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## RAILWAY ELECTRIFICATION.

By H. L. Kirker, Resident Engineer, W. E. & M. Co., St. Clair Tunnel.

(Continued from last issue.)

Granting that electrification is the logical means of increasing the capacity of congested steam roads, and granting that the examples of three systems (the direct current third rail, the single phase trolley, and the three phase double trolley) demonstrate the commercial success of electrification in specific cases, it is not true that the technicalities of electrification are a handicap to the acquisition of a working knowledge of the subject. The electric motor is based on a principle as simple as that of the steam engine. Just as the steam engine depends on the expansive property of steam, so the electric motor depends upon the magnetic properties of the electric current. The magnetic properties of the electric current have been known for almost a century. They had no commercial significance, however, until discovery was made of a mechanical means of generating electric current. Faraday made this epoch-making discovery 76 years ago, and thereby started the industrial revolution that this subtle form of energy is effecting. Faraday, starting with the fact that current can produce motion, succeeded in demonstrating that motion can produce current. Industrialism harnessed Faraday's discovery to the steam engine. Given the steam driven dynamo, the evolution of the electric locomotive was inevitable. The magnetic properties of the electric current on which Faraday based his researches, which resulted in his discovery of a method of inducing current, are manifested by the two simple facts, that currents flowing in the same direction attract one another and currents flowing in opposite directions repel one another.

**INDUCTION.**—In basing his research Faraday reasoned that since current produces magnetism, why, magnetism should produce current, and he discovered that by changing the magnetic conditions around a wire he could induce a current in the wire during the time the change in magnetic conditions was taking place. By the way of a mental picture he imagined the wire-carrying-the-current to be encircled by a magnetic field, and represented this field by lines of force. He knew that sending a current through a wire set up a field around the wire, and that stopping the current withdrew the magnetic field. Now this dilation and contraction of the magnetic field incident to starting and stopping the current causes the lines of force to cut across adjacent wires. He discovered that this cutting of the lines of force across the adjacent wire induces an electric pressure in

the adjacent wire. The result is the same whether the wire is stationary and the lines of force cut across the wire, or lines of force are stationary and the wire cut across the lines of force.

So electric current is induced in a wire by making the wire cut lines of force. The induction coil or transformer, as it is known commercially, is the classical adaption of the idea. The simple transformer consists



J. E. DALRYMPLE,

Assistant Freight Traffic Manager, Grand Trunk Pacific Railway.

of two coils of insulated wire wound on a common iron core. Sending an alternating current through one of the coils sets up an alternating field in the common iron core. This alternating field cuts across the second coil and induces alternating current in the second coil. The pressure of the current set up in the second coil depends on the rate of cutting lines of force. The rate of cutting depends upon the number of lines of force, on the frequency with which they reverse, and the number of turns in the secondary coil. A big core, a high frequency, and a secondary of many turns means a high voltage in the secondary coil. This transformer enables heavy alternating current of low voltage to be converted into a light current of high voltage. Small current means light line wire. High voltage

means great power with small currents. High voltage consequently means long distance transmission of great power with small currents at small loss with a small line wire. The transformer then is the basis of long distance transmission of electric energy. It raises the voltage to the high pressure required for long distance transmission, and lowers the voltage to a safe working pressure at the point where the power is used.

**THE DYNAMO.**—The induction coil assumes the existence of an undulating current. Faraday applied his discovery to the production of alternating current. Having found that the cutting lines of force could induce current, he proceeded to induce current by moving a wire across a magnetic field. The dynamo is a machine for moving wires across a magnetic field—a machine for cutting lines of force. The essence of the elementary dynamo is a dense magnetic field and a coil of wire that rotates in this field. The greater the rate of cutting, the greater the voltage induced in the rotating coil. This rate can be increased by increasing the number of lines of force in the field, by increasing the number of turns in the coil, and by increasing the rate of rotation of the coil. Ordinarily, however, dynamos are built for moderate voltage and transformers are used to raise the alternating current to the high potential required for long distance transmission.

**THE COMMUTATOR.**—Since induction implies alternating current, whether the inducing apparatus be the transformer or the dynamo, the dynamo can be made to give continuous current—like that supplied by the storage battery. Alternating current is rectified by the commutator. The commutator is simple enough, but a description of it is rather tedious, and need not be given here. It will suffice to recall that in the transformer, while the field is dilating with the increasing primary current, the dilating field cuts across the secondary coil and induces a current in the secondary coil of opposite direction to that in the primary, and, while the field is contracting with the decreasing primary current, the contracting field cuts across the secondary wires and induces a secondary current of the same direction as the primary. That is to say, the direction of the induced current changes with the change of direction of the motion of the field. Likewise in the dynamo the direction of the induced current in the armature wire cutting across the field under the north pole, is opposite to the direction of the current induced in the same wire when cutting across the field under the south pole of the dynamo. Consequently it is necessary to group the armature coils and arrange the commutator taps in such a way that if the beginning of the coil leads to the posi-

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tive brush while the coil is under the north pole, why, the end of the coil will lead to the positive brush when the coil is under the south pole. The direct current dynamo is the alternating current dynamo plus the commutator.

THE DIRECT CURRENT MOTOR is not structurally a different machine from the direct current dynamo. The direct current machine can play the role of dynamo or motor. As a dynamo it transforms motion into electric current. As a motor it transforms electric current into motion. The steam engine drives the dynamo. The motor drives the locomotive. Both dynamo and motor involve the magnetic properties of the electric current, both machines involve Faraday's discovery of induction. In its simplest form the electric motor consists of a current-carrying-wire in a magnetic field. The presence of the current in the wire tends to make the wire move out of the field. The direction of the motion will change with the direction of the current. Consequently, the passage of an alternating current through the wire will cause the wire to vibrate back and forth across the field. This reciprocating motion can be changed into a rotary one, and a motor is the result. So far as motion is concerned, the motor depends on the magnetic properties of the current. But the very rotation of the armature wires in the field induces a voltage in the wires. If this induced voltage is less than the line voltage the line voltage drives a current through the motor armature. If the induced voltage equals the line voltage, why, no current flows. If the induced voltage is greater than the line voltage as in the case of the dynamo, why, the armature feeds the current into the line. When the line feeds current into the armature wires, these wires, in their effort to get out of the magnetic field, rotate the motor armature. The stronger the field, the greater the number of wires, and the greater the armature current, why, the greater the torque the motor armature gives.

REGULATION.—The amount of current the motor armature takes depends upon the difference in pressure between the line voltage and the induced voltage in the motor armature. Primarily the armature speed regulates the voltage induced in the motor armature. If the motor is called upon to exert a torque greater than the actual current can exert, why, the armature slows down. The drop in speed drops the induced voltage. The drop in voltage allows a bigger current to flow. The bigger current exerts a bigger torque. The speed will continue to drop until the current increases to the point that it can exert the required force. On the other hand, a diminution of the motor load means an increase in speed. The increase in the armature speed will increase the induced voltage. The more nearly the armature voltage becomes equal to the line voltage, why, the less current the line drives through the motor armature. The armature speed will increase until the current drops to a strength that will give the required torque.

POWER.—Admitting that the turning force exerted by the motor armature increases with current, it is also true that the drag on the steam engine increases with the current delivered by the dynamo armature. This of course accords with the magnetic properties of the electric current. As pointed out, a current-carrying-wire tends to move of its own accord in a particular direction across a magnetic field. An attempt to move the current-carrying-wire in the opposite direction demands force. An armature, driven at a speed that induces a voltage just equal to the line voltage, neither takes current from the line nor delivers current to the line. A slight drop in speed will drop

the induced voltage enough to allow the line to drive a small current back through the armature against the induced voltage. The direction of this current with reference to the magnetic field is such as to make the armature continue to rotate in the same direction. The machine functions as a motor. On the other hand, a slight increase in speed will raise the induced voltage higher than the line voltage, and with the same direction of rotation will allow the armature to deliver current to the line. The point to note is that the armature current is now flowing in the direction of the induced voltage. The machine is functioning as a dynamo. The direction of rotation remaining the same and the direction of the current being reversed, it follows that power must be applied to the armature to keep up the rotation. The greater the current, the greater the power required, consequently the greater the drag on the steam engine, the greater the steam consumption.

Having seen that the transformer and the alternating current dynamo are the commercial application of Faraday's discovery of the induction of current by cutting lines of force, having seen that the addition of the commutator to the alternator enable the machine to deliver continuous current, having seen that the commutating machine can play the part of either direct current dynamo or direct current motor, and having seen that the turning force exerted by the motor and the drag of the dynamo armature on the steam engine are proportional to the current the machines are carrying, these facts sum up the elementary electric system. The dynamo, the line, and the motor, link the steam plant to the train. The electric current is the reincarnation of the energy of the steam engine, which energy ultimately appears as train motion. The fact that motion can be transformed into electric energy and that electric energy can be transformed into motion again, supplies a commercial means of transmitting enormous power from central stations to distant points of application.

In regard to the distance electric energy can be transmitted, the commercial limit of course is the investment in equipment. The investment necessary to be able to deliver a given amount of power for a given distance depends on the particular system used. The commercial limit of the investment is first reached with the direct current third rail system.

THIRD RAIL LIMITS.—The commutator is the feature that limits the direct current system. Six hundred and fifty volts is about the highest pressure the direct current railway motor commutator can handle. (Recent improvements may raise the limit to 1,200 volts). Now, the power of an electric current depends not only on the current strength, but also on the pressure that drives the current. This means, of course, that electric power is proportional to the product of current by volts. Consequently, if enormous power is transmitted at low voltage, why, enormous currents must be used. For instance, an electric zone that involves 30 locomotives of 2,000 h.p. each would require, on a 600 volt system, 84,000 amperes to operate simultaneously the 30 locomotives at their nominal rating. An overhead trolley system could not handle this current. Hence the insulated third rail. Heavy feeder cables would be required to deliver this current to the third rail. Frequent substations would be necessary to cut down the length of these heavy feeder cables. Substations mean moving machinery for changing the alternating current into direct current, and as pointed out, moving machinery means operating crews. The low voltage commutator then is the occasion of the third rail, the feeders and the substations, since with the alternating current, a high voltage trolley system can be used.

THE SINGLE PHASE RAILWAY MOTOR is a low voltage motor. The series single phase railway motor is built for a lower voltage than the direct current motor. Its normal pressure is 240 volts—less than half that of the direct current railway motors. The fact that the single phase railway motor is a low voltage motor, does not imply an insulated third rail. On the other hand, the fact that the current is an alternating one admits of a high voltage trolley. The transformer on the car changes high pressure trolley current to low pressure motor current. The application of high pressure alternating current to the trolley of course eliminates the rotary converter substations. On long lines there would be transformer substations, but inasmuch as there are no moving parts about a transformer, no crew and a minimum of switch gears will be required for these substations.

It is necessary to have transformer substations on long distance single phase road, because, as pointed out, long distance transmission involves high voltage—60,000 volts is in common use on transmission lines. Trolleys cannot be insulated for this voltage—11,000 volts about represents the trolley limits at the present stage of the art. Consequently there must be a connecting link between the line and the trolley. The transformer is the link.

The track, as in the third rail system, is used as a part of the circuit in the single phase system. The circuit is made continuous by bonding the joints and connecting the track to the power line.

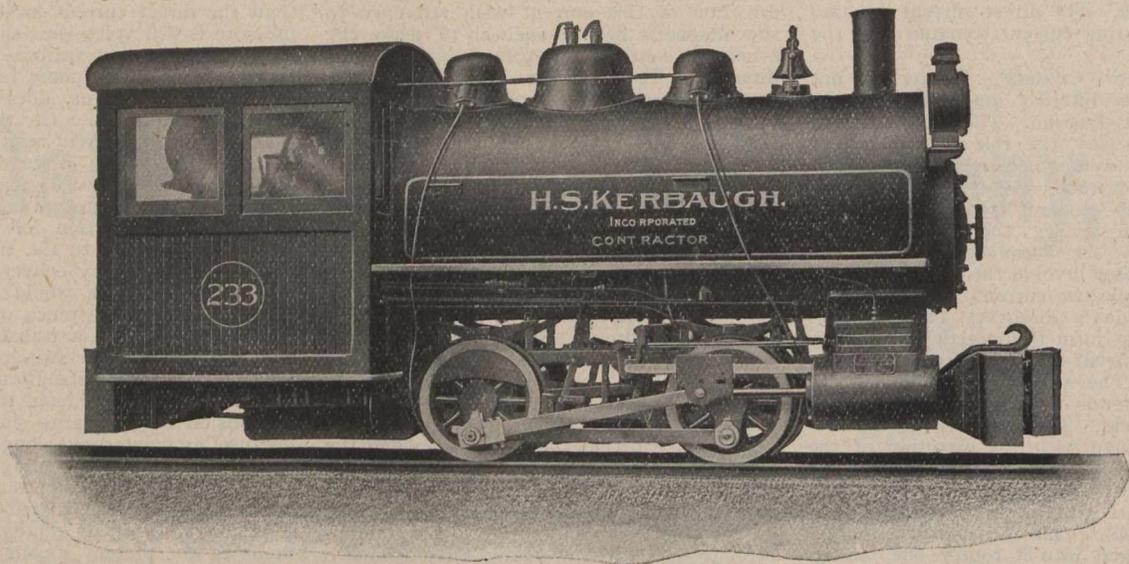
INTERFERENCE WITH SIGNAL CIRCUITS.—The use of the track as a part of the power circuit interferes with the signal system. Special precautions have to be taken to insulate the signal circuit from the power circuits.

The alternating current is more apt to interfere with the telephone and telegraph circuit than the direct current is apt to interfere with them. Whenever there is alternating current there is induction. This means that special precautions have to be taken with the telephone and telegraph systems to neutralize the effects of this induction.

Electrification means more or less reconstruction of the signal, telephone, and telegraph systems, when the alternating current is used than when the direct is used. However, there should be no electrolysis of pipes and structures when alternating current is used.

Admitting that the single phase system eliminates the rotary converter substations, eliminates the third rail, eliminates the electrolysis; admitting that it extends the overhead trolley to main line railway work, and admitting that its effects on the signal systems can be neutralized, it is not also true that the single phase railway motor is as simple a machine as the direct current railway motor. The single phase series railway motor is a special case of the direct current railway motor. Since the single phase motor operates on alternating current, special design is necessary to minimize the results of induction incident to alternating current. Refinement in design has reduced the heating and sparking effects of this induction to such a point that the single phase railway motor is now a commercial machine.

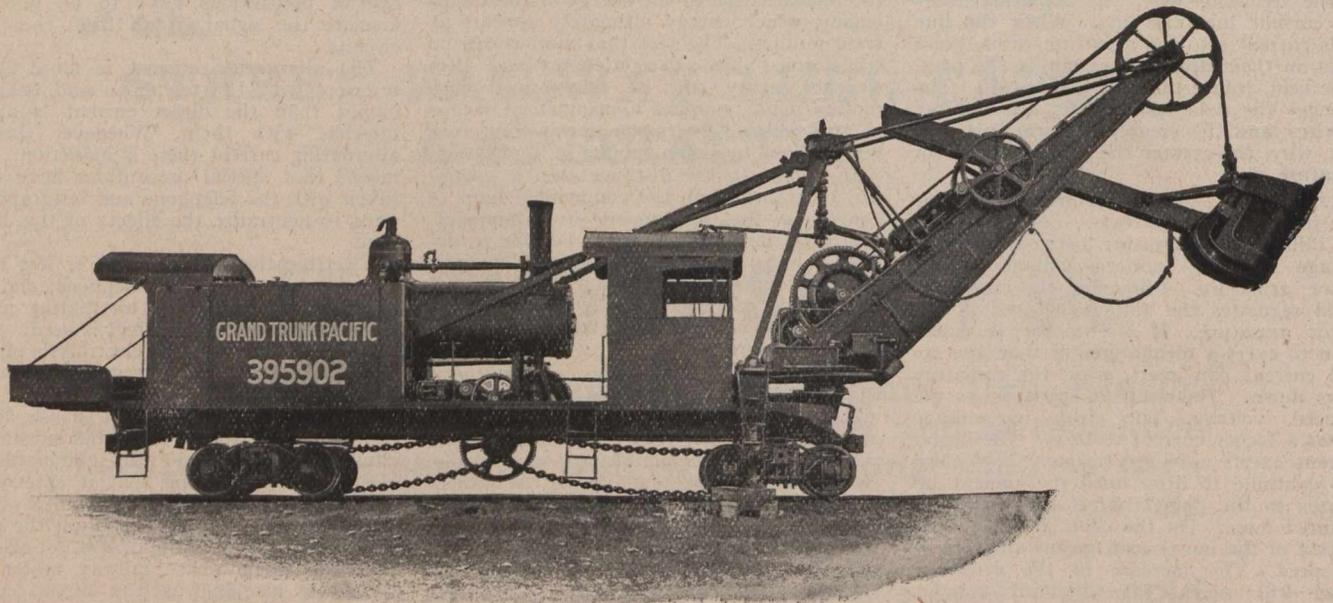
POWER FACTOR.—The alternating current has another distinctive characteristic. In the direct current system the power is the product of the current by the volts. In the alternating current system the power is generally less than the product of the current by the volts. The power factor of the alternating current motor may be as low as 75% of the product of the current by the volts. This is due to the fact that the pressure is an alternating one, and that the waves of



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current resulting from this pressure are not maximum when the pressure is maximum. The lag of the current wave behind the pressure wave varies with the amount of self induction the alternating current produces in the circuit. The less the lag of the current crest behind the voltage crest, the more nearly the power factor of the circuit becomes unity. The single phase motor must be designed to give a large power factor—otherwise it will be much larger for a given output than a direct current motor of equal capacity.

The speed of the series single phase motor is not dependent on the frequency of the alternating current. As in the case of the direct series motor the speed depends on the load on the motor. As previously pointed out, an increase of load on the motor pulls down the speed to a point that allows a current to flow that will give the required torque. In the case of the series motor, as the name implies, the armature winding is in series with the field winding, consequently, since the current that flows through the armature also flows through the field, an increase in current strengthens the field. Consequently there is an increase in torque, not only on account of increase in armature current but also on account of increase in field strength. This increased field strength also means that the armature can induce approximately the same voltage at a lower speed. These two facts—the increase in torque due to increased armature current, with its consequent increased field strength, and the drop in speed incident to increased field strength—explain the powerful accelerating force exerted by the locomotive equipped with series motors; they also explain the small amount of power required to produce this acceleration. Now the fact that the armature current and the field magnetism reverse simultaneously means that the direction of rotation remains unchanged, consequently the frequency with which these reversals take place does not determine the armature speed.

The frequency in use on the single phase railway systems in America is the same as that in most of the greater power stations in America—25 cycle—that is to say, the waves of current follow each other through the circuit at the rate of 25 waves per second.

The designers of the single phase electric locomotive maintain that a lower frequency than 25 cycle would mean that a more powerful machine could be placed in the limiting dimensions of the locomotive. They maintain that the application of the single phase motor to railway work will be so extensive that the aggregate advantage of a lower frequency motor will offset the disadvantage of a frequency different from that now used in most American power stations.

**THREE PHASE GENERATOR AND MOTOR.**—Having seen that the simple alternator is the result of Faraday's discovery of induction, and that the addition of the commutator to the alternator enables it to deliver current in a continuous stream, and having seen that the commutating machine becomes a motor when supplied with continuous current, and having seen that a series motor of special design can operate on the waves of current supplied by the simple alternator, and having seen that the application of alternating current to railway work eliminates the rotary converter substations and substitutes the high voltage trolley for the low voltage third rail, it follows that the alternator that supplies current for the three phase motor is fundamentally the same machine that supplies current for the single phase motor. The single phase armature can be tapped to give three phase current, but ordinarily the winding of the three phase armature consists of three coils (one for each line wire). It is a three-legged arrangement. One terminal

of each coil goes to its line wire, the other terminal of each coil goes to a common junction. The windings are so disposed that each coil successively sends a wave of current out of its line wire through the motor, and back through the other two line wires through the other two armature coils to the common junction.

The three phase motor is in common use. Its simplicity of construction has led to its application in enormous numbers to constant speed work. It has no commutator. The winding of the rotating part consists essentially of a squirrel cage of copper embedded in an iron rotor core. The rotating field set up by the three phase current induces a current in the squirrel cage. The magnetic properties of the induced current cause the squirrel cage to be dragged around by the rotating magnetic field.

**THE ROTATING MAGNETIC FIELD** is produced by the three phase current, somewhat in the same fashion that a three crank arrangement produces rotation. The winding of the stationary part of the motor is essentially that of the three phase generator armature. There are three coils—one for each line wire. One terminal of each coil goes to a line wire, the other terminals go to a common junction. These coils are disposed around the stator so as to lie relatively 120 degrees from one another. A wave of current through one of the coils sets up a magnetic field across a particular diameter of stator. An instant later a wave of current through the second coil sets up a magnetic field across a diameter 120 degrees in advance of where it was before. An instant later a wave of current through the third coil sets up a magnetic field across the third diameter 120 degrees in advance of where it was the instant before. An instant later another wave of current through the first coil advances the field another 120 degrees, completing the revolution. In other words, the generator dispatches a wave into one line wire and then an instant later a wave of current into the second line wire, then an instant later a wave into the third line wire, then an instant later another wave into the first line wire, and so on. Timing these waves in terms of one revolution of the generator armature, the crest of the wave in the first line is 120 degrees ahead of the crest of the wave of the second line wire, the crest of the wave of the second line wire is 120 degrees ahead of the crest of the wave in the third line wire, the crest of the wave in the third line wire is 120 degrees ahead of the crest of the second wave in the first line wire, and so on. This 120 degrees difference in phase of the three line currents consequently produces the rotating field in the motor.

The speed of the three phase motor depends upon the frequency of the current waves. Since a group of one wave per circuit means (in a simple machine) one revolution of the magnetic field, it follows that the number of revolutions the rotating field makes per second equals the number of waves (per circuit) per second. If, for instance, 25 waves travel along each line wire per second, the magnetic field will make 25 revolutions per second. It also follows that since the speed of the generator is fixed, why, the number of current waves per second is fixed, the number of revolutions the rotating field makes per second is fixed, consequently the speed of the motor is fixed.

The fact that the speed of the three phase motor is fixed is not too great a disadvantage in the electric locomotive, as it would seem since at least three speeds can be obtained by grouping the motors and regrouping the field windings of the motor.

**RECUPERATION.**—There is an advantage that is more or less peculiar to the three phase motor, which readily lends itself to the electric braking. This feature was perhaps the deciding one in the adoption of the three

phase locomotive for the Cascade tunnel. On down grade the motors on the locomotive can act as generators and feed current into the line. The fact that they are acting as generators means that they are consuming power that would otherwise have to be used up in brake shoes. This power fed into the line helps out of course the power station in dragging other locomotives up grade. It must be added that the single phase locomotive can also feed current into the line on down grade, likewise the direct current motor, but hardly with the same simplicity as the three phase locomotive.

The three phase railway motor is a high voltage motor. It can be built for pressure as high as 6,000 volts. This means that with a 6,000 volt trolley pressure no reducing transformer is required on the locomotive.

The track is a part of the circuit when three phase locomotives are used. The bonded track constitutes one line wire. The two overhead trolleys are the other two line wires. The fact that the three phase locomotive requires two overhead trolleys place a serious handicap on the system. The presence of two overhead trolleys, insulated from each other and from the rail, necessarily means a more or less complicated trolley system, especially at turn-outs and in terminals. It also means a double collecting device. This double overhead system and double collecting device of course cannot compare in simplicity with the single phase trolley.

**SUMMARY.**—The three phase system, the single phase system, and the third rail system have no other pronounced characteristics than those already mentioned. The characteristics of the three systems are few and distinct. The three phase system implies two overhead trolleys, and practically constant speed on grade and main line work. It, like the single phase system, can be easily extended to long distance work by the use of simple transformer substations. The single phase system, in addition to this long distance advantage which it shares with the three phase system, has the distinct advantage resulting from a single overhead trolley. The single phase system possesses in common with the direct current system the speed characteristics of the steam locomotive. The third rail system has the advantage of 25 years of experience, and a splendid record. The limitations of the third rail system are the insulated third rail, the heavy feeders, and the substations necessary for changing the alternating current into the direct.

There are other electric railway systems than the direct current, the single phase, and the three phase. But these are the only ones doing heavy railway work.

Admitting that the electric locomotive (whether direct current, or single phase, or three phase) is a powerful engine, and that it can easily exceed the steam locomotive in draw bar pull and speed, admitting that the motors can readily stand the hard usage that railway work involves, it is true that the auxiliary apparatus required for collecting the current, and controlling the application of the current to the motors is likewise sufficiently simple and reliable to meet the requirements of railway service. The collecting and controlling devices can be made as simple and reliable as the air brake mechanism. As with the air brake, the wearing parts are easily replaced, and similar groups are interchangeable. Once a grasp of the simple underlying principle of the electric system is obtained, a working knowledge of the apparatus is easily acquired. The collecting device, the automatic cut-outs, the master controller, or rheostat (or auto transformer as the case may be), and the switch group, have their particular duties to perform. A failure of any of these renders the locomotive helpless. Consequently, they are built for reliability, durability, quick repairs, easy replacement.

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The cars have a cubic capacity of 40 yards, when loaded as a centre dump hopper car for ballasting, and of 58 yards when used as a level floor side dump gondola car.

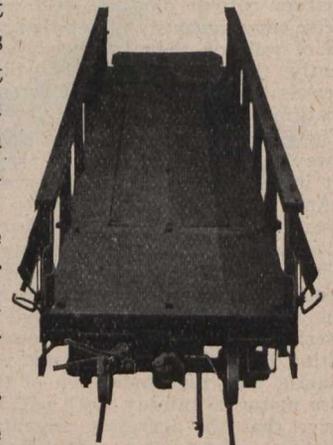
The length of the car is  $\left\{ \begin{array}{l} 36' 10'' \text{ between end sills and} \\ 38' 4'' \text{ over buffers.} \end{array} \right.$   
 The length inside is  $\left\{ \begin{array}{l} 35' 0'' \text{ as a gondola.} \\ 21' 6'' \text{ as a hopper ballast car.} \end{array} \right.$   
 Width inside..... 8' 8"  
 Height inside ..... 4' 2 1/2"  
 Height from top of rail  $\left\{ \begin{array}{l} 8' 6 1/2'' \\ \text{to top of car} \end{array} \right.$

The centre hopper door is made of steel built-up sections and has a full opening of 24 inches, by the length of the bottom of the hopper which is 18'1".

When working these cars in centre ballast service the man operating the car absolutely controls the opening of the hopper door, by means of an escapement lever which allows the door to open

about one inch at a time. This controls the flow of ballast from the car into the centre of the track, so that the operator can dump as little or as much in the track as desired.

When the car is used as a side dump, with convertible floor doors turned down and arranged for pulling a top plow over the car, the side doors have an opening of about 6'6" x 3'8". It will thus be seen that the largest possible stone that could be loaded with a steam shovel can be put through these door openings. While we do not advocate loading boulders into a car of this type, accidents will happen and the car was designed with this in view.



The floor of the car is composed of 2 1/4" tongue and grooved pine flooring. The convertible doors are composed of 2 1/2" long leaf southern pine plank-shiplapped. The side doors and end gates are made of 2" Norway pine planking. All other parts of the car are steel construction.

This car also embodies our latest improved hand brake arrangement, which is especially designed for cars of this type, the object being to bring all parts of the hand brake below the top of the side of the car, so as to keep the top of car cleared from all obstruction for steam shovel loading.

There are many minor improvements that have been made on this car, which will be appreciated by those using the cars.

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"Double heading" is easier with electric locomotives than with steam locomotives. Electric locomotives can be grouped to act as a single unit. The combined group can be handled by the master controller and brake valve of any one of the constituent units. Moreover, if the cars were equipped with a train-control-line, the locomotives could be distributed through the train and handled as a single locomotive from any one of the units. The equipping of freight cars with a train-control-line is not necessarily a more serious undertaking than equipping freight cars with air brakes. It is merely a means of interconnecting the master controllers of the various locomotives, and putting them under the control of one operator. However it implies of course a common scheme of control in order that the freight cars be interchangeable on the different systems.

The electric locomotive is not the only means of applying the motor to railway transportation. Instead of concentrating powerful motors in one engine, smaller motors can be placed on several cars of the train, the train can be equipped with a control-line, and, consequently all the motors can be controlled from any one of the master controllers. This is the system of multiple-unit-train-control used on the New York subway, the Mersey Ry., the London Metropolitan, Paris Metropolitan, and many other roads. It is equally applicable to suburban passenger service and even to main line passenger service.

Electrification does not necessarily involve a revolution in transportation methods when applied to existing steam roads. In most cases where it has been applied it has been merely a substitution of the electric locomotive or multiple unit control for steam locomotive. The more general application of electrification, however, is sure to modify present methods of transportation. Mr. Steinmetz sums up electrification to mean "that the change from steam power to electric power is not a mere substitution of the electric locomotive for the steam locomotive, but a readjustment of the ways of operation, that is, an increase of speed of operation of freight service by taking advantage of the feature of the electric locomotive being able to carry its draw bar pull up to a higher speed. Higher speed necessarily means increased capacity of the system, even with less draw bar pull, and in this feature lies the main advantages of electric traction, but it is necessary to readjust the method of operation to the changed conditions of railroad motive power, to get the best results with the electric locomotive."

The foregoing paper, which was written in the form of question and answer, but from which we have omitted the questions, summarizing them where necessary to the context, was read at a meeting of the Canadian Railway Club recently.

### Pay of Railway Employees.

Among the additional information collected by the Department of Railways statistical branch for the past year has been the number of persons in railway employ, together with particulars regarding their pay. The total number of persons in the employ of Canadian railways during the year ended June 30, 1907, was ascertained to be 124,012. Some little confusion is reported to have arisen with respect to the interpretation of the schedules in relation to average rates of pay, but the results as figured out are considered to be reasonably accurate. The total amount paid in salaries and wages was reported to be \$58,719,493, equal to 56.59% of the operating expenses. It was divided as follows: General administration, \$3,760,138, among 5,126 employees; maintenance of way and structures, \$15,398,885, among 48,516 employees; maintenance of equipment, \$12,161,917, among 21,495 employees; con-

ducting transportation, \$27,398,553, among 48,875 employees. The following table shows the number of employees of each class and their average daily compensation:

Employees.	No.	Average Daily Compensation.
General officers.....	336	\$11.07
Other officers.....	461	4.11
Office clerks.....	4,214	1.68
Station agents.....	2,536	1.90
Other stationmen.....	11,829	1.57
Enginemen.....	4,351	3.91
Firemen.....	4,760	2.40
Conductors.....	2,911	3.20
Other trainmen.....	8,261	2.00
Machinists.....	2,486	2.09
Carpenters.....	3,215	2.09
Other shopmen.....	12,579	1.98
Section foremen.....	3,903	1.90
Other trackmen.....	30,614	1.45
Switch tenders and watchmen.....	2,364	1.83
Telegraph operators and dispatchers.....	2,987	1.87
Floating equipment employes.....	5,426	1.18
All other employes.....	20,779	1.80
Total.....	124,012	

### Canadian Westinghouse Company, Ltd.

Following are extracts from the annual report for the year 1907: There was a profit of \$427,053.25 from the operations during the year (an increase of 23%, compared with previous year), and a surplus on Dec. 31, 1907, of \$391,284.55, after payment of a dividend of 6% on capital stock and the addition of \$100,000.00 to the reserve heretofore created for depreciation of property and plant. While the plant and machinery are nearly new and important additions have been only recently installed, the directors have deemed it wise and prudent to add a substantial amount to the reserve for depreciation from the favorable earnings of the past year. Additional capital stock to the amount of \$884,600.00 was subscribed by the stockholders at par during the year to provide additional working capital, made necessary by the growth of the business. Of these subscriptions \$369,700.00 have been paid in on regular calls and the balance is due on calls maturing during the first half of the present year. A marked feature of the operations of the electrical department during the past year was the assumption of manufacturing load by the works at Hamilton. Out of the total billing of electrical machinery during the year, 82% represented apparatus manufactured in the Hamilton works, compared with 43% during the previous year. The cost of production in relation to shipments has decreased and the ratio of profit appreciably increased during the year, demonstrating the efficiency of the plant and operating organization. The additions to property and plant during the year aggregated \$265,360.00, including heavy machinery, tools and equipment for the electrical department, ordered in 1906-7, and the enlargement and reconstruction of the air brake department plant. This last named work, including the conversion of a single story structure into one having two uniform floors throughout, was successfully carried out coincidentally with an increased output of 35%, compared with the previous year. Orders for new apparatus showed a satisfactory increase up to Sept. 30, 1907. The general commercial and financial depression existing throughout the Dominion during the last quarter of 1907, in common with a similar depression in the U.S., and other countries, resulted in a sharp curtailment of orders, although shipments on previous orders were continued with only slight reductions. The total value of orders for the year accordingly shows a decrease of 14%, while the number of sales increased 25%, indicating that individual orders while greater in number were, on an average, smaller in amount than during the previous year. Unfilled orders on hand Dec. 31, 1907, aggregated \$1,136,000.00. Since the close

of the year inquiries have been resumed and the management have been called on to furnish estimates for several projects requiring large apparatus. When commercial conditions have resumed their normal status and sufficient capital is procurable to finance these prospective enterprises and enlargements, it is safe to assume an average business will result.

### ASSETS.

Cash.....	\$ 11,744.45
Accounts and bills receivable.....	1,194,613.66
Property and plant (includes air brake and electric properties, real estate, general office building, equipment, sundries and patents, rights and licenses).....	2,736,771.22
Materials and products on hand Dec. 31, 1907.....	1,330,529.60
Insurance unexpired and taxes paid in advance.....	14,953.24
	<u>\$5,288,612.17</u>

### LIABILITIES.

Capital stock:	
Authorized.....	\$5,000,000.00
Issued.....	\$3,869,700.00
Accounts payable.....	458,435.73
Bank of British North America.....	349,191.89
Reserve for depreciation of property and plant.....	200,000.00
Reserve for inventory adjustment.....	20,000.00
Profit and loss account.....	391,284.55
	<u>\$5,288,612.17</u>

### PROFIT AND LOSS ACCOUNT.

Net balance, brought forward Jan 1, 1907.....	\$ 279,452.40
Net earnings, year ended Dec 31, 1907.....	\$427,053.25
Less dividends paid for 1907.....	\$215,221.10
Less reserve for depreciation of property and plant.....	\$100,000.00
	315,221.10
Balance carried forward, Jan. 1, 1908..	<u>\$ 391,284.55</u>

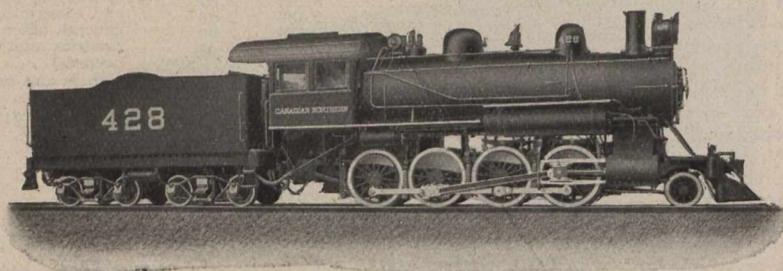
### Automatic Carbon Dioxide Recorder.

The C.P.R. is using in its Angus shops, Montreal, an automatic recording apparatus which gives a continuous and constantly visible record of the composition of the waste or flue gases from the stationary boilers in the power plant which drives all the machinery and lights the shops, offices and yards. The apparatus reveals the percentage of carbon dioxide, or CO<sub>2</sub>, in the waste furnace gases which are passing out of the power house chimney. Theoretically, 21% of CO<sub>2</sub> in the flue gases would indicate perfect combustion. The apparatus is graduated from 0 to 20 and the record is within these limits. It is altogether a cleverly constructed piece of mechanism which is kept in motion by the passage of the hot gas as it goes out to the chimney. The mechanism is not placed in the chimney, but has a convenient position in the engine room and a pipe connecting with the smoke flue carries a small quantity of the waste gas to a filter and on to the machine. The analysis is automatic and depends upon the absorption of CO<sub>2</sub>, by a solution of caustic potash. The record is made by a tracing-pen operated by a lever, which is moved by the varying pressure of the gas above the vessel containing the potash solution. A clock-work machine moves a graduated sheet of paper past the tracing pen, and this is visible through the glass front of the machine. It is, therefore, always open to inspection by the firemen as well as by officers of the company, and any excess of air or the results of imperfectly burned coal are at once apparent and a remedy can forthwith be applied without waiting for the registering mechanism to be detached or the paper taken out for inspection. The amount of deviation from the normal in the quality of the firing is thus constantly before the eyes of the performers with the coal scoop, and also a useful record of the economy or the reverse in fuel consumption is kept.—Railway and Locomotive Engineering.

# LOCOMOTIVES

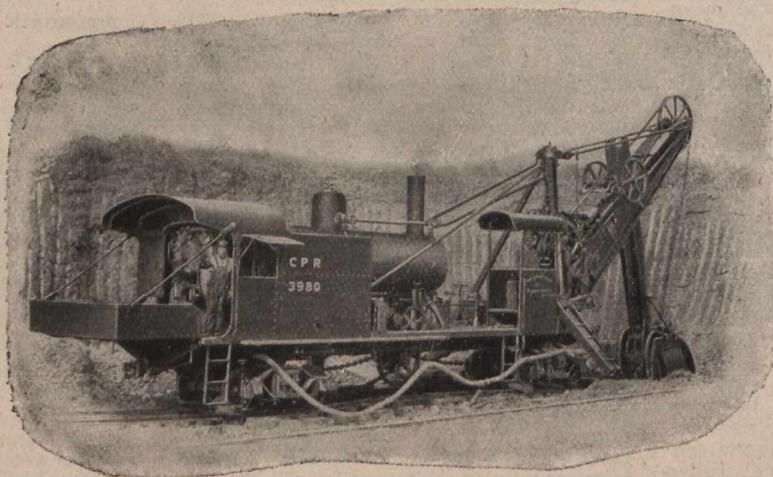
Steam

Electric



Freight Locomotive — Consolidation Type. Built for Canadian Northern Railway. Total weight in working order, 176,740 pounds, with 156,120 pounds on driving wheels. Size of cylinders 21" diameter and 26" stroke. Maximum Tractive Power 34,200 pounds.

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Designed for economical operation, with large boiler, few parts, accurately fitted, and all repair parts interchangeable.

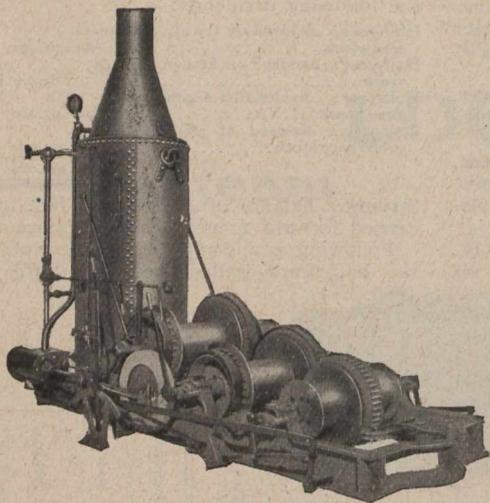
Wire rope hoist with one sheave in place of expensive chain hoist and sheaves.

**MONTREAL LOCOMOTIVE WORKS, LTD.**

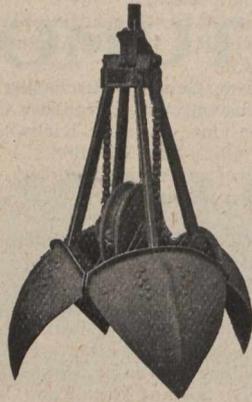
**Bank of Ottawa Building, Montreal, Canada.**

**London Offices: 26 Victoria St., Westminster.**

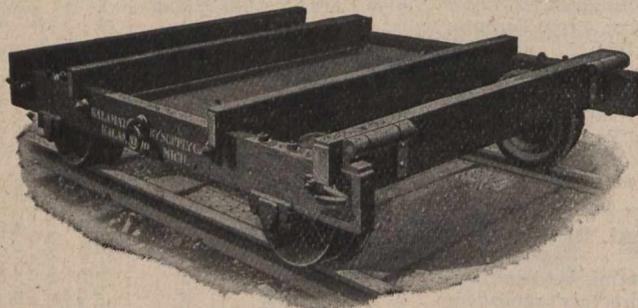




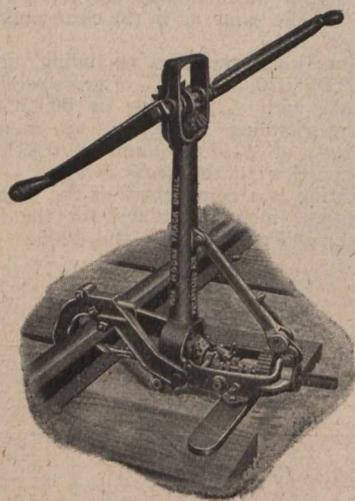
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Rail Cars, Push Cars, Etc.

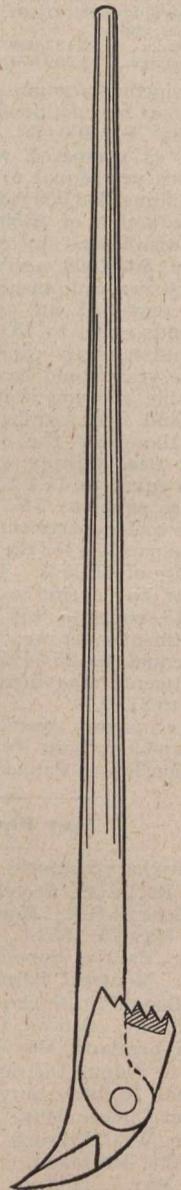


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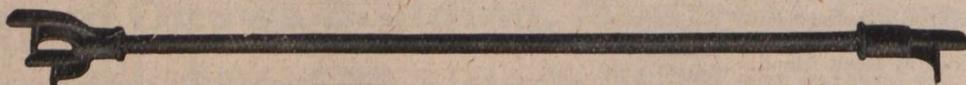
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half-year show an increase of £178,400, or 4.98%; the working expenses, including taxes, an increase of £149,438, or 5.83%; and the train mileage an increase of 581,682, or 5.85%.

The total charges to capital account for the half-year were £293,900 9s. 11d. Of this £6,208 17s. 9d. was discount and commission on 4% guaranteed stock issued during the half-year, less premium on 4% debenture stock sold and issued in exchange for Midland of Canada sectional bonds. The actual expenditure on capital account was: new works £119,534 6s. 6d., double track £78,037 10s. 6d., new rolling stock £75,588 5s. 8d., land purchased £14,531 9s. 6d., total £287,691 12s. 2d.

Rolling stock was increased during the half-year by the purchase of 55 furniture cars and 465 box cars, the cost, £75,588 5s. 8d., has been charged to capital account. Forty-five freight engines, 18 first-class, 7 second-class, 5 baggage, 354 refrigerator, 433 flat, 28 caboose, and 32 dump cars were purchased; and 6 ten-wheeled passenger engines, 10 switch engines, 6 first-class, 10 baggage, 15 caboose, and 13 flat cars were built in the company's shops during the half-year on revenue account.

The gross receipts of the Canada Atlantic Ry. for the half-year were £244,147, against £225,353 in 1906, and the working expenses were £242,409, against £197,513, leaving a net revenue balance of £1,738, against £27,840, a decrease of £26,102, compared with the corresponding period of 1906. The net revenue charges for the half-year were £62,103, so that there was a net revenue deficiency of £60,365. The number of passengers carried during the half-year was 280,844, against 262,366, an increase of 7.04%, and the passenger train receipts, including mails and express receipts, were £56,973, against £53,811, an increase of 5.87%. The quantity of freight moved was 1,137,372 tons, against 831,410 tons in 1906, an increase of 36.80%; the receipts from freight traffic were £181,193, against £165,939, an increase of 9.19%.

The gross receipts of the G.T. Western Ry. for the half-year were £683,757, against £638,222 in 1906, and the working expenses were £578,802, against £537,112, leaving a net profit of £104,955, against £101,110, an increase of £3,845, compared with the corresponding period of 1906. The net revenue charges for the half year were £88,970, against £83,858, so that there was, Dec. 31, a net revenue credit of £15,985, which is carried forward, as compared with £17,252 for the corresponding half-year of 1906. The number of passengers carried during the half-year was 953,235, against 928,026, an increase of 2.72%, and the passenger train receipts, including mails and express receipts, were £230,649, against £222,071, an increase of 3.86%. The quantity of freight moved during the half-year was 1,842,873 tons, against 1,667,419 tons, an increase of 10.52%, and the receipts from this traffic were £452,606, against £415,560, an increase of 8.91%.

The gross receipts of the Detroit, Grand Haven, and Milwaukee Ry. for the half-year were £206,671, against £196,093 in 1906; the working expenses were £163,156, against £144,110, thus leaving a balance of £43,515, against £51,983, a decrease in net revenue of £8,468, compared with the corresponding half-year of 1906. The net revenue charges for the half-year were £37,730, against £36,373 in 1906, so that there was a net revenue surplus of £5,785, as compared with £15,610 for the corresponding period of 1906. The number of passengers carried during the half-year was 440,979, against 420,089, an increase of 4.97%; and the passenger receipts, including mails and express receipts, were £73,778, against £67,678, an increase of 9.01%. The quan-

tity of freight moved was 844,891 tons, against 821,097 tons in 1906, an increase of 23,794 tons, 2.90%; and the receipts from freight traffic were £127,356, against £124,386 in 1906, an increase of £2,970, or 2.39%.

The continued increase in traffic receipts, which had marked the company's progress for a lengthened period, began gradually to diminish in Oct., as the result of a bad harvest in Canada and of the severe financial crisis in the U.S., until in the middle of Dec., the weekly returns began to show, for the first time since 1904, a marked decrease as compared with those of the corresponding period. In view of these circumstances stringent measures are being taken by the management to restrict, so far as is consistent with the interests of the company, all expenditure in the different departments so long as the present depression of business continues.

Satisfactory progress has been made in the construction work of the G.T. Pacific Ry., taking into consideration the scarcity of labor during the past season, and the difficulty of obtaining supplies of materials. 356 miles of track have been laid between Winnipeg and Edmonton, and it is expected that this portion of the line, 793 miles, will be completed during the ensuing summer. Contracts have been let for the line between Edmonton and Wolf's Creek, 123 miles, the end of the prairie section, and on the mountain section from Prince Rupert, the Pacific terminus, eastward for about 100 miles, and contracts will shortly be let for about 200 miles of the mountain section westward from Wolf's Creek. Track has been laid on 120 miles of the total length of 200 miles of the Lake Superior branch. The whole of the funds estimated at the amount to be provided on the guarantee of the G.T. Co. for the construction of the prairie and mountain sections, and of the Lake Superior branch, have been raised, with the exception of £696,000, which it is not considered will be required for a considerable period.

The Hon. N. C. Rothschild has resigned from the board, and the directors have elected M. G. Carr-Glyn to fill the vacancy. The retiring directors are Sir C. Rivers-Wilson, and J. A. Clutton-Brock, who are eligible and 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.

REPORTS OF OFFICIALS.

The Chief Engineer, H. G. Kelley, states that the length of the G.T.R. maintained and operated during 1907 was the same as for 1906, viz., 3,535 miles. The new second track constructed between Lynden and Brantford, Ont., was opened for traffic Sept. 29, 1907. A new second track is in course of construction between St. Lambert and St. Rosalie, Que., to accommodate the increased traffic between Montreal and the latter point. The new double-track bridge across the River Thames, at the Cove, west of London, Ont., where other improvements have been carried out in connection with the double-tracking of the line between London and Hyde Park, was completed in March last. The expenditure during 1907 on the permanent way and structures, was \$4,239,490.35, against \$3,899,881.83 in 1906, being an increase of \$339,608.52. The outlay on the track and permanent way, including ballast and ballasting, clearing snow, renewals of rails and ties, also including their proportion of the cost of superintendence, was \$2,899,532.42 in 1906, or at the rate of \$820.24 per mile; in 1907 it was \$3,047,731.90, or at the rate of \$862.16 per mile, an increase of 5.11%, caused principally by the increased rates of wages paid to track employes, and cost of clearing snow. The cost of repairs and renewals of buildings and

fixtures amounted to \$760,297.32 in 1907, compared with \$565,222.56 in 1906, an increase of slightly over 34%. New stations have been built at Gorham, Ste. Madeleine, Victoria Harbor, Toronto Jct., Brampton, St. Mary's, Clarksons, Eastwood, Canfield, Ayton, Hanover, Cargill, Kincardine, Exeter, Aberarder, Oakville, Thamesville, Paynes, Tillsonburg Jct., Moulton, Amigari and Pontiac—22 stations in all. The materials used for renewals and repairs of main track and sidings were:

New steel rails laid in track.....	47,443 tons
Re-rolled steel rails laid in track.....	220 "
Partially-worn steel rails laid in branch lines and sidings.....	9,490 "
New ties placed in track.....	1,094,856
Ballast (cubic yards).....	347,488

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

Half-year ended.	Total expenditure.	Train mileage.	Rate of expenses per mile.		
			Train	Engine	Car.
Dec. 31/07..	\$4,817,989	10,525,322	Cents 45.78	Cents 34.84	Cents 2.93
Dec. 31/06..	4,574,141	9,943,640	46.00	35.43	2.95

An increase in expenditure of \$243,848, or 5.33% compared with an increase in train miles of 581,682, or 5.85%.

The average number of cars moved per train was.....	Passenger Freight Mixed Trains Trains Trains.		
	Trains	Trains	Mixed
And for the corresponding period.....	4.8	24.8	6.9
	4.8	25.2	7.9

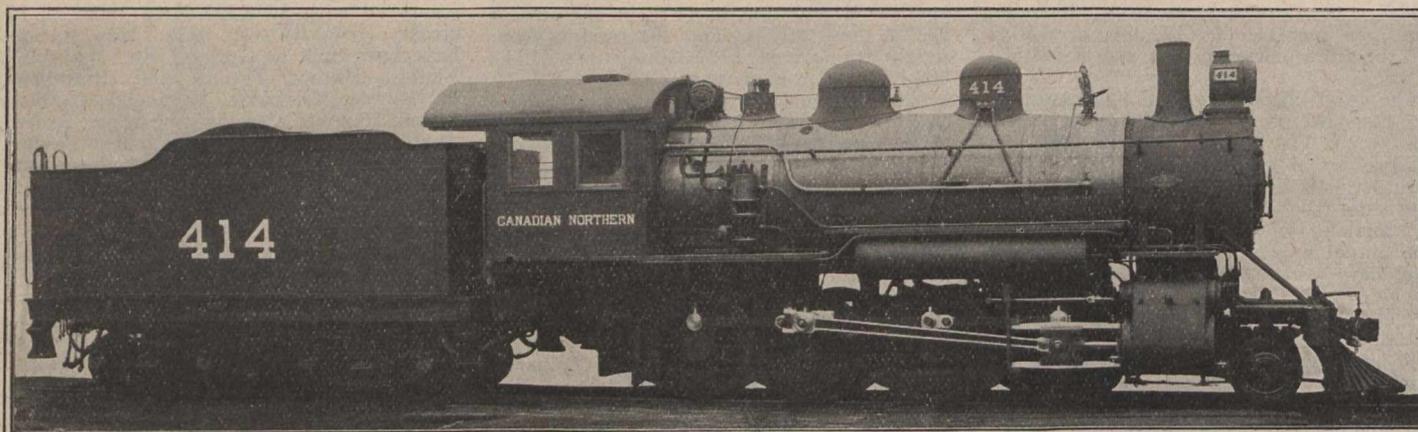
During the half-year 22 locomotives were sold, and 2 engines were scrapped, leaving at the end of the half-year 70 old light capacity engines set aside to be scrapped. Of the engines sold 10 were purchased by the G.T. Western Ry., and 12 by the G.T. Pacific Ry. Six ten-wheel passenger engines and 10 switch engines were turned out new at the company's works, Montreal, and 30 compound consolidation freight engines and 15 mogul freight engines were purchased, delivered, and put into service during the half-year.

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

Repairs and renewals of locomotives.	1907.		1906.		Total miles run by cars.	Cost per mile.	
	Cents.	Train.	Cents.	Train.		Car.	Train.
Train.....	10.24	1.79	12.66	17.32	Total	164,539,842	12.26
Engine.....	7.79	0.66	9.64	13.34			
Car.....	0.66	0.81	1.11	1.11	Total	154,044,399	1.65
					Freight.	141,668,021	1.26
					Passenger.	22,871,821	1.069
						21,668,838	
					Total cost of repairs and renewals.	\$1,290,069	
						1,635,815	
					Half-year ended.		
					Dec., 1907.		
					" 1906.		

The Superintendent of Car Department, J. Coleman, reports expenditure, mileage, etc., as follows:

A decrease in expenditure of \$365,766, or 22.09%, with an increase in car miles of 9,595,443, or 6.19%. One official, 5 first-class, 10 baggage, 15 caboose, and 13 flat cars, also 3 rapid unloaders, were built new in company's works at cost of revenue, and 465 box and 55 furniture cars were purchased and charged to capital account, 18 first-



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Local Manager C.P.R. Telegraphs

JAMES POWELL - - - *Vice-President*  
Mechanical Engineer Motive Power Dept. G.T.R.  
and Secretary Canadian Railway Club

G. E. BURNS, Freight Claims Agent C.P.R.    A. E. ROSEVEAR, Assistant General Freight Agent G.T.R.

L. A. GLOBENSKY, Ex-Secretary Baie des Chaleurs Railway.    THOS. WILLIAMS, Superintendent C.P.R.

General Counsel—J. C. WALSH, Esq., M.P. (of Walsh & Walsh)

Bankers—THE MERCHANTS BANK OF CANADA

class, 7 second-class, 5 baggage, 354 refrigerator, 433 flat, 28 caboose, and 32 dump cars, and 1 locomotive crane were purchased and charged to revenue.

The revenue account for the half-year follows:

RECEIPTS.		£	s.	d.
Passengers.....	1,171,644	1	8	
Less—				
International bridge tolls.....	1,596	5	3	
St. Clair tunnel tolls.....	7,455	0	0	
Mails and express.....	9,051	5	3	
Freight and live stock.....	2,445,485	18	6	
Less—				
Cartage, etc.....	60,683	19	5	
International bridge tolls.....	12,590	5	5	
St. Clair tunnel tolls.....	25,029	11	1	
Miscellaneous receipts, rents, tolls, etc.....	98,303	15	11	
		2,347,182	2	7
		78,867	12	5
		£ 3,763,246	4	1
		1,162,592	16	8
		174,063	12	6

EXPENDITURE		£	s.	d.
Maintenance of way and structures.....	15.50%	583,456	18	5
Maintenance of equipment.....	14.32%	538,967	15	6
Conducting transportation.....	38.41%	1,445,412	18	8
General expenses.....	2.09%	78,832	11	0
Total working expenses.....	70.32%	2,646,670	3	7
Taxes.....	1.71%	64,263	10	2
	72.03%	2,710,933	13	9
Balance to net revenue account.....		1,052,312	10	4
		£ 3,763,246	4	1

The New England Passenger Agents' Association met at Waterbury, Vermont, early in April, and, under the guidance of J. W. Hanley, General Passenger Agent of the Central Vermont Ry., had an exceedingly pleasant experience, including a visit to a sugar camp, which was made in wagons drawn by oxen, and a dance at the Inn. Among those present were G. T. Bell, G.P. & T.A., Grand Trunk Ry.; A. A. Heard, General Passenger Agent, Delaware & Hudson Co.; Mrs. G. C. Jones, wife of the General Manager of the Central Vermont Ry., and A. C. Stonegrave, Canadian Freight and Passenger Agent, Central Vermont Ry.

**Railway Taxation in Manitoba.**—The act to amend the Railway Taxation Act, passed at the recent session of the Manitoba Legislature, provides that sec. 19, of chap. 166, of the Revised Statutes of 1902, shall be considered and construed as applying and having applied to Portage la Prairie, from and after its incorporation as a city. Sec. 2 provides that the Railway Taxation Act shall not be construed to exempt from taxation, by any municipality, any land or real estate situate therein not used for railway purposes by a railway company, which is conveyed to and held by and in the name of a trustee in trust for any railway company, or filed or registered in any land titles office or registry office, in which deed the trust for the railway is not disclosed, and of which trust the municipality has not had notice at the time of making an assessment of such land or real estate so held in trust. The third section provides that the two sections quoted shall be considered as having been passed and in force prior to and during 1901.

**Railway Capital, Subsidies, Etc.**

The Department of Railways statistical report for the year ended June 30, 1907, contains a large amount of information relative to capital invested in Canadian railways, and to the subsidies granted, which has not been previously available in the same form. The table giving the capitalization of railways, shows that the total capital invested in railways was \$1,171,937,808, divided as follows: Capital stock outstanding, \$588,563,591; bonds outstanding, \$564,824,966; miscellaneous obligations, \$4,717,195; income bonds, \$5,192,757; equipment trust obligations, \$8,634,299.

This table contains the titles of 172 companies, in regard to all of which, however, figures are not given. The name of the Credit Valley Ry. appears, but its capital and funded debt are returned under the Ontario and Quebec Ry., and there are other similar instances. No capital returns are given in the following cases: Nova Scotia Steel and Coal Co., value of line included in general capital of the company, which cannot be divided; New Brunswick Coal and Ry. Co., operated by New Brunswick Government Commission; Sydney and Louisburg Ry., value included in general capital of the Dominion Coal Co.; Temiskaming and Northern Ontario Ry., constructed and operated by the Ontario Government Commission, and the Government railways—Intercolonial Ry. and Prince Edward Island Ry. The following lines are also included as being under construction: Atlantic, Quebec and Western Ry., total capital outstanding, \$1,527,101; Brandon Transfer Co., \$12,600; Burk's Falls and French River Ry., \$125,000; Central Ry. of Canada, \$526,000; Grand Trunk Pacific Ry., \$60,015,671; Huron and Ontario Ry., \$3,150,000; Indian River Ry., \$15,000; International Ry. of New Brunswick, \$2,216,000; Pacific, Northern and Omicra Ry., \$60,000; Quebec Bridge and Ry. Co., \$5,282,038; Quebec and New Brunswick Ry., \$387,900; St. John Valley and River du Loup Ry., \$34,932; Trans-Canada Ry., \$37,700.

The amount of capital is below that heretofore reported, for the reason that in preceding years the cost of the Dominion and Ontario Government railways, this year aggregating \$100,958,402, and aid from all sources were included with capital. The Department's report for the year ended June 30, 1906, showed a total capital of \$1,332,498,705, including: Dominion and Provincial bonuses paid, \$216,853,117; Dominion and Provincial loans paid, \$20,613,489; Provincial subscriptions to shares paid, \$300,000; municipal aid paid, \$17,125,164. The net earnings for all railways of \$42,989,537.41, represents a rate of 3.66% on the capital indicated. Deducting the 1,890 miles of Government lines, the capitalization of railways in Canada is \$56,995 per mile. The cost of Government built, owned and operated lines in Canada is \$53,417 a mile; the Dominion railways having cost \$51,590, and the Ontario Government railway \$76,047 a mile. These figures as to the cost of the Temiskaming and Ontario Ry. are disputed by the Treasurer of Ontario, who says that the Comptroller of Statistics averaged the whole expenditure on about 265 miles of line on the 139.9 miles which were then under operation. The Treasurer advises us that he cannot tell as yet what the expenditure on the completed road will be, but that apart from rolling stock, it should be less than \$50,000 a mile, instead of \$76,047, as stated by the Comptroller, and that including rolling stock and terminals it should not, at the most, exceed \$55,000 a mile, and that it may be less. It would appear that the Comptroller of Statistics took the T. & N.O. Ry.'s general balance sheet, including all capital expenditures, \$10,570,549.51, and divided it by 138.9, which gives, approximately, \$76,047. The general balance sheet

includes amounts expended on construction, as well as on the line in operation.

**GOVERNMENT AND MUNICIPAL AID.**

A careful analysis has been made during the year of the accounts showing what aid has been given to Canadian railways. The inquiry, says the Comptroller of Statistics, revealed a good deal of confusion. It was found that the returns made did not agree with the official statements of actual payments, for example, by the provinces. This did not necessarily imply inaccuracy. In some instances bonds had been given and charged up by the provinces on the basis of liability involved, while the railways reported the actual proceeds. In other cases the provinces entered up as railway aid the amounts expended on exploratory and survey work—not improperly—while the railways merely charged themselves with the direct subsidies received. Thus one account could not be checked accurately against the other. The Comptroller says that Dominion aid of \$128,827,648.77; Provincial aid of \$35,125,130.80, and municipal aid of \$17,346,633.34, may be said to fairly represent the situation with regard to railway aid. The amount credited to the Dominion is considerably reduced from that which has heretofore been published, the amount given in the 1906 report being \$216,853,117. The cost of the Intercolonial Ry. and the Prince Edward Island Ry. has been excluded, but other large amounts have been added. For example, \$10,189,521 paid to the C.P.R. in 1886 in exchange for 6,793,014 acres of land, which payment must be regarded as merely varying the terms of the original subsidy agreement, by which the railway got more cash and less land, is now included. For some reason the annual subsidy paid to the same company on that portion of the short line in the State of Maine, as well as \$6,639,581 charged against surveys in connection with that section of the C.P.R. constructed by the Government, had been left out. It was also discovered that a payment by the Department of Finance of \$119,700 a year since 1884, to the Quebec Government, on subsidy account in connection with the building of the lines between Quebec and Montreal, and between Montreal and Ottawa, had been omitted. With the exception of the last mentioned, these items are now included in the total aid for 1907. The figures given under the heading of Provincial aid does not include \$10,570,549, the reported cost of the Temiskaming and Northern Ontario Ry.

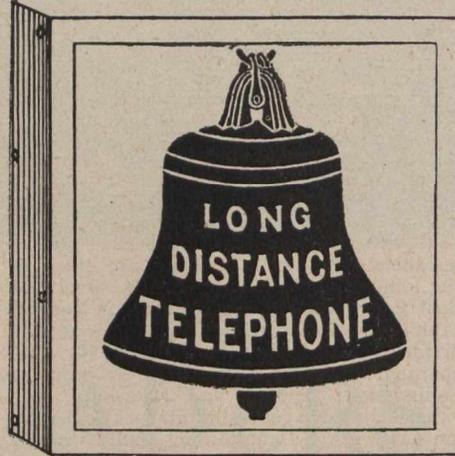
The land grants earned from the Dominion Government to June 30, 1907, totalled 31,762,954 acres, distributed as follows: Alberta Ry. and Irrigation Co., 1,114,368 acres; Calgary and Edmonton Ry., 1,888,448 acres; Canadian Northern Ry., 3,321,408 acres; C.P.R. main line, 18,206,986 acres; C.P.R., Pipestone extension, 200,320 acres; C.P.R., Souris branch, 1,408,704 acres; Great North-West Central Ry., 320,000 acres; Manitoba and North-Western Ry., 1,501,376 acres; Manitoba and South-Western Colonization Ry., 1,396,800 acres; Manitoba and South-Eastern Ry., 680,320 acres; Qu'Appelle, Long Lake and Saskatchewan Rd. and Steamboat Co., 1,625,344 acres; Saskatchewan and Western Ry., 98,880 acres. Patents have been issued for a total of 26,542,003 acres of the land grants earned. The provinces have also given generous grants of land to aid railway construction, and an effort has been made to get at the facts. From official sources the Department has learned that the total area thus given by Quebec aggregates 13,324,950 acres, which has been converted into money on the basis of 52½ cents an acre. This would yield \$6,995,598.75, of which there has been actually paid, \$4,557,728.02. British Columbia has alienated 5,287,387 acres in aid of five lines of railway; New Brunswick has granted 1,647,772 acres, and Nova Scotia,

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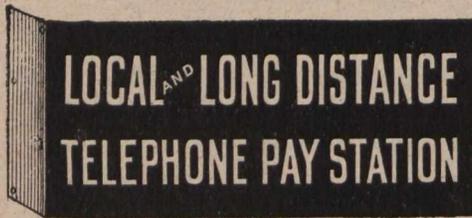
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160,000 acres. These give a total of 52,183,063 acres granted by the Dominion and the provinces. The Dominion Government and the various Provincial Governments have guaranteed the bonds of railway companies to the extent of many millions of dollars. Just what the liability may be in this regard has not been definitely ascertained.

A table attached to the report shows that the following railways have been constructed without Government or municipal aid, the mileage being ascertained from another table: Bedlington and Nelson Ry., 16.58 miles; Brandon, Saskatchewan and Hudson's Bay Ry., 76.18 miles; British Yukon Ry., 90.32 miles; Kaslo and Slocan Ry., 31.73 miles; Kettle River Valley Ry., 3.50 miles; Liverpool and Milton Ry., 5.53 miles; Montreal and Vermont Junction Ry., 25.60 miles; Morrissey, Fernie and Michel Ry., 10.85 miles; Nelson and Fort Sheppard Ry., 60.12 miles; New Westminster Southern Ry., 25.78 miles; Nonsong and Nipissing Ry., 6.75 miles; Princeton Branch Washington County Ry., 5.22 miles; Red Mountain Ry., 13.52 miles; Rutland and Noyan Ry., 3.89 miles; Stanstead, Shefford and Chambly Ry., 46.23 miles; Vancouver, Victoria and Eastern Ry., 88.88 miles; Vancouver, Westminster and Yukon Ry., 19.96 miles; Victoria Terminal Ry. and Ferry Co., 19.88 miles; Wellington Colliery Co., 28.63 miles. Total, 579.15 miles.

#### Canadian Northern Ry. Construction.

**Canadian Northern Quebec Ry.**—Orders have been made by the Board of Railway Commissioners authorizing the construction of bridges over the Jordan River, near St. Sophie station, and over the River Rouge, near Montcalm station, Que., on the Joliette-Hawkesbury section of the old Great Northern Ry.

**Canadian Northern Ontario Ry.**—The Ontario Legislature at the recent session passed an act guaranteeing the bonds of the C.N.O. Ry. Co. for about \$2,500,000, being for four branch lines having a total length of about 50 miles, at \$20,000 a mile, and for about \$1,500,000 for terminals at Key Inlet, Ont., and Toronto, for the guarantee to be consolidated with that given by the Government in 1904, which covered 265 miles of railway at the rate of \$20,000 a mile. The branch lines constructed or to be constructed, for which the Government guarantees bonds at the rate of \$20,000 a mile, are as follows: From Sudbury to Moose Mountain; a branch to the Garrow mines, about four miles; a branch to Key Inlet on Georgian Bay, and a branch from near Udney into Orillia, a distance of about ten miles. The new guarantee is to be secured by a first mortgage of the lines to be constructed. The guaranteed bonds are to cover the expenditure already made upon the terminals at Key Inlet, on Georgian Bay, and upon the terminals in Toronto,

and for 65% of the future expenditure, the entire guarantee on terminals not to exceed \$1,500,000.

It is expected that construction upon the branch line from Udney to Orillia will be undertaken this season. Surveys have already been made, not only between these two points, but between Orillia and the Georgian Bay, to which point the company secured the right to construct a branch line at the current session of the Dominion Parliament.

**Canadian Northern Ry.**—D. B. Hanna, Third Vice-President, stated in Winnipeg, April 7, that the improvements to be made upon the line during the current year would include the relaying of the main line between Port Arthur, Ont., and Winnipeg, Man., with 80-lb. steel rails. The lines west and north of Winnipeg will also be generally improved, according to the statement made by M. H. McLeod, General Manager, upon his return to Winnipeg, April 10, after having completed an inspection of the same. It was impossible, he said, to give out any statement as to the extensions of existing lines, or any changes that might be made, as nothing had been definitely decided.

A second bridge is to be built over the Assiniboine River at Winnipeg, during the present season. It will be of steel on concrete abutments, and will be used mainly by passenger trains, so that the present bridge a little further east may be devoted to freight traffic.

Tenders are under consideration for the construction of the new station which the C.N.R. Co. is to construct at Winnipeg, for the joint use of the G.T. Pacific Ry. and itself. The station will face Main St., opposite Broadway, and will have a frontage of 358 ft. by 140 ft. It will have a height of four stories above the basement, with a large dome in the centre, which will reach 100 ft. above the building proper. In the centre of this dome will be a large skylight, which will let in light to waiting-room, to be located below. The building will be of massive appearance, and of plain architecture, the whole being built with a view to utility rather than beauty.

Plans are being prepared for the erection of a new passenger station at Brandon, Man. The line between Brandon and Regina, Sask., which was completed in 1907, will be fully ballasted and surfaced during the current season, and a train service put on.

With regard to the line to the Goose Lake district, Sask., on which considerable grading was done during 1907, M. H. McLeod, General Manager, told a deputation recently that ties and steel would be delivered at an early date, and tracklaying gone on with as soon as possible.

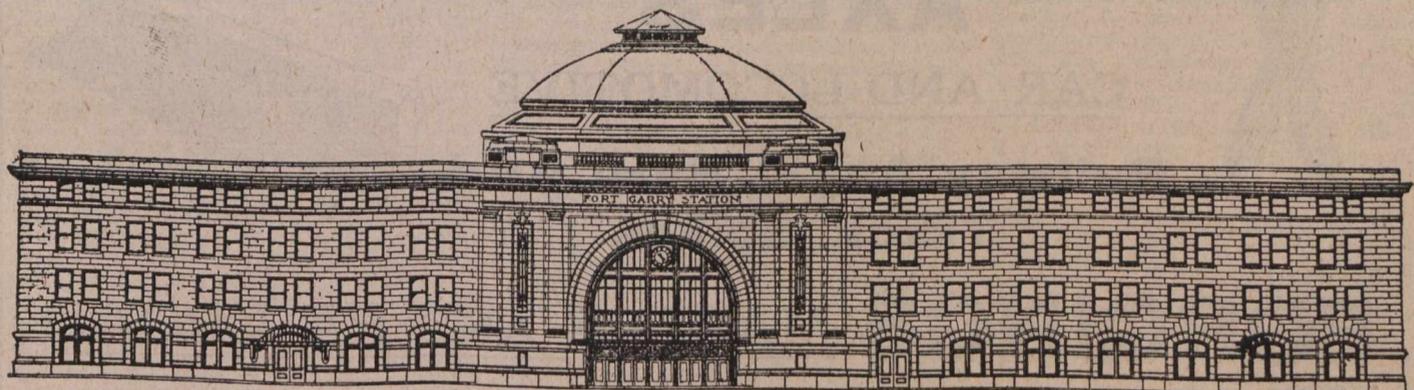
**Edmonton and Slave Lake Ry.**—An order approving a change in location of this railway in tps. 54 and 55, range 25, west of the

4th meridian, has been passed by the Board of Railway Commissioners.

The company was originally incorporated by the Dominion Parliament in 1899, to construct a railway from Edmonton to the navigable waters of Slave Lake, and acts subsequently passed have granted extensions of time for construction. Plans were filed in June, 1904, at the head office, Edmonton, Alta., for the first 50 miles of the line, extending from the Edmonton, Yukon and Pacific Ry. near the Groate estate northwesterly to St. Albert, thence northerly to near Edison and Independence Settlements about half way to Athabasca Landing. Track was laid to Morinville, 21.50 miles, in 1906, and a train service is being operated over the line, which is described as the Morinville branch of the Canadian Northern Ry. The C.N.R. maps show the completed portion of the line, and its extension to Athabasca Landing (marked as being under construction), as a C.N.R. branch. (Sept., 1907, pg. 663. See also Canadian Northern Ry. Construction, Dec., 1906, pg. 723, etc.)

**Edmonton, Yukon and Pacific Ry.**—Survey parties are being organized by M. H. McLeod, General Manager and Chief Engineer C.N.R., to be placed in the field at various points between Edmonton, Alta., and the Pacific coast, for the location of this line. It is generally understood in Edmonton, that the route which it is proposed to follow will pass through British Columbia about midway between the C.P.R. and the G.T. Pacific Ry. The point at which the line will reach the Pacific Coast has not been seriously discussed, but Bella Coola and Bute Inlet are favorably mentioned. In regard to the latter point detailed reports of the topography of the district were made by engineers in connection with the preliminary surveys for the C.P.R. many years ago, under the direction of Sir Sandford Fleming, then Chief Engineer. The company has also power to construct a branch line from the main line to Burrard Inlet. Preliminary surveys, previously made, traverse a portion of the coal belt in the northern Cariboo district, and press reports state that Mackenzie, Mann & Co. have secured, or are negotiating for, a number of coal areas there in the vicinity of the Bear River.

The E.Y. and P.R. Co. constructed the line from Strathcona into Edmonton, 4.50 miles, and there was completed during 1906, about 21 miles of line, from Edmonton to Stony Plains, which is operated as the C.N.R. Stony Plains section. The C.N.R. map shows a projected extension of this line as far as the eastern boundary of British Columbia, passing south of Jasper House, Alta., and a projected line from Edmonton, northwesterly to the B.C. boundary crossing the McLeod, Smoky and Wapiti rivers.

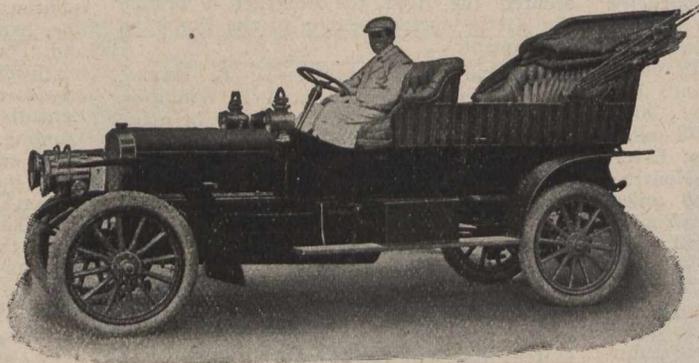


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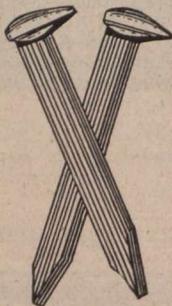
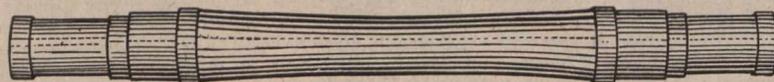
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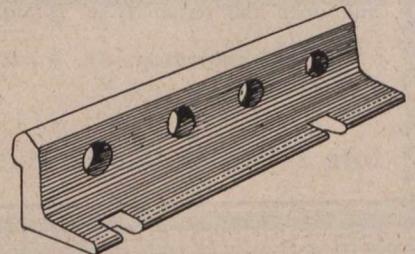
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**Railway Rolling Stock Statistics.**

The portion of the report of the Department of Railways for the year ended June 30, 1907, devoted to rolling stock is much more complete than in previous years. It contains details which in previous years have been disregarded, the result being as, the Comptroller of Statistics, says: "Encouraging but puzzling." Comparing the returns for 1906 with those for 1907, the total figures are:

	1907.	1906.	Increase.
Locomotives.....	3,504	2,931	573
Freight Cars.....	113,514	96,565	16,949
Passenger Cars.....	3,642	3,319	323

The "puzzle," says Mr. Payne, arises when an attempt is made to ascertain whence these additional cars have come. Adding together the total car production of the country and the importations of the year—from which should be deducted the number broken up—there are several thousand cars to be accounted for. The same thing is true of locomotives. In this situation two explanations are suggested: The railways may have underestimated their supply of equipment for 1906, or they may have over-estimated their stock on hand for 1907. The Comptroller of Statistics is inclined to adopt the former view.

Regarding the locomotives, they were assigned to the following services: Passenger, 964; freight, 2,206; switching, 334; total, 3,504. Having regard to the volume of traffic this motive power would represent an average of one passenger locomotive for every 33,337 passengers carried, and one freight locomotive for every 28,951 tons of freight hauled. In freight equipment, the comparison by classes of cars yields the following result:

	1907.	1906.	Increase.
Box and stock.....	72,966	61,929	11,037
Flat.....	20,477	18,525	1,952
Coal.....	10,358	8,295	2,063
Refrigerator.....	1,917	1,655	262
Caboose.....	1,583	1,422	161
Other.....	6,213	4,739	1,474

The tables giving details of the various classes of rolling stock give the following additional details: Locomotives leased, 195; passenger cars, first class, 1,300; second class, 472; combination, 405; emigrant, 272; dining, 105; parlor, 63; sleeping, 212; baggage, express and postal, 782; other cars in passenger service, 31; total, 3,642. Freight cars—Box, 68,149; flat cars, 20,477; stock, 4,817; coal, 10,358; tank, 132; refrigerator, 1,917; other cars in freight service, 1,557; total, 107,407. Cars in company's service—Officers' and pay cars, 74; gravel, 2,049; derrick, 83; caboose, 1,583; other road cars, 2,318; total, 6,107. Total cars in service, 117,156; total cars leased, 7,932; cars in fast freight line service, 500.

The Ottawa and New York Ry. reported three locomotives, four passenger cars, 21 freight cars and eight road cars too late to be included in the table. In this table the names of 96 different companies are given, but in the concluding table, showing capacity, the names of 58 companies are given, and the totals of the different classes of cars do not agree with those given in the first table. The number and aggregate capacity of the different classes of freight cars are: Box, 66,934 cars of 1,848,980 tons capacity; flat, 20,118 cars of 535,167 tons capacity; stock cars, 4,731 cars of 122,550 tons capacity; coal cars, 10,060 cars of 291,638 tons capacity; tank cars, 132 of 2,623 tons capacity; refrigerator cars, 1,745 cars of 48,745 tons capacity; other cars, 1,820 of 59,200 tons capacity; total, 105,540, of 2,908,903 tons capacity.

An important section of the report on rolling stock deals with the answers received to a supplementary schedule sent out, among the questions asked being the following: (1) Have you a sufficient supply of motive power? (2) If not, how many additional locomotives do you require? (3) Have you an adequate supply of cars for freight traffic? (4) If not,

what is the approximate shortage? (5) How many cars used in your freight car service were destroyed, worn out, disposed of or otherwise put out of commission during the year ended June 30, 1907?

One railway admitted in a definite way a shortage of motive power and car supply, and the Comptroller says: "It may be safely assumed that there is a considerable deficiency." We do not think the Comptroller was justified in arriving at this conclusion. At certain seasons of the year, when traffic is abnormal, there is no doubt a shortage of rolling stock, as there is under similar circumstances in every other country, but the leading Canadian railways have largely added to their rolling stock during the last few years, and at present many of the lines have a surplus. The public and the Comptroller of Statistics, who certainly should be impartial, look at the matter from the rush period standpoint only, and take no account of the periods when considerable rolling stock has to stand idle and unproductive.

The supply of cars in Canada was 5,218 for every 1,000 miles of railway, while in the U.S. there were 8,810 cars for every 1,000 miles. The average number of tons hauled per freight car in Canada was 594, against 888 in the U.S. More second, third and fourth tracks associated with density of traffic may in part account for this material difference; but there is also the implication that the maximum service is not being obtained in Canada out of the car supply actually available. The number of locomotives per 1,000 miles of railway in Canada was 156, compared with 232 in the U.S.

During the year, 16,949 freight cars were added to the total supply of Canada. But, says the Comptroller, it must not be assumed that the congestion of traffic was relieved to that extent. The M.C.B. Association depreciation on wooden cars establishes that life at 20 years, but adopting 25 years as the standard, it will be seen that 3,862 new cars would have been required in 1906-07 to replace those of the stock at June 30, 1906, which had been broken up or destroyed. There were 1,099 miles of new railway put into operation during the year, which would call for an equipment of 4,523 new cars. Allowing for a service of 594 tons per car, the 5,899,422 tons of additional freight handled in 1906-07 would require 9,932 new cars. Adding together the three figures indicated, it would appear that an addition of 18,317 freight cars was required in order to maintain normal conditions, or 1,368 more than were actually brought into use during the year. Assuming that the calculation with respect to the annual displacement of equipment is sound, it will be seen that for the current year, 4,540 freight cars and 145 passenger cars will be required in order to maintain the supply available in 1907. New cars will also be needed for the mileage of railway under construction.

It was definitely ascertained that during the year 13,352 freight and road cars, 397 passenger cars and 227 locomotives were constructed in Canada. This was probably the maximum producing capacity of the Canadian shops for the year. As considerable enlargements were being made to the plants the output for the current year will be increased. This is gratifying, and leads to the hope, adds the report, that the demands arising out of a swelling traffic and railway extension may be met entirely at home. There is this further fact to be taken into account, that at June 30, 1907, there were reported as being leased 7,932 cars as compared with 1,126 at June 30, 1906. These leased cars, which are included in the totals, did not come from the U.S., as the Customs returns show less than 500 cars brought into Canada during the nine months ended Mar. 31, 1907.

Referring to the capacity of the cars, the report concludes: "By a simple calculation it

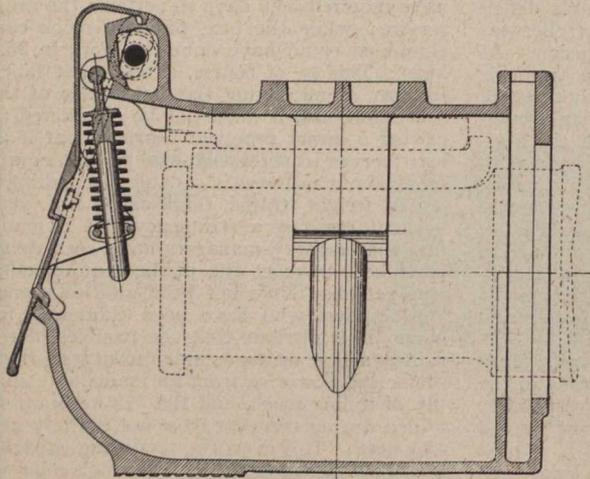
transpires that if all the cars (105,540 cars, having a capacity of 2,908,903 tons, reported by 58 railways) and they probably represent the available stock for commercial purposes—had been loaded to their full capacity, it would have required just 21.9 days to transport the 63,866,135 tons of freight handled during the year. The box cars alone would have required 34.6 days to perform the same service; while the box, flat and stock cars combined could have done the work in 26.6 days. This is, of course, a somewhat fanciful way of measuring the car service of the Dominion, and it must not be considered as having a direct practical bearing; but it at least serves to show that the present equipment of our railways is capable of handling a larger freight traffic than arose last year without creating a stringency. It is manifest that railway managers have been doing their best to meet the public requirements, and yet they have not been able to silence the shippers who have been clamoring for cars. It is obvious that the troubles of the railways have arisen as much from a shortage of motive power as from an inadequate supply of rolling stock, and the 573 locomotives added during the year have not entirely met this need. However, the producing capacity of Canadian shops has been so much enlarged within the past two years that it is probable our railways will be able to rapidly satisfy their requirements in this respect.

"It is, perhaps, not the legitimate function of the statistician to consider, except in a very general way, the aspects of the car question; and yet it is manifest that there have been causes at work quite beyond the control of the railways. The Lord's Day Act has undoubtedly aggravated the situation. A. F. Dillinger, Operating Assistant to the Traffic Officer of the Board of Railway Commissioners, has recently reported with respect to complaints against the principal railway operating in the western provinces, and in that report he says: 'The effect of the Lord's Day Act upon the handling of traffic by the Company means a loss of 21% of its capacity, leaving 79% of the total capacity available.' This estimate is sustained by the testimony of railway managers in common. Applying it directly, it may be said that the effect of this measure is the equivalent of putting 23,838 freight cars out of commission, since that number is 21% of the total supply. The operations of the Manitoba Grain Act are also reported by Mr. Dillinger to have seriously hindered a satisfactory distribution of cars in the west, and the effect thereof has been sympathetically felt in the east. It is also clear that shippers have not increased their warehouse accommodation in keeping with the large expansion which has taken place during the past decade. Delays in loading and unloading have contributed to the congestion which has prevailed. These things cannot be disregarded in any effort that is made to locate the causes which have combined to create at times a distressing situation with regard to car supply. On the other hand, the railways must add very materially to their terminal, roundhouse, siding and repair facilities in order to bring about the relief that is being so urgently called for. It is not altogether a question of more locomotives and cars."

The J. H. Reynolds Construction Co., incorporated in Missouri, to carry on the business of general railroad contractors, has been licensed under the act respecting extra-provincial companies, to carry on its business in Ontario, utilizing not more than \$50,000, and has appointed J. M. McNamara, North Bay, Ont., as its attorney. The company holds a sub-contract under the G.T. Pacific Ry. Co., for the construction of a section of the National Transcontinental Ry., 150 miles eastward from the Abitibi River.

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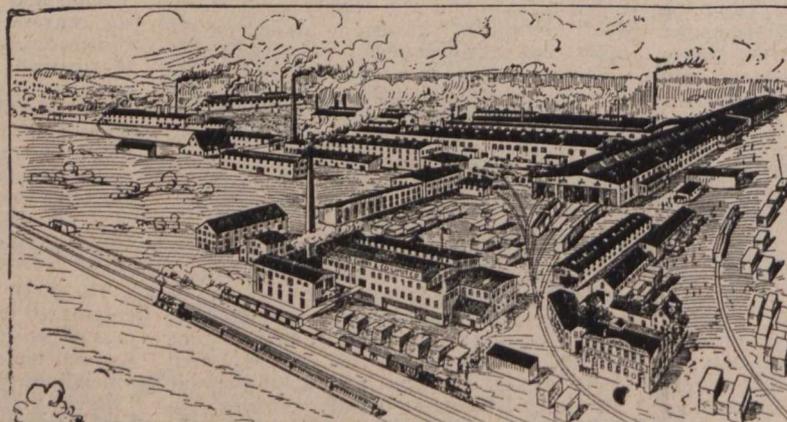
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## Orders by the Railway Commissioners.

Beginning with June, 1904, we have published in each issue summaries of orders passed by the Board of Railway Commissioners, so that subscribers who have filed our paper have a continuous record of the Board's proceedings.

Complete copies of any of the orders summarized below, or of others previously passed by the Commission, will be furnished for 25 cents, cash to accompany requests for copies in all cases.

4486. Mar. 11.—Authorizing Brantford & Hamilton Electric Ry. to construct its railway across the Hamilton stone road near Cainsville, Ont.

4487. Mar. 24.—Authorizing Windsor, Essex and Lake Shore Rapid Ry. to place its wires across Sandwich, Windsor and Amherstburg Electric Ry. at intersection of Aylmer and Wyandotte streets, Windsor, Ont.

4488. Mar. 24.—Authorizing C.P.R. to construct its railway across Third ave. and along Fourteenth St., Macleod, Alta., for about 400 ft.

4489. Mar. 12.—Authorizing G.T. Pacific Ry. to cross with its track, at rail level, the Canadian Northern Ry. near 21st St., Edmonton, Alta.

4490. Mar. 24.—Authorizing South Lambton Telephone Co-operative Association to place its wires across the Pere Marquette Ry. near Sombra Village, Ont.

4491. Mar. 24.—Authorizing G.T.R. to construct bridge over the Richelieu River at Belœil, Que.

4492. Mar. 24.—Authorizing C.P.R. to construct a branch line from the east side of Bethune Ave. to the east side of Glen Ave., and from the north side of Ann St. to the north side of St. Antoine St., Westmount, Que.

4493. Mar. 24.—Authorizing C.P.R. to build a spur line to the Standard Soap Co.'s premises at Calgary Jct., Alta.

4494. Mar. 24.—Authorizing J. M. Bergstrom to erect a telephone wire across the C.P.R. at Wauchope, Sask.

4495. Mar. 24.—Authorizing the C.P.R. to build an additional service track across Yonge St., Huntsville, Ont.

4496. Mar. 24.—Authorizing Brantford & Hamilton Electric Ry. Co. to place electric transmission wires over the G.T.R. at Cainsville, Ont.

4497. Mar. 24.—Authorizing C.P.R. to build a spur line to the Adams River Lumber Co.'s premises near Shuswap, B.C.

4498. Mar. 24.—Authorizing G.T.R. to take certain lands at St. Hubert, Que., for the purpose of moving its present station and placing thereon its passenger station. This order cancels order 4427 of Mar. 10.

4499. Mar. 24.—Authorizing C.P.R. to construct its railway across Birch St., Vancouver, B.C.

4500. Mar. 24.—Authorizing Windsor, Essex and Lake Shore Rapid Ry. to cross with its track the Sandwich, Windsor and Amherstburg St. Ry. at intersection of Aylmer Ave. and Wyandotte St., Windsor, Ont.

4501. Mar. 24.—Approving location of Canadian Northern Ry. through Darlington tp., mileage 198 to 207 west of Ottawa, Ont.

4502. Mar. 24.—Approving Temiscouata Ry. Co.'s by-law authorizing F. X. Belanger, General Freight Agent, to prepare and issue tariffs of tolls to be charged by company for all freight traffic carried by it.

4503. Mar. 24.—Authorizing Canadian Northern Ontario Ry. to erect its telegraph wires across the G.T.R. at Washago, Ont.

4504. Mar. 24.—Approving change in location of Edmonton and Slave Lake Ry. Co. through tps. 54 and 55, range 25, west 4th mer., between mileage 7.5 and 20, reckoned from the junction of the Canadian Northern Ry. main line in Alberta.

4505. Feb. 27.—Authorizing Maine Central Rd. to use Monarch fire extinguisher in its cars in accordance with requirements of order 3238 of July 3, 1907.

4506, 4507. Mar. 24.—Authorizing Muskoka Independent Telephone Co. to erect its wires across the G.T.R. in Chaffey tp., Ont.

4508. Mar. 24.—Authorizing V. Flook to erect a telephone wire across the C.P.R. at Esterhazy, Sask.

4509. Mar. 24.—Authorizing J. L. Heatherington to erect an electric light wire over the G.T.R. in Newbury, Ont.

4510. Mar. 25.—Authorizing C.P.R. to build a spur line to G. F. Stephens' premises, Calgary, Alta.

4511. Mar. 24.—Authorizing G.T.R. to build certain tracks or sidings adjoining its main line (Chaudiere Jct. branch) in the vicinity of Somerset St., Ottawa, Ont., and the connection thereof with the C.P.R. tracks (St. Lawrence and Ottawa Ry.)

4512. Mar. 25.—Authorizing Windsor, Essex and Lake Shore Rapid Ry. to deviate a portion of its located line of railway through a part of the townships of Gosfield South, Mersea and Leamington, Ont.

4513. Mar. 25.—Authorizing C.P.R. to open for carriage of traffic the portion of its Pheasant Hills branch from Lanigan to Asquith, Sask.

4514. Mar. 25.—Authorizing the Arthabaska Water and Power Co. to place through conduits to carry a 2,300 volt power line under the G.T.R. near Victoriaville, Que.

4515. Feb. 29.—Extending until June 1, 1908, the time fixed authorizing the use of contracts, conditions, by-laws and regulations of the Canadian and Dominion Express Companies.

4516. Mar. 25.—Authorizing C.P.R. to construct its railway across the highways between lots 20 and 21, con. 9, mileage 15.58, and between con. 9 and 10, mileage 17.3, in Vaughan tp., Ont.

4517. Feb. 29.—Extending until June 1, 1908, time within which contracts, conditions, by-laws, regulations, declarations, and notices, should continue in use by the National and American Express Companies, and have effect.

4518. Feb. 29.—Extending until June 1, 1908, time within which Pacific Express Co.'s forms of contract may be used.

4519. Mar. 24.—Authorizing C.P.R. to construct its railway across 26 road allowances on its Pheasant Hills branch, mileage 332 to 358, from Saskatoon westerly.

4520. Feb. 29.—Extending until June 1, 1908, time within which the United States and Great Northern Express Companies may use their forms of contracts, conditions, by-laws, regulations, declarations, and notices.

4521. Mar. 25.—Extending until June 1, 1908, time within which Maritime Express Co. may continue to use its form of freight and money order receipt.

4522. Mar. 25.—Authorizing C.P.R. to construct a spur to the Ideal Fence Co.'s premises, Winnipeg, Man.

4523. Mar. 25.—Authorizing C.P.R. to construct a spur across Huron St., Toronto, rescinding order 4413, dated Mar. 6.

4524. Mar. 25.—Authorizing C.P.R. to construct its railway upon and across St. Patrick St., Montreal, in building a spur to T. Prefontaine & Co.'s premises.

4525. Mar. 25.—Authorizing Bell Telephone Co. to erect its wires over the Michigan Central Rd. near Melbourne station, Ont.

4526. Mar. 24.—Authorizing G.T. Pacific Ry. to construct its railway across 54 highways in Saskatchewan, from mileage 49.197 to 100.298.

4527. Mar. 26.—Authorizing C.P.R. to construct spur to the Western Canada Cement and Coal Co.'s premises, Kananaskis, Alta.

4528. Mar. 26.—Authorizing C.P.R. to construct a bridge on its Esquimalt and Nanaimo branch at mileage 35.6.

4529. Mar. 26.—Approving revised location of C.P.R. Crow's Nest branch, from mileage 94 to 110.

4530. Mar. 26.—Authorizing C.P.R. to construct spur to the Ellison Milling and Elevator Co.'s premises, Lethbridge, Alta.

4531, 4532. Mar. 26.—Approving location of G.T. Pacific Ry. stations at four points in Saskatchewan.

4533. Mar. 25.—Authorizing railways in Canada, subject to the jurisdiction of the Board, to issue to secretaries of railway branches of Y.M.C.A. located on their lines, of which its employees are members, and for their household effects, free transportation or reduced rates, when the secretaries are travelling in connection with their secretarial duties, or are being transferred by the Association.

4534. Mar. 26.—Authorizing Montreal and Southern Counties Ry. to construct its railway across Front St., St. Lambert, Que.

4535. Dec. 9, 1907.—Authorizing the G.T.R. to build a branch line at or near St. Lambert, Que., to connect its districts 1 and 2.

4536-4542. Mar. 31.—Authorizing Rochester tp., Ont., to erect telephone wires across the Michigan Central Rd. at various points.

4543. Mar. 27.—Authorizing C.P.R. to construct a spur to Monarch Lumber Co.'s premises, at Savonas, B.C.

4544. Mar. 27.—Authorizing G.T. Pacific Ry. to construct a spur from its Lake Superior branch, mileage 87.76, north-west of Fort William, Ont., for 1.94 miles.

4545. Mar. 31.—Authorizing Bell Telephone Co. to erect its wires across the G.T.R. siding to the St. Clair Foundry, Toronto Jct., and rescinding order 4182 dated Dec. 26, 1907.

4546. Mar. 27.—Approving plans of C.P.R. standard pile and timber trestles.

4547. Mar. 27.—Authorizing C.P.R. to construct spur to R. Carroll's premises, Caledon tp., Ont.

4548. Mar. 27.—Authorizing C.P.R. to construct spur to Bury Pulpwood and Lumber Co.'s premises, near Gould, Que.

4549. Mar. 27.—Authorizing Glengarry Telephone Co-operative Association to erect wires across G.T.R. at the public highway near Dalkeith station, Ont.

4550. Mar. 31.—Authorizing Bell Telephone Co. to erect wires across G.T.R. at public crossing near Forest station, Ont.

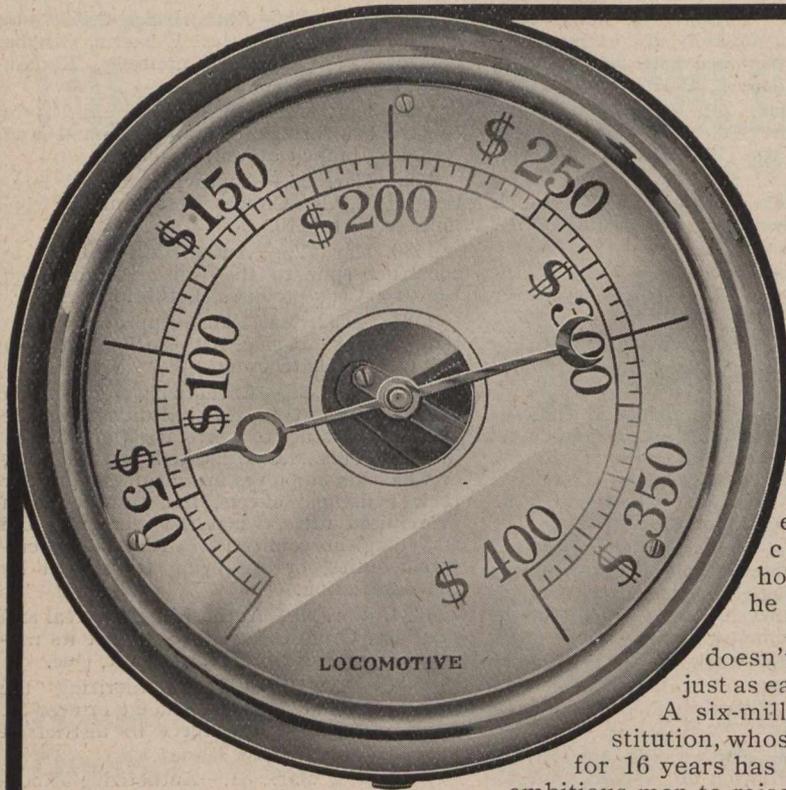
4551. Mar. 31.—Approving Temiscouata Ry. Co.'s by-law authorizing F. X. Belanger, General Freight Agent, to prepare and issue tariff of tolls to be charged for all freight traffic, and cancelling order 4502, Mar. 24.

4552. Apr. 1.—Authorizing Town of Thorold, Ont., to lay water pipes through the Niagara, St. Catharines and Toronto Ry. Co.'s lands, etc.

4553. Apr. 2.—Authorizing C.P.R. to construct a spur to the McLeod Milling Co.'s premises, Macleod, Alberta.

4554. Apr. 1.—Recommending to the Governor-in-Council for approval Canadian Northern Ontario Ry. Co.'s by-law respecting travelling upon and use of the railway.

4555. Apr. 1.—Recommending to the Governor-in-Council for approval Canadian Northern Quebec Ry. Co.'s by-law respecting travelling upon and use of the railway.



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Locomotive Engineer	Mining Engineer
Air-Brake Instructor	Architect
Air-Brake Inspector	Bookkeeper
Air-Brake Repairman	Stenographer
Mechanical Engineer	Ad Writer
Mechanical Draftsman	French } With
Machine Designer	German } Edison
Electrical Engineer	Spanish } Phonograph

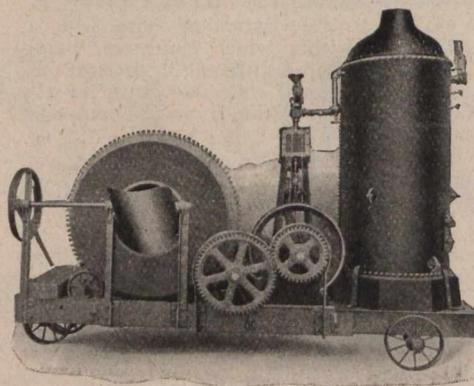
Name \_\_\_\_\_  
 Employed by \_\_\_\_\_ R. R. \_\_\_\_\_  
 Street and No. \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_

## OPINIONS

TORONTO, Oct. 18, 1907.  
 "Mixer is in every way satisfactory, and we can highly recommend same to intending purchasers."  
 A. GARDNER & CO.,  
 Contractors.

HERVEY JCT., Oct. 15, 1907.  
 "Mixer has given entire satisfaction."  
 MACDONNELL & O'BRIEN.

EVERY USER SATISFIED



## OPINIONS

FREDERICTON, Oct. 15, 1907.  
 "We have had every satisfaction and have not anything but praise to offer for your Mixer."  
 WILLARD KITCHEN CO.,  
 LTD.

MONTREAL, Oct. 16, 1907.  
 "I consider the Ransome Mixer is not approached by any other make in general efficiency and in mechanical details."  
 E. A. WALLBERG.

EVERY USER DELIGHTED

# Ransome Concrete Mixers

ALL CAPACITIES  
 IN STOCK

HAVE MADE GOOD EVERYWHERE  
 THEY HAVE BEEN INSTALLED

WITH OR  
 WITHOUT POWER

Our Concrete Mixers are extremely simple—very easy to operate—efficient and durable

WE NOW CAN OFFER AN EFFICIENT HAND MIXER—6 CUBIC FEET CAPACITY—JUST THE MIXER FOR SMALL CONCRETE WORK—INEXPENSIVE AND EASY TO OPERATE—PARTICULARS UPON REQUEST

**F. H. Hopkins & Co**

CANADIAN REPRESENTATIVES  
 SUCCESSORS LATE JAS. COOPER

**Montreal**

4556. Mar. 28.—Directing G.T.R. to provide and keep at its own expense a watchman at Thames St., Ingersoll, Ont., daily between 6 a.m. and 11 p.m.

4557. Apr. 2.—Authorizing Rochester tp. to erect telephone wires across C.P.R. near Belle River station, Ont.

4558. Apr. 2.—Authorizing Crow's Nest Southern Ry. to operate its trains over the C.P.R. spur near Hosmer, B.C.

4559. Apr. 1.—Authorizing C.P.R. to make a special rate of \$50 each for mining students of McGill University for a trip from Montreal to Vancouver, B.C., including side trips to Rossland and Greenwood; also rate of \$40 each from Montreal to Rossland, Phoenix and Greenwood, B.C.

4560. Apr. 3.—Authorizing D. Albert to lay a water pipe under the Temiscouata Ry., in the parish of St. Francis, N.B.

4561. Apr. 6.—Authorizing Arthabaska Water and Power Co. to lay two underground conduits containing electric power cables, across the G.T.R. on cadastral lot 461, third range of Arthabaska, Que.

4562. Apr. 6.—Authorizing Bell Telephone Co. to carry its wires across the G.T.R. at Brewster Ave., Lachine, Que.

4563. Apr. 6.—Approving deviation of C.P.R.'s main line and double-track at Tunnel Island, mileage 0.29 to 1.24.

4564. Apr. 6.—Authorizing Commissioners of Transcontinental Ry. to take possession of, expropriate, use and occupy a portion of the C.P.R. right-of-way and lands at or near St. Basil, N.B., and to change location of its line.

4565. Apr. 1.—Authorizing D. J. McKay to establish a crossing over the C.P.R., with an additional track at Nanton St., Crossfield, Alta.

4566. Apr. 9.—Approving revised location of G.T.R. branch line in Welland, Ont.

4567. Apr. 8.—Authorizing Central Ontario Ry. to divert the public highway through lot 23, con. 3, Monteagle tp., Ont.

4568. Apr. 8.—Authorizing Central Ontario Ry. to construct its railway across the highway at station 403.40, Monteagle tp., Ont.

4569. Apr. 8.—Authorizing M. J. Costello to prepare and issue tariff of tolls to be charged upon the Vancouver, Westminster and Yukon Ry.

4570. Apr. 7.—Authorizing Commissioners of Transcontinental Ry. to take possession of, expropriate, use and occupy a portion of the New Brunswick Ry. right-of-way and lands about nine miles west of Grand Falls, N.B., also to deviate the N.B.R. Co.'s line.

4571. Apr. 7.—Approving location of British Yukon Ry. from Macrae on main line at station 1905-40.8, near mile post 103, towards the Tahkeena River, a distance of 12.5 miles.

4572. Mar. 31.—Authorizing the Town of Galt to put a storm drain and connections under G.T.R. track on George St., Galt, Ont.

4573. Apr. 7.—Approving standard freight mileage tariff C.R.C. 288, of Niagara, St. Catharines and Toronto Ry., to apply between stations on its new lines, omitting its main line between Port Dalhousie and Niagara Falls.

4574. Apr. 8.—Authorizing C.P.R. to build a spur line to E. and T. Fairbanks & Co.'s premises, Sherbrooke, P.Q.

4575. Apr. 9.—Approving standard drawings for frame and pile trestles of Canadian Northern Quebec Ry. upon its St. Jerome, Montford and Garneau-Quebec divisions.

4576. Apr. 9.—Authorizing C.P.R. to build an additional track across the public highway at Maxwell, N.B.

4577. Apr. 8.—Extending until June 15, 1908, time within which Canadian Northern Ontario Ry. shall install interlocking and derail plant at Elbow Creek crossing with the C.P.R.

4578. Dec. 26, 1907.—Authorizing Vancouver, Victoria and Eastern Ry. to take additional lands required by it for the diversion of the River Road, New Westminster district, Municipality of Delta, B.C.

4579. Mar. 10.—Authorizing the C.P.R. to take additional lands adjoining station for the accommodation of traffic, being a portion of lots 22, 23 and 36, according to registered plan no. 5a, Toronto.

4580. April 14.—Authorizing Brantford and Hamilton Electric Ry. to place its electric power, trolley and feeder wires over the G.T.R. Tillsonburg branch in Brantford, Ont.

4581. Mar. 12.—Authorizing Brantford and Hamilton Electric Ry. to cross with its track the G.T.R. Tillsonburg branch in Brantford, Ont.

4582. April 14.—Authorizing G.T.R. to reconstruct bridge over Waterdown Road, East Flamboro tp., Ont.

4583. Mar. 31.—Authorizing Vancouver, Victoria and Eastern Ry. and Nav. Co. to construct a flume over the Anglo-British Columbia Cannery Co.'s property, lot 23, group 2, New Westminster district, B.C.

4584. April 10.—Authorizing Ingersoll Telephone Co. to place its wires over C.P.R. at the right-of-way between 1st and broken front concession, Oxford tp., Ont.

4585-4591. April 10.—Approving of Quebec, Montreal and Southern Ry. stations at St. Philomene, Nicolet, Becancour, St. Charles, Orignaux, Gentilly, and Gentilly River, Que.

4592. April 10.—Authorizing C.P.R. to carry its spur in the town of Thessalon across certain roads in Thessalon, Ont.

4593. April 10.—Authorizing C.P.R. to reconstruct bridge 100.5, Sherbrooke section, Que.

4594. April 10.—Authorizing C.P.R. to reconstruct bridge 51.3, Prescott branch, Ont.

4595. April 10.—Authorizing C.P.R. to reconstruct bridge 46.74, White River section, Ont.

4596-4598. April 10.—Approving location of Quebec, Montreal and Southern Ry. stations at Pierreville, St. Gregoire and La Baie, Que.

4599. April 10.—Authorizing Le Credit Municipal Canadien to lay pipes under the Montreal, Park and Island Ry. at the Upper Lachine Road at St. Pierre aux Liens, and west of the Dominion Car and Foundry Co.'s works at St. Pierre aux Liens, Que.

4600. April 14.—Authorizing C.P.R. to construct a spur to J. B. Smith & Sons' premises, in Ferris tp., Ont.

4601. April 9.—Approving deviation in location of C.P.R. Co.'s Moose Jaw north-westerly branch, from sec. 23, tp. 28, range 5, west of 3rd M., to sec. 17, tp. 30, range 15, west of 3rd M., Saskatchewan.

4602. April 10.—Authorizing the Canadian Northern Ontario Ry. to construct a bridge over Stanley St., Hawkesbury, Ont.

4603. April 14.—Recommending to the Governor-in-Council for sanction, amalgamation agreement between Vancouver, Victoria and Eastern Ry. and Nav. Co. and Victoria Terminal Ry. Co.

4604. April 10.—Authorizing C.P.R. to build a spur from its Slocan branch, B.C., to W. C. E. Koch's premises.

4605-4607. April 14.—Extending until May 14 time within which Winnipeg Electric Ry. may be permitted to place its wires for transmission of electrical energy across

the C.P.R. Lac du Bonnet branch C.P.R. tracks in St. Boniface, and C.P.R. tracks in sec. 25, tp. 12, range 8, east of 1st M., Manitoba.

4608-4610. April 14.—Authorizing Crow's Nest Pass Electric Light and Power Co. to carry its telephone wires across British Columbia S. Ry., at the crossing of the B.C.S. Ry. and the Morrissey, Fernie and Michel Ry. near Fernie, at Elko, and at Prior St., Fernie, B.C.

4611. April 9.—Approving revised location of G.T. Pacific Ry. from Yellowhead Pass to Tête Jaune Cache, mileage 0 to 50, Cariboo district, B.C.

4612. April 9.—Approving location of G.T. Pacific Ry. from Prince Rupert easterly, mileage 50 to 100, Copper River Coast district, B.C.

4613. April 15.—Authorizing G.T. Pacific Ry. to connect its Lake Superior branch with the C.P.R. at Dexter, Ont.

4614. April 9.—Approving deviation and location of double-tracking of C.P.R. main line between Kenora and Garwood, Ont., mileage 142.6 to 145.

4615. April 15.—Approving deviation in location of main line of C.P.R. Lauder extension branch, from mileage 20.04 to 32.28.

4616. April 15.—Authorizing the C.P.R. to open for traffic the diversion of the British Columbia Southern Ry. Co.'s main line, at mileage 85.4 east of Sparwood, B.C., from mileage 16.5, Cranbrook section, for 3,366 ft.

4617. April 15.—Authorizing Bell Telephone Co. to place aerial wires across C.P.R. at Metcalf St., North Bay, Ont.

4618. April 10.—Authorizing C.P. Ry Co. to build a spur to C. B. Hume & Co.'s premises, Revelstoke, B.C.

4619. April 9.—Authorizing Chatham, Wallaceburg and Lake Erie Ry. to operate its cars over the crossing of the G.T.R. on William St., Chatham, Ont., until Aug. 1, 1908.

4620. April 15.—Authorizing Chatham, Wallaceburg and Lake Erie Ry. to cross, by an undercrossing, the Michigan Central Ry. near Charing Cross station, Ont.

4621. April 15.—Authorizing C.P.R. to construct an extra track across road allowance at mileage 4.9 of its main line, Fort William section, Ont.

4622-4627. April 15.—Authorizing the C.P. Ry. to construct extra track across the road allowances at various points on its Fort William section, Ont.

4628. April 16.—Authorizing C.P.R. to build a spur to R. Watson & Co.'s premises, Toronto.

4629. Mar. 31.—Authorizing G.T. Pacific Ry. to build a siding leading from and adjacent to its main line, at West Fort William, Ont.

4630. April 16.—Authorizing C.P.R. to build its railway across certain highways in Albion tp., Ont.

4631. April 16.—Authorizing Windsor, Essex and Lake Shore Rapid Ry. to open for carriage of traffic the portion of its railway between Kingsville and Leamington, Ont., 8.7 miles.

4632. April 16.—Authorizing C.P.R. to construct its railway across certain highways in Albion and Vaughan tps., Ont.

4633. April 15.—Authorizing G.T.R. and C.P.R. to operate their trains over the crossing in Lennoxville, Que., without being brought to a stop.

4634. April 16.—Authorizing C.P.R. to construct its railway across a highway in Brant tp., Bruce County, Ont.

## CORRECTION.

In our Mar. issue we published the following summary of order: "4350. Jan. 21—

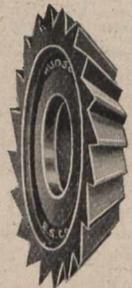
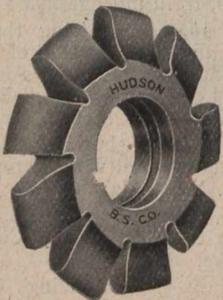
# HUDSON HIGH POWER STEEL

**Best for Locomotive and General Shop Work**

Unequaled for all kinds of cutting tools. The best steel makes the best tools, that is the reason that Hudson Tools will run faster and wear longer than any other high speed tools.

## PROFITS GROUND AWAY

The time your men will save in grinding alone is the practical economy of Hudson High Power Steel. Complete line of Twist Drills, Milling Cutters, End Mills, Taper Bridge Reamers, Shell Reamers, carried in stock. All steel and tools guaranteed.



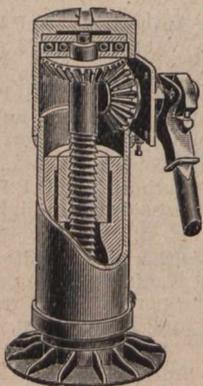
## BALDWIN STEEL COMPANY

Makers of highest grades Crucible Steels

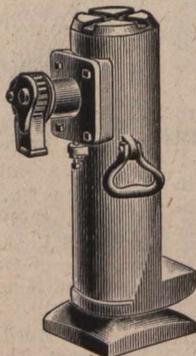
GENERAL OFFICE: 133 READE ST., New York City.  
 BOSTON PHILADELPHIA CHICAGO PITTSBURG

# NORTON JACKS

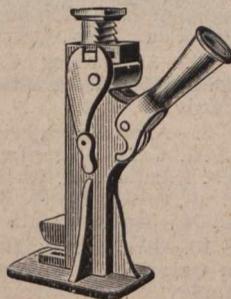
ARE MADE IN CANADA AND SAVE YOU DELAY AND DUTY ON AMERICAN MADE JACKS.



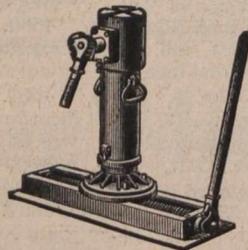
Sectional View



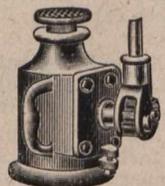
Foot Lift Jack



15 Ton Track Jack



Traversing Jack



Journal Jack

50 Styles 8 to 70 Tons Capacity  
 Carried in stock for IMMEDIATE DELIVERY

MANUFACTURED BY

# A. O. NORTON, COATICOOK, QUE.

Stock Carried by MUSSENS LIMITED, MONTREAL

Approving C.P.R. spur line, known as the branch line north of Edmonton, Alta., through secs. 14, 15, 16, 17 and 18, township 53, north, range 24, west of 4th meridian, Alberta, commencing at the centre line of the G.T. Pacific Ry. main line, in the n.w.  $\frac{1}{4}$  of sec. 14, township 53, north, range 24, west of 4th meridian." In the first line "C.P.R." should have read "G.T. Pacific Ry."

#### Gt. Northern Ry. Lines in Canada, Etc.

**Terminals in Winnipeg.**—Jas. Fisher, K.C., counsel in Winnipeg for the Great Northern Ry., was interviewed, April 3, as to the intention of the company with respect to the construction of terminals in Winnipeg. He said he had not been advised from St. Paul, Minn., as to what it was proposed to do, but he could not say that plans had not been prepared, or that the work would not be gone on with this spring. The station would likely be located one block west of Princess St., on Ross Avenue, and the repair shops for locomotives and cars would be located on a tract of land which had been acquired just west of the C.P.R. shops.

**Midland Ry. of Manitoba.**—No new work is reported to be projected upon the various lines authorized to be constructed during the current year. The lines already constructed extend from Portage la Prairie, Man., 77.01 miles, to the International boundary, where connection is made with the Great Northern Ry. branch from Grand Forks, N.D.; and from Morden, Man., 15.34 miles, to the International boundary, where connection is made with a branch from the G.N. Ry. Grand Forks branch extending from Grafton to the International boundary north of Walhalla, N.D.

**Brandon, Saskatchewan and Hudson Bay Ry.**—No new work is projected upon this line for the current year. The present line extends from Brandon, Man., to the International boundary, near St. John, N.D., 69.45 miles, connection being made with a branch of the Great Northern Ry. from Church Ferry, N.D.

**Crow's Nest Southern Ry.**—The extension of this line from Fernie to Michel, B.C., 21.77 miles, is reported to have been completed, and it was expected that a regular train service would be put in operation by April 30. It is reported that surveys have been made for a further extension of the line along the Elk valley, and that the ultimate intention is to extend it over the mountains to Calgary, Alta. The line now runs from Michel to the International boundary at Gateway, B.C., about 73 miles, at which point it connects with a branch of the Great Northern Ry. from Rexford, Wash.

**Vancouver and Tacoma Entrances.**—A Tacoma, Wash., dispatch of April 17 says that Chairman J. J. Hill, of the Great Northern, has arranged for its entrance into Tacoma, over the Northern Pacific tracks from Seattle, and that in return the Northern Pacific will get an entrance into Vancouver, B.C., over the Great Northern lines.

**Vancouver, Victoria and Eastern Ry. and Navigation Co.**—The recent amalgamations have added to the constructed mileage of this railway the 14.81 miles of line constructed between Vancouver and New Westminster, B.C., by the Vancouver, Westminster and Yukon Ry., and the 18.38 miles of line between Cloverdale and Port Guichon, constructed by the Victoria Terminal Ry. and Ferry Co. These lines are connected up with the New Westminster Southern Ry., which joins the Great Northern Ry. line along the Washington mainland from Blaine, at the International boundary line, to Seattle, by means of the Fraser River bridge, constructed by the British Columbia Government, and over which the G.N.R. trains run on payment

of tolls. The construction of several pieces of line between the Fraser River and the International boundary are being proceeded with under the charters of these several companies, and the right to complete them has been secured to the V. V. and E. Ry. and N. Co., by the agreements of amalgamation. We are advised as to these lines as follows: That the approximate length of the line under construction by the terms of the V.T. Ry. and Ferry Company's charter, from the International boundary to Olivers, B.C., is 11.32 miles, upon which track has already been laid for about a mile. Construction on the remainder of the line is in progress. The approximate length of the line being constructed from Brownsville to Olivers, B.C., under the V.V. and E. Ry. and N. Co.'s charter, is 9.80 miles, and track has been laid for five miles, construction being in progress upon the remaining 4.80 miles. The approximate length of the line being constructed from Cloverdale to Sumas, at the International boundary, under the V.V. and E. Ry. and N. Co.'s charter is 26.25 miles; track has been laid upon 1.40 miles and construction is being proceeded with upon the rest of the line. At Sumas Junction, B.C. (Sumas, Wash.), there is a junction of the Bellingham Bay and British Columbia Ry., the Northern Pacific Ry., and the C.P.R. branch from Mission.

Construction is also being proceeded with on the line westerly, the work on the United States side of the line being done by the Washington and Great Northern Ry. Track has been laid to Keremeos, B.C., 18.20 miles, from the last crossing of the International boundary, and work has been in progress on the grading between Keremeos and Hedley, B.C. This is now reported to be about completed, and a beginning is said to have been made on the clearing of the route between Hedley and Princeton. The surveys from Princeton to Sumas have been made, but some parts of the route have not been finally approved.

**Great Northern Ry. Branch Lines.**—The company has under construction, survey, or consideration, a number of branch lines in the U.S., the following of which are of importance as affording connection with lines in Canada: Dewey Lake to International Falls, Minn.—This extension, which is reported to be partially graded, will be about 78 miles long. International Falls is on the Rainy River, in the vicinity of Fort Frances, Ont., on the Canadian Northern Ry. Dewey Lake is the terminus of a branch of the G.N.R. from Hibbing, which is a station on the branch from the main line at Swan River, a station 34 miles easterly from Deer River. In Jan., press reports stated (Feb., pg. 97) that a line was projected from Deer River to International Falls, and the route of such a line would be approximately the same as the extension which the G.N.R. has partially graded between Dewey and the International Falls.

Greenbush to Warroad, Minn.—The length of this extension is 44 miles and the grading is reported to be practically completed. Warroad is a station on the Canadian Northern Ry., 323.8 miles from Port Arthur, Ont., and 114 miles from Winnipeg.

Wenatchee to Oroville, Wash.—A line between Wenatchee, near where the line crosses the Columbia River, northerly to Oroville, a station on the Washington Great Northern—Vancouver, Victoria and Eastern Ry., and Navigation Co.'s line, is reported to be partially graded. The line has a length of 140 miles, and follows the Okinakane River valley from near Alma. (April, pg. 243.)

M. A. Piggott & Co., contractors, Hamilton, have entered an action against the Guelph and Goderich Ry. Co., to recover \$523,574.75 for work done and material supplied on the construction of the section of the line for which the firm had a contract.

#### Recent Dominion Legislation.

In addition to the acts affecting transportation interests passed at the current session of the Dominion Parliament, the following have received the Royal assent: Atlantic, Quebec and Western Ry.—Extending the time for construction, etc.

Canadian Northern Quebec Ry.—Extending time for construction, etc.

Canadian Northern Ry.—Extending time for construction of various branch lines, and authorizing construction of additional lines.

Dominion Atlantic Ry.—Authorizing various changes in connection with the direct-orate, date of annual meeting, etc., and authorizing construction of a branch line.

Erie, London and Tillsonburg Ry.—Extending time for construction.

Government Railways.—Amending act respecting the Government railways.

Intercolonial and P. E. I. Railways.—Amending act respecting Employes' Provident Fund Act.

Interprovincial Ry. Bridge Co. of New Brunswick.—Extending time for construction.

Montreal, Ottawa and Georgian Bay Canal Co.—Extending time for construction.

Ocean Steamship Subsidies.—Amending the act in relation thereto.

Owen Sound and Meaford Ry.—Granting an extension of time for construction.

Trans-Canada Ry.—Extending time for construction.

Windsor, Chatham and London Ry.—Extending time for construction.

#### Recent Ontario Legislation.

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

Canada Central Ry.—Extending the time fixed for construction.

Dunnville, Wellandport and Beamsville Electric Ry.—Extending the time for construction.

Fort Erie Ferry Ry.—Extending the time for construction.

Fort William.—Affecting electric railways and railway construction within the city.

Guelph Radial Ry.—Authorizing an extension of time for construction.

Hamilton and Guelph Junction Ry.—Extension of time for construction.

Iron Range Ry.—Act of incorporation.

Lac Seul, Rat Portage and Keewatin Ry.—Extending the time for construction.

Lake Superior, Long Lake and Albany River Ry.—Authorizing extension of the time for construction.

Morrisburg Electric Ry.—Act of incorporation.

Mount Mackay and Kakabeka Falls Ry.—Extending time for construction.

Niagara Falls Suspension Bridge.—Act respecting the city of Niagara Falls and the assessment of the Niagara Falls Suspension Bridge.

North Lanark Ry.—Granting an extension of time for construction.

North Midland Ry.—Granting an extension of time for construction.

Ontario.—Amending the Railway Act, 1906, (two acts), and an act to supplement the revenues of the Crown.

Ontario Sault Ste. Marie Ry.—Amending the powers of the company.

Ontario West Shore Electric Ry.—Granting an extension of time for construction.

Railway and Municipal Board.—Amending the powers of the Board.

South-Western Traction Co.—Amending the powers of the company.

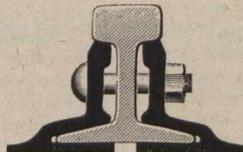
Western Central Ry.—Granting an extension of time for construction.

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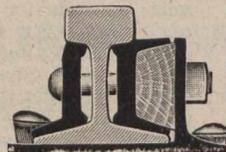
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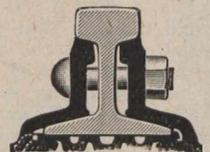
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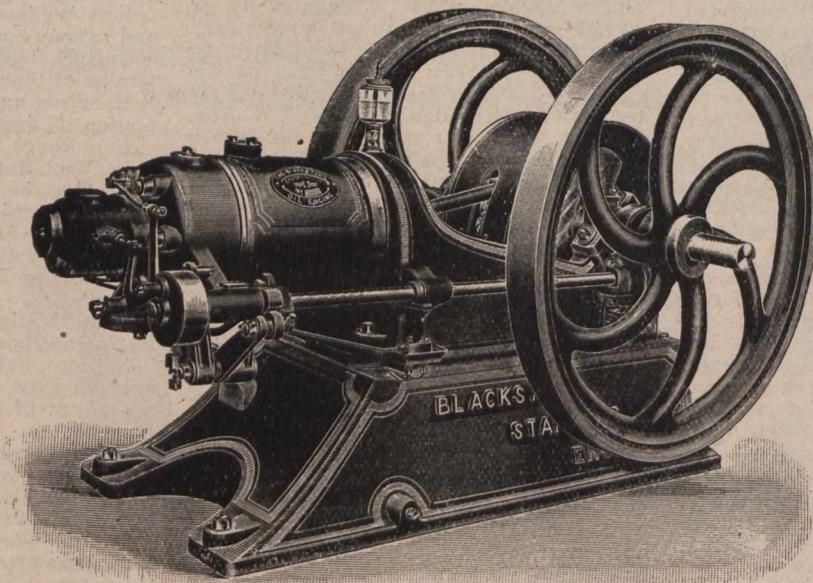
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## RAILWAY DEVELOPMENT.

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

**Alberta Southwestern Ry.**—Application is being made at the current session of the Dominion Parliament for an act incorporating a company with this title, for the purpose of constructing a railway from the International boundary in British Columbia, near where the Kootenay River crosses, thence northerly along the valley of the river to or near Elks, thence northeasterly, following the valleys of the North Kootenay River and the south fork of the Old Man River, to Cowley, Alta.; thence northerly following the valley of the Old Man River through the gap in the Livingstone range, and along the northwest branch of the Livingstone River, and along the Highwood River, easterly and northeasterly to near Calgary. Chrysler, Bethune and Larmonth, Ottawa, are solicitors for the applicants.

**Atlantic, Quebec and Western Ry.**—The Dominion Government has entered into a contract under the act granting aid to certain railways, with the A., Q. and W. Ry., for the construction of a railway from Paspebiac to Gaspé, Que., as near the shore as practicable, a distance of about 102 miles. (April, pg. 243.)

**Bangor and Aroostook Rd.**—A. E. Trites, Salisbury, N.B., who has constructed most of the extensions on this railway along the New Brunswick border during the past ten years, states that no further construction will be done by the company this year. (Jan., pg. 19.)

**Bow River Collieries.**—A U.S. report says that the company owning 5,300 acres of coal areas, and 960 acres of surface rights in the Bow River district of Alberta, has acquired a charter authorizing the construction of a line, about 18 miles long, from the collieries to the C.P.R. R. F. Reeve, Lethbridge, Alta., is reported to be interested.

**Bracebridge and Trading Lake Ry.**—A writ has been issued by G. A. Begy, St. Catharines, Ont., against A. M. Orpen, Toronto, for failing to complete a contract for construction upon this line between Bracebridge and Baysville, Ont. Damages are laid at \$13,000, and there is also a claim for \$750 cash alleged to have been paid. (Jan., pg. 19.)

**Canada Central Ry.**—The Ontario Legislature passed an act at its current session granting an extension of time within which the projected line may be constructed.

The Canada Central Ry. was incorporated in 1902, by the Ontario Legislature and by the Dominion Parliament, the Ontario act giving power to construct a railway from near the mouth of the French River, northwesterly to Wahnapiatae Lake; thence northerly to the headquarters of the Montreal River, and thence to a point on the Albany River, and a branch line to Port Arthur and Fort William; while the Dominion act gives power to construct a similar line, and to extend it from the Ontario boundary at the Albany River, through Keewatin and Manitoba, to Lake Winnipeg, thence 70 miles north of Prince Albert, Sask., and Edmonton, Alta., to Tête Jaune Cache, B.C., thence southerly via Kamloops to Princeton, and thence to New Westminster and Vancouver, B.C. The provisional directors of the Ontario company were: T. W. Patterson, Vancouver, B.C.; T. H. Johnson, Winnipeg, Man.; E. F. B. Johnson, Toronto; J. Milne, Duluth, Minn.; and M. B. Lloyd, Minneapolis, Minn.; while those of the Dominion company were: T. W. Patterson, Vancouver; E. F. B. Johnson, Toronto; B. W. Folger, Kingston, Ont.; J. Millen, Duluth, Minn.; and P. Weidner, Detroit, Mich. Additional powers were obtained from the Dominion Parliament in 1903,

authorizing lines to Fort Churchill on Hudson Bay; Waddington Harbor on Bute Inlet; via the Peace River to the Portland Canal on the Pacific Ocean; from Sudbury to Toronto, and from the Montreal River to the Ontario-Quebec boundary; and both the Dominion Parliament and the Ontario Legislature have granted extensions of time for construction. In 1905, the Legislature authorized a change in the provisional directorate, the names of F. H. Clergue, W. Morris, G. E. Drummond, W. H. Plummer, J. MacArthur and W. A. Firstbrook being added. (Mar., pg. 179; Dec., 1906, pg. 711; June, 1905, pg. 241; April, 1905, pg. 143, and Oct., 1903, pg. 341.)

**Eastern British Columbia Ry.**—Reports from Fernie, B.C., state that it was expected that construction operations would be started early in April upon the construction of this line. The route located is from Macgilvery station on the Cranbrook section of the C.P.R. Crow's Nest Pass Line, 6.2 miles from Crow's Nest, at the head of the big loop where the Michel Creek is crossed, and will extend up the valley of the creek to the head, where it will cross the divide between the waters of that stream and the head waters of the Flathead River, which flows south through a coal and oil region to Flathead Lake, Montana. Some 15 miles of line are expected to be completed this season, to the property of the Corbin Coal Co., which is in process of development. W. R. Wiley is Chief Engineer in charge of surveys, etc. (April, pg. 243.)

**Canadian-Minnesota Bridge Co.**—It was reported April 2, that trains were being operated over this bridge across the Rainy River, near Fort Frances, Ont., connecting the Duluth, Rainy Lake and Winnipeg Ry., and the Canadian Northern Ry. (April, pg. 243.)

**The Colchester Coal and Ry. Co.'s** line from Debert Station, on the Intercolonial Ry., to its coal mine, four miles, is reported by the Provincial Engineer of Nova Scotia to have a fair surfacing of gravel ballast, and to be fenced throughout except on the company's own lands. A telephone line has been constructed and connects with the I.C.R. station. The company owns one locomotive, which is sufficient to handle the present traffic. An iron mine is being developed in the vicinity of the coal mine which will add to the traffic. The Government has paid a subsidy of \$12,000 on account of the construction of the line. (See Debert Ry., Nov., 1907, pg. 829; Colchester Coal and Ry. Co., Aug., pg. 561.)

**Crow's Nest Northern Ry.**—A. E. Wayland, Spokane, Wash., one of the provisional directors, says it is the intention of the company to start construction at once upon about 50 miles of the projected line northerly from the C.P.R. Crow's Nest Pass line, and a branch line of 10 miles. The branch line and 12 miles of the main line are reported to have been surveyed. The line will have a gradient of 1% or less, and the line will be laid with 70-lb. steel. It is expected that grading will be started in May, as U.S. press reports say contracts have been let. The line is to be constructed in the interests of the Crown Coal and Coke Co., and of the Michel Coal Mines, R. J. Belden, of Spokane, Wash., one of the provisional directors, representing the former company. (April, pg. 243.)

**Detroit River Tunnel.**—Fair progress is reported as being made with the work, and it is expected that in a short time a regular rate of progress of 10 ft. of tunnel per day will be made. Two air locks have been established, and a pressure of about seven pounds is being maintained, which will be gradually increased as the work progresses. The clay encountered shows a tendency to run below a depth of about 25 ft. from the surface, which interferes somewhat with the progress of the work. A considerable amount of work has been done on the approach tunnel on the Detroit side of the river, and the work of put-

ting in the concrete at the two sections of the tube laid last fall is in progress. The tubes for two more sections are ready and they will be sunk into the berths prepared for them shortly. It is expected that all the tube sections will be in place by the end of the current season. (April, pg. 243.)

**Duluth and Northern Minnesota Ry.**—Press reports state that construction is to be re-started at once upon the line from Schauff Lake to Gun Flint Lake, Minn., about 80 miles. The line has been surveyed, and partially graded. At Gun Flint Lake, a junction would be effected with the Canadian Northern Ry., Gunflint branch, which has a length of 66.9 miles from the junction with the main line between Port Arthur and Winnipeg, at Stanley Junction, 19.1 miles from Port Arthur. The D. and N.M.R. extends from Knife River, where it has a connection with the Duluth and Iron Range Rd., to Schauff Lake, 45 miles. Jno. Millen, Duluth, is Vice-President and General Manager, and A. Mitchell, Duluth, is Chief Engineer. (See also Duluth, Thunder Bay Ry., July, 1907, pg. 479.)

**Essex Terminal Ry.**—We are advised that no construction work has been done on this projected railway since Dec., 1906, and it is not expected that anything further will be done until the right to construct it across the Windsor, Essex and Lake Shore Rapid Ry., on the town line north of the C.P.R., at Walkerville, Ont., has been obtained. The Railway Commission has recently given permission for the railway to construct its tracks across the Lake Erie and Detroit River tracks at Walkerville. (Sept., 1906, pg. 527.)

**Fort William Terminal Ry.**—Considerable opposition was offered before the Railway Committee of the House of Commons, to the passing of the bill for an extension of time. An agreement was subsequently reached under which the company is to expend 15% of the capital cost of the undertaking within a specified time, upon the bridge work and not upon the railway connections, and the city of Fort William may acquire the rights for foot and vehicular traffic at any future time on payment of a lump sum to be fixed by agreement, or by the Board of Railway Commissioners. Upon the question of location it was agreed that the company may, with the consent of the city and the approval of the Railway Commission, move the railway closer to the water front than is provided for by the present plans. (April, pg. 243.)

**Great American Ry.**—Articles of incorporation have been filed at Pierre, S.D., for a company with this title and with a capital of \$150,000,000, with the object of constructing a railway from Chicago, Ill., to Winnipeg, Man., and Medicine Hat, Sask., with branches throughout the Northwest. The only indication of the route, other than the terminal points named, is that the proposed line is to cross Roberts county, in the extreme northwest corner of South Dakota. General powers are given in the charter for the construction of railways in the U.S. and Canada. The projected line would have a length of approximately 2,200 miles, and is estimated to cost \$82,000,000. The incorporators are all Wisconsin men, and include A. J. Hyde, Lancaster, Wis., and I. W. Goodner, an incorporation lawyer of Pierre, S.D., the latter name being inserted to comply with the incorporation laws of the State. Branch offices of the company may be maintained at Lancaster, Wis., and Chicago, Ill.

**Halifax and North-Eastern Ry.**—In his annual report to the Nova Scotia Government, the Provincial Engineer refers to the survey made in 1906, jointly by the Government and the company. The estimates prepared by the company were submitted to the Government, which considered them too high, and a contract for construction could not be

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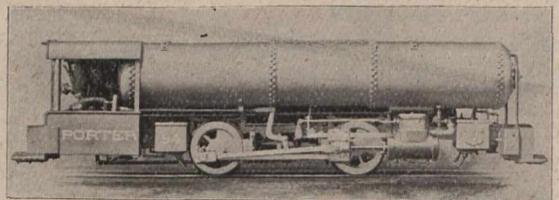
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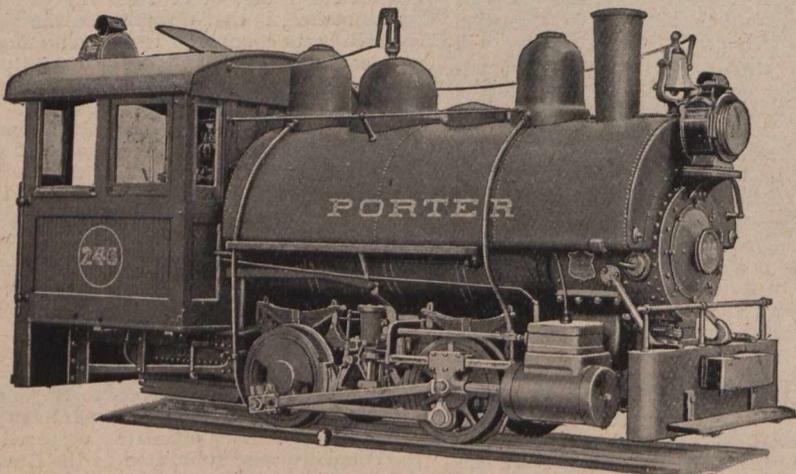
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arranged. It was therefore decided by the Government that it would be advisable to make further investigation with the idea of securing a location which would enable the line to be constructed for a lower estimate than that obtained by the company's survey. The surveys made in 1906 enabled the Department to decide on the best general route for most of the line, and three parties were placed in the field to accurately locate the cheapest line that would be suitable for the traffic of the district. As a result, with the exception of a few miles, a suitable location has been secured over the whole line. A few places remain where the line can be revised so as to cheapen it considerably, but generally a good location has been secured for a line with moderate gradients and curvature, equal to the standard of the subsidized lines of the province, which can be constructed at a reasonable cost. The plans, profiles and estimates have not been completed, but the work is being pushed forward as rapidly as possible. As soon as these are completed the Government will be in a position to make an advantageous contract with any company desiring to undertake the work. (April, pg. 243.)

**Halifax and Southwestern Ry.**—In the annual report of the Provincial Engineer of Nova Scotia, for 1907, it is stated that the year has been a very busy one on the line, an additional amount of ballast having been placed over the whole roadbed, a considerable amount of fencing done, and the Mersey River bridge completed. Some more ballast, and some other work, however, will be required before it can be said that the line is fully completed. The bridge which has been completed over the Mersey River is one of the largest and most expensive in the province. The principal difficulty in the way of its construction was in securing foundations. The river has a depth of 20 ft. at low water, and 18 ft. of material below this had to be excavated before a solid foundation could be reached. The piers and abutments are of concrete and the superstructure is of steel. On the Caledonia branch and the Victoria Beach line, some of the banks will have to be widened before the additional ballast, which is also required, can be put on. On the Middleton section, the old Central Ry., while a good deal has been done by the H. and S.W.R. in the way of renewing ties and other work, a large amount of work will be required to be done during the current year in the way of renewing ties, constructing fences, etc., so as to put it in equally good shape with the line from Halifax to Yarmouth. (Feb., pg. 97.)

**Intercolonial Ry.**—The Dominion Parliament, at its current session, passed votes on account of betterments, construction, etc., on the Intercolonial Ry., as follows:

Original construction	\$ 125.00
To strengthen bridges	23,750.00
To increase water supply	3,275.00
To provide new turntables	2,062.50
Increased accommodation and facilities along the line	21,125.00
Towards double-tracking part of line	25,000.00
Locomotive and car shops with equipment	71,250.00
New machinery for locomotive and car shops	19,375.00
Improving telegraph line	112.00
Increased accommodation at Halifax, N.S.	62,500.00
Increased accommodation at Halifax, N.S.	220,000.00
Improvements at Windsor, N.S.	312.50
Extension to Sydney Mines, N.S.	2,437.50
Improvements at North Sydney, N.S.	500.00
Increased accommodation at Sydney, N.S.	1,750.00
Improvements at Mulgrave, N.S.	5,850.00
Water service at Pirate Harbor, N.S.	625.00
Increased accommodation at Antigonish, N.S.	562.50
Increased accommodation at New Glasgow, N.S.	1,250.00
Increased accommodation at Stellarton, N.S.	812.50
Increased accommodation at Pictou, N.S.	1,075.00
Increased accommodation at Pictou, N.S.	12,000.00
Increased accommodation at Truro, N.S.	13,125.00
Increased accommodation at Springhill Jct., N.S.	362.50
Increased accommodation at Springhill Jct., N.S.	2,500.00
Improvements at Amherst, N.S.	5,875.00
To put line between Indiantown and Blackville, N. B., into condition for operation	10,000.00

Increased accommodation at St. John N.B.	\$ 15,000.00
Improvements at Sackville, N.B.	3,375.00
Improvements at Loggieville, N.B.	1,868.75
Improvements at Newcastle, N.B.	4,750.00
Improvements at Campbellton, N.B.	3,125.00
Extension of wharf at Dalhousie, N.B.	375.00
Increased accommodation at St. Flavie, Que.	2,562.50
Increased accommodation at Levis, Que.	375.00
Siding at Princess Pier, Levis, Que.	500.00
Engine house and machine shop, Riviere du Loup, Que.	14,437.50
Engine house, etc., Chaudiere Jct., Que.	6,925.00
Improvements Drummondville, Que.	750.00
Improvements Ste. Rosalie, Que.	10,737.50
Improvements Ste. Rosalie, Que.	20,000.00
Improvements St. Alexis, Que.	865.00

The question of the cost of the terminals at Halifax, N.S., was raised in the House of Commons, Mar. 24, upon a vote of \$220,000 to increase accommodation there. The Minister of Railways explained that the improvements were under contract; in 1907 Parliament voted \$300,000 for the work, but better progress was made than had been anticipated, so that \$220,000 was due to the various contractors. The total amount expended upon the terminals was \$3,753,188.01; the total estimated cost of the works required to complete the terminals was \$1,019,380, of which \$520,000 had already been expended, leaving about \$500,000 yet to be expended. The works included in this estimate were:

Additional facilities west side Water St.	\$ 173,225
36-stall engine house	175,000
Freight car repair shop	75,000
Store house, sand and oil house	35,000
Steel concrete chimney and foundation	4,500
14 coal pockets and foundation	2,500
100,000-gallon tank	5,000
Water supply	7,000
Cinder pits	10,000
Grading in new yard	51,000
Ballast	15,000
Tracks	20,000
Rails in engine house	3,655
Double-tracking, Richmond	55,000
Heating and piping in new building	2,000
Sewer in new yard	10,000
Turnouts	2,000
Tracks, Richmond yard	25,000
Locomotive crane	8,500
Building for power inspectors	2,000
Wharf and dredging	328,000

Total..... \$1,010,380  
A contract is reported to have been let to the Canadian General Electric Co., Toronto, for the electric power plant for the yards at Stellarton, N.S.

The work of constructing a second track between Moncton and Painsec Jct., N.B., has been restarted for the season, R. McManus, of Memramcook, being in charge.

The engineering department is having a new measurement of the entire line made. (April, pg. 245.)

**Iron Range Ry. and Development Co.**—J. T. Horne, W. H. Hamilton, G. A. Graham, Fort William, Ont.; J. J. Drew, Guelph, Ont.; W. A. Dowler, Tillsonburg, Ont., were granted an act of incorporation at the recent session of the Ontario Legislature, with this title, with power to construct a railway, to be operated by steam or electricity, from the Lake of the Woods to Thunder Bay, in or near Fort William, and across the Lake of the Woods westerly to the Manitoba boundary, together with branch lines, particularly to the C.P.R., and to the International boundary line between Ontario and the State of Minnesota. The company sought extensive powers in the way of carrying on mining and other operations, but these were considerably curtailed by the Committee of the Legislature. The capital of the company is fixed at \$1,000,000, its offices are to be at Fort William, Ont.; it may construct telegraph and telephone lines, carry on a general navigation business on navigable waters reached by its lines, and enter into agreements with the C.P.R., the Canadian Northern Ry., or the G.T. Pacific Ry., or other railway or transportation company. (Mar., pg. 181.)

**Kettle Valley Lines.**—Replying to a question in the Senate recently, the Secretary of State said the Government had no information later than June, 1907, with respect to the

track laid on the line being constructed from Grand Forks, B.C., up the north fork of the Kettle River. Up to that date 12 miles of track was laid between Grand Forks and the second crossing of the Kettle River. An inspecting engineer of the Department of Railways inspected the part of the line in question, June 9, 1907, and made the report.

It is reported that construction will be restarted at an early date on the Spokane and British Columbia Ry., which is the extension of the K.V. Lines, from Republic, Wash., to Spokane. Another report says that G. W. Fairweather, G. F. and P. A., recently stated, at Spokane, that the contract for the construction of the line from that city to Hellgate, Wash., about 65 miles, would be awarded early in July. The construction of the rest of the line between Hellgate and Republic, Wash., about 100 miles, is being held up, pending the decision of the Supreme Court in regard to the right-of-way across the Colville Indian Reserve. A number of years ago the Federal Government granted a right-of-way to a company, said to be backed by the Great Northern Ry., on condition that it be used within two years. The S. and B.C. Ry., later on, obtained a right to construct a line through the reserve, and litigation ensued. The courts of first instance decided in favor of the S. and B.C. Ry., and the appeal is now pending to the Supreme Court. (Feb., pg. 97.) See C.P.R. Construction, Betterments, etc.

**Lac Seul, Rat Portage and Keewatin Ry.**—An act granting an extension of time for the construction of this projected railway was passed at the recent session of the Ontario Legislature. (April, pg. 181; June, 1904, pg. 187; Feb., 1903, pg. 41.)

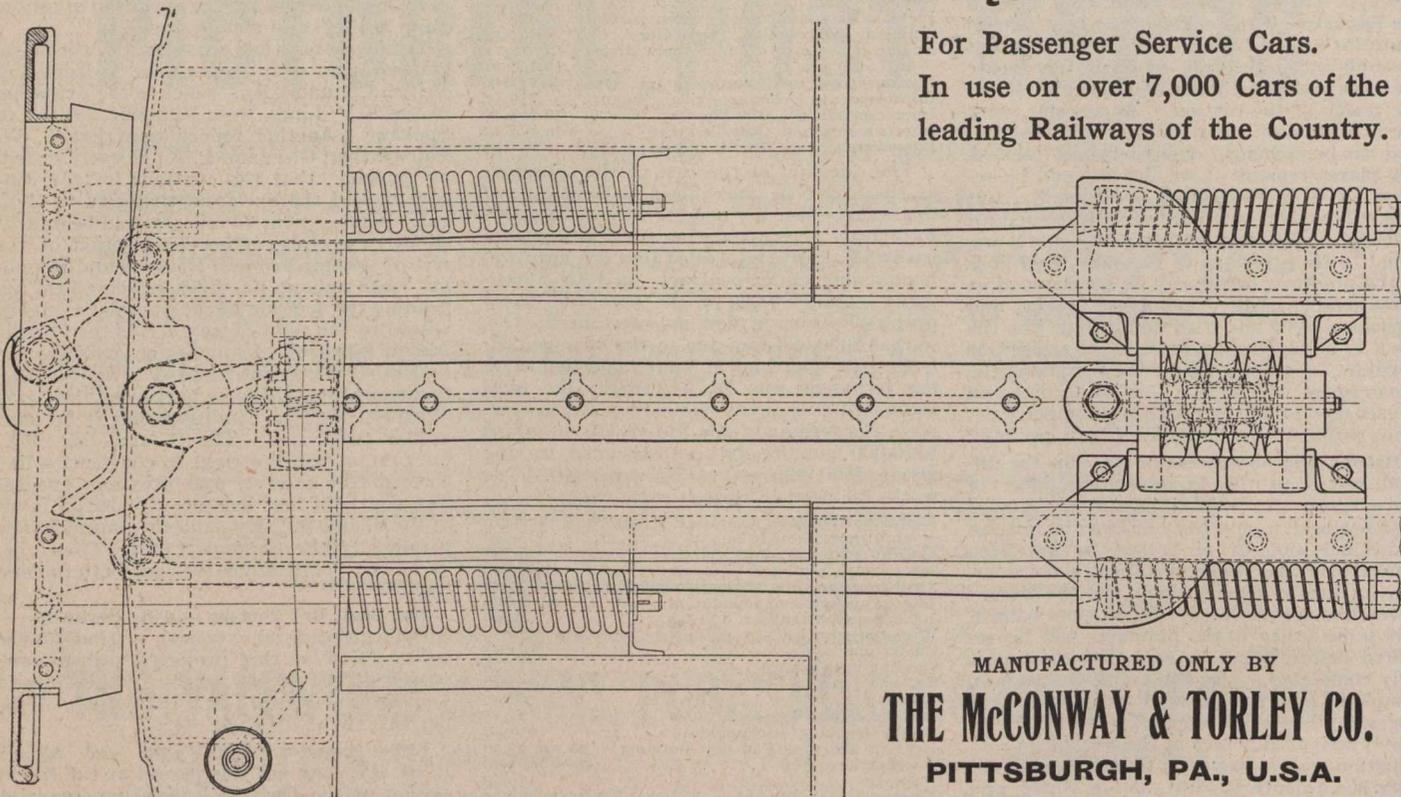
**Lake Superior, Long Lake and Albany River Ry.**—An act was passed at the recent session of the Ontario Legislature, granting an extension of time for three years for the commencement and of five years for the completion of this projected railway. The name of S. T. Clarke has been removed from the list of provisional directors; the capital of the company is increased to \$3,000,000, and it is authorized to issue bonds to the extent of \$30,000 a mile of line constructed. The amount of capital previously authorized was \$1,000,000, and the bonding powers had been limited to \$20,000 a mile. The location plans for the first ten miles from the shore of Lake Superior at Peninsula Harbor, Ont., have been completed and approved, and some small amount of grading done for the purpose of holding the charter. (July, 1905, pg. 285.)

**Little Nation Ry.**—W. Parisien, Cheneville, Que., has been appointed Secretary-Treasurer, succeeding J. A. Gadoury. The other officers and directors are as previously stated. (April, pg. 245.)

**The Liverpool and Milton Ry.** was constructed in 1899-1900 by a local company, without receiving any subsidy. It extends from Liverpool to Milton and the Rapids Falls and Cowie's Falls Pulp Mill, following the highway a total distance of 5.50 miles. The Provincial Engineer of Nova Scotia in his report for 1907 says that while built to standard gauge the gradients were so steep and the curvature so sharp it was almost impossible to use an ordinary locomotive and car on it. On the completion of the Halifax and Southwestern Ry., which crossed the line about a mile from Liverpool, it was thought advisable to connect the two railways. To make this connection effective it was necessary to reconstruct the old line, removing it from the highway so as to get suitable gradients and curvature. A subsidy was provided in Sept., 1906, to assist in the reconstruction, and the Legislature authorized the amalgamation of the line with the H. and S.W. Ry. The contract for the reconstruction of the line was let to the

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Lindsay Construction Co., and the work was vigorously pushed during the season. A good deal of the work has been completed, the track has been relaid, and all that is now required to bring the line up to the standard of other railways in the province is the provision of additional ballast. (Jan., 1907, pg. 3.)

**Magdalen River Valley Ry.**—The Quebec Legislature is being asked at its current session to authorize a change in the location of this projected railway. The route which it is now proposed that the line shall follow is from the lot on which the Catholic Church in the seigniory of Magdalen River, Gaspé County, is situated, through certain specified lots, and the wild land owned by Frank Ross, thence southerly, and not approaching nearer than one-eighth of a mile to the Magdalen River, to the Little Falls, and thence east of the river to a junction with the proposed inland section of the Atlantic, Quebec and Western Ry. Until the A.Q. and W. Ry. constructs its inland section the M.R.V. Ry. may construct and operate a railway of less than standard gauge. Construction is to be commenced by 1910, and completed by 1913. (April, pg. 245.)

**Minudie Coal and Ry. Co.**—The Provincial Engineer of Nova Scotia in reporting to the Government upon this line says it is ballasted with culm coal and broken stone, is in good alignment with a very fair surfacing. A few portions of the line still require more ballast, but sufficient had been provided for distribution and spreading. The trestle bridging is good, the fencing and telephone lines are completed and a third-class station house has been erected at the head of the Government wharf at Minudie. During 1907, the company carried 2,400 tons of coal over the line, the only traffic up to the present time. The mine is producing about 200 tons of coal a day. It is intended to improve the shipping facilities at Minudie at an early date, and to provide the necessary rolling stock so that the line can be operated. The total length of the line is 6½ miles, and the Government has paid \$16,000 on account of the subsidy, the remaining \$4,800 being held until the ballasting is completed, and the rolling stock supplied. (May, 1907, pg. 325.)

**Montreal Bridge and Terminal Co.**—Application is being made at the current session of the Dominion Parliament for an act extending the time within which construction may be commenced and completed; and ratifying and confirming agreements made with certain railway companies, and for other purposes. Barnard and Des-saulles, Montreal, are solicitors for the applicants.

The charter, which had been held by the trustees of the estate of the late R. Prefontaine, Minister of Marine, has been purchased by a British syndicate, at the head of which is Lord Templeton, an Irish peer, who is President of the Atlantic, Quebec and Western Ry., under construction in Quebec; and also a director of the Farmers' Bank which has its head office in Toronto. It is stated that the company has engaged Sir Douglas Fox, London, Eng., as Consulting Engineer, and that the proposal to erect a bridge between Montreal and Longueuil will be abandoned in favor of the construction of a double-track tunnel. The cost of such a tunnel, it is said, will be considerably less than that of a bridge. (Oct., 1906, pg. 583.)

**New Brunswick Southern Ry.**—An act has been passed at the current session of the Dominion Parliament, authorizing the company to construct a bridge across the St. Croix River at St. Stephen, N.B.; and declaring the line to be a work for the general advantage of Canada. The object of the construction of the bridge is to secure a connection with the Washington County Ry. (Mar., pg. 183.)

**Newfoundland Short Line.**—H. C. Thomson, who was one of a party of engineers which made a survey in Newfoundland in the fall of 1907, is quoted by a London, Eng., cable as having stated that the result of the survey has been to prove that an easier gradient for a railway through the northern peninsula of the island can be obtained than was thought possible. (Dec., 1907, pg. 889.)

**North Lanark Ry.**—The Ontario Legislature at its recent session passed an act extending the time for the construction of the lines projected. (Feb., pg. 99)

**Nova Scotia Branch Lines.**—A survey has been made by W. A. Hendry, on behalf of the Nova Scotia Government for the construction of a line to connect Port Medway with the H. and S.W.R. main line. The route surveyed extends from the water front to the railway, a distance of about four miles. A good line has been obtained with easy gradients and curvature, which can be constructed at a moderate cost. Port Medway is reported to have one of the best harbors on the south-western coast of the Province, the water being very deep and the harbor well sheltered.

W. A. Hendry recently made a report to the Nova Scotia Government upon the country between Lunenburg and Riverport (formerly Ritcey's Cove), on the east bank of the La Have River, near its mouth, and from Getson's Cove (on the opposite bank of the river) to Port Medway, with a view to the possibility of a railway between these two points. From Lunenburg to Riverport by way of Indian path, a distance of about eight miles, there does not appear to be any important difficulty in the way of railway construction, the greatest height shown by barometer being between 50 ft. and 60 ft. above high water mark, with sufficient distance to overcome it with fairly good grades. The only bridge would be over Cook's Creek, probably of about 80 ft. or 90 ft. span. From Getson's Cove to Petit Rivière, it appears that a line easy of construction could readily be obtained. From Petit Rivière to Broad Cove it will apparently be necessary to divert the line towards the shore as the ground rises too rapidly on the direct route near the main road, then to pass to the north of Broad Cove in order to keep on ground high enough to get a practicable grade over the high land west of Broad Cove. From Vogler's Cove to Port Medway the ground seems quite favorable, and a connection could be made with the H. and S.W.R. near the head of Port Medway harbor between county line and Medway stations. The distance from Getson's Cove to the suggested junction is about 21 miles.

**Ontario, Sault Ste. Marie Ry.**—The Ontario Legislature at its current session passed an act declaring that the act of incorporation of the O.S.S.M.R. Co. is valid and operative, notwithstanding any neglect or fault in complying with the provisions of the same, and extending the time fixed for the construction and completion of the line. The preamble of the act declares that "considerable sums of money have been expended in organizing, preparing plans, making surveys, locating the line and for other purposes, but that owing to the state of the money market and to other causes, including the delay in constructing the eastern division of the National Transcontinental Ry., with which the company desires to obtain connection, it has been impossible hitherto to proceed with the construction of the railway; that the company intends to construct and complete the railway at the earliest possible time and has now arranged for such construction, and for the financing of the undertaking."

The company was originally incorporated by the Legislature in 1881, power being

given to construct a railway from near Gravenhurst or at some other point which may be determined upon by the directors, to the French River, thence westerly and northerly to Sault Ste. Marie, and to some point on Lake Superior; and branch lines to Lake Nipissing and Lake Temiskaming. The provisional directors were: J. D. Edgar, H. H. Cook, J. M. Ferris, G. A. Cox, R. Jaffray, J. Holden, W. Gooderham, Jr., Sir W. P. Howland, W. J. Copp, Æ. Irving, and J. M. Williams.

**Orford Mountain Ry.**—The Dominion Government has entered into a contract, under the act granting aid to certain railways, with the O.M.R. Co., for the construction of a line from Bolton line to Mansonville, Que., 7.54 miles. The work was completed and the line put in operation, July 12, 1907. (Feb., pg. 99.)

**Owen Sound and Meaford Ry.**—The Railway Committee of the Board of Trade, Owen Sound, Ont., presented a report April 5, advocating the securing of power by the town to construct a railway between Owen Sound and Meaford, under a traffic agreement similar to that of the Guelph Junction Ry., if it is found to be impossible to secure the construction of the line by either the C.P.R., the G.T.R., or the Canadian Northern Ry. A resolution to this effect was adopted by the Board. (Mar. pg. 183.)

**Pontiac Central Ry.**—The Dominion Senate at its current session has passed an act declaring the projected line of the P.C.R. Co. to be a work for the general advantage of Canada, and authorizing an extension northerly to James Bay, via the Nottaway River valley, and southerly to Brockville. (Jan., pg. 21.)

**Prince Edward Island Ry.**—The Dominion Parliament at its current session voted the following sums for betterments, etc., on the line:

Increased accommodation and facilities along the line.....	\$ 818.75
Steel rails.....	1,250.00
New machinery.....	2,500.00
Spur line and ballast pit.....	3,750.00
Souris—extension of wharf.....	2,312.50
Charlottetown—increased accommodation	32,500.00

The Minister of Railways said in the House of Commons recently that the Government had not decided whether or not to grant the petition of the residents of Clifton, Stanley, and Hope River, P.E.I., for the construction of an extension from the main line to Stanley Bridge or vicinity. Neither had any decision been reached as to whether or not surveys would be made this year with a view to extending the railway system along the north shore of the Island.

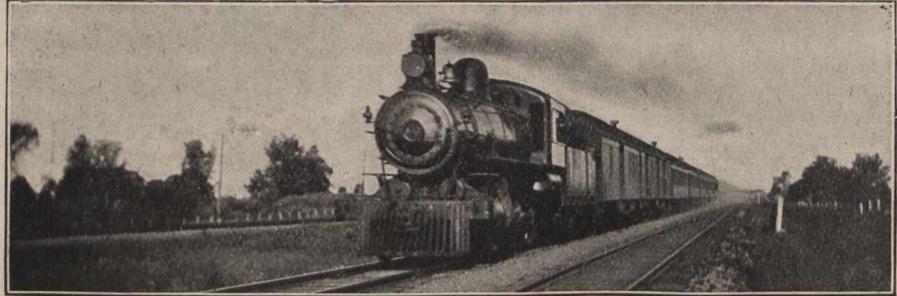
Tenders were received to April 30, by the Resident Engineer, Charlottetown, P.E.I., for the construction of a spur line to a ballast pit at Surrey, P.E.I. (Mar., pg. 183.)

**Quebec and New Brunswick Ry.**—The bill asking for authority to construct a line from near St. Charles Jct., St. Anselme or Chaudière Jct., Que., to the International boundary between Quebec and Maine, near the 13th township of that state, and to make connection with any line in Maine, has been passed by the House of Commons at the current session. (Mar., pg. 185.)

**St. Croix to Lepreaux, N.B.**—Reports from Calais, on the Maine side of the St. Croix River, state that a syndicate has been formed of Canadian and U.S. people for the purpose of constructing a line from St. Croix, on the C.P.R., opposite Vanceboro, Me., to the seacoast near Lepreaux, N.B., a distance of about 60 miles. The harbor at Lepreaux is reported to be deep and safe for the largest vessels, and subject to considerably less rise and fall of the tide than St. John harbor. The shore is further said to have such a formation that it would be necessary to do but little wharf building, because it is solid ledge and goes off so

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abruptly that the ledges have only to be levelled off to become natural wharves. Another report says while the story looks a good deal like a "pipe dream," yet the people along the St. Croix Valley believe there is something in it.

At the 1907 session of the N.B. Legislature an act was passed incorporating the Canadian Terminal Ry. Co., with power to construct a railway from L'Etang harbor to the village of St. Croix, N.B. Incorporation was originally sought under the title of the Canada Atlantic Terminal Co., the provisional directors being: J. S. Clark, J. D. Chipman, G. W. Ganong, H. I. Taylor, H. F. White, G. W. and W. L. E. Marsh. L'Etang is situated at the entrance to Passamaquoddy Bay, and some miles south of St. George, a station on the New Brunswick Southern Ry., and Lepreaux is a station on the N.B.S.R., 23 miles nearer St. John than St. George, and only a few miles from the coast. It is to be the undertaking of the Canadian Terminal Ry. Co. that the report in Calais probably refers. (See Canada Atlantic Terminal Ry., May, 1907, pg. 325.)

**Temiskaming and Northern Ontario Ry.**—The commissioners have taken over from the contractors the completed section of the line between Englehart and Matheson, Ont., a distance of about 67 miles, making a total of about 205 miles under operation. A sale of town lots at Matheson was held by the Commission Mar. 27, when good prices were realized. Track has been laid for a few miles beyond Matheson, but is still in the hands of the contractors. By an arrangement between the contractors—McRae, Chandler and McNeil—for a 40-mile section beyond Matheson, and the Commission, the work has been placed in sole charge of T. S. Scott.

The question of the construction of a spur from Boston station to the Larder Lake district is being urged upon the Commission, and a survey has been ordered with a view of having plans prepared and laid before the Government.

A proposal for the construction of a line from the main line westerly to Sudbury is under consideration. In 1907 application was made to the Ontario Legislature for an act incorporating a company to construct a line from Sudbury to a junction with the T. and N.O.R., but it was refused, on the ground that the Government would possibly take up the construction of such a line. (April, pg. 247.)

The bridge across the Watebeag is reported to have been completed and it was expected that tracklaying northerly would be recommenced April 20.

**Twin Tree Mines Ry.**—Application will be made next session of the New Brunswick Legislature for an act reviving the act incorporating the company, extending the time for construction, changing the names of the incorporators, changing the point of junction with the Intercolonial Ry. to a point between Gloucester Junction and Bathurst stations, and authorizing the continuance of the railway to tidewater at or near Bathurst harbor. G. Gilbert is solicitor for the company.

**White Pass and Yukon Ry.**—It was reported from Whitehorse, Yukon, April 2, that construction had been started upon the projected spur through the copper district. A U.S. press report says that two miles of grading had been completed and 1.50 miles of track had been laid when construction had to be suspended in 1907, owing to cold weather. This report is apparently a repetition of a previous report to which reference was made in our Feb. issue, pg. 101. (April, pg. 247.)

**Winnipeg City Power Plant.**—C. B. Smith, Chief Engineer, reported recently that it was expected the Winnipeg River bridge

would be completed April 1, and that the track would be laid to the Lee Ave. channel by the end of April. If the spans for the bridge at that point were delivered promptly it should be completed by the middle of May. He recommended that the council arrange to purchase the 1,550 tons of 56-lb. steel rails, with the fastenings necessary to complete the line to Point du Bois. It was desired to have the line ready for the contractor to ship his plant to Point du Bois by the end of June, so as to enable him to make an early start upon the actual construction of the power plant. (April, pg. 247.)

**Rolling Stock in International Service.**

The Commissioner of Customs has issued the following memorandum to collectors of Customs:

"Regulations by the Minister of Customs in regard to locomotives and railway passenger, baggage and freight cars running upon any line or road crossing the frontier, as provided in item 595 of the Customs Tariff, 1907, in effect Dec. 1, 1906, as approved by order-in-council.

"Foreign-built locomotives, not owned or leased by any railway company in Canada, may be used duty free on a continuous route crossing the international frontier between a place in the United States and the first Customs port on such route in Canada, or to or from the termination in Canada of what is technically known as the (usual) 'run' of the locomotive if it is beyond the limits of such port.

"Foreign-built passenger cars, sleeping cars and dining cars, not owned or leased by any railway company in Canada, may be used duty free on a continuous route crossing the international frontier while on a through run between a place in the U.S. and the terminus of such run in Canada.

"Foreign-built railway freight and baggage cars, not owned or leased by any railway company in Canada, may be used duty free on a continuous route crossing the frontier while employed (empty or laden) internationally on a through run between a place in the U.S. and a place in Canada.

"Railway rolling stock built in Canada, or which has once paid duty therein, may thereafter pass duty free in Canada.

"Rolling stock owned or leased in Canada, but which has been built outside of Canada and imported into Canada, is not exempt from duty under the foregoing regulations, provided, that the Minister of Customs may by a further order or regulation exempt from duty a portion of the rolling stock for use in international traffic, when it is established to his satisfaction that such rolling stock is owned by a company operating railways in Canada and in the U.S. under the same name, and that the rolling stock of such railway is marked and held in each country under the same name.

"Every railway company in Canada importing locomotives and cars shall deliver to the Department of Customs, from time to time as required, true statements, verified under solemn declaration of an officer of the company having knowledge of the facts, showing the quantity and value of rolling stock owned or leased by such railway company, and which has been built outside of Canada and imported into Canada.

"Note.—The rolling stock of U.S. railway companies has been permitted in the past to carry local goods from one place in Canada to another while on their journey going or returning across the frontier. This concession, however, is not to be permitted to degenerate into an abuse in serving as a cover for the free importation of foreign-built railway cars into the domestic traffic of Canada."

**Canadian Northern Ry. Earnings, etc.**

Gross earnings, working expenses, net profits, increases or decreases over 1906-07, from July 1, 1907:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July..	\$1,024,300	\$ 662,300	\$ 362,000	\$420,500+
Aug..	835,600	619,200	216,400	240,700+
Sept..	758,300	549,200	209,100	133,900+
Oct..	931,200	621,300	309,900	116,100+
Nov..	957,400	689,100	268,300	215,700+
Dec..	801,100	558,400	242,700	264,900+
Jan..	578,200	462,500	115,700	226,800+
Feb..	485,600	401,900	83,700	152,400+
Mar..	625,300	453,400	171,900	136,500+
	\$6,997,000	\$5,017,300	\$1,979,700	\$1,907,500+

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

Gross earnings, working expenses, net profits, increases or decreases over 1906-7, from July 1, 1907:

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	\$7,008,274.46	\$4,501,421.80	\$2,506,852.66	\$135,041.58+
Aug.	7,010,177.40	4,439,902.25	2,570,275.15	107,695.95+
Sept.	6,423,452.68	4,272,099.33	2,151,353.35	286,578.28-
Oct..	7,071,047.59	4,390,729.95	2,680,317.64	104,509.87-
Nov.	6,953,967.56	4,508,933.35	2,445,034.21	181,911.27+
Dec.	6,418,576.38	4,341,386.80	2,077,189.58	188,404.76-
Jan..	4,498,506.80	3,874,569.02	623,937.78	75,664.17+
Feb..	4,129,044.09	3,771,947.48	357,096.61	264,891.51-
	\$49,513,100.96	\$34,100,989.98	\$15,412,110.98	\$344,071.45-

Approximate earnings for Mar., \$5,374,000, against \$6,093,000 for Mar., 1907.

**DULUTH, SOUTH SHORE AND ATLANTIC RY.**—Operating revenue for Feb., \$186,934.28; expenses, \$149,293.10; net revenue, \$37,641.18; other income, \$3,679.55; interest on bonds, \$71,641.67; taxes, \$15,500.00; other expenses, \$4,744.80; deficit, \$50,565.74; against \$210,250.41, operating revenue; \$169,103.31, expenses; \$41,147.10, net revenue; \$4,193.66, other income; \$71,641.67, interest on bonds; \$15,000.00, taxes; \$4,645.97, other expenses; \$45,946.88, deficit for Feb., 1907. Total operating revenue for eight months ended Feb. 29, \$2,117,189.53; expenses, \$1,585,146.35; net revenue, \$532,043.18; other income, \$60,046.39; interest on bonds, \$573,133.34; taxes, \$129,491.86; other expenses, \$77,278.17; deficit, \$187,813.80; against \$2,092,522.85, operating revenue; \$1,429,480.72, expenses; \$663,042.13, net revenue; \$47,000.95, other income; \$573,133.34, interest on bonds; \$112,560.05, taxes; \$40,069.01, other expenses, and \$15,719.18, deficit for same period 1906-07. Approximate earnings for Mar., \$218,698, against \$259,384.

**MINERAL RANGE RD.**—Operating revenue for Feb., \$57,340.13; expenses, \$58,386.90; deficit, \$1,046.77; other income, \$260.12; interest on bonds, \$6,946.67; taxes, \$3,000.00; other expenses, \$160.41; deficit, \$10,893.73; against \$59,394.73, operating revenue; \$54,596.62, expenses; \$4,798.11, net revenue; \$94.05, other income; \$6,946.67, interest on bonds; \$3,000.00, taxes; \$3,323.43, other expenses; \$8,377.94, deficit for Feb., 1907. Total operating revenue for eight months ended Feb. 29, \$536,683.22; expenses, \$446,531.94; net revenue, \$90,151.28; other income, \$2,992.01; interest on bonds, \$55,573.34; taxes, \$26,191.08; other expenses, \$15,527.84; deficit, \$4,148.97; against \$507,504.35, operating revenue; \$380,055.16, expenses; \$127,449.19, net revenue; \$2,285.26, other income; \$55,573.34, interest on bonds; \$24,049.97, taxes; \$19,064.67, other expenses; and \$31,046.47, surplus for same period 1906-07. Approximate earnings for Mar., \$65,703, against \$69,360 for Mar., 1907.

**MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.**—Receipts for Feb.; freight, \$482,401.71; passengers, \$136,452.66; mails, \$28,484.60; express, \$15,000.00; telegraphs, \$3,396.92; miscellaneous, \$14,629.26; total, \$680,365.15. Operating expenses: Maintenance of way and structures, \$73,118.92; equipment, \$105,532.94; traffic expenses, \$16,556.28; transportation, \$300,994.70; general, \$16,129.25; total, \$512,332.09; against, \$504,531.65; freight; \$145,897.21; passenger; \$24,074.11; mails; \$15,000.00; express; \$5,099.34; telegraphs; \$8,076.90; miscellaneous; \$702,339.21, total receipts; \$127,206.00, maintenance of way and structures; \$117,997.87; equipment; \$313,631.80, transportation; \$19,759.51, general; \$578,595.18, total expenses, for Feb., 1907. Receipts for eight months ended Feb. 29; Freight, \$5,668,742.60; passenger, \$1,909,199.23; mails, \$195,726.64; express, \$123,225.85; telegraphs, \$41,105.50; miscellaneous, \$277,783.87; total, \$8,215,783.69. Operating expenses: Maintenance of way and structures, \$899,576.34; equipment, \$950,978.00; traffic, \$156,539.05; transportation, \$2,835,990.81; general, \$130,850.54; total, \$4,973,935.74; against, \$5,880,415.32, freight; \$1,823,169.12, passenger; \$188,252.44, mails; \$128,317.67, express; \$54,508.85, telegraphs; \$134,502.52, miscellaneous; \$8,209,165.92, total receipts; \$940,243.52, maintenance of way and structures; \$894,045.29, equipment; \$2,580,489.01, transportation; \$157,595.76, general; \$4,572,343.58, total expenses, for same period, 1906-07. Approximate earnings for Mar., \$956,406, against \$962,424 for Mar., 1907.

**Grand Trunk Ry. Earnings, Expenses, etc.**

Approximate earnings for March, \$3,057,944, against \$3,571,270 for March, 1907.

The C.P.R. Division Engineer, Winnipeg, received tenders, April 20, for the construction of a Y.M.C.A. building at Kenora, Ont. ■

# BALDWIN LOCOMOTIVE WORKS

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One American type with cylinders 18" x 24", standard gauge.

#### FOR LOGGING SERVICE:

Two six-coupled double-ender locomotives with cylinders 15" x 20", standard gauge.

#### FOR SWITCHING SERVICE:

One four-coupled locomotive with cylinders 18" x 24", standard gauge.  
One six-coupled locomotive with cylinders 18" x 24", standard gauge.  
Two six-coupled locomotives with cylinders 21" x 26", standard gauge.

#### FOR FREIGHT SERVICE:

One ten-wheeled type with cylinders 18" x 26", standard gauge.  
One ten-wheeled type with cylinders 18" x 24", standard gauge.  
One consolidation type with cylinders 28" x 32", standard gauge.  
Three consolidation type with cylinders 20" x 24", standard gauge.  
One consolidation type with cylinders 19" x 24", standard gauge.

#### FOR SWITCHING AND CONTRACTORS' SERVICE:

Ten tank locomotives with cylinders 10" x 16", three feet gauge.  
One six-coupled double-ender locomotive with cylinders 17" x 20", three feet gauge.

Full particulars and specifications of any of the above locomotives will be furnished on application.

**BURNHAM, WILLIAMS & CO., Philadelphia, Pa., U.S.A.**

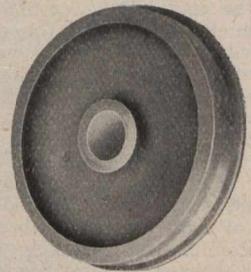
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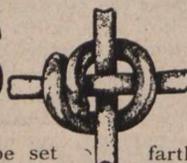
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**C. P. R. Betterments, Construction, Etc.**

**Atlantic Division Bridges.**—Tenders are under consideration for concrete substructures for bridges as follows: Five piers and one abutment at bridge 53.7; and one pier at bridge 54, Woodstock section, and for an 8 ft. concrete arch, 185 ft. long, on the Edmundston branch, at Rideout brook, near Ortonville, N.B.

**Fredericton to Minto.**—Press reports from St. John, N.B., state that consideration is being given to a project to construct a branch from Fredericton to the Queens County coal mines near Minto, N.B. The company is reported to be applying to the Provincial Government for some coal areas there, with a view of developing them in order to ensure a supply of coal for its locomotives.

**Northern Colonization Ry.**—Application is being made to the Board of Railway Commissioners by the C.P.R., as lessee of a spur N.C. Ry., for authority to construct a spur line in Campbell tp., Labelle County, Que., to have a length of 3,385 ft., together with certain other tracks required in the station grounds and a Y.

Construction is in progress upon the extension from Nominigou to a junction with the Ottawa, Northern and Western Ry., at the Maniwaki, Que. Six miles of grading has been completed on the first ten mile section out of Nominigou, and grading has been started on the next section, mileage 10 to 35.

**Lake Temiscamingue Colonization Ry.**—A deputation from Ville Marie, Que., and the surrounding district, recently waited upon C.P.R. officials at Montreal to urge the extension of this line from the wharf at Temiscamingue, Que., to Ville Marie, or other convenient point on the Quebec shore of Lake Temiskaming, so as to give accommodation to a well-settled district.

**Montreal-Toronto Second Track.**—Considerable progress has been made with the construction of the second track on the line between Montreal and Toronto. The work is being proceeded with as far as Smith's Falls, Ont., and on the 50-mile section from Finch westerly, track is reported to have been laid upon 29 miles.

**Improvements at Brockville, Ont.**—During the recent inspection of the company's line between Montreal and Toronto by D. McNicoll, First Vice-President, a deputation from Brockville called attention to the state of the company's property there. As a result of the discussion, Mr. McNicoll promised that the deepening of the tunnel through the town to the water front and other improvements suggested would be given every consideration.

**Berlin, Waterloo, Wellesley and Lake Huron Ry.**—Application is being made to the Board of Railway Commissioners for a recommendation to the Governor-General-in-Council for the sanction of a lease of this projected railway to the C.P.R., for 99 years from Jan. 1, 1908. (Sept., 1904, pg. 311).

**Hamilton and Guelph Junction Ry.**—The question of the construction of the projected line was discussed between D. McNicoll, Vice-President C.P.R., and S. D. Biggar, K.C., and W. J. Grant, Hamilton, representing the H. and G.J.R. Co., April 6. Mr. Grant states that the line will be constructed as soon as the question of the right-of-way through the north-east section of the city has been settled with the Guelph City Council. As soon as this matter is settled the C.P.R. will provide the funds necessary for construction. The Hamilton city by-law granting a right-of-way was given three readings some time ago, but a difficulty arose in connection with the crossing of the Toronto, Hamilton and Buffalo Ry., and nothing further was done. This has now been arranged and it is under-

stood that the by-law will be signed at an early date. The Guelph City Council has undertaken to deal at once with the question of the right-of-way through the north-eastern section of that city to the station.

**The Walkerton and Lucknow Ry.,** which has been under construction for a couple of years from Proton, on the Toronto-Owen Sound line, to Walkerton, Ont., is reported to be practically completed. A spur line has been graded from Hanover to Brant, for the convenience of the Durham Cement Co. Surveyors have been looking over the ground recently with a view, it is said, of locating a line from Hanover to Southampton, via Elmwood, Chesley, Paisley and Port Elgin.

**St. Mary's and Western Ontario Ry.**—G. E. Hyde, Assistant Chief Engineer, reports that the surveys for the extension of the line from St. Mary's to Sarnia, Ont., have been completed so far as the field work is concerned. The surveys have been in progress since Dec. 10, 1907, and in the 90 working days the men were out the party actually surveyed 264 miles, or about three miles a day. Three lines were run to Sarnia, the first by way of Kirkton, Elmville, Exeter, Crediton, Thedford and Forest to Sarnia; the second line passing through practically the same municipalities only a little to the south of the first one, and the third line was what is known as the south line, passing through or near Granton, Lucan, Ailsa Craig, Parkhill and Arkona to Sarnia. The south line was about three miles shorter than the north one, and the crossing of the Au Sable River was a better one. The office force is now engaged in working out detailed estimates of the cost of the three lines for submission to the directors.

The taxpayers of St. Mary's have passed a by-law authorizing the town council to hand over \$40,000 of debentures to the company as a bonus towards the construction of the railway. Application has been made to the Sarnia municipal corporation for aid in a similar way towards the construction.

**Toronto-Romford Line.**—The finishing touches are being given to the sections of the Bolton-Romford line between Bala and Romford, which had not been completed when work closed down at the end of 1907, and everything is expected to be in order for the putting on of a regular train service June 15.

**Georgian Bay and Seaboard Ry.**—About 78% of the grading has been completed on the section of this line under contract between Victoria Harbor and Coldwater on the Toronto-Romford line, about 13 miles. The grading is expected to be completed, and track laid during the current season. The Toronto Construction Co. has the contract, and the work is being done under the charge of J. G. Sullivan, Manager of Construction, Toronto.

**Moose Jaw Northerly.**—Work is reported suspended upon the line under construction from this point towards the branch from Lacombe, Alta., the C.P.R. having notified the contractor that it did not propose proceeding further with the work. J. D. McArthur was given a contract in Aug., 1907, for the grading of 50 miles beyond the end of steel, and is reported to have sent in a considerable amount of plant during the winter.

A letter from the office of the Second Vice-President to the Moose Jaw Board of Trade, April 15, said the grading work on the extension has merely been deferred to permit the company concentrating its efforts on completing the lines now building in the Northwest, and which include the completion of the line for the first 50 miles northwest of Moose Jaw, fit for operation.

**Lethbridge to MacLeod, Alta.**—The C.P.R. has let a contract to Jause and McDonnell

of MacLeod, for the construction of a new line between these two points. The existing line is 38.66 miles, with a gradient of 1% not compensated, and a curvature of 7° 30', while the new line will be 35.24 miles, with a gradient of 0.4% compensated and 3° of curvature. The country through which the line will pass is described as "bald head prairie," and the estimated cost of construction is put at \$15,000 a mile. Work is to be commenced at once and it is expected to have the line completed this season.

**Saskatchewan-Alberta Surveys.**—Press reports state that the C.P.R. is making surveys in connection with some new construction projects in Saskatchewan and Alberta. A party under the charge of — McMullen recently left Weyburn, and proceeded westerly and northwesterly in the direction of Swift Current. From Swift Current the party went south of the main line and south of the Crow's Nest Pass branch to Lethbridge; thence proceeding northerly they crossed the main line, reaching Sedgwick, and thence proceeded to Edmonton. The work so far has been of a preliminary character.

**Weyburn to Stoughton.**—A petition has been sent to the directors asking for the extension of the line from Weyburn, Sask., westerly for about 45 miles.

**Manitoba and Northwestern Ry.**—The line between Lanigan and Asquith, via Saskatoon, Sask., has been inspected by the Government engineers, and was reported ready for passenger service, Mar. 30. Some difficulty has been experienced in getting a supply of water for locomotives, and press statements are made to the effect that a regular train service will not be put on for some time yet.

**Greenwood, B.C.**—A contract has been let to W. P. Tierney & Co., Nelson, B.C., for the filling in of several large trestles between Castlegar and Cascade, B.C., and for the reconstruction of the Mother Lode spur. The bridge filling is to be completed this season, and will practically eliminate all bridges on the Columbia-Western section of the company's line.

**Kettle Valley Lines.**—Local reports at Grand Forks, B.C., state that the C.P.R. has or will shortly take over the lines and charters of the companies operated as the Kettle Valley Lines, and that construction of the extension up the north fork of the Kettle River will be resumed.

**Hardy Bay, B.C.**—A press report recently stated that the C.P.R. had bonded for \$500,000 a large acreage of water front at Hardy Bay, on the north of Vancouver Island, for the purpose of constructing a terminal station there in connection with a new line across the province through the Yellowhead Pass. The company's officials in Vancouver say there is no truth in the report.

**Esquimalt and Nanaimo Ry.**—Construction has been started on a spur to connect the present station with the property recently acquired by the C.P.R. for terminal purposes on Chatham St., Victoria. The buildings on the site are being cleared preparatory to tenders being asked for the erection of new freight sheds. The work under way or contemplated during the current year includes the replacing of 11 wooden bridges, five by steel spans on concrete abutments, and six by embankments and concrete culverts for waterways; 40 miles of wire fencing to replace old fences; and the construction of two spurs; the construction of 1,038 ft. of concrete pipes to replace wooden box culverts.

Plans have been filed in the local registry office for the projected extension from Dunsmuir to Cowichan Lake, about 22 miles. The located route follows the Cowichan River valley closely, and will open up a well-tim-

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New mines at Moose Mountain, Ontario;  
New pulpwood areas and waterpowers,  
New town at Latuque, and  
New country beyond Lake St. John, Quebec;  
New mines at Mattawin and Atikokan, with furnaces at Port Arthur;  
New railway along the South Shore of Nova Scotia;  
The West—Without limit for the landseeker, and all who supply his needs.  
Inquiries on these points to the Industries Dept., Head Office, C.N.R. Bldg., Toronto.

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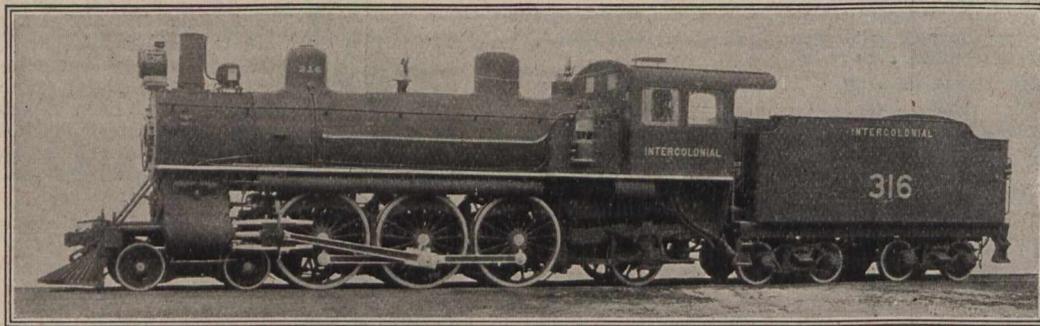
There will be a Canadian Northern exhibit from six Provinces at the Sportsmen's Shows at Toronto (March 21-28) and at Montreal (April 4-11).

Four hundred miles in Nova Scotia. Six hundred in Quebec. Two hundred in Eastern Ontario. Three hundred between Lake Superior and Lake of the Woods. All three Prairie Provinces.

For Hunters and Fishermen who cannot attend the Shows there is plenty of information for the asking.

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bered country. The plans have been approved by the Board of Railway Commissioners, and it is expected that the route will be cleared during the present summer.

**International Boundary to Seattle, Wash.**—Representatives of an English syndicate have been in Montreal negotiating with the C.P.R. officers with a view of obtaining a guarantee of bonds for the construction of a railway from Seattle, Wash., to the International boundary, where connection would be made with the C.P.R.

### Railway Rolling Stock Notes.

The G.T. Pacific Ry. has received four passenger locomotives from the Montreal Locomotive Works.

The Dominion Parliament, at its current session, voted \$8,937.50 on account of rolling stock for the Prince Edward Island Ry.

O'Brien and Mullarkey, contractors, Montreal, have ordered a 3-ft. gauge contractors' locomotive, with cylinders 9 ins. by 14 ins., from H. K. Porter Co., Pittsburg, Pa.

The Toronto, Hamilton and Buffalo Ry., between Mar. 15 and April 15, received one switching locomotive, and one freight locomotive from the Montreal Locomotive Works.

The Temiskaming and Northern Ontario Ry., between Feb. 13 and April 13, received the following additions to rolling stock: 5 ten-wheeled locomotives from the Canadian Locomotive Co., Kingston, Ont.; 4 vans, 1 spreader and 3 unloaders.

The Intercolonial Ry., between Mar. 13 and April 13, received 2 consolidation locomotives from the Canadian Locomotive Co., Kingston, Ont.; 8 passenger locomotives from the Montreal Locomotive Works, and a further consignment of box cars from the Crossen Car Mfg. Co., Cobourg, Ont.

The Hart-Otis Car Co., Montreal, has received orders for 17 forty-ton Hart convertible cars, 34 ft. long, and one Rodgers double plow distributing car for use on the McRae, Chandler and McNeill contract on the Temiskaming and Northern Ontario Ry.; and have sold one Rodgers double plow distributing car to M. P. & J. T. Davis, contractors on the National Transcontinental Ry.

The Dominion Parliament at its current session voted the following sums for the Intercolonial Ry.: For rolling stock, \$193,750 and \$80,000; for providing air brakes to and freight cars, \$2,625; to exchange draw bars on freight cars, \$3,875; for providing side ladders on box cars, \$1,250; for providing air brake equipment, \$1,312.50; for providing Pintsch gas apparatus, \$312.50.

The C.P.R., between Mar. 13 and April 17, placed the following orders for rolling stock: 2 double-track snowplows, 48 flat cars, 4 freight refrigerator cars, 1 passenger refrigerator car, 1 sample coal car, 13 stock cars, 1 standard snowplow, 1 baggage car, 1 mail and express car, 1 superintendent's business car, 127 box cars, at its Angus, Montreal, shops; 18 vans at its Farnham, Quebec, shops, and 2 Hart-Otis ballast cars at the Dominion Car and Foundry Co., Montreal.

The Canadian Northern Ry., between Mar. 15 and April 15, received the following additions to rolling stock: 3 second-class coaches from the Crossen Car Mfg. Co., Cobourg, Ont.; 2 first-class coaches from Rhodes, Curry & Co., Amherst, N.S.; 50 steel ore cars, and 100 steel underframe flat cars from the Dominion Car and Foundry Co., Montreal, 96 Hart convertible cars from the Hart-Otis Car Co., Montreal, and 4 consolidation locomotives from the Canada Foundry Co., Toronto.

In the discussion on a vote for \$80,000 for rolling stock for the Intercolonial Ry., the Minister of Railways said in the House of Commons recently that the vote was asked

for the purchase of 50 steel coal cars. The railway was badly handicapped for rolling stock for the transportation of coal and the Department bought 50 cars for which there was not a vote. The cars were promised for immediate delivery; they were absolute additions to the stock and not to replace others.

The C.P.R., between Mar. 13 and April 17, received the following additions to rolling stock: 4 locomotives, Pacific type, 4 baggage cars, 24 colonist cars, 139 box cars, 194 flat cars, 31 stock cars, 8 bridge and building dining cars, 8 bridge and building sleeping cars, from its Angus, Montreal, shops; 4 vans from its Farnham, Quebec, shops; 84 Hart-Otis ballast cars from the Dominion Car and Foundry Co., Montreal, and 4 first and 5 second-class Pullman cars for its St. John-Boston service.

Replying to questions asked by R. Blain, M.P., the Minister of Railways stated in the House of Commons recently, that the four motor cars, which were obtained at a total cost of \$68,000, were expected to take care of suburban traffic at places like Halifax, St. John and Moncton. The trouble in connection with the cars was partly the expense of manning and operating them, which cost less in Europe than in Canada. There was no doubt of their practicability: the one at St. John was in use, and the others would be placed in service shortly.

### G.T.R. Betterments, Construction, Etc.

**Ottawa Terminals Ry.**—C. M. Hays, Second Vice-President and W. Wainwright, Fourth Vice-President G.T.R., were in Ottawa April 10, in consultation with the Premier upon the construction of the new Central station at Ottawa. Mr. Hays, in an interview, said the plans were in the hands of E. H. Fitzhugh, Third Vice-President, and the engineer and architect for revision. The plans and specifications were to come before the city council for approval of the revision April 15, but on the previous day a letter was received from Mr. Hays, Manager, asking for a further extension of time until June 1, for submitting revised plans.

The city council at a meeting, April 16, passed a resolution granting an extension of time to May 15 to file the amended plans.

**Kingston, Smith's Falls and Ottawa Ry.**—W. Wainwright, Fourth Vice-President G.T.R., said in Ottawa recently that the G.T.R. was prepared to finance and construct the proposed direct line between Kingston and Ottawa, just as soon as the holders of the charter arranged with the municipalities along the line to pay certain bonuses that had been voted. Some of the municipalities have already promised to renew the bonuses originally promised to the K.S.F. and O.R., while others have the matter still under consideration.

**Port Hope to Midland, Ont.**—Surveys are reported to be in progress for the construction of a second track on the line between Port Hope and Midland, Ont. It is said that the new track will be constructed north of the present line, and in many cases will involve an entirely new line.

**Ashbridge's Bay Spur.**—In connection with the proposal of the Toronto City Council to construct a spur line to Ashbridge's marsh for the accommodation of industrial plants, which it is desired to have located there, the City Engineer says the G.T.R. holds the key to the situation. The city made an offer which W. G. Brownlee, General Transportation Manager, approved, but which was vetoed by Mr. Hays. The only way the C.P.R. could get a line to the marsh was by constructing along the east bank of the Don, and the city had refused permission for this until the grade was raised. The

city council authorized the Mayor to go to Montreal to see if anything could be arranged with the G.T.R.

**Holmedale Switch, Brantford.**—The Mayor of Brantford has received a letter from W. G. Brownlee, General Transportation Manager, with respect to the city's proposal for the construction of a switch to the Holmedale district for the accommodation of the factories. The company's Resident Engineer made a careful survey of the route approved by the council, along St. Paul's Ave. to Duferin Ave., to Morrell St., and thence into the Holmedale district, and reported that it would be impracticable to construct such a line. It would involve a curvature of 13°, and a gradient of 2.71%, or 143 ft. to a mile for a distance of 1,650 ft. The heaviest type of locomotive on a 13° curve could only draw four loaded cars. The company is willing to consider the proposal of another route.

**Stratford Shops.**—Construction has been resumed upon the new buildings at the locomotive shops at Stratford, Ont., so far as the cement work is concerned. The work of erecting the steel framework has been in progress throughout the winter, and is nearly all in position.

**London, Huron and Bruce Ry.**—Press reports state that this line is to be relaid with heavy steel, and that a second track is to be constructed between London and Wingham, Ont., to accommodate the increasing traffic. Another version of this report is that it is only the line from London to Clinton on which the heavier steel is to be placed, and that the line between Clinton and Goderich is to be improved, so as to enable grain to be carried that way instead of via Stratford, as at present. Superintendent Gillen is quoted as saying that there is no intention of diverting any of the grain traffic that now goes through Stratford from Goderich, through London. The distance from Goderich to Paris via London is 109 miles, while via Stratford it is only 77 miles.

**London to Sarnia.**—Work was commenced April 14 on relaying the track between London and Sarnia with new rails. The work will take several months to complete.

**Walkerville Bridge.**—The old bridge across the tracks at Walkerville, Ont., has been taken down, and is being replaced by a new steel bridge large enough to span four tracks. The new bridge was expected to be completed May 1.

**G.T. Western Ry.**—A U.S. press report states that the company has under consideration a project for constructing a loop for the purpose of putting Kalamazoo on its main line between Port Huron, Mich., and Chicago, Ill. (April, pg. 249.)

Press reports state that the C.P.R. will operate three daily trains across the continent this season, against two in 1907.

The location of the office of J. A. Boak, freight agent, Intercolonial Ry., Chicago, Ill., has been changed from 34 Wabash Ave. to 219 Royal Insurance Building.

The Canadian Steel Products Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$40,000, and offices at Toronto, to carry on the business of steel manufacturers, and to conduct smelters, and other facilities necessary for the conduct of the manufacture of steel, and to operate shops and works for the manufacture of machinery, railway equipment, and supplies for steam and other vessels, etc. The provisional directors are: G. Ruel, G. F. Macdonnell, R. Temple, R. P. Ormsby, and E. E. Wells, all of whom are connected with the Canadian Northern Ry., Toronto.

W. S. CALVERT, *President*T. H. HAMILTON, *General Manager*

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## MAINLY ABOUT PEOPLE.

D. McNicoll, Vice-President C.P.R., will probably go to Great Britain in July.

C. M. Hays, Second Vice-President G.T.R., and Mrs. Hays, returned to Montreal from Great Britain, April 2.

C. Lindsey, who died in Toronto, April 12, aged 89, was father of G. G. S. Lindsey, K.C., President Crow's Nest Coal Co.

Mrs. Morrow, wife of Jno. Morrow, C.P.R. Right-of-Way Agent, died in the Royal Victoria Hospital, Montreal, Mar. 22.

Sir Thos. G. Shaughnessy, President C.P.R., sailed on the Empress of Britain from St. John, N.B., April 18, for Liverpool, Eng.

D. J. McKenzie, C.P.R. bridge inspector, Nelson, B.C., was killed near the Cascade, Boundary District, Mar. 26, by a falling derrick.

Miss McNicoll, daughter of D. McNicoll, Vice-President C.P.R., sailed from St. John, N.B., April 18, on the Empress of Britain, for Europe.

Sir Sandford Fleming has presented his property on the north-west arm of the harbor to the city council of Halifax, N.S., for use as a public park.

The estate of the late Sir Henry Tyler, formerly President G.T.R., who died in London, Eng., Jan. 20, has been valued for probate at £162,139.

D. D. Mann, Vice-President Mackenzie, Mann & Co., has been gazetted Honorary Lieutenant-Colonel of the 28th Halton Regiment (Lorne Rifles).

Jno. Creelman, only son of A. R. Creelman, K.C., General Counsel C.P.R., Montreal, will be married in June to Miss Katharine Weekes, of Galveston, Texas.

E. Carr Glynn, a partner of Glynn, Mills, Currie & Co., London, Eng., has been elected a director of the G.T. Pacific Ry. in place of Hon. N. Rothschild, resigned.

J. A. Keir, who has been G.T.R. station agent at St. Mary's and St. Mary's Junction, Ont., since 1885, has been retired under the operation of the pension rules.

Mrs. Renton, wife of G. Renton, travelling locomotive engineer, G.T.R., who was killed in a collision at London, Ont., in Feb., 1907, has been awarded \$5,000 as compensation.

The engagement has been announced of W. Harty, son of W. Harty, M.P., President Canadian Locomotive Co., Kingston, Ont., to Miss E. A. Kerr, daughter of Senator Kerr, Toronto.

Miss A. E. Woollatt, daughter of W. Woollatt, Walkerville, Ont., formerly General Superintendent Lake Erie and Detroit River Ry., was married recently to E. C. Scythes, Toronto.

P. A. Peterson, Chief Engineer Guelph and Goderich Ry., has been presented with an address and gold-headed cane, by the engineering staff under him on the construction of the line.

C. W. Spencer, formerly General Manager Mackenzie, Mann & Co.'s Eastern Lines, Mrs. and Miss Spencer, have returned to Montreal from an extended tour in the U.S. and Western Canada.

K. R. V. Andras, at one time in the G.T.R. employ at London, Ont., and for the last five years with Drummond, McCall & Co., Montreal, died there April 7, after an operation for appendicitis.

H. A. Fissiault, who has been in the Government service since 1860, and who was law clerk of the Department of Railways and Canals for several years, died at Ottawa, April 15, aged 80.

W. Grundy, heretofore chief clerk G.T.R. city ticket office, Toronto, and formerly G.T.R. ticket agent at Toronto Jct., has been

appointed Manager of the Union Stock Yards, Toronto Jct., Ont.

U. Barthe, Secretary of the Quebec Bridge and Ry. Co., has been ordered to pay \$800 damages and costs for libelling a city alderman at Quebec, in his newspaper. An appeal has been entered.

Hon. N. C. Rothschild has resigned his position as a director of the G.T.R., and the G.T. Pacific Ry., on the ground that his business engagements will not permit of his attendance at the meetings.

P. W. and J. R. Thomson, shipowners, St. John, N.B., are provisional directors of the St. John Garage and Motor Co., which has recently been incorporated under the New Brunswick Companies Act.

C. E. A. Carr, formerly Manager of the London, Ont., Street Railway, and latterly Manager of the Helena, Montana, Light, Power and Traction Co., has been elected Managing Director of the Quebec Gas Co.

W. R. Mason, Second Vice-President, and D. W. Hawksworth, Assistant to the Second Vice-President Dominion Car and Foundry Co., Montreal, have resigned, their resignations having taken effect April 1.

C. Fraser was presented with a gold watch and chain by C.P.R. employes at Kenora, Ont., April 5, on retiring from the position of yardmaster there to take up duties as Trainmaster, G.T. Pacific Ry., Saskatoon, Sask.

Mrs. A. Piers, wife of the Manager of the C.P.R. Steamship Department, sailed for England in April, and expects to return to Montreal at the end of the summer, preparatory to leaving Canada to reside in England.

W. W. Goodwin, who has been in the G.T.R. dispatching service at London, Ont., since 1855, and T. Marshall, who has been section foreman at Belleville, Ont., for many years, have been retired under the pension fund rules.

H. R. Charlton, G.T.R. Advertising Agent, is in charge of the arrangements of the company's exhibition at the Franco-British Exhibition to be opened in London, Eng., in May. Mrs. Charlton and family are accompanying him.

T. H. Luscombe, London, Ont., who is connected with the South-Western Traction Co., and other electric railway projects in Western Ontario, was Head Banker of the Woodmen of the World, at the recent biennial conference.

I. Edrado pleaded guilty in Montreal, recently, to sending a letter in the name of the Black Hand Society, to Madame Forget, wife of Senator Forget, President of the Richelieu and Ontario Navigation Co., and was sentenced to a term in jail.

W. Mackenzie, President Canadian Northern Ry., Mrs. and the Misses Bertha and Ethel Mackenzie sailed from New York for Europe April 28. Miss Kathleen Mackenzie remains at Benvenuto, Toronto, where Scott and Mrs. Griffin are guests.

H. Logan, Travelling Freight Agent, Canadian Northern Ry., Toronto, was presented with a cabinet of silver by the C.N.O.R. staff and freight officials of other lines, on April 25, on the occasion of his leaving for Los Angeles, Cal., to marry Miss Solano.

Lieut. W. Middleton, who was in command of the torpedo boat destroyer Tiger, when she was cut in two by H.M.S. Berwick, during manoeuvres off the Isle of Wight, April 2, and who was, with the majority of the crew, drowned, was a son of F. Middleton, of Ottawa, Ont.

Major Swinford, General Agent Northern Pacific Ry., Winnipeg, read a paper on transportation before the Canadian Club, at Edmonton, Alta., recently, in which he gave some most interesting facts respecting the early transportation history of the Canadian Northwest.

The Toronto Board of Trade will entertain Sir Thos. G. Shaughnessy, President C.P.R., to dinner, on the occasion of the opening of the C.P.R. line through the Muskoka country to Sudbury, and the inauguration of the direct C.P.R. train service between Toronto and Winnipeg, in June.

W. H. Rosevear, formerly Car Accountant G.T.R., Montreal, was given a dinner by the Eastern Car Accounting and Car Service Officers at the recent half-yearly meeting in New York, on the occasion of his retirement from railway service. He is a charter member and Past President of the Association.

A. Gordon was presented with two travelling bags filled with silver toilet articles, for himself and wife, on behalf of the Canadian transportation interests, recently, on his retiring from the position of Assistant Manager King Edward Hotel, Toronto, to again become Assistant Manager of the Hotel Victoria, New York.

A. J. Gorrie, Managing Director, George Hall Coal Co., Montreal, and formerly General Superintendent, Canadian Northern Quebec Ry., who recently returned to Canada after visiting in Scotland, was entertained at dinner at Glasgow, before sailing, by a number of former associates connected with the Caledonian Ry.

W. Readman, a sub-contractor on the G.T. Pacific Ry. bridge construction at the crossing of the Battle River in Saskatchewan, was drowned in the river April 17. He jumped in to endeavor to save some of the workmen who had been thrown into the water owing to the upsetting of a scow. Four were drowned as the result of the accident.

D. R. McBain, who was recently appointed Assistant Superintendent of Motive Power, New York Central and Hudson River Ry., east of Buffalo, N.Y., has been presented with a service of silver plate by the motive power staff of the Michigan Central Rd. Mr. McBain was Master Mechanic of the M.C.R. at St. Thomas, Ont., prior to being appointed Assistant Superintendent of Motive Power of the same road, at Jackson, Mich.

Thos. Meaney, who died at Montreal, April 7, was head of the firm of Meaney & Co., lumbermen, Toronto. In early life he was auditor of the old Northern Ry. of Canada, and latterly has been associated with J. and G. Clark, New York, in the development of pulp limits at the Seven Islands, in the Gulf of St. Lawrence, under the charter of the North Shore Power, Ry. and Navigation Co. The company constructed seven miles of railway.

W. E. Waugh, who died recently at Milwaukee, Wis., was for 20 years agent there for the Commercial Express, the G.T.R. fast freight line. He entered railway service on the old Great Western Ry., as telegraph operator at Hamilton, Ont., serving subsequently as train dispatcher at London, and was later on Assistant Superintendent and Trainmaster, Detroit, Grand Haven and Milwaukee Ry., at Detroit, Mich. R. E. Waugh, G.T.R. ticket agent, Stratford, Ont., is a brother.

M. M. Reynolds, who has been appointed fifth Vice-President, G.T.R., and third Vice-President G.T. Pacific Ry., Montreal, was for 11 years prior to Jan., 1892, Auditor, Mexican National Rd., Mexico, at which date he was appointed General Auditor, Central Vermont Ry., St. Albans, Vt., which position he held for a number of years, subsequently returning to Mexico, on the amalgamation of several Mexican railroads under the name of the National Lines of Mexico, as Comptroller.

Capt. C. E. Kingsmill, who has been mentioned in connection with an appointment under the Canadian Government, as Commander of the cruiser fleet, is now the senior captain of the Royal Navy, and will, in the

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THROUGH TRAINS between NEW YORK, TORONTO and CHICAGO via Lehigh Valley R.R. and Niagara Falls.  
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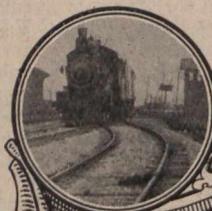
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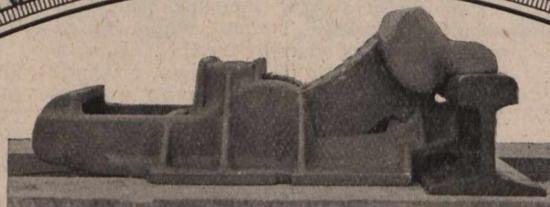
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- The Canadian Roadmasters' Association.
- The Canadian Street Railway Association.
- The Canadian Ticket Agents' Association.
- The Toronto Transportation Club.

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TORONTO, CANADA, MAY, 1908

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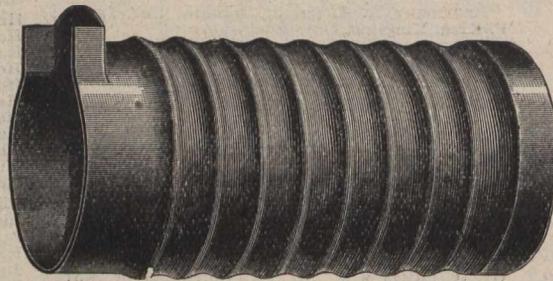
**Names of Government Railways.**—A resolution was submitted to the House of Commons, April 6, to the effect that the names, Intercolonial Ry. and Prince Edward Island Ry., be dropped, and the name Interprovincial Ry. substituted therefor; that the Government system of railways should be considered as one entity in the keeping of accounts and in all other respects; and that the ferry service across the Straits of Northumberland should be owned and managed by the Department of Railways, winter and summer. After a debate the motion was withdrawn.

The York Construction Co., Ltd., has been incorporated under the Ontario Companies Act, with a capital of \$100,000 and offices in Toronto, to construct and equip public and private works of every kind, and to carry on the business of general contractors. W. B. Russel, A. Lothian, C. W. Dill, S. Johnston, and R. H. Parmenter are provisional directors.

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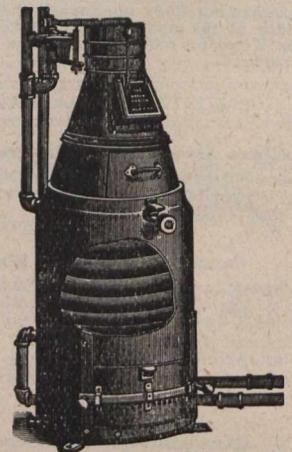
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## MAINLY ABOUT PEOPLE.

(Continued from page 341)

ordinary course, be promoted to the rank of Rear-Admiral in May. He is at present Captain of H.M.S. Repulse, and is in command of a division of special service vessels, stationed at Devonport, Eng. This command he would vacate on promotion to flag rank.

D. E. Brown, who recently resigned his position as General Superintendent C.P.R. Trans-Pacific Steamship Line, at Vancouver, B.C., has, in partnership with H. C. Macaulay, who for the past 10 years has been in mercantile business at Dawson, Yukon, established the firm of D. E. Brown & Co., to carry on, at Vancouver, a general railway and steamship passenger and ticket agency, and also to act as ship and general brokers, loan, investment, lumber, estate and marine and fire insurance agents.

E. Arnold, who has been appointed Freight Claims Agent, G.T.R., Montreal, was born at Kingston, Ont., Aug. 26, 1864, and entered G.T.R. service in the transportation department, Montreal, Nov., 1880. After acting as agent at various points between Montreal and Toronto, he was consecutively, 1886 to 1887, in the local freight department, G.T.R., Detroit, Mich.; 1887 to 1890, at Chicago, Ill.; 1890 to date of present appointment, Lost Freight Agent, Battle Creek, Mich. Entire service with G.T.R.

B. A. Neisser who has been appointed Freight Claims Auditor, G.T.R., Montreal, entered railway service with the M.C.R., in the local freight department, Battle Creek, Mich., 1868; since when he has been, 1878 to 1896, connected with G.T.R. subsidiary lines, as chief clerk claims division, treasury department, at Port Huron and Detroit, Mich. On the amalgamation of the G.T.R. subsidiary lines, with headquarters at Montreal, in 1896, he was appointed chief clerk to the Freight Claims Agent, which position he held up to date of present appointment.

A. E. Rosevear, who has been appointed Assistant General Freight Agent, G.T.R., Montreal, entered G.T.R. service in 1879, since when he has been consecutively: 1880 to 1885, clerk, General Superintendent's office, Montreal; 1885 to 1890, stenographer to General Manager; 1890 to 1892, accountant, G.T.R., West Shore Fast Freight Line, Chicago, Ill., and Detroit, Mich.; 1892 to 1898, accountant Reading Despatch Line, Detroit, Mich.; Oct. 1, 1898, to date of present appointment, Freight Claims Agent, Montreal. Entire service with G.T.R.

Stuart S. Oliver, who has been appointed Engineer of Maintenance, Canadian Northern Quebec Ry., and Quebec and Lake St. John Ry., was born at Quebec, Sept. 9, 1858, and educated at the Quebec High School and Morrin College; studied engineering and land surveying, and was admitted to practice in April, 1880. Employed as an assistant engineer on the Quebec Central, Waterloo and Magog, St. John's and Sorel Railways. In 1886 entered Quebec and Lake St. John Ry. service as assistant engineer; appointed Auditor in 1896, holding that position until his present appointment.

R. W. Drew, who was recently appointed acting General Freight Agent, C.P.R., Kootenay and Boundary districts, Nelson, B.C., was born at Kingston, Ont., Feb. 17, 1874, and entered railway service as clerk in general office, Kingston and Pembroke Ry., May, 1894, remaining with that company as operator and agent at various points until May, 1896; since when he has been: June, 1896, to Sept., 1898, clerk C.P.R., Arrowhead, B.C.; Sept., 1898, to April, 1903, local agent C.P.R., Nelson, B.C.; April, 1903, to date of present appointment, chief clerk General Freight Agent's office, Nelson, B.C.

C. Drinkwater, Senior Assistant to the President, C.P.R., in charge of the company's parliamentary work, died in Montreal April 23, of pneumonia, after only a week's illness. He was born Nov. 17, 1843, and entered railway service in 1859, as clerk with the Manchester, Sheffield and Lincolnshire Ry., now the Great Central Ry., subsequently transferring to the Great Northern Ry. in 1861. Coming to Canada in 1864, he acted for ten years as secretary to the late Sir John A. Macdonald, after which he was from 1874 to Feb., 1881, chief assistant to the Managing Director G.T.R., and from Feb., 1881, to Mar. 1908, Secretary C.P.R. On May 1, 1901, he was also appointed Assistant to the President, holding the combined offices until Mar., 1908, when he relinquished the position of Secretary, in order to devote himself to the company's parliamentary interests, with the title of Senior Assistant to the President.

John Torrance, who died at Montreal, April 6, aged 72, was the son of D. Torrance, who was a steamship agent there when the port of Montreal was in its infancy. He entered business life with the firm of D. Torrance & Co., and subsequently became its principal. During his connection with marine interests, he held many offices, being elected a Harbor Commissioner in 1894, and again the following year, and in 1899, serving nine years altogether in that capacity, after which he was associated with the Commissioners in their various tours of inspection of maritime and lake ports both in Canada and the U.S. He was also Canadian manager and agent for the Dominion Line Steamships, plying between Canada and Great Britain, from the initiation of the service down to his retirement from active business life in 1905. He is survived by a widow and two sons, one of whom is local manager of the Dominion Line at Portland, Me., while G. Torrance, freight agent, same line, Toronto, is a brother.

C. A. Hayes, who has been appointed General Freight Agent, G.T.R., Montreal, was born at West Springfield, Mass., Mar. 10, 1865, and entered railway service 1882, since which his record has been: 1882 to 1884, clerk Freight Auditor's office, Connecticut River Rd., now Boston and Maine Rd.; 1884 to Oct., 1887, similar position Boston and Lowell Ry., at Boston, Mass.; Oct., 1887, to Nov., 1890, clerk in office of General Freight Agent, Boston and Lowell Ry., and its successor, the Boston and Maine Rd.; Nov., 1890, to June, 1892, General Freight and Passenger Agent, Central New England and Western Ry., at Poughkeepsie, N.Y.; June, 1892, to Oct., 1892, Division Freight Agent, Philadelphia and Reading Rd. while it had control of the C. N.E. and W. Ry. at Hartford, Conn.; Oct., 1892, to June, 1896, New England Agent National Despatch Line at Boston, Mass.; June, 1896, to July, 1899, New England Agent and Acting General Manager National Despatch Line at Boston; July, 1899, to May, 1903, Manager National Despatch Great Eastern Line, Buffalo, N.Y.; May, 1903, to April, 1908, Assistant General Freight Agent, G.T.R., Chicago, Ill.

J. E. Dalrymple, who has been appointed Assistant Freight Traffic Manager, G.T. Pacific Ry., Winnipeg, and whose portrait appears on the first page of this issue, was born in Montreal, Jan. 1, 1869. He entered railway service as apprentice in the Treasurer's office of the G.T.R., July 1, 1883, in which office he served until 1890 in various capacities, and finally as correspondence clerk. He left Montreal April 1, 1890, and entered the service of the Chicago and G.T.R. at Chicago, as Secretary to Traffic Manager Reeve. On Feb. 1, 1896, he was appointed Secretary to General Traffic Manager Reeve, of the G.T.R. System at Montreal. On May 1, 1899, he was appointed Division Freight Agent, G.T.R., at

Hamilton, Ont. On Aug. 1, 1899, he was appointed Division Freight Agent, G.T.R., at Detroit, also Manager of the G.T. Despatch, a fast freight line operating over the G.T. Ry., West Shore Rd. and Fitchburg Rd. On May 1, 1900, he was appointed General Freight Agent of the Central Vermont Ry., and was subsequently made assistant to the General Manager G.T.R., when G. B. Reeve was appointed to that office in 1902, returning to the Central Vermont Ry. as General Freight Agent on the return of C. M. Hays to the G.T.R. in 1903, which position he held until his appointment as General Freight Agent G.T.R., Montreal, Aug. 14, 1905.

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

## Canadian Freight Association.

At the annual meeting at Montreal April 16, the following were elected: President, J. F. Chapman, General Freight Agent, Bay of Quinte Ry., Deseronto, Ont.; 1st Vice-President, J. J. Mossman, General Agent, Wabash Rd., Buffalo, N.Y.; 2nd Vice-President, M. H. Brown, General Freight Agent, C.P.R., Toronto.

Advisory Committee—W. R. MacInnes, J. Pullen, G. C. Ransom.

Executive Committee—W. B. Bulling, J. J. Mossman, J. E. Dalrymple.

Classification Committee—W. B. Bulling, S. P. Howard, F. J. Watson, C. E. Dewey, W. M. Kirkpatrick, H. E. Macdonald, W. Phillips, J. E. Dalrymple, L. Macdonald.

Freight Inspection Committee—R. A. Carter, F. Conway, F. F. Backus, M. H. Brown, S. P. Howard, G. Tombs, R. W. Long, J. Paul, J. F. Chapman, W. B. Bamford.

A resolution was passed expressing the Association's profound regret at the untimely death of A. C. Killam, Chief Railway Commissioner, and its deep sense of the loss thereby sustained by the railway interests, and stating that by his high sense of honor and fairness, together with his great ability and vast knowledge of all matters with which he dealt, he was looked up to and honored by every member of the Association.

It is understood that the Association's summer meeting will be held at Portland, Me.

The C.P.R. has announced that it will put in operation a through train service between Toronto and Winnipeg over its direct line, via Sudbury, Ont., commencing June 15. The new train will be known as the Toronto Limited, and will make the run in 36 hours.

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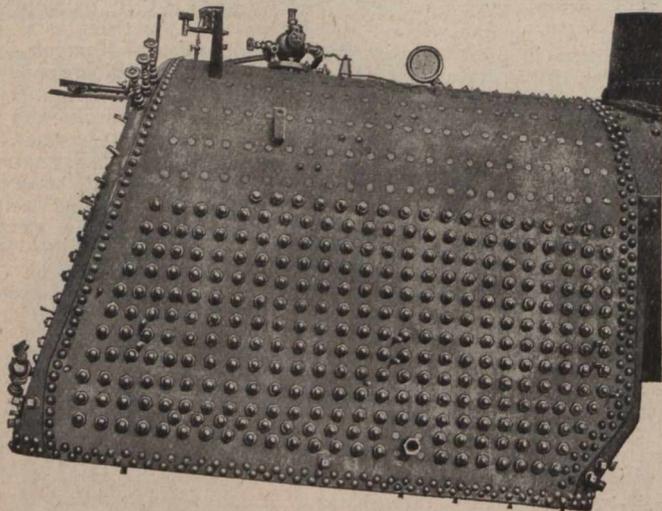
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### National Transcontinental Railway.

The Dominion Parliament at its current session voted \$3,750,000 on account of surveys and construction; \$250 as remuneration of A. Brunet, Government director G.T. Pacific Ry. Co., and \$3,500 on account of inspection of the G.T. Pacific Ry.

In a recent speech in the House of Commons the Minister of Railways said the length of the Government section of the line from Moncton, N.B., to Winnipeg, Man., was 1,807 miles, and with the exception of about three or four miles at the entrance to the Winnipeg terminals, and a few points where revision may be made of the present location to reduce gradients, and distances on work, the location surveys had been completed. The necessary rails and fastenings covering the portions of the line under contract, excluding the 365 miles placed under contract at the end of March, had been arranged for, and a large portion delivered. The ties for the 150 miles west of the St. Lawrence River and the 245 miles easterly from Winnipeg, had been contracted for and large deliveries had been made. The ties for the other contracts previously let were included in the contract for grading. Contracts for the steel bridges required on the 150 miles westerly and 50 miles easterly of the St. Lawrence River, and for the 245 miles easterly from Winnipeg, were all entered into and considerable progress had been made for the manufacture and erection of the same. Replying to a question in the House of Commons, April 14, the Minister of Railways said contracts had been let for the whole distance from Moncton, N.B., to Weymontachene, Que., 193 miles west of Quebec, and 656 miles west of Moncton. Between Weymontachene and Winnipeg, 1,147 miles, there were under contract 571 miles, the gaps being: from Weymontachene westerly for 221 miles; from Lake Superior Junction east, 148 miles; and from the section to be constructed east and west of the Temiskaming and Northern Ontario Ry. westward, 204 miles. The estimated cost of the sections under contract was \$44,389,393, and of the sections not under contract, \$19,030,173. The average estimated cost of the sections under contract was a little over \$36,000 a mile.

With respect to the contracts recently awarded, it is reported that the section between the Tobique River and Grand Falls, N.B., 31.5 miles, let to the Willard Kitchen Co., covers the heaviest work east of the Rocky Mountains. There is a good deal of rock cutting on the work, and the engineering features include the construction of a tunnel over 1,000 ft. long through rock; long bridges over the Salmon and Tobique rivers, and the disposal of a lake. A number of sub-contracts will be let.

The St. John, N.B., Board of Trade has passed a resolution bringing before the Government the importance of St. John as a port, and urging the necessity of the construction of a branch line to connect it with the Transcontinental Railway at Chipman or Woodstock. The Board is desirous of St. John having the same treatment as it is proposed to give to Montreal. A deputation from the latter city waited on the Government, Mar. 31, to urge the immediate construction of a line to give connection with the N.T. Ry., and the Premier in reply admitted that the line would not be complete without a connection with Montreal. The Government, however, had many large works in hand and was being urged to undertake others—additional railways and the Georgian Bay canal. The proposed works could not be undertaken without full consideration, but the present Parliament did not expire for 18 months, so there was plenty of time for the Government to deal with the question and to enter into contracts before the elections came on.

### GRAND TRUNK PACIFIC RY.

The Minister of Railways made a statement in the House of Commons recently with respect to the work done upon the main line of the G.T.P.R. The information practically covers the position of construction when work was suspended for the winter, and is as follows:

**GRADING, CULVERTS AND WOODEN BRIDGES**—From mileage 0 to 13. No grading has been done, the work is very light, merely surfacing. From mileage 13 to 650. The grading is practically completed, merely a few narrow cuttings remaining to be widened, and a few embankments not yet fully brought up to grade level, to be completed. The culverts and wooden structures are about completed. From mileage 650 to 796. Considerable grading has been done in patches, aggregating about 54 miles. There, however, yet remain about 1,750,000 cubic yards of excavation to be done to complete the grading. A large proportion of the culverts are built and the pile foundations of about 75 per cent. of the bridges are driven.

**STEEL BRIDGES.**—Mileage 45. The Assiniboine River is to be crossed by a steel bridge 415 ft. long, 34 ft. high, one span of 255 ft. and two spans of 80 ft. each. The concrete piers are in course of construction, one having been completed and three others being worked upon, but not far advanced beyond the excavation of foundation, which is completed. At mileage 469. The South Saskatchewan River is crossed by a steel bridge 1,497 ft. long and 74 ft. high; of one span 50 ft., one of 127 ft., one of 175 ft. and five of 229 ft. The concrete piers and abutments are completed, and the steel superstructure is delivered at the site of the structure. Two spans are erected and the work of erection is being continued. At mileage 675. The Battle River is to be crossed by a steel bridge 2,770 ft. long and 180 ft. high. The work is in progress on the concrete piers, pedestals and abutments, of which there will be two piers, 100 pedestals and two abutments. Many of the foundations are excavated, but concreting may be said to have only just been commenced. Work is still in progress, the piers, etc., being housed in and kept warm during the building up of the concrete. At mileage 787. The North Saskatchewan River is to be crossed by a steel bridge 1,647 ft. long, 136 ft. high; of four spans 40 ft., 10 of 50 ft., two of 150 ft., three of 229 ft. The 28 concrete pedestals, two abutments and two of the piers are completed. The work of building the last remaining two concrete piers is in progress; they are housed in and kept warm during the progress of the work. In addition to the steel bridges mentioned, there is the bridge over the Assiniboine River at St. Lazare—at mileage 203—250 ft. long, which is being crossed by a temporary timber structure.

**TRACKLAYING AND BALLASTING.**—Track is laid from mileage 45 to mileage 326, and from mileage 426 to mileage 468, aggregating 310 miles; in addition to which 47 sidings are laid in. From mileage 53 to 140, the road is full ballasted and lifted. From mileage 140 to 213, it is half ballasted with a first lift.

**BUILDINGS, ETC.**—At mileage 43 (Portage la Prairie) a union station of brick is in course of erection, and is nearing completion. At mileage 141 (Rivers) a station is in course of erection. At mileage 385 (Nokomis) a station has been erected. At mileage 141 (Rivers divisional station) an engine-house and machine shop and boiler-house are in course of erection; the work is advanced to the extent of about 90%. At mileage 277 (Melville divisional station) an engine-house and machine shop are in course of erection; about 35% of the work is executed.

**WATERTANKS, FENCING, ETC.**—At mileage 141 (Rivers divisional station, a well and

watertank are being provided, about 80% of the work being done. A watertank and pump have been erected at mileage 202; and about 25% of the work has been done on a watertank at mileage 217. West of Portage la Prairie, Man., 46 miles of fencing have been put up. A telegraph line has been erected for 271 miles.

No construction has been done west of Edmonton, Alta., with the exception of a wharf at Prince Rupert. The route through the Rocky Mountains is to be by the Yellowhead Pass, which is considered to be a better pass in every way than any of the others except so far as the curvature was concerned. The grades are easier, but the curvature is greater. The total cost is considerably less, and the Government is interested in this on account of the guarantee of bonds given. The estimated cost of the line by the Yellowhead Pass route, exclusive of terminals, is \$42,115,500, being \$4,536,100 less than the cost by the Pine River Pass route; \$3,490,000 less than by the Wapiti Pass route, and \$6,251,000 less than by the Peace River Pass route. The distance from Edmonton to the Pacific Ocean by the selected route is 955 miles.

Of the Prairie section of the G.T. Pacific Ry., it is anticipated that the portion between Winnipeg and Edmonton, about 793 miles, will be completed and opened for traffic this year. F. W. Morse, Vice-President and General Manager, who returned to Montreal, April 2, stated that there remained about 40 miles of line to be completed between Portage la Prairie and Saskatoon, and some few miles between Portage la Prairie and Winnipeg. The company is working to complete these portions of the line with a view of instituting a train service between Winnipeg and Saskatoon July 1. A despatch from Portage la Prairie, April 14, stated that tracklaying had been resumed on the line towards Winnipeg, and it was expected to complete the tracklaying into Winnipeg early in May. Tracklaying is also in progress on the remaining portion of the line connecting up Saskatoon. The last span of the bridge over the South Saskatchewan River at Saskatoon has been completed, and construction trains were operated over it early in April.

West of Saskatoon, with the exception of the work at a small muskeg 25 or 30 miles out, the grading has been finished as far as the Battle River, where the steel building gang will take up work early in the summer. About 220 miles of track will have to be laid between Saskatoon and the Battle River, and it is possible that track will be laid to that point from Edmonton easterly, so as to facilitate bridge construction. The substructure for the bridge at Clover bar is reported complete, and the steel superstructure is ready for shipment from the Canadian Bridge Co.'s works, Walkerville, Ont., as soon as the spur line from the Canadian Northern Ry. to the river is completed. The substructure for the bridge is being constructed by John Gunn & Sons, and it is expected to have it ready for the steel superstructure early in June. Between Battle River and Edmonton, grading is being pushed by the contractors, Foley, Welch & Stewart. There is reported considerable heavy work to be done on this portion of the contract between Battle River and Tofield, near Strathcona, particularly on the north side of Grattan Coulee, on the first twenty-five miles north of the river. On the line between Winnipeg and Edmonton, C. M. Hays, President, recently stated that about 200 new townsites would be brought into existence during the year, either along the track, or on the 10-mile stretch on either side, which was rapidly filling up with settlers. The committee of the company's officials has completed the task of naming the townsites along the line. There are 114 and the names selected

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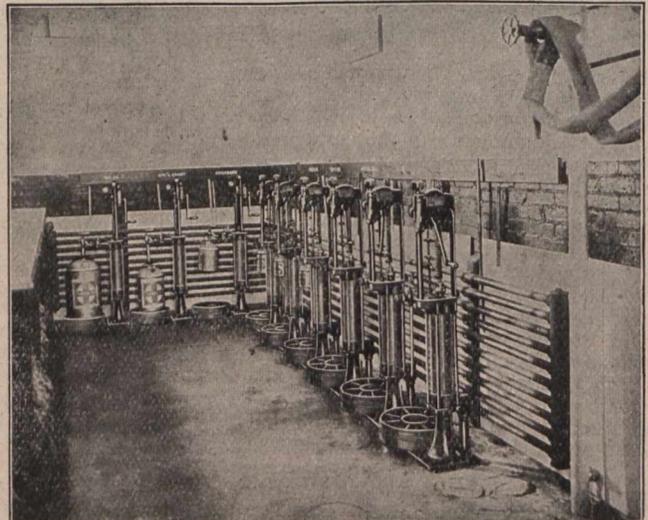
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include those of directors, officers and officials of the company. The divisional points, with their distances from Winnipeg are: Rivers, 142 miles; Melville, 277 miles; Waterous, 407 miles; Biggar, 526 miles; Wainwright, 600 miles. R. W. Jones, Divisional Engineer on Construction, has transferred his headquarters from Saskatoon to Edmonton.

The contract let to the Foley firm for the construction of 116 miles westerly from Edmonton to Wolf Creek, covers the remainder of the Prairie section of the line. It is expected that this portion will be well in hand by July, and it is hoped to have the work completed in the fall. Sub-contracts have been let for over half of the mileage, and the contractors' outfits began to go out from Edmonton early in April. The country through which the route passes is rolling prairie, and commencing at about Lake Wabamun, a gradient of 0.4% will have to be constructed in order to cross the mountains with this uniform gradient. This, the contractors state, will necessitate considerable extra work. There is also considerable muskeg west of Edmonton, but the work of constructing the line across them is not difficult, although tedious. F. W. Morse, Vice-President, stated in Montreal, April 2, that invitations had been sent out for tenders for a further stretch of 179 miles west of Wolf Creek, which would carry the line about 50 miles west of the Yellowhead Pass. This stretch would be divided into sections of 40, 60 and 79 miles, respectively, in order to facilitate construction. It is expected that contracts will be awarded early in June, so that work can be pushed ahead during the present construction season.

Reports from the Pacific coast state that the survey parties from Kitsalas Canyon and Hazleton on the Skeena River, B.C., have been transferred to the Copper River, and are now working towards the head of that stream. This has caused a revival of the reports that the Hazleton route, previously surveyed, is to be abandoned in favor of the Copper River route, which it is said will shorten the distance to the coast by from 80 to 90 miles. The route suggested is along the Copper River valley across the watershed, and thence along the Telkwa River valley.

J. W. Stewart, of Foley, Welch and Stewart, who have the contract for grading the 60-mile branch line from tidewater at Kitamaat to the junction with the main line at Kitsalas Canyon, and for the 100 miles of the main line from Prince Rupert to Kitsalas Canyon, passed through Vancouver, B.C., April 4, for Prince Rupert, to superintend the starting of operations. He said these two contracts would aggregate approximately \$10,000,000, and between 5,000 and 6,000 men would be employed for about a year and a half. A good deal of the work will be sublet. The heaviest work on the entire line is to be found in the 100-mile section easterly from Prince Rupert. Ten miles after leaving Prince Rupert the line strikes the Skeena River, following the northern bank of the river until the Kitamaat branch is reached. The grade will have to be blasted out of the solid rock for the entire distance, but there will be only one tunnel, and that only 300 ft. long. The work on the Kitamaat branch will not be so heavy as on the main line, but most of it will be of the heaviest description, as several tunnels will have to be driven through solid rock. The contractors' plant began to arrive in Vancouver, from Kenora, Ont., April 9, to be shipped north. Mr. Stewart said it would take 500 cars to ship the company's plant and equipment, including 600 horses to the contract, the cost of transportation being estimated at \$200,000.

The grading upon the branch which connects the Eastern Division at Lake Superior Junction with the head of navigation at Fort William, Ont., has been practically completed. Track has already been laid for 125

miles from Fort William, and it is expected that the remaining mileage will be laid during the summer.

Replying to a question in the House of Commons recently, the Minister of the Interior said the G.T. Pacific Ry. Co. had acquired a tract of land along the north part of the Mission Reserve at Fort William, Ont., having a total area of 1,600 acres, for terminal purposes. The price paid was: 150 acres at \$320; 250 acres at \$160; 300 acres at \$80; 700 acres at \$40; and 200 acres at \$20; the purchase price being paid in cash. The total valuation of the land and improvements was \$244,574. The land was granted to the company Jan. 27, 1906. These areas were not surrendered by the Indians, but were acquired under the provisions of sec. 46 of the Indian Act, chap. 81, Revised Statutes of Canada.

An extension of time has been granted by the House of Commons Railway Committee, at the current session of the Dominion Parliament, for the construction of the various branch lines which the G.T. Pacific Branch Lines Ry. Co. has been authorized to build. In the discussion on the bill, W. H. Biggar, K.C., General Solicitor, G.T.R., stated that contracts would probably be let during the summer for the branch lines authorized to be constructed to Calgary, Alta., and Battleford, Sask.; the branch connecting Regina and Yorkton, Sask., and the Brandon-Regina line. The preliminary surveys had been made for the branch southerly from Calgary to the International boundary, and from Regina southeasterly to the International boundary at North Portal. (April, pg. 261.)

#### Board of Railway Commissioners.

Chief Commissioner Mabee met the other Commissioners at Ottawa, Mar. 31, to review the position of the cases before the Board. It transpired that of all the cases outstanding there were only three concerning which there was any question with regard to being reheard. These three cases are the Bell Telephone Co.'s tolls; the coal rates between Duluth and Winnipeg; and the C.P.R. traffic. The Commissioners arranged to see all the parties interested with a view of arriving at some mode of procedure.

The public sittings of the Commission were resumed at Ottawa, April 22, the first case set down for hearing being the application of the Canadian Northern Ry. for power to take various pieces of land in the Don Valley district of Toronto, contiguous to the Rosedale ravines. An important matter taken up at these sittings was the uniform operating rules for all railways. The draft set of regulations prepared some time ago by the joint committee of railway officials and representatives of the employes, is being considered, and evidence is being heard upon points in regard to which there is any controversy. On April 24 the Commissioners took up a large number of questions which have been standing for some time in reference to the general grievances, preferred by the railwaymen's union, respecting hours of labor, operating rules, etc. It had been arranged that the railway companies would be represented by a central committee of five, and the officials of the employes' unions would attend to present their cases before the Board.

It has been arranged that the Board will hold a sitting at Toronto early in May, to consider the viaduct and Union Station questions.

At the current session of the Dominion Parliament votes were passed for the following sums: Maintenance and operation of the Board of Railway Commissioners, \$11,250; to pay expenses in connection with reference to cases before the Railway Commission, \$1,250.

#### TRADE AND SUPPLY NOTES.

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

Drummond, McCall & Co., Montreal, have been awarded the contract for the supply of steel poles, to replace cedar poles on the Guelph Radial Ry.

E. C. Rutherford has been appointed agent of the Goldschmidt Thermit Co.'s Canadian branch, which has been opened at 103 Richmond St. West, Toronto.

W. Abbott, of Montreal, who represents in Canada the manufacturers of Novo high-speed steel drills, etc., has appointed as agents for Ontario, the Milroy-Harrison Co., of 66 Richmond St. East, Toronto, who will carry a stock of these goods.

The American Car and Equipment Co. announces the association with the company of H. H. Sessions and W. H. Horine, who became President and Secretary-Treasurer respectively. They are well known in railway and financial circles.

The receivers appointed for the Westinghouse Machine Co., of Pittsburg, Pa., Oct. 23, 1907, have been discharged by the court, all of the matters which made a temporary receivership expedient having been satisfactorily arranged. W. H. Donner has been elected Vice-President of the company in charge of all its activities.

The Banwell Hoxie Wire Fence Co., Ltd., Hamilton, Ont., reports having again secured the contract for maintenance fencing for the C.P.R. Winnipeg-Calgary division. They had this work also last season, as well as considerable fencing along new lines, of which they have yet some 200 miles to complete. They have also considerable fencing to supply for the National Transcontinental Ry. in the Quebec district.

"Staybolts—their use and abuse," an article written by John Hickey, for many years a prominent master mechanic and superintendent of motive power, also a former President of the American Railways Master Mechanics' Association, and the author of several papers on the construction and care of locomotive boilers, has been issued in booklet form. Copies will be sent on application to the Falls Hollow Staybolt Co., Cuyahoga Falls, Ohio.

H. K. Porter Co., builders of light locomotives, Pittsburg, Pa., have issued a tenth edition of their catalogue, devoted exclusively to illustrating and describing their steam locomotives. It is most thoroughly up-to-date, and the locomotives shown are models of modern practice. The catalogue also contains about 80 pages of useful engineering information. The H. K. Porter Co. is now prepared to build locomotives up to 17 ins. diameter cylinders. They state that in the interval since the issue of the ninth edition of their catalogue the progress in the increased power, efficiency and quality of their locomotives, has been far greater than during any similar period in their history, and their export, as well as their home trade, has increased very largely.

The Ontario Legislature, last session, passed an act confirming a by-law of the united townships of McLean and Ridout, granting a ten years' assessment of \$5,000 on the hotel which the Canada Ry. News Co. proposes to erect at Norway Point, Lake of Bays district. The company desired to obtain a fixed assessment for fifteen years.

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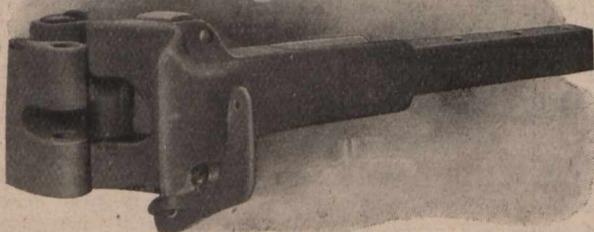
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## TRANSPORTATION APPOINTMENTS.

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

**Board of Railway Commissioners.**—The appointment of J. P. Mabee, heretofore a Justice of the High Court for Ontario, as Chief Commissioner, succeeding the late A. C. Killam, has been announced in the Canada Gazette.

**Canadian Northern Quebec Ry.**—F. M. Spaidal, General Superintendent, Canadian Northern Quebec Ry., has also been appointed General Superintendent Quebec and Lake St. John Ry. The Master Mechanic, storekeeper, roadmasters and other officers in the operating department, will report to him and be under his orders. Mr. Spaidal will take his instructions from and report to the General Manager, J. G. Scott.

G. Tombs, General Freight and Passenger Agent, C.N.Q.R., has also been appointed General Freight and Passenger Agent Q. & L. St. J.R., vice A. Hardy, assigned to other duties. Office, Montreal.

A. Hardy, heretofore General Freight and Passenger Agent, Quebec & Lake St. John Ry., has been appointed storekeeper, Q. & L. St. J. Ry., with headquarters at Quebec. A large portion of the C.N.Q.R. stores at Shawinigan Jct. will be moved to Quebec, where there will be a combined storehouse in charge of Mr. Hardy. R. M. Gauthier, storekeeper C.N.Q.R., will be moved from Shawinigan Jct. to Quebec to assist Mr. Hardy.

W. W. Johnston, heretofore Freight Claims Agent, and chief clerk traffic department, Quebec and Lake St. John Ry., has been appointed chief claims clerk, C.N.Q. Ry., and Q. & L. St. J. Ry. Office, Quebec.

The office of Purchasing Agent, Q. & L. St. J. Ry., Quebec, heretofore held by J. A. Nicoll, has been abolished, Mr. Nicoll leaving the service.

The office of Paymaster Q. & L. St. J.R., Quebec, heretofore held by R. Hunter, has been abolished, and Mr. Hunter has been appointed soliciting agent in Quebec city, succeeding J. J. Conway, who has been transferred to the General Freight and Passenger Agent's office, Montreal.

T. C. Hudson, Master Mechanic C.N.Q.R., will be removed from Shawinigan Falls to Quebec, and be in charge of mechanical matters on the C.N.Q.R. and the Q. & L. St. J.R. J. Clark, Master Mechanic Q. & L. St. J.R., Quebec, has left the service.

R. J. Monroe remains as roadmaster C.N.Q.R. at Joliette, and C. J. Carpenter remains as roadmaster Q. & L. St. J.R. at Hedleyville.

**Canadian Pacific Ry.**—C. Murphy, who acted as General Superintendent of the Lake Superior Division during F. P. Brady's absence on leave, has been appointed acting General Superintendent, Eastern Division, relieving H. P. Timmerman, granted leave of absence.

The position of Resident Engineer at Smith's Falls, Ont., having been abolished, Jones has been transferred to Ottawa as Resident Engineer.

R. W. Bishop, heretofore Resident Engineer at Ottawa, has been transferred to Smith's Falls, Ont., as assistant engineer, district 2, Ontario Division, reporting to Resident Engineer McConnell, Montreal.

W. B. Cronk, heretofore Assistant Superintendent, district 2, Eastern Division, has been appointed Superintendent. Office, Smith's Falls, Ont.

O. Brushley has been appointed acting Trainmaster, Smith's Falls section, district 2, Eastern Division, vice T. Collins, transferred to construction department.

I. Mulkern, heretofore travelling freight

agent, has been appointed chief clerk, office of General Freight Agent, Through Traffic office, Toronto, succeeding L. W. Doherty, who has entered the Inland Navigation Co.'s employ, at Hamilton, Ont.

A. O. Secord, heretofore canvassing freight agent, Toronto, has been appointed travelling freight agent, succeeding L. Mulkern, promoted.

J. Jolly, heretofore in the General Freight Agent's Office, Toronto, has been appointed canvassing freight agent, succeeding A. O. Secord, promoted.

R. Dawson, heretofore bridgeman at Moose Jaw, Sask., has been appointed Master of Bridges and Buildings, district 2, Central Division, vice A. H. Bears, transferred to Saskatoon, Sask. Office, Winnipeg.

T. R. Flett, heretofore Trainmaster district 5, Central Division, has been appointed Superintendent district 3, succeeding C. S. Maharg, transferred. Office, Brandon, Man.

C. S. Maharg, heretofore Superintendent district 3, Central Division, Brandon, Man., has been appointed Superintendent construction Edmonton line, with headquarters at Saskatoon, Sask.

A. A. Smith, heretofore conductor, running out of Medicine Hat, Alta., has been appointed Trainmaster district 1, Western Division, vice T. R. Flett, promoted. Office, Moose Jaw, Sask.

J. Archibald has been appointed locomotive foreman at Field, B.C., vice A. W. Clark, transferred to Eholt, B.C.

H. Ingram, locomotive foreman, has been transferred from Eholt to Nakusp, B.C.

In reference to the press report mentioned in April issue, to the effect that J. A. Fullerton, C.P.R. ship's husband at Vancouver, B.C., had been appointed to take charge of the company's trans-Pacific steamship business there, we are officially advised that no change has been made in his position.

B. M. Humble, heretofore Secretary of the Vancouver Club, has been appointed Manager Empress Hotel, Victoria, B.C., succeeding Stewart Gordon, resigned.

G. A. Clifford has been appointed city passenger agent at Cleveland, Ohio.

W. C. Clawson has been appointed city passenger agent at San Francisco, Cal., vice F. W. Baker.

H. S. Carmichael has been appointed General Passenger Agent for Great Britain and Europe. Office, 24 James Street, Liverpool.

H. G. Dring has been appointed Assistant General Passenger Agent for Great Britain and Europe. Office, 62 Charing Cross, London, S.W., Eng.

**Central Vermont Ry.**—C. E. Dewey, heretofore Assistant General Freight Agent, G.T.R., has been appointed General Freight Agent, C.V.R., succeeding R. L. Burnap, transferred to G.T.R. service at Chicago, Ill. Office St. Albans Vt.

**Grand Trunk Pacific Ry.**—M. M. Reynolds, Fifth Vice-President G.T.R., has also been appointed Third Vice-President, G.T. Pacific Ry., with headquarters at Montreal. He will have special supervision of the treasury and accounting departments, and general supervision of the financial matters of the corporations in which this company has a pecuniary interest.

J. E. Dalrymple, heretofore General Freight Agent, G.T.R., Montreal, has been appointed Assistant Freight Traffic Manager, G.T.P.R. Office, Winnipeg, Man.

C. Fraser, heretofore C.P.R. yardmaster, Kenora, Ont., is performing the duties of Trainmaster, G.T. Pacific Ry., at Saskatoon, Sask., but no circular of appointment had been issued up to April 21.

**Grand Trunk Ry.**—M. M. Reynolds has been appointed Fifth Vice-President, with headquarters at Montreal. He will have special supervision of the treasury and ac-

counting departments, and general supervision of the financial matters of the corporations in which the G.T.R. Co. has a pecuniary interest. Heretofore the G.T.R. treasury and accounting departments have been nominally under the jurisdiction of W. Wainwright, Fourth Vice-President, but the officers of those departments have reported primarily to the Second Vice-President and General Manager's office, owing to Mr. Wainwright's frequent absence from headquarters on diplomatic and other missions.

C. A. Hayes, heretofore Assistant General Freight Agent, Chicago, Ill., has been appointed General Freight Agent, vice J. E. Dalrymple, who has entered the G.T. Pacific Ry. Co.'s service. Office, Montreal.

A. E. Rosevear, heretofore Freight Claims Agent, has been appointed Assistant General Freight Agent, succeeding C. E. Dewey, promoted to Central Vermont Ry. service. Office, Montreal.

E. Arnold, heretofore Freight Claims' Auditor, has been appointed Freight Claims Agent, succeeding A. E. Rosevear, promoted. He will have charge of loss and damage freight claims. Hereafter freight overcharge claims will be dealt with by the Freight Claims Auditor. Office, Montreal.

B. A. Neisser has been appointed Freight Claims Auditor, in charge of freight overcharge claims, succeeding A. E. Rosevear, promoted. Loss and damage freight claims will be dealt with by the Freight Claims Agent, as heretofore.

W. J. Moffatt, heretofore chief clerk in Toronto station ticket office, has been appointed chief clerk in the city ticket office, Yonge and King Sts., Toronto, succeeding W. Grundy, resigned.

R. L. Burnap, heretofore General Freight Agent, Central Vermont Ry., has been appointed Assistant General Freight Agent, G.T.R., at Chicago, Ill., succeeding C. A. Hayes, promoted.

I. W. Gault, Division Freight Agent, G.T.R., Toledo, Ohio, is reported to have been appointed Manager, Lackawanna-Grand Trunk Line, with office at Chicago, Ill.

The following agents have been appointed: St. Lambert, Que., F. Crane; Montreal, (Pass.) R. J. Wood; Maitland, (Pass.), Ont., W. J. Wilson; Toronto Exchange, C. R. Farrow; Toronto Jct., Ont., Jno. Campbell; Welland, Ont., A. Harvey; Simcoe, L.L., Ont., C. L. Painter; Corinth, Ont., E. W. Bancroft; Dunnville, Ont., G. W. McVicar; Bright, Ont., J. W. Gray; Sebringville, Ont., M. J. Goetz; Simcoe, G.B. & L.E., Ont., C. L. Painter; Fergus, Ont., H. Ham; Alma, Ont., L. K. Fox; Allenford, Ont., W. J. Kyle; Lucknow, Ont., D. Alair; Wilno, Ont., H. W. Otto.

**New Brunswick Ry. and Coal Co.**—P. S. Archibald, General Manager, Elgin and Have-lock Ry., Moncton, N.B., and J. R. Stone, St. John, N.B., have been appointed by the New Brunswick Government Commissioners for the operation of the N.B. Ry. and Coal Co., succeeding Senator King and G. A. McAvity, resigned.

**Quebec & Lake St. John Ry.**—See Canadian Northern Quebec Ry.

**Temiscouata Ry.**—F. X. Belanger, heretofore chief clerk, freight department, General Manager's office, has been appointed General Freight Agent. Office, Riviere du Loup, Que.

**Temiskaming and Northern Ontario Ry.**—J. Leslie has been appointed district roadmaster, with jurisdiction over the line from Englehart to North Bay. Headquarters, Englehart, Ont.

J. Drinkwater has been appointed district roadmaster, with jurisdiction over the line from Englehart to the end of the track. Headquarters, Englehart, Ont. He was formerly C.P.R. roadmaster at Winchester, Ont.

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## ELECTRIC RAILWAYS.

## Winnipeg Electric Railway Co.

The Street Railway Journal, New York, published the following in its issue of April 4: "Arrangements were made Mar. 30 for the purchase by the city of Winnipeg of the entire holdings of the Winnipeg Electric Co., estimated to be worth in the neighborhood of \$15,000,000. For some weeks negotiations have been in progress, but it was not until Mar. 30 that the company decided to dispose of the property, Winnipeg buying at the closing prices in Toronto on even date. The company also has a franchise for supplying gas. The street railway franchise was an exclusive one. The city already owns the waterworks, stone quarries and an asphalt plant. The Provincial Government owns the telephone system."

The above will certainly be "news" to the management of the W.E.R. Co. and its shareholders. Our esteemed contemporary has either accepted as true some daily press despatch, or has been imposed on. No such purchase has been made, and while the matter has been discussed in the city council, as mentioned in another column, even the negotiation stage has not been reached.

## Projects, Construction and Betterments.

**British Columbia Electric Ry.**—An arrangement has been completed between J. C. M. Buntzen, Managing Director, and the Chilliwack municipal council, for the immediate construction of an electric railway from New Westminster to Chilliwack. Construction will be undertaken in sections, and it is stated that the line will be ready for traffic in May, 1910. A site has been secured in Chilliwack for terminal purposes. (April, pg. 282).

A contract has been let to W. W. Forrester, New Westminster, B.C., for the extension to the company's car shops at New Westminster, for \$20,000.

The grading on the Eburne-Westminster extension has been completed, and track-laying operations are in progress.

Plans for the extension of the line from Cambie St., west along Cordova St., and south along Granville St., to Hastings St., have been submitted to the Vancouver Board of Works for approval. The work will be taken in hand immediately the plans are approved of.

J. C. M. Buntzen, Managing Director, announced recently that a syndicate had been formed by persons interested in the B.C.E.R. Co., to take over the controlling interest of the Sumas Dyking and Development Co., and that a scheme for reclaiming lands in the South Fraser valley, through which the New Westminster-Chilliwack route will pass, will be prosecuted at a cost of about \$700,000.

The construction of the line by the company, connecting the Esquimalt and Nanaimo Ry.'s Victoria terminus and the new freight sheds, has been commenced, and A. T. Goward, local manager, B.C.E.R., and Victoria, stated recently, that a large gang of men would rush the work to a speedy conclusion.

**Calgary St. Ry.**—The city council is inviting tenders for the construction, equipment and operation of a street railway system in the city, for which it is prepared to grant a franchise for a limited period. (April, pg. 282).

It is reported that plans are under consideration for the construction of an electric railway from the city to Sheppard Lake, where it is proposed to lay out a pleasure park. Application is said to have been made for a franchise, with a view to the commencing of construction this year.

**Central Ry. of Canada.**—In reply to a question in the House of Commons recently, it was stated that the company made a deposit of \$25,000 with the Government, which was still retained. Several claims had been sent in by engineers and others who had been engaged on surveys, but there was no way, at present, in which they could be dealt with by the Government paying claims against the company. The company was originally given an act, with the title of the Ottawa River Ry. Co., in 1903, with power to construct a large mileage of track in Quebec and Ontario to be operated by electricity, and in 1905 the name was changed. (May, 1906, pg. 275).

**Dunnville, Wellandport and Beamsville Electric Ry.**—The act passed by the Ontario Legislature recently granting an extension of time for the construction of this railway, declares the act of incorporation to be in full effect, except where it is amended by the present act, which provides for an extension from Dunnville to Port Dover, through Dunn, South Cayuga, Rainham, Walpole and Woodhouse. (April, pg. 283).

**Edmonton St. Ry.**—Proposals have been laid before the Edmonton City Council providing for the taking over, completing and operating of the street railway there. The railway, which is owned by the city, was originally outlined to consist of about 6½ miles of double-track, and actual construction was commenced June 15, 1907. A considerable portion of this has been laid and it was hoped to have construction completed by Sept., 1908. The city council was reported Nov., 1907, to intend making application for a franchise to operate in Strathcona, while the Strathcona Radial Tram Co., it was stated, had purchased a right-of-way into Edmonton, and had applied for permission to run on that city's streets. It is now stated that a plan is under consideration, whereby the interests of Edmonton and Strathcona will be handed over to a private syndicate, and the two railways completed and operated as a joint concern. (Nov., 1907, pg. 841).

**Grand Valley Ry.**—A considerable amount of work is to be undertaken by this company this year, and it is understood that a start will be made at an early date, on the following sections: The Brantford Street Railway will be reconstructed, and the line from Brantford to Galt relaid with 80-lb. rails, from which point an extension will be made; an extension will also be made to Port Dover, and another to Woodstock, connecting with the Woodstock, Thames Valley and Ingersoll Ry., the track of which is to be reconstructed. (Feb., pg. 121).

**London St. Ry.**—The question of an extension of the system to the north end of the city formed the topic of a conference between C. B. King, Manager L.S.R., and the city council committee, April 10. Two proposals were discussed, and the matter was left for the company to make a definite proposal for the route. The question of the use of the T rail versus the girder rail on Dundas St. was held over. (April, pg. 283).

**Montreal and Southern Counties Ry.**—Construction is in progress on the line to St. Lambert, and other points on the south shore. Considerable work has already been done at Black's bridge, along Mill St., and in strengthening the roadway over the canal sluiceways. The laying of the power cable, and the overhead work, was expected to be finished by the end of April, and it is hoped that cars will be running on the route by the end of June. (Dec., 1907, pg. 927).

**Mount McKay and Kakabeka Falls Ry.**—The total length of this line when completed will be 15 miles, and the route will

be from Fort William along the Kaministikwia River, through the townships of Neebing, Paipoonge, and Oliver to Kakabeka Falls. About 2½ miles of track has already been constructed, part of which is within the Fort William boundaries. The company owns waterpowers, amounting to about 15,000 h.p., and a park of 13,000 acres along the proposed route. The officers and directors are: President, W. F. Hogarth, Vice-President, J. Dyke; Treasurer, C. H. Jackson; Secretary, C. W. Jarvis; and J. L. Davidson, Fort William. G. R. Duncan, Fort William, is the engineer. (April, pg. 283).

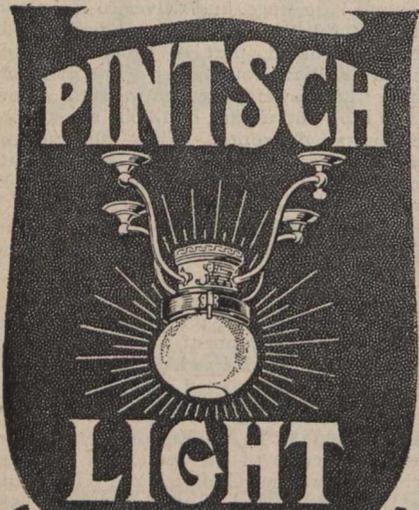
**Nipissing Central Electric Ry.**—Application is being made at the current session of the Dominion Parliament for an act extending the time within which the projected lines may be constructed. (April, pg. 283).

**Ontario West Shore Electric Ry.**—Tenders are reported to be under consideration for the construction of the section of this projected line between Goderich and Kincardine, Ont. A. Saunders, Goderich, Ont., who is interested in the company, stated in Toronto, April 18, that construction would be started at an early date, and is expected to be completed this season. The C.P.R. is reported to be interested in financing the undertaking, proposing to use it as a feeder to its recently constructed Guelph and Goderich Ry. J. W. Moyes, Toronto, has recently been engaged in the negotiation for construction. (April, pg. 283).

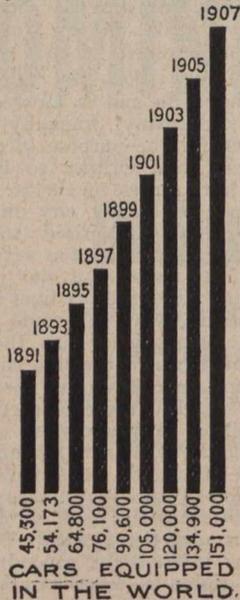
**Ottawa, Brockville and St. Lawrence Ry.**—This railway company, originally incorporated in 1900, for the purpose of constructing a railway from Ottawa to Brockville, Ont., and a ferry service on the St. Lawrence River between the latter city and Morris-town, N.Y., was authorized to develop electric power and to use the same for the operation of its trains, but was prohibited from operating street railway lines in Ottawa and Hintonburg, Ont. A route was surveyed, and negotiations with the municipalities through which the line passed were carried on for some time, but the company has not yet reached the construction stage. The application at the current session of the Dominion Parliament for an act extending the time for construction for a further period of two years has resulted in considerable discussion both in the House of Commons and the Senate. The House of Commons inserted an amendment protecting the rights of municipalities operating lighting or power plants, and this amendment the Senate struck out. The House of Commons has reinserted its amendment.

In connection with the revival of this project a press report states that plans have been prepared for an electric railway from Ottawa to Morrisburg, Ont., passing through Carleton, Russell and Dundas counties; thence along the river front to Brockville, Iroquois, Cardinal and Prescott; thence northerly through Leeds, Lyn and Athens, Perth, Lanark and Renfrew, back to Ottawa, a circuit of about 200 miles. There are charters in existence covering several portions of the route named. (Mar., pg. 183).

**Ottawa Electric Ry.**—The extension of the line along Preston St. is proceeding, the rails, which were ordered in the fall, are now being delivered. A loop is being constructed at George St., a spur line on Lyn St., and the St. Patrick St. and New Edinburgh bridges are being strengthened. In view of these works, which are already well in hand, it is unlikely that other extensions which the city council is desirous of urging will be undertaken this year. The company's proposal to erect a car barn extending from Sparks St. through to Queen St., with a spur line on which to shunt cars



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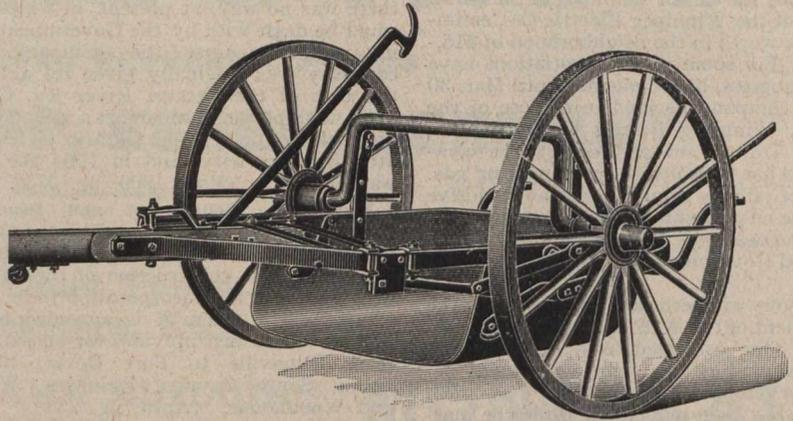
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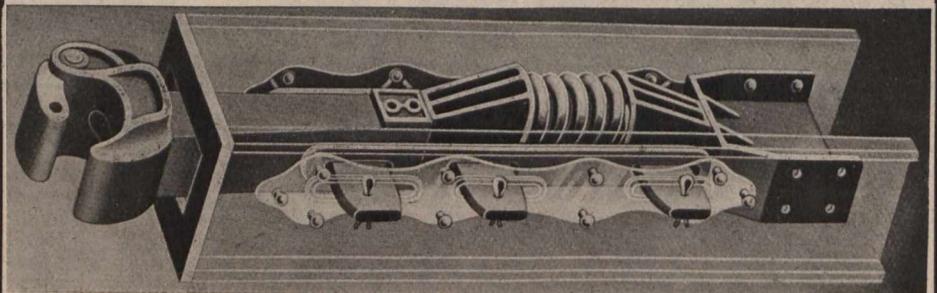
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between the proposed barn and the Albert St. barn, is meeting with considerable opposition, on the alleged grounds that property in the vicinity will be deteriorated, and that it is not a work for the convenience of the public.

**St. John, N.B., Ry.**—It is said that a line will be constructed this year from the city to Westfield,  $3\frac{1}{2}$  miles, in order to feed the amusement park which is to be opened there.

**Toronto Ry.**—At the recent session of the Ontario Legislature the following section affecting the relations of the Toronto City Council and the Toronto Ry. was inserted in the omnibus act, applied for by the city council: "Notwithstanding anything contained in the act passed in the 55th year of the reign of Her late Majesty, Queen Victoria, and chap. 99, and intitled 'An Act to incorporate the Toronto Ry. Co.,' and to confirm the agreement between the corporation of the City of Toronto and G. W. Kiely, W. Mackenzie, H. A. Everett, and C. C. Woodworth; and notwithstanding any judicial decision interpreting the effect of the said act and the said agreement, it is hereby declared that it is and always has been the true intent and meaning of said act that the rights retained by and secured to the corporation of the City of Toronto by the said agreement as to the control and management of the streets of the said city, and as to establishing and laying of the said city as may be from time to time recommended by the city engineer and approved by the city council have not been and are not affected by the said act, but said rights remain and are as set out in the said agreement scheduled to the said act."

**Toronto Suburban Ry.**—Surveys are being made for an extension of the company's line from Fairview Ave. to Swansea. Officers of the company state that it has not been decided whether this route or one previously surveyed from Keele St. will be adopted. (Sept., 1907, pg. 683).

**Toronto - Toronto Island.**—An estimate has been prepared by the Toronto City Engineer for the construction of a tunnel under the western gap, to the Island, suitable for street car traffic. The estimated cost is \$626,000, of which the tunnel proper would cost \$150,000. The proposal is that the Dominion Government pay the cost of the tunnel and the city the cost of completion and approaches. The matter is being discussed with J. G. Sing, Dominion Government engineer at Toronto.

#### Electric Ry. Finance, Meetings, Etc.

**British Columbia Electric Ry.**—Gross earnings for Feb., \$163,961; operating expenses, \$84,670; net operating earnings, \$79,291; renewal funds, \$10,750; net earnings, \$68,541; income from investments, \$11,036; net income, \$79,577; against \$120,555, gross earnings; \$60,940, operating expenses; \$59,615, net operating earnings; \$9,325, renewal funds; \$50,290, net earnings; \$9,536, income from investments; \$59,826, net income for Feb., 1907. Aggregate gross earnings for 8 months ended Feb. 29, \$1,331,921; net earnings, \$662,619; against \$953,550 gross and \$476,532 net for same period 1906-07.

**Halifax Electric Tramway Co.**—Receipts for March, \$12,718.27, against \$12,543.83 for March, 1907. Receipts for 3 months ended March 31, \$37,910.73, against \$35,843.67 for same period 1907.

**Montreal St. Ry.**—A dividend of  $2\frac{1}{2}\%$  for the first quarter of 1908 has been declared, payable May 1.

Passenger earnings for March, \$282,776.38; miscellaneous, \$5,897.69; total, \$288,674.07; operating expenses, \$202,389.80; net earnings, \$86,284.27; city percentage on earn-

ings, \$19,794.64; interest on bonds and loans, \$17,879.57; contingent for renewals, \$14,138.82; rent leased lines, \$444.43; surplus, \$34,026.61; against, \$267,493.41, passenger earnings; \$4,184.66, miscellaneous; \$271,588.07, total earnings; \$185,461.28, operating expenses; \$86,128.79, net earnings; \$16,476.72, city percentage on earnings; \$13,024.79, interest on bonds and loans; \$13,370.17, contingent for renewals; \$339.96, rent leased lines; \$42,916.15, surplus for March, 1907. Total passenger earnings for six months ended March 31, \$1,720,570.97; miscellaneous, \$26,565.91; total, \$1,747,136.88; operating expenses, \$1,145,865.73; net earnings, \$601,271.15; city percentage on earnings, \$81,455.99; interest on bonds and loans, \$102,444.19; contingent for renewals, \$86,028.69; rent leased lines, \$2,353.14; surplus, \$328,989.14; against \$1,568,204.88, passenger earnings; \$30,843.57, miscellaneous; \$1,599,048.45, total earnings; \$1,073,656.96, operating expenses; \$525,391.49, net earnings; \$69,788.36, city percentage on earnings; \$88,326.99, interest on bonds and loans; \$79,743.19, contingent for renewals; \$1,019.88, rent leased lines; \$286,513.07, surplus for same period 1906-07.

**Ontario West Shore Electric Ry.**—At a recently held meeting the following officers were elected: President, J. W. Moyes, C.E., Toronto; Vice-President, S. C. Smoke, Toronto; Secretary, H. J. A. McEwan, Goderich, Ont. A further meeting was held in Toronto, April 7, to give authority to the directors to issue bonds, debentures or other securities to the extent of \$15,000 a mile of single track, securing same by mortgage deeds, and to enter into contract or contracts for the construction and equipment of the line from Goderich to Kincardine.

**Sydney and Glace Bay Ry.**—The company has appealed against the recent assessment of a portion of its property by the Glace Bay council, on the ground that the assessment is not legal, inasmuch as the company paid to the council a lump sum in lieu of all taxes. The council contends that the contract only exempted the property in existence at the time it was made, and that betterments and additions, such as the new power station, which is the assessed property in dispute, must pay taxes in the ordinary way.

**Toronto Ry.**—Car earnings for March, \$272,407.80, against \$264,304.42 for March, 1907. Total earnings for 3 months ended Mar. 31, \$802,567.59, against \$752,977.46 for same period 1907.

**Winnipeg Electric Ry.**—At a recent meeting of the city council, a motion was made to appoint a special committee to enter into negotiations with the Winnipeg Electric Ry. Co. for the acquisition of its whole business and undertakings, and for such purpose to have full powers and authority to employ such persons as may be required in order to ascertain the value, condition and capacity of the business and undertakings. It was stated that the directors of the company had been interviewed, and had said they were prepared to negotiate. After considerable discussion, it was decided to allow the motion to stand as a notice of motion. The company's assets at Dec. 31, 1907, were valued at over \$13,000,000, and there is a capital stock of nearly  $5\frac{1}{2}$  millions, and a bonded indebtedness of \$5,400,000. The surplus on hand at that period was \$806,310.63. The company in addition to the street railway, supplies power and light, both electric and gas. The city has expended over \$300,000 on its power plant, and large contracts are now in progress. While outside comment is not altogether advisable, it is surmised that the present is not an opportune time to discuss such a proposal in view of the general condition of the city's finances.

#### Electric Railway Notes.

H. C. Osborne, Toronto, has been elected Vice-President of the Chicago and Milwaukee Electric Ry. Co., Chicago, Ill., vice G. Ramsay, resigned.

The name of the Toronto and Mimico Ry. Co., Ltd., has been changed to the Toronto Power Co., Ltd., by order of the Lieutenant-Governor of Ontario in Council.

The Ontario Railway and Municipal Board has approved with certain amendments the rules of the Brantford St. Ry. Co. and the Woodstock, Thames Valley and Ingersoll Ry. Co.

J. J. Forbes, formerly G.T.R. station agent at Brantford, Ont., has been appointed freight agent, Galt, Preston and Hespeler St. Ry. at Berlin, Ont., J. McTavish having resigned to go into business for himself.

The Winnipeg Electric Ry. Co.'s employes, on the recent expiry of their agreement with the company, demanded among other things an eight hour day without reduction of pay, seats for motormen, and an appropriation for overcoats. Several meetings were held to discuss details, and threats of a strike, and an appeal to a board of arbitration were made, but it is anticipated that any trouble will be avoided.

The finance committee of the Montreal City Council decided April 10 to report to the council regarding the dispute with the Montreal St. Ry., as to the amount alleged to be due by the company as its share of the snow clearing cost, and asking that the city attorney be instructed to demand immediate payment. It was stated that \$30,000 had been paid, and that another \$25,000 was claimed to be due.

Replying to a delegation of street railway employes at Vancouver, April 7, J. C. M. Buntzen, Managing Director, B.C. Electric Ry., stated that he was still in favor of the pension scheme originated by him when he was General Manager, and although the Vancouver employes voted for it before, the Victoria and New Westminster employes were opposed to it, and until they were unanimous nothing could be done.

The Montreal Board of Trade recently adopted a resolution, to the effect that it advocates to the city council that an arrangement be made with the Montreal St. Ry. whereby with proper restrictions and safeguards for the rights and interests of the city, the company should be permitted to carry freight throughout the city, the city council reserving the right to approve of the streets on which such freight is to be carried.

The Berlin and Bridgeport Electric St. Ry. Co.'s appeal against the recent decision in a case brought by D. Forman, by which he was awarded \$3,500 as damages, has been dismissed. Contributory negligence due to carelessness and unnecessary excitement, was alleged against the plaintiff in the original case, but a farmers' jury rendered a verdict in his favor; against which the company appealed, claiming that the verdict was not in accordance with the evidence.

In the act to amend the Municipal Act passed at the recent session of the Manitoba Legislature a clause was inserted regulating the method of voting upon by-laws affecting the operation of street cars on Sundays, and providing "in case such by-law is carried and a Sunday street car service is established thereafter, the said municipality shall provide and maintain such police supervision and protection as the Lieutenant-Governor-in-Council may from time to time require."

The Southwestern Traction Co. is adding six new interurban cars to its rolling stock; they are double ended; length, 50 ft. over all, 38 ft. bodies, and  $8\frac{1}{2}$  ft. wide over sheath-

ing The bottom framing is combination steel and wood, the side walls solid blocked with W bracing, vestibule platforms, having a drop of 8 inches with double steps and automatic folding doors; the side windows are Pullman style with gothic top sash, and the exterior is painted Pullman color trimmed with gold; the interior is finished in cherry with painted head linings, the lighting being arranged in 6 circuits of 5 lights each; the seats are spring upholstered, in rattan, walkover style, with bronze handles on the aisle end of each seat back; each car is equipped with two 75 h.p. 500 volt railway motors, with the necessary controllers, and with the Westinghouse straight air brake equipment with the emergency feature, the use of which, it is claimed, renders the operation of trailer cars safe. The coaches are being built by the Preston Car and Coach Co., Preston, Ont., and the equipment by the Canadian Westinghouse Co., Hamilton, who have previously equipped similar cars for the same company.

#### Grain Elevator Notes.

The Imperial Elevator Co.'s elevator at Rosenfeld, Man., was destroyed by fire recently.

The North Star Grain Co.'s elevator at Milestone, Sask., with a capacity of 25,000 bush., is practically complete.

The Canadian Northern Ry.'s elevator at Eden, Man., containing 7,000 bush. of wheat, was destroyed by fire April 14.

G. Crow's elevator at Prairie siding, Chatham, N.B., with about 2,500 bush. of grain, was destroyed by fire April 18.

A press report states that the G.T. Pacific Ry. will erect an elevator at Mission River, Ont., with a capacity of 10,000,000 bushels.

The Imperial elevator at the C.P.R. station, Mowbray, Man., together with its contents, 3,000 bush. of wheat, was destroyed by fire, April 18.

The Macleod Farmers' Elevator and Mill, Ltd., has been incorporated under the North-west Territories Ordinance respecting Companies, with office at Macleod, Alta.

The Fourth Vice-President of the C.P.R. stated recently that, on March 31, there were only 58 carloads of grain in the elevators at Fort William, Ont., to load for export and local consumption.

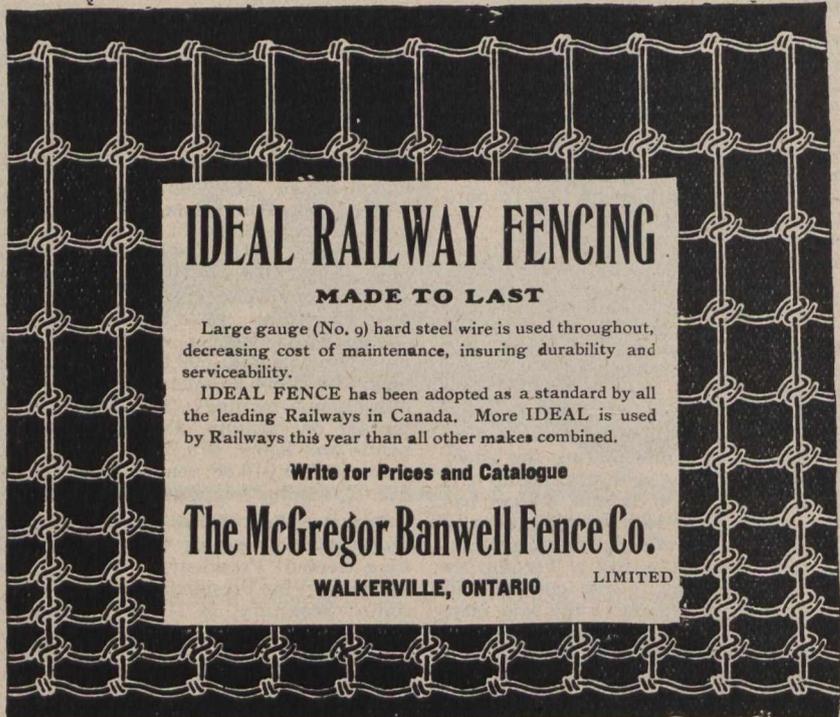
The G.T.R. elevator at Toronto was destroyed by fire April 21. The damage is estimated at \$60,000. The elevator was constructed by the Northern Ry. in 1868, and had a capacity of 260,000 bush.

The Price Elevator Co., which was negotiating with the London City Council for land at Port Stanley, Ont., on which to construct an elevator, has not been able to come to terms, and it is expected that another site will be secured.

The Maple Leaf Flour Mills Co., Ltd., has let a contract to G. H. Archibald & Co., for the construction of a flour mill and elevator at Kenora, Ont., to take the place of the one destroyed by fire. It is expected that the buildings will be completed by Oct.

The Goderich Elevator and Transit Co. contemplates an annex to its 500,000 bush. elevator at Goderich, Ont. It is not expected, however, that the work will be gone on with this year, although materials for the construction may be prepared and delivered.

The Port Colborne, Ont., elevator which will have a capacity of 800,000 bush., is almost completed. It is anticipated that it will be used for transshipment purposes, the larger vessels being utilized solely for the lake traffic, and smaller vessels taking the grain through the Welland Canal and down Lake Ontario.



**IDEAL RAILWAY FENCING**

**MADE TO LAST**

Large gauge (No. 9) hard steel wire is used throughout, decreasing cost of maintenance, insuring durability and serviceability.

IDEAL FENCE has been adopted as a standard by all the leading Railways in Canada. More IDEAL is used by Railways this year than all other makes combined.

Write for Prices and Catalogue

**The McGregor Banwell Fence Co.**  
WALKERVILLE, ONTARIO LIMITED

## TORONTO BOLT AND FORGING CO.

Manufacturers of

LIMITED

### BOLTS AND NUTS

OF ALL KINDS, INCLUDING

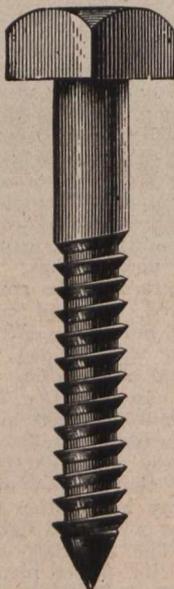
**Track Bolts**

**Track Spikes**

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**Boiler and**

**Bridge Rivets**



TORONTO

CANADA

J. Kennedy, Vice-President of the Grain Growers' Grain Co., at a public meeting at Killarney, Man., recently, contended that nothing but a system of government owned elevators, operated by an independent commission, could take the place of the present system and remedy the alleged existing evils of the grain trade.

The Western Grain Growers' Association

recently sent a deputation to Ottawa to confer with the Ministers of Trade and Commerce, Agriculture and the Interior, on the proposals contained in the Grain Commission's report, and made strong representations in favor of the Dominion Government taking over the control of all terminal elevators at the head of the lakes.

The Great West Tug Grain Co., Ltd., has been

incorporated under the Manitoba Companies Act, with a capital of \$50,000 and office at Brandon, with power, amongst other things, to build, operate, purchase and dispose of elevators, etc., and to carry on a general elevator and storage business. The provisional directors are: J. H. R. Gillespie, C. H. Lamontagne, C. M. Lamontagne, J. R. Brodie, M. A. Brodie, Brandon, Man.

# MARINE DEPARTMENT

## Coast, Lake and River Officers for 1908.

The following appointments have been made by navigation companies engaged on the coast, lake and river routes for their various vessels during the current year, in addition to those published in our April issue. In the first column is given the name of the vessel, in the second, that of the captain, and in the third, that of the chief engineer:

BRAS D'OR STEAMBOAT CO., NORTH SYDNEY, N.S.		
Marion	L. A. Moore	W. R. Coleman
Weymouth	R. E. Burke	J. Macdonald
BROCKVILLE NAVIGATION CO., BROCKVILLE, ONT.		
Brockville	S. Scott	W. J. Jento
Victoria	F. Address	
C.P.R. BRITISH COLUMBIA LAKE AND RIVER SERVICE, NELSON, B.C.		
Aberdeen	J. Weeks	W. Jacobs
Columbia	W. Kirby	J. Johnson
Kokanee	G. Robertson	W. Nuhl
Kootenay	L. H. Fraser	T. McKechnie
Kuskanook	W. Seaman	J. Cameron
Minto	J. Dougal	J. Russel
Moyie	L. McKinnon	D. Pollack
Nelson	M. Reid	J. Walker
Okanagan	G. L. Estabrooks	Y. Tray
Proctor	J. Fitzsimmons	T. Harris
Rossland	A. Forsland	J. Fyfe
Sandon	G. Graham	G. Stewart
Slocan	A. McLennan	H. Colbeck
Valhalla	O. Alfsino	D. Biggam
Ymir	F. L. Orr	W. Anderson
York	J. Ferguson	S. Peterson
COLLINGWOOD SHIPPING CO., COLLINGWOOD, ONT.		
Wasaga	M. McKay	J. Myler
DESERONTO NAVIGATION CO., DESERONTO, ONT.		
Ella Ross	D. B. Ainstie	M. J. McFaul
Ranger	A. Barnhart	G. Toppings
Rescue	T. J. Lynch	O. Flood
Where Now	W. J. Daly	W. H. Way
DOMINION TRANSPORTATION CO., OWEN SOUND, ONT.		
Caribou	A. A. Balten	R. Grierson
Manitou	N. McCoy	W. McLaren
Telegram	G. Waugh	J. McLaren
GLOUCESTER NAVIGATION CO., LTD., SHIPPEGAN, N.B.		
Beaver	J. B. Godin	E. H. Haviland

GRAND TRUNK MILWAUKEE CAR FERRY CO., MILWAUKEE, WIS.		
Grand Haven	C. Lyman	E. F. Scott
HUNTSVILLE, LAKE OF HUNTS AND LAKE SIMCOE NAVIGATION CO., HUNTSVILLE, ONT.		
Algonquin	W. Sangelin	E. Goldthorp
Empress Victoria	A. Burke	J. O. Noys
Iroquois	J. St. Armon	J. Smith
Joe	R. Rowlandson	B. McGregor
Mohawk	R. Parsons	R. McCaw
Ramona	F. Brown	J. Logan
KILKEEL CO., LTD., TORONTO.		
Kilkeel	J. T. Elsworth	A. L. Stevenson
LEHIGH PORTLAND CEMENT CO., LTD., BELLEVILLE, ONT.		
Salaberry	H. Hart	
LEMCKE TUG CO., LION'S HEAD, ONT.		
W. E. Gladstone	E. B. Rumley	J. Skein
MAGDALEN ISLANDS STEAMSHIP CO., HALIFAX, N.S.		
Amelia	R. D. Burns	H. Webster
MIRAMICHI STEAM NAVIGATION CO., LTD., CHATHAM, N.B.		
Alexandra	J. Nowlan	S. G. Harding
Miramichi	J. P. Bullick	C. Johnston
Sybella H.	D. S. Betts	A. McIntyre
MONTREAL TRANSPORTATION CO., LTD., MONTREAL QUE.		
Advance	M. Olsen	R. Hepburn
Bothnia	A. Monpetit	T. Hazlett
D. G. Thomson	T. J. Murphy	L. E. Spancer
Emerson	C. Martin	G. Henderson
Fairmount	P. C. Telfer	J. W. Taylor
Glenmount	J. Wood	T. G. Bishop
Glide	T. O'Connor	G. M. Gerow
Hamilton (bge.)	G. Davy	
H. F. Bronson	L. Mallan	G. Dennison
Mary	J. B. Desgrossillier	C. A. Stilson
Mary P. Hall	W. J. Murphy	J. Kennedy
Quebec (bge.)	C. Sauve	R. Taylor
Rosemount	C. Milligan	G. Fleming
Stirling	J. Murray	H. McClymount
Stormount	H. N. McMaster	
Ungava (bge.)	J. Kirkwood	W. Newbold
Westmount	A. Milligan	W. Spencer
Windsor	J. Doyle	
RENWICK CO., LTD., TORONTO.		
Renwick	J. Chapman	J. Hunter
J. RICHARDSON & SONS, KINGSTON, ONT.		
City of New York	D. Rooney	
Ford River	C. Daryau	
Glengarry	C. Robineau	A. Legendre
J. B. Kitchen	J. Bongard	
Navajo	J. Corkey	L. Whalen

ST. LAWRENCE CANADIAN NAVIGATION CO., MONTREAL.		
Imperial	J. Jean	A. Lacombe
Prefontaine	L. St. Louis	A. Blanchette
White Star	H. Langlois	C. F. Marchand
SARNIA TRANSPORTATION CO., SARNIA, ONT.		
Cyrenian (bge.)	M. Mahony	
Lake Michigan	A. McLellan	H. Meyers
Naiad (bge.)	M. McDonald	
TURBINE STEAMSHIP CO., TORONTO.		
Turbinia	—, Bongard	J. Pringle
TURRET CROWN, LTD., TORONTO.		
Turret Crown	J. U. Foote	R. McLaren
UPPER ONTARIO STEAMBOAT CO., NEW LISKEARD, ONT.		
Aileen	—, Donnelly	—, Kennedy
Blanche	F. S. Brickenden	S. Arbin
Britannia	F. Vincent	F.H. Brickenden
Geisha	—, Milligan	—, Johnston
Gipsy	—, Cartwright	—, McLaren
Lena May	—, Wright	—, Stevens
Myrtle	—, Cook	—, Donaldson
St. Antoine	—, Casselman	—, Lewis
S. & Y.	—, Pierce	—, Seoul
Wenona	—, Milligan	
VICTORIA STEAMSHIP CO., BADDECK, N.S.		
Blue Hill	D. MacRae	J. Blesdale
W. J. WILLOUGHBY, WINDSOR, ONT.		
Iron Age	W. J. Willoughby	R. Baxter

## The Inland Navigation Co., Ltd.

This company, which has been incorporated under the Dominion Companies Act, with a capital of \$2,000,000, and offices at Hamilton, comprises the following companies and steamboats, previously under the management of R. O. and A. B. Mackay of that city; Dundee Steamship Co., Ltd., S. S. Dundee; Dunelm, Ltd., S. S. Dunelm; Hamilton and Fort William Navigation Co., Ltd., S.S. Donnacona and Strathcona and Stadacona (under construction); Hamilton and Montreal Navigation Co., Ltd., S.S. Dundurn; New Ontario Steamship Co., Ltd., S.S. Neepawah and Wahcondah; Rosedale,

# THE NORTHERN NAVIGATION CO.

GRAND TRUNK RAILWAY LINE

## "A FRESH WATER SEA VOYAGE"

1,500 MILES UP THE GREAT LAKES

Frequent Sailings from Sarnia for Soo, Port Arthur, Fort William and Duluth

## "THAT GEORGIAN BAY TRIP"

Sailings from Collingwood and Owen Sound for Manitoulin Island Points and Sault Ste. Marie  
Also from Collingwood for Parry Sound, Byng Inlet and French River

Tickets from all Agents, or address C. H. NICHOLSON, Traffic Manager, Sarnia

Ltd., S.S. Rosedale; Union Steamship Co., Ltd., S.S. Glenellah; together with the wharfinger, cartage, warehousing and coal business of R. O. and A. B. Mackay at Hamilton, shed and wharf privileges at Montreal, and the business and property of the New Ontario Dock and Coal Co., Ltd., Sault Ste. Marie, Ont.

Following are the officers and directors of the company: President, W. Southam; Vice-President, R. O. Mackay; Directors, G. L. Staunton, W. G. Walton, J. P. Steedman, F. H. Whitton, J. Milne, J. W. Nesbitt, G. Hope, C. W. Band; General Manager, A. B. Mackay; Secretary, F. A. Magee. On assuming the position of Vice-President, R. O. Mackay retires from active participation in the management, and L. W. Doherty, formerly of the C.P.R. General Freight Agent's Office, Toronto, has been appointed assistant to the General Manager.

#### NORTHERN NAVIGATION COMPANY OF ONTARIO, LIMITED.

NOTICE is hereby given that at a meeting of the Board of Directors held to-day, it was decided to issue \$160,000 New Stock, making, with the \$840,000 now existing, the total Capital \$1,000,000.

Subscribers on record 30th May, 1908, will be invited to subscribe, at par, for one share for every five shares of their then holding, payable 20 per cent. each of following dates: 2nd July, 1st August, 1st September, 1st October and 2nd November, 1908.

H. H. GILDERSLEEVE, Manager.

Toronto, 23rd April, 1908.

#### NOTICE.

#### NIAGARA RIVER BRIDGE COMPANY.

The Annual General Meeting of the Niagara River Bridge Company, for the election of Directors and other general purposes, will be held on Wednesday, the 3rd of June, 1908, at the hour of eleven o'clock in the forenoon, at the offices of the Canada Southern Railway Company, in the City of St. Thomas.

NICOL KINGSMILL,  
Secretary, N.R.B. Co.

April, 24th, 1908.

#### NOTICE.

#### NIAGARA GRAND ISLAND BRIDGE COMPANY.

The Annual General Meeting of the Niagara Grand Island Bridge Company, for the election of Directors and other general purposes, will be held on Wednesday, the 3rd day of June, 1908, at the hour of eleven o'clock in the forenoon, at the Company's Head Office, in the City of St. Thomas.

NICOL KINGSMILL,  
Secretary, N.G.I.B. Co.

April 24th, 1908.

#### NOTICE.

#### CANADA SOUTHERN RAILWAY COMPANY.

The Annual General Meeting of the Shareholders of the Canada Southern Railway Company, for the election of Directors and other general purposes, will be held on Wednesday, the third day of June, 1908, at the hour of eleven o'clock in the forenoon, at the Head Office of the Company, in the City of St. Thomas.

NICOL KINGSMILL,  
Secretary, C.S. Ry. Co.,  
St. Thomas, Ont.

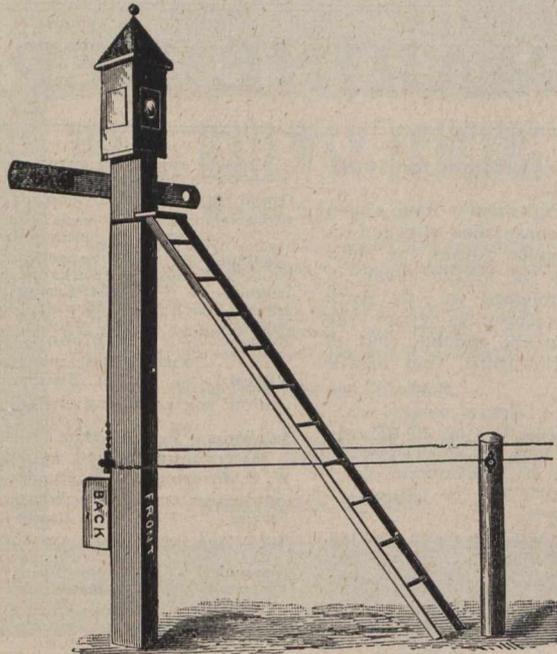
Dated at St. Thomas, Ont.,  
24th day of April, 1908.

## THE N. L. PIPER RAILWAY SUPPLY Co.

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314 Front St. West, Toronto

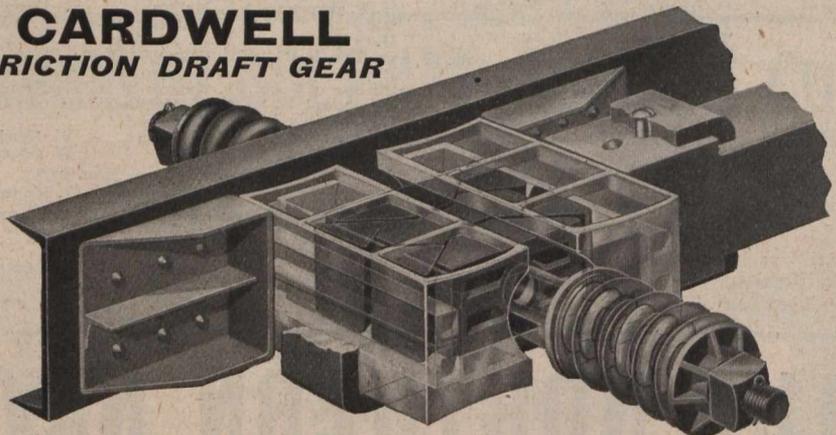
Manufacturers of  
Ship,  
Street  
and  
Railway  
Lamps,  
Etc.



PIPER'S PATENT DISTANT SEMAPHORE

Dealers in  
Chimneys,  
Burners,  
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Fusees,  
Torpedoes,  
Etc.

## CARDWELL FRICTION DRAFT GEAR



Furnishes greatest protection to cars and locomotives.

CARDWELL MFG. COMPANY, CHICAGO, ILL.

Manufacturers of CARDWELL ROCKER SIDE BEARINGS.

## REAMERS ALL KINDS OF REAMERS FOR RAILROAD SHOPS AND BRIDGE BUILDING



BUTTERFIELD & CO., ROCK ISLAND, QUE.

HAND, MACHINE AND TAPPER TAPS, STAY BOLT TAPS, BOILER AND PATCH  
BOLT TAPS. QUALITY UNSURPASSED.

LIST OF STEAM VESSELS REGISTERED IN CANADA FROM FEB. 1 TO MAR. 31, 1908.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Port of Registry	Owners.
Babine.....	122,548	Vancouver, B.C., 1908.....	Screw 5 N.H.P.....	47.7	10.0	5.6	24	16	Vancouver, B.C.....	C. A. Whitaker, Sechelt, B.C.
James Morgan	121,948	Hull, Que., 1906.....	" 4 ".....	52.0	11.6	4.8	21	8	Sorel, Que.....	E. A. D. Morgan, Montreal.
M. E. Smith.....	122,389	Victoria, B.C., 1907.....	" 1 ".....	30.0	9.0	5.8	8	4	Victoria, B.C.....	J. Christensen, Victoria, B.C.
Princess Ena.....	122,387	Garston, Eng., 1907.....	" 75 ".....	195.1	38.2	22.6	1368	827	".....	C.P. Ry. Co., Montreal.
Salmon King.....	122,196	N. Westminster, B.C., 1904	" 10 ".....	28.8	8.6	3.2	7	4	N. Westminster, B.C.	M. Monk and C. Christianson, New Westminster, B.C.
Sunburst.....	122,388	Victoria, B.C., 1908.....	" 4 ".....	61.0	15.8	7.0	42	19	Victoria, B.C.....	V. Kabori, Victoria, B.C.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM FEB. 1 TO MAR. 31, 1908.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross Tons	Reg. tons.	Port of Registry.	Owners.
*Athena.....	92,498	Newport, N.S., 1888.....	Bktn.	164.4	36.5	16.1	706	663	Windsor, N.S.....	T. C. Thomson, Mobile, Ala., U.S.
Dredge Holland.	125,974	Belle Ewart, Ont., 1906.....	Dred.	63.7	29.0	5.0	230	—	Toronto.....	G. Kastner, Warton, Ont.
Elfreda May.....	122,287	Shelburne, N.S., 1908.....	Schr.	79.0	22.8	9.1	87	78	Shelburne, N.S.....	W. C. Patten, Grand Bank, Nfld.
Emily R.....	121,817	Meteghan River, N.S., 1908	"	55.0	16.1	6.6	30	30	Digby, N.S.....	E. J. Robichaud, Meteghan River, N.S.
F. E. Melanson..	122,032	Gilbert's Cove, N.S., 1907..	"	88.0	25.6	8.6	115	99	Weymouth, N.S.....	D. J. Melanson, Gilbert's Cove, N.S.
Prince Guy.....	125,989	Montreal, 1903.....	Dred.	99.5	35.0	7.2	304	261	Montreal.....	W. J. Poupore, Montreal.
Prince Louis.....	125,970	" 1902.....	"	72.6	38.6	6.6	270	208	"	"
Vie No. 2.....	122,549	Vancouver, B.C. 1908.....	Scow	57.3	18.3	2.5	54	54	Vancouver, B.C.....	C. H. Cates, Vancouver, B.C.
*Wildwood.....	85,586	St. John, N.B., 1883.....	Barge	222.3	40.0	22.1	1492	1381	Windsor, N.S.....	D. McG. Munroe, Windsor, N.S.

\*Recovered wrecks.

Dominion Canals Regulations.

The regulations respecting the operations of canals, established by order-in-council, Mar. 17, were discussed at a meeting of the Dominion Marine Association's executive, April 14, and the Association's objections and request for interpretations of some of the obscure, or contradictory regulations, were heard at an interview with the Minister and Deputy Minister of Railways and Canals, April 16. At the outset, the deputation was informed that while the rules had been framed by the Superintendent of Canals, they had passed under the Deputy Minister's personal consideration, and having been approved and adopted they would remain operative and would not be suspended; and the deputation was advised that discussion should be aimed more at seeking explanations of any difficulties, which may be thought to exist, rather than at elaborating objections. The Deputy Minister also stated that the regulations need not be supposed to introduce anything new, as the revision which had taken place consisted in the elimination of inconsistent and unnecessary provisions, and in remodelling, rather than making any material changes. Certain of the rules, he continued, may be thought to be strict, but the intention was to make the rules strict, and give the superintendents a great deal of power, in the expectation that these officers would use a wise discretion, and construe the rules broadly and fairly, so that no injustice would be done anyone. If any officer failed to give satisfaction or interpreted a rule so that it worked injustice, an appeal should at once be made to the Deputy Minister, and such an appeal would be promptly and fairly dealt with. The apparent strictness of the rules will bear with special force upon a defaulter, should any trouble arise, and in cases before the courts, where the clemency of the Department could not be invoked, hardship may be encountered.

The regulations were discussed seriatim, and in many cases, the errors and inconsistencies alleged by the Dominion Marine Association were clearly proved to exist, and it is unfortunate that before these regulations were promulgated, they were not submitted to the Association for suggestions, which would at any rate have saved vessel owners from being placed in an anomalous position, in regard to, at least, one of the rules which, it was practically admitted, would have to be broken to enable a steamboat to pass several vessels, moored near each other, or along a

wharf. The apparent discrimination against Ontario canals, it was promised, would be further considered. The rule providing for the charging of wharfage on all cargoes going down the Lachine canal, or entering it westward, and extra charges on all goods allowed to remain over five days, and for every additional five days, was carefully discussed, and it was apparent that full consideration had not been given to the matter before the regulation was passed. The Deputy Minister stated that the intention had been simply to do away with the discrimination which existed between the Lachine canal docks and those subject to the Montreal Harbor Commissioners. It followed that no double charge was intended, nor would be made upon goods passing first over one dock, and later over another. It was urged that even if the imposition of a general tariff of charges was fair, those having Government leases should be exempt. Both the Minister and Deputy Minister concurred in this, and the Minister ruled, extending the provisions to cover all leases from the Government whether to vessel owners or to others, the vessel, in all such cases, enjoying exemption from the charges imposed by this rule. Regarding the Sunday opening of the canals, the deputation was informed that the practice followed last year would be continued.

The deputation consisted of, A. A. Wright, President; C. J. Smith, F. Plummer, L. L. Henderson, C. A. Jaques, J. H. Hall, C. P. Murphy, D. Noonan, — Elliott and F. King, Secretary.

Atlantic and Pacific Ocean Marine.

J. Mitchell, captain of the Donaldson Line S.S. Cassandra, was married in Glasgow, Scotland, recently.

A Board of Trade enquiry into the breakdown of the C.P.R. steamship Mount Royal, in December last, has been held in London, Eng.

The Hamburg-American S.S. Pretoria, having encountered rough weather, had to put in at Halifax, N.S., April 5, being short of coal.

The Pickford and Black Steamship Line has chartered the S.S. Wobun to take the place on the Bermuda route of the wrecked S.S. Beta.

The Allan Line S.S. Hesperian sailed from Great Britain, April 17, on her maiden trip. She is on the Montreal-Glasgow route, and at her trials maintained a 16½ knot speed.

The C.P.R. has chartered the steamships Glenfarg and Lennox for the trans-Pacific service, to take the places of the Athenian and Tartar, recently sold to a Japanese firm.

R. A. Alley, President of the R. A. Alley Steamship Lines running between British Columbia and New Zealand, died recently in New York, after an operation for appendicitis, aged 32.

The Manchester Liners' S.S. Manchester Shipper, which had a mishap recently, was temporarily repaired at St. John, N.B., and proceeded to New York, where complete repairs were made.

On the arrival of the Donaldson Line S.S. Cassandra at St. John, N.B., April 11, Capt. Mitchell was presented with a buffet in quartered oak, by a number of St. John friends, on the occasion of his recent marriage.

It is reported that the Imperial Government has renewed the mail subsidy to the C.P.R., for the Great Britain-Orient service, via Canada, on the understanding that closer connections be made between the Atlantic and Pacific oceans.

The Two Kwangs Chinese Steamship Co. is being organized for the purpose of eventually inaugurating a trans-Pacific service between Chinese and Canadian or U.S. ports. Shares are being offered, principally to Chinese in Canada, at \$2.50.

The German steamship Statendam, communicating with the Marconi station at Sable Island, N.S., April 13, reported a French vessel named Breizhuel, in distress, with broken rudder, about 240 miles southeast of Halifax. Assistance was immediately sent from Halifax.

The U.S. Congress will shortly consider a bill providing that all sea-going vessels shall be equipped with a self-anchoring line, and a means of projecting a line to the shore, or other suitable point of vantage, so that in case of wreck, near shore, passengers and crews may, by the use of a breeches buoy, be landed, independent of help from shore.

Manchester Liners, Ltd., has purchased the British Steamship Co.'s S.S. Fulham, and renamed her Manchester Miller. She was built at West Hartlepool, Eng., in 1890, and is equipped with triple expansion engines, 165 n.h.p., with cylinders 21, 34 and 55 ins. diam. by 42 ins. stroke. Her dimensions are: length, 270 ft.; breadth, 36½ ft.; depth, 19 ft.; tonnage, 2,039 gross, 1,277 register.

The Dominion Government contract for a service between Canadian and French ports has been awarded to the Allan Steamship Line for ten years. A subsidy will be paid of \$100,000 annually for 18 round trips, and the Government has been authorized to increase the subsidy payments for an increased service, should the traffic demands warrant it, the maximum being \$200,000 for 36 round trips annually.

Consequent upon the death of Capt. McNicoll, of the Allan Line S.S. Victorian, Capt. Pickering, formerly of the Corsican, has been transferred to the Victorian; Capt. Outram of the Grampian, to the Corsican; Capt. Gambell of the Mongolian, to the Grampian; and Capt. Williams has been appointed to the Mongolian. Capt. Vipond of the Virginian succeeds Capt. McNicoll as commodore of the Allan fleet.

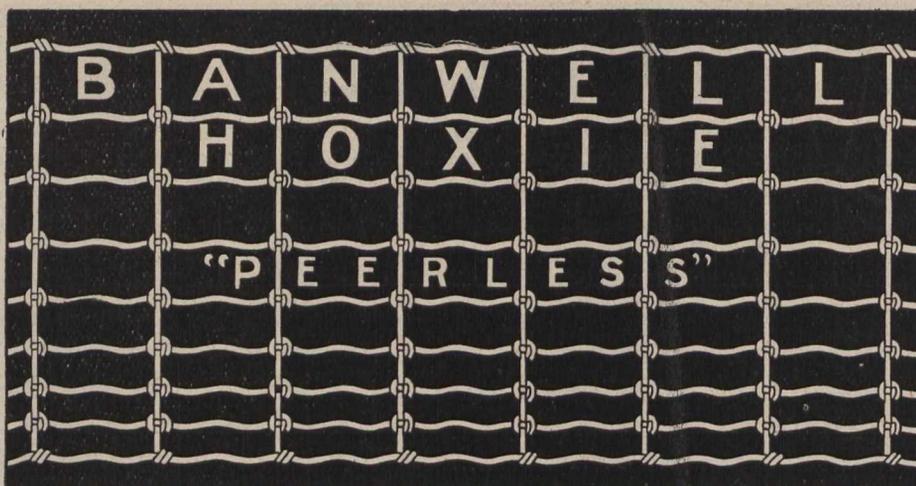
The various steamship companies running vessels between Canada, the U.S., and European ports have entered into an agreement for the reciprocal use of return tickets. The following companies are parties to the agreement, which has gone into effect: Allan, American, Atlantic Transport, C.P.R., Cunard, Dominion, French, Hamburg-American, Holland-American, Leyland, Norddeutscher Lloyd, Red Star, and White Star lines.

The C.P.R. and the Chargeurs Reunis have entered into an arrangement whereby the latter company will place three vessels on the Yokohama-Vancouver route, to be followed by another two vessels, when constructed. The service will be a "round-the-world" one, from Antwerp to the Orient, via the Suez Canal, thence to Vancouver, and returning to Antwerp round Cape Horn. Passengers and freight for Canada and the U.S., and for Europe by the Canadian route, will be handed over to the C.P.R. at Vancouver.

Press reports from London, Eng., state that at the opening of navigation in 1909, the White Star Steamship Line will inaugurate a service between Liverpool and Montreal, placing four 24-knot steamships on the route, capable of accommodating between 3,000 and 4,000 passengers in addition to first-class berths. J. Thom, Canadian manager of the Dominion Line, recently stated that this service would be conducted in conjunction with that of the Dominion Line, and Liverpool reports convey the impression that the G.T.R. and G.T. Pacific Ry. are connected with the proposal.

The Nautical Gazette, New York, of recent date, states that "Four new and thoroughly modern passenger steamers are now building in Scotland to the order of the Allans, which are intended for service on the Pacific, plying between Prince Rupert (the Western terminus of the new Canadian Transcontinental Railway), and the ports of Japan, China and the Philippines. The Allans, under their working arrangement with the G.T. Pacific Ry., will also give battle for the Canadian-Australian trade." We have been unable to obtain any confirmation of this, and are of the opinion that the statement has no foundation in fact.

The C.P.R. S.S. Mount Temple, which was wrecked on Ironbound Island, N.S., Nov. 30, was successfully floated April 15, and proceeded to Halifax under her own steam. The work, which was undertaken by the Halifax Salvage Association, consisting of S. M. Brookfield, Ltd.; G. S. Campbell & Co., and Beazley Bros., is of an interesting character, inasmuch as it is the first time the system has been adopted on the Atlantic coast for such salvage work. The vessel's holds were freed from water by means of compressed air, the holes closed and the whole made airtight. It has been stated that the Salvage Association will receive \$200,000 from the underwriters for the work.



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THE CANADIAN PACIFIC RAILWAY COMPANY have 9,000,000 acres of selected lands for sale in Manitoba, Saskatchewan and Alberta.

Maps, as enumerated below, showing these lands in detail, will be sent free on application.

Map No. 1—Winnipeg to Second Meridian.....	\$ 8.00 to \$15.00 per acre.
Map No. 2—South-Eastern Saskatchewan, 2nd to 3rd Meridians.....	10.00 to 25.00 per acre.
Map No. 3—Main Line, 3rd Meridian to Range 10 W.. 4th Meridian(generally)	8.00 " "
Map No. 5—South-Western Alberta .....	8.00 to 15.00 per acre.
Map No. 6—Part of Alberta—Edmonton, Battle and Saskatchewan Rivers Districts—4th Meridian to Range 7, West 5th Meridian.....	10.00 to 25.00 per acre.
Map No. 7—Part of Western Saskatchewan, 3rd to 4th Meridians.....	10.00 to 25.00 per acre.

All prices are subject to change without notice.

#### TERMS OF PAYMENT

An actual settler may purchase not more than 640 acres on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal, with interest, in nine equal instalments annually thereafter, as shown in the following table:

160 Acres at \$ 8.00 per acre, cash payment	\$191.70	first year's interest	\$65.28	and nine instalments of	\$160.00
" " " 9.00 " " "	215.70	" " " "	73.46	" " "	180.00
" " " 10.00 " " "	239.70	" " " "	81.62	" " "	200.00
" " " 11.00 " " "	263.60	" " " "	89.78	" " "	220.00
" " " 12.00 " " "	287.60	" " " "	97.96	" " "	240.00
" " " 13.00 " " "	311.55	" " " "	106.10	" " "	260.00
" " " 14.00 " " "	335.60	" " " "	114.32	" " "	280.00
" " " 15.00 " " "	359.50	" " " "	122.44	" " "	300.00

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

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

F. T. GRIFFIN, Land Commissioner, Winnipeg.

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This Company has 525,000 acres of selected lands in Manitoba and Saskatchewan which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

F. T. GRIFFIN, Land Commissioner, Winnipeg.

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All Classes		Steam
Parlor	<b>Railway Equipment</b>	Shovels
Combination		Freight
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Mail		Flat
Express	<b>241 RAILWAY EXCHANGE</b>	Gondola
Private		Dump
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For Sale		Cars
		For Sale

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**Maritime Provinces and Newfoundland.**

J. Kenny, Kelly's Cove, N.S., has been appointed wharfinger of the Government wharf there.

C. Fisher, Fort Augustus, P.E.I., has been appointed wharfinger at Haggerty's wharf, East River, P.E.I.

The New Brunswick Public Works Department received tenders April 27 for the construction of a high water wharf at Queenstown.

The Newfoundland sealing steamer Grand Lake, with a cargo of seals, was crushed in the ice April 12, and immediately sank, all of the crew escaping.

A bill abolishing signal dues on vessels under 350 tons, entering Halifax harbor, has been introduced in the House of Commons by the Minister of Marine.

The Three Rivers Steamship Co., Georgetown, P.E.I., has sold its steamship Electra to Capt. Baillie, of Pictou, N.S., who has proceeded to Montague to take charge of her.

The Black Diamond Line steamships Bonavista and Cacouna have been extensively overhauled during the winter season, and each has been fitted with permanent cattle pens.

A report on the shipping casualties on the Canadian and New England coast, for the past winter season, shows that 350 lives were lost, 251 lives being accounted for by the wreck of 10 vessels of the French fishing fleet off St. Pierre.

Press reports state that the Imperial Government is about to resume occupation of the Halifax dockyard, and that a number of men will shortly be transported from the Chatham, Portsmouth and Devonport dockyards, Eng., to commence operations there.

The schooner Beatrice Mack was run down recently in a snowstorm by the Allan line S.S. Victorian, and subsequently reached Lunenburg, N.S., in a sinking condition. Those in charge of the Victorian were unaware of the accident and proceeded to Halifax.

The Italian barque Affezione was recently sold by order of the Admiralty Court. The purchasers, Lewis & Son, Sheet Harbor, N.S., will have the vessel repaired, her name changed, and place her on the route between N. S. and United States ports. The price paid for her was \$1,778.

The steamboat Arcadia, built in Yarmouth, N.S., in 1884, has been sold by her owner, Capt. Beattie, Pictou, N.S., to F. Magee, Port Elgin, for \$3,000. She is a screw vessel, with engine of 30 h.p., her dimensions being: length, 68 ft.; breadth, 16.7 ft.; depth, 6.4 ft.; tonnage, 62 gross, 42 register.

Hon. J. Lovitt, who died at Yarmouth, N.S., April 13, aged 75, was connected with navigation matters from his early years, retiring from active sea life in 1869, to engage in the shipbuilding business in partnership with his brother, as Lovitt & Co., at Saulnierville and Churchpoint, N.S.

Capt. Chas. Dave, a large shipowner of Newfoundland, and leader of the opposition in the House of Assembly, died at St. John's, Nfld., Mar. 30. He was born Feb. 28, 1845, and has been more or less connected with the sealing industry all his life. He was Minister of Fisheries from 1897 to 1900.

The St. John, N.B., schooner Helen E. Kenney was recently reported ashore at Curacoa, and that there was no hope of saving her. She was built at Black River, N.B., in 1891, her dimensions being: length, 126 8 ft.; breadth, 30.2 ft.; depth, 11.5 ft.;

tonnage, 294; owned by J. A. Sinclair and Co., St. John, N.B.

The officers and directors of the Gloucester Navigation Co., Ltd., of Shippegan, N.B., for the current year, are: President, A. J. Sormony, L'Ameque; Vice-President, F. X. Comeau, Caraque; E. Chiasson, Little L'Ameque; P. Lue, Little Shippegan; J. J. Robichaud, Shippegan Island, and D. T. Robichaud, Bathurst.

The Dorchester Stone Works, which has been incorporated under the New Brunswick Companies Act, with a capital of \$10,000, and office at Dorchester, is authorized to acquire and operate steam and other vessels in connection with its business. The provisional directors are: F. C. Palmer, W. H. Chapman, H. C. Palmer, C. L. Hannington, Dorchester, N.B., and C. Cook, Parrsboro, N.S.

Tenders were recently received for a steamboat for the mail service between Wesleyville and Fogo, Nfld., the service to commence May 1, general conditions permitting. The vessel is required to have a speed of not less than 8 knots an hour, with accommodation for 20 passengers, and is to make one round trip each week, connecting with the S.S. Dundee at Wesleyville each Tuesday and Saturday.

At a recent joint meeting of representatives of the Dartmouth, N.S., ferry commission, the city and county councils, a draft scheme was prepared, and will be submitted to the Provincial Government, providing for the joint control of the ferry by the city, county and Government, that the Government provide a subsidy of \$5,000 a year, that the rate for passengers be not more than 2c., and that in case of a deficit, the city and county be assessed in proportion to the respective valuations.

The St. John, N.B., Pilot Commissioners have submitted for the approval of the Governor-General-in-Council, the rates for transporting vessels in the St. John harbor, as follows:

From 200 tons and under	\$ 2.00
200 tons and up to 400 tons	3.50
400 " " 500 "	5.00
500 " " 1,000 "	7.00
1,000 " " 1,500 "	9.00
1,500 " " 2,000 "	11.00
2,000 " " 2,500 "	13.00
2,500 " " 3,000 "	15.00
3,000 " " 3,500 "	17.00
3,500 " " 4,000 "	19.00
4,000 " " 4,500 "	21.00
4,500 " " 5,000 "	23.00
5,000 " and over	25.00

Navigation on the St. John River, N.B., was opened April 16, by the Hampstead Steamship Co.'s steamboat Elaine and the Star Line Steamship Co.'s steamboat Majestic, on the St. John-Gagetown route. The latter company's steamboat Victoria has also been placed on the Fredericton route, making three round trips weekly. It is stated that the Dominion and Provincial governments are to be asked for subsidies for this route, and if granted, the Majestic will be withdrawn from the Gagetown route, and in conjunction with the Victoria will ply a daily service to Fredericton.

The original plans for the proposed extension of the Rodney wharf, at St. John, N.B., by the Public Works Department, have been abandoned, on the representations of the captains of the C.P.R. and Allan Steamship Lines, on the ground that with the extension there would not be sufficient space for two vessels to moor alongside unless the stern of one vessel projected into the stream, which is considered dangerous in view of the strong tides. A. St. Laurent, Assistant Chief Engineer, Public Works Department, visited St. John recently, and has recommended that new plans be prepared providing that the present wharf be extended 160 ft. straight out on the south

side, and from the south corner, the outward face fronting the harbor be extended northwards at an outward angle of 45° for about 200 ft. From the north corner, the northerly face runs inward for about 900 ft., so that there will be provided berths on the north side for one large and one small vessel, and on the south side for one of the largest class of vessels.

**Province of Quebec Marine.**

H. Sauvé, Coteau du Lac, Que., has been appointed Government wharfinger there.

The Montreal Transportation Co.'s steam tug Sterling, which is being built at Grangemouth, Scotland, was launched there recently. Details of this vessel were given in our Nov., 1907, issue.

The inscription to be placed on the monument in memory of the late Hon. J. Young reads: "Hon. John Young, 1811-1878, through whose foresight, public spirit, and energy, Montreal has become the national part of Canada."

The Lake Champlain and St. Lawrence Ship Canal Co. is applying to the Dominion Parliament, at its current session, for an act declaring its corporate powers to be in full force, and extending the time for the construction and completion of its canal.

The St. Maurice Lumber Co., Three Rivers, has deposited with the Public Works Department, plans for ten piers it proposes to construct in the St. Maurice River, on the east side, and has applied to the Governor-General-in-Council for approval of such construction.

The Quebec Steamship Co.'s annual meeting was held April 15. Following are the officers and directors for the current year: President, W. Price; Vice-President, J. T. Ross; other directors, A. Ahearn, G. D. Davie, J. G. Garneau, W. Simons, Hon. J. Sharples, Quebec; M. N. de Lisle, W. A. Murray, Montreal.

The Municipal Contracting Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$100,000, and offices at Montreal, to carry on a general contracting business, to erect and operate mills, elevators, warehouses, etc., and to build, purchase or otherwise acquire steam and other vessels, and to build wharves, etc., in connection with the operation of such vessels. The provisional directors are: V. Morin, A. H. Desloges, T. Sutton, O. Constantineau, and R. Gohier, jr., Montreal.

The St. Lawrence Canadian Navigation Co., Ltd., against which a winding-up order was made in Nov., 1907, has been reconstructed, and an arrangement made with its creditors, by which it is proposed to meet its liabilities during the current season. The company was incorporated under the Dominion Companies Act in 1906, with a capital of \$1,000,000 and offices at Montreal. It did a considerable passenger and merchandise business, and owns the steamships Sovereign, Prefontaine and White Star; the first of which was lengthened by 25 ft., and rebuilt at Sorel, last year, and was subsequently held responsible in a collision with the Germaine. The officers and directors for the current year are: President, A. A. Bernard, Montreal; Vice-President, V. Lemieux, Quebec; other directors, J. A. Labrecque, Montreal; W. Paul, Jr., Sorel; J. I. Lavery and F. Nadeau, Quebec.

The accidents among Canadian navigation employes, reported during Feb., are two deaths, neither of which was due to any accident in connection with his employment, and one non-fatal accident, due to being struck by a steering wheel.

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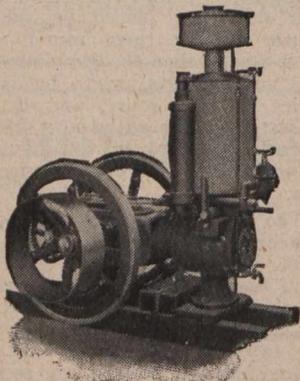
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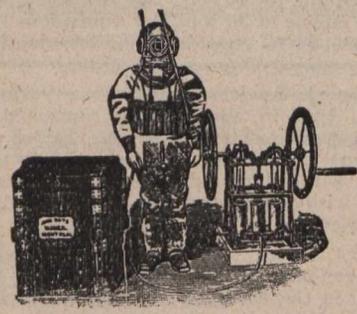
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### Ontario and the Great Lakes.

The Point Edward ore docks are being lengthened by 150 ft.

The Thousand Islands Steamboat Co. will not run the S.S. Ottawa this season.

C. E. Begin, Byng Inlet, Ont., has been appointed harbor-master of that recently constituted port.

J. Harrison & Co., Owen Sound, have sold their barge Charlie Crawford to Pedwell & Lemcke, Lion's Head.

The Inland Navigation Co.'s S.S. Wahcondah passed through the Welland canal April 14, being the first of the season.

A. A. Bellerose has been appointed captain of the Northern Navigation Co.'s S.S. City of Toronto for the current season.

The names of the barges Black Diamond and E. P. Beals, of Ottawa, have been changed by order-in-council to Freeport and Cobalt respectively.

The contract for the construction of section 2 of the Holland River division of the Trent canal has been awarded to J. Riley, St. Catharines, Ont.

The steamboat Pierrepont opened navigation from Kingston, April 6, by a trip through the harbor ice, and subsequently proceeded to Cape Vincent.

Tenders for the construction of the extension of the Toronto island breakwater were received up to April 24, by J. G. Sing, Government Engineer, Toronto.

J. F. McEwen has been appointed chief engineer of the St. Lawrence River Steamboat Co.'s S.S. Pierrepont. The company has decided not to run the Jessie Bain this season.

W. Birmingham, contractor for the construction of the outside breakwater at Goderich harbor, is making arrangements for rushing the work, as soon as the weather allows.

Tenders are under consideration by the Marine Department for the removal of the wrecked schooner George G. Houghton, now lying near Bar Point lightship, Detroit River.

Hon. W. Pugsley, Minister of Public Works, stated in the House of Commons, April 14, that a proposal to dredge various lake harbors to a depth of 25 ft. was under consideration.

The Reid Wrecking Co., Sarnia, has sold the steam tug Own to F. Trotter, Amherstburg, and it is said that the vessel is to be used as a Government patrol boat at Limekiln crossing.

J. Glass, master of the Point Edward-Port Huron ferry boat, was charged April 17 at Port Huron, Mich., with smuggling foreigners into the U.S. The boat was seized and held at North Port Huron.

The Hamilton Steamboat Co.'s S.S. Macassa, which was launched at Glasgow, Scotland, 20 years ago, has, it is stated, only been out of service one day during the seasons she has been on Lake Ontario.

The Toronto Ferry Co.'s building on the Toronto wharf is expected to be completed before the end of May. It is double-decked, so that passengers may pass to both the upper and lower decks of the ferries at the same time.

The contract for the construction of a western entrance to Toronto harbor has been let to R. Weddell, Trenton, Ont., at \$495,000, by the Public Works Department. The channel to be constructed will be 400 ft. wide.

The Canadian Pacific Car and Passenger Transfer Co.'s ice-breaking ferry steamer Charles Lyon was the first vessel to enter Kingston harbor this season. She put in

there April 6, on her way to the ferry route between Prescott and Ogdensburg.

Haney & Miller's steam barge Reliance, which was raised towards the end of 1907, and allowed to sink again, now lies near the western entrance to Toronto harbor, and is considered a menace to navigation. Steps are being taken for its early removal.

The Richelieu and Ontario Navigation Co.'s steamboats Brockville and Rapids King have had their dining-rooms remodelled, so that a dining-room service may be run similar to that on the company's other boats, in addition to a buffet service.

The Hamilton Steamboat Co.'s steamboat Macassa, which arrived at Toronto April 2, reported very rough weather in Burlington channel, and also that the lighthouse had fallen across the channel, rendering a course to the offing hazardous during a storm.

Brockville town council has made a grant of \$200 a year for five years towards the maintenance of a proper ferry service between that town and Morristown, N.Y. The agreement will provide for six trips a day, the fare to be 25c. for the round trip.

The Dominion Marine Department received tenders April 28 for the construction of a lighthouse tender and buoy steamer for the Georgian Bay service, to be of the following dimensions: length over all, 194 ft.; breadth, moulded, 35 ft.; depth, moulded, 17.6 ft.

The Otonabee Navigation Co. has purchased the steamboats Empress and Monita from the Trent Valley Navigation Co., and the steamboat Monarch from Harris and McAllister, Gore's Landing, and purposes running a service from Bobcaygeon to Rice Lake this season.

Tenders were recently received for the purchase of the Richelieu and Ontario Navigation Co.'s S.S. Picton, which was considerably damaged by fire last season at Toronto. It is understood that none of the tenders was satisfactory, and that no sale has taken place.

The Mutual Steamship Co.'s new vessel, Acadian, sailed from England recently, with a full cargo, destined for Toronto and Fort William. The company, whose head office is at Port Colborne, has opened a branch office at the Board of Trade Bldg., Toronto, in charge of Capt. J. W. Norcross.

The J. H. Reynolds Construction Co., which has a contract on the National Transcontinental Ry., will, it is understood, inaugurate a steamboat service during the summer between Matheson and Iroquois Falls, 21 miles, and from below the falls to the crossing, a further 21 miles.

The Lake Erie Navigation Co.'s steamboat Marquette Bessemer No. 1 was dry-docked recently to undergo repairs, as the result of a collision with Marquette Bessemer No. 2, due to the latter becoming fast in the ice, when breaking a channel for the former at the opening of navigation.

The tug W. E. Gladstone was the first vessel to arrive in Owen Sound this season, Capt. E. Rumley being awarded the customary Board of Trade hat. The tug was scuttled at the close of last season for protection during the winter, and was raised April 10, reaching port the following day.

Plans, estimates and reports have been submitted to the Public Works Department, with a request that it should undertake improvements to the main channel of the St. Lawrence river between Kingston and Brockville, via Thousand Islands. The expenditure will be in the neighborhood of \$100,000.

Replying to a question the Minister of Finance recently said the dredge Sir Wilfrid was to be completed by June 1, the estimated cost being \$90,000. This cost did

not include a scow for which offers were asked from two Canadian firms, and a contract was given by order-in-council Mar. 9.

The Minister of Railways and Canals stated in the House of Commons recently that the cost of the Welland canal and improvements to Feb. 29, had been \$31,825,-\$56.36. No estimates had, he said, been obtained for the proposed enlargement of the locks, nor for the deepening of the canal to 21 ft.

Construction was recently commenced on section 2 of the Livingstone channel of the lower Detroit River. It is expected that the work will occupy at least three years, and cost nearly \$2,000,000. The section commences at the Canada Southern Ry. bridge and extends to Stoney Island, about 8,000 ft.

The Ogilvie Flour Mills Co., Ltd., has been granted supplementary letters patent, increasing its capital stock to \$4,500,000, and extending its powers to include amongst other things the owning and operating of all necessary equipment for the conduct of transportation by water in connection with its business.

A press report states that the C.P.R. contemplates the establishment of a daily passenger service between Fort William and Owen Sound, if not during the present season, then probably next year, and that the traffic offering is being watched closely with a view to ascertaining the possibilities of such service being remunerative.

The Niagara, St. Catharines and Toronto Navigation Co.'s steamboat Lakeside reached Toronto Mar. 30, and was the first arrival there this season, the captain, D. J. Enright, being awarded the customary silk hat. In warping alongside the wharf, a slight accident occurred, the vessel colliding with the wharf and damaging it to some extent.

R. O. Mackay, of R.O. and A.B. Mackay, Hamilton, has retired from active business on the amalgamation of the various companies controlled by the firm. He entertained the office staff and captains and officers of the company's vessels to dinner April 11, when they made him and Mrs. Mackay a presentation of a silver tea service and cut glass vase.

J. Stewart, Postmaster at Kingston, who acted as the Government representative on the board of arbitration in the dispute between the shipping companies and the Lake Seamen's Union, was for 20 years local manager of the Kingston and Montreal Forwarding Co., and subsequently engaged in the trans-shipping business at Coteau for the Canada Atlantic Transit Co.

The Reid Wrecking Co., Ltd., Sarnia, has been granted judgment against the owners of the steamboat Fred. Pabst, for 65% of the proceeds of the sale of the vessel, after deducting costs and expenses. The Fred. Pabst was sunk in the fall at the entrance to Lake Huron after collision with the steamboat Lake Shore, and has recently been raised by the Reid Wrecking Co.

The steamboat Stranger has been sold by A. Dupont, Smith's Falls, to I. Whalen, Kingston. She has been taken to the latter place for an overhauling. The Stranger was built at Hammondsport, U.S., in 1872, and practically reconstructed at Cornwall, Ont., in 1901, her dimensions being: length, 84.3 ft.; breadth, 15.2 ft.; depth, 4.3 ft.; tonnage, 88 gross, 60 register; engine, 4 n.h.p., driving a screw.

The Midland Navigation Co., Ltd., Midland, Ont., has been granted supplementary letters patent, increasing its capital stock to \$1,000,000 by the issue of \$600,000 of new stock, and extending its powers whereby it may construct or otherwise acquire any

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LUSITANIA, in an  
official report on Sub-  
marine Signals, says :

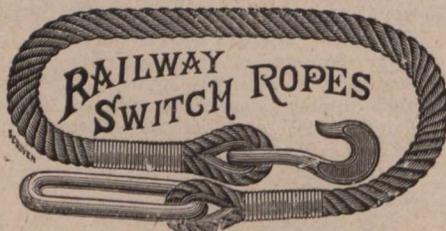
"Nearly all my sea life  
I have been looking for-  
ward to getting the assist-  
ance of a reliable sound  
signal. Now I feel that  
we have got it, and all  
that is required, in my  
opinion, is its universal  
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wharf, pier, dry docks, etc., and build, or otherwise acquire and operate grain elevators, and acquire shares in any company having similar objects.

The Otonabee Navigation Co. has purchased the steamboat *Monarch* from Harris and McAllister, Gore's Landing, Ont. The vessel will be run on the Rice Lake and Otonabee route. The *Monarch* was built at Gore's Landing in 1906, and registered at Peterborough, Ont., her dimensions being: length, 84 ft.; breadth, 14 ft.; depth, 5.7 ft.; tonnage, 73 gross, 50 register; with engine of 6 n.h.p. driving a screw.

J. Gaskin, of Kingston, who died there recently, aged 68, was connected with the Canadian marine service for practically the whole of his life. In 1866 he was in command of the steamboat *Ranger*, and assisted the troops at the time of the Fenian raid on the St. Lawrence. He was connected with the Montreal Transportation Co. as captain, and later as Marine Superintendent for 30 years, and retired from the service in 1902.

The levels of the great lakes for March were: Superior, 601.77; Michigan and Huron, 580.59; Erie, 572.66; Ontario, 247.39 ft. above tide water. Compared with Feb. figures, the level in Superior fell  $1\frac{1}{4}$  ins., and rose in Michigan and Huron 1 in., in Erie  $6\frac{1}{2}$  ins., and in Ontario 5 ins. Lake Superior is  $2\frac{3}{4}$  ins. below Michigan and Huron 5 ins. above, Erie  $11\frac{1}{2}$  ins. above, and Ontario  $23\frac{1}{2}$  ins. above the average March level for 10 years.

The directors of the London and Port Stanley Ry. have been discussing the possibility of establishing a passenger service on the lake between Port Stanley and the Ohio shore of Lake Erie. At present the Pittsburg and Bessemer Coal Co. operates a coal carrying car ferry to Port Stanley, and its Manager, A. Leslie, told the L. & P.S.R. directors that if there was passenger traffic sufficient to warrant placing a steamer on the route the company would consider the matter. It was not possible to give an efficient passenger service with the coal carrying steamers.

The Imperial Secretary of State for the Colonies, in a despatch to the Governor-General of Canada says, referring to the passage of U.S. warships through Canadian waters to the great lakes: "The whole question of armed vessels on the great lakes has been referred by His Majesty's Government to the Imperial Defence Committee, and His Majesty's Government will further consult your Government." The vessels in question are the *San Juan de Austria* and the *Sandoval*, which passed to the lakes last summer, it being stipulated at the time that they were for training purposes only, and were to pass through Canadian waters unarmed.

The Dominion Government proposals for the subsidizing of dry docks, to encourage such construction in the Dominion, provide for the payment of 3% for 20 years on any new dock approved by the Department, the subsidy not to exceed \$45,000 a year; and when an existing dock shall be enlarged a payment of 3% for 20 years may be made, not to exceed \$15,000 a year, on the cost of such enlargement. The Department must be satisfied that such enlargement is necessary, and must approve plans and specifications, and if any subsidized dock is not efficiently maintained the Government may assume control, repair and operate it until the cost of repairs, etc., has been recovered.

The Dominion Marine Association has submitted to the Department of Marine a recommendation for a light and foghorn at the north-east end of Michipicoten Island; a whistling gas buoy outside of Bad Neighbor shoal; a range light on Kokanongwi

Island; a spar buoy on Robertson's rock; one of the special gasoline motor foghorns on Lonely Island and at Collingwood, Ont.; range lights on the north shore at entrance to Kingston harbor, to take the place of the present lights at Pigeon Island and Nine Mile point; the early operation of the foghorn at Presqu'île and the adoption of the various items previously recommended by the association, which are still under consideration by the Department.

J. Richardson, a well-known mariner on Lake Ontario, who died April 6, began his marine life at 13 years of age, as mess boy on the schooner *James Coleman*, of St. Catharines, trading on Lake Ontario, and remained on the lake until 1879, when he shipped as mate on the steamship *Southern Belle*, at Halifax, N.S., which vessel had been utilized as a blockade runner in the American civil war, and was later purchased by Keith & Fitzsimmons, Toronto, and put on the Toronto-Hamilton route. He then transferred to the Niagara Navigation Co.'s steamboat *Cibola*, which was burned to the water's edge at Lewiston in 1894, since which date he was chief mate of the *Chippewa*, belonging to the same company.

The President of the Goderich Board of Trade, in his annual review of trade there, said recently: For the season of 1907 the amount of traffic received by water at this port has greatly exceeded that of any preceding year. With the completion of the fireproof grain elevator, the distinctive advantage of this port as a distributing centre for grain to local millers has shown an unprecedented gain. Forty-two steam vessels in all delivered 2,288,260 bush. of wheat, 661,615 bush. of oats, 321,843 bush. of flaxseed, and 69,857 bush. of barley—a total of 3,341,575 bush. Had not the usual car shortage prevailed during Oct. and Nov., the receipts might have reached over 5,000,000 bush., and so great was the demand for winter storage space that double the capacity of elevator space could easily have been filled. To the grain receipts of the elevator must be added about 2,000,000 bush. ground by the Western Canada Flour mills, which was handled into their own elevator.

The Supreme Court of Canada recently delivered judgment allowing the appeal of the Montreal Transportation Co. against the decision of the Local Judge in Admiralty at Toronto, in the action of the New Ontario Steamship Co. against the Montreal Transportation Co., and dismissing the action with costs. The New Ontario Steamship Co. are owners of the steamship *Neepawah*, and the Montreal Transportation Co. are owners of the steamship *Westmount*. On the night of Oct. 20, 1904, the *Neepawah* was proceeding up and the *Westmount* was proceeding down the Welland canal; they met between locks 23 and 24, and when about half-way past each other two blades of the *Neepawah*'s propeller were knocked off by coming in contact with a boom at the side of the canal. The plaintiffs alleged that the loss of the propeller blades was due to the fault or neglect of those in charge of the *Westmount*. The Admiralty Court found that there was a collision, or bumping between the sterns of the vessels, which was the primary cause of the broken wheel, and that the *Westmount* was liable for damages and costs. The Montreal Transportation Co. appealed, and the decision has been set aside and the action dismissed with costs. F. King, Kingston, acted for the M. T. Co.

An order-in-council was passed Mar. 30 making regulations regarding the ferry across the Rainy River between Fort Frances, Ont., and International Falls, Minn., providing that the limits of the ferry shall be

co-terminus with the boundaries of Fort Frances, and land adjacent on the north bank of the river between the east boundary of Fort Frances and Pither's Point, where the river emerges from Rainy Lake, and such point on the Minnesota side as may be arranged by competent authority there; that the licensee shall maintain suitable landing wharves, to be available at all states of the river, and be subject to the approval of the Inland Revenue Dept.; that the vessels to be used shall not be less than 18 ft. long by 5 ft. 4 ins. beam, propelled by gasoline engines of not less than 3 n.h.p., but rowboats may be utilized when it is necessary and convenient to do so; that from May 1 to Nov. 1 of every year of the license term, the ferry shall ply between the points named from 7 a.m., and at intervals of not less than one hour until 12 o'clock midnight each day, and shall ply between Fort Frances, Ont., and Ranier, Minn., not less than three times each way every day, or in the alternative whenever signalled by telephone or otherwise; that the fares shall not exceed, for foot passengers, 15c.; returning same day, 25c.; for children under 10, 15c., including return made same day; for passage between 12 midnight and 7 a.m., 25c. each way, between Fort Frances and International Falls or Pither's Point and Ranier; children under 10, 15c. each way, between Fort Frances and Ranier, or between Pither's Point and International Falls; that the licensee find two sureties in the sum of \$500 for the full compliance of the terms of the license; that the license shall not be sub-let or assigned, and that the Governor-in-Council shall be at liberty to revoke the license should the terms thereof not be complied with.

#### Manitoba, Saskatchewan, Alberta, Etc.

The Northern Transportation Co., Ltd., has been incorporated under the Northwest Territories Ordinance respecting companies, with office at Athabasca Landing, Alta.

The Winnipeg Navigation Co., Ltd., has been incorporated under the Manitoba Companies Act, with a capital of \$50,000, and office at Winnipeg, to build, purchase, or otherwise acquire, and operate steam and other vessels, and to carry on a general navigation business. The provisional directors are: W. Cowan, Prince Albert, Sask.; A. McKenzie, H. A. Robson, Winnipeg.

The steamboat *Wapiti*, owned by C. F. Bunnell, Winnipeg, and registered at Kenora, Ont., is to be sold. She was built at Kingston in 1899, and her dimensions are: length, 55.6 ft.; breadth, 9.7 ft.; depth, 4.2 ft.; tonnage, 18 gross, 12 register, and is driven by a screw with engine of 8 n.h.p.

The Department of Marine receives tenders May 1 for chain, swivels and shackles for the ports of Halifax, St. John, Charlottetown, Quebec and Montreal.

Col. F. Gourdeau, Deputy Minister of Marine, having at the request of the Minister undertaken certain work preparatory to an enquiry into the conduct of the department, G. J. Desbarats, heretofore Superintendent of the Sorel, Que., shipyard, has been appointed Acting Deputy Minister of Marine.

The Minister of Customs stated in the House of Commons, April 6, that vessels of Norwegian register and of British build, could, under the law, change to the Canadian register and engage in the coastwise trade of Canada. This could be done under the existing regulation or under those which it is expected will come into effect on the first of next year. However, foreign built ships, though of British register, will have to pay 25% duty to engage in the Canadian coasting trade.

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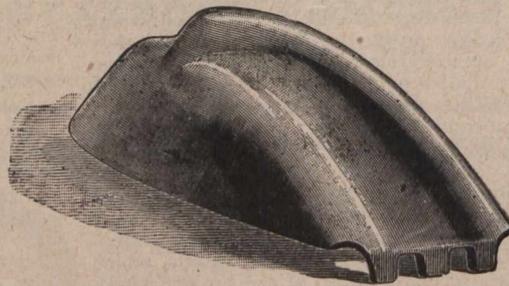
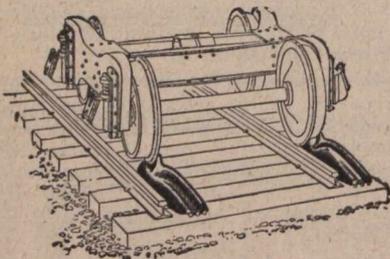


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Sailing from Philadelphia Saturdays.

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New York—London

Sailing from New York Saturdays.

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Portland to Liverpool—Winter

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Boston—Liverpool

Sailing from Boston Wednesdays.

### RED STAR LINE

New York—Dover—Antwerp

Sailing from New York Saturdays.

### WHITE STAR LINE

New York—Liverpool—Queenstown—

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### B.C. and Pacific Coast Marine.

W. Dickson, formerly engineer of the C.P.R. steamship *Empress of India*, has left the service to join a firm of engineers in Victoria, B.C.

The B.C. Salvage Co.'s tug *William Joliffe*, which was chartered by the Marine Department, returned to Esquimalt recently after a trip on the northern B.C. coast, to re-charge the acetylene gas buoys and beacons on that route.

The Orient Trust, Ltd., has been incorporated under the B.C. Companies Act, with a capital of \$25,000, to carry on a general contracting business, and to acquire and operate steam and other vessels, to carry passengers and merchandise therein.

The Seymour River Lumber Co., Ltd., has been incorporated under the B.C. Companies Act, with a capital of \$500,000, to carry on the business of timber merchants, lumbermen, etc., and in connection therewith to purchase, build or otherwise acquire and operate steam and other vessels.

The schooner *Edith R. Balcom*, of Halifax, N.S., was wrecked and lost recently off the Argentine coast. She was built at Lunenburg, N.S., in 1903; her dimensions were: length 98 ft., breadth 25.9 ft., depth 9.7 ft. She was owned by R. Balcom & Co., Victoria, B.C., and was valued at \$16,000, but was only insured for \$7,000.

Johnston & Carswell, Ltd., has been incorporated under the B.C. Companies Act, with a capital of \$50,000, and headquarters at Long Lake, B.C., to carry on the business of lumbermen, and to acquire and operate tramways, telegraphs, telephones, steam and other vessels, and to act as common carriers by water.

Fleck Bros. Ltd., a company whose head office is at Ottawa, Ont., having a charter office in the business of lumbermen, and to build, purchase or otherwise acquire and operate steam and other vessels in connection therewith, has been licensed under the act respecting extra-provincial companies, to carry on business in British Columbia, with office at Vancouver, and J. G. Fleck as its attorney.

The Marion Tug Co. has been formed at Victoria, to purchase and operate the U.S. tug *Marion*. Her dimensions are: length 70 ft., breadth 17 ft., depth 7 ft., with compound engines, cylinders 8 and 16 ins. diameter, by 12 ins. stroke, supplied with steam by a Scotch boiler, at 200 lbs. pressure. J. H. Greer, who is interested in the Pacific Towing and Lighterage Co., Victoria, and other similar companies, is the manager.

Plans for a lighthouse tender for the Department of Marine, for use on the Pacific coast, have been prepared, providing for a flush deck vessel with two pole masts, and equipped with hoisting machinery. During 1907 the Department had to charter vessels to assist the *Quadra*, and a decision has now been arrived at to construct a new vessel. The *Quadra* has been thoroughly overhauled and repaired at Esquimalt, at a cost of over \$20,000.

The C.P.R. ferry steamboat *Princess Charlotte* will, it is expected, be launched shortly. The vessel, which is being constructed at Glasgow, Scotland will be 330 ft. long, and about 2,000 tons gross, and will be practically a sister vessel of the *Princess Victoria*. Many improvements will, however, be made in the *Princess Charlotte*, which is being engine to make 24 knots an hour on her trials. J. W. Troup, Superintendent C.P.R. B.C. coast service, sailed for Great Britain recently, in connection with the completion of the vessel, which is intended for the Victoria, Vancouver and Seattle route.

Evidence was taken recently in the B.C. Exchequer Court, on the question as to whether the Dominion Government has exclusive jurisdiction in granting water records on streams within the railway belt in the province. On the part of the province it is contended that whatever the Dominion jurisdiction may be, it is not exclusive, particularly when water records sought are upon streams that are not navigable within the meaning of the British North America Act. The case is a test one, and it is anticipated that whatever the decision, it will be taken to the Judicial Court of the Privy Council to decide what is a navigable stream within the meaning of the act.

Steamer *Cascade*, Ltd., has been registered under the British Columbia Companies Act, with a capital of \$16,000 and office at Victoria, B.C., to purchase as a going concern the steamer *Cascade* and the freighting business heretofore carried on by P. C. Dougall, F. C. Dougall, and Leeming Bros., Ltd., and with power to build, purchase or otherwise acquire and operate steam and other vessels. The *Cascade* was built at Vancouver in 1902, and is a screw-driven vessel with engine of 16 n.h.p., her dimensions being: length 95 ft., breadth 22½ ft., depth 7½ ft., tonnage, 119 gross, 81 register.

In our Mar. issue mention was made of the launching of the G.T. Pacific Ry.'s sternwheel steamboat from Alex. Watson's yard, Victoria, for use on the Skeena River. The vessel that was so mentioned was for the Hudson Bay Co. A sister vessel was also on the stocks for the G.T. Pacific Ry., and was launched April 15. The description of both vessels is the same, with the exception that the passenger accommodation on the Hudson Bay Co.'s vessel is greater than on the G.T. Pacific Ry.'s; the latter one having been built almost solely for railway construction purposes. In the building of these vessels, the hulls are made as light as possible without sacrificing strength or elasticity, and the customary rules of construction have been departed from in some points. Each has been built with two main keelsons, instead of one, placed 7 ft. 4 ins. apart, to allow the boilers to be placed lower in the hull than usual. The machinery in each vessel was made by the Polson Iron Works, Toronto.

### Lake Seamen's Wages.

The Lake Seamen's Union made a demand for the adoption of the scale of wages of the Lake Carriers' Association, and for shorter hours, which the Dominion Marine Association did not see fit to accede to. Subsequently application was made under the Lemieux Act of 1907, declaring that a strike would take place in due course, and nominating J. A. Flett, of Hamilton, Ont., as the men's representative on a Board of Conciliation. The dispute which the Union alleged to exist with the Dominion Marine Association was that it had failed to procure an agreement with the Association for which it asked in 1907. Three of the principal terms of the agreement asked for were that the wages and hours should be improved, and that none but Union members should be employed on any of the vessels belonging to members of the Association. The Association urged upon the Department of Labor that it was not an employer of labor within the meaning of the statute and that it had no jurisdiction whatever over the relations between its members and their employes, and further that there was no dispute, inasmuch as the Association simply decided to leave the question to be decided by its individual members. The Association claimed that the proper course for the Department to take was to require the Lake Seamen's Union or its members to take up any trouble

they had with individual vessel owners. The Department thought it better to appoint a board, and on the Association declining to nominate a member, appointed on its behalf, Jas. Stewart, Postmaster at Kingston, Ont., and formerly Manager of the Kingston and Montreal Forwarding Co. Messrs. Stewart and Flett met, and nominated Professor A. Shortt, of Queen's University, as Chairman of the Board. An Ottawa despatch, April 8, stated that the Board decided to make recommendations for shorter hours, and for more attention to be paid to the comfort of the men while off duty, but refused to recommend any increase in the wages. The wage schedule in force provides for wheelmen, \$35 to \$40; watchmen, \$30 to \$35; and deck hands \$20 to \$30, a month.

### St. Lawrence Canals Traffic.

In the course of a recent speech the Minister of Railways and Canals gave the following figures with respect to traffic through the St. Lawrence canals:

Down river traffic—	
Wheat.....	15,461,600 bushels
Corn.....	3,882,800 "
Oats.....	3,937,700 "
Flax.....	1,950,700 "
Barley.....	414,000 "
Total grain down river.....	25,646,800 "
Coal.....	395,200 tons.
Other freight.....	31,700 "
Passengers.....	9,981 "
Up river traffic—	
Pulp wood.....	81,000 cords.
Lumber.....	21,350,000 ft.b.m.
Other freight.....	117,500 tons.
Passengers.....	9,005 "

### Marine Notes from the Dual Ports.

Our Port Arthur, Ont., correspondent wrote April 8: Inter-lake navigation is not likely to open at the twin ports before the 18th or 20th inst. The Booth Line's first boat from Duluth is scheduled to arrive here on the 12th inst. This is made possible by the steamboat *James Whalen* having kept an open channel from Port Arthur to the open lake all winter, the work of this vessel during the past winter has demonstrated the fact, that a navigable channel can be kept throughout the whole year, and that so far as this end of the lake is concerned, winter navigation is quite possible. Notwithstanding the very mild winter experienced in the Lake Superior region, there is a large amount of heavy ice still on the lake and latest reports from the lower end show that there is solid ice in Whitefish Bay.

There is now in store at the lake front 13,000,000 bush. of all kinds of grain, which will be increased to about 15,000,000 bushels before the opening of navigation by the grain that is now on track here, and on the way. Advices from the west are to the effect that there is little grain left in the country. I think it will be found, however, that there is still a considerable quantity of the better grades of grain still in the farmers' hands, and in the inland elevators.

The general outlook from the vessel owners' standpoint for this season is not very bright. As the Canadian tonnage has a capacity, all afloat at one time, of 6,600,000, it can readily be seen that the grain movement will not last long. Until a good crop is assured in the Northwest, the movement of westbound package is sure to be light. It is expected that more Canadian tonnage will be engaged in the coal and ore trade this year than heretofore.

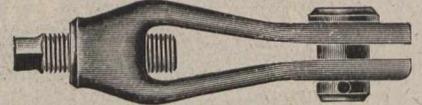
The Kenora, Regina, Assiniboia, Kewatin, Dunelm, Beaverton, Prince Rupert, Collingwood and Acadian, are among the new ships that will ply Canadian lake waters this season. There are four or five others under contract in British yards that will be out during the season.

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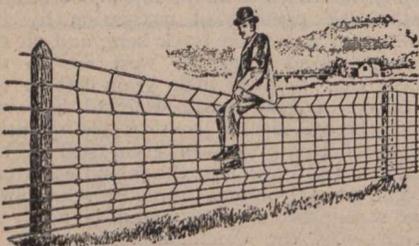
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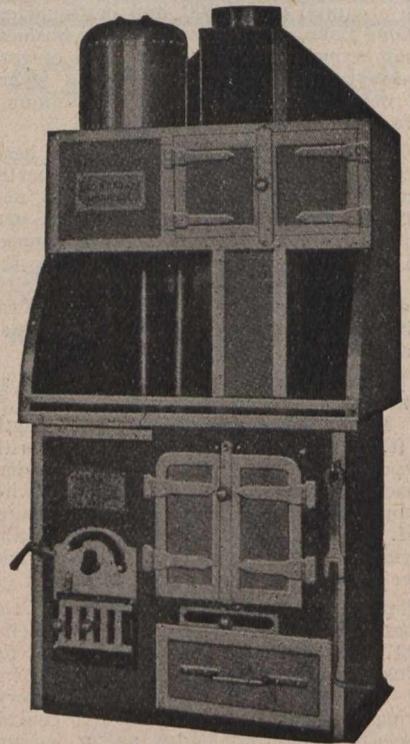


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**Vessels Removed from Register.**

During Jan. and Feb. the following vessels were removed from the Canadian register for the causes assigned: Steamers: Beaver, Quebec, Que., 104 tons, broken up; Bessie, Vancouver, B.C., 10 tons, broken up; City of Grand Rapids, Sarnia, Ont., 196 tons, burnt; Clinton, St. Catharines, Ont., 292 tons, broken up; Dominion, Windsor, Ont., 304 tons, burnt; Halifax, Vancouver, B.C., 19 tons, broken up; Maple Leaf, Hamilton, Ont., 22 tons, burnt; Raoul, Quebec, Que., 42 tons, burnt and foundered; Vick, Chatham, Ont., 9 tons, broken up; sailing vessels: Acme, Lunenburg, N.S., 91 tons, transferred to Newfoundland; Aquila, Charlottetown, P.E.I., 149 tons, abandoned at sea; Arona, Windsor, N.S., 532 tons, abandoned at sea; Baden Powell, Lunenburg, N.S., 94 tons, stranded; Cecilia, Windsor, N.S., 299 tons, wrecked; Frank and Ira, St. John, N.B., 98 tons, wrecked; Hattie L. M., Halifax, N.S., 88 tons, sold to Chili; Hazel, Lunenburg, N.S., 71 tons, transferred to Newfoundland; J. E. Garland, Digby, N.S., 72 tons, transferred to Newfoundland; Josephine, Annapolis, N.S., 92 tons, broken up; Kenneth C., Parrsboro, N.S., 475 tons, transferred to Barbados; Laura E. Douglass, Barrington, N.S., 39 tons, transferred to Newfoundland; Lena A., Yarmouth, N.S., 11 tons, stranded; Leo, Lunenburg, N.S., 165 tons, transferred to Barbados; Mary Alice, Halifax, N.S., 58 tons, broken up; Messagere, Quebec, Que., 41 tons, broken up; Meteor, Lunenburg, N.S., 99 tons, transferred to Barbados; Nebula, Yarmouth, N.S., 24 tons, stranded; N. N. Gray, St. Andrews, N.B., 13 tons, wrecked; Onondaga, Prescott, Ont., 320 tons, foundered; Onward, Parrsboro, N.S., 15 tons, broken up; Paulette, Quebec, Que., 27 tons, broken up; Precursor, Charlottetown, P.E.I., 46 tons, broken up; St. Joseph, Quebec, Que., 34 tons, wrecked; Trois Saumons, Quebec, Que., 45 tons, broken up; Unity, Pictou, N.S., 248 tons, transferred to Barbados; Valkyrie, St. Andrews, N.B., 16 tons, wrecked.

The following vessels were removed from the Canadian register during March, for the reasons assigned: Steam vessels—Alma T.,

Winnipeg, 11 tons, broken up; Aurora, Winnipeg, 144 tons, broken up; Olive May, Victoria, B.C., 54 tons, broken up; Red River, Winnipeg, 113 tons, broken up; Shamrock, Collingwood, Ont., 10 tons, wrecked; Surveyor, Montreal, 31 tons, broken up; Urania, Windsor, Ont., 424 tons, sold to U.S.; W. L. Davis, Sault Ste. Marie, Ont., 37 tons, wrecked. Sailing vessels—Aberdeen, Winnipeg, 130 tons, broken up; Annie, Winnipeg, 30 tons, broken up; Arbutus, Pictou, N.S., 32 tons, broken up; Dara C., Parrsboro, N.S., 402 tons, transferred to Barbados; Duluth, Montreal, 337 tons, broken up; Ella G., Victoria, B.C., 16 tons, wrecked; Eva Gertrude, Halifax, N.S., 34 tons, transferred to Newfoundland; G. A. Norman, Montreal, 41 tons, broken up; James Daly, Yarmouth, N.S., 162 tons, foundered; John Boyd, Halifax, N.S., 193 tons, supposed to be out of existence; Katie, Arichat, N.B., 11 tons, broken up; Keewaydin, Halifax, N.S., 188 tons, condemned as unfit for use; Margaret E. Schwartz, Lunenburg, N.S., 98 tons, transferred to Newfoundland; Mermaid, Winnipeg, 19 tons, wrecked; Nelson River, Winnipeg, 219 tons, broken up; Olive Evans, Lunenburg, 77 tons, transferred to Newfoundland; Ouse, Montreal, broken up; Perry C., Parrsboro, N.S., 287 tons, wrecked; Regina, Montreal, 411 tons, broken up; San Juan, Shelburne, N.S., 42 tons, transferred to Newfoundland; Selma, Victoria, B.C., 21 tons, sold to U.S.; Stella, Shelburne, N.S., 77 tons, transferred to Newfoundland; Success, Paspébiac, Que., 199 tons, transferred to Barbados; Sultan, Winnipeg, 32 tons, broken up; Vassal, Montreal, 106 tons, wrecked; Winnipeg River, Winnipeg, 205 tons, broken up.

**Notices to Mariners.**

The Dominion Department of Marine has issued the following notices:

No. 21. Mar. 24. 55.—Quebec. River St. Lawrence, Orleans Island, Domaine range lights established. 56.—Quebec. River St. Lawrence, Ste. Anne de Beaupre, range lights established. 57.—Quebec. River St. Lawrence, Orleans Island, Ste. Famille, tower built for front range light.

No. 22. April 14.—58.—Ontario. Lake Huron, Goderich, light discontinued. 59.—Ontario. Lake Huron, Southampton, life saving station established. 60.—Ontario. Georgian Bay, Meaford, changes in lighting arrangement. 61.—Ontario. River St. Mary, East Neebish, upper range lights discontinued. 62.—Ontario. River St. Mary, Footes dock, light discontinued.

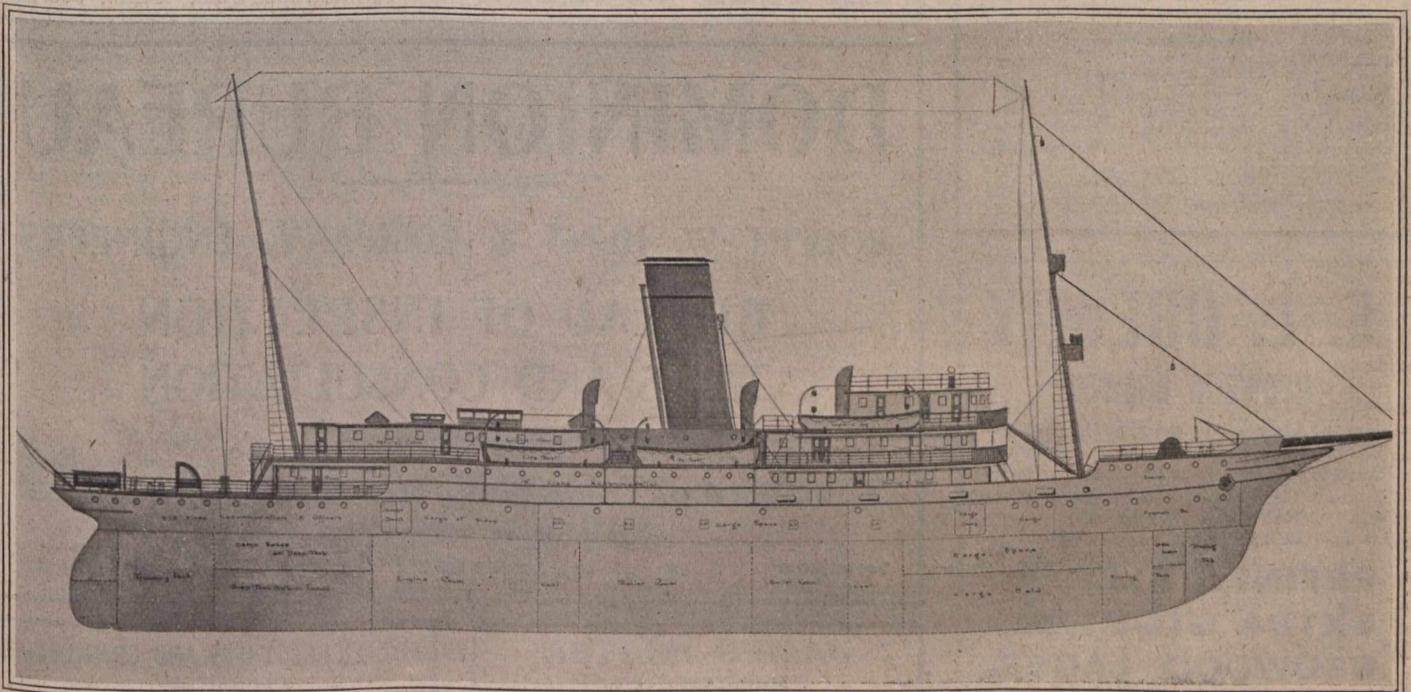
No. 23. April 15.—63.—Ontario. Lake Superior, chart, head of Thunder Bay to Pigeon River, issued. 64.—Ontario. Lake Superior, chart, Lambe Island to Thunder Cape, issued.

No. 24. April 15.—65.—New Brunswick. Bay of Fundy, Chignecto channel, lighthouse moved from Ward point to Peck point. 66.—New Brunswick. North coast, Chaleur Bay, Little Belledune point, light mast replaced by tower. 67.—Nova Scotia. Bay of Fundy, Port Greville, range lights established. 68.—Prince Edward Island. East coast, Souris East breakwater light mast replaced by tower.

No. 25.—April 18.—69. Nova Scotia, Bay of Fundy, Cumberland basin, Amherst basin, range lights established. 70. Ireland, east coast, Blackwater light vessel, character of light altered. 71. England, west coast, Fishguard harbor approach, Strumble head, light and fog signal established. 72. England, south coast, Shambles light vessel, period of fog signal altered.

No. 26.—April 21.—73. British Columbia, Strait of Georgia, Sisters rock, fog alarm established. 74. British Columbia, Strait of Georgia, Baynes Sound, Yellow Island, fog alarm established. 75. British Columbia, Cardero channel, Yuculta rapids, Gillard Island, change in character of light.

No. 27. April 22.—76. Quebec, Gulf of St. Lawrence, Magpie Bay range lights, additional information. 77. Quebec, Gulf of St. Lawrence, Cape Magdalen, change in fog alarm. 78. Quebec, River St. Lawrence, Beaujeu bank, temporary change in position of west end gas and bell buoy. 79. Quebec, River St. Lawrence, ship channel between Quebec and Montreal, Ile à Lapierre, light discontinued. 80. Keewatin, Hudson Bay, Port Churchill, Battery beacon destroyed.



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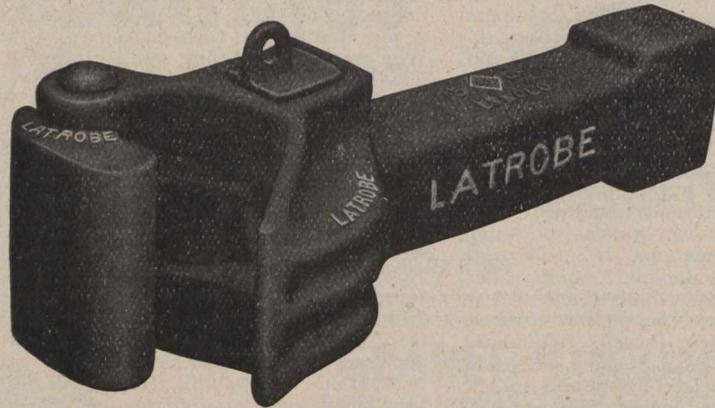
A full description of this vessel for the New Brunswick-Prince Edward Island winter service, for which the Department of Marine asked tenders recently, was published in our last issue.

No. 28. April 23.—81. Nova Scotia, southwest coast, Green island bank, depth on shoal. 82. Nova Scotia, south coast, Rugged Island harbor, off Lockport; uncharted rock.

The U.S. Senate has passed, without a division, the Ship Subsidy Bill, which provides for the payment to 16-knot vessels plying between the U.S. and South America, the Philippines, Japan, China and Australia, \$4 per mile, and to 12-knot vessels \$2 a mile. Under the bill approved in 1891, these amounts were payable to 20 and 16-knot vessels, respectively.

The Marine Department recently made a proposal that second mates should receive certificates. The Dominion Marine Association, while realizing the advantage of this as a stepping stone to a higher certificate, and also that it would ensure a vessel being in charge of certificated officers, if the second mate were in charge and the superior officers were not on watch, has represented to the Department that it should not be made compulsory upon vessels to carry second mates with certificates.

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### Shortages and the Bill of Lading.

The Dominion Marine Association has had prepared a draft bill of lading which it was proposed should be used at least by all grain carrying vessels. It omits the objectionable shortage clause which appears in the present bill, and sets out the reasonable exemption from liability contained in the Harter Act of the U.S., and in the Australian act of similar purport. This bill of lading was just being put in force for the 1908 season of navigation, although the shippers had refused their assent, when Senator Campbell's bill respecting the water carriage of goods was introduced in the Senate. This bill is based upon the U.S. and the Australian statutes. The Dominion Marine Association rather favored this bill, subject to certain very necessary and very reasonable amendments which would bring it more into accord with the Harter Act than the Australian statute. It is proposed, for instance, to use wherever necessary the words of the U.S. statute requiring "due diligence" on the part of the owner in the matter of seaworthiness, so that there will only be a warranty to that extent, and the owner will not be responsible for latent defects where he has taken all proper care. It is proposed, too, that the permitted exemptions should include the additional ones set out in the Dominion Marine Association's draft bill of lading. Further that in sec. 7 it should be required that the bill of lading should state whether the weight or quantity is the carrier's or the shipper's, as any other requirement would be unfair to the carrier; also that in a separate section the shipper should be required to expressly limit the value of the goods if desired; also that notice to the consignee should only be required at the address, if any, given for that purpose in the bill of lading, and that the penalty for default regarding notice should duly apply accordingly. The bill has been discussed at two sittings of the Banking and Commerce Committee of the Senate, and a strenuous opposition is being presented by the Trans-Atlantic lines, whose bills of lading are very long and intricate documents. The committee was to resume consideration of the bill after the Easter holidays, and it was expected that it would be approved with certain amendments, which shippers have endorsed as reasonable.

### Lights on Vessels.

The Department of Marine has issued the following notice, respecting the use of lights on small vessels: "Owners, masters, or persons, in charge of small vessels such as pleasure yachts, steam, gasoline, naphtha, electric and other motor launches and row boats, under way or at anchor, in all waters frequented by other vessels, are hereby notified that they must comply with the rules imposed by chap. 79, revised statutes of Canada, entitled, 'An act respecting the navigation of Canadian waters for preventing collisions,' especially as regards the lights to be shown. Attention is also directed to the penalty which the master, owner or person in charge, in fault, shall incur, viz.: not exceeding \$200 and not less than \$20; which penalty will be enforced if conviction is secured. Cases of violation of the rules brought to the notice of the Department will be prosecuted according to law."

A bill has been introduced in the U.S. House of Representatives, having for its object the removal of the duty of 50% on repairs made to U.S. vessels in Canadian shipyards. Though it is not anticipated that the bill will be passed during the current session, it is said that the duty may be removed when the tariff is revised.

### The Albert M. Marshall Collision.

Judgment was delivered recently in the cases of the Montreal Harbor Commissioners vs. the S.S. Albert M. Marshall, and the Great Lakes and St. Lawrence Transportation Co. vs. the Montreal Harbor Commissioners, by Justice Dunlop, of the Quebec Admiralty District. The cause of the actions was a collision between the Great Lakes and St. Lawrence Transportation Co.'s steamboat Albert M. Marshall and the Montreal Harbor Commissioners' dredge no. 1 which occurred Oct. 8, 1906. The cases have been vigorously fought by the parties concerned, many points in English and U.S. law quoted as precedents, and statements filed, by both sides. The last statement filed was in Dec., 1907, which accounts for the delay. Justice Dunlop said: As is usual in cases of this nature, each of the parties accuses the others of being in fault for a multitude of reasons. The evidence discloses that on Oct. 8, 1906, at 9.50 p.m., the dredge no. 1, the property of the plaintiffs, used by them in harbor improvement works at Montreal was placed in the harbor south of the south ship channel, about opposite sec. 22; that there was a watchman on board the dredge at the time of the accident; that the dredge was carrying a light on the A frame, about 20 ft. above the deck, one light at the up stream end of the dredge, and one light on the down stream end of a scow which was fastened to the dredge at the lower or down stream end. That at the time of the accident in question it was a dark but clear night, and there was no rain. The wind was about south-west, blowing at an estimated rate of 17 to 20 miles an hour. That the current flowed northwesterly at a speed of from five to six statute miles an hour; that at the time the steamboat Albert M. Marshall, of 987 tons register and 650 h.p., manned by a crew of about 20, and drawing 4 ft. forward and 11½ ft. aft, was proceeding down stream, on a voyage from Lake Ontario ports to Ha-Ha Bay without cargo, and that at the time in question she was proceeding down stream from the basin formed by the wharves and the Mackay Pier in the harbor, and ran into and collided with the dredge, striking its starboard quarter; that the dredge was sunk and almost completely lost, and the steamboat Albert M. Marshall was also much damaged.

As a great number of United States and English authorities have been cited, it might be well to state at the outset that in considering these questions it must be remembered that there is a radical difference between our law and the law of England. Under the English law a breach of the regulations creates a presumption that the collision was due to that breach; while under the statute concerning shipping in Canada, chap. 113, secs. 914 to 918, R.S.C., a mere breach of a regulation creates no presumption, and the common law applies, and the other side or party must prove the cause of the collision. It is strongly contended in this case that even under the law of England, if the anchoring of the dredge in question in an improper place had been proved affirmatively, and that technically improper lights were shown, and that there was no anchor watch (which facts of course are not admitted in the present case), and further, if shown that these defects or deficiencies had nothing to do with the collision, the dredge would have sufficiently rebutted the presumption of fault. Marsden, on Collisions, says: "The general rule that a vessel under way is prima facie in fault for a collision with a ship at anchor applies, although the latter is brought up in an improper place, or has no riding light, provided the former could have with ordinary care avoided her. It is the

bounden duty of a vessel under way, whether the vessel at anchor be properly or improperly anchored, to avoid, if it be possible with safety to herself, any collision whatever. Even if a ship is brought up in the fairway of a river, if the other could with ordinary care have avoided her, the latter will be held solely to blame."

Availing myself of the power which this court has, I have referred to Capt. J. J. Riley the following question, to which the answer is appended: "Could the steamboat Albert M. Marshall, under the circumstances of this case, by the exercise of reasonable care on the part of the officers navigating her, have avoided the collision in question?" Answer, "I am of the opinion that the steamboat Albert M. Marshall could have avoided the collision with the dredge by the exercise of reasonable care and skill." The Albert M. Marshall seems to have been well equipped with all the requisites for safe navigation and with a sufficient crew; but, in passing, I must remark that the master and the mate were navigating in waters that were outside of the limits mentioned in their licenses, and that O. Hamelin, whom the master had engaged as a pilot, had no branch nor license. It is admitted by the master, who was on the bridge, and by the pilot, who says that he took charge of the steamboat when she left the lower lock of the Lachine canal, that the lights (on the dredge) were seen when the steamer came to the end of the Mackay pier; and it is in evidence that dredge no. 1 was placed at least 1,600 ft. below the Mackay pier. It is stated by the master that the two lights, when seen, were about half a point on the port bow, and that they did not alter their bearings when the Albert M. Marshall kept porting. Both the witnesses thought the lights were on a tow or on the stern of some vessel going down stream and keeping on its own proper, that is, the starboard side, of the channel. The presence of the lights should have been a sufficient notification to the navigating officer of the Marshall that there was some sort of craft in the channel; and if he had been in doubt as to the nature or character of the lights he should have followed the usual custom of mariners and approached the lights at slow speed until he was sure of what they were. If the lights were judged to be those of a tow, keeping on her own side of the channel, and if the Marshall meant to take the tow's water, she should have followed the custom of the pilots on this river, and complied with rule 80 of the Harbor Commissioners' regulations for the port, and given one blast of her whistle, signifying that she was directing her course to starboard. The absence of a responding signal on the part of the dredge would have warned the Marshall not to pass to starboard, and if under the impression that it was a tow, why did not the Marshall comply with art. 24, chap. 79, R.S.C. In view of the fact that the collision took place even though the Marshall's engines were rung up full speed ahead, and the helm put hard apart when the dredge loomed up a little on the port bow, I am of the opinion that if even at that time, the speed of the Marshall had been stopped and her helm put hard a starboard, the collision could have been avoided, and it is proved that she could turn quickly at right angles on her helm, and the current, at that place at the rate of at least five miles an hour, would have helped her in the execution of that manœuvre, and she would have gone on the western side of the dredge; but by attempting to go the eastward side, the whole force of the current was pressing her down on the dredge. I am of the opinion that the navigating officer of the Marshall misjudged both his distance from the lights and the strength of the current, and thus

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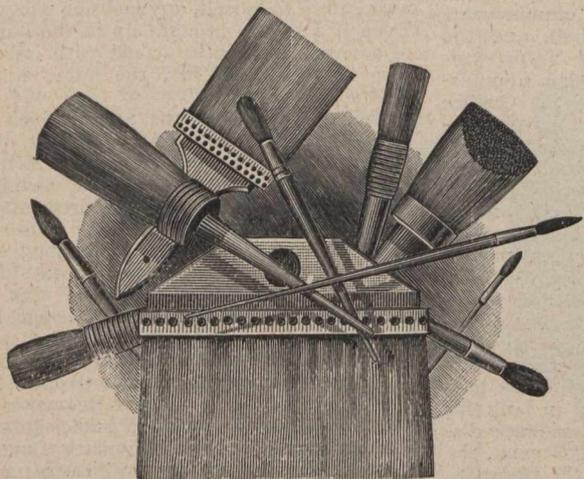
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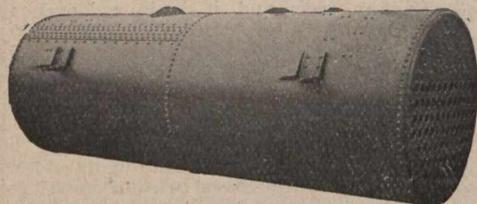
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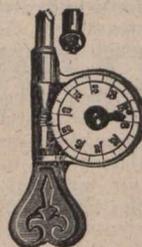
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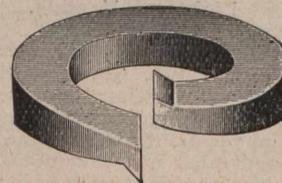
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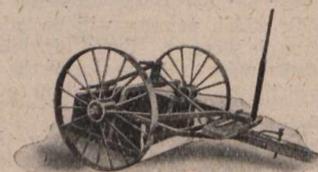


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failed in proper skill, and that by not approaching the dredge more prudently he lacked in proper care. There was about 600 ft. of navigable water between the dredge and the Victoria pier, on the western side of the harbor, and the Marshall could have gone to that side of the dredge with all safety. There was about 300 ft. of navigable water between the dredge and the eastern side for the Marshall's draught of water, and if she had determined to pass on that side she should have shaped a proper course to that end when she first saw the lights, and have taken care to widen the bearing between her and the lights as she approached them. The lookout man on the Marshall was not giving his sole attention to looking out, but was engaged in other duties, that were stated by him as having to be performed before he took his station as lookout man. If, as is admitted, the master of the Marshall saw the lights of the dredge 1,600 ft. off, it is evident that he should have seen them more clearly, say, 300 ft. off, in ample time to avoid them. I concur fully in the advice given me by the assessor, that the Albert M. Marshall could have avoided the collision with the dredge, if reasonable skill and care had been exercised by the master, officers and crew navigating her. As to the faults attributed to dredge no. 1 by defendant, I find that the lights were technically incorrect, though burning brightly at the time of the collision; and that she was brought up in the channel south of what is called the south ship channel, about opposite sec. 22, of the harbor; and that the watchman on board was not on deck when the collision took place. The non-observance by the dredge of any rules on these points is not to be considered as facts contributing to the collision, as the collision could have been avoided by the exercise of reasonable skill and care on the part of those navigating the Marshall. Having carefully considered all the authorities cited on both sides, the evidence of record, and the advice given to me by the assessors, I am of the opinion that the collision in question could have been avoided if reasonable care and skill had been exercised by the master, officers and crew of the Marshall, and I am, consequently, of the opinion that the Marshall and her owner, the Great Lakes and St. Lawrence Transportation Co., are solely responsible for all the damages caused by the collision, and I consequently find in favor of the plaintiffs and maintain plaintiffs' action with costs, and I further order a reference before the Deputy Registrar, assisted by merchants, to report the amount due, within six months from the date of this judgment.

**The Great Lakes Register.**—The Dominion Marine Association recently passed a resolution to the effect that while it was quite proper for its members to submit their vessels for inspection and rating by the Great Lakes Register, it was very unfair to expect them to pay fees, and that such payment would not be made. The resolution was communicated in due course, and it is now understood that last year's ratings will probably be accepted by all underwriters. What the Register will do in 1909 is not known, but it is assumed that it will be realized that the rating is for the benefit of the shippers as well as the owners, and that the burden of the fees ought to be distributed.

The Dominion Marine Association has made a representation to the Dominion Government in opposition to the proposal for the levying of a duty on repairs to Canadian vessels effected in the U.S., on the ground that no sufficient facilities are available in Canada for the repairs which are required from time to time.

**Compulsory Pilotage Dues.**

Under sec. 477 of the Canada Shipping Act, chap. 113, of the Revised Statutes of Canada, 1906, ships propelled wholly or in part by steam are exempt from the compulsory payment of pilotage dues when trading from port to port in the same province; when trading between any one or more of the Maritime Provinces, or Quebec; when employed in trading between any ports in the said provinces and any port in the United States as far south as New York; when trading between any port in the said provinces and Newfoundland; or having a draught when loaded not exceeding 16 ft., and employed exclusively in voyages between any port or ports on Lakes Ontario, Erie, Huron, Superior and Michigan, or on any of the waters connecting those lakes and any port on the St. Lawrence River, or between any ports on the St. Lawrence River. This last exemption in practice only covers the St. Lawrence River as far as Father Point, Que., and the other four exemptions omit mention of Ontario. The Dominion Marine Association is pressing on the Government for an amendment to the law so that Ontario may be placed on the same footing as other provinces. On the other hand, it is learned that a proposition is under consideration to do away with the exemption in favor of 16 ft. vessels from Ontario, and the St. Lawrence pilots have been bringing strong pressure to bear on the Government so as to require the employment of pilots upon all vessels passing below Montreal and even upon all vessels moving in Montreal harbor. The Association is of opinion that the men who navigate vessels between Lake Superior and Montreal are quite competent to navigate their vessels down the Lower St. Lawrence, and that the proposed general and compulsory employment of pilots would serve no good purpose and would work great injustice to vessel owners. Even if pilots specially acquainted with the channels must be employed between Montreal and Quebec, the Association urges that its members should not be compelled to employ and pay for men from the limited and special class of Tour de Role pilots, but that they should be free to select at will from the large number of apprentice pilots, available for employment, and that in moving vessels from dock to dock in Montreal harbor no pilot whatever should be required.

**Marine Votes for 1908-09.**

A large number of votes have been passed at the current session of the Dominion Parliament for services, etc., in connection with the marine interests of the country, upon the estimates of the Departments of Public Works, Marine and Fisheries, Railways and Canals, and Trade and Commerce. Some of the votes were on capital account, and some on revenue account, while a number were revotes. The votes covered the following:

<b>LIGHTHOUSE AND COAST SERVICE.</b>	
Salaries and allowances to lightkeepers.	\$37,500.00
Agencies, rents and contingencies.	4,125.00
Salaries for temporary officers, etc.	2,125.00
Administration of pilotage and pensions	3,500.00
To pay certain pensions.	600.00
Gratuity to mother of Mrs. C. Taillon.	83.33
Administration of pilotage and pensions and repairs to pilotage steamer Eureka	3,750.00
Maintenance and repairs to lighthouses.	81,250.00
Repairs to lightships.	2,500.00
Maintenance and upkeep of dockyards.	5,000.00
Construction of lighthouses and aids to navigation, including apparatus, submarine signals, and providing suitable boats for carrying on construction work.	275,000.00
Further amount required for the construction or purchase of a lighthouse tender and buoy steamer for the Great Lakes and Georgian Bay (revote).	18,750.00
To provide for breaking ice in Thunder Bay and other points.	5,000.00

To provide for maintenance and repairs to wharves.	\$ 375.00
Further amount required for the charter of the S.S. Lord Kitchener.	2,210.00
To charter steamers keeping the channel clear at Lime Kiln Crossing, Detroit River.	10,000.00
To charter steamers for lighthouse work, additional.	38,250.00
Further amount required for keeping lights on wrecked steamers at Bois Blanc.	3,680.00
Signal service.	1,125.00
To provide for the building and maintenance of wireless stations.	16,443.75
To provide telephones at various points in connection with aids to navigation.	1,250.00
To provide for the establishment of telephonic reporting stations along the St. Lawrence River between Montreal and Father Point, Que.	2,937.50
Further amount required for the completion of Western wireless stations.	1,800.00
Further amount required for expert service in connection with reorganization of bookkeeping of Department of Marine.	14,000.00

**RIVER ST. LAWRENCE SHIP CHANNEL.**

Various works, unspecified.	\$760,000.00
Purchase of yard property Sorel (revote)	30,000.00
Permanent piers Lake St. Peter and other points.	100,000.00
Completion and construction of dredging plant for work between Montreal and Father Point, Que.	213,000.00

**CANALS.**

Canals generally, including statistical officers.	\$ 10,000.00
QUEBEC CANALS.—Steam road roller and stone crusher.	875.00
Re-marking boundaries, surveys, etc.	1,250.00
Dredging.	2,312.50

**LACHINE CANAL.**

Staff.	\$ 15,000.00
Rebuilding slope walls.	29,843.75
Testing cement.	312.50
Building wharf and basin.	37,500.00
Wall north side basin no. 2.	12,250.00
Wall side basin no. 2.	6,125.00
Workshops.	1,875.00
Rebuilding slope walls, extra.	124,000.00
To complete electric installation.	4,000.00
To reimburse Lachine and Soulanges repairs appropriation for leak at lock no. 1 Lachine.	21,700.00

**BEAUHARNOIS CANAL.**

Improvements and repairs.	\$ 1,250.00
<b>SOULANGES CANAL.</b>	
Improvements and repairs.	\$ 2,287.50
To pay Manning & Macdonald's claim for material supplied (revote).	14,271.00
Gratuity to widow of A. Mercier.	160.00

**CHAMBLY CANAL.**

Land damages.	\$ 62.50
Renewing telephone line.	750.00
Renewing wharf at St. John's, Que.	687.50
Harbor improvements at St. John's.	6,550.00
Strengthening banks Ste. Therese.	1,125.00
To complete macadamizing tow paths.	1,250.00
To macadamize road west side of canal.	370.00
New power house at bridgewick no. 2.	625.00
Alterations and additions lockhouse 4.	187.50

**CARILLON AND GRENVILLE CANAL.**

To macadamize roadway.	\$ 1,312.50
Protection beams for lock gates.	375.00
Renewing Carillon lighthouse.	112.50

**CORNWALL CANAL.**

To rebuild river wall foot of canal.	\$ 312.50
To build gate lifter.	1,250.00
To complete lockbank, lock 24.	1,250.00
Storage room for spare gates.	250.00
Repairs to north bank between gates 18 and 19.	695.00
To fill in space between old and new locks, foot of canal.	6,000.00
Gratuity to widow of J. McMiry.	93.00

**GALOPS CANAL.**

Upper entrance, final estimates.	\$ 875.00
North channel and cut dam between Les Galops and Adams Island.	16,900.00
Les Galops and Adams Island, final estimate.	5,108.75
Removing shoals in river, upper entrance to canal.	15,000.00
To build retaining wall.	2,512.50
Concrete superstructure at upper entrance	500.00
	625.00

**RAPIDE PLAT CANAL.**

Concrete superstructure south entrance.	\$ 125.00
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**MURRAY CANAL.**

Rebuilding pier of concrete.	\$ 3,125.00
Houses for bridgemen.	625.00

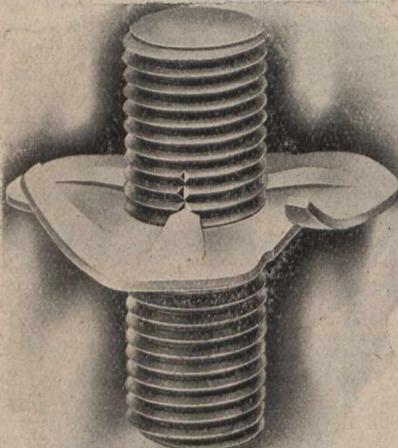
**RIDEAU CANAL.**

Repairs.	\$ 2,000.00
Improvements.	3,562.50
To complete purchase of tug and fittings	1,500.00
Rebuilding apron, etc., Hogsback.	16,000.00
Rebuilding waste weir Black Rapids.	3,000.00
Gratuity to widow of N. W. Clarke.	153.54

<b>TRENT CANAL.</b>	
Construction.....	\$125,000.00
Improvements.....	5,625.00
New lock and dam, Lindsay, Ont.....	10,000.00
Dam at Buckhorn.....	3,125.00
New dredge.....	1,875.00
To complete purchase of steamboat.....	4,063.00
<b>WELLAND CANAL.</b>	
For surveys.....	\$ 2,500.00
Electric lighting and power plant.....	6,250.00
Removing centre piers and rebuilding bridge at Queen St. and Homer Road..	3,750.00
To widen canal near Welland.....	6,875.00
Retaining wall in rock cut.....	10,000.00
Port Colborne improvements.....	14,375.00
“ elevator.....	21,500.00
Port Maitland, renewing entrance piers.	12,500.00
Repairs to foundations, lock no. 2.....	1,500.00
Stone protection to bank.....	1,250.00
Deepening ditches and enlarging culverts	1,875.00
Heavy repairs at various points.....	3,750.00
Fire pump for repair shop.....	312.50

<b>SAULT STE. MARIE CANAL.</b>	
Construction.....	\$ 13,125.00
New lock gates.....	2,500.00
<b>HARBORS, RIVERS, ETC.</b>	
Removing obstructions in navigable rivers.....	\$ 23,600.00
Harbor, river and bridge works generally.....	1,250.00
Maritime Provinces generally—to purchase creosoted lumber.....	2,500.00
Repairs improvements, etc., to piers, wharves, etc., in Prince Edward Island.....	1,000.00
Ditto, at 77 points in Nova Scotia.....	34,945.00
Ditto, at 29 points in New Brunswick	28,143.75
Ditto, at 107 points in Quebec.....	134,531.00
Ditto, generally in Quebec.....	16,000.00
Ditto, at 62 points in Ontario.....	171,797.00
Ditto, at 5 points in Manitoba.....	3,687.50
Ditto, at 4 points in Sask. and Alta..	4,500.00
Urgent provisional improvements in Lesser Slave River, Alta.....	6,000.00

Repairs, improvements, etc., to piers, wharves, etc., at 5 points in N.W.T....	33,500.00
Ditto, generally in N.W.T.....	625.00
Ditto, at 14 points in B.C.....	20,800.00
Improvements Lewis and Yukon rivers..	937.50
<b>ST. JOHN, N.B.</b>	
Harbor repairs and dredging.....	\$ 50,000.00
Improvements, etc.....	330,000.00
<b>QUEBEC.</b>	
Harbor improvements.....	\$ 62,500.00
<b>PORT COLBORNE, ONT.</b>	
Harbor improvements.....	\$ 2,500.00
<b>MIDLAND AND TIFFIN, ONT.</b>	
Improvements.....	\$ 9,375.00
Dredging at Tiffin.....	76,500.00
<b>GEORGIAN BAY TO MONTREAL.</b>	
Surveys for waterway via French River to Ottawa River.....	\$ 5,000.00
<b>PORT ARTHUR AND FORT WILLIAM, ONT.</b>	
Harbor and river improvements.....	\$ 62,500.00



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On first and third Tuesdays each month until further notice through tourist sleeping car without change, Chicago to Houston, Texas, leaving 6 p.m., on above Tuesdays. Very low abnormal rates, "Homeseekers," as for instance, Chicago to Houston and return, \$25.00; New Orleans the same, good 30 days. Special homeseekers' round trip rates to the South and Southwest.

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Provinces of Ontario, Quebec, Manitoba, Saskatchewan, Alberta and British Columbia.  
**HEAD OFFICE - - TORONTO**

RED RIVER, MAN.	
Improvements at St. Andrew's Rapids..	\$ 99,500.00
DREDGING.	
Dredge vessels, repairs.....	\$ 39,375.00
New dredging plant, generally.....	37,500.00
"    "    Maritime Provinces.....	12,500.00
"    "    Ontario and Quebec.....	13,750.00
"    "    Manitoba.....	1,875.00
"    "    British Columbia.....	12,500.00
Dredging—General service.....	625.00
"    Maritime Provinces.....	37,500.00
"    Quebec and Ontario.....	153,875.00
"    Manitoba.....	3,750.00
"    British Columbia.....	9,375.00
GOVERNMENT STEAMERS AND ICEBREAKERS.	
Maintenance and repairs.....	\$620,000.00
Winter mail service.....	16,000.00
Further amount required for construction of icebreaking steamer for Northumberland Straits.....	150,000.00
FISHERIES.	
Fisheries protection service.....	\$ 31,250.00
To provide for the construction of a cruiser for the Pacific Coast (revote)..	28,125.00
To provide for the reconstruction of the S.S. North.....	10,000.00
To provide for the purchase of gasolene launches for British Columbia.....	6,700.00
To pay owners of U.S. fishing tug Kitty D., expenses occasioned by seizure by Government cruiser Petrel.....	3,000.00
MAIL SUBSIDIES AND STEAMSHIP SUBVENTIONS.	
Ocean mail between Great Britain and Canada.....	\$158,750.00
Halifax, N.S., and St. John's, Nfld., to Liverpool.....	2,500.00
St. John, N.B., to Glasgow.....	1,875.00
St. John to Dublin and Belfast.....	937.50
St. John and Halifax to London.....	5,000.00
Between a port in Prince Edward Island and Great Britain.....	875.00
Between Montreal, St. John and Halifax and Manchester.....	4,375.50
Between Annapolis, N.S., and London or Hull.....	625.00
Between Canada and South Africa.....	18,250.00
Between Canada and Mexico.....	12,500.00
Between St. John and Halifax, and the West Indies and South America..	10,087.50
Between Canada and New Zealand.....	6,250.00
Between Canada and Australia.....	3,471.13
Between Victoria, B.C., and San Francisco, Cal.....	375.00
Between Victoria, Vancouver and Skagway, Alaska.....	1,562.50
Between Victoria and west coast of Vancouver Island.....	625.00
Between Port Essington or Port Simpson and Queen Charlotte Islands.....	187.50
Between Prince Rupert and Jedway, Queen Charlotte Islands.....	93.75
Between Canada and Newfoundland.....	2,500.00
Halifax, via Cape Breton ports to Newfoundland.....	250.00
Prince Edward Island, Cape Breton and Newfoundland.....	1,000.00
St. John to Westport and way ports....	187.50
Halifax to Spry Bay and other ports....	312.50
St. John and Annapolis Basin points....	187.50
St. John and Cumberland Basin points....	375.00
Mulgrave to Guysboro, N.S.....	625.00
Mulgrave to Cheticamp, N.S.....	625.00
Between Baddeck, Grand Narrows, Iona, Big Pond and East Bay.....	625.00
Between Mulgrave and Bras d'Or lakes... "    Pictou and Cheticamp.....	750.00 250.00
"    Sydney and Whycomagh.....	125.00
"    St. Stephen and St. Croix river points.....	375.00
"    Sydney and Bay St. Lawrence.....	187.50
"    Halifax and Canso, N.S.....	500.00
"    Petit de Grat and Mulgrave, N.S.....	500.00
"    Moncton and Petitcodiac River points.....	250.00
"    St. John and Clementsport.....	187.50
"    Newcastle and Miramichi River points.....	187.50
"    St. John and Morden.....	187.00
"    Froud's Point and Lockport.....	75.00
"    Pictou, N.S., and various points, P.E.I.....	375.00
"    St. John and Minas Basin points.....	375.00
For 52 weekly trips between St. John and Halifax, via Yarmouth.....	1,250.00
From a mainland port to Grand Manan..	625.00
From the mainland to Prince Edward Island.....	1,562.00
From Baddeck to Grand Narrows.....	825.00
From the mainland to Magdalen Island..	1,875.00
Between St. John and Digby.....	2,500.00
Between Quebec, Gaspé Bay and way ports.....	1,062.00
Between Gaspé Bay and Dalhousie or Campbellton.....	1,875.00
Between Quebec and Blanc Sablon, etc... Between Murray Bay and River Ouelle..	2,500.00 750.00
Between St. Catharines Bay and Tadoussac.....	312.50
Between Quebec and Isle of Orleans (at a special season).....	62.50
Between Gaspé Basin and North Shore of the St. Lawrence (at a special season)	125.00
Between Bonaventure River and Petit	

Roches.....	\$ 375.00
To promote steam communication between the mainland and Pelee Island, Ont.....	187.50

MISCELLANEOUS.

Hydrographic surveys.....	\$ 21,250.00
Marine hospitals, care of sick seamen, etc.	16,250.00
Shipwrecked and distressed seamen....	375.00
Steamboat inspection.....	5,375.00
Inspection of Government steamers, etc.	562.50
Examination of masters and mates.....	12,600.00
Rewards for saving life, including life-saving stations.....	31,600.00
Investigations into wrecks.....	9,000.00
Expenses of schools of navigation.....	10,000.00
Registration of shipping.....	2,000.00
Cattle inspection, salaries and expenses.	3,600.00
Tidal service—Steam windlass for deep sea anchorage for S.S. Gulnare.....	3,000.00
Wrecking plants—To continue subsidy for same at Quebec, Maritime Provinces and British Columbia.....	30,000.00
Maintenance of vessels patrolling northern waters and additional services in connection therewith.....	50,000.00
Naval militia, and expenses in using the cruiser Canada as a training ship.....	10,000.00
Further amount for maintenance of S.S. Lady Grey, on trip down St. Lawrence	2,360.00
Gratuity to daughter of R. Angus.....	166.66
Unforeseen expenses generally.....	5,000.00

Among the Express Companies.

The Canadian Ex. Co. has opened offices at Avondale, N.S.; Bellisle, N.B., and De Lotbiniere, Que.

The Toronto Milk and Cream Producers' Association appointed a deputation recently to confer with the Board of Railway Commissioners regarding express rates on milk.

In consequence of the Dominion Ex. Co.'s extension of its service on the Guelph and Goderich (C.P.R.) line, deliveries from Toronto will in future be made at Walton direct, instead of at Wroxeter, and thence to Walton by the stage.

The Dominion Ex. Co. recently carried a shipment of 1,650 live lobsters from the Atlantic coast to Vancouver, B.C., in a special car, for the Dominion Government. The shipment was made for the purpose of attempting to propagate lobsters on the Pacific coast.

The Board of Railway Commissioners for Canada has extended to June 1, the time fixed for authorizing the use of contracts, conditions, by-laws, and regulations of the Canadian, Dominion, Maritime, National, American, Pacific, and Great Northern Ex. companies.

The Dominion Ex. Co. has issued a writ against J. Maughan & Son, Toronto, to recover \$1,395.13, alleged to be due on money orders issued by that firm as agents of the company, between Oct. 26 and Nov. 28, 1907. It is said that these orders were issued by H. Maughan, who has since left Toronto.

Supt. Vickers, of the Dominion Ex. Co.'s Atlantic Division at Montreal, in a recent interview stated that many shipments were still marked "via New York," by consignees when it was desired to expedite transportation, and very often such shipments were from 20 to 50 hours later in reaching their destinations than consignments sent by the C.P.R. or Allan Line steamships from Liverpool, Eng. Express goods, he added, could get through the Canadian Customs under special arrangement, with practically no delay, but at New York were frequently delayed a whole day.

A C.P.R. telegraph operator at Mackeys, Ont., was sentenced at North Bay, Ont., April 15, to three months' imprisonment, for being intoxicated whilst on duty

The total number of employes on the Intercolonial Ry. is 8,291, distributed as follows: Maintenance of way and structures, 2,077; maintenance of equipment, 2,332; conducting transportation, 3,342; general administration, 540.

An Express Suit in England.

The case of Hands vs. The Dominion Express Co. came up in the Westminster County Court, London, Eng., Mar. 27, for Judge Woodfall's reserved decision on an application to stay the proceedings on the ground that the action should be tried in Canada. H. Simmons was for plaintiff; H. Nield, M.P., for defendants. Wesley Upton, a young telegraph operator, absconded from the defendants' service at Yorkton, Sask., and took, among other things, a book of money orders. He found his way to England and went to the bureau de change of the plaintiff, P. Hands, at Charing-Cross, where he was paid £205 10s. in exchange for the company's orders. He was paid partly in Bank of England £5 notes. The orders were returned to the plaintiff stamped "Bad. Not good." The police eventually arrested Upton at Brighton, and six £5 notes were found on him, which the plaintiff claimed formed part of what he had paid him for the orders. Upton was extradited, and was sentenced in Canada, the Judge ordering the property found in his possession to be given up to defendants. The plaintiff had been a money-changer for 40 years, at 16 Strand, Charing-Cross, and changed these orders in the usual way. It was contended his cause of action arose in England in the jurisdiction of this Court. In support of the application, it was contended the trial should be in Canada, where the cause of action arose, and the balance of convenience necessitated that the trial should be there. Interrogatories had been administered, and the proper person to answer them was the Secretary of the Company, who was in Canada. This Court had no power to appoint a commission to take evidence in Canada. The Judge remarked that he could send the case to the High Court. In opposition to the application, it was urged that the evidence from Canada was purely formal. The evidence of fact was in England, and on the question of Upton's having stolen the orders, the plaintiff was prepared to admit the theft and that Upton was properly convicted.

Judge Woodfall came to the conclusion he must dismiss the application with costs, but would give leave to appeal, hoping there would be an appeal, as it would air the fact that he was given power to hear this case, but not to order a commission to get the evidence. He was of opinion it would be for the balance of convenience for the trial to take place in London. He could not see why the plaintiff should be put to the trouble of bringing this action in Canada, because the evidence necessary could be ascertained by affidavit. There was the point of law as to what was the law in Canada as to ordering, after conviction of the thief, the handing over of property that had been stolen, but he thought an expert might be found in England competent to say whether the English and Canadian laws were analogous. The plaintiff had to prove possession by the person convicted of his property, and that evidence was to be found in England.

Cutting of Ties, etc., in Ontario.—Replying to a question as to the quantity of lumber cut in Ontario, and the prices charged by the Government during 1907, the Minister of Lands, Forests and Mines gave details, April 7, from which it appeared that for railway construction, and the working of mines, the quantity allowed to be cut by the permits issued was 4,153,000 ft., b.m., of pine, the price for which was \$7.50 per 1,000 ft. b.m. Under sec. 13, sub-sec. 4, chap. 18, of the Statutes of 1907, permits were issued to cut 1,100,000 ties within the 18-mile belt G.T. Pacific Ry., at 5c. each. Permits to cut ties elsewhere covered 4,659,800 ties of various kinds, the prices charged for which was 10c. each.

**Telegraph and Cable Matters.**

S. Y. Clifton, engineer of the Marconi Wireless Telegraph station, St. John, N.B., was married there, Apl. 7, to Miss E. G. Payne.

G. Marconi has been elected managing director of the Marconi Wireless Telegraph Co., Ltd., London, Eng., succeeding H. C. Hall, resigned.

The Dominion Government owns 73 wireless telegraph stations in the Gulf of St. Lawrence and on the Atlantic coast. Of these, three are low power stations, and are run at a cost of \$5,000 each, and 10 are high power stations, costing \$10,000 each. The Marconi Wireless Telegraph Co. is paid \$2,500 and \$3,500 each, respectively, for operating them and retains the tolls received.

The Railway Telegraph Superintendents' convention will be held at Montreal, June 24 to 27, when papers on a variety of subjects appertaining to railway telegraph systems will be read. Arrangements have been made

with the C.P.R., G.T.R., the Quebec Ry., Light and Power Co., and others, for a series of trips to Quebec, Lachine, Ste. Anne de Beaupre, and on the Saguenay River and Lachine Rapids. The entertainment committee includes W. J. Camp, C.P.R. Telegraphs, and W. W. Ashald, G.T.R. Telegraphs.

**Association of Railway Telegraph Superintendents.**

This Association will meet in Montreal, June 24 to 27, when the following papers will be read:

Dry batteries on telegraph wires, U. J. Fry, C.M. and St. P. Ry.; Reduction of telegraphing by use of printed forms, O. C. Greene, N.P. Ry.; Commercial reports, G. C. Kinsman, Wabash Ry.; Wiring of station buildings from the contractor's standpoint, J. H. Jacoby; Adverse railway legislation E. A. Chenery, Missouri Pac. Ry.; My experience while in charge of telegraph

work on the Isthmus, C. F. Annett; Qualifying operators for train despatching, C. S. Rhoads, C.C.C. & St. L. Ry.; Selecting operators for railroad use, L. H. Korty, Union Pac. Ry.; Moving trains by visible signals, L. B. Foley, D.L. and W. Ry.; Block signals, H. C. Hope, C., St. P. M. and O. Ry.; The telephone, F. F. Fowle; Use of telephones in connection with train movements, W. W. Ryder, C.B. and Q. Ry.; The Interstate Commerce Commission, C. Selden, Baltimore and Ohio Rd.; Past, present and future of the Association of Railway Telegraph Superintendents, W. F. Williams, Seaboard Air Line.

The entertainment features will include a trip to Lachine by G.T.R. and return by R. and O.N. boat, an electric car trip round Montreal, a trip to Quebec by C.P.R., and a trip to Ste. Anne de Beaupre by Q.L. and P. Co.

The organization is as follows: President, E. P. Griffith, Erie Ry., Jersey City, N.J. Vice-President, W. J. Camp, C.P.R., Montreal.

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MAY 23rd TO JUNE 6th

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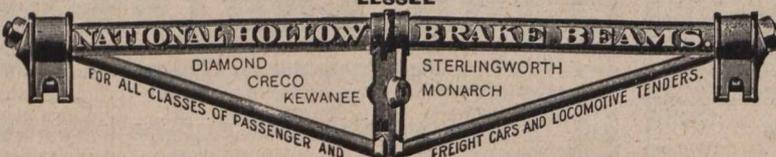
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Sec'y-Treas.

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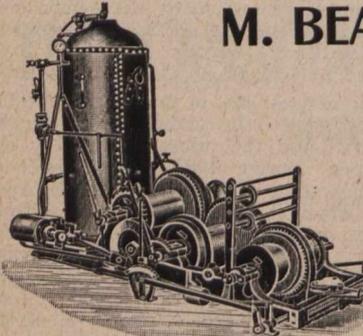


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Sec.-Treas., P. W. Drew, Wisconsin Central Ry., Milwaukee, Wis. Committees of Arrangements: W. J. Camp, C.P.R., Montreal; W. W. Ashald, G.T.R., Montreal; E. H. Millington, M.C.R., Detroit, Mich.; G. C. Kinsman, Wabash Ry., Decatur, Ill.; M. Magiff, C.V.R., St. Albans, Vt.; S. A. D. Forristall, B. and M.R., Boston, Mass.; N. E. Smith, N.Y., N.H. and H.R., New Haven, Conn. Ladies Reception Committee: Mrs. W. J. Camp, Mrs. J. Kent, Mrs. W. W. Ashald, Mrs. T. Rodgers, Mrs. J. F. Richardson, Miss A. Jennings, Miss Gladys Camp.

**Dominion Telegraph and Telephone Lines.**

The Dominion Parliament at its current session passed the following vote on account of maintenance repairs, construction and operation of telegraphs and telephone lines owned and operated by the Dominion Government, through the Department of Public Works:

Telegraph service generally	\$ 1,500.00
Public Works Agency B.C., maintenance, etc.	375.00
Re-poling Meat Cove and Ingonish land line, Nova Scotia	187.50
Operating and maintenance Prince Edward Island and mainland	875.00
Land cable telegraph lines Lower St. Lawrence and Maritime Provinces, including working expenses of vessels required for cable service and Marconi wireless telegraph system at Belle Isle Inlet	15,000.00

Ditto	15,000.00
Cape Breton Island telegraph lines, Meat Cove-North Sydney-Port Hawkesbury section, extension of Grand River Station-Loch Lomond branch line to Enon	400.00
North Sydney-Scattarie section, improvement	600.00
Improving repairing service along the North Shore of the St. Lawrence, Que.	500.00
Extension of land line on east side of the Saguenay River from St. Charles to Peribonka, Que.	125.00
To pay J. C. Taché, Supt. at Chicoutimi	37.50
Operating expenses Saskatchewan and Alberta	3,750.00
Ditto	2,000.00
Land line from Kamsack, Sask., to the Kamsack Indian Agency, to be operated by telephone	450.00
New building at Battleford, Sask., for office and operator's residence	350.00
New building at Saddle Lake, Sask., for office and agent's residence	400.00
Extension to Pender and Mayne islands, of the Salt Springs Island telephone line	250.00
Improvements Victoria - Cape Beale, B.C., line	750.00
Improvements Vernon-Kelowna - Penticton line	437.50
Improvements Vernon-Lundy line	212.50
Ditto	600.00
Operating expenses B.C., inclusive of proportionate cost of maintenance Parksville-Alberni-Cape Beale line jointly with C.P.R.	3,725.00
Improvements Kamloops - Nicola - Penticton	4,000.00
To provide for the settlement of the C.P.R. claim for share of the cost of maintenance of B.C.-Alberni-Cape Beale line (revote)	7,800.00
Part re-poling Ashcroft-Quesnel section of the Ashcroft-Yukon line	250.00

Operating expenses Ashcroft-Dawson line	22,500.00
Ditto	17,000.00
To complete payments on extension of line beyond Aberdeen to Kaien Island and Prince Rupert	1,525.00

C. W. Gamble, B.Sc., has been appointed Provincial Inspector of Railways in and for the Province of British Columbia.

The Dominion Parliament, at the current session, voted \$312.50 as the contribution of the Government railways towards the foundation of a school of railway engineering and transportation in general in connection with the Faculty of Applied Science of McGill University, Montreal.

During Feb., 24 employes were killed and 28 injured on Canadian railways. Of the fatalities, 7 deaths were due to explosions, 7 to being run over by cars, 3 to collisions, 2 to derailments, 2 to falls, and one each to being struck by engine, falling material, and to being caught between cars. Of the non-fatal accidents, 5 were due to being struck by cars, 5 to derailments, 3 to collisions, 3 to being caught between cars, 2 each to machinery and falling materials, and one each to explosion, exposure and to being run over. In connection with the fatal accidents, it is noticed that 9 out of the 24 deaths were of men concerned in the operation of trains, the remainder being chiefly engaged in construction, and maintenance of way.

# The Purchasing Agents' Guide

To the Manufacturers of & Dealers in Steam & Electric Railway, Marine, Grain Elevator, Express, Telegraph, Telephone and Contractors' Supplies, &c.

<b>Accident Insurance</b> Canadian Ry. Accident Ins. Co. .... Ottawa, Ont.	<b>Bollers, Steam</b> Babcock & Wilcox (Ltd.) ..... Montreal.
<b>Advertising Matter</b> Valentine & Sons Publishing Co. .... Montreal.	<b>Bollers, Water Tube</b> Babcock & Wilcox (Ltd.) ..... Montreal. Jno. McDougall, Caledonian Iron Works Co. Montreal
<b>Aerated Waters</b> E. L. Drewry ..... Winnipeg.	<b>Bollers Tubes</b> Jas. W. Pyke & Co. .... Montreal.
<b>Air Brakes and Fittings</b> Canada Foundry Co. .... Toronto. Canadian Westinghouse Co. .... Hamilton Ont.	<b>Bolsters</b> Dominion Car and Foundry Co. .... Montreal.
<b>Ales</b> E. L. Drewry ..... Winnipeg.	<b>Bolts, Bridge</b> Toronto Bolt and Forging Co. .... Toronto.
<b>Angle Bars</b> Hamilton Steel & Iron Co. .... Hamilton, Ont.	<b>Bolts, Carriage and Machine</b> Toronto Bolt and Forging Co. .... Toronto.
<b>Anti Rail Creepers</b> Belle City Malleable Iron Co. .... Racine, Wis.	<b>Bolts, Track</b> Toronto Bolt and Forging Co. .... Toronto.
<b>Automobiles</b> Polson Iron Works, Ltd ..... Toronto.	<b>Box Car Loaders</b> Mussens Limited ..... Montreal.
<b>Axes</b> James Smart Mfg. Co. .... Brockville, Ont.	<b>Brake Beams</b> Chicago Railway Equipment Co. .... Chicago, Ill. Dominion Car and Foundry Co. .... Montreal.
<b>Axe Steel</b> Montreal Steel Works ..... Montreal.	<b>Brake Shoes</b> American Brake Shoe & F'dry Co. Mahwah, N.J. Canadian Iron and Foundry Co. .... Montreal. N. J. Holden Co., Ltd. .... Montreal. Railway Materials Co. .... New York City.
<b>Axles</b> James Hutton & Co. .... Montreal. Jas. W. Pyke & Co. .... Montreal. Rhodes, Curry & Co. .... Amherst, N.S. Taylor & Arnold ..... Montreal.	<b>Brass and Copper Cloth</b> The B. Greening Co. .... Hamilton, Ont.
<b>Badges</b> R. Woodman Mfg. & Supply Co. .... Boston, Mass.	<b>Bridge Numbers</b> Acton Burrows Limited ..... Toronto.
<b>Baggage Checks</b> R. Woodman Mfg. & Supply Co. .... Boston, Mass.	<b>Bridges</b> Canada Foundry Co. .... Toronto. Canadian Bridge Co. .... Walkerville, Ont. Dominion Bridge Co. .... Montreal.
<b>Beacons</b> International Marine Signal Co. .... Ottawa.	<b>Buckets, Coal, Ore and Concrete</b> Canadian Fairbanks Co., Ltd. .... Montreal. Kilgore-Peteler Co. .... Minneapolis, Minn.
<b>Bearings, Slide</b> Chicago Railway Equipment Co. .... Chicago, Ill.	<b>Bumping Posts</b> McCord & Co. .... Chicago, Ill.
<b>Blankets and Bedding</b> The Hudson's Bay Co. ....	<b>Buoy Lighting</b> Safety Car Heating and Lighting Co. New York.
<b>Blasting Powder</b> Standard Explosives Limited ..... Montreal.	<b>Buoys</b> International Marine Signal Co. .... Ottawa.
<b>Bollers</b> Babcock & Wilcox (Ltd.) ..... Montreal. Canada Foundry Co. .... Toronto. Jno. McDougall, Caledonian Iron Works Co. Montreal Polson Iron Works ..... Toronto.	<b>Cables, Electric and Feeder</b> E. F. Phillips Electrical Works, Ltd. .... Montreal. The Wire and Cable Co. .... Montreal.
<b>Bollers, Portable</b> Canada Foundry Co. .... Toronto.	<b>Caboose Heaters</b> Geo. R. Prowse ..... Montreal.
<b>Bollers, Stationary and Marine</b> Babcock & Wilcox (Ltd.) ..... Montreal.	<b>Car Castings</b> American Brake Shoe & F'dry Co. Mahwah, N.J. Canadian Iron and Foundry Co. .... Montreal.
<b>Boller, Staybolt Iron or Steel Bars</b> Falls Hollow Staybolt Co. Cuyahoga Falls, Ohio.	

<b>Car Cleaner</b> Modoc Soap Co. .... Philadelphia, Pa.	<b>Car Closets</b> Duner Co. .... Chicago, Ill.
<b>Car Curtains and Fixtures</b> N. J. Holden Co., Ltd. .... Montreal.	<b>Car Heating</b> Wm. C. Baker Heating & Supply Co. New York. Canadian Gold Car Heating & Lighting Co. Montreal. Safety Car Heating and Lighting Co. New York.
<b>Car Jacks</b> Canadian Fairbanks Co., Ltd. .... Montreal. F. H. Hopkins & Co. .... Montreal. Mussens Limited ..... Montreal.	<b>Car Kitchen Equipments</b> Geo. R. Prowse ..... Montreal.
<b>Car Lighting</b> Bliss Electric Car Lighting Co. Milwaukee, Wis. Consolidated Ry. Electric Light & Equip. Co., N.Y. Canadian Cold Car Heating & Lighting Co. Montreal. Safety Car Heating and Lighting Co. New York.	<b>Car Movers</b> Canadian Fairbanks Co., Ltd. .... Montreal. F. H. Hopkins & Co. .... Montreal. Mussens Limited ..... Montreal. R. Woodman Mfg. & Supply Co. Boston, Mass.
<b>Car Ranges</b> Geo. R. Prowse ..... Montreal.	<b>Car Replacers</b> Alexander Car Replacer Mfg. Co. Scranton, Pa. N. J. Holden Co., Ltd. .... Montreal. F. H. Hopkins & Co. .... Montreal.
<b>Car Seals</b> R. Woodman Mfg. & Supply Co. .... Boston, Mass.	<b>Car Wash Brushes</b> Wolfe Brush Co. .... Pittsburg, Pa.
<b>Cars</b> American Car and Equipment Co. .... Chicago, Ill. Canada Car Co., (Ltd) ..... Montreal, Que. Crosen Car Mfg. Co. .... Cobourg, Ont. Dominion Car and Foundry Co. .... Montreal. J. T. Gardner ..... Chicago, Ill. Hart-Otis Car Co. (Ltd.) ..... Montreal. Hotchkiss, Blue & Co. .... Chicago, Ill. Kilgore-Peteler Co. .... Minneapolis, Minn. Preston Car and Coach Co., Ltd. Preston, Ont. Rhodes Curry & Co. .... Amherst, N.S.	<b>Cars, Coal</b> Kilgore-Peteler Co. .... Minneapolis, Minn.
<b>Cars, Mine</b> Canadian Fairbanks Co., Ltd. .... Montreal. Kilgore-Peteler Co. .... Minneapolis, Minn.	

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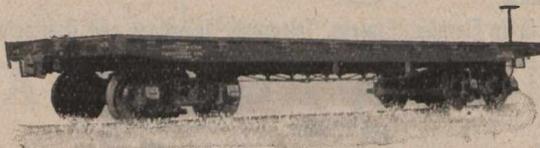
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Canadian Iron and Foundry Co.....Montreal.  
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St. Thomas Brass Co.....St. Thomas, Ont.
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Canada Car Co., Ltd.....Montreal.  
Canadian Iron and Foundry Co.....Montreal.  
Kerr Engine Co.....Walkerville, Ont.
- Castings, Iron and Steel**  
American Brake Shoe & F'dry Co..Mahwah, N.J.
- Castings, Malleable**  
Taylor & Arnold.....Montreal.
- Castings, Steel**  
Canadian Iron and Foundry Co.....Montreal.  
Montreal Steel Works.....Montreal.  
Rhodes Curry & Co.....Amherst, N.S.
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Rice Lewis & Son.....Toronto.  
Toronto Pressed Steel Co.....Toronto.
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McConway & Torley Co.....Pittsburg, Pa.  
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Washburn Steel Castings & Coupler Co.,  
.....Minneapolis, Minn.
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Canadian General Electric Co.....Toronto.
- Cross Arm Braces**  
Canadian General Electric Co.....Toronto.  
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Toronto Bolt and Forging Co.....Toronto.
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Babcock & Wilcox (Ltd.).....Montreal.
- Electric Car Route Signs**  
Acton Burrows Limited.....Toronto.
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Babcock & Wilcox.....Montreal.  
Canada Foundry Co.....Toronto.  
Canadian Fairbanks Co., Ltd.....Montreal.  
Dominion Bridge Co.....Montreal.  
Mussens Limited.....Montreal.
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American Brake Shoe & F'dry Co..Mahwah, N.J.
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Standard Explosives Limited.....Montreal.
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Canada Foundry Co.....Toronto.  
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Owen Sound Wire Fence Co..Owen Sound, Ont.  
Page Wire Fence Co. Ltd.....Walkerville, Ont.
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- Hammers**  
James Smart Mfg. Co.....Brockville, Ont.
- Handcars**  
Canadian Fairbanks Co., Ltd.....Montreal.  
Crossen Car Mfg. Co.....Cobourg, Ont.  
F. H. Hopkins & Co.....Montreal.  
Mussens Limited.....Montreal.  
Rice Lewis & Son.....Toronto.  
Toronto Pressed Steel Co.....Toronto.
- Hardware**  
The Hudson's Bay Co.....  
Rice Lewis & Son.....Toronto.
- Headlights**  
The N. L. Piper Railway Supply Co.....Toronto.
- Headlinings**  
Crossen Car Mfg. Co.....Cobourg, Ont.
- Hoisting Machinery**  
Brown Hoisting Machinery Co..Cleveland, Ohio.  
Canadian Fairbanks Co., Ltd.....Montreal.
- Hollow Staybolt Iron and Steel Bars**  
Falls Hollow Staybolt Co..Cuyahoga Falls, Ohio.
- Hoppers, Car (Wet or Dry)**  
Duner Co.....Chicago, Ill.
- Hydrants**  
Canadian Fairbanks Co., Ltd.....Montreal.  
Kerr Engine Co.....Walkerville, Ont.
- Illustrations**  
Acton Burrows Limited.....Toronto.
- Inspections**  
R. W. Hunt & Co.....Montreal.
- Instruments, Surveying and Engineering**  
James Foster.....Toronto.
- Interlocking Signals**  
Montreal Steel Works.....Montreal.
- Iron and Steel Bars**  
Hamilton Steel & Iron Co., Ltd..Hamilton, Ont.
- Iron, Bar**  
Taylor & Arnold.....Montreal.
- Iron, Pig**  
Hamilton Steel & Iron Co., Ltd..Hamilton, Ont.
- Iron Signs**  
Acton Burrows Limited.....Toronto.
- Iron Staybolt Bars**  
Falls Hollow Staybolt Co..Cuyahoga Falls, Ohio.
- Jacks**  
James Smart Mfg. Co.....Brockville, Ont.
- Japans**  
McCaskill, Dougall & Co.....Montreal.
- Journal Bearings**  
Canadian Bronze Co.....Montreal.  
Crossen Car Mfg. Co.....Cobourg, Ont.  
Kerr Engine Co.....Walkerville, Ont.  
Jas. W. Pyke & Co.....Montreal.  
St. Thomas Brass Co.....St. Thomas, Ont.
- Journal Boxes**  
N. J. Holden Co., Ltd.....Montreal.  
McCord & Co.....Chicago, Ill.
- Kalsomine Brushes**  
Wolfe Brush Co.....Pittsburg, Pa.
- Lager Beer, &c.**  
E. L. Drewry.....Winnipeg.
- Lamps, Incandescent**  
Canadian Westinghouse Co.....Hamilton, Ont.
- Lamps and Lanterns**  
The Hudson's Bay Company.....  
The Hiram L. Piper Co.....Montreal.  
The N. L. Piper Railway Supply Co.....Toronto.
- Launches**  
Polson Iron Works.....Toronto.
- Lights, Contractors' and Wrecking**  
Canadian Fairbanks Co., Ltd.....Montreal.  
F. H. Hopkins & Co.....Montreal.  
Mussens Limited.....Montreal.
- Locomotive Driver Brake Shoe**  
American Brake Shoe & F'dry Co..Mahwah, N.J.  
Canadian Iron and Foundry Co.....Montreal.
- Locomotive Lagging and Covering**  
Taylor & Arnold.....Montreal.
- Locomotives (Compressed Air)**  
Burnham, Williams & Co.....Philadelphia, Pa.  
Canadian Locomotive Co.....Kingston, Ont.  
Montreal Locomotive Works (Ltd.).....Montreal.  
H. K. Porter Co.....Pittsburg, Pa.
- Locomotives (Geared)**  
Lima Locomotive Co.....Lima, O.
- Locomotives (Electric)**  
Burnham, Williams & Co.....Philadelphia, Pa.  
Canada Foundry Co.....Toronto.  
Montreal Locomotive Works (Ltd.).....Montreal.
- Locomotives (Logging)**  
Burnham, Williams & Co.....Philadelphia, Pa.  
Canadian Locomotive Co.....Kingston, Ont.

**Locomotives (Rack)**

Burnham, Williams & Co. . . . . Philadelphia, Pa.  
 Canadian Locomotive Co. . . . . Kingston, Ont.  
 Montreal Locomotive Works (Ltd.) . . . . . Montreal.

**Locomotives (Steam)**

American Car & Equipment Co. . . . . Chicago, Ill.  
 Burnham, Williams & Co. . . . . Philadelphia, Pa.  
 Canada Foundry Co. . . . . Toronto.  
 Canadian Fairbanks Co., Ltd. . . . . Montreal.  
 Canadian Locomotive Co. . . . . Kingston, Ont.  
 J. T. Gardner . . . . . Chicago, Ill.  
 Hotchkiss, Blue & Co. . . . . Chicago, Ill.  
 The W. H. Kelson Co. . . . . Montreal.  
 Lima Locomotive Co. . . . . Lima, O.  
 Montreal Locomotive Works (Ltd.) . . . . . Montreal.  
 H. K. Porter Co. . . . . Pittsburg, Pa.  
 Vulcan Iron Works . . . . . Wilkesbarre, Pa.

**Locomotive Staybolts**

Falls Hollow Staybolt Co. . . . . Cuyahoga Falls, Ohio.  
 Flannery Bolt Co. . . . . Pittsburg, Pa.

**Lubricators**

McCord & Co. . . . . Chicago, Ill.  
 Taylor & Arnold . . . . . Montreal.

**Machine Tools**

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 Canadian Fairbanks Co. . . . . Montreal.

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Jno. McDougall, Caledonian Iron Works Co. Montreal

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Montreal Steel Works . . . . . Montreal.

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**Marine Supplies**

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**Nickel for Nickel Steel**

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 Toronto Bolt and Forging Co. . . . . Toronto.

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 Galena Signal Oil Co. Franklin, Pa., and Toronto.

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

**Paint Brushes**

Wolfe Brush Co. . . . . Pittsburg, Pa.

**Painters' Dusters**

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**Painters' Scrubs**

Wolfe Brush Co. . . . . Pittsburg, Pa.

**Painters' Wall Brushes**

Wolfe Brush Co. . . . . Pittsburg, Pa.

**Paints**

Canadian Oil Co. . . . . Toronto.

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Valentine & Sons Publishing Co. . . . . Montreal.

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 Canada Foundry Co. . . . . Toronto.  
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 James Smart Mfg. Co. . . . . Brockville, Ont.

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 Mussens Limited . . . . . Montreal.

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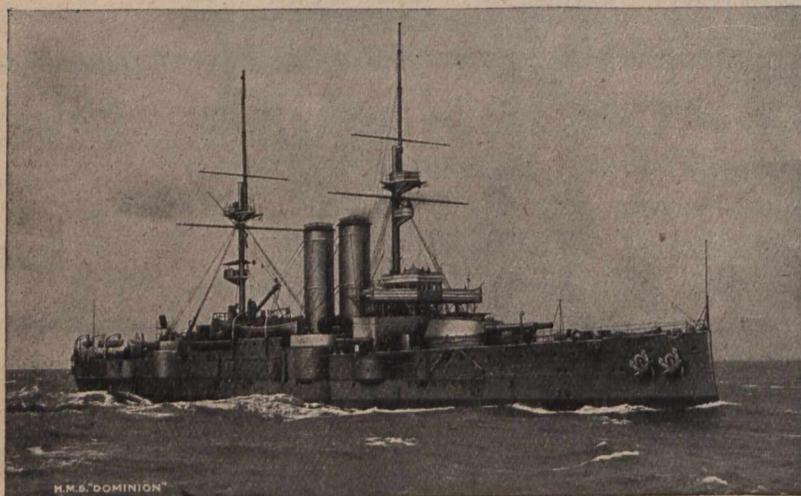
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