chambers, MONTREAL, QUE.

sions during the spring of 1903 with G.T.R. officials, but no definite application for a land or money grant had been made. A formal application has been made to the Ontario Government by the G.T.R. management for a bonus for a line from Lake Superior to the government line from Quebec to Winnipeg.

Railway Track Laid in 1903.

Since the publication in our Feb. issue of the table showing the track laid on the various steam and electric railways in Canada during 1903, we have received returns from several lines, in respect of which approximate figures were given, and have obtained from other sources figures in reference to other lines. The returns for the steam railways are complete, but in respect of the electric railways, no information has been received from the Grand Valley Ry., an Ontario Company. Following are the revised figures.

STEAM RAILWAYS.		Miles.	Miles.
BAY QUINTE RY.—From Tweed to Ban-			
nockburn, Ont.		20.00	
BEERSVILLE COAL AND RY. CO.—From			
Adamsville to Beersville, N.B.		7.00	
CANADIAN NORTHERN RY.—Oak Point			
branch, from Winnipeg to Oak Point,			
Man.		37.00	
Hudson Bay spur line.		5.00	
Carberry extension, from Carberry to			
Hummerston, Man.		18.30	
Rosendale extension, from Portage la			
Prairie to Arizona, Man.		31.00	
McCreeary branch, from track end, 1902,			
to McCreeary, Man.		20.93	
Rosburn branch, from track end, 1902,			
to Lanwilliam, Man.		7.00	
Grand View extension, from Grand			
View, Man., to track end		92.50	
Prince Albert extension, from track end,			
near Erwood, Sask., towards Melfort,			
Nask.		67.78	
Red Deer Lumber Co.'s Spur.		5.25	
CANADIAN PACIFIC RY.—Montreal and		285.36	
Western Ry., from near Labelle to Nom-			
ingue, Que.		23.50	
Pheasant Hills branch, from Newdorf			
to Esterhazy, Assa.		20.00	
Arcola branch, from Regina to Creel-			
man, Assa.		41.00	
Manitoba and Northwestern Ry., from			
track end 1902, to Sheo, Assa.		12.00	
CAPE BRETON RY.—From Sporting		96.50	
Mountain to St. Peters, N.S.			
CHATEAUGUAY AND NORTHERN RY.—			
Montreal to Joliette, Que.		7.00	
DRUMMOND COLLIERY RY.—From Gran-			
ton Jct. to Abercrombie pier, N.S.		36.20	
GRAND TRUNK RY.—Lynden to Brant-			
ford, Ont.		2.75	
HALIFAX AND SOUTHWESTERN RY.—			
From Mahone Bay easterly towards Hal-			
ifax, N.S.		4.12	
From New Germany to Caledonia, un-			
der charter of old N.S. Southern Ry.,			
branch of old Central Ry.		9.59	
INTERCOLONIAL RY.—Riviere Ouelle to		21.15	
St. Denis Wharf, Que.			
INTERNATIONAL RY. OF NEW BRUN-			
SWICK.—From near Campbellton to track			
end		30.74	
KLONDIKE MINES RY.—From Klondike			
City to the mouth of Bonanza Creek,			
Yukon Terr.		6.00	
MABOU AND GULF RY.—From Coal			
Mines to Mabou Harbor pier, N.S.		0.50	
NEW BRUNSWICK COAL AND RY. CO.—			
From track end, 1902, to Minto			
From Minto to end of track		7.30	
		2.50	
NORTH SHORE RY., POWER AND NAVI-		9.80	
GATION CO.—From track end, 1902, to St.			
Marguerite river falls, Que.			
OTTAWA, NORTHERN AND WESTERN RY.			
—From Gracefield to Maniwaki, Que.		3.00	
POINT ANN RY.—From Belleville to			
Point Ann, Ont.		23.00	
PRINCE EDWARD ISLAND RY.—From			
Montague Cross to Southport, P.E.I.		3.50	
QUEBEC AND LAKE ST. JOHN RY.—St.			
Gabriel, 22 miles from Quebec, towards		21.00	
Gosford, Que.			
ST. MARY'S RIVER RY.—From Spring			
Coles to St. Mary's river, Alta.		0.25	
TEMIKAMING AND NORTHERN ONTARIO			
RY.—From North Bay to Redwater Lake		13.00	
VICTORIA TERMINAL RY. AND FERRY CO.			
—From Port Guichenon to Cloverdale, B.C.		57.00	
		17.20	
ELECTRIC RAILWAYS.			
CAPE BRETON ELECTRIC CO.—In Syd-			
ney, N.S.		3.00	



LATEST PHOTOGRAPH OF THE FIRST LOCOMOTIVE USED ON THE C. P. R. MAIN LINE IN MANITOBA.

	Miles.	Miles.
GRAND VALLEY RY.—From Paris to St.		
George, Ont. (approximate).	10.00	
HAMILTON GRIMSBY AND BEERSVILLE		
ELECTRIC RY.—From Beamsville to Vine-		
land Ont.	4.50	
LEVIS COUNTY RY.—From Levis to St.		
Joseph	1.25	
From Levis to St. Romuald	5.75	
In Levis, Que.	0.25	
	7.25	
MONTREAL STREET RY. CO.—Various		
extensions	1.76	
ST. JOHN RY.—From Suspension Bridge		
to city line, Carleton, N.B.	1.00	
SANDWICH, WINDSOR AND AMHERST-		
BURG STREET RY.—From Ojibwa to		
Amherstburg, Ont.	12.00	
SUBURBAN RAPID TRANSIT CO.—From		
Winnipeg to Deer Lodge	3.00	
SYDNEY AND GLACE BAY RY.—Addi-		
tions to line.	2.00	
TORONTO RY.—Various extensions	3.254	
WINNIPEG ELECTRIC STREET RY.—		
From Sherbrooke st. to St. James.	1.50	
From Norwood bridge to St. Boniface.	1.50	
	3.00	
WINNIPEG, SELKIRK AND LAKE WINNI-		
PEG RY.—From Winnipeg city boundary		
to West Selkirk, Man.	22.00	

SUMMARY BY PROVINCES.

	Steam.	Electric.
Northwest Territories.	211.53	
Manitoba	159.83	28.00
Quebec	92.20	7.25
Ontario	84.62	9.754
Nova Scotia	44.99	4.00
Prince Edward Island.	33.00	
British Columbia	17.20	
New Brunswick.	22.80	1.00
Yukon	0.50	
	656.67	79.004
Total new track laid, steam and		
electric.	726.674	

Railway Statistics for 1902-3.

The report of the Department of Railways for the year ended June 30, 1903, states that the total mileage of steam railways in Canada under federal control was 19,077, as against 18,368 miles the year before. In addition to this there was a mileage of 2,953 in sidings. The mileage in operation was 18,714. The gross earnings totalled \$86,064,627, as against \$83,666,503 in 1902, and the working expenses \$67,481,524, as against \$57,343,592. This left net earnings of \$28,583,003, as against \$26,322,911 in 1902. There were 22,148,742 passengers carried, an increase of 1,468,768. The freight carried was 47,373,417 tons, an increase of 4,996,890 tons.

The mileage of electric railways in Canada was 759 as against 558. In addition to these,

there were 32 miles of sidings. The gross earnings totalled \$7,223,677, as against \$6,406,438, and the working expenses \$4,472,858, as against \$3,802,855, leaving net earnings of \$2,760,819, as against \$2,683,583. There were 155,662,812 passengers carried, compared with 137,681,402 in 1902 and 371,286 tons of freight, compared with 266,102.

The accident returns show that there were 90 more fatalities on steam railways during the year than in the corresponding period 1901-02. The deaths for 1902-03 were: Passengers killed, 53; employes, 186; other persons, 181; total, 420. During 1901-02 there were killed: Passengers, 19; employes, 146; other persons, 165; total, 330. On electric railways 9 passengers were killed as against 8 in 1902.

The First Manitoba Locomotive.

F. W. Jones, formerly Assistant to the Manager C.P.R. Western Lines at Winnipeg, and now Secretary of the Columbia River Lumber Co. at Golden, B.C., writes: "Referring to the article on early transportation in Manitoba, in your Feb. issue. For the information of those interested in the history of transportation in the Northwest, I am sending you the latest photograph of the first locomotive to arrive in Manitoba, the history of which was given in your article, up to the time it was re-christened the Countess of Dufferin. It was afterwards numbered 151 by the C.P.R. In the course of events it was turned into a coal burner; handled main line traffic on the C.P.R. for a number of years; was afterwards in service on the Manitoba branches; was then transferred to switching service at Canmore; was loaned to the municipality of Deloraine for pumping service in connection with a test well at that point, and was finally sold by the C.P.R. to M. Carlin for use by the Golden Lumber Co., and came into the hands of the Columbia River Lumber Co. when it took over that business. In its latter days this locomotive, instead of going to the scrap heap when it became too light for C.P.R. service, is running regularly, where the climate and the water are good, on a railway which, if not as long as the C.P.R. is just as wide, where the work is easy, and where it runs through one of the prettiest villages in North America, in the valley between the main range of the Rockies and the Selkirks."

Fares, etc., for St. Louis Exposition.

Pursuant to a notice issued by C. E. E. Usher, General Passenger Agent of the C.P.R., and G. T. Bell, General Passenger Agent of the G.T.R., a meeting was held in Toronto Feb. 25 to consider and adopt fares and arrangements for Canada for the World's Fair at St. Louis, Mo., from April 30 to Dec. 1. The following lines were represented: Bay of Quinte Ry., Canadian Pacific Ry., Central Ontario Ry., Central Vermont Ry., Intercolonial Ry., Kingston & Pembroke Ry., Grand Trunk Ry., Lake Erie & Detroit River Ry., Michigan Central Rd., N.Y.C. & H.R. Rd., Niagara Navigation Co., Quebec & Lake St. John Ry., Richelieu & Ontario Navigation Co., Rutland Rd., Toronto, Hamilton & Buffalo Ry., Wabash Ry., Northern Navigation Co. of Ont. F. F. Backus, General Freight and Passenger Agent Toronto, Hamilton & Buffalo Ry., was elected chairman, and J. R. Melville, excursion clerk G.T.R., secretary. The following action was taken:—

That season excursion tickets be sold to St. Louis, daily, beginning April 25, and continuing during the period of the Exposition, with final return limit of Dec. Rate, 80% of double the lowest one way 1st class westbound fare.

That excursion tickets be sold to St. Louis daily, beginning April 25, and continuing during the period of the Exposition, with final return limit of 30 days, including date of sale, but not later than Dec. 15. Rate, 1½ lowest one way 1st class westbound fare.

That excursion tickets be sold to St. Louis, daily, beginning April 25, and continuing during the period of the Exposition, with final return limit of 15 days, including date of sale. Rate, lowest one way 1st class westbound fare.

The question of coach excursions was passed, to be taken up between lines interested at a later date if such excursions are desired from Canada.

That variable route tickets may be sold by arrangement between lines interested, going via any direct route, returning via any other direct route as follows: Season tickets, 80% of double the lowest one way 1st class westbound fares via routes travelled; 15 day tickets, one-half the sum of the lowest one way 1st class westbound fares via routes travelled.

That all variable route season tickets sold on 80% basis from Kingston and points east in Canada shall be good by Richelieu & Ontario Navigation Co.'s steamer on eastbound trip from Toronto or Kingston to points as far east as Montreal, which may be common between the railways and steamer line, without additional charge; R. and O. Nav. Co. to receive same proportions as rail lines between the same points.

No action was deemed necessary on variable routes via circuitous routes.

That side trip tickets may be issued at not less than lowest one way 1st class fare for the round trip and not less than half the lowest one way 1st class fare for one way side trips, and that interested lines prepare and furnish list of same which will be issued later.

That regular rules apply to organized parties.

That 1c. a mile each way apply for military in bodies of 25 or more in uniform, and bands accompanying same, camping on the fair grounds under the auspices of the Exposition authorities, on solid ticket in both directions, with limits to cover their engagements at St. Louis.

That all applicants for special fares for conventions, meetings, etc., which are to be held at St. Louis, be referred to World's Fair rates.

That no concessions be granted to exhibitors or employees, or to tourist agencies and similar organizations.

That fares applying from Canadian ports may be used for basing purposes for European business.

THE MAN AT THE THROTTLE

Can do no better than the capabilities of his locomotive will permit, and the best locomotive can do no better than its fittings will allow.

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are the finest that can be produced from the best materials and by the most skilled and ingenious mechanics.

Our new Locomotive Catalogue is free—it tells of our many specialties, which include "Hancock" Patent Inspirators, "J. M. T." Locomotive Injectors, "Monitor" Locomotive Injectors, "Gresham" Automatic Starting Injectors, Oil Cups, Valves, Nozzles, Whistles, Gauges, etc.

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Is Specially Adapted for Work on Culverts,
Abutments, Piers, Foundations, Platforms,
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MONTREAL, P.Q.

That stop overs be allowed on all classes of tickets under usual stop over rules at any intermediate point in Canada and at Detroit, Port Huron and Chicago.

That on all one way and round trip tickets reading to points beyond St. Louis a stop over of 10 days be permitted on the payment of \$1 and compliance with the regulations established by the St. Louis terminal lines.

That special trains shall not be chartered at rates that will have the effect of cutting the per capita rates; minimum earnings to be \$1.50 per train mile.

That the regular rules apply to special cars. That forms of tickets submitted by St. Louis terminal lines and conforming to their requirements be used.

It was understood that adjustment of fares, etc., may be made where necessary to harmonize with fares, etc., from adjoining territory, such as Northern New England, Northern and Western New York and Eastern Michigan, also that the basis of fares, etc., as adopted may be varied by agreement between interested lines from Maritime Provinces.

Since the meeting information has been received that fare and one-third tickets and 15 day tickets, sold from points Montreal and east in Canada and New England, will be honored by the Richelieu & Ontario Nav. Co. from Toronto or Kingston to Montreal on payment of \$4 from Toronto and \$2 from Kingston in addition to the rail fares; these amounts to be paid either when ticket is issued or to the purser of the R. & O.N. Co.'s steamers leaving Toronto or Kingston on presentation of rail ticket.

Momentum Brake Co.—At a recent directors' meeting in Toronto the vacancies on the board were filled, and it is now constituted as follows: President, J. S. Playfair; Vice-President, Noel Marshall; other directors: W. D. Lummis, J. F. H. Ussher, Toronto; D. L. White, J. Playfair, Midland, Ont.; T. E. McCollum, Newark, N.J.

The Canadian Press Association will visit the St. Louis Exposition in May, travelling by a special train via G.T.R. and Illinois Central Rd. Toronto will be left May 14 at 8.15 a.m., and St. Louis reached May 15 at 7 a.m. Four days will be spent in St. Louis, and the party will leave there May 19 at 9.10 p.m., spending May 20 in Chicago and reaching Toronto May 21 at 1.30 p.m.

Montreal Steel Works, Limited.—The first annual report presented at the shareholders' meeting Mar. 8, states that for the first nine months of 1903 the business was quite satisfactory, and the demand for goods was fully up to expectations; but during the last three months the general conditions of the steel trade changed, and the demand fell off. Notwithstanding this, the year's business shows a net profit of \$105,584.86. Dividends at the rate of 7% on the preferred and 5% on the ordinary stock for the past year have been paid, also interest on preferred stock and bonds of the Canada Switch & Spring Co., Ltd., from Jan. 1, 1903, to date of floatation of the new company, May 21, 1903, amounting in all to \$55,648.86. The maintenance and repairs of plant and buildings has been placed to revenue, and \$12,000 has been charged to the credit of a reserve account to make additional provision for depreciation of buildings, plant, etc., leaving \$37,936.00 to be carried forward as balance at the credit of land, buildings and plant, for which the additions were barely completed at the close of 1903. They were, therefore, not a factor in the earnings of the year. The dividend on the preferred stock will be paid at the regular rate, as usual, but it may be considered prudent until trade improves, to postpone action on the dividend on the ordinary shares.

April Birthdays.

Many happy returns of the day to
J. A. Armstrong, Chief Dispatcher C.P.R., Ottawa, born at South Durham, Que., April 6, 1863.

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

W. J. Camp, Electrical Engineer C.P.R. Telegraphs, Montreal, born at Oakville, Ont. April 22, 1855.

A. H. Clark, Master Mechanic, Irondale, Bancroft and Ottawa Ry. at Irondale, Ont., born April 5, 1867.

G. M. Clark, K.C., Consulting Counsel C.P.R., Cobourg, Ont., born April 14, 1828.

A. P. Cockburn, Manager and Secretary Muskoka Lakes Navigation and Hotel Co., at Gravenhurst, Ont., born in Finch tp., Stormont, Ont., April 7, 1837.

Thos. Downie, Trainmaster C.P.R. at Revelstoke, B.C., born in Ireland, April 30, 1859.

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

G. H. Garden, C.E., Chief Engineer Alberta Ry. and Coal Co. at Lethbridge, Alta., born at Woodstock, N.B., April 5, 1849.

J. P. Gay, Division Freight Agent, G.T.R. at Stratford, Ont., born at Hamilton, Ont., April 26, 1857.

E. A. Geiger, Superintendent Brockville, Westport and Northwestern Ry. at Brockville, Ont., born at Newark, N.J., April 10, 1863.

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

A. L. Hertzberg, Division Engineer C.P.R. at Toronto, born in Norway, April 30, 1855.

E. A. James, Manager Canadian Northern Ry. at Winnipeg, Man., born in London, Eng., April, 1865.

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

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

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

E. V. Skinner, Assistant Traffic Manager C.P.R. at New York, born in London, Eng., April 22, 1849.

A. M. Sutherland, Assistant Superintendent, Duluth, South Shore and Atlantic Ry. at Thompson, Mich., born at Hartford, Conn., April 2, 1844.

J. E. Schwitzer, Resident Engineer, Central Division, C.P.R. at Winnipeg, Man., born at Ottawa, Ont., April 19, 1870.

J. R. VanCleve, Master Mechanic, White Pass and Yukon Route at Skagway, Alaska, born at Little Falls, Minn., April 6, 1859.

W. Wainwright, General Assistant and Comptroller, G.T.R. at Montreal, born in Manchester, Eng., April 30, 1840.

J. J. Wallace, General Freight Agent, I.C.R. at Moncton, N.B., born in Albert Co., N.B., April 20, 1847.

Hon. J. Wood, President and General Manager, New Brunswick and Prince Edward Island Ry. at Sackville, N.B., born at Sackville, N.B., April 18, 1843.

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

The C.P.R. has concentrated its Atlantic shipping and local freight offices in the Board of Trade Building, Montreal, having taken the whole of the ground floor on the west side of that building, with the exception of the offices occupied by the I.C.R.

Recent Nova Scotia Legislation.

The following acts affecting transportation interests were passed at the recent session of the Nova Scotia Legislature:

Incorporating the Ainslie Mining and Ry. Co.

Amending the act incorporating the Canada Coal and Ry. Co.

Amending chap. 128, 1899, respecting the Coast Ry. Co. of Nova Scotia (Ltd.).

Incorporating the Davison Tramway Co.

Incorporating the Dominion Transportation Co. (Ltd.)

Amending chap. 164, 1890, incorporating the Eastern Telephone Co.

Respecting the assessment of the Egerton Tramway (Ltd.) by New Glasgow, Westville, and Stellarton.

Incorporating the Glace Bay Shipping Co. (Ltd.).

Enabling the city of Halifax to contribute money to pay for right of way for the Halifax and South-Western Ry., and amending an act passed at the recent session on the same subject. (Two acts.)

Enabling the town of Bridgewater to contribute money to pay for right of way for the Halifax and South-Western Ry.

Amending the charter of the Halifax and South-Western Ry.

Respecting the Lunenburg Marine Insurance Co.

Incorporating the Margaree Coal and Ry. Co. (Ltd.)

Amending an act of the recent session incorporating the Maritime Coal and Ry. Co.

Amending chap. 144, 1902, respecting the Maritime Newfoundland Shipping Co. (Ltd.)

Authorizing changes in the location of the Middleton and Victoria Beach Ry.

Incorporating the New Ross Telephone Co. (Ltd.)

Incorporating the North Mountain Ry. Co. (Ltd.)

Amending chap. 137, 1898, incorporating the Nova Scotia Iron and Steel Co. (Ltd.)

Amending chap. 133, 1902, incorporating the Nova Scotia Northern Ry. Co. (Ltd.)

Enabling the county of Queens to provide money to pay railway damages.

Incorporating the Sherbrooke Telephone Co. (Ltd.)

Incorporating the Sydney and East Bay Ry. Co. (Ltd.)

Amending chap. 22, 1903, respecting telephone tolls.

Incorporating the Valley Steamship Co. (Ltd.)

Consolidating the acts relating to the Yarmouth Street Ry. Co. (Ltd.)

Victorian Railways.—The Melbourne Age, of Victoria, Australia, of Jan. 19, stated that when the members of the Parliamentary country party waited upon the Railway Commissioners a couple of months ago, Thos. Tait demonstrated to their satisfaction as practical men, that the measures which had been devised and the preparations made for handling grain this season would effectually prevent any railway block. All that the Commissioners undertook to do has been more than accomplished up to date. On the previous Saturday the quantity of wheat loaded on the railways was 188,968 bush., against 187,360 the previous record, and on the same day there were 450,864 bush. at stations other than ports, against 1,071,460 bush. on the same day in 1902 and 2,510,880 bush. in 1901. Owing to the strict enforcement of demurrage, there were on the same day 268 freight cars under load at Williamstown, the principal wheat exporting port, none of which had been there over 24 hours, while in the whole state there were only four freight cars on that morning which had been on load more than 24 hours.

JAS. W. PYKE & COMPANY

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FRIED. KRUPP, ESSEN, GERMANY.

Steel Rails.

Wrought Iron Steel-Tyred Disc Wheels

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This Company controls in the United States and Canada the celebrated Pintsch System of Car and Buoy Lighting. It is economical, safe, efficient, and approved by the railway managers and Lighthouse Board of the United States, and has received the highest awards for excellence at the World's Expositions at Moscow, Vienna, St. Petersburg, London, Berlin, Paris, Chicago, Atlanta and Buffalo. 120,000 cars, 5,000 Locomotives and 1,700 Buoys are equipped with this light. 170 Railroads in the United States, Canada and Mexico have adopted this system of lighting, applied on over 20,000 cars.

Car Heating.

This Company's Systems have been adopted by 130 of the principal Railroads of the United States and by the great Sleeping Car Company. They consist of The Steam Jacket System of hot water circulation, The Direct Steam Regulating System and Straight Steam (plain piping).

Automatic Steam Couplers. Straight Port Type.

THE SAFETY CAR HEATING and LIGHTING CO.,

General Offices: 160 Broadway, New York.

Branch Offices: Chicago, 1017 Monadnock Building - - - St. Louis, 1015 Missouri Trust Building
Montreal, 67 Lusignan Street

THE

**INTERCOLONIAL
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Calendar for February says:

"True courtesy is greatly to be desired, therefore be courteous."—ANON.

The courtesy experienced on Intercolonial trains meets with frequent and favorable comment. On the Maritime Express, running between Montreal, Quebec, St. John, Halifax and the Sydneys, with its commodious sleeping cars and excellent dining car service, the passenger is brought into contact with the most courteous of railway employes.

**INTERCOLONIAL
RAILWAY**

**FAST
FREIGHT TRAINS** VIA



RUNNING DAILY BETWEEN

**MONTREAL, QUEBEC, ST. JOHN,
HALIFAX and the SYDNEYS**

Give every satisfaction to shippers

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

Gross earnings, working expenses, net profits, increase or decreases over 1902-03, from July 1, 1903:-

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	\$3,997,343.75	\$2,678,816.63	\$1,318,527.12	\$142,815.86+
Aug.	4,076,153.74	2,642,051.24	1,434,102.50	71,204.05+
Sept.	3,937,001.72	2,734,735.91	1,202,265.81	208,488.69-
Oct.	4,488,263.88	2,834,236.87	1,654,027.01	37,892.38+
Nov.	4,142,909.47	2,664,928.29	1,477,981.18	80,259.06-
Dec.	4,264,815.39	2,683,670.13	1,581,145.26	91,266.58-
Jan.	2,896,599.34	2,538,947.31	357,652.03	559,118.74-
Feb.	2,541,862.15	2,459,321.34	82,540.81	660,199.88-

\$39,344,949.44 \$21,236,707.72 \$9,108,241.72 \$1,347,453.66+ Increase. Decrease.

Approximate earnings for Feb. \$2,506,000, against \$2,795,000 for Feb., 1903.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Jan. \$178,359.22; net earnings, \$44,316.07, against \$197,279.00 gross and \$65,734.42 net for Jan., 1903. Net earnings for seven months ended Jan. 31, \$98,089.73, against \$598,969.54 for the same period 1902-03. Approximate earnings for Feb., \$163,780, against \$184,990 for Feb., 1903.

MINERAL RANGE RY.—Approximate earnings for Feb., \$46,051, against \$40,627 for Feb., 1903.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Jan. \$484,833.74; net earnings, \$181,023.42, against \$455,576.34 gross and \$168,681.89 net for Jan., 1903. Net earnings for seven months ended Jan. 31, \$2,308,651.67, against \$2,287,271.58 for the same period 1902-03. Approximate earnings for Feb., \$402,047, against \$441,737 for Feb., 1903.

Railway Subsidies Paid in 1903.

The statement of accounts for the year ended June 30, 1903, presented to the Dominion Parliament, shows that there was paid \$1,463,222.34 to 17 railway companies in respect of subsidies on railways constructed, as follows:—

Atlantic and Northwestern Ry.	\$ 186,600
Quebec Bridge	132,353
Crow's Nest Pass Ry	66,000
Cape Breton Ry	65,280
C.P.R.:	
West Selkirk Branch	83,200
Dymont Branch	22,336
Kootenay and Arrowhead	42,771
Waskada Branch	50,480
Great Western Ry.	37,777
Inverness and Richmond Ry	91,775
Algoma Central and Hudson's Bay Ry	202,912
Atlantic and Lake Superior Ry.	52,353
Manitowlin and North Shore Ry.	32,000
Bay of Quinte Ry.	19,200
Canadian Northern Ry.	57,485
Bruce Mines and Algoma Ry.	28,800
Halifax and Yarmouth Ry	60,000
Midland Ry.	190,186
Magnetawan River Ry.	3,552
Tillsonburg, Lake Erie and Pacific Ry.	44,100
	\$1,463,222

C.P.R. Rail and Ocean Mileage.

RAIL LINES.		
Canadian Pacific Ry.	8,085	
Minneapolis, St. Paul & Sault Ste. Marie Ry.	1,470	
Duluth, South Shore & Atlantic Ry.	565	11,020
PACIFIC SERVICE.		
Vancouver to Hong Kong	6,271	
" " Skagway	867	7,138
BRITISH COLUMBIA COAST SERVICE.		
Victoria to Skidegate	493	
Vancouver to Victoria	85	
Victoria to Seattle	85	663
ATLANTIC SERVICE.		
Montreal to Liverpool	2,833	
" " Bristol	2,950	
" " London	3,300	9,083
UPPER LAKE SERVICE.		
Owen Sound to Fort William	550	
BRITISH COLUMBIA LAKE AND RIVER SERVICE.		
Kootenay, Arrow and Okanagan lakes.	404	
Total mileage	28,858	

Babcock & Wilcox, Ltd., water tube boiler manufacturers, report the following amongst their recent Canadian sales: C.P.R., Montreal shops, 2,000 h.p. boilers, superheaters, economisers and induced draft plant, also Neemes shaking grates. C.P.R., Fort William, 1,700 h.p. boilers, superheaters, economisers and induced draft plant, and Neemes shaking grates. C.P.R., North Bay shops, 300 h.p. boilers and induced draft plant. C.P.R., McAdam shops, 300 h.p. boilers, superheaters and induced draft plant. C.P.R., Winnipeg shops, 1,000 h.p. boilers. Halifax Electric Tramway, 500 h.p. boilers and superheaters. St. John, N.B., 500 h.p. boilers and shaking grates. Toronto, 4,000 h.p. boilers. Town of Regina, 500 h.p. boilers. Calgary Water Power Co., 500 h.p. boilers. Bell Telephone Co. of Canada, Montreal, 110 h.p. boilers. S. Carsley & Sons Co., Montreal, 400 h.p. boilers. Clark Lithographic Co., Toronto, 86 h.p. boilers. Gowrie & Blockhouse Collieries, Port Morien, N.S., 500 h.p. boilers. Canada Foundry Co., Toronto, 300 h.p. boilers. King Edward Hotel Co., Toronto, 750 h.p. boilers. United Factories, Newmarket, Ont., 500 h.p. boilers. Belleville Portland Cement Co., 2,250 h.p. boilers, superheaters, economisers, Neemes shaking grates.

The city of Ottawa voted a subsidy of \$73,000 to the Ottawa and New York Ry. towards the construction of its line and for the establishment of its shops at that point. The shops were erected, but they have not been equipped, and the Ottawa city council is proposing to enter an action to compel the Company to operate its shops.

MAINLY ABOUT PEOPLE.

J. C. Buntzen, General Manager B.C. Electric Ry. Co., is visiting England on business.

Mrs. Ryan, widow of the late Hugh Ryan, railway contractor, Toronto, died at Cairo, Egypt, Feb. 23.

J. B. Johnson, for 15 years agent of the C.P.R. at New Westminster, B.C., died there Feb. 25, aged 47.

Mrs. E. Tiffin, wife of E. Tiffin, Traffic Manager Intercolonial Ry., is stopping at Preston Springs, Ont.

Mrs. John Bertram, wife of John Bertram, of the John Bertram, Sons, Co., Dundas, Ont., died there Mar. 3, aged 74.

C. Barber, father of A. W. Barber, Superintendent C.P.R. Telegraphs at Toronto, died there Mar. 18, aged 83.

Mrs. J. D. Beatty, wife of the former Manager of the Northwest Transportation Co., died at Sarnia, Ont., Feb. 27.

The new public library at Collingwood, Ont., for which T. and J. J. Long provided a free site, has been completed.

G. Matheson, who was C.P.R. baggage master at New Westminster, B.C., until about a year ago, died there Feb. 29.

Mrs. Rosevear, wife of W. H. Rosevear, senr., General Car Accountant G.T.R., died at St. Lambert, Que., Mar. 2, aged 68.

F. W. Churchill, C.P.R. town ticket agent, Collingwood, Ont., sailed from Halifax, N.S., Mar. 7, for a three months' trip to England.

R. S. Logan, assistant to the 2nd Vice-President and General Manager G.T.R., has returned to Montreal from a holiday trip to Florida.

The value of the estate left by the late Jesse Joseph, of Montreal, is placed at over \$2,000,000. Considerable sums were left to charities.

A. B. Manson, formerly a train dispatcher on the G.T.R. at London, Ont., and later with the Wabash Rd., at St. Thomas, Ont., died in London, Ont., Mar. 1.

J. H. Moore, locomotive driver of the I.C.R. train from Painsack Jct. to Point du Chene, N.B., entered the service of the old European and North American Ry. in 1858.

J. P. Purdy was recently presented with an address and a gold-mounted cane, on leaving the G.T.R. service at Napanee, Ont., to become Manager of the Oshawa Ry.

R. T. Shea, Superintendent of the Locomotive and Machine Co. of Montreal, has resigned on the works passing under the control of the American Locomotive Co.

C. E. Gregory, agent of the Department of Marine at Quebec, was invested with the insignia of the Imperial Service Order by the Governor-General at Ottawa Mar. 10.

G. W. Hibbard, General Passenger Agent Duluth, South Shore and Atlantic Ry., has returned to Marquette, Mich., from Montreal, where he was detained for some days by illness.

R. H. Morris, General Baggage Agent C.P.R., Montreal, was married there recently to Miss M. Milward, sister of the late J. J. Milward, at one time C.P.R. freight agent at Hong Kong.

C. H. Barton, after two months' occupancy of the position of G.T.R. station agent at Haliburton, Ont., committed suicide recently by drinking the mixture in the cells of the telegraph batteries.

A. Gibson, President of the Alexander Gibson Ry. and Manufacturing Co., Marysville, N.B., who is 85 years old, fell down a flight of stairs at his residence recently and fractured his collar bone.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.
July 1903-04	1902-03	1903-04
1903-04	267,647.32	155,344.93
Aug.	263,339.45	139,723.83
Sept.	60,441.12	145,535.83
Oct.	15,950.07	270,616.23
Nov.	22,593.95	146,687.83
Dec.	30,146.00	577,382.61
Jan.	116,840.78	102,581.29
Feb.	14,729.69	183,554.82
	722,217.26	1,522,427.37
		\$3,221,666.20
		\$5,986,770.59

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, and the Detroit, Grand Haven & Milwaukee Rys.

	1904.	1903.	Increase.	Decrease.
Revenue for Jan.	\$1,649,525	\$2,432,661		\$783,136
Gross receipts	\$355,300	\$428,300		\$73,000
Working expenses	317,000	319,500		2,500
Net profit	\$38,300	\$108,800		\$70,500

	1904.	1903.	Increase.	Decrease.
Revenue for Jan.	\$83,500	\$93,400		\$10,900
Gross receipts	77,000	82,500		5,500
Working expenses	16,600	14,700		1,900
Net profit	\$6,500	\$10,900		\$4,400

	1904.	1903.	Increase.	Decrease.
Revenue for Jan.	\$24,100	\$19,500		\$4,600
Gross receipts	16,600	14,700		1,900
Working expenses	16,600	14,700		1,900
Net profit	\$7,500	\$4,800		\$2,700

There were only 26 working days in 1904 compared with 27 working days in 1903.

TRAFFIC RECEIPTS OF THE SYSTEM.

	1904.	1903.	Increase.	Decrease.
Aggregate from Jan. 1 to Feb. 29:				
Grand Trunk	\$616,276	\$837,611		\$221,335
G. T. Western	145,792	164,274		18,482
D. G. H. & M.	39,899	39,259		\$640
Total	\$801,967	\$1,041,135		\$239,168

The Railway Commissioners have been asked by a deputation to obtain the reinstatement of the men who went out on strike in 1903 on the C.P.R. in British Columbia. The Commissioners declined to interfere because there were no positions vacant, and the Government was pledged to retain those employees who had stood by the Company during the dispute.

Hon. T. R. McInnes, formerly Lieut.-Governor of British Columbia, who died in Vancouver, B.C., Mar. 15, was father of Mrs. Jas. Wilson, wife of the Superintendent C.P.R. Telegraphs, Pacific division.

W. H. Rosevear, senr., General Car Accountant G.T.R., has been elected Mayor of St. Lambert, Que., to fill the vacancy caused by the resignation of the Mayor. Mr. Rosevear was Mayor in 1902 and 1903.

Mrs. J. J. Patterson, who died in Hamilton, Ont., Feb. 26, was widow of Thos. Patterson who died about the end of Dec., 1903, and mother of John Patterson of the Hamilton Cataract Light, Power and Traction Co.

Lieut. G. B. Johnston, Royal Engineers, a son of J. W. Johnston, ex-Mayor of Belleville, Ont., has been appointed to take charge of the telephone and telegraph lines connecting the fortresses and other defences of Ceylon.

W. Dow, formerly general air brake inspector C.P.R., Montreal, has resigned to take a similar position on the Erie Rd. under

eral Agent for Toronto in the Dominion Express Co.'s service.

T. H. Hopkirk, formerly chief clerk to the Superintendent of Motive Power C.P.R., was recently presented with a dressing case by the employes of the mechanical department at Montreal on leaving for a position on the Erie Rd. at Meadville, Pa.

Sir Thos. Shaughnessy, President C.P.R., sailed from New York, Mar. 9, for England, intending to join Lady and Miss Shaughnessy, who are on a tour through Europe. Lady and Miss Shaughnessy, while visiting Rome, had an audience with the Pope.

H. H. Gildersleeve, the recently appointed Manager of the Northern Navigation Co. of Ontario, was presented Mar. 19 with a gold watch by citizens of Kingston, Ont., on giving up his position as Manager of the Lake Ontario and Bay of Quinte Steamboat Co.

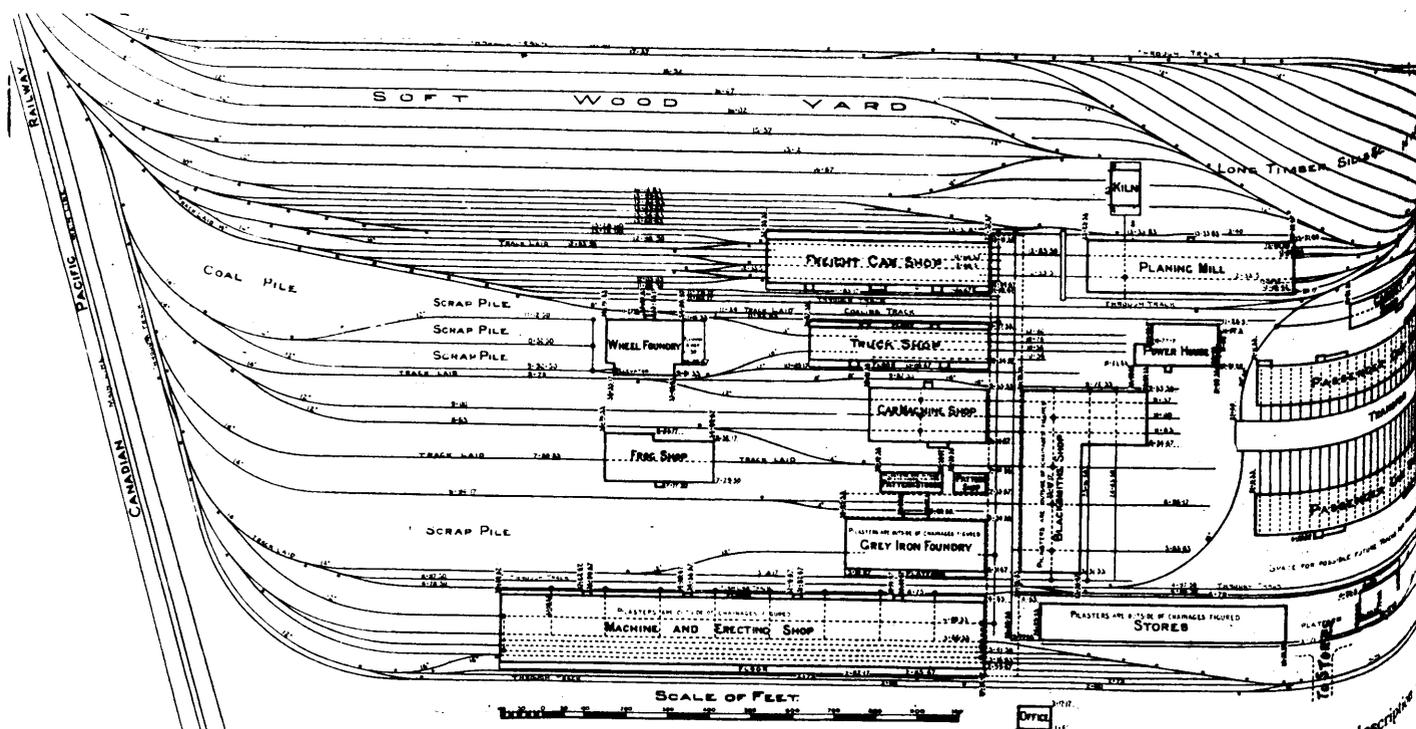
The Guelph, Ont., city council and board of trade have formed a joint committee for the purpose of collecting funds to present a suitable testimonial to Jas. Mills, L.L.D., formerly

and Mrs. Leonard, are making an extended trip to the Southern States. Press reports state that Mr. Leonard will shortly join one of the United States lines, the Atchison, Topeka and Santa Fe and the Southern Pacific being mentioned.

R. Currie, who died at Galt, Ont., Feb. 20, was father of C. Currie, 2nd Vice-President and General Manager Northern Ohio Traction Co., Akron, Ohio, and of Jas. Currie, Secretary-Treasurer Eastern Ohio Traction Co., Cleveland, Ohio, both of whom were formerly connected with the London, Ont., Street Ry. Co.

L. P. Duff, K.C., who has been appointed Judge of the B.C. Supreme Court, was a member of the firm of Bodwell & Duff, solicitors for the Victoria, Vancouver and Eastern Ry. and Navigation Co., and was also interested in the Victoria Terminal Ry. and Ferry Co., and other projects, promoted in the interests of the Great Northern Ry., U.S.

S. E. Dewey, who has been appointed Travelling Freight Agent G.T.R. at Hamilton, Ont., was born at Beckenham, Kent,



GROUND PLAN OF C. P. R. "ANGUS" SHOPS AT HOCHELAGA, MONTREAL. (See description)

E. A. Williams, Assistant General Manager, formerly Superintendent of Rolling Stock C.P.R.

W. Walsh, was recently presented with an address, gold watch, chain, and charm by the Toronto staff of the Dominion Express Co., on his giving up the position of General Agent to become Assistant to the General Manager.

H. Tompkins, one of the oldest of the operators of the C.P.R. telegraphs at Winnipeg, was presented with a travelling case by the night and day staffs, Mar. 10, on his resigning after 20 years' service, to go to San Francisco.

F. Frappier, formerly a painter in the employ of the C.P.R. at its Hochelaga shops, has been found guilty of conspiracy to defraud the Company by procuring a third party to obtain money by false pretences. Sentence has been reserved.

H. P. Sharpe was entertained at dinner and presented with a cabinet of silver recently by the business men of London, Ont., on leaving there on his promotion to the position of Gen-

Principal of the Guelph Agricultural College, on his appointment as a railway commissioner.

W. P. Tierney, railway contractor, Nelson, B.C., fell off a trestle Feb. 18, at Granite siding to the rocks below, a distance of 40 ft., in endeavoring to escape being run down by a train. He was seriously cut about the head and face, and received some internal injuries.

Mr. Hays, wife of the 2nd Vice-President and General Manager G.T.R., was a passenger on a G.T.R. train which was snowbound for 42 hours in the Blue Cut, near St. Mary's, Ont., Mar. 3. She was on her way to St. Louis, Mo., from which place she has since returned to Montreal.

J. H. Manning, formerly Second Assistant Superintendent of Rolling Stock, C.P.R., at Winnipeg, Man., is reported to have been appointed Superintendent of Motive Power of the Delaware & Hudson Co., at Albany, N.Y., succeeding J. R. Slack, appointed Assistant to the General Superintendent.

J. W. Leonard, formerly Assistant General Manager C.P.R. lines west of Port Arthur,

Eng., July 4, 1879, and entered railway service with the G.T.R. in 1897, since which his record has been: 1897 to 1903, in Division Freight Agents' office, Toronto; May, 1903, to Mar., 1904, City Freight Agent, Hamilton.

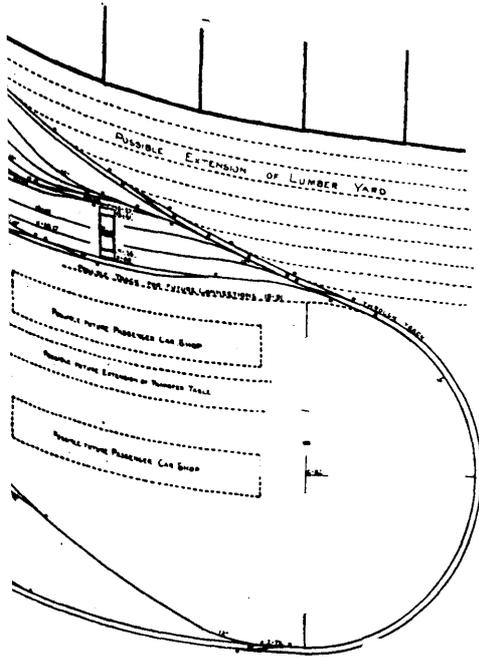
F. Lee, who has been appointed Assistant Engineer Western division C.P.R. at Calgary, was born at Chicago, Ill., Mar. 7, 1873, and entered railway service in Jan., 1895, as rodman and draughtsman on location and construction of extensions to the Government railways Trinidad, British West Indies; since which his record has been: May, 1896, to Nov. 1902, on construction and maintenance Chicago and Northwestern Ry.; Nov., 1902, to Jan., 1904, signal engineer C.P.R. at Montreal.

Hon. M. E. Bernier, who has been appointed Deputy Railway Commissioner for Canada, was born in St. Hyacinthe, Que., in 1841, brought up on his father's farm, studied law and admitted to practice as notary in 1867. He has always taken an interest in farming, and has been owner of a farm near St. Hyacinthe. He has been President of the local agricultural society for 15 years, and has

been connected with industrial establishments and banking institutions. He represented St. Hyacinthe in parliament for 22 years, having been first elected in 1882. From 1900 to 1904 he was a member of the Railway Committee of the Privy Council.

R. F. Tate, First Vice-President Engineers' Club of Toronto, entered railway service in 1871 as rodman on surveys and construction of the Midland Ry., now part of the G.T.R., and was Chief Engineer for five years ending 1881. He was subsequently resident engineer in charge of double track construction and a branch to the Sarnia tunnel for the G.T.R., and was with the C.P.R. during the construction of the line between Farnham, Que., and Mattawamkeag, Me.; the Smith's Falls extension in Ontario; and the Crow's Nest Pass line, as well as being engaged on survey and other work. Since 1900 he has been resident engineer for Mackenzie, Mann & Co. at Toronto.

W. T. Marlow, who has been appointed Import Freight Agent C.P.R. at Montreal, was born in Limerick, Ireland, Oct. 25, 1872, and



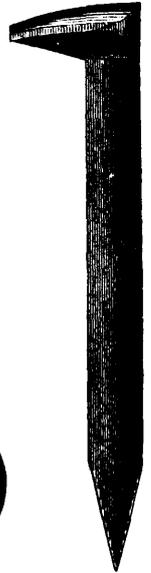
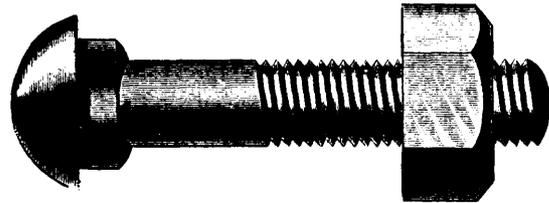
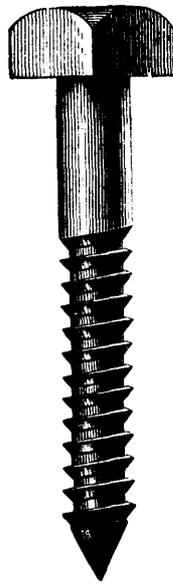
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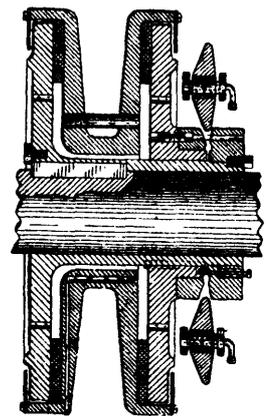
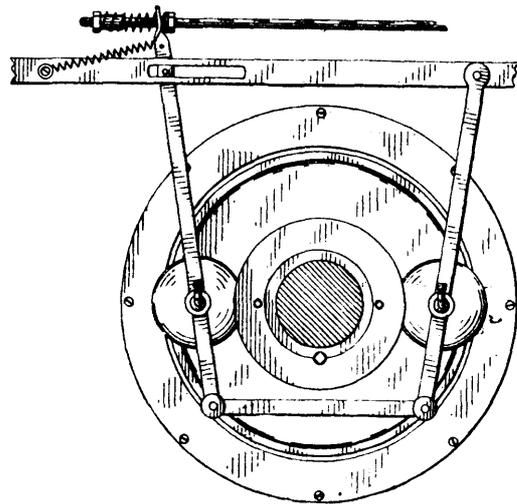
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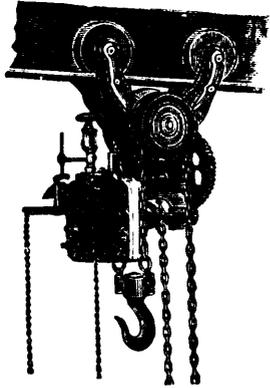
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WRITE FOR PARTICULARS

STEWART B. PLAYFAIR, Manager, 28 Wellington Street West
TORONTO, ONTARIO.

entered railway service with the C.P.R., Sept., 1886, since which he has been consecutively: Sept., 1886, to Sept., 1888, in train dispatcher's office, Toronto; Sept., 1888, to Mar., 1889, in Assistant Superintendent's office, Toronto; Mar., 1889, to 1895, in office of Assistant Freight Traffic Manager, Toronto; 1895 to 1896, in office of General Freight Agent, Toronto; 1896 to 1902, in office of General Agent C.P.R. at Hong Kong. After six months' leave of absence, he was appointed in Mar., 1903, assistant to the Foreign Freight Agent, Montreal, remaining there until his present appointment.

J. Cardell, who has been appointed Master Mechanic Central Division C.P.R. at Winnipeg, was recently entertained at dinner by the railway officials and residents at Calgary, Alta., where he had been acting Master Mechanic Western division, on the occasion of his leaving to take up the duties of his new position. The C.P.R. shop employes presented him with a gold-mounted cane, and the present were: R. R. Jamieson, General Superintendent; J. Niblock, Superintendent; J.



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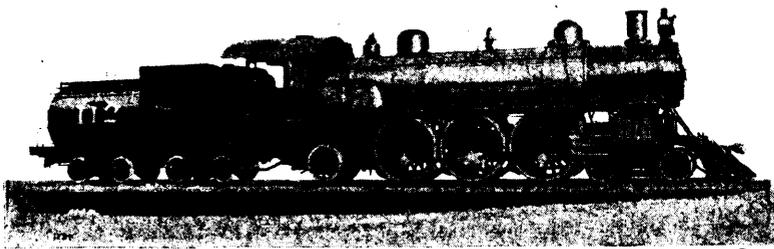
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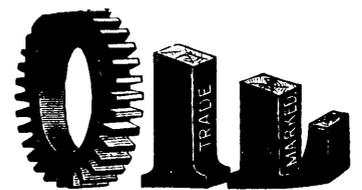
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MINERAL SEAL OIL

300 Fire Test, for Illuminating Purpose

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TRANSPORTATION APPOINTMENTS.

Canada Atlantic Ry. - Canada Atlantic Transit Co.—C. J. Smith, heretofore General Traffic Manager, has resigned to become General Manager Richelieu and Ontario Navigation Co. A successor will not be appointed for the present, his duties being taken over by W. P. Hinton, General Freight Agent.

Canadian Improvement Co.—This is the title which it is reported has been adopted for the reconstruction of the Consolidated Lake Superior Co. The following are stated to have been appointed: President, C. D. Warren, Toronto; Vice-President, T. J. Drummond, Montreal; General Manager, C. Shields. No official announcement of the plans of reorganization or of the new directorate had been made up to Mar. 26.

Canadian Northern Ry.—The position of General Superintendent, heretofore held by

A. Millison, heretofore locomotive foreman at Moose Jaw, Alta., is reported to have been appointed general locomotive foreman at Fort William, Ont.

—, Peterson, heretofore locomotive foreman at Kamloops, B.C., is reported to have been appointed acting locomotive foreman at Rat Portage, Ont., succeeding W. Pitts, transferred to Moose Jaw.

J. H. Manning, heretofore Second Assistant Superintendent of Rolling Stock at Winnipeg, and on the abolition of that office, recently, appointed to look after the mechanical part of the new work going on on the western lines in connection with the erection of shops, roundhouses, etc., is reported to have resigned to become Superintendent of Rolling Stock Delaware and Hudson Rd.

H. O'Connor, formerly station master at Winnipeg, has been appointed Fire Inspector of Western lines. Office, Winnipeg, Man.

P. E. Barry has been appointed Assistant Roadmaster at Winnipeg. He will have charge of the Winnipeg terminals, the Winnipeg and Teulon and the Winnipeg Beach lines.

W. Pitts, heretofore acting locomotive foreman at Rat Portage, Ont., is reported to have been appointed locomotive foreman at Moose Jaw, Assa.

J. Anthony, heretofore general locomotive foreman at Fort William, Ont., is reported to have been appointed general locomotive foreman at Revelstoke, B.C.

Chicago and Alton Ry.—J. W. Donald, heretofore District Passenger Agent for New York State and Ontario at Buffalo, has been appointed District Passenger Agent for Ontario and the State of Michigan. Office, Detroit, Mich. The New York territory, formerly looked after by Mr. Donald, will in future be handled from the New York city office.

Grand Trunk Ry.—F. J. Henstridge, heretofore Travelling Freight Agent at Hamilton, has been appointed chief clerk in the Division Freight Agent's office there, succeeding J. F. Reynett, transferred to the tariff department in the General Freight Agent's office, Montreal.

S. E. Dewey, heretofore Soliciting Freight Agent at Hamilton, has been appointed Travelling Freight Agent, succeeding F. J. Henstridge, promoted.

J. J. Nelligan has been appointed Soliciting Freight Agent at Hamilton, succeeding S. E. Dewey, appointed Travelling Freight Agent.

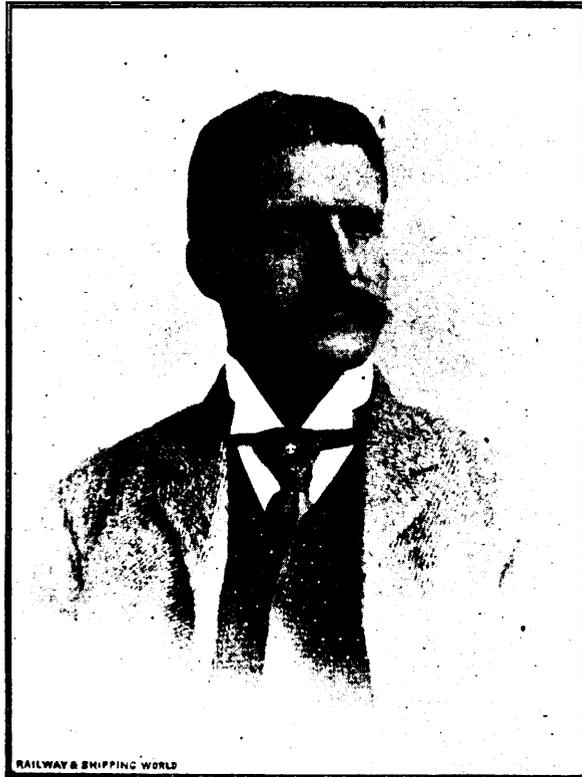
Intercolonial Ry.—J. J. Walker, heretofore chief clerk in the Treasurer's office, has been appointed Mechanical Accountant. Office, Moncton, N.B.

Lake Ontario and Bay of Quinte Steamboat Co.—C. F. Gildersleeve, President L.O. and B. of Q.S. Co., and heretofore General Manager, Richelieu and Ontario Navigation Co., it is reported will take the active management of the L.O. and B. of Q.S. Co.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—G. C. Conn, heretofore Assistant General Freight Agent, Pere Marquette Rd., has been appointed General Freight Agent. Office, Minneapolis, Minn.

Montreal, Merchants and Lake Superior Line.—A circular has been issued signed by B. W. Folger, General Manager Canadian Lake and Ocean Navigation Co.; A. B. Mackay, General Manager New Ontario Steamship Co., and J. B. Fairgrieve, Hamilton, making the following appointments:

A. Cowan, heretofore Travelling Freight Agent, Northern Navigation Co. of Ontario, has been appointed Traffic Manager. Office at Hamilton.



C. J. SMITH,

General Manager Richelieu and Ontario Navigation Co.

E. A. James, recently appointed manager, will not be filled for the present at least.

Canadian Pacific Dispatch.—W. G. Roche is reported to have been appointed Contracting Freight Agent. Office, Detroit, Mich.

Canadian Pacific Ry.—The foreign freight department has its offices in the Board of Trade Building, Montreal, and as reorganized has as its officers: J. Corbett, General Foreign Freight Agent; A. E. Cook, Export Freight Agent; W. T. Marlow, Import Freight Agent. E. N. Todd has been appointed Assistant Import Freight Agent, with office at Toronto.

S. B. McConnell, Resident Engineer at North Bay, Ont., and H. B. Miles, Resident Engineer at White River, Ont., have exchanged places.

J. A. Davis has been appointed Superintendent's Accountant at North Bay, Ont.

J. Loftus has been appointed Roadmaster of the Sault Ste. Marie branch, succeeding A. Black, who is ill. Office, Webbwood, Ont.

S. Dennis, B.C. Land Commissioner and Superintendent of Irrigation; N. E. Brooks, Division Engineer; A. Allan, Chief Dispatcher; F. W. Scott, Roadmaster, Calgary; G. H. Webster, Division Engineer, Vancouver, B.C.

Arthur White, formerly Division Freight Agent, G.T.R. at Toronto, recently brought an action to recover \$5,000 from W. G. Harris, as remuneration for services rendered in connection with the sale of the Harris abattoir to the Wm. Davies Co. The abattoir was built in 1897 on land leased from the G.T.R. for 21 years, and cost \$65,000. Mr. White was then Division Freight Agent for the Company, and had power to recommend leases, and gave Mr. Harris assistance in preparing the offer for the lease, and in negotiating for the sale of the property on the consolidation of the Harris interests with those of the Wm. Davies Co. Mr. White had been given \$200 on the completion of the negotiations, and the court held that this was ample compensation for the services he rendered. The action was therefore dismissed with costs.

C. J. Smith, who has been appointed General Manager of the Richelieu and Ontario Navigation Co., was born at Hamilton, Ont., Mar. 10, 1862, and entered railway service in 1879, since which he has been consecutively: 1879 to 1880, clerk local freight office, Hamilton and Northwestern Ry., at Hamilton, Ont.; 1880 to 1882, with audit and purchasing department Chicago and Alton Rd.; 1882 to May, 1885, in construction department C.P.R.; June, 1885, to 1886, in traffic department New York, Lake Erie and Western Rd.; 1886 to 1888, chief clerk to General Manager Chicago and Atlantic Ry.; Jan., 1888, to July, 1888, in traffic department, Minneapolis, St. Paul and Sault Ste. Marie Ry.; July, 1888, to Jan., 1890, in traffic department St. Paul, Minneapolis, and Manitoba Ry. (Great Northern Ry. U.S.); at St. Paul, Minn.; Jan., 1890, to Mar., 1898, General Freight and Passenger Agent, Canada Atlantic Ry.; April, 1898, to April, 1904, General Traffic Manager, same road, and Canada Atlantic Transit Co.

Lyman M. Dwight, Superintendent G.N.W. Telegraph Co. at Winnipeg, who died there Mar. 18, aged 40, was the only surviving son of H. P. Dwight, President G.N.W. Telegraph Co., Toronto. He had been in poor health for some years, but was only confined to his house during the four months preceding his death. Born in 1864, he was educated at the Collegiate Institute at Galt under Dr. Tassie, and at the Upper Canada College, Toronto, subsequently joining the head office staff of the G.N.W. Telegraph Co. He was local manager in Toronto until 1889, when he was appointed to take charge of the Company's operations in the Northwest with headquarters at Winnipeg. As a lacrosse player he had an international reputation, being a member of the first Canadian team to visit Great Britain in 1883. He married in 1890 Miss Kate Laidlaw, daughter of the late Geo. Laidlaw, the promoter of the Credit Valley and other Ontario railways. A funeral service was held in Winnipeg, and the body was brought to Toronto for interment.

The C.P.R. is finding difficulty in obtaining a sufficient number of guides in connection with its tourist business, and L. O. Armstrong, who has charge of that branch, says that the Company may have to establish a school for the purpose of training guides for tourist parties.

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WRITE FOR CATALOGUE

C.P.R. LANDS.

THE CANADIAN PACIFIC RAILWAY COMPANY have 12,000,000 acres of choice farming lands for sale in Manitoba, Assiniboia, Saskatchewan and Alberta, Manitoba lands and Assiniboia lands east of third meridian, \$4.00 to \$10.00 per acre according to quality and location. Lands in South-Western Assiniboia and Southern Alberta, \$3.50 to \$8.00 per acre. Ranchings lands generally \$3.50 to \$4.00 per acre. Northern Alberta and Saskatchewan lands generally \$6.00 to \$8.00 per acre. Maps showing the lands in detail will be sent free on application.

TERMS OF PAYMENT.

An actual settler may purchase 640 acres, or less, on the 10 payment plan, by which the aggregate amount of principal and interest is divided into a cash instalment to be paid at the time of purchase and nine equal deferred instalments annually thereafter, as follows:

- 160 acres at \$4.00 per acre, 1st instalment \$95.85 and 9 equal instalments of \$80.
- 160 acres at \$4.50 per acre, 1st instalment \$107.85 and 9 equal instalments of \$90.
- 160 acres at \$5.00 per acre, 1st instalment \$119.85 and 9 equal instalments of \$100.
- 160 acres at \$5.50 per acre, 1st instalment \$131.80 and 9 equal instalments of \$110.
- 160 acres at \$6.00 per acre, 1st instalment \$143.80 and 9 equal instalments of \$120.00.
- 160 acres at \$6.50 per acre, 1st instalment \$155.80 and 9 equal instalments of \$130.00.
- 160 acres at \$7.00 per acre, 1st instalment \$167.80 and 9 equal instalments of \$140.00.

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 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. on five-sixths of the purchase money. Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,

Land Commissioner C.P.R. Co., Winnipeg.

CANADA NORTH-WEST LAND CO.

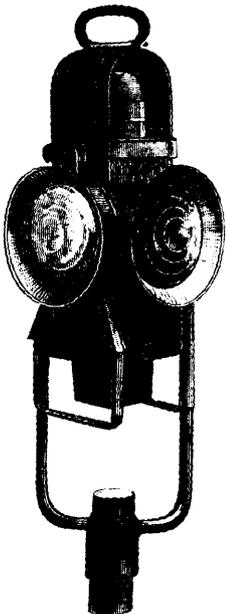
This Company has 800,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

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Homeseekers' rates twice a month to certain points at reduced rates. The Eight Track Route to St. Louis Fair. Five Stations to start from in Chicago. Ask your agent about it or write.

G. B. WYLLIE,

Canadian Passenger Agent.

210 ELLICOTT SQUARE, BUFFALO, N.Y.

The Canadian Westinghouse Co. has opened an office and warehouse at Vancouver, B.C., which will be in charge of H. D. Scribner, heretofore connected with the San Francisco office of the Westinghouse Electric and Manufacturing Co.

W. Askin, heretofore Assistant Manager Northern Navigation of Ontario, at Sarnia, Ont., has been appointed Commercial Agent and Superintendent. Office, Montreal.

G. E. Jacques & Co. have been appointed agents at Montreal.

W. R. Bartlett has been appointed agent at Cleveland, Ohio.

Representatives will also be appointed at Toronto and Winnipeg.

Montreal Street Ry.—L. Trudeau has been appointed Superintendent, succeeding L. Robinson, resigned.

Northern Navigation Co. of Ontario.—C. E. Stephens, of Collingwood, who is a director, and was Treasurer in 1903, has been appointed Secretary-Treasurer, succeeding R. A. Smith, who occupied the position temporarily and has resigned.

C. A. Macdonald, heretofore General Passenger Agent, has been appointed Auditor of Passenger and Freight Accounts. Office, Collingwood.

G. D. Ellis, heretofore Travelling Passenger Agent, has resigned.

H. Chittrick, heretofore chief steward at Sarnia, has resigned.

Capt. G. Playter has been given charge of the fleet at Collingwood during the winter, and will act as master of the str. City of Collingwood during the summer.

F. P. Belcher, heretofore agent at Winnipeg, has resigned.

Pere Marquette Rd.—The following circular has been issued: The business heretofore conducted in Canada in the name of the Lake Erie & Detroit River Ry. is now conducted by and in the name of the Pere Marquette (except as to the line between London and Port Stanley), pursuant to a trackage contract between the L.E. & D.R. and the P.M. The jurisdiction of the general officers of the P.M. has been extended to cover the business in Canada of the P.M., and the lines to be thus operated will be known as the Buffalo division.

W. Woollatt, heretofore General Superintendent Lake Erie and Detroit River division P.M. Rd., has been appointed Superintendent Buffalo division P.M. Rd.

Quebec Southern Ry.—The following circular has been issued by J. M. M. Duff, trustee: "Having taken possession of the Quebec Southern Ry. Co.'s property as Trustee for the bondholders, I beg to announce that the line will hereafter be operated under my direction. All arrangements are being made for the opening of the line, and it is confidently expected that effective and convenient service will be re-established forthwith. It shall be my aim to serve all communities, shippers and patrons well, and to afford all necessary transportation facilities."

C. B. Hibbard has been appointed General Manager. Office, Montreal.

H. J. Dorion has been appointed Auditor and Assistant Treasurer. Office, Montreal.

C. S. Papps has been appointed Car Accountant. Office, Montreal.

R. A. Trudeau has been appointed Superintendent, and will have charge of conducting transportation. Office, Sorel, Que.

F. D. Anthony has been appointed Chief Engineer, and will have charge of maintenance of way and buildings. Office, Sorel, Que.

G. H. Taylor has been appointed mechanical foreman, in charge of motive power, rolling stock and machinery. Office, Sorel, Que.

Richelieu and Ontario Navigation Co.—C. J. Smith, heretofore General Traffic Manager Canada Atlantic Ry. and Canada Atlantic Transit Co., has been appointed General Manager, succeeding C. F. Gildersleeve, resigned.

Butland Rd.—A circular has been issued by the General Passenger Agent, making the following changes in the passenger staff:

F. M. Gilman assumes the title of District Passenger Agent in charge of the Montreal territory. Office, Montreal.

J. M. Ferris, Travelling Passenger Agent, transferred to Montreal; all Canadian territory except Montreal.

J. A. Proulx, Travelling Passenger Agent, and A. Lariviere, Passenger Agent, at Montreal, have resigned.

Turbine Steamship Co.—John Moodie, President, will probably act as Manager for this year at least. G. Hope is Secretary-Treasurer. Offices, Hamilton, Ont.

Thos. Burke has been appointed Freight and Passenger Agent. Office, Toronto.

White Pass and Yukon Route.—M. J. B. White is General Freight and Passenger Agent at Vancouver, B.C.

R. D. Pinneo has been appointed Assistant General Freight and Passenger Agent. Office, Skagway, Alaska.

The G.T.R. has received from a Roman Catholic priest through its acting solicitor at Detroit, Mich., \$600 as conscience money. The money is believed to have been stolen by an employe who confessed to the priest, and was advised to give up the spoils.

Replying to a question in the Ontario Legislature recently the Premier stated that the companies holding charters or applying for such railways from the great lakes to points on Hudson's Bay had not been compelled to rigidly observe the Government's rule with regard to filing maps on a large scale, showing the location of the proposed lines, and also the locations of other railways both projected and existing. The ordinary maps of the Province, with the various lines projected marked on them, had usually been accepted as sufficient. Another question brought from the Premier the statement, that the total amount paid out in railway subsidies since Jan., 1903, was \$114,607.32.

The Dominion Coal Co., in the name of the Sydney and Glace Bay Ry., applied to the Nova Scotia Supreme Court for an injunction to restrain the Cape Breton Electric Co. from operating its snow plough and heavy cars on its line, and the Manager of the C.B.E. Co. from signing documents as Manager of the S. and G.B. Ry. Co. The Dominion Coal Co. and the Cape Breton Electric Co. each own one-half of the stock of the S. and G.B. Ry., and in the judgment, while the injunction will be granted until a further order of court is made, the name of the S. and G.B. Ry. Co. was struck out as the plaintiff. The Cape Breton Electric Co. has secured an injunction against the Dominion Coal Co. to prevent it operating the line.

Locomotive and Machine Co. of Montreal.—The business of this Company, which has its works at Longue Pointe, Montreal, has been merged with the American Locomotive Co., the transfer having taken place Mar. 31. The business will still be carried on as the Locomotive and Machine Co. of Montreal. The officers are: Acting Manager, R. Miller, Ingersoll, Ont.; Superintendent, J. Garry, M.E., late of the Rhode Island Works of the American Locomotive Co.; Chief Accountant, — Root; Treasurer, J. Duniarsy, Montreal; Chief Engineer, M. J. Butler; Assistant Superintendent, — McKay, formerly of New Glasgow, N.S. A statement given out in New York says that the consideration was \$1,500,000, which amount the Montreal company will receive \$1,000,000 cash and \$500,000 in new 4% bonds, which will be issued by the American Locomotive Co. In order to finance the deal the American Locomotive Co. will issue in all \$1,500,000 4% bonds, \$1,000,000 to be retained in the treasury and the cash payment for the Montreal company will be made from the surplus funds.

Canadian Ticket Agents' Association.

The Secretary-Treasurer, E. de la Hooke, has issued a circular respecting the trip to St. Louis, Mo., in May. As we stated in a previous issue W. Bunton, Chairman, and W. Jackson, another member of the executive committee, recently visited St. Louis and made the necessary hotel arrangements, etc.

The party will rendezvous at London, Ont., on May 13, going from there by special G.T.R. train via Harvey Jct., Ill., and Illinois Central Rd. to St. Louis. The return journey will be made by special train via Wabash Rd. to Detroit and C.P.R. to London. Following is the itinerary as prepared by the inimitable Secretary:

Friday, May 13, meet at London. Members are recommended on arrival to at once adjourn to the dining-room at the G.T. station, where they can meal at a reasonable figure. The dining-room, though not by any means small, could not accommodate all at one sitting; besides, many would have breakfasted early, and waiting for later arrivals would be simply an unnecessary abstinence of the flesh. The London Street Ry. Co. has invited the party to a trip to Springbank, returning in time for special to leave London about 3 p.m. Supper will be served at Durand, Mich.

Saturday, May 14, breakfast at Springfield, Ill. Here a short stay will be made to enable the party to view the State buildings and city generally; arriving at St. Louis about midday.

Sunday, May 15, breathe!

Monday, May 16, meetings at 10 a.m. and 9 p.m.

Tuesday, Wednesday and Thursday, May 17, 18 and 19, in the Exposition grounds and buildings or a trip to the city. No pre-arranged plan for the guidance of the party in seeing the sights will be adopted, it being considered more desirable to let each one form and carry out his own ideas as how to spend the time to the best advantage.

Thursday, May 19, leave St. Louis in the evening.

Friday, May 20, breakfast at Detroit; thence to London and disband.

The party will stay at the Inside Inn, which is situated within the Exposition grounds at St. Louis.

Railway Equipment Notes.

The Kent Northern Ry. has added another locomotive to its equipment.

The G.T.R. recently added to its equipment 30 refrigerator cars built at its Montreal shops.

The James Bay Ry. has received a locomotive, transferred to it from the Canadian Northern Ry.

The Vancouver, Westminster and Yukon Ry. has purchased two passenger coaches in the United States.

The city of Winnipeg has ordered 25 hopper self-discharging gondola cars, 80,000 lbs. capacity, for delivery in May.

The Cumberland Ry. and Coal Co. is having four stone cars of 80,000 lbs. capacity built by Rhodes, Curry & Co., Amherst, N.S.

The G.T.R. has received three of the six switching locomotives for which an order was placed at its Port Huron, Mich., shops.

We are informed that recent press reports to the effect that the G.T.R. was in the market for 1,000 freight cars are incorrect.

The Hamilton, Grimsby and Beamsville Electric Ry. Co. has purchased additional electric equipment in New York for its cars.

The Dominion Atlantic Ry. has placed an order with Rhodes, Curry & Co., Amherst, N.S., for 25 standard box cars, 60,000 lbs. capacity.

The Canadian Locomotive Works, Kingston, Ont., has received orders for 10 loco-



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motives for the C.P.R., and 25 for the Intercolonial Ry.

The Intercolonial Ry. has ordered 100 box cars of 60,000 lbs. capacity, and 175 flat cars of 60,000 lbs. capacity from Rhodes, Curry & Co., Amherst, N.S.

The New Brunswick Southern Ry. is having 10 flat cars of 40,000 lbs. capacity, and three box cars of 40,000 lbs. capacity, built by Rhodes, Curry & Co., Amherst, N.S.

A. R. Macdonnell, contractor for the Temiskaming and Northern Ontario Ry., has purchased a passenger coach, which he is using on the line between North Bay and mileage 57.

The Canadian Northern Ry. recently placed an order for three baggage and mail cars and six second-class coaches to be delivered in May and June, and for 150 flat cars, to be delivered in March and April.

Record of Recent Construction, no. 46, issued by the Baldwin Locomotive Works, Philadelphia, Pa., deals with various types of compressed air locomotives, their uses, and the cost of haulage by this method.

The G. T. R. has leased two of the locomotives built by the Canadian Locomotive Co. for the Temiskaming and Northern Ontario Ry., and which were being stored by the builders until required for the use of the line.

The C.P.R.'s four vans, which are being built at its Perth, Ont., shops, are 33 ft. long by 9 ft. wide, and will be fitted with Westinghouse air-brake. They will have four upper hinged berths for trainmen's sleeping accommodation.

The Intercolonial Ry., we are advised, is not asking tenders for 300 box cars of 80,000 lbs. capacity, as stated in press reports, but it is asking for tenders for 175 platform cars, 60,000 lbs. capacity, and 100 box cars, 60,000 lbs. capacity.

The Quebec Central Ry. expects to place an order, in the near future, for two locomotives. They will be of the same type as the last purchased, with cylinders, either 18 x 24 or 17 x 24, and about 115,000 lbs. weight in running order.

The Intercolonial Ry. has received four consolidation freight locomotives from the Canadian Locomotive Co., Kingston, Ont., the main dimensions being: diameter of cylinders and stroke, 21 in. x 28 in.; steam pressure, 200 lbs.; weight, about 250,000 lbs.

The C.P.R., has recently added the following to its equipment: six freight locomotives from the Saxon Engine Works, Chemnitz, Germany; two snow ploughs and one flanger from its Hochelaga shops; 86 30-ton box cars from its Perth, Ont., shops, and four vans from its Farnham, Que., shops.

The C.P.R.'s 176 flat cars which are being built at its Perth, Ont., shops are 36 ft. 8 in. long, 8 ft. 10 in. wide, and 4 ft. 2 in. high from rail to top of deck. The special equipment includes Westinghouse air brake, Simplex brake beams, Simplex body and truck bolsters, with Susemihl side bearings.

The Reid Newfoundland Co., according to a press report, has specified copper sheathing for three passenger coaches now under construction. At present the coaches require varnishing frequently owing to the spray from the sea, and it is hoped by adopting copper sheathing to prevent this and to preserve the woodwork.

The C.P.R.'s four baggage cars under construction at its Hochelaga shops have the following dimensions, etc.: length, 60 ft.; breadth, 10 ft. 6½ in. over frame; standard steel I beams and buffing gear for blind end cars, Westinghouse air brake, acetylene gas, steam heat, etc., and will be carried on four-wheeled trucks with Krupp 40 in. steel-tired wheels and 5 in. x 9 in. journal axles and triple break gear. Capacity of car, 30 tons.

Grain Elevator Notes.

The Canadian Northern Ry. is considering a proposal to erect an elevator at Port Arthur, Ont., for the cleaning and treating of damaged wheat.

The Montreal Harbor Commission is of opinion that steps should be at once taken to recommend the Government to erect another elevator at that harbor.

A new marine leg has been put up at the Meaford Elevator Co.'s elevator at Meaford, Ont., and other repairs have been made to fit it for the season's business.

At the recent annual meeting of the Goderich Board of Trade, the President stated that the Goderich Elevator Co. had had a good year and was able to declare a dividend.

The Fort William, Ont., town council has decided to grant the Canadian Elevator Co. exemption from taxation for 20 years for the 1,500,000 bush. elevator it proposes to erect there.

The Chater Elevator Co., of Chater, Man., has decided to wind up its affairs, and has passed a special resolution authorizing the distribution of its assets pro rata among the shareholders after paying all debts.

The Montreal Harbor Commission has decided that the new elevator at Windmill Point shall be placarded "Harbor Commissioners No. 1," in letters 8 ft. high. The elevator will be completed ready for operation at the opening of navigation.

The elevator which it is proposed to construct at Collingwood, Ont., will be built on a site 250 ft. from the present elevator. It has been decided to erect a structure of steel and concrete, to consist of 18 circular bins 30 ft. in diameter, 90 ft. high, with a steel cupola at the corner containing two 1,500 bush. scales and garner. The marine leg will be in a self-contained tower 72 ft. from the marine leg of the present elevator, so that both may be used at the same time in unloading the same vessel. The grain will be taken from the marine leg to the elevator by an overhead belt conveyor, and transferred to the bins by the loft-er legs and inside conveyers. The capacity of the new elevator will be 1,000,000 bush., and it will be equipped so as to load 30 cars an hour. The plans are being worked out in detail, and tenders will be called for at an early date.

The elevator which is under construction at Fort William, Ont., for the Ogilvie Flour Mills Co., will be of steel fireproof construction, having a storage capacity of 500,000 bush. It is located on the banks of the Kaministiquia river and is to be used for receiving grain coming from the west by the C.P.R. and to deliver either to cars or to vessels. The house will be divided into 40 steel cylindrical bins 90 ft. deep. The cylinders are built together in juxtaposition, having intermediate three-cornered spaces between them, which is also used for storage, so that there is no lost space in the storage part of the entire building. The foundation is all concrete carried on piles driven to solid rock. The first story, covering the entire area under the bins, is 10 ft. high and is built of armored concrete. There are two receiving tracks enclosed in the steel car-shed, two stories high, the upper story being used for cleaning and dust-collecting machinery exclusively. Four loaded cars may be set to be unloaded at once. It is intended to do the car handling with two operating crews, two cars being unloaded on one track while the empty cars on the other track are being removed and loaded cars placed in position, the handling crew alternating from one track to the other while the car setting operation is going on. By this means the elevating machinery is kept in continuous service, and the handling facilities kept at their maximum with minimum help.

The total handling capacity of the house will be 100 cars a day, and vessels may be loaded at the rate of 30,000 bush. an hour. There will be cleaning machinery installed capable of cleaning 12,000 bush. an hour and an elaborate system of dust-collecting and separating machines will be included. The scales and garner will hold 1,600 bush. each, and the elevator legs will carry 15,000 bush. an hour. All floors throughout the building will be of reinforced armored concrete. The windows will have steel sashes with wire glass, and nothing of a combustible nature will be allowed in the construction excepting only the conveyers, elevating belts and rope transmission. The machinery equipment is to be of the very latest design and of the highest efficiency. Friction clutches and rope transmissions will be used on all drives, so that any one part of the machinery may be controlled independent of any other part without interfering with the motive power. The machinery will be driven by electricity furnished from the new central power station now being finished for the C.P.R. The current used will be the high tension alternating current using induction motors. Powerful car-pulling and car-unloading machinery will be installed so that when 100 cars of grain are placed on the storage tracks, the elevating machinery will be competent to handle the full day's run without further assistance from switching crews. The elevator will be equipped with the latest modern conveniences, such as telephone, passenger elevator, steel stairways, electric signals, fireproof offices and waiting rooms for the operating force, including steel lockers and fireproof furniture. It is intended to make the construction of this building of such extremely low combustion that it would cost more to burn it down than the original cost of erection. The contractors, the Macdonald Engineering Co., of Chicago, Ill., have just completed at Fort William a steel elevator of the same general character, holding 2,000,000 bush., for the C.P.R. Work has already been commenced on the Ogilvie plant, and it is to be ready to receive and deliver grain by Sept. 15 next.

SHIPPING MATTERS.

International Water Lines Passenger Association.

The preliminary committee appointed at the meeting in Toronto in Jan. to take steps to form an association with this title, called a meeting at Detroit, Feb. 17, to complete the organization. It was attended by representatives from the principal steamship lines operating on the Great Lakes and adjacent navigable waters, the Canadian lines represented being Algoma Central Steamship Co., C.P.R. Steamship lines, Deseronto Navigation Co., Lake Ontario and Bay of Quinte Steamboat Co., Niagara Navigation Co., Northern Navigation Co. of Ontario, Ottawa River Navigation Co., Richelieu and Ontario Navigation Co. Several lines were not represented but letters were received asking for membership, including the Montreal, Rochester and Quebec Transit Co. The object of the Association is to keep the interests of water transportation companies thoroughly in evidence, to disseminate knowledge of the facilities for passenger travel afforded by the various water lines; secure concerted action on all matters of common interest, and insure the proper issuance of tickets by furnishing correct information to ticketing connections. The Association proposes to issue information showing through rates from about 18 headline points, viz., Chicago, Milwaukee, Harbor Springs, Petoskey, Charlevoix, Mackinac Island, Sault Ste. Marie, Marquette, Houghton, Hancock, Duluth, Port Arthur, Collingwood, Owen Sound, Detroit, Cleveland, Buffalo, Toronto, Kingston,

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— WRITE FOR QUOTATIONS —

JAMES PLAYFAIR, Pres. & Gen'l Mgr. D. L. WHITE, Vice-President. J. W. BENSON, Sec'y-Treas.

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Montreal and bases for intermediate or other points. On motion of C. E. E. Ussher it was decided to issue 10,000 copies of the publication, which will show the local tariffs, schedules, stop-over privileges and such other information as may relate to the interests of the participating lines; condensing in one volume all necessary information relating to water transportation regulations and conditions to properly instruct connections and ticketing agencies.

The following officers were elected: President, A. A. Schantz; Vice-President, J. Bezelheim; Secretary, M. R. Nelson; Executive Committee, F. C. Reynolds, for two years; R. C. Davis and H. T. Brigham, for one year; auditing committee, B. W. Folger, Manager Niagara Navigation Co., Toronto; T. Henry, Traffic Manager Richelieu and Ontario Navigation Co., Montreal, and E. J. Kelly, Traffic Manager, Lake Michigan and Lake Superior Transportation Co.

There were 26 lines represented at the meeting, 18 United States and eight Canadian. Not a single Canadian was elected an officer or a member of the executive committee; the only Canadian nominated for these positions being defeated on the vote for the Vice-Presidency. The auditing committee, which has been given the task of proportioning the cost of the book among the different companies, consists of two Canadian representatives and one U.S. member. The Canadian lines should have been given one representative on the executive committee, if not one of the three executive official positions as well. They had almost one-third of the representation present, and should have been given a voice in the general conduct of the affairs of the association, and not merely the task of deciding how much each line should pay. There is altogether too much of this sort of thing in connection with the international associations, and it is time that Canadian lines should be properly represented in the management of such associations, to place the Canadian view before their fellow members.

Aids to Navigation.

The Lighthouse Board of Canada, which has recently been constituted, will pass on the questions of the site and character of new aids to navigation, and will meet in Ottawa monthly. The members are, the Deputy Minister of Marine, Lt.-Col. Gourdeau, Chairman; the Chief Engineer of the Department of Marine, Lt.-Col. Anderson; the Commander of the Fisheries Protection Service, O. G. V. Spain, R.N.; the Commissioner of Lights, J. F. Fraser, and H. A. Allan, of Montreal, the latter representing the shipping interests. When questions affecting the ship channel between Quebec and Montreal, or the pilotage district of Quebec are under consideration, the president of the board of pilots for whichever of those districts are affected is an ex-officio member of the board.

The following suggestion for the representation of the inland marine interests on the Lighthouse Board was sent to the Minister of Marine on Mar. 14, by the publisher of THE RAILWAY AND SHIPPING WORLD. "I notice that in the composition of the recently created Lighthouse Board you have recognized the ocean-going shipping interests by placing on the board a representative of the same in the person of H. M. Allan. I also understand that the presidents of the boards of pilots both above and below Quebec are ex-officio members of the Lighthouse Board when any question concerning their respective districts may come up for consideration. May I suggest that the inland shipping interests, which carry on navigation above Montreal on the St. Lawrence and on the great lakes, should also be represented on the board, the importance of

the lighting of the great lakes being a question of great moment. As you are aware, there is in existence a Dominion Marine Association, composed of owners, etc., of vessels plying principally on the inland waters, and I would respectfully suggest that should it be decided to add another representative to the Lighthouse Board, it might be of assistance to you to consult this Association as to a suitable person to represent its interests on the board."

The Minister, in reply, has promised that the suggestion will receive consideration.

J. F. Fraser, who has recently been appointed Commissioner of Lights, has charge of the maintenance and operation of aids to navigation throughout Canada. He entered the Department of Marine and Fisheries on the recommendation of the then Commandant of the Royal Military College for special work on the hydrographic survey, and was silver medalist of his year, won the sword of honor for conduct and discipline, and held at that time the third highest record of any ex-cadet for general proficiency. From 1894 to 1897 inclusive, he was assistant hydrographic surveyor on the surveys of the Georgian bay, Lake Erie and Lake Huron. In 1898 he was transferred at his own request to the inside technical branch, and plotted for the Admiralty the western sheet of the Bay of Quinte survey. In 1898 and 1899 he was for a time on the ship channel buoy service, and when so occupied added to and brought up-to-date the buoy plans. In 1900 he was in charge of the construction of bait freezers in the Maritime provinces, and on the resignation of Dr. A. Kendall took charge of the work. In 1902 he was transferred to become engineer in charge of aids to navigation between Montreal and Kingston, and was appointed Commissioner of Lights in Nov., 1903, with charge of the operation and maintenance of the system of aids to navigation.

Dominion Marine Association.

The Department of Marine being about to issue a new edition of steamboat inspection rules to replenish an almost exhausted supply, and intending at the same time to make certain amendments, application was made on behalf of the Association for leave to consider the amendments before their adoption. A conference was proposed between a committee of the Association and the Board of Steamboat Inspection, and it was arranged to have it take place in Ottawa at the time of the annual meeting of the Association during the last week of March, the Chairman of the Board agreeing to hold the new rules back for discussion at that time, so as to afford members of the Association an opportunity to make suggestions.

In the matter of the rules of the road on the great lakes, which was recently discussed by a committee of the Association and a committee from the Lake Carriers' Association in Buffalo, the Department of Marine is preparing a set of rules intended to harmonize with those in force in U.S. waters, and the Deputy Minister, pursuant to a promise to expedite the matter as much as possible and to send an advance copy of the proposed rules for the purpose of receiving suggestions from the Association, has sent the Secretary a copy of the proposed amendments, which have been submitted to the committee having the matter in charge.

Information has been received by the Secretary that the Minister of Marine has made a recommendation to Council in connection with the case of steamboat owners who paid inspection fees and tonnage dues in 1903, which is expected to be acted on at a very early date. It is understood the recommendation proposes to make the refund for which the Association has been asking.

Notices to Mariners.

The following notices have been issued by the Department of Marine:—

No. 9. Feb. 11.—Prince Edward Island—15. East Coast, Boughton river, Annandale, back range light tower enclosed. 16. South coast, Bedique bay, Summerside, back range light tower enclosed.

No. 10. Feb. 13.—Nova Scotia.—18. Bay of Fundy, Basin of Mines entrance, Cape Sharp, fog alarm established.

No. 11. Feb. 15.—Nova Scotia.—19. Bay of Fundy, Basin of Mines, Canning river, lights established.

No. 12. Feb. 16.—British Columbia—20. Vancouver Island, east coast, Baynes sound, off Reef point, distinguishing mark on buoy. 21. Vancouver Island, north coast, Hardy bay, wharf.

No. 13. Mar. 7.—Nova Scotia—22. Cape Breton, Barrow strait, Grand Narrows, Iona light re-established.

No. 14. Mar. 14.—Nova Scotia—23. Bay of Fundy, Grand passage, Peters Island reef, spindle damaged. New Brunswick—24. Strait of Northumberland, Shediac, buoyage of north channel.

No. 15. Mar. 15.—Nova Scotia—25. Bay of Fundy, Basin of Mines, Wolfville, wharf damaged, lighthouse temporarily removed. 26. Bay of Fundy, Annapolis basin, Digby pier, lighthouse established. 27. Bay of Fundy, Lurcher shoal, whistling buoy not discontinued.

No. 16. Mar. 16.—Nova Scotia—28. Northumberland Strait, Pictou bar, new lighthouse.

The following have been issued by the U.S. Hydrographic Department:

No. 8. Feb. 20.—Lake Superior—244. Passage Island light, arc of visibility.

No. 11. Mar. 12.—Lake Superior—340. Canadian shore, Sturgeon bay, St. Lawrence river—342. New York, Ogdensburg inner buoy no. 5 changed in position.

Maritime Provinces and Newfoundland.

The harbor at St. John's, Nfld., was reported frozen over Mar. 1, for the first time in many years.

The Eastern Steamship Co. has been asked to put a steamer on a direct route between Digby, N.S., and Boston, Mass.

The Dominion Government recently purchased the tug Rona for use in connection with the St. John, N.B., harbor improvements.

A company is being formed at Digby, N.S., for the purpose of constructing a marine slip there large enough to take on vessels of 1,000 tons.

The Eastern Steamship Co. of Portland, Me., has been licensed to do business in New Brunswick, under the act relating to extra-provincial companies.

Capt. A. H. Kelly, who at one time was master of the Princess Beatrice and the Premier, on the Halifax, Prince Edward Island route, died at Canso, N.S., Feb. 27.

The Imperial Dry Dock Co. is considering tenders for the construction of its proposed dry dock at St. John, N.B., and is negotiating with some of the firms that put in bids.

J. S. Clark and J. O'Neill, of St. George, N.B., are interested in a company which proposes to operate a steamship line for freight and passengers between that port and St. John.

The wharf at Amherst, N.S., is expected to be completed in June. It will enable ves-

sels to load and discharge freight at Amherst, instead of at Sackville, eight miles distant, as heretofore.

The number of sailings of transatlantic steamers from St. John, N.B., for the winter of 1903-4, up to Feb. 29, was 59 against 54 for the same period of 1902-3. The exports for the same period totalled 158,898 tons, against 127,933.

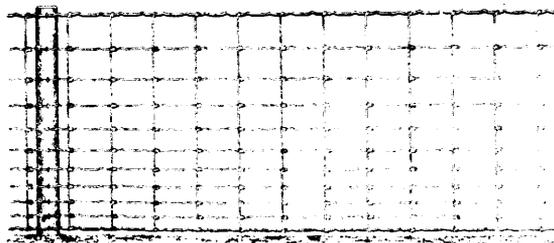
The Fredericton and Woodstock Steamboat Co. at a recent meeting decided to dispense with the services of a manager for the

ensuing season. Its str. Aberdeen is being refitted, so as to be in readiness for the opening of navigation on the St. John river.

The St. John, N.B., city council has accepted the tender of G. and H. J. Fleming, of St. John, for the construction of the new steamer for the ferry service. It is proposed to have the hull built in the U.S., and the engines in St. John. The contract price is \$80,000.

The Plant Line str. Halifax has been thoroughly overhauled prior to resuming her

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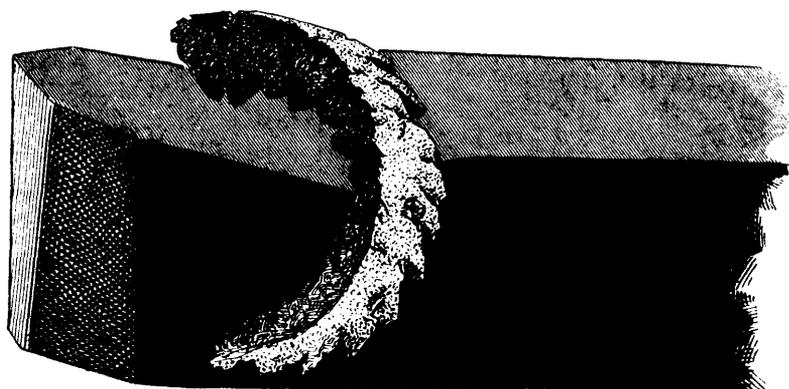
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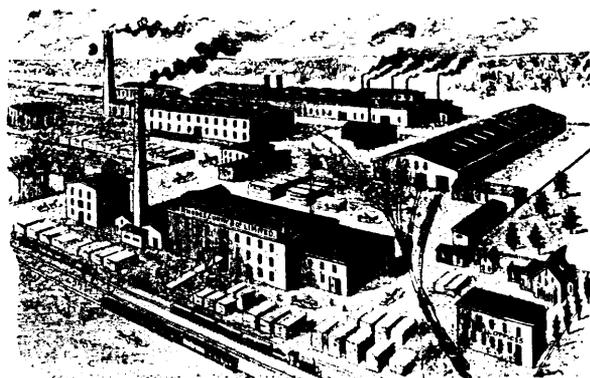
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NOTICE TO FARM LABOURERS

There are now daily arriving in this province numbers of young men from Eastern Canada and Great Britain who desire employment on Farms. Many of these are experienced farm hands and others are anxious to learn.

ALL SUCH ARE ADVISED

on arrival in Winnipeg to call upon the undersigned when all possible assistance will be given WITHOUT CHARGE in securing employment at farm work. A register is kept of farmers wanting men and of men wanting employment. This is a GOVERNMENT AGENCY and no charge of any kind is made for its services.

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ESTIMATES PROMPTLY FURNISHED.

route between Halifax, Sydney, N.S.; Charlottetown, P.E.I., and Boston, Mass., early in March. The str. Olivette will be laid up for an overhaul in April, and will be ready to return to her route in June.

The Helen Shipping Co. (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$12,000, and offices at Yarmouth, N.S., to purchase the Yarmouth schooner, Helen, and to carry on a general navigation business in Canada. B. F. L., S. B. Davis, S. P. Robbins, and Mrs. C. B. Killam are the provincial directors.

The Tidal Survey branch of the Department of Marine has issued tide tables for Charlottetown, P.E.I., Pictou and St. Paul island, N.S., for 1904, with tidal differences for Northumberland strait, the southwestern side of the Gulf of St. Lawrence, north coast of Prince Edward island and Cabot strait.

The French str. Pro Patria, trading between St. Pierre, Miquelon, and Halifax, N.S., which left the former port about Mar. 1, having on board over 60 persons, passengers and crew, and considerable freight had not been heard of up to Mar. 15, and it was feared she has been caught in the ice and crush-

Province of Quebec Shipping.

The str. Admiral will be placed on the Baie des Chaleurs run from New Carlisle to Gaspé, making three trips a week, and the str. Restigouche will run in connection with the Admiral between Gaspé and Montreal.

The Department of Marine has issued a notice authorizing the formation of a new pilotage district to have charge of piloting on the Saguenay river. The commissioners will be: J. E. A. Dubec, W. Blackburn, of Chicoutimi, and C. P. Charlton, of Tadousac.

The Department of Marine has issued a list of buoys to be placed on the St. Lawrence between Gaspé and Quebec. The buoys will be numbered consecutively, and in addition will have the letter B marked on them. The buoys will be left in position until after Nov. 10, as late as the ice will permit.

Shipping men at Montreal suggest that the Dominion Government should widen the bank west of the lock, at what is called no. 1 basin, Lachine canal, Montreal, so as to give better facilities for traffic. The basin is wider than is required, and 10 ft. or 20 ft. might be filled

main to be lighted the section of the channel between Sorel and St. Francis.

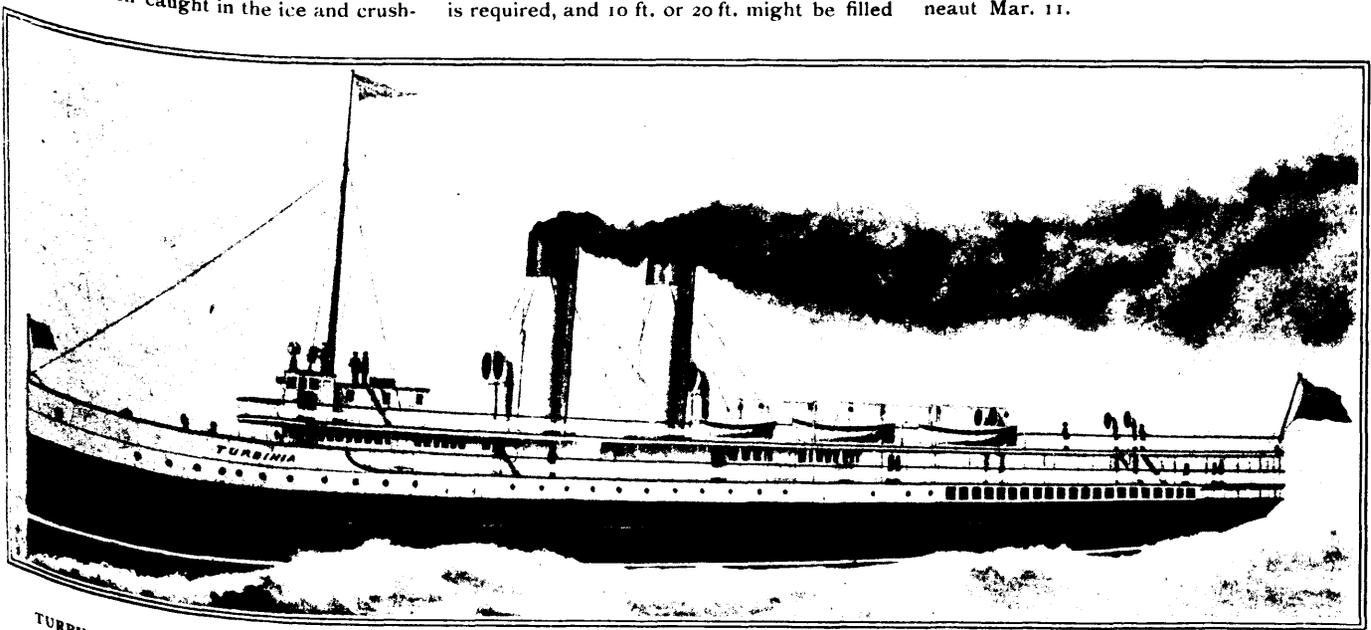
The Montreal Harbor Commission is asking for tenders for the construction of 14 two-storied steel sheds on its wharves. The sheds are to be erected in three groups, four on the Alexandra, King Edward and Jacques Cartier wharves respectively, to be completed within six months of the signing of the contract; five on sites to be hereafter determined, to be commenced by Oct. 15, 1904, and completed by May 1, 1905; and the remaining five on sites to be selected, to be commenced by Oct. 15, 1905, and completed by May 1, 1906. The sheds are expected to cost about \$3,000,000.

Ontario and the Great Lakes.

Capt. S. Prince, a well-known lake captain, died at St. Catharines, Ont., Mar. 4, aged 68.

Capt. D. Nicholson has been appointed Superintendent of the Detroit, Belle Isle and Windsor Ferry Co.

The Pere Marquette Rd. Co.'s car ferry Shenango no. 1, operating between Conneaut, Ohio, and Rondeau, Ont., was burned at Conneaut Mar. 11.



TURBINE STEAMER "TURBINIA." THIS STEAMER IS NOW BEING CONSTRUCTED IN ENGLAND FOR THE TURBINE STEAMSHIP CO., (LTD.) TO RUN BETWEEN TORONTO AND HAMILTON.

ed. A telegram received in Halifax Mar. 16, reported that the steamer had returned to St. Pierre, having been caught in the ice two hours after she left port on Mar. 1.

Contracts are reported to have been placed in Great Britain by Bowring Bros., of St. John's, Nfld., for two steamers for the new coastal service, for which they have been given a contract by the Newfoundland Government. The plans of the steamers have been submitted to the Government and approved. The steamers will have the following dimensions: length, 200 ft.; breadth, 31 ft.; depth from main deck, 16 ft. They will have a specially raked design of stem to resist ice pressure, double frames fore and aft, and the hull generally will be of heavier construction than is customary. The hull will have a cellular double bottom for 150 ft. and will be divided into seven water-tight compartments by five bulkheads, thus making them practically unsinkable. There will be a first-class saloon and social hall amidships, and accommodation for steerage passengers aft. The engines are guaranteed to give an ordinary speed of 12 knots an hour. It is stated that both steamers will be completed by Sept.

in and added to the bank for shed accommodation with advantage.

The Great Lakes and St. Lawrence Transportation Co., of which Capt. Wolvin, of Duluth, is President, and G. T. Smith is Manager, has decided to remove its offices from Quebec to Montreal. While it is not the intention of the company to abandon its trade to Quebec, Montreal will be made the principal point of export.

A company is in course of formation in Gaspé, Bonaventure, Que., and Campbellton, N.B., with a capital of \$100,000, to put a new steamer on the Gaspé Basin route. Capt. Dougal and F. A. Blair, of Campbellton, recently went to New York to purchase a steamer, but a press report states that no suitable vessel was in the market. A subsidy is understood to have been secured by the promoters from the Dominion Government.

The Department of Marine expects to have the improvements on the St. Lawrence between St. Francis and Quebec completed this year, so that navigation may be carried on by night as well as by day. The lighting of the channel between Montreal and Sorel has already been completed, so that there will re-

A branch of the Canadian Association of Masters and Mates has been organized at Owen Sound, with Capt. F. X. La France as Master, and P. McNab as Secretary.

At the annual meeting of the Goderich board of trade the President reported that 25 men were employed in shipbuilding and 45 in engine building during the year in the local yards.

A fore and aft compound engine is being put in on the tug John Harrison to replace a high-pressure one. The cylinders are 19 in. and 32 in. diameter by 26 in. stroke. The work is being done at Owen Sound.

The firemen employed by the Toronto Ferry Co., the Niagara, St. Catharines and Toronto Navigation Co., and the Hamilton Steamboat Co. have been granted an increase of \$5 a month for the season, making the rate \$40.

The ferry steamer which is being built by the Bertram Engine Works Co., Toronto, for the Wolfe Island township council, Ont., will be ready for delivery in June. A description of the steamer was published in our Jan. issue.

The str. Lincoln, which has been lying up for the winter at Windsor, Ont., sank in 40 ft. of water March 9. The cause of the sinking

was that the floating ice stove a hole in her bow. She has had a somewhat chequered career on Lakes Erie, Ontario and Huron.

The Gilchrist Transportation Co., of Cleveland, Ohio, is seeking to recover \$37,242 damages sustained by the str. Waverly and the tow barge Crosthwaite, in a collision with the Turret Crown, owned by the Canadian Lakes and Ocean Navigation Co., July 22, 1903.

Capt. J. W. Pierce, who was at one time associated with the Chaffey Shipbuilding Co., at Portsmouth, Ont., and in that connection designed a number of steamers, the last being the St. Lawrence for the Lake Ontario and Bay of Quinte Steamboat Co., died at Portsmouth Mar. 13.

The Turbine Steamship Co. is having a wharf and freight buildings constructed on the lake front at the foot of John st., Hamilton. Capt. Crawford went to England to look after

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Burlington Elevator, St. Louis, Mo.	1,300,000	"
Grand Trunk Elevators, No. 2 and No. 3, Portland, Me.	2,500,000	"
Export Elevator, Buffalo, N.Y.	1,000,000	"
J. R. Booth Elevator, Depot Harbor, Ontario	1,000,000	"
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	1,000,000	"
Erie R. R. Transfer & Clipping House, Chicago, Ill.	100 cars in 10 hrs.	"
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	1,500,000	"
Burlington Elevator Co., Peoria, Ill.	500,000	"
Canada Atlantic Railway Elevator, Coteau Landing, Que.	500,000	"
Northern Grain Co., Manitowoc, Wis.	1,350,000	"
Union Elevator, East St. Louis, Ill.	1,100,000	"
Montreal Warehousing Co.'s Belt Conveyor System		

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HALIFAX TO PORTLAND
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PORTLAND TO LIVERPOOL

Dominion - Saturday, April 2nd, 2 p.m.
Southwark - " April 9th, "
Canada - " April 16th, "
Kensington - " April 30th, "

MONTREAL TO LIVERPOOL

Dominion - - - Saturday, May 7th
Southwark - - - " May 14th
Canada - - - " May 21st
Labrador - - - " May 28th

Spacious Promenade Decks, Electric Light. Passenger Accommodation all amidships.

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41 KING STREET EAST, - - TORONTO.
DOMINION LINE OFFICE,
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The Holland Portable Light

FOR

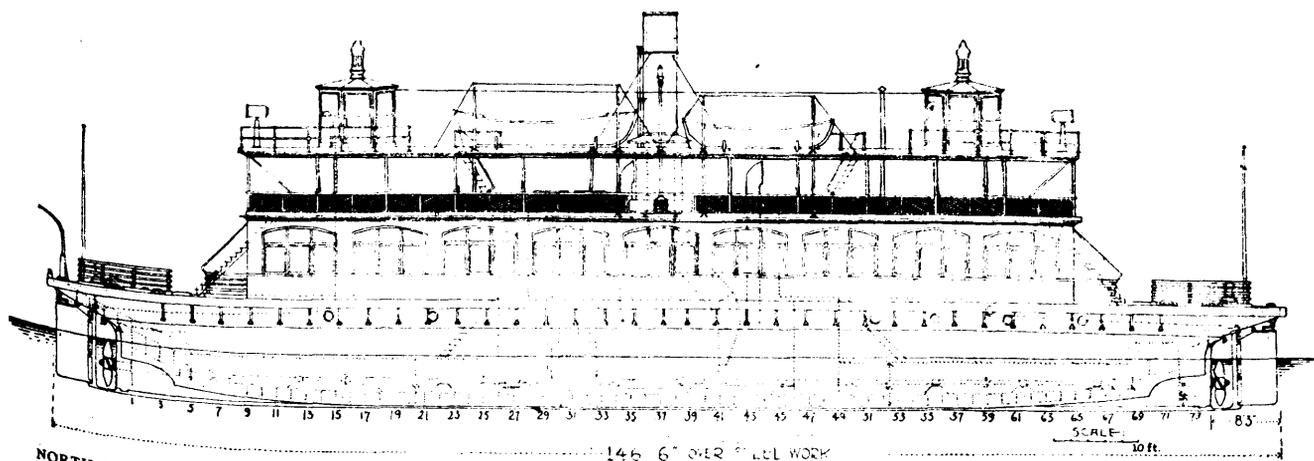
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NORTH VANCOUVER FERRY AND POWER CO.'S COMPOSITE SCREW FERRY BOAT. COMBINATION INBOARD AND OUTBOARD PROFILE.

the finishing of the steamer and to bring her out. She will be named Turbinia, and is expected to be on the route by the middle of May.

The John Island Tug Co. (Ltd.) has been incorporated under the Ontario Companies' Act with a capital of \$8,000 and head offices at John Island, Ont., for the purpose of operating steam vessels. G. H. and W. C. Moulthorp, of Bay City, Mich., and J. McEwan, of Sault Ste. Marie, Mich., are the provisional directors.

Some differences between Capt. Thos. Donnelly and the Donnelly Wrecking Co., of Kingston, Ont., have been before the courts for over a year, and in connection therewith an order of commitment has been issued against Capt. Donnelly unless he complies with an order of the court for an accounting of certain business transactions.

There is under construction at the Bertram Engine Works Co., Toronto, a tug for the Glass Reef Mining Co., for its use on Lake Wabigoon, Ont. The principal dimensions are: length, over all, 50 ft.; breadth, 12 ft.; depth, 6 ft. She will be fitted with a high-pressure engine, 8 in. by 8 in., to which steam will be supplied by a Scotch boiler, 54 in. by 72 in. Her speed is expected to be 10 miles an hour.

The Farrar Transportation Co., which owns the str. Newmount, declared a dividend of 10% on its business for 1903. The directors and officers elected for the current year are: President, C. A. Farrar; Vice-President, Capt. Scott; Treasurer, W. R. Rowland; Secretary, G. E. Fair; Manager, W. Carnichael; other

directors, F. A. Bassett, — Ferris, — Wylie and — Pearsall. The Company's offices are at Collingwood, Ont.

The Rat Portage Lumber Co. is having built by the Bertram Engine Works Co., Toronto, for its trade on the Lake of the Woods, a tug having the following dimensions: length, over all, 72 ft.; breadth, 16 ft. She will be fitted with compound engines, 10 in. and 22 in. cylinders by 16 in. stroke, to which steam will be supplied by a Scotch boiler, 8½ by 10½ ft.

An act has been passed by the U.S. Congress authorizing the payment of \$50 to the Hackett Wrecking Co., of Amherstburg, Ont., being a refund of a fine inflicted for entering a U.S. port without having clearance papers. The tug was engaged in salvage operations on a U.S. vessel ashore on the Canadian side, and springing a leak herself had to put into Marine City, Mich. The fine was originally \$1,000, but was reduced to \$50.

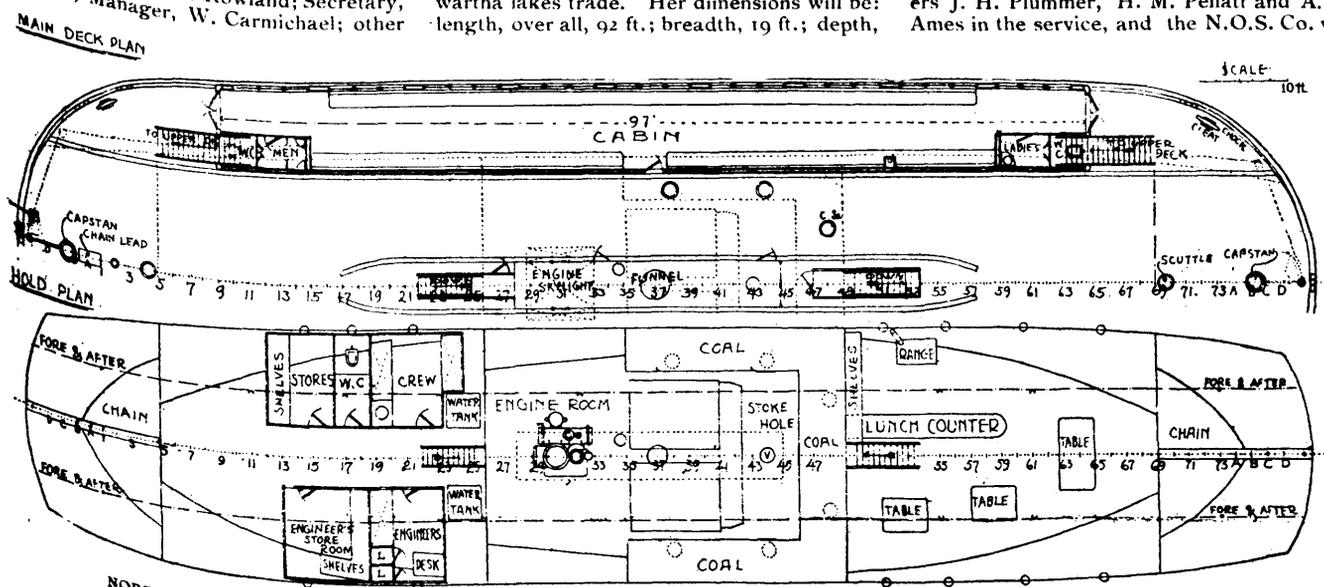
The Huntsville, Lake of Bays and Lake Simcoe Navigation Co. had a satisfactory season during 1903, according to the report presented at the annual meeting held Mar. 2. It was decided to build two new steamers for the Lake of Bays in order to accommodate the increasing tourist traffic, one to be built this year. The following were elected directors: Capt. G. F. Marsh, W. Duperow, Huntsville, Ont.; W. H. Patton, E. J. B. Duncan, E. A. Taylor, Toronto.

The Bertram Engine Works Co., Toronto, is building a passenger steamer for P. P. Young, of Young's Point, Ont., for the Kawartha lakes trade. Her dimensions will be: length, over all, 92 ft.; breadth, 19 ft.; depth,

6 ft. She will be fitted up in a most complete manner. The engines will consist of a fore and aft engine, cylinders, 6 in. and 18 in. by 12 in. stroke, to which steam will be supplied by a Fitzgibbon boiler, 54 in. by 96 in. She is expected to develop a speed of 12 miles an hour.

A large grain-carrying and package freight steamer no. 43 is being built by the Bertram Engine Works Co., Toronto. It is expected that she will be launched early in April, and that she will be completed for the trade during the coming season. Her dimensions are: length, over all, 256 ft.; breadth, 42 ft.; depth, 18 ft.; and she will be fitted with one triple expansion engine, cylinders, 15 in., 25 in. and 42 in. by 30 in. stroke, to which steam will be supplied by two return tubular Scotch boilers, 10 ft. diameter, by 11 ft. long, at a pressure of 180 lbs. It is expected to develop a speed of 12 miles light, and 10½ miles loaded. The steamer is of an improved type of grain carrier capable of going through the canals with a complete load of 70,000 bush. Accommodation is also being provided with all modern conveniences for the package freight trade including six 3-ton deck cranes. She has not been sold.

The Montreal and Lake Superior Line is the name decided on for the line to be operated between Montreal and Port Arthur and Fort William, the steamers for which will be owned by the Canadian Lakes and Ocean Navigation Co., of Toronto, and the New Ontario Steamship Co., of Hamilton. The first-named company will put its steamers J. H. Plummer, H. M. Pellatt and A. E. Ames in the service, and the N.O.S. Co. will



NORTH VANCOUVER FERRY AND POWER CO.'S COMPOSITE SCREW FERRY BOAT. PLANS OF MAIN DECK AND HOLD.

be represented by the Wacondah, Neepawa and Arabian. With the exception of the Arabian, which was built at Hamilton, in 1892, the steamers were all built in Great Britain, some on the Clyde and some on the Tyne in 1902 and 1903. Each company will operate its own boats, the agreement being for joint service only. The service will be twice a week each way, the ports of call being Montreal, Toronto, Hamilton, Cleveland, Ohio; Detroit river points, Sault Ste. Marie, Port Arthur and Fort William, Ont. A. Cowan, heretofore Travelling Freight Agent, Northern Navigation Co. of Ontario, has been appointed Traffic Manager, with office at Hamilton, Ont. W. Askin, heretofore Assistant Manager of the Northern Navigation Co. of Ontario, has been appointed Commercial Agent at Montreal.

Manitoba and Northwest Territories.

A. Watson, jr., of Victoria, B.C., recently went to Fort Vermillion, Atha., on the Peace river, where he will have charge of the construction of the steamer which the Hudson's Bay Co. is building there, the plan of which was published in our Feb. issue.

The residents of Delta and Portage la Prairie, Man., are pressing on the Dominion Government the importance of developing Delta as the southerly harbor for the territory bordering on Lakes Manitoba and Winnipegosis. The Government has directed Z. A. Malhoit to take soundings, with a view of seeing what is necessary to be done. Delta is a station on a branch line of the Canadian Northern Ry.

B.C. and Pacific Coast Shipping.

The finance committee of the Vancouver city council has recommended that the application of the Vancouver Dry Dock Co. for aid towards the construction of a dry dock be not entertained.

Fire broke out on the Pacific Coast Steamships Co's. str. Queen, at the mouth of the Columbia river, Feb. 28, and, in getting away one of the boats capsized and four passengers and 10 of the crew were drowned.

1904

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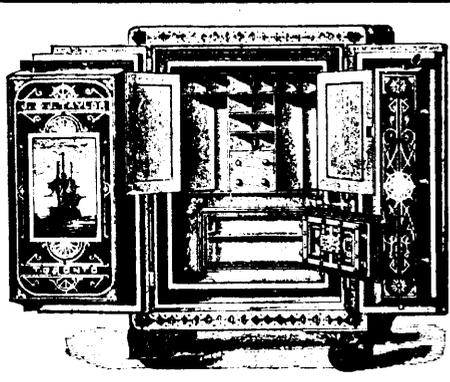
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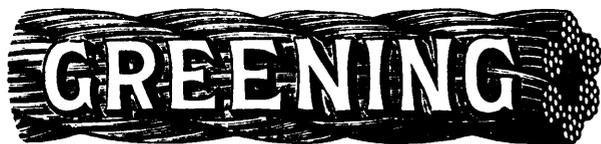
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MONTREAL

The Butler Freighting and Towing Co. (Ltd.) has been incorporated under the B.C. Companies' Act with a capital of \$25,000, and head offices at Vancouver, to carry on a general passenger, freight and towing business in British Columbia.

The str. Chieftain, owned by R. Cunningham, of Port Essington, is having new upper-works constructed, and is being generally overhauled and refitted at Vancouver. The Chieftain is 87 ft. long, of 30 tons register, and is fitted with engines developing 22 h.p.

As the result of the investigation into the loss of the str. Clallam, while on a voyage from Victoria, B.C., to Seattle, Wash., the certificate of the engineer, S. A. de Launey, has been revoked, and that of the master, G. Roberts, has been suspended for twelve months.

The str. Hamlin, recently trading between Vancouver and Chilliwack, has been sold by order of the Admiralty Court at Victoria, to satisfy claims for wages amounting to \$1,400. The steamer realized \$2,500, being sold to T. J. Kirkham & Co. It is proposed to utilize a portion of the machinery on a tug which the firm is building at Port Moody, and to use the steamer on the Fraser River.

The Dominion Government has issued an order directing that goods of Canadian origin cannot be shipped in bond on U.S. vessels, at Vancouver, Victoria, or other B.C. ports, for shipment to Dawson and other points in the Lower Yukon. If such goods are so shipped a certificate of origin will not be given, and at Dawson they will be treated as foreign imports and duty will be collected thereon. During 1903 the shipment of Canadian goods from Vancouver to Dawson, via the Lower Yukon, totalled 6,460 tons.

The new ferry steamer for the North Vancouver Ferry and Power Co., which was built at the Polson Iron Works, Toronto, was shipped to Vancouver, B.C., Mar. 1. It is expected that the steamer will be completed and ready for the service early in May. The sections are being put together at Vancouver. The steamer is of composite construction, the frames being of steel, and the sheathing of B.C. pine 3½ in. by 4 in. thick. Her dimensions are: length, over all, 148; length, load water line, 125 ft.; breadth, 28 ft.; moulded depth at centre, 12 ft. 9½ in.; depth of hold, 11 ft. 6½ in.; draft, ready for service, 6 ft. 3 in.; free board, amidships, 6 ft. 6½ in.; displacement in salt water, 310 tons. The hull is divided into five water-tight compartments by bulkheads placed one near either end of the vessel, and one on either side of the machinery space. The steamer is a double-ender, having a propeller at each end, which will be driven by a fore and aft compound engine, cylinders 14 in. and 28 in. diameter by 20 in. stroke, indicating 325 h.p. Steam will be supplied by two Scotch type steel boilers, 10 ft. long by 7 ft. 6 in. diameter, carrying steam at 150 lbs. pressure. There will be two furnaces to each boiler, the total grate surface being 50 sq. ft. This equipment will give a speed of 10 miles an hour. The fuel used will be B.C. coal, and the bunkers will have a capacity for 25 tons. The steamer will be fitted with a complete electric lighting plant, with direct coupled engine and dynamo running 100 arc lights and two searchlights. The ferry will have accommodation for 600 passengers, and will be operated from North Vancouver across Burrard Inlet, about 2¼ miles. A. St. G. Hamersley is Manager of the Company for which the ferry was constructed. Plans are given on page 139.

A proposal is under consideration for running a line of steamers from Canada to Mexico. It was discussed with the Mexican authorities recently by Sir Wm. Mulock.

The C.P.R. str. Lake Michigan went ashore recently in the English channel after a collision, and was considerably injured.

The cruiser under construction for the Dominion Government at Barrow-in-Furness, Eng., will be named the Canada, and is expected to be completed by July 1.

The C.P.R. has appealed against the decision of the Shanghai Admiralty Court awarding the Chinese Government £90,000 damages on account of the sinking of a Chinese warship by the Empress of India, Aug. 8, 1903.

The C.P.R. str. Montezuma inaugurated a passenger service from Antwerp to Montreal, Mar. 22. A freight service was carried on during the winter to Halifax, N.S., fortnightly, but the passenger service during the summer will be a 10-day one.

A committee of the U.S. Congress has recommended that a U.S. registry be given to the str. Myra owned by F. W. Gilchrist, Alpena, Mich. The Myra was formerly owned by the Dominion Coal Co., and was wrecked off Yarmouth, N.S., in 1902. J. Reid, of Sarnia, Ont., undertook the salvage after the vessel had been abandoned, and succeeded in getting her afloat at a cost of \$51,000. The owners were paid \$50,000 for the vessel, and \$84,000 has been expended on repairs in U.S. yards.

Among the Express Companies.

The Dominion Ex. Co. has closed its offices at Seventy-Seven, Alta.; Coal Creek, B.C.; Little Pembina, Man.; and Grindley, Sask.

The Western Ex. Co. has opened offices at Blaney Jct. (formerly called Gridley), Mich., and Hillsdale, Wis.; and has closed its office at Moselle, N.D.

The Dominion Ex. Co. has extended its route on the Ottawa, Northern and Western Ry., from Gracefield to Maniwaki, Que., and has opened an office at Maniwaki.

J. G. Ross, C.P.R. agent at Bothwell, Ont., has been appointed Agent for the Dominion Ex. Co. at St. Thomas, Ont., succeeding A. E. Berube, transferred to London, Ont.

H. P. Sharpe, heretofore agent Dominion Ex. Co. at London, Ont., has been appointed General Agent at Toronto, succeeding W. Walsh, appointed Assistant to the General Manager.

C. E. Huggett, express messenger on the New York and Ottawa Rd., the U.S. extension of the Ottawa and New York Ry., has been fined \$1,000 for smuggling furs into the U.S. from Canadian points.

The Canadian Northern Ex. Co. has issued, in conjunction with the Canadian Northern Telegraph Co., joint circular no. 1. Offices have been re-opened at Fairfax, Margaret, Rosebank, Mintonas, Steinbach and Eden.

The various express companies announce special rates to St. Louis, Mo., for exhibits intended for the Louisiana Purchase Exposition. Exhibits will not be received after May 1. The rate to be charged is 50c. per 100 lbs. in addition to the rate to St. Louis.

A deputation representing the fruit growers of the Niagara peninsula went to Ottawa Mar. 17, to ask the Minister of Railways to arrange that the Dominion Ex. Co. be given operating privileges over the Intercolonial Ry. The fruit growers claimed that their trade with Nova Scotia was greatly handicapped by reason of the fact that it had to be handled by two companies. Large quantities of the fruit were consigned by the Dominion Ex. Co. over the Hamilton, Grimsby and Beamsville Electric Ry., and had to be handled at Montreal to the Canadian Ex. Co., which had an exclusive right on the I.C.R. One of the delegates stated that he sent over 1,000 cars of fruits to the Eastern Provinces

in 1903. The Minister of Railways, in replying, stated that the agreement giving the express service on the I.C.R. exclusively to the Canadian Ex. Co. would expire in Dec., and meantime he would give the matter consideration.

Telegraph and Cable Matters.

The Montreal Telegraph Co.'s directors at a recent meeting passed a resolution expressing regret at the death of Jesse Joseph, who had been a director from 1887 until his death, in Feb.

Contracts have been let for the poles for the extension of the Dominion Government telegraph line from Edmonton to Athabasca Landing, Alta., to be delivered by May 1. The line is to be completed during the summer.

An Order in Council has been passed approving of the lease of the Government telegraph lines on Vancouver island to the North Pacific Telegraph Co. The Company assumes the cost of maintenance, about \$5,000 a year, and will pay an annual rental.

The North American Telegraph Co. will apply at the current session of the Dominion Parliament for an act authorizing it to increase its capital stock, and to acquire by lease or purchase the charter rights of other companies. W. Bampfield, Kingston, Ont., is Secretary.

The Halifax and Southwestern Ry. recently asked for tenders for the construction of 70 miles of telegraph line between Halifax and Mahone, N.S., and 30 miles of line between Bridgewater and Liverpool, N.S. All the material will be supplied by the Company. W. H. Grant, Bridgewater, is Manager of Construction.

The Western Union Telegraph Co. commenced Mar. 1, to receive prepaid messages from any point on its system or connecting lines for transmission by Marconi wireless telegraphy to transatlantic steamships, either by Sagaponack or Babylon, N.Y., at a charge of \$2 and 12c., exclusive of address, in addition to the ordinary rate. There are 32 steamships equipped with the system for which messages will be received and transmitted.

A company with the title of The Mackay Companies has been organized as an investment trust to safeguard, upon an even basis with the interests of C. H. Mackay, the companies founded by the late J. W. Mackay. In connection with the company, there has been authorized for exchange for the \$15,000,000 of outstanding stock of the Commercial Cable Co. \$30,000,000 par value of the new Company's 4% preferred shares, and a like amount of its common stock.

The city of Montreal will apply at the current session of the Dominion Parliament for power among other things to construct a system of underground conduits, and to compel all persons or companies now using poles to carry wires or cables for electric light, telegraph, telephone, or power purposes, to place such wires and cables in the city conduit, and to remove the poles from the streets. The rates for the use of the same are to be fixed by bylaw, and power is asked to negotiate a loan for the construction of the conduits.

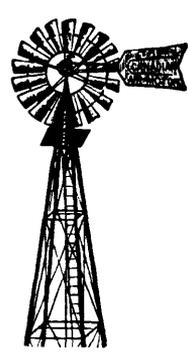
The report of the Commercial Cable Co. for 1903, shows gross receipts of \$11,025,634, against \$10,208,292 in 1902, and net earnings of \$2,508,526, an increase of \$129,853. With the surplus carried over from 1902 the total was \$2,656,055, out of which were paid interest on bonds \$800,000, and dividends \$1,200,000. Of the balance, \$350,000 was placed in the reserve fund, and \$150,000 added to the funds for insurance of stations and apparatus, and steamer repairs. The balance of income carried forward was \$156,055. The total reserve fund at the end of 1903 was \$5,372,520, and insurance fund \$1,020,862.

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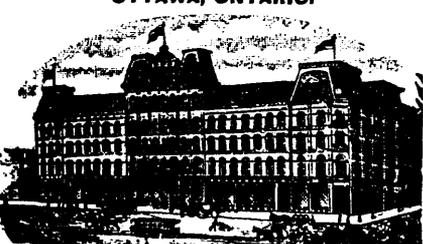
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 Capital authorized - - \$4,000,000
 Capital paid up - - - 2,983,896
 Rest - - - - - 2,636,312
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TORONTO ENGRAVING CO.
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92 BAY ST.

Bell Telephone Co. of Canada.

The report presented at the annual meeting in Montreal Feb. 25 showed that 8,691 subscribers were added during the year, the total number of sets of instruments now earning rental being 57,172. The Company owns and operates 421 exchanges and 672 agencies. There were 4,121 miles of wire added to the long distance system in 1903; of these 1,738 were in the Ontario department, 1,260 in the Eastern, and 1,123 in the Northwestern. The long distance lines owned and operated by the Company comprise 30,969 miles of wire on 7,685 miles of poles. The 10,000 shares of new stock offered to the shareholders in 1902 at 25% premium were paid up, making the capital \$6,000,000. The premium on this stock received during the year was \$151,160, and was carried to the contingent account. From the balance of revenue account, \$138,077.71, \$24,562.68 was carried to insurance reserve account, \$22,978.90 to accident insurance reserve account, and \$50,000 to contingent account, leaving balance of revenue to be carried to 1904 \$40,536.13.

REVENUE ACCOUNT, DEC. 31, 1903.

RECEIPTS.	
Exchanges (less unearned rentals).....	\$1,701,015 62
Long distance lines.....	644,670 63
Private lines.....	12,557 22
Miscellaneous.....	164,031 64
	\$2,522,275 11

EXPENSES.	
Operating.....	\$1,787,429 01
Legal.....	21,441 50
Insurance.....	20,487 79
Bond interest.....	100,000 00
Miscellaneous.....	10,765 02
	1,940,123 32

Net revenue for 1903.....	\$ 582,151 79
Less dividends (inc. Jan. 15, 1904).....	467,510 35
	\$ 114,641 44
Balance revenue from 1902.....	23,436 27
	\$ 138,077 71
Carried to insurance reserve ac.....	\$24,562 68
Carried to accident reserve act.....	22,978 90
Carried to contingent fund.....	50,000 00
	97,541 58
Carried forward to 1904.....	\$ 40,536 13

BALANCE SHEET, DEC. 31, 1903.

Stock account.....	\$6,000,000 00
Bond account.....	2,000,000 00
Contingent account, 1902.....	\$1,115,010 24
Add premium on stock sold.....	151,160 00
Add from revenue account.....	50,000 00
	1,316,170 24
Revenue account.....	40,536 13
Unearned rental reserve.....	341,751 26
Insurance reserve.....	175,000 00
Accident reserve.....	75,000 00
Bond interest reserve.....	25,000 00
Sundry creditors.....	800,725 18
	\$10,864,182 81

Plant and patent account, Dec. 31, 1902.....	\$6,952,700 02
do. added in 1903.....	1,145,614 21
	\$8,098,314 23

Plant and patent account, Dec. 31, 1903.....	398,345 95
Stores on hand.....	1,045,179 16
Real estate.....	858,006 50
Stock in other companies.....	93,940 48
Debtors and cash.....	370,396 49
	\$2,766,868 58

The directors were re-elected and at a subsequent meeting the board for the current year was constituted as follows: President, C. F. Sise; Vice-President, Hon. R. Mackay; other directors: F. P. Fish, R. Archer, W. R. Driver, H. Paton, C. Cassils, T. Sherwin.

The Mayor of Toronto in a recent communication to the board of control stated that, in his opinion, a new exchange providing for 10,000 subscribers could be established in Toronto, at a cost which would enable the rates to be fixed at \$30 a year for instruments in business places, and \$20 a year for those in private houses. Further, he says, if an automatic system could be installed these prices could be further reduced by \$5 a year.

General Telephone Matters.

The long distance telephone line between Halifax and Sydney, N.S., was put in operation March 15.

The Bell Telephone Co. has completed a line between Quebec and St. Petronille, Isle of Orleans, Que.

The Sandwich, Ont., town council declined, Mar. 3, to renew the franchise of the Bell Telephone Co. in that town.

A proposal is under consideration for the construction of a local telephone line between Clarksburg and Thornbury, Ont.

The Bell Telephone Co. has under consideration plans for the extension of its Winnipeg offices on Thistle st., and installing a larger switch board.

Gore Bay, Manitoulin island, Ont., residents are considering a plan for installing a telephone system on the same plan as that adopted on St. Joseph's Island.

The Halifax, N.S., city council has approved of the plans of the Nova Scotia Telephone Co., for further extensions of its system of underground cables in the city.

A bill to extend to counties the powers now held by towns and cities respecting the establishment of telephone systems, has been introduced in the Ontario Legislature.

The Brantford, Ont., board of trade proposes to start a subscription for the purpose of erecting a suitable monument in honor of A. G. Bell, the inventor of the telephone.

F. J. Leonard, Manager of the Canadian Telegraph and Telephone Co., claims that by the adoption of the system his Company is prepared to instal, provided it gets a franchise, Toronto telephone users would save \$140,000 a year.

J. J. Price, who was the plaintiff in the unsuccessful action to have the by-law confirming an agreement made between the Hamilton, Ont., city council and the Bell Telephone Co., quashed, proposes to carry the case to the court of appeal.

The Bell Telephone Co., during the year, proposes to extend its long distance line from Morris to Emerson, Man., taking in Letellier, St. Jean and Dominion City; to enlarge the Calgary, Alta., exchange, and to provide a new exchange at Carman, Man.

The Bell Telephone Co. has practically completed the installation of a central energy switchboard in Toronto for its "Main" subscribers, and it is expected that the change to the new system of calling up "Central" will be made April 3.

The town engineer of Sydney, N.S., in his report for 1903, stated that during the year the Eastern Telephone Co. had laid 2,300 ft. of conduit on George st., from Pitt st. to Townsend st., the section to Prince st. being six duct, and from Prince st. to Townsend st. four duct.

The first of the Bell Telephone Co.'s branch exchanges in Montreal to be completed will be that at the east end, and it is expected that it will be opened early in the summer. It will be fitted with a central energy switch board. The exchange on Hospital st. will be the next one to be completed.

The London, Ont., city council is considering offers from the Bell Telephone Co. and the Canadian Telegraph and Telephone Co., but the members of the committee, who have the matter in hand, want to investigate the plans of other telephone companies before coming to a decision.

The Brantford, Ont., city council is collecting information from other municipalities in respect to contracts with the Bell Telephone Co., in view of the approaching expiration of the Company's franchise there. A proposal

for a franchise has been submitted by the Canadian Telegraph and Telephone Co.

The civic telephone committee of the Ottawa city council has declined to recommend the council to grant a franchise for 21 years to the Canadian Telegraph and Telephone Co. The terms of the offer which was considered were \$36 a year for business places, and \$22 a year for private houses; the Company agreeing to pay \$2,500 a year in cash, put up a guarantee of \$5,000, give the city 40 free instruments, and make no charge at all for service until it has 1,000 subscribers. The Bell Telephone Co. submitted an offer to the committee for a five years' franchise, under which it would pay \$2,500 a year, furnish 20 free instruments for the use of the city, provide accommodation on its poles for the fire alarm wires, and provide telephones for business places at \$45 a year, and \$25 a year for houses. An alternative proposal was also submitted similar to that recently agreed for in Hamilton. The council decided to give the Bell Telephone Co. an exclusive franchise for five years on certain terms.

The Railway Commissioners were somewhat divided in their opinions upon the application of the town councils of Port Arthur and Fort William, Ont., for an order to compel the C.P.R. to allow the municipal telephone system of the two towns to be connected with its stations. The effect of the judgment is that while an order will be made directing the connections to be made, it will not become effective until the question of compensation has been settled. The C.P.R. has an agreement with the Bell Telephone Co. by which the latter has an exclusive right to instal telephones in all its stations, and free travel over the C.P.R. for officials and employes, in return for which the C.P.R. has free telephone service at all points, and a local exchange at Windsor st. station, Montreal. The original contract was entered into in 1891. It was renewed in 1902 for eight years, and it was stated to be mutually satisfactory. So far as the C.P.R. is concerned, there is no objection to giving the accommodation asked for, although a second telephone would be somewhat of a nuisance; the main question, however, is the one of compensation. Counsel for the Bell telephone Co. submitted a statement showing the financial result for a year of the operation of the contract as follows:

Results to the benefit of C.P.R.:-

Passes and franks over Bell Co.'s long distance lines, valued at.....	\$18,297.00
Exchange service, 774 instruments free to railway company, valued at.....	22,562.00
	\$40,859.00

To the benefit of Bell Co.:-

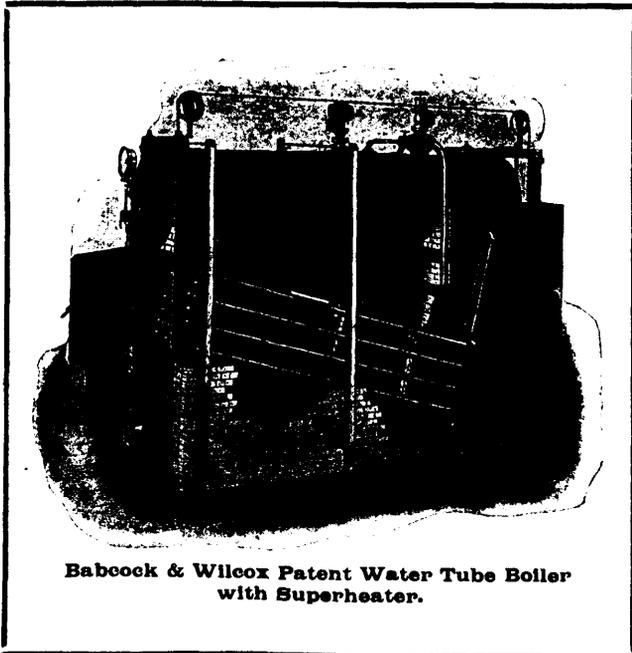
Trips, annual and periodical passes over C.P.R., valued at.....	\$22,258.00
Refunds.....	200.00
	\$22,458.00

Chief Commissioner Blair, in a lengthy judgment, held that the agreement was a legal and binding one and that failure to maintain the exclusive feature of the contract entitled the companies to compensation. Deputy Chief Commissioner Bernier agreed that the agreement was binding, but did not think it should preclude a municipal telephone system from reaching a railway station; and further, that compensation should be given not because of the agreement, but by reason of the fact that no party could take advantage of another without remuneration. Commissioner Mills held that the exclusive privilege in the agreement aimed at creating a monopoly, interfered with public interest, was against public policy, and debarred either of the contracting parties from compensation. The C.P.R., however, was entitled to be given compensation for the use of its premises and the expense of operating the telephones at the stations.

PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

Reamers W. Abbott..... Montreal.	Steel W. Abbott..... Montreal. James Cooper..... Montreal. B. J. Coghlin & Co..... Montreal. Wm. Jessop & Sons..... Sheffield, Eng. Rice Lewis & Son..... Toronto.	Trucks (Electric Car) Baldwin Locomotive Works..... Philadelphia, Pa. Montreal Steel Works..... Montreal.
Roof Trusses Dominion Bridge Co..... Montreal.	Steel Buildings Dominion Bridge Co..... Montreal.	Turnbuckles Montreal Steel Works..... Montreal.
Rope Rice Lewis & Son..... Toronto. The Hudson's Bay Company.....	Steel for Springs James Hutton & Co..... Montreal.	Turntables Dominion Bridge Co..... Montreal.
Rubber Tiling, Interlocking The Gutta Percha & Rubber Mfg. Co. of Toronto.	Steel Plate Jas. W. Pyke & Co..... Montreal.	Valves, Iron and Brass The James Morrison Brass Mfg. Co..... Toronto.
Sales J. & J. Taylor..... Toronto.	Steel Tyres B. J. Coghlin & Co..... Montreal. James Hutton & Co..... Montreal. Jas. W. Pyke & Co..... Montreal.	Valves, Rubber The Gutta Percha & Rubber Mfg. Co. of Toronto.
Safety Valves The James Morrison Brass Mfg. Co..... Toronto.	Stop Cocks, Iron and Brass The James Morrison Brass Mfg. Co..... Toronto.	Varnishes McCaskill, Dougall & Co..... Montreal.
Semaphore Arms Acton Burrows Co..... Toronto.	Structural Metal Work Dominion Bridge Co..... Montreal. Locomotive and Machine Co. of Montreal. Jas. W. Pyke & Co..... Montreal.	Vessels Polson Iron Works..... Toronto.
Semaphores The Hiram L. Piper Co..... Montreal. The N. L. Piper Railway Supply Co..... Toronto.	Superheaters Babcock & Wilcox (Ltd.)..... Montreal.	Waste B. J. Coghlin & Co..... Montreal. Rice Lewis & Son..... Toronto. N. L. Piper Ry. Supply Co..... Toronto. The Queen City Oil Co..... Toronto.
Shaking Grates Babcock & Wilcox (Ltd.)..... Montreal.	Switches Montreal Steel Works..... Montreal.	Water Softeners Babcock & Wilcox (Ltd.)..... Montreal.
Shipbuilders' Tools and Supplies Rice Lewis & Son..... Toronto.	Switch Lamps The Hiram L. Piper Co..... Montreal. The N. L. Piper Railway Supply Co..... Toronto.	Wheelbarrows James Cooper..... Montreal. Rice Lewis & Son..... Toronto.
Ship Lamps The Hiram L. Piper Co..... Montreal. The N. L. Piper Railway Supply Co..... Toronto.	Switch Locks The Hiram L. Piper Co..... Montreal.	Windmills Ontario Wind Engine and Pump Co..... Toronto.
Ships Canadian Shipbuilding Co..... Toronto. Polson Iron Works..... Toronto.	Switch Ropes The B. Greening Co..... Hamilton, Ont.	Window Blinds The Hudson's Bay Company.....
Shipbuilders and Engineers Canadian Shipbuilding Co..... Toronto.	Switch Targets Acton Burrows Co..... Toronto.	Wines and Liquors The Hudson's Bay Company.....
Shovels James Cooper..... Montreal. The Hudson's Bay Company..... Rice Lewis & Son..... Toronto.	Tanks and Tank Fixtures Ontario Wind Engine and Pump Co..... Toronto.	Wire and Wire Rope Dominion Wire Rope Co..... Montreal. The B. Greening Co..... Hamilton, Ont. Rice Lewis & Son..... Toronto. W. H. C. Mussen & Co..... Montreal. The Wire and Cable Co..... Montreal.
Side Bearings Simplex Railway Appliance Co..... Montreal.	Tarpaulins and Waterproof Covers Sonne Awning, Tent and Tarpaulin Co..... Montreal.	Wire, Brass and Steel Dominion Wire Manufacturing Co..... Montreal.
Signal House Numbers Acton Burrows Co..... Toronto.	Telegraph and Telephone Office Signs Acton Burrows Co..... Toronto.	Wire Cloth The B. Greening Co..... Hamilton, Ont.
Signals The Hiram L. Piper Co..... Montreal. N. L. Piper Railway Supply Co..... Toronto.	Tents Sonne Awning, Tent & Tarpaulin Co..... Montreal.	Wire, Copper Dominion Wire Manufacturing Co..... Montreal. E. F. Phillips Electrical Works, Ltd..... Montreal. The Wire and Cable Co..... Montreal.
Signs Acton Burrows Co..... Toronto.	Tie Plates B. J. Coghlin & Co..... Montreal.	Wire, Electric Dominion Wire Manufacturing Co..... Montreal. E. F. Phillips Electrical Works, Ltd..... Montreal. The Wire and Cable Co..... Montreal.
Snow Ploughs Rhodes, Curry & Co..... Amherst, N.S.	Tobacco and Cigars The Hudson's Bay Company.....	Wire Goods Dominion Wire Manufacturing Co..... Montreal.
Springs B. J. Coghlin & Co..... Montreal. Montreal Steel Works..... Montreal.	Toilet Paper The Hudson's Bay Company.....	Wire, Insulated Copper E. F. Phillips Electrical Works, Ltd..... Montreal. The Wire and Cable Co..... Montreal.
Station Name Signs Acton Burrows Co..... Toronto.	Track Jacks James Cooper..... Montreal. Montreal Steel Works..... Montreal. W. H. C. Mussen & Co..... Montreal. A. O. Norton..... Coaticook, Que.	Wire, Telegraph and Telephone Dominion Wire Manufacturing Co..... Montreal. E. F. Phillips Electrical Works, Ltd..... Montreal. The Wire and Cable Co..... Montreal.
Steamboats Canadian Shipbuilding Co..... Toronto. Polson Iron Works..... Toronto.	Track Tools Canada Switch and Spring Co..... Montreal. James Cooper..... Montreal. Rice Lewis & Son..... Toronto. Montreal Steel Works..... Montreal. W. H. C. Mussen & Co..... Montreal. The Hiram L. Piper Co..... Montreal.	Wire, Transmission and Trolley Dominion Wire Manufacturing Co..... Montreal. The Wire and Cable Co..... Montreal.
Steamboat Signs Acton Burrows Co..... Toronto.	Tramway Equipment James Cooper..... Montreal. W. H. C. Mussen & Co..... Montreal. J. J. Gartshore..... Toronto.	Wood Screws Dominion Wire Manufacturing Co..... Montreal.
Steam Couplers Safety Car Heating and Lighting Co..... New York.		Wrought Steel Piping Babcock & Wilcox (Ltd.)..... Montreal.
Steam Shovels James Cooper..... Montreal. W. H. C. Mussen & Co..... Montreal.		Yachts Polson Iron Works..... Toronto.
Steam Traps The James Morrison Brass Mfg. Co..... Toronto.		



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Aerated Waters E. L. Drewry, Winnipeg.	Derricks James Cooper, Montreal.	Linoleum and Floor Coverings The Hudson's Bay Company.
Air Brakes & Fittings Canadian Westinghouse Co., Hamilton, Ont.	Door Signs Acton Burrows Co., Toronto.	Locomotive Brass Work The James Morrison Brass Mfg. Co., Toronto.
Ales E. L. Drewry, Winnipeg.	Drills W. Abbott, Montreal.	Locomotive (Compressed Air) American Locomotive Co., New York, N.Y. Baldwin Locomotive Works, Philadelphia, Pa. Locomotive and Machine Co. of Montreal
Anchors Rice Lewis & Son, Toronto.	Dry Goods The Hudson's Bay Company.	Locomotives (Electric) American Locomotive Co., New York, N.Y. Baldwin Locomotive Works, Philadelphia, Pa. Locomotive and Machine Co. of Montreal
Awnings Sonne Awning, Tent & Tarpaulin Co., Montreal.	Economizers Babcock & Wilcox (Ltd.), Montreal.	Locomotives (Hack) American Locomotive Co., New York, N.Y. Baldwin Locomotive Works, Philadelphia, Pa. Locomotive and Machine Co. of Montreal
Axles James Hutton & Co., Montreal. Jas. W. Pyke & Co., Montreal. Rhodes, Curry & Co., Amherst, N.S.	Electric Car Route Signs Acton Burrows Co., Toronto.	Locomotives (Steam) American Locomotive Co., New York, N.Y. Baldwin Locomotive Works, Philadelphia, Pa. Canadian Locomotive Co., Kingston, Ont. James Cooper, Montreal. Lima Locomotive and Machine Co., Lima, Ohio. Locomotive and Machine Co. of Montreal The Saxon Engine Works, Chemnitz, Germany.
Babbitt Rice Lewis & Son, Toronto.	Electric Cranes Dominion Bridge Co., Montreal. W. H. C. Mussen & Co., Montreal.	Machine Tools W. Abbott, Montreal. The Saxon Engine Works, Chemnitz, Germany.
Belting, Rubber The Gutta Percha & Rubber Mfg. Co. of Toronto.	Elevator Belts, Rubber The Gutta Percha & Rubber Mfg. Co. of Toronto.	Manganese Steel Castings Montreal Steel Works, Montreal.
Blankets & Bedding The Hudson's Bay Company.	Enameled Iron Signs Acton Burrows Co., Toronto.	Marine Boilers Babcock & Wilcox (Ltd.), Montreal.
Block & Tackle Dominion Wire Rope Co., Montreal. Rice Lewis & Son, Toronto.	Engineers' Supplies The Gutta Percha & Rubber Mfg. Co. of Toronto. The James Morrison Brass Mfg. Co., Toronto.	Matches The Hudson's Bay Company.
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Boiler Covering Mica Boiler Covering Co., Montreal.	Engraving Acton Burrows Co., Toronto. Toronto Engraving Co., Toronto.	Mechanical Draft Fans Babcock & Wilcox (Ltd.), Montreal.
Boilers Polson Iron Works, Toronto.	Express Office Signs Acton Burrows Co., Toronto.	Millpost Numbers Acton Burrows Co., Toronto.
Boilers, Stationary Babcock & Wilcox (Ltd.), Montreal.	Expanded Metal Expanded Metal and Fireproofing Co., Toronto.	Milling Cutters W. Abbott, Montreal.
Boiler Tubes B. J. Coghlin & Co., Montreal. Jas. W. Pyke & Co., Montreal.	Feedwater Heaters Babcock & Wilcox (Ltd.), Montreal.	Mohair The Hudson's Bay Company.
Bolsters Simplex Railway Appliance Co., Montreal.	Fencing Canadian Steel and Wire Co., Hamilton, Ont. Dominion Wire Manufacturing Co., Montreal. Page Wire Fence Co., Walkerville, Ont.	Nails, Wire Dominion Wire Manufacturing Co., Montreal.
Brake Beams Simplex Railway Appliance Co., Montreal.	Flags Rice Lewis & Son, Toronto. The Hudson's Bay Company.	Numbers Acton Burrows Co., Toronto.
Brass and Copper Cloth The B. Greening Co., Hamilton, Ont.	Flour The Hudson's Bay Company.	Oakum Rice Lewis & Son, Toronto. The Hudson's Bay Company.
Brass Castings St. Thomas Brass Co., St. Thomas, Ont.	Foghorns Rice Lewis & Son, Toronto.	Oils Galena-Signal Oil Co., Franklin, Pa., & Toronto. The Queen City Oil Company, Toronto.
Bridge Numbers Acton Burrows Co., Toronto.	Gas and Electric Fixtures The James Morrison Brass Mfg. Co., Toronto.	Office Signs Acton Burrows Co., Toronto.
Bridges Dominion Bridge Co., Montreal.	Gates Page Wire Fence Co., Walkerville, Ont. The James Morrison Brass Mfg. Co., Toronto.	Packing The N. L. Piper Railway Supply Co., Toronto.
Buoy Lighting Safety Car Heating and Lighting Co., New York	General Supplies The Hudson's Bay Company.	Packing, High Pressure Sheet The Gutta Percha & Rubber Mfg. Co. of Toronto.
Cables, Electric and Feeder E. F. Phillips Electrical Works, Ltd., Montreal. The Wire and Cable Co., Montreal.	Grain Elevators John S. Metcalfe Co., Chicago, Ill.	Packing, Piston The Gutta Percha & Rubber Mfg. Co. of Toronto.
Car Heating Safety Car Heating and Lighting Co., New York	Groceries The Hudson's Bay Company.	Pinch Bars The Hiram L. Piper Co., Montreal. The N. L. Piper Railway Supply Co., Toronto.
Car Jacks James Cooper, Montreal. W. H. C. Mussen & Co., Montreal.	Hardware Rice Lewis & Son, Toronto. The Hudson's Bay Company.	Pipe Covering The James Morrison Brass Mfg. Co., Toronto. Mica Boiler Covering Co., Montreal.
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Car Wheels Jas. W. Pyke & Co., Montreal. Rhodes, Curry & Co., Amherst, N.S.	Hose, Fire The Gutta Percha & Rubber Mfg. Co. of Toronto.	Printing The Hunter, Rose Co., Toronto. The Mail Job Printing Company, Toronto.
Castings (Steel) Montreal Steel Works, Montreal. Rhodes, Curry & Co., Amherst, N.S.	Hose, Suction The Gutta Percha & Rubber Mfg. Co. of Toronto.	Pumps Rice Lewis & Son, Toronto.
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Contractors' Plant James Cooper, Montreal. T. A. Morrison & Co., Montreal. W. H. C. Mussen & Co., Montreal.	Iron Signs Acton Burrows Co., Toronto.	
Conveyor Belts, Rubber The Gutta Percha & Rubber Mfg. Co. of Toronto.	Japans McCaskill, Dougall & Co., Montreal.	
Coaster Pins Dominion Wire Manufacturing Co., Montreal.	Journal Bearings Jas. W. Pyke & Co., Montreal. St. Thomas Brass Co., St. Thomas, Ont.	
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(Continued on preceding page.)

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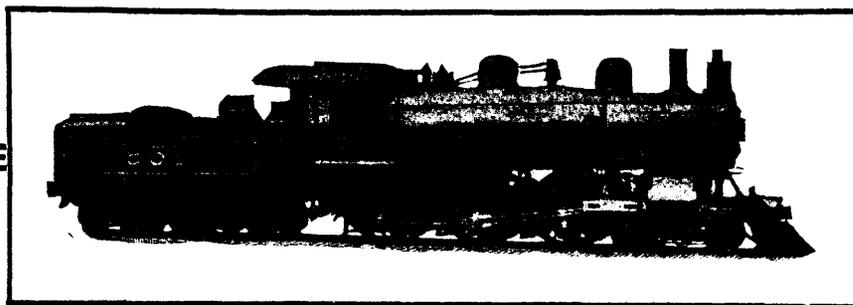
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