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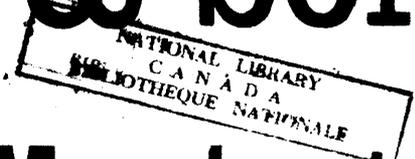
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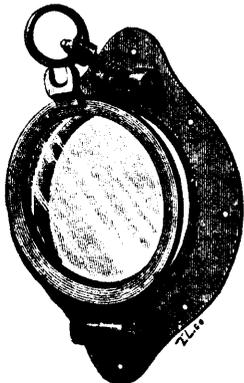
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TORONTO, CANADA, SEPTEMBER, 1899.

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The Railway of the Future.

By Adolphe Davis, C. E.

About 60 years ago England gave birth to the steam surface railway & inaugurated the present system, & now it is again about to inaugurate the railway of the future. England waits the proper time before accepting new inventions, & does not spend money uselessly. Her people will generally make sure of a new undertaking, & will wait to see if anything better will turn up that can replace what is already in operation with lasting advantage. They have waited 60 years for new developments in railway systems, but there has been comparatively no change in the last 50 years, although it is to be admitted that the speed has been increased on passenger trains during the past 40 years by about 20 miles an hour. The changes made have consisted chiefly in making the cars more comfortable for the traveling public. In America the weight & size of the railway rolling stock have been increased greatly for the sake of facility & economy in operating; but not so rapidly in England. The latter have correctly believed there is a limit, have stopped increasing the weight of their rolling stock, & have turned their attention to devising means to meet the present conditions, which demand greater facilities & quicker means of transit, combined with more absolute safety.

American railway managers have as yet seen no limit, & they are increasing the size of the carrying capacity of their rolling stock; engines are also increased in power & corresponding weight: all this with one idea in view—to reduce the cost of operation of their line. The means adopted appear well calculated to give the companies the desired result. The main result of the practice is the great saving of man labor; in fact, the managers will tell the directors of their companies that in place of two trains being required to move a given quantity of freight, one train with one staff will do the work, so that 50% is saved on engine drivers, firemen, conductors & brakemen, & 50% on locomotives. This is for freight trains only, as on passenger trains the service remains the same. When such a report is made at a directors' meeting, there are smiles & happiness all around. Generally there is mention made of the great saving made by steamship companies in replacing the small steamers with those of four times the carrying capacity. Here, no doubt, a great saving is actually accomplished. A large expensive steamship will replace, say, four of the smaller ones, but it cannot be compared with the change that follows an increase in the carrying capacity of railway rolling stock.

In changing from small steamers to the large ones, one steamer takes the place of four—hence one crew, one set of officers, one set of engines & boilers; in fact, one complete ship at sea, one steamer berth at harbor—all in place of four. It is true that the crew will number a few more men than on a small

steamer. The consumption of coal is greater, but not nearly as much coal will be used as on four smaller ones. The risk of accidents at sea is lessened by 75%, therefore the saving must be very great. Also, the steamship company does not have to lose the small steamers, as steamers of almost any size can be put into service at various classes of carrying on the sea. This considerably reduces the expense necessitated by the change—and the extra expense ends there.

With the railway it is different. In place of one ship, thousands of new cars are required, & in place of one engine, hundreds of new locomotives are needed. This is not all. The very moment this new heavy rolling stock is ready to be put into operation, new & heavier rails, new & larger ties, & new & stronger bridges are required for the whole line. There must be new turn-tables for locomotives, the roadbed requires additional ballast, & in many cases new engine houses are needed. In the repairing shops additional machines to take in the larger parts of the larger locomotives will be necessary; in fact, the companies may look to the expense of a new railway, less only the right of way & roadbed. In addition, there is an almost total loss of the rolling stock, rails, bridges, etc., previously in use, as most of it can only be scrapped at best. When the change on a few of the trunk lines takes place, all other lines must follow or they cannot compete. Old rolling stock will be discarded, at very great loss. When all the cost of this change has been correctly estimated, after the interest has been paid on many millions of outlay, the net receipts may not be so large as were expected.

Again, the maintenance of the new heavy rolling stock, & the wear & tear of the rails, bridges, roadbed, & the rolling stock itself, must be much greater. The same number of bearings have greater friction, hence a large increase in cost of lubrication & wearing material. The roadbed & bridges will suffer in proportion, & extra friction will have to be applied to the wheels to stop these heavy trains & to moderate their speed on down grades. On the up grades the strain will be greatly increased. Additional losses are likely to result from accidents, for, although the system of steam surface railways has been in existence about 60 years, there have been comparatively no improvements outside of the enlarging of the cars & locomotives & making them stronger & more comfortable for travellers. Except for these attempts to imitate the extravagant luxury of hotels, the system is practically the same. The speed of passenger trains has been increased about 20 miles an hour in 40 years. The cost of transit for persons & freight remains about the same.

While various devices have been applied, the only one which has been of any consequence in minimizing the number of accidents to the employes is the automatic coupler, which is still far from perfection. The number of accidents on railways of all kinds & under all circumstances have been con-

tinually on the increase, the cause being that the competition of railways has become greater as new railways have been built. Railway managers have had in view only cheapness of operation of their lines. Cheap material & construction has been used, anything that would call for a little additional expense for the minimizing of accidents not being entertained. In large cities railway traffic is so congested that accidents are almost of daily occurrence. The question is, What is to be done to insure safety of travel on railways, together with quicker transit?

The elevated electrical railway will no doubt be the railway of the future. They are about to build an elevated railroad in a district full of railways between Liverpool & Manchester. This would seem to prove that the builders are reasonably assured that the new mode of transit will gradually take the place of the surface railways, both for passenger & express freight.

The considerations which make in its favor are several: First—There is the surety that an elevated railway can be made so as to insure positive safety from all accidents, though the tramway be running at 100 miles an hour or more, because from its position there can be no contact with moving or other objects, which are numerous on the ground surface. There can be no accidents from floods or washouts, landslides or misplaced switches, nor from broken wheels or rails, from collision or as the result of any one putting obstructions on the track. In the case of trains following each other, the connections would be cut from the power of the following train by the operations of the first train, should the latter be stopped because of any unforeseen emergency; so that the following train would have no propelling power in case of the necessity to stop the first train, & the electric signal would automatically strike the bell on the train that followed. As to falling off the track, that would be prevented by a gab-grip that would follow the T of the top cord of the truss, so that it would be impossible for the wheels to mount the rail or get the body of the car lower than the top cord of the girder, only four inches distant. The side of the car is also protected by the sides of the girders, which have a flat, smooth plate running on both sides, which would come in contact with rollers fitted on the sides of each car. No snow to ever block the line or cause any expense or accidents; no grades of any consequence, so that the uniform speed would be constant; no short curves to create danger or extra friction; the track would always be uniform & the car would always run very smoothly; no dust, sand, cinders or grit to cut up bearings & machinery; thus all axles could be made to run smoothly in ball bearings with comparatively little lubricant, & the cars would be free from smoke & dirt of any kind. One can fancy the comfort to travel in cars that are perfectly safe, running smoothly, with good & clean ventilation, & the enjoyment of viewing all the surrounding country as a great panorama.

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The electric single rail projected by F. B. Behr, for the elevated railway to be built from Liverpool to Manchester, is not the style of railway that can be practically successful. With the single rail system the one wheel would not be sufficient to attain a very high rate of speed, as the one-rail system would cause the wheels to slip, & the extra friction which would be caused by oscillation that must take place from the uneven loading of cars, wind, etc., would be a great detriment.

The new system is perfectly free from any interference from these causes, the railway itself can be built much cheaper, lighter & safer & the cars remain the same type as the surface cars are at present. Of course the cost of building an elevated railway would be greater on the first outlay than a surface railway, on account of the height it must be made at some places, as in crossing rivers, towns, etc. This will require pillars or piers to be made very heavy & strong for perfect safety. But, on the other hand, the mileage can be reduced on the average at least 25 to 30%. There would be comparatively no right-of-way to pay for, as only the pillars will take up any valuable space in the country, & very little anywhere. No embankments, no ditches, water culverts, stone or brick arches for roadways, no tunnels to be cut through mountains, no fences, no men to guard level crossings or on the track, no accidents to trains on crossings, no ballast required, & no expense caused by the killing of people & animals.

Then comes the difference in cost of operation of the two systems. On the electric elevated there would be comparatively no dead weight of locomotives, the motor car being much lighter than the steam locomotive, less than half the dead weight of the cars to be hauled over the line. The staff of engineers & firemen, with all the assisting staff at engine-houses, would be reduced. There would be no hauling of coal & water over the line. Water stations, water pipes, water pumping engines, coal stations, all would be abandoned for three power stations per 100 miles, where boilers, engines & machinery are stationary. No damage from fire caused from sparks of locomotives, & no more burning up of trains and passengers when trains are run off the track & down embankments, or in collisions. Moreover, by moving the passenger trains from the surface, greater facilities would be given for the movement of freight trains, thus preventing many accidents & delays to the freight in transit.

As to the possibility of revenue sufficient to warrant the outlay, it is enough to consider the prospects of such a line built from New York to Chicago. The time now necessary to make that run is about 35 hours, while the time would be only 7 hours on the elevated, the distance being reduced to 700 miles, & the train running at 100 miles an hour. And this besides the fact that a person would arrive by the elevated railway perfectly rested & ready for business, in place of requiring 6 or 8 hours to rest, as is the case after one has travelled to Chicago by the present system. Passengers could afford to go a distance of 300 or 400 miles to start for Chicago from New York. Passengers from Quebec, Montreal or Boston could reach New York in one night & take the elevated. They would still make the journey in about half the time now required. In the vicinity of Chicago the same would apply. An elevated line built now between these two points would be only a beginning of the new system, it would not only return a high rate of interest on the outlay, but would confer a general benefit on the traveling human race.

The writer of the foregoing article is a consulting engineer in Montreal, who, since Mr. Blair became Minister of Railways, has on several occasions been employed on matters connected with the government railways.

The article contains a good many statements that are likely to be dissented from by other engineers & by railway men generally, & we invite a free discussion of it in these columns. For the present we abstain from reference to Mr. Davis' "railway of the future," further than to say that very few are likely to agree with him as to its "positive safety from all accidents." But we must take decided objection to some of his statements as to the railways of to-day.

Mr. Davis says "the number of accidents on railways of all kinds & under all circumstances, have been continually on the increase, that railway managers have had in view only cheapness of operation of their lines, & that cheap material & construction have been used, anything that would call for a little additional expense for the minimizing of accidents not being entertained."

These statements are entirely unwarranted & at variance with facts. It is true that in the United States the liability to train accidents has somewhat increased with increasing train mileage, but this does not warrant the inference that the number of personal injuries has increased relatively to revenue train mileage. In Canada the government statistics refer only to those accidents from which personal injury results. They show that from 1875 to 1897 the number of passengers killed per million carried averaged for the whole period 1.25. From 1890 to 1897, the highest in any one year was 1.03 in 1892, & in 1897 it was only .43. This shows a decrease of accidents, not an increase.

Train accidents may be divided into two classes, those for which the railway corporations may properly be held responsible, as due to defects in tracks, in equipment, or in regulations, & those beyond their control, as when proximately caused by obstructions, by malice, by negligence, or by disobedience of orders. Speaking generally, the diminution of train accidents must be brought about by improvement in the permanent way, by increased efficiency in appliances, in regulations, in discipline & in inspection. And there is no doubt, whatever, that in all these respects marked advances have been made on Canadian railways in the past few years & are still continually going on. That "cheap material & construction have been used," & that "anything that would call for a little additional expense for the minimizing of accidents has not been entertained," is absolutely incorrect. There has been a steady improvement in both material & construction. The various standard roadbeds of to-day are infinitely better than they were 10 years ago, the rails are much heavier & less liable to breakage, & the structures are vastly improved by the substitution of steel & masonry where formerly a good deal of wood was used. As a marked instance of the expense gone to minimize accidents, we may mention the great precautions adopted by the C.P.R. for its main line through the mountains & canyons of British Columbia, & its consequent immunity from accidents there. The high standard of construction adopted by the C.P.R. may also be referred to. In the same way there are the improvements which have been made & are still going on in the G.T.R. lines, all with a view to improve the carrying capacity of the road & to ensure additional safety. And what is true of the two principal systems, applies to most of the other lines. In connection with the permanent way improvements may be mentioned the increased use of derailing devices, safety switches & guard rails on bridges & trestles.

The passenger car equipment has been rendered much safer by the increased solidity of its construction, by the introduction of vestibules, by the use of air brakes & automatic couplers, & by the substitution of steam heat for stoves; then there has been the introduction of the block system on some

lines, the improvements in signaling & the gradual improvement and tendency towards uniformity in train rules, with the accompanying raising of the standard of discipline.

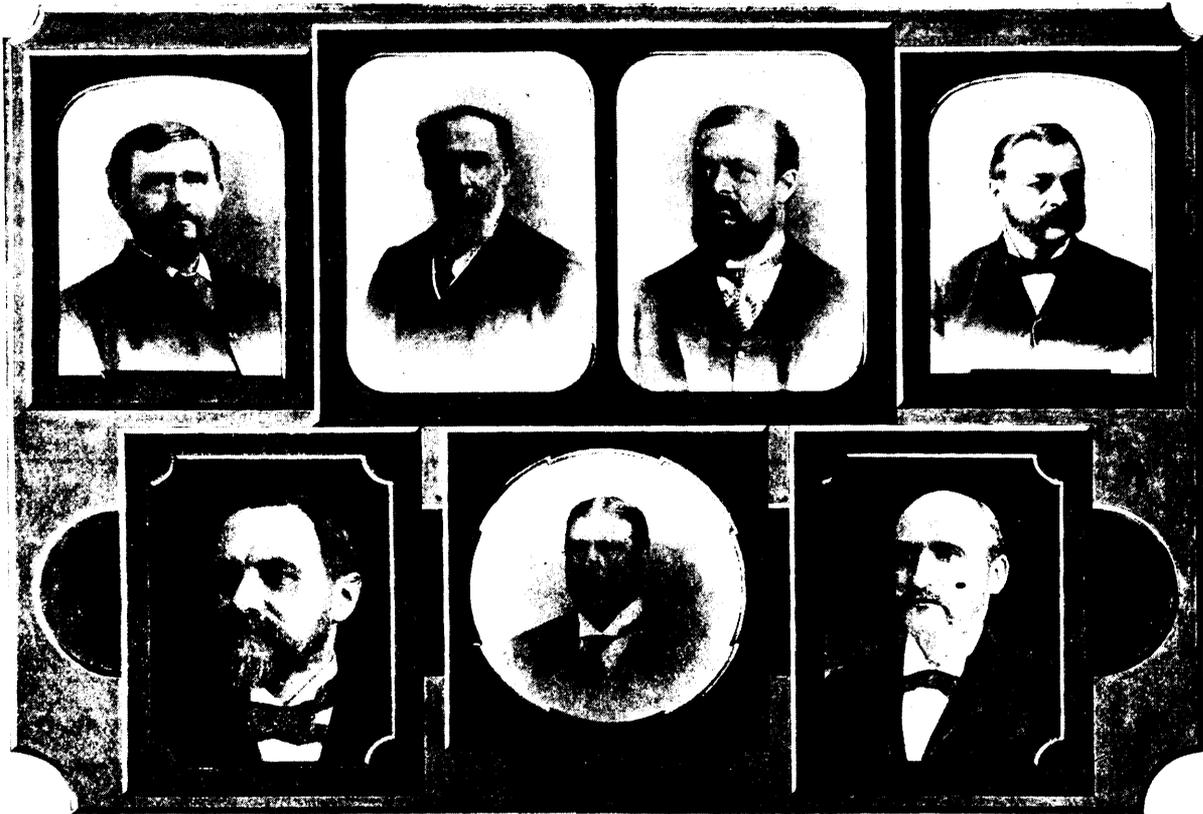
The Dominion Railway Policy.

In a recent interview in Toronto, J. Sutherland, M.P., chief Government whip in the House of Commons, being asked as to the financial policy of the Government, said it was based on the ground that new conditions produced new necessities. In the past a policy of retrenchment was considered necessary to meet the conditions then existing. At present the great thing was to develop & build up Canada. This was the chief feature of the Government's policy. They proposed to accomplish this by building more railways, developing Canada's mineral resources, & en-

The Irish Channel Tunnel.

The project of a tunnel across the Irish Channel has been lately brought forward in England, & has caused a good deal of talk on both sides of the Atlantic. It is an aged scheme. Sir Edwin Watkins some years ago had a project for a tunnel across the Irish Channel, another across the British Channel, & either a tunnel or a car ferry across the Straits of Gibraltar, & thus a through line of rail communication from Cork to some point in Asia, possibly Herat. We forget the exact terminus. The promoters of this present scheme estimate that the cost of the Irish tunnel will be \$50,000,000, & that the interest during construction will be \$10,000,000 more, or a total of \$60,000,000. They wish to make sure of being able to pay 3% on this outlay, & to that end ask the Government to guarantee any deficiency up to but not exceeding 3%.

devoted to Eastern Canada & Newfoundland, which contains a full & accurate description of routes, cities, points of interest, summer resorts, information for sportsmen, etc., is written by C. G. D. Roberts, late of King's College, Windsor, N.S., & is revised & corrected to date. Mr. Roberts' fascinating writing lifts the work far above the level of the ordinary guide book & makes it of absorbing interest. For some unexplained reason the space devoted to Western Canada is reduced from some 250 pages, as in former years, to about 50. Hitherto this portion of the work was written by Ernest Ingersoll, a recognized authority. Possibly the western tourist travel is not sufficiently large at present to justify, from a commercial standpoint, so large a space being devoted to it, but the west is advancing more rapidly than any other portion of the Dominion, & it seems a pity that at such a time the available in-



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deavoring to stimulate the growth of the country generally. The fruits of this policy, he said, were already forthcoming. The building of the Crow's Nest Pass Ry was an evidence of the excellence of this policy. It had been denounced at its inception, but it had opened up a section of country which would pour millions of dollars into the country at large. For instance, the North Star mine was now recognized as a great property, & its owners were building a spur line to the mine. This would have been impossible unless the Crow's Nest Pass route had been constructed. What was true of the East Kootenay country was true of many other sections of Canada. It was now realized that New Ontario had millions & millions of dollars' worth of wealth to reward a policy of railroad development. This was the ground on which the Government justified its financial expenditures, & it was regarded as a policy of Canada for Canadians.

Mr. Balfour, in replying to a deputation, said that he could not speak for the Government, but pointed out that the project is for a tunnel, not from England to Ireland, but from Scotland to Ireland, & that in all probability passengers, mails & freight would continue to follow the more direct southerly routes which they now follow, & that the promoters might well doubt their ability to compete with water borne traffic. He suggested that it might be as well also to ascertain pretty carefully the nature of the ground to be traversed before embarking on a scheme so colossal.—Railroad Gazette.

Appleton's Canadian Guide Book.

This well-known work has been issued for the current year complete in one volume of 327 pages, with illustrations, maps of each province & of the principal cities, fishing districts, etc. As in previous years the portion

formation in regard to it should be cut down. It is to be hoped the publishers may see their way clear to give more space to the west in future editions. The book is one that no one travelling in Canada, no matter how well he may know the country, should fail to take with him, to the stranger travelling it is simply indispensable, & even those who stay at home may learn much of interest from it. The publishers for Canada are G. N. Morang & Co., Toronto, & The Montreal News Co., Montreal.

The Hamilton Mountain Park Co., a newly organized concern, will take over the inclined railway formerly operated by the East Hamilton Improvement Co.

R. Chapple, Chief Clerk General Superintendent's office, Eastern Division, C.P.R., Montreal, has gone on a visit to his former home in Devonshire, Eng.

RAILWAY FINANCE, MEETINGS, &c.

American Railway Earnings.—The Chronicle's compilation of railway gross earnings for July shows that month to have been one of the best of the recent revival. The increase as compared with July last year is \$7,637,625, or over 17%. Out of 116 roads reported, 102 showed gains. This is the heaviest gain in any month since Nov., 1897, which month was compared with a month of depressed business in the year of the Presidential election. In the July gains, the New York Central stands at the head with an increase of more than \$1,000,000. Next comes the Chicago, Milwaukee & St. Paul with \$849,000; then the Great Northern, the Mexican Central, the Northern Pacific, the Baltimore & Ohio, the Canadian Pacific & Illinois Central show gains of over \$300,000 each; while the Louisville & Nashville ought to be classified with these roads, as its gain is \$299,913. The Grand Trunk gained almost \$250,000, & the Wabash close to \$200,000. Then the Norfolk & Western, the Missouri Pacific, the Mobile & Ohio, the Missouri, Kansas & Texas, the Hocking Valley, the Cleveland, Cincinnati, Chicago, & St. Louis, & the Southern show gains of over \$100,000 each.—Railroad Gazette.

The Atlantic & Lake Superior Ry. Co.'s annual meeting will be held at 35 St. James St., Montreal, Sep. 6.

Boston & Maine.—The report for the year ended June 30, shows the gross transportation income to be \$19,890,608, an increase of \$147,662 over previous year. The operating expenses were \$13,705,977, an increase of \$25,187. The net income was \$6,184,630, an increase of \$122,475. After the payment of interest, rentals, dividends, etc., the balance is \$15,991 in excess of previous year.

Buffalo & Lake Huron.—The directors in their report for the 6 months ended June 30, announce the payment of a dividend of 5s. 3d. a share, leaving a balance of £518 to be carried forward. A year ago a similar dividend was paid, & £360 was carried forward. This line, which runs from International Bridge to Goderich, Ont., 162 miles, is leased in perpetuity to the G.T.R. for £70,000 a year.

Chignecto Marine Ry.—At a recent meeting of this Co. in London, Eng., the Dominion Government was severely attacked for refusing to revoke the subsidy which the Co. failed to earn according to contract. The Chairman, A.D. Provand, M.P., said the Government gave "a blank refusal in every way" to his three proposals: namely, to reinstate the Co. in the possession of its subsidy that the railway might be completed; to give the Co. £400,000 as compensation for the non-reinstatement; or to submit the amount of compensation to arbitration. Mr. Provand could see no good reason for these refusals, & the shareholders confirmed the board in its refusal to accept this attitude of the Government as final. Commenting on the matter, the London correspondent of the Toronto Globe says: "In spite of the energy & activity of Mr. Provand in canvassing for sympathy for the Chignecto bondholders, he does not seem to be able to convince the London press that his case is as flawless as he appears himself to believe. It will be remembered that last year The Times was very careful in its remarks on the subject to state that Mr. Provand's presentment of the case was a purely ex parte one. The Economist went much further, & pointed out that nothing was so likely to defeat the object of the bondholders as the violent language & threats of retaliation employed by their representative. The Financial Times expressed a somewhat similar

view. This year neither of the first two papers mentioned have commented at all upon the report & meeting so far as I have seen, but the Financial Times devotes a long leader to the subject, in which it strongly arraigns the policy which has been pursued by Mr. Provand, & urges the bondholders to lose no time in adopting a more rational method of procedure. It professes to find in the wording of the report of the sub-committee of the Privy Council a loop-hole for the continuance of the negotiations on the basis of compensation, & advises the Co. to send over at once another representative, who will be prepared to carry on negotiations in the conciliatory spirit which should have been adopted from the first, & to meet the views of the Government on every minor point, a course which Mr. Provand appears to have studiously avoided. If the investors are sensible enough to take this advice it is possibly not too late to arrive at a settlement, which—while not saddling the Canadian people with a very heavy burden, of the effects of which they had become legally quit—will make a good impression & improve Canadian credit here."

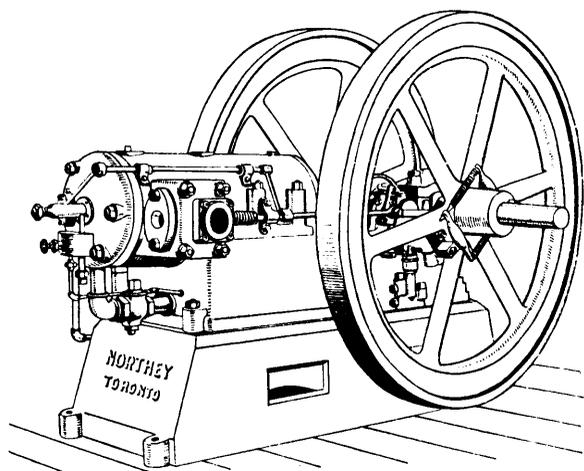
The Elgin & Havelock Ry. Co.'s annual meeting will be held at 3 Great James St., Bedford Row, London, Eng., Sept. 6.

The Fort Erie Ferry Ry. Co. has executed a mortgage, dated Aug. 1, 1899, for \$50,000.00, to R. L. Fryer & H. T. Ramsdell, trustees, as security for the payment of \$50,000.00 bonds of the Co.; the mortgage covering all the real & personal property, rights & franchises of the Co.

Grand Trunk.—The Council of Longueuil has reduced the valuation of the Co.'s wharf property from \$48,000 to \$25,000, & is likely to make further concessions if the Co. will facilitate communication with Montreal over the Victoria Jubilee Bridge.

The Northey Gas or Gasoline Engine.

In Connection with Pumping Machinery for Tank Duty.



"BUILT FOR HARD WORK."

Railway Officials will find the Northey Engine to be a marked improvement over steam or other forms of power for this duty. It is simple of construction, and easily managed, necessitating only the turn of a fly-wheel to start, while it can be going at full speed in a few seconds and be shut down on the instant. Needs no engineer to look after it, the station hands can do all that is required, while it will run for hours at a time with little or no attention. The Engine is compactly built and of the best materials; it uses either gas or gasoline for fuel, and its safety and economy with either have proved it to be the most satisfactory power in the market.

We will cheerfully send Booklet and every information upon request.

The Northey Mfg. Co., Limited, 1082 KING ST. SUBWAY, Toronto, Ont.

Kootenay Ry. & Navigation Co.—Application has been made to the London Stock Exchange Committee to appoint a special settling day for this Co.'s £250,000 5% debenture stock.

The London & Pacific Gold Fields, Ltd., of 38 Holborn Viaduct, London, Eng., which has been licensed to do business in British Columbia, is empowered to construct or subscribe to, & aid in the construction of any railway or tramway in the Dominion, or elsewhere, the existence of which may be deemed to be advantageous to this Co., & to take & hold shares in any company formed for the purpose of the construction of any such railway or tramway.

Northern Pacific.—The U.S. Circuit Court of Appeals, on July 13th, at St. Paul, handed down a decision holding that the terminus of the Co. is at Ashland, Wis., & not Duluth, & that the Co. is therefore entitled to 1,000,000 acres of land which the Government has sought to have excluded from the land grant.

The election of J. S. Kennedy, a prominent stockholder of the Great Northern, as a director of the N.P., is stated by high authorities to mean that the two Companies are now working in entire harmony. This would avert any rate wars or duplication of new lines in the Northwest, which have been threatened in recent months.—Railroad Gazette.

The Ottawa & New York Ry. Co.'s annual meeting will be held at Ottawa Sept. 19.

Quebec & Lake St. John Ry.—The committee appointed at the meeting of bondholders, Aug. 2, has issued the following circular to the holders of the £780,000 5% 1st mortgage bonds:

"Having carefully considered the most advisable course to pursue for the benefit & protection of the rights & interests of the bondholders, in view of the default in payment of the interest on the bonds by the Ry. Co., we beg to put forward the following scheme for your consideration: We suggest that every bondholder deposit his bonds with the Railway Share Trust & Agency Co., Ltd., (the trustees for the bondholders), to the order of the committee, in exchange for which scrip certificates to bearer shall be issued to him. The committee will thus have all the bonds vested in them, subject to certain conditions indorsed on the back of the scrip certificates.

"Shortly, these conditions enable the committee to act generally for the common advantage and benefit of the bondholders. And, as it is very necessary that the committee shall have at their disposal sufficient funds to meet the expenses incurred from time to time, the conditions authorize the committee to raise money on the security of the deposited bonds to an amount not exceeding 2% of the nominal value of such bonds. This scheme will avoid the necessity of convening frequent meetings to authorize the committee to act in small matters, & will thus save considerable expense & annoyance to the bondholders. The conditions on the certificate expressly provide that no further money than the above-mentioned 2% shall be borrowed on the bonds, & that no reconstruction of the Co., or variation or change in the rights, position or securities of the bondholders (except the buying in of the property forming the security of the bondholders) shall be concluded without the sanction of a resolution of a general meeting, duly convened, of the holders of scrip certificates, passed by a majority in value of such holders, present in person or by proxy, thus limiting the powers of the committee to the less important matters." The circular is signed by A. W. Ballance, E. F. Coates, S. Gardner & A. S. Jecks. It is explained that F. Ross, being in Canada, it has not yet been possible to obtain his signature to the circular.

Quebec Central gross earnings for July, \$56,563.16, against \$48,799.66 in July, '98;

working expenses \$33,662.36, against \$28,921.69; net earnings \$22,900.80, against \$19,877.97.

Gross earnings 7 mos. to July 31, \$275,623.54, against \$248,756.14 for corresponding period; working expenses \$181,212.86 against \$173,477.03; net earnings \$94,410.68 against \$75,279.11.

Salisbury & Harvey.—An order has been made in the Equity Court at St. John, N.B., for foreclosure & sale of this railway, which has been in the hands of receivers for some time. The present proceedings are to close out the bonds. Once before the railway passed under the hammer. Then it was at the instance of the English bondholders, whose claims amounted to about \$600,000. The bondholders now are United States, & the amount of the bonds \$250,000. The bondholders and stockholders are, for the most part, the same, & it is likely the present owners will bid in the property.

White Pass & Yukon.—The directors of the British Columbia Development Association have declared an interim dividend of 20%, being 15% on the preference shares, & £10 a share on the founders' shares. Accompanying the dividend notice is a circular stating that under an agreement dated July 29, 1898, Close Bros. had an option to pay this Co. £26,500 in redemption of £53,000 shares in the White Pass & Yukon Ry., held by the directors as security for this amount. Owing to litigation concerning the ownership of a large amount of shares, of which these £53,000 formed part (in which litigation, however, the Co.'s interests are in no way jeopardised, as both parties admit the right of this Co.), the directors have been able to make a new & satisfactory arrangement. Close Bros. have agreed as follows:—To redeem £10,000 of shares by a payment of £5,000 in cash; to purchase at par £5,000 of the £10,000 White Pass & Yukon debenture stock held by this Co.; to transfer absolutely to this Co. £5,000 White Pass Railway shares as a bonus; Close Bros. & Co. to have the option to redeem the remaining £38,000 shares on or before Dec. 31 next, on payment of the balance of £21,500. The £10,000 has been paid by Close Bros., the loan from the bankers (£3,700.) has been paid off, & about £2,500 remains in hand after payment of the dividend.

Notice is given that the following documents have been deposited at the Land Registry Office at Victoria, B.C.:—An Indenture of Mortgage made Oct. 7, 1898, between the B. C. Yukon Ry. Co., the Pacific Contract Co., F. Pavy & C. C. Macrae, & a notarial copy thereof & 1st mortgage bond, dated Oct. 7, from the B. C. Yukon Ry. Co. to F. Pavy & C. C. Macrae, for the principal sum of such an amount as shall be equal at the rate of £6,000 a mile, to the line of railway of the B. C. Yukon Ry. Co., & a notarial copy of the said bond, such bond being secured by the said mortgage.

It is stated that the tramways around White Horse Rapids, both controlled by the Macaulay Co., have been sold to the White Pass & Yukon Ry. Co., the price paid being \$185,000. From this it is inferred that the Co. proposes extending its line down the river.

Grand Trunk Earnings, Expenses, &c.

The Secretary has furnished us with a statement, subject to audit, for the half-year ended June 30, to which is added a comparison for the corresponding period of 1898, as follows:

	1898.	1899.
Gross receipts.....	£1,871,700	£1,983,200
Working expenses.....	1,243,900	1,298,200
Net revenue.....	£ 627,800	£ 685,000
Deduct—		
Net revenue charges, less credits.....	490,500	489,800
Balance of net revenue.....	£ 137,300	£ 195,200

Deduct—		
Chicago and G.T. deficiency for ½ year payable by the G.T. Co. under traffic agreements.....	£ 8,400	£ 36,400
Detroit, Grand Haven and Milwaukee deficiency for the ½ year.....	22,300	22,400
Total deductions.....	£ 30,700	£ 58,800
Surplus for the ½ year.....	£ 106,600	£ 136,400
Add—		
Balance brought from previous ½ year.....	300	4,200
Balance available for dividend.....	£ 106,900	£ 140,600

The above balance admits of the payment of the full dividend for the ½ year on the 4% guaranteed stock, and a dividend at the rate 1% on the 1st preference stock, leaving about £2,000 to be carried forward.

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

	1899	1898	Decrease	Increase
July....	\$2,105,403	\$1,860,884	\$ 244,519

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

DETAILS OF G.T.R. RECEIPTS JULY 1 TO 31.

	1899.	1898.
Passengers, number.....	749,832	723,747
" amount.....	£ 119,548	£ 102,488
Immigrants, number.....	1,198	1,075
" amount.....	£ 881	£ 646
Mails, express, &c.....	£ 17,670	£ 16,849
Freight, tons.....	827,030	631,557
" amount.....	£ 200,952	£ 177,917
Miscellaneous receipts.....	£ 11,096	£ 10,581
Total receipts.....	£ 359,147	£ 308,481
Increase.....	£ 41,666

TRAFFIC RECEIPTS OF THE SYSTEM.

Traffic receipts, Jan. 1 to June 30.

	1899.	1898.	In-crease.	De-crease.
Grand Trunk...£	350,147	308,481	£41,666
Chicago & G.T.	58,706	57,632	1,074
D., G. H. & M..	19,705	16,261	£3,444
Total.....£	428,558	382,374	£ 46,184

C.P.R. Earnings & Expenses.

Gross earnings, working expenses, net profit and increases or decreases over 1898, from Jan. 1, 1899.

	Earnings.	Expenses.	Net Profits.	Increase or decrease.
Jan..	\$1,864,570.36	\$1,247,036.50	\$ 617,533.86	\$101,966.27+
Feb..	1,753,382.82	1,153,681.34	599,701.48	176,034.12+
Mar..	2,109,667.58	1,280,772.01	828,895.57	75,662.06+
Apr..	2,196,312.40	1,276,008.91	920,303.49	203,212.80+
May..	2,402,151.29	1,369,392.68	1,032,758.61	106,066.30+
June..	2,362,278.67	1,339,218.47	1,023,060.20	205,664.83+
July..	2,385,625.47	1,412,663.84	972,961.63	242,272.84+
	\$15,073,988.59	\$9,078,773.75	\$5,995,214.84	\$1,110,849.22+

+ Increase.
Approximate earnings for July, \$2,367,000, as against \$2,024,000 in July, 1898; increase, \$343,000.

SUBSIDIARY LINES.

DULUTH, SOUTH SHORE & ATLANTIC.—Net earnings 5 months to May 31, \$282,903, against \$224,362 for corresponding period.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE.—Net earnings for 11 months to May 31, \$2,581,728, against \$2,554,941 for corresponding period.

Canadian Pacific Railway Land Sales.

	Acres.		Amount.	
	1899	1898	1899	1898
Jan.....	14,718	22,044	\$46,411.35	\$73,024.83
Feb.....	13,747	20,650	43,371.00	66,399.00
Mar.....	24,045	33,421	74,430.00	109,010.00
April.....	36,626	43,145	116,835.00	140,276.00
May.....	39,573	43,148	125,862.00	137,835.00
June.....	54,225	49,203	169,234.00	160,200.00
July.....	47,402	39,512	149,546.00	123,010.00
	230,336	251,123	\$715,689.35	\$809,654.83

Senator Temple, who died at Falmouth, N.S., Aug. 25, aged 81, was for 30 years President of the Fredericton Ry. Co.

RAILWAY APPOINTMENTS, Etc.

Canadian Pacific.—Herbert Carter has not been appointed General Passenger Agent at Hong Kong, as announced in some daily papers. He has gone there to take a position in the Passenger Department, relieving one of the staff who has been taken ill. D. E. Brown is the Co.'s General Agent at Hong Kong.

G. Middleton, Locomotive Foreman at Kamloops, B.C., has been promoted to Vancouver as General Foreman of the shops there, & of the engines of the Co.'s steamships. S. Fraser, of North Bend, succeeds him at Kamloops.

A. Gordon, Roadmaster between Leaside & Havelock, Ont., having decided to retire from work, has resigned, & has been succeeded by A. McAuley, heretofore Roadmaster between Havelock & Smith's Falls, who will have his office at North Toronto, instead of at Parkdale, where Mr. Gordon was located. Mr. McAuley is succeeded at Havelock by J.

Malloy, heretofore Roadmaster of the Orangeville, Elora, Teeswater & Wingham branches, whose place at Orangeville is taken by B. Tansley, heretofore Section Foreman at Havelock.

G. J. Bury, heretofore Superintendent at North Bay, Ont., has been appointed Superintendent at Fort William, in charge of the line from there to Winnipeg, succeeding J. A. Cameron, who is now on leave owing to ill health, & who will, it is said, be transferred to the superintendency of the Crow's Nest Pass line.

T. J. Kennedy, heretofore Superintendent at Chapleau, succeeds Mr. Bury at North Bay as Superintendent of the North Bay, Cartier & Sault Ste. Marie sections, including the Temiskaming branch.

C. Murphy is appointed Acting Superintendent in charge of the Chapleau & White River sections, with headquarters at Chapleau.

Central Vermont.—D. Mackenzie having resigned, the jurisdiction of F. W. Baldwin,

Superintendent, has been extended over the Southern Division. Office at St. Albans, Vt.

C. E. Soule has been appointed Assistant Superintendent of the Southern Division, with office at New London, Conn.

Intercolonial.—V. Pelletier, formerly of the General Superintendent's office at Moncton, & latterly of Montreal, has been appointed in charge of the new city ticket office in Quebec city.

St. Catharines & Niagara Central.—W. N. Warburton, General Freight & Passenger Agent, has also been appointed Acting Superintendent.

Mainly About People.

Miss Audrey Blair, daughter of the Minister of Railways, leaves shortly for Switzerland where she will spend a year at school.

F. W. Powell, Chief Clerk of the Statistical Department of the G.T.R. at Montreal, has left the service & gone to the Western States.

MICA BOILER COVERING

For Locomotive, Marine and Stationary Boilers

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Mica Boiler Covering Co., Limited, 9 Jordan St., Toronto, Ont.



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

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

Electric Locomotives and Electric Car Trucks with Approved Motors.

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

E. S. Hunt, C.P.R. train despatcher at Moose Jaw, Assa., was married at London, Ont., Aug. 11th, to Miss Gertrude McCutcheon.

N. Graburn, Assistant Superintendent of the Montreal St. Ry., has been appointed Superintendent of the corporation tramways in Glasgow, Scotland.

Col. B. W. Gossage, who died at his residence in St. Thomas, Ont., Aug. 25, aged 67, was at one time engaged as surveyor on the Canada Southern Ry.

R. G. Reid, Proprietor of the Newfoundland Ry., left Montreal Aug. 25, accompanied by his family, for Newfoundland, where he will remain for several weeks.

On Aug. 23, N.K. Connolly, one of the contractors for the I.C.R. deep water terminus at St. John, N.B., was reported as lying very ill at the Royal Hotel, St. John.

Jos. Carter, C.P.R. Ticket Agent at Winnipeg, was married at Kansas City, Aug. 19, to the daughter of Col. Whitney, proprietor of the Wellington Hotel there.

H. Dalton, formerly of London, Ont., has been appointed Superintendent of the Akron Traction & Electric Co., which operates lines between Cleveland & Akron, & from Akron to Kent.

On Aug. 28 Miss Mabel Pease, daughter of the District Passenger Agent of the G.T.R. at Montreal, was reported as being seriously ill with typhoid fever in Winnipeg, where she was visiting.

A number of Halifax citizens who attended the recent carnival at Sydney, N.S., presented District Passenger Agent Lambkin of the I.C.R. with a gold ticket as a souvenir of courtesies received.

W. H. Kelson, General Storekeeper of the C.P.R., while going home one evening recently, was attacked by footpads, beaten & robbed of a gold watch, his assailants getting off without discovery.

C. A. Bruyere, of the Canada Atlantic Ry., Ottawa, is a member of the committee on tests, which will report at the annual convention of the Master Car & Locomotive Painters' Association at Philadelphia, Pa., Sep. 12 to 15.

C. Whitehead, who will be remembered in connection with the construction of section 15 of the C.P.R. between Rat Portage & Cross Lake, was seriously injured recently in a runaway accident near Morden, Man. He is recovering satisfactorily.

Geo. Roberts, a well known builder, who died in Montreal Aug. 28, aged 74, came to Canada in 1854, being employed on G.T.R. construction under Peto, Brassey & Co. for 2 years, after which he built the stations between Levis & Richmond.

C. Drinkwater, Secretary & Assistant to the President of the C.P.R., left Montreal the middle of Aug. on the official car Earncliffe, accompanied by Mrs. Drinkwater, Miss Graham, of Hull, & Dr. K. D. Graham, of Ottawa, for a trip to the Pacific Coast.

Conductor Donohue, of the C.P.R., St. Andrew's branch, is one of the oldest, if not the oldest, conductor on the C.P.R. He has been running on the branch since it was opened 43 years ago by the New Brunswick & Canada Ry. Co., & is still hale & hearty.

D. Robertson, chief clerk in the G.T.R. Master Mechanics' office, Montreal, has resigned, & has been appointed assistant to Manager Wanklyn, of the Montreal St. Ry. T. Maynard has been appointed to succeed Mr. Robertson in the G.T.R. works.

C. R. Hosmer, Manager C.P.R. Co.'s Telegraph, who has been in Europe for some weeks, is expected to return on the ss. Oceanic, which sails on her initial voyage

Sep. 6. Miss Hosmer, who has been in Paris for some months, will probably accompany him.

Assistant General Manager McNicoll, of the C.P.R., left Montreal about the middle of Aug., in the official car Rosemere, for a trip over the Co.'s main lines & branches as far as the Pacific Coast. The chief operating officials are accompanying him over their respective divisions.

C. R. Hosmer, Manager C.P.R. Co.'s Telegraph, has purchased a handsome property at the head of Drummond street, Montreal, formerly owned by D. D. Mann. He intends erecting on it a fine residence for his own occupation. The lot has a frontage of 100 ft., & is of large area.

J. Wilson, Superintendent of the Pacific Division of the C.P.R. Co.'s Telegraph, has returned from a three months' stay in Southern California for the benefit of his health, which is greatly improved. J. Fletcher, of the Co.'s Vancouver staff, has acted as Superintendent during Mr. Wilson's absence.

President Shaughnessy, of the C.P.R., returned to Montreal Aug. 7, after making an inspection of the C.P.R. short line to St. John, N.B., & tributary branches. About the middle of Aug. he left with his family for Quebec & Lake St. John, & on his return spent some days at his summer residence at Riviere du Loup.

J. E. Walsh, Assistant General Passenger Agent of the Canada Atlantic Ry., & his wife & little daughter, were thrown violently from a cab in Ottawa Aug. 28. Mrs. Walsh, who has recently been very ill, received a very severe shaking, & Miss Walsh had her knee injured. Mr. Walsh sustained a few slight injuries.

Alex. McNaughton, for many years Travelling Auditor of the I.C.R., who retired from that position about a year ago owing to ill health, since which he has been employed at the audit office at Moncton, died recently at Moncton, aged 74. At one time he was employed in the European & North American Ry., & afterwards on the New Brunswick Ry.

W. B. Close, of London, Eng., President of the White Pass & Yukon Ry. Co.; C. Lambert, of London, Eng., of the Pacific Contract Co., the contractors for the railway; S. H. Graves, of Chicago, President of the B.C. Yukon Ry. Co., & the Pacific & Arctic Ry. & Navigation Co.; & R. Cassidy, solicitor in B.C. for these companies, are now in the north looking over the W.P. & Y. Ry.

C. M. Hays, General Manager; G. B. Reeve, General Traffic Manager; F. H. McGuigan, General Superintendent, & F. W. Morse, Superintendent of Motive Power, made an extensive tour of inspection over the G.T.R. system in August. The general officers, who travelled by special train, were accompanied during their trip, which lasted over a fortnight, & embraced some 4,600 miles of track, by a number of divisional officers. Mr. Hays expresses himself thoroughly satisfied with the results of the inspection, which covered the main line & all its branches except those south of the St. Lawrence river, & the condition of the property.

In speaking at Oxford, Eng., recently to delegates assembled there in connection with the extension of University teaching, Lord Strathcona said: "I went to Canada in the first year of Her Majesty's reign, so that I have personal knowledge of many of the matters of which I shall speak; & it is interesting, by way of comparison, to state that my first voyage took between 40 & 50 days, & that the clipper-ship in which I sailed, of 500 tons or thereabouts, was a considerable vessel in those days—the largest boat of the kind known at that time being about 1,000 tons. A few weeks ago I crossed the Atlantic, spent a

week in Canada, & was back again in London in three weeks from the day I started."

Peter Larson, of Mann, Foley Brothers & Larson, is, says a B.C. paper, an excellent example of what a poor man can make out of himself. Starting years ago with nothing but determination & perseverance as a capital, he has gradually worked himself up from obscurity & poverty to affluence & prominence, though to this day he is one of the most democratic of men to meet. With shrewdness & care of details he made one small contract after another pay; then he took larger ones, & is now able to handle any size, the present one, of a sum approximating \$4,000,000 for building the Robson-Midway branch of the C. P.R., being a sample. In addition, he is interested in the Nelson & Bedlington Ry. contract, & the Trinidad-Wash. contract. He built the Nelson & Fort Sheppard Ry., & a large section of the Great Northern west from Spokane. He has also done well with his mining investments.

The Atlin & Yukon Routes.

The following figures, compiled by the Vancouver Board of Trade, will be found useful for reference:—

WHITE PASS & YUKON RAILWAY (SKAGWAY PASS).

Vancouver to Skagway	891 Miles.
Skagway to Summit	17
Summit to Lake Bennett	20
	— 37 "
Lake Bennett to Dawson	552 "
	— 1,480 "

DYEA PASS (CHILKOOT PASS).

Vancouver to Dyea	895 Miles.
Dyea to Sheep Camp	13
Sheep Camp to Summit	3
Summit to Lake Lindemann	8
	— 24 "
Lake Lindemann to Dawson	558 "
	— 1,477 "

VANCOUVER TO DAWSON CITY, VIA ST. MICHAEL AND THE YUKON RIVER.

Ocean Steamer to St. Michael	2,660 Miles.
St. Michael to Mouth of Yukon	80 "
Yukon Mouth to Dawson City	1,610 "
	— 4,359 "

The Behring Sea does not open for navigation till June, & the earliest date of arrival of a through steamer at Dawson is usually in July.

STIKINE-TESLIN ROUTE.

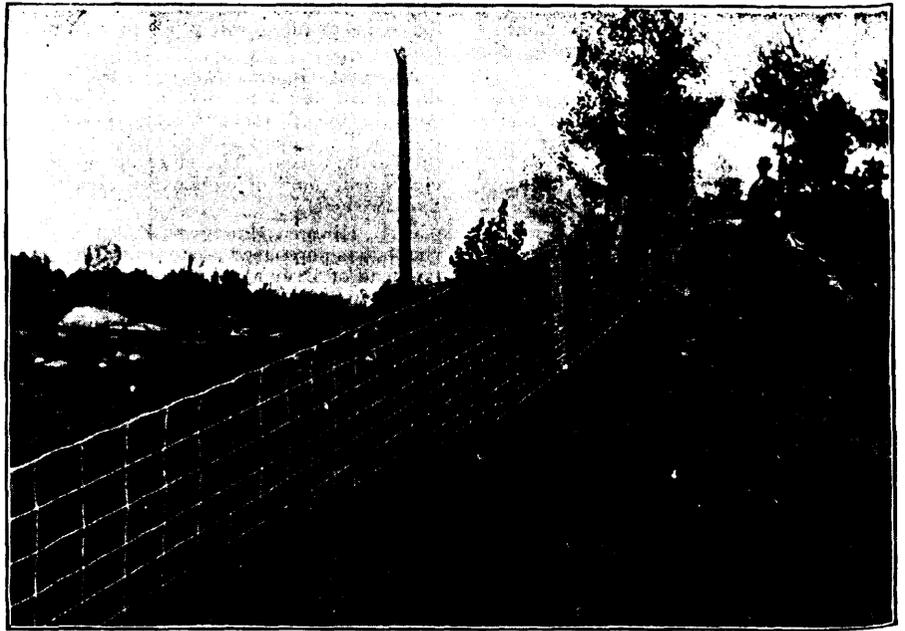
Vancouver to Wrangle	700 Miles.
Wrangle to Stikine Island	8
Stikine Island to Glenora	130
Glenora to Telegraph Creek	12
	— 150 "
Telegraph Creek to Teslin Lake	140 "
Lake Teslin to Hootalinqua River	70
Hootalinqua River to Lewis River	130
	— 200
Lewis River to Fort Selkirk	277
Fort Selkirk to Dawson City	173
	— 650 "
	— 1,640 "

ATLIN ROUTE.

Vancouver to Skagway..... 891 Miles.
 DISTANCES FROM SKAGWAY, VIA WHITE PASS
 & YUKON RY.—ATLIN ROUTE, VIA
 BENNETT LAKE (SUMMER).
 Skagway to Bennett 36½ Miles.
 " Taku City 133½ "
 " Atlin 140½ "
 ATLIN ROUTE, VIA TOO-CHI LAKE (WINTER).
 Skagway to Too-Chi Lake..... 38½ "
 " " foot.. 60½ "
 " Taku Arm 64½ "
 " Golden Gate..... 94½ "
 " Taku City..... 109½ "
 " Atlin City..... 116½ "

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

TERMS OF PAYMENT.

The aggregate amount of purchase money and interest is divided into ten instalments, as shown in the table below; the first to be paid at the time of purchase, the second two years from the date of purchase, the third in three years, and so on.

Interest on the outstanding purchase money is payable in one year, except in case of an actual settler who breaks up at least one-sixteenth of the land within that time. No rebate of interest is allowed on hay or grazing lands.

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

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

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Ladies' Waiting Room	Baggage Room	Ticket Office	Smoking Room
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1898. The average cost of ton movement was similarly reduced to 3.55 mills a mile. However fully we may recognize the inadequacy of the ton-mile standard of comparison, it is unavoidable that these figures should be generally accepted as peculiarly significant. The magnitude of the reduction in freight rates during recent years on the Pennsylvania lines is perhaps most strikingly conveyed by the mere statement that with an increase in ton mileage of about 20% (or nearly three thousand million ton miles), the gross revenues were over \$4,000,000 less than in 1892.

We all hope & believe that the present year will show a general increase in the rate received as compared with 1898. The rapidity of the decline of the last few years, & especially the extraordinary lowness of the average ton revenue last year, was not the result of any legitimate & deliberate reduction of schedule rates, but of demoralization, from the effects of which all roads, the just & the unjust alike, suffered deplorably during the year. It is not necessary to say that rates to-day are much better maintained. There is every hope that the averages for 1899 will make a materially more favorable showing than those of 1898. The recovery will, however, be no more than temporary, for the ultimate tendency of all rates is downward, & what is now a low-water mark under exceptionally bad conditions will sometime come to be a normal figure.—Railway Age.

The I.C.R. & G.T.R. Agreement.

The St. John, N. B., Sun, of Aug. 26, contained the following article: "Two representatives of the Allan Steamship Co. have been to this city to meet the Minister of Railways, Mr. Blair, & to discuss with him some serious aspects of the transportation question. As far as can be learned the situation is this: The Minister of Trade & Commerce called for tenders for the Atlantic mail steamship service, intending to make a contract for two years, pending the establishment of the more ambitious service, which for the present is in abeyance. The Allan Co's tender is said to have met the requirements better than that of the only other offer, which was made by the Elder-Dempster Co. Consequently the Allan Co. was asked to sign a contract. The Co. thought it prudent before going that far to ascertain what arrangements could be made with the C.P.R. for winter export freight. It did not take Mr. Shaughnessy long to explain to the steamship men that he was not in a position to make freight contracts. He is reported to have told them that the I.C.R. had virtually transferred its whole business to the G.T.R. & had shut out the rival railway from any share of the west bound traffic. The Government railway also proposed to close out the passenger arrangement now in operation, & was generally engaged in diverting traffic from the St. John route. In these circumstances the C.P.R. could not do business at this port without loss, as the cars would all have to go west empty. This being the situation the Co. could not see its way clear to make contracts for the delivery of ocean freight at its St. John terminus. Having received this statement the Allans waited upon Mr. Blair & acquainted him with the situation. It is not known what shape affairs have taken since, but it will be seen that the situation is a grave one, not only for the railway & steamship companies but also for this city. The steamship companies want to have the matter settled at once so that if they cannot come here they may make other arrangements. St. John is not so much concerned in the dispute between Mr. Blair & Mr. Shaughnessy as it is in having some sort of settlement which will allow business to be done here. One difficulty is that Mr. Blair is bound so fast to the G.T.R. by his traffic arrangement as to make it diffi-

cult to come to any arrangement with the other road. The Senate has done the Minister a service by making the agreement revocable, but it cannot be cancelled without the consent of the G.T.R. in time for next winter's business. It will be seen that the trouble affects not only the mail lines but all the other winter freight services from this port."

On Aug. 29 the Montreal Herald published the following as a despatch from St. John, N.B.: Hon. A. G. Blair, Minister of Railways, was to-day shown the Sun article relative to the Messrs. Allan's visit, which he had not previously seen. He very much doubted whether the Sun was authorized to make the statements contained in the editorial with respect to Mr. Shaughnessy or the C.P.R. The Minister said it is true the tender of the Allan Co. had been accepted, & they had an interview with him regarding some objection taken by the C.P.R. to the proposed action of the I.C.R. The only objection which Messrs. Allan mentioned to the Minister as having been made by Mr. Shaughnessy was that if the Government persisted in the contention that all traffic originating in the territory traversed by the I.C.R. & intended for points in the West must be delivered at Montreal, it would necessitate the C.P.R. holding back empty cars it had carried east with freight intended for points on the Intercolonial. The I.C.R., Mr. Blair said, does not object to receiving freight from the C.P.R. at St. John for points on the I.C.R. He recognizes it is the right of the railway in whose territory traffic originates to deliver to a connecting road at the end of its long haul, & therefore all C.P.R. freight for points between St. John & Moncton & east of Moncton would properly be receivable by the I.C.R. at St. John. The C.P.R. has complained that cars brought down laden & handed over to the I.C.R. at St. John would have to be hauled back empty, & the Minister is well aware that the C.P.R. would therefore be doing business to less advantage than if it hauled the cars back laden or received the empties free of cost from the I.C.R. at any junction point near Montreal.

So anxious have the I.C.R. authorities been to meet the C.P.R. in a reasonable spirit that they have advised Mr. Shaughnessy of their willingness to deliver empties to the C.P.R. at Montreal or any junction point near that city, & this, it is believed, will obviate the alleged difficulty. "It is not correct," Mr. Blair said, "nor do I think it fair to ascribe to Mr. Shaughnessy the statement that the I.C.R. has virtually transferred its whole business to the G.T.R., meaning, it is supposed, its whole freight business, & shut out rival roads from sharing in the Western traffic. The I.C.R. has not done this. As Minister, I have simply made the best arrangement possible in the interests of the Government railway through the G.T.R., as being the only road that would exchange traffic at Montreal, & this ensures to the I.C.R. the use of its whole line from the terminus at Montreal in preference to the small portion of its line from St. John, to which it would be limited if an exchange agreement were made with the C.P.R. at St. John. But this agreement is confined entirely to unconsigned freight, & would not, & does not, preclude shippers from requiring delivery to the C.P.R. at St. Rosalie, Montreal, or Jacques Cartier junctions in respect of goods destined for the West. Neither is it correct to say that the Minister has decided to terminate the passenger agreement between St. John & Halifax. Mr. Shaughnessy would not, I am sure, authorize any such statement, because no such conclusion has been come to. The I.C.R. is only bound to give to the G.T.R. as respects freight, & then only as far as the interests of the I.C.R. have made it desirable or necessary that such an arrangement should be concluded." The statement in the Sun that the Senate had done the Minister a service by making the agreement

revokable, Mr. Blair declared, was not of a character to impress anybody who understands the railway situation. "So far as the senators have interfered with the contract between the G.T.R. & the Intercolonial, they have interfered to its injury," said Mr. Blair, "& I have not the slightest intention of exercising the power the Senate so kindly placed in my hands. I have not the slightest intention this year or next or in any future year, so far as I know now, of cancelling the G.T.R. traffic agreement. The agreement is of that nature that there has been no period, there will be no period, or can be no period, in which the G.T.R. would not cancel the agreement in its own interests if the I.C.R. was willing, without having any statutory provision to do so. As regards St. John," Mr. Blair said, "I have only one feeling. I would do anything in my power consistent with my duty as head of the I.C.R., & with the claims of other localities, to promote the well-being of St. John & the interest of the port, but I am bound to frankly state, however, that I am quite sure the people in no part of the country touched by the I.C.R. expect me to sacrifice what I believe to be the general interest of the I.C.R. at the instance of any other railway system or the individual interests of any other locality."

Mr. Shaughnessy was interviewed on the subject of the Sun's article, & Mr. Blair's reply, but absolutely declined to discuss the matter. He, however, said that the C.P.R. still hoped to have the co-operation rather than the active opposition of the Government road in the former's efforts to maintain a Canadian winter port.

The Montreal Witness, which supports the Government, quotes "a gentleman who has watched railway affairs closely for a good many years," as saying that Mr. Blair's attitude regarding this question left no other alternative for the C.P.R. to assume than that of diverting its seaboard business to Boston. Should this be done the I.C.R. will be practically without steamship connection at either St. John or Halifax, because that railway is not in a position to make freight contracts with any steamship company that would warrant a permanent line of vessels running to & from any of the maritime ports. Without access to business west of Montreal the Government line cannot be a feeder for any steamship line, hence the action of the C.P.R. will certainly close up St. John & Halifax as winter ports & leave the Government railway out in the cold as regards steamship traffic.

Freight Traffic Matters.

Large quantities of cheese are being shipped on the Canada Atlantic at stations between Ottawa & Montreal.

Grain traffic on the Canada Atlantic is very heavy, 5,087,000 bus. having been received at Depot Harbor from the opening of navigation to Aug 1.

The Alberta Ry. & Coal Co. has established an agency at Nelson, B.C., & will ship coal there from Lethbridge over the Crow's Nest Pass Ry.

The White Pass & Yukon Ry. is hauling about 170 tons of freight daily from Skagway to Bennett. It goes down the river immediately upon arrival in scows & steamers.

Trade has improved along the Bay of Quinte Ry. to such an extent that an additional freight train has been put on. A great deal of lumber is being brought from the back country for exportation to the U.S.

The Manitoba Department of Agriculture estimates the grain yield of the province this year as follows:—Wheat, 33,504,766 bus.; oats, 23,003,126 bus.; barley, 5,532,972 bus.; flax, 296,208 bus.; rye, 65,626 bus.; peas, 26,637 bus.

According to the report of the Vancouver Board of Trade the shipments of lumber from that city in 1898 were 49,685,810 ft. b.m., against 70,934,621 in 1897. The shipments by rail to points outside B.C. were 18,752,730 ft. b.m. in 1898, and 23,726,674 in 1897.

General Superintendent Osborne, of the Western Division of the C.P.R., says the Co. is fully prepared to handle the great grain crop of Manitoba & the Territories. The Co. has 25,000 cars, including 1,500 added for this year's crop. The Perth shops which turned out 6 to 10 new cars a day all the past year, have their capacity now increased to 15 cars a day.

The railways between Buffalo & New York have advanced the freight rate on grain coming to Buffalo by lake. Wheat to New York is 3.5c. a bush.; corn & rye 3c.; barley 2½c.; & oats, 2c. The advance in wheat is 7½ mills; in corn 7½ mills, & in rye 2½ mills. On the announcement of these advances the canal boats raised their rates to the basis of 2½c. on wheat.

The White Pass & Yukon Ry. has cancelled its through traffic arrangement with the coast, lake & river steambot companies, & hereafter the railway will be run as a purely local line, each company accepting through shipments having to pay the Ry. Co. a local rate on the same. This will cause a very material raise in through rates. The Canadian Development Co., for example, which has been quoting three rates of \$160, \$155, &

\$130, now announces that the lowest will be \$180.

The White Pass & Yukon Ry. management announces that the regulations of the U.S. government, which prevented perishable goods from Canada being bonded through Alaska, on the way to the Yukon, have been rescinded, & that word has been sent to the collector at Skagway from the Treasury Department, ordering him to pass Canadian perishable goods, the same as other Canadian goods, which means that they will go through without interruption.

On Aug. 14 the roads running east from St. Louis reduced the rate on flour for export to 15c. per 100 lbs. from St. Louis to New York. The western lines terminating in Chicago met the competition by making a rate of 15c. from Missouri River points. The previous rate from the Missouri River was 19½c. On Aug. 1 the lines running east from Chicago advanced the export flour rate to 17c. It cannot be maintained while a rate of 15c. is in effect from Missouri River points to New York via Chicago.

Nelson, B.C., papers report traffic as very good. On Kootenay Lake the C.P.R. steamers are fully employed in making the transfers between the Crow's Nest line at Kootenay Landing & the Columbia & Kootenay branch at Nelson, as well as in the moving of supplies to the railway construction camps at the head of Kootenay Lake. On the railway there is a greater volume of traffic com-

ing in & going out of Nelson than during any former period in its history.

The C.P.R. Freight Department has issued a circular stating that for the purpose of giving its patrons the best despatch for their shipments for the Kootenay & Pacific coast, it has been arranged that, effective Aug. 28, a train, to be known as the "Pacific Coast Bullet," will leave Fort William, making the run to Laggan in 93 hours 55 minutes, & to Kootenay Landing in 101 hours & 10 minutes. The train leaves Fort William at 2 o'clock (Central Time), & arrives at Laggan 22.15 (Mountain Time), Kootenay Landing, 5.30 (Mountain Time). A service is also being arranged for the Pacific Division, particulars of which will be given later.

Arrangements have been made by which an expert fruit shipper & packer from California will spend some time in British Columbia during the fruit-shipping season. It is intended to hold a series of meetings of growers in the fruit districts, & give object lessons in approved methods of grading & packing different varieties of fruit. A car-load of plums, packed, loaded & iced, under the direction of an expert, will be shipped to the Northwest market, & it is hoped that the fruit shipping industry will be placed upon a sound basis. The C.P.R. has promised free transportation to the expert & to furnish a first-class refrigerator car service. The Cleeve Cannery & Cold Storage Co. will cool & ice the fruit at New Westminster for shipment.

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The Freight Traffic Manager of the C.P.R., speaking of the effect of the recent decision of the Interstate Commerce Commission that all export rates on freight should bear as heavily on the export business as the existing rates on domestic business should bear on the local business in the U.S., said that the only effect which the decision would have on the Canadian lines would be to keep up the export freight rates. The decision of the Commission simply means that no line in the U.S. will be allowed to make an export rate on freight which is lower than its corresponding domestic freight rate. This will, of course, prevent cutting of rates to secure export business, & in that regard, of course, Canadian lines will be affected in as much as the export rates in the U.S. will be kept up, enabling Canadian lines to do the same.

Grain Export via Boston.

A. F. Brown, the largest export grain forwarder in Boston, has been visiting Manitoba, accompanied by Foreign Freight Agent Corbett, of the C.P.R., to interview the grain shippers on the subject of exporting all rail via Boston over the C.P. & Boston & Maine railways. The high lake freights which will prevail this fall will give the C.P.R. an opportunity to handle a large quantity of this season's crop over its all rail line to the Atlantic seaboard, & special efforts will be made by that Co. to this end. The close relations between the C.P.R. & the B. & M. R., together with the excellent elevator facilities & large ocean tonnage at Boston will probably make that the export route, although the New York Central will undoubtedly make a strong effort to get a share at Ogdensburg or Montreal for export via New York.

In an interview in Montreal, on his return from Winnipeg, Mr. Brown said that Boston increased its business last year in the handling of Canadian grain by over 6,000,000 bush., & it was expected that this year there would be a further increase of 25% over last. The steamship charges at Boston, he says, are exceptionally low, steamship lines being authority for the statement that the harbor charges there are about \$1,500 less each trip than at New York. He expects that the Boston & Maine R.R., the U.S. connection of the C.P.R., will carry a large quantity of the Canadian grain to Boston during the coming winter. This result will be contributed to, he believes, by the fact that the C.P.R. being shut out from the St. John & Halifax trade by the recent traffic agreement between the I.C.R. & the G.T.R., will naturally divert as much trade as possible to Boston, via Newport. The C.P.R. would do this as a plain business matter, & in their own financial interests. Of his impressions of Manitoba Mr. Brown said: "I had previously made regular trips through the northwestern States; but never before did I see the wheat-growing portion of the Canadian West. It was simply a revelation to me. After remaining two days in Winnipeg, we went westward 150 miles, & then drove 30 miles north of the main line. There is no wheat-growing country like it on the American continent. I have been in the grain business from 12 to 15 years, but Manitoba surpasses anything I had ever seen in the south. In fact, no one can realize the vast extent & splendid quality of the golden grain I have just seen in the province of Manitoba. The wheat is remarkably clear from weeds & smut; & as I have just said, I never before saw anything like it. We visited a farm eight miles north of Brandon, owned by a Mr. Devine, & the surroundings were really remarkable. His house is built of stone & finished in white wood, & on every hand were indications of comfort & even luxury. This fact is a distinctive feature of your new western country. In the older sections of Kansas & Minnesota we see pretty

good farm houses, but nothing like the establishments that are to be met with on every side in Manitoba. Devine has 300 acres under wheat, & he expects to raise 9,000 bush., & at the price he sold for last year, viz., 67c., will have a good deal of money to put in the bank. I have heard bank managers out there say that the farmers of Manitoba have good deposits, & from what I have seen I am not at all astonished. There is no question in my mind that the crop of Manitoba & the Territories will be 50,000,000 bush., & all say that it will grade no. 1 hard. I was very much impressed with Winnipeg, & it must, with its magnificent back country, become a very large city. In fact, the whole country was a revelation to me. Then there is the C.P.R., which is a wonderfully enterprising corporation; & after seeing the country through which it runs, I am not surprised that the stock should go up. The cars composing the Imperial Limited are simply palaces on wheels."

Export & Domestic Freight Rates.

The question of relative rates upon export & domestic traffic in grain & grain products & of the publication of tariffs relating to such traffic was decided by the U.S. Interstate Commerce Commission, Aug. 7. Following is the official statement:

The Act to regulate commerce applies to the transportation of export & import traffic, & the jurisdiction of the Commission over such traffic is not denied, but is distinctly affirmed & rather enlarged by the decision of the U.S. Supreme Court in *Texas & Pacific R. Co. v. Interstate Commerce Commission*, 162 U.S. 197, 40 L. ed. 940, 5 Inters. Com. Rep. 405.

The Act to regulate commerce does not, as matter of law, prohibit a carrier by railroad from making a through rate from a point within the U.S. to a foreign destination of which its division shall be less than the amount charged by it for the corresponding transportation of domestic merchandise to the port of export. Nor is it, as matter of law, in violation of the Act for such carrier to make a lower rate to the port of export upon traffic which is exported than upon that which is locally consumed, for the export rate is in essence the division of a through rate. *Texas & Pacific R. Co. v. Interstate Commerce Commission*, 162 U.S. 197, 40 L. ed. 940, 5 Inters. Com. Rep. 405, cited & applied. *Kemble v. Boston & Albany R. Co.* 8 I.C.C. Rep. 110, cited & approved.

It is a question of fact whether rates upon export or import traffic, as well as those upon domestic traffic, are in contravention of the provisions of the Act to regulate commerce.

The Act to regulate commerce was intended to & does apply, not only in cases of direct injury to particular individuals or industries, but also in cases involving indirect injury to the community as a whole, & in the absence of some justifying reason, it would not be right for U.S. railroads to permanently transact business for foreigners at a less rate than that for which they render a corresponding service to U.S. citizens.

Market conditions, sometimes in case of wheat, but seldom in case of corn, may justify an export rate through the port of New York somewhat lower than the domestic rate, & Philadelphia, Baltimore, Norfolk & Newport News usually take rates which are certain differentials below the New York rate on both domestic & export traffic. During the period of closed lake navigation the export & domestic grain rates to New York & the other ports mentioned should ordinarily be the same. Rates to other ports, including Boston & ports on the Atlantic north of Boston, & Galveston, New Orleans & other Gulf ports may perhaps be properly made lower on export than on domestic traffic to enable them to compete for the ex-

port business. Such an adjustment of rates would be to the advantage of the carrier, & just alike to the U.S. consumer & the U.S. producer. But as the problem is primarily one for the carriers rather than this Commission, & some rate changes have been made by them during the progress of this proceeding, & the testimony indicates that the present disparities between domestic & export rates will not become permanent, no order is made in relation to this branch of the case.

In the application of export grain rates the carriers should in no case make the rate from any point to the seaboard less than that from any intermediate point on the same line.

Carriers engaged in the transportation of export flour from Minneapolis at a rate which is $1\frac{1}{2}$ c. less than the domestic rate to the port of export refuse to make any corresponding concession to intermediate millers. Held, That this is unjust & unlawful discrimination against such intermediate traffic, & that whatever line participates in such lower export rate on flour from Minneapolis must make a corresponding rate upon similar traffic from intermediate points.

There may be instances where a carrier should be permitted to meet railroad competition without reference to its intermediate territory, but when the very existence of an important industry depends upon the carrier being required to treat intermediate territory as it does the more distant territory, the rule of no greater charge for the shorter distance clearly applies.

Carriers largely engaged in transporting export flour have for many years made the same rate on wheat & flour, & such long continued practice is evidence against any difference in rate on those commodities; but the presumption is not irrebuttable, for if it were the carriers could never change their tariffs or classifications.

The profit to U.S. millers in manufacturing flour for export is from 1 to 3c. per 100 lbs., but the freight rates on wheat & flour for export show a difference in favor of the English miller of from 4 to 11c. per 100 lbs., & other things being equal, such discrimination is clearly prohibitive upon the U.S. manufacturer. The published railroad rates on both wheat & flour for export have been the same up to a recent period, & the carriers have exacted such rates, except where lower rates on wheat were induced by competition. Water competition on the Great Lakes limits rail rates to the various ports on both wheat & flour during the navigation season, & to a degree before the opening & after the close of navigation, & the published & actual water rates on wheat have been from 2 to 4c. lower than those on flour. To a limited extent the cost of service may be greater in the transportation of export flour than in that of export wheat. The export rate on flour includes delivery on board ship, while the rate on wheat ordinarily does not, & at New York an additional charge of about $1\frac{1}{2}$ c. a bus. for loading wheat is made. Exportation of flour has steadily increased, but for the last 6 years the increase has not been marked, & a decrease is shown by comparing exports in 1894 & 1898.

Held, That public policy & good railway policy alike seem to require the same rate on export wheat & export flour, but that the duties of the Commission are confined to administering the Act to Regulate Commerce, & in view of all the conditions shown in the investigation, a somewhat higher rate on export flour than on export wheat is not in violation of that statute. That the published difference in rates is too wide, & that the rate on flour for export should not exceed that upon export wheat by more than 2c. per 100 lbs. That the relation of rates on domestic shipments of flour & wheat is not involved in this decision, as the export & domestic freights are handled under different conditions.

Rates on export traffic must be published & filed in accordance with the provisions of sec. 6, of the Act to Regulate Commerce.

So-called through export rates made by adding the ocean rate, whatever it may be, to the inland rail rate, whatever it may be, are not analogous to joint rates made by joint arrangement between railway carriers, subject to the statute in the sense that the total rate must be published & filed & it is enough if the railway carrier publishes & maintains its own rate to the seaboard. But if there is in fact such a joint arrangement that the rate is a joint rate under the 6th sec. of the Act to Regulate Commerce, then the entire through rate should be published, & not the inland division, which in that case might vary while the entire rate remains the same.

The G.T.R. was represented by its General Manager & General Traffic Manager, & the C.P.R. by its Freight Traffic Manager.

Passenger Rate Troubles.

August was a month of scares in passenger rate matters. Early in Aug. it was announced that on account of the refusal of the Michigan Central & Lake Shore lines to cease selling tickets from the West to Portland, Me., & return via Boston at reduced rates, & the consequent refusal of the G.T.R. to stop selling cut rate excursion tickets to Boston, the Erie had decided to break the recently adopted passenger schedule & withdraw from the Chicago & Boston business. This was followed by the Erie announcing a rate of \$18.45 for the round trip between Chicago & New York. There was previously no round trip between the two cities, the standard one-way rate being \$20. The rate made by the Erie was, therefore, less than a single fare. Corresponding rates were made from intermediate points to New York. General Passenger Agent Ussher, of the C.P.R., when interviewed in regard to the cut, said the report that a serious rate war, into which the C.P.R. & G.T.R. Co.s were likely to be drawn, was largely the result of the brilliant imagination of Chicago newspaper men. The report became current because the Pennsylvania lines announced a special rate between Chicago & Philadelphia of \$16.45, & the Erie Ry., in order to retain its New York & Chicago business, met this cut rate by a reduction in the rate between Chicago & New York from \$20 to \$18.45. It transpired that the special rate made by the Pennsylvania lines between Chicago & Philadelphia was only for an excursion of the Grand Army of the Republic from Chicago to Philadelphia, & remained in force only from

Sept. 1 to 4. The Erie road, in order that this special rate might not interfere with its Chicago & New York business, made a corresponding cut in its rates from \$20 to \$18.45 on Chicago & New York business. It was quite understood, however, that both these rates were for the limited period mentioned only, & would not in any way disturb the general tariff of rates on the U.S. lines generally. The Canadian lines were, of course, not in any way affected. The entire report, in fact, was the result of a misunderstanding of facts.

General Traffic Manager Reeve, of the G.T.R., said in an interview: "We are sorry to see the reduction of rate between Chicago & New York & Philadelphia, & I believe it will go far towards abolishing the reduction of rates generally to conventions, more particularly to the Grand Army of the Republic & the Christian Endeavor Society. Not that we think these associations are in any way responsible for the general demoralization that takes place in connection with the reduced fare, but because certain railway companies make that the excuse for all kinds of what used to be called, fifteen or twenty years ago, sharp practices, but which are now considered by the standard lines to mean the quintessence of stupidity. But we believe that the action of the so-called standard lines at the present time is not so much to meet competition in connection with the Grand Army fares to Philadelphia as to be a cloak for them to take action as against the differentials that have been prevalent by the so-called differential lines for many years past, & which were awarded to those lines by arbitration & with the consent &, therefore, by the agreement, of the standard lines. In other words, they are trying to take away from the weaker lines in an underhand way what they virtually agreed to allow them to retain. Our position—I am speaking of the G.T.R.—is one of strict conservatism, as we consider ourselves the strongest of the differential lines, & therefore we will not meet any reduction until the differential lines take the initiative. We will then join them & stay by them, reserving our differential as long as there is anything left to enable us to do so. That will continue to be our policy until the differential is taken away from us by the same power or through the same source as it was given us."

The differential lines are the G.T.R., Baltimore & Ohio, Wabash, Erie, New York, Chicago & St. Louis & Chicago & G.T. The Panhandle is not admitted to be a differential line. The standard lines are the Lake shore, Michigan Central, the Pennsylvania, in other words, the Vanderbilt systems & the Pennsylvania.

Passenger Traffic Manager Kerr, of the C.P.R., who returned to Montreal Aug. 29, after spending some days in Chicago, said he did not think it likely that a general rate war would be precipitated as a result of the trouble with regard to fares to the G.A.R. convention at Philadelphia. The Erie made cuts in rates based on their claims as a differential road, & these cuts were met by other lines, whose action for a while threatened serious complications. He thought it would be very poor business for any road to start a cutting of rates during such a time of great business activity, when there was traffic enough for all, & the only question was one of sufficient accommodation to handle what was offered.

The Wabash, Michigan Central & other lines cut down to \$15.15 for the return trip to New York but limited the going trip from Sept. 1 to 4 & the return to Sept. 30 & it is expected there will be no further trouble. All the roads have united in appointing a joint agent in New York to handle all tickets & execute them for return trip. It looks altogether likely that cheap tickets will not constitute any sort of harvest fee for the scalpers, in spite of their cheapness. The tickets which the Wabash is issuing, for instance, are almost as rigid as could be made without having a photograph of the purchaser on them. They describe whether the purchaser is medium, slight or stout in size; tall, medium or short in height; male or female, & with light, dark or grey hair, besides bearing an autograph signature. On the Michigan Central the tickets will not be good east of Buffalo on the limited, but they will be good on all trains on the Wabash.

On Aug. 24, the Chicago, Milwaukee & St. Paul Ry. gave the following notice of withdrawal from the Western Passenger Association: "Rival lines, not members of the W. P. Association, namely, the Chicago Great Western, Wisconsin Central & Minneapolis & St. Louis roads, have been demoralizing rates, securing traffic to which, we think, we are entitled. We expected to be protected from such competition by the W. P. Association, but finding that we are not, we have decided to withdraw from the Association in order to be free to meet the competition of rival lines in the manner that may seem best to us. If the Great Western, Wisconsin Central and the Minneapolis & St. Louis roads will join the W. P. Association & abide by its rules, we will renew our membership immediately. While withdrawing from the Association & refusing to be bound by its articles of agreement, we have not severed our connection with the clergy, mileage or immigrant bureaus of the Association, & do not propose to do so."

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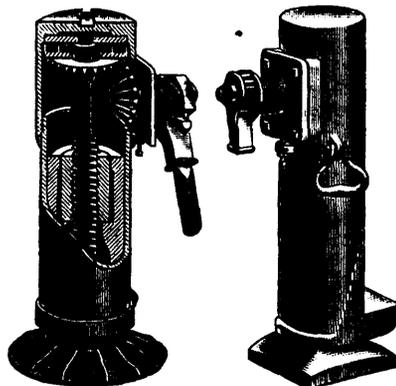
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Government Railway Literature.

The Press & Advertising Agent of the Intercolonial Ry. has issued a "Souvenir for Tourists, Sportsmen & Invalids," which contains some interesting reading matter, though hardly sufficiently in detail to be of much value in furnishing information. The pamphlet, printed at the Government Printing Bureau in Ottawa, has a number of good half-tone illustrations, but its general appearance is marred by the use of several old alleged wood cuts, some of which have the appearance of having been engraved with a jack-knife. Another pamphlet, "Rod & Gun in New Brunswick, along the Line of the Intercolonial Ry. & its Connections," is very well prepared as far as the writing is concerned, but is poorly got up with an unattractive type cover, with poor paper, & with a cheap-looking & indistinct map of the Province. Neither of the publications mentioned are at all up to the standard used by the Grand Trunk & Canadian Pacific for their advertising matter, & consequently will not attract the desired attention. As with other advertising matter, that used by railways must be first class & up-to-date, or the money spent in it will be largely wasted.

In none of the publications got out at Moncton does the Prince Edward Island Ry. receive fair play. In the Souvenir above mentioned it is not named on the cover or title-page, though several inside pages are devoted to it. The summer climate, surf-bathing, & other attractions of the north shore of P.E.I., are not surpassed by those of any point on the I.C.R., & are equalled by very few, & the Island should be given more prominence.

Whatever mistakes A. H. Harris may have made during his short term as General Traffic Manager, he scored in the adoption of the title, "Canadian Government Railway System," & in showing the division of it into the I.C.R. & the P.E.I. R. on all literature. We think a mistake has been made in dropping the comprehensive title.

Military Rates from the Pacific.

Military rates are causing trouble to the lines west of Chicago, & the agreement on this business is likely to go up in the air. The bulk of the westbound movement has gone to the Chicago & Alton, & its competitors are suspicious. The Wisconsin Central has been ousted from the division arrangement on Chicago-Missouri River business because it was suddenly discovered that this system had no Missouri River line. When the agreement was first entered into the Wisconsin Central was guaranteed a percentage of the total westbound soldier business regardless of the fact that it had no Missouri River line. East bound Central Pacific officers are complaining of the methods employed by the Missouri River-Chicago roads in capturing the business from the coast. The Central Pacific people say that eastbound soldier rates must be adhered to as laid down or it will adopt drastic measures to bring the Eastern roads to time.

A San Francisco despatch says the California Passenger Association, which represents all roads having offices in San Francisco, has decided to route home discharged volunteers over the most direct line, charging the fare of \$37.50 to Missouri River points. This same fare has been announced from Tacoma. The C.P.R. is after the traffic, & has announced the same rate. The northern roads, over which the reduced fare applies, are the Northern Pacific, Great Northern & Canadian Pacific. The agreement to maintain this rate & to fight for business is as yet entirely satisfactory to the northern roads, at least, but there are rumblings of a coming fight. For

the returned volunteer travel, the "Soo," with its C.P.R. connections, is making a hard fight, & if the roads fall out on the division will probably be as active as any of the other lines. Ordinarily the northern roads would be at a disadvantage with the Southern Pacific controlling the California business, but these lines rely strongly on their water routes to San Francisco. They can take the volunteers to Puget Sound at a slight expense, & transport them across the continent at a rate which easily brings them into competition with the Southern Pacific.

C.P.R. Montreal-Ottawa Service.

The C.P.R. has put two handsome trains on its Montreal-Ottawa run. Each train, consisting of locomotive, baggage car, smoking car, 2nd & 1st class cars & parlor car, is entirely new. The exterior wood of the cars is mahogany, matching the standard equipment. In the interior of the parlor car the panels & columns are of satin wood, richly carved & otherwise ornamented. The ceilings are modelled in the empire style of railway architecture, & are superbly decorated in green & gold. Handsome windows of glazed glass add very materially to the pretty effect. The observation windows are hung with damask silk, & smoke-guards prevent the entry of cinders & dust. The chairs are upholstered in terra cotta plush, & look restful & homelike. In either end of the car the private staterooms are situated, these being finished in a delicate shade of fawn. The appointments of the 1st-class car are in keeping with those of the parlor car, the same color scheme being used throughout. The smoking car is furnished with revolving chairs. All the cars are lighted by electricity, the incandescent globes being placed along the sides instead of near the ceiling. The engine is one of the most powerful of its kind ever constructed by the C.P.R. It is not the intention now to cut down the running time of 2½ hours for the 111 miles, it being felt that that is fast enough for all practical purposes for the present, though ultimately it may be reduced to two hours.

Passenger Traffic Matters.

It is said Hamiltonians will erect a large hotel in Muskoka.

Commercial travellers in the U.S. are proposing that the railway companies shall issue uniform interchangeable mileage tickets, so that a ticket bought from one company shall be good on the lines of all.

Traffic on the Intercolonial has been very heavy all season, & the new vestibuled train between Halifax & Montreal is being largely patronized & traffic between Halifax & Sydney has been greatly increased by the improvement in the service.

All the railways running into Ottawa are enjoying a season of steady traffic unsurpassed in previous years. There has been a constant movement of tourists to the summer resorts ever since the opening of the season, as well as the usual influx of visitors & business men that make Ottawa a Mecca during the season.

The question of changing the form of interchangeable mileage tickets in the Western States has been referred by the Western Passenger Association back to the original committee to which the question was first referred. It is desired to increase the mileage of the ticket to 5,000 miles & to provide for a redemption of unused parts of books.

This has so far proved one of the best excursion seasons the railway & steamboat companies have had for years. A feature of the summer travel has been the great numbers of

Canadians from the rural districts as well as tourists from the U.S. who have visited the larger Canadian cities; all contributing materially to swell the volume of the retail trade.

The number of people who spent their vacation in Muskoka this year has been far in excess of any previous summer, probably double, about 12,000 visitors being about this year's figures. This means much to many branches of trade, & those interested will be pleased to learn that the prospects even now are bright that next year will show a very large advance on this.

The G.T.R. has decided to open up for tourists a new & charming country, the Kawartha Lake district, which is likely to rival Muskoka. It embraces the country surrounding north of Peterborough & includes Lakes Balsam, Cameron, Sturgeon, Pigeon, Buckhorn, Chemong & Stoney, which is accessible from Cobocok, Lindsay or Peterboro. The advertising department of the G.T.R. encouraged by the success that has attended its efforts in Muskoka is about to make known the beauties of this region.

The harvest excursions to the Northwest during the fourth week in August were unprecedented in size. Some 500 or 600 went from points on the C.P.R. east of North Bay, but the great bulk were from Ontario & went over the G.T.R. to North Bay, thence by C.P.R. Over 6,000 people, of whom about 1,000 were women & children, were landed at Winnipeg in two days. The transporting of this number for from 1,500 to 2,000 miles, in addition to carrying on the regular heavy freight & passenger traffic, was splendidly managed.

At a recent meeting of the Maritime Board of Trade at St. John, N.B., it was resolved that the Board views with favor the earnest efforts of the many towns of the provinces to encourage the coming of tourists, & would impress on delegates the importance of the construction of summer hotels, & the more general advertisement of the natural beauties & advantages of Nova Scotia, New Brunswick & P.E. Island, from a tourist's standpoint, & that special attention should be directed to the encouragement of this class of travel from Quebec & Ontario.

It is said the Immigrant Bureau of the Western Passenger Association has been making efforts to induce the C.P.R. to join the pool. A conference was held at Chicago on the subject, but as the Bureau refused to allow the C.P.R. as large a percentage of the profits as its passenger traffic manager thought it was entitled to, he decided to keep out. He suggested that a higher offer be made to him, & if the amount be satisfactory he will consider the matter. As the Great Northern & Northern Pacific were not represented at the conference, the original proposals could not be modified.

Travel on the Ottawa & Gatineau railway this year is very much in advance of previous seasons, substantial returns being realized from the advertisement of the country by the road, by a gratifying influx of tourists. All the hotels & summer boarding houses are well patronized, the bracing atmosphere of the Gatineau hills proving an almost irresistible attraction for those who have ever visited the place. The advertisement which the northern part of Quebec received at the recent sportsman's show in New York is also expected to bring good results & a heavy influx of sportsmen during the open season, which will soon be here.

H. J. Beemer, who now controls nearly all the waters in the Lake St. John district of Quebec, in which ouananiche may be found, is taking active measures to maintain the supply of the fish in his preserves. In his hatchery

at Roberval he has 75,000 young ouananiche ready for planting in the rivers tributary to Lake St. John. Both the C.P.R. & the Lake St. John Ry. will have fish & game exhibits at the Sportsmen's Show in St. Louis, Mo. The Province of Quebec will not make a separate show, but will probably lend the C.P.R. trophies of its woods and waters which were exhibited in New York last March, & which are to be sent to Paris next year.

After Jan. 1 next a new form of clergy half-fare permits will be used by the roads running east from Chicago, on all of the lines in the Central Passenger Association. In place of the present annual clergy permit each person entitled to the credential will be furnished with a book containing 100 coupons. Whenever a ticket is requested the applicant will be required to fill out one of these coupons in the presence of the selling agent. These coupons will be turned in to the auditors of the respective roads as authority for the sale of the half-rate ticket. In this way an excellent check will be kept on clergymen's signatures, & the work of auditors will be greatly simplified. A nominal charge will be made for the books.

Much is being done to make known Canada's varied attractions. On both sides of the Atlantic the C.P.R. has advertised Canada extensively as a summer pleasure ground. In the U.S. the G.T.R. has drawn attention to the Muskoka Lake district. The steamship lines running between Boston & the Maritime Provinces are developing a large tourist business, & the tourist associations of St. John & Halifax have done much to help them by distributing beautifully illustrated pamphlets setting forth the attractions of those cities & the neighboring districts. The Dominion Atlantic Ry. has made the beauties of the Annapolis Valley of Nova Scotia well known to New Englanders, & the Quebec & Lake St. John Ry. has brought many sportsmen to Quebec Province. All this is to the good. The tourist not only takes away with him a knowledge, & it is to be hoped, a favorable impression, of the country he visits; he leaves his dollars behind him.—Canadian Gazette.

Grand Trunk Betterments, Etc.

The Co. is seeking to acquire some lots at St. Lambert, probably for the purpose of building a dyke to protect the Victoria Jubilee bridge.

The galvanized iron sheeting which is to hide trains from horses, is being put in position on the Victoria Jubilee bridge, & it is expected the structure will be opened for foot & vehicle traffic during Sept.

It is reported, but not confirmed, that the Co. will improve the Port Dover division, moving the track about half a mile further east at Norwich, in order to be near the town, & altering the approaches at Woodstock.

Work is proceeding on the new stations at Arthabaska, St. Hyacinthe, St. Anne's & Vaudreuil, Que., & Galt, Ont., & will shortly be started at Pickering & Cardinal, Ont. The St. Hyacinthe & Galt buildings will be handsome structures, costing from \$15,000 to \$18,000 each.

The last relic of the first epoch of railway engineering in Canada is passing away in the form of the tubular bridge at St. Anne's. This old bridge, which spans the Ottawa near its junction with the St. Lawrence, is being removed, & a truss bridge erected in its place. This old bridge is not only the last of the tubular bridges in Canada, but the last on this continent, & its removal is a historic event.

The new round house at Sarnia has been turned over to the Co. The Co. has some piping, etc., to do, but the building will soon be ready for use. It is situated about half a mile west of the station, & is built of white brick with stone foundation & gravel roof. The length is about 760 ft., depth 76 ft. & height 20 ft. There are 30 stalls, each accommodating one locomotive. The foundation of the stalls is composed of 4 ft. of brick, & 2 ft. of cement. In addition to the round house proper there has been constructed an office & machine shop building, 56 by 32 ft., & a 70-ft. turntable. The buildings are the exact counterpart of those being erected at Port Huron.

On returning to Montreal for a recent inspection of the lines west of there, General Manager Hays said a steady improvement

has been going on during the past year, a great many of the stations having been thoroughly overhauled, redecorated, & steam-heating appliances added. The out-buildings, train sheds, baggage rooms & freight sheds have also been renovated & improved. With regard to the road bed, he said that steps are constantly being taken to ensure safety for the traveling public. New switches & semaphores have been placed in position during the past few months, & the greatest care is exercised in the matter of signaling. The work of double-tracking the main line at Murray Hill is being actively pushed forward, & will be completed in a few months. When it has been finished the whole of the line between Toronto & Montreal, with the exception of a strip extending from Newtonville to Scarborough, will be double-tracked.

The Montreal City Council has appointed a committee to confer with General Manager Hays as to the abolition of level crossings in Montreal between St. Henri & Bonaventure station. The plan proposed is to construct a viaduct between the points named. The elevation from St. Henri to Atwater avenue is estimated at about 2,860 ft. in length. The tracks from Atwater avenue would then be on a level for 200 ft., descending on a grade of 18 1-2 ft. per mile to a point half-way between Seigneurs & St. Martin streets. From the latter street the tracks would be on a level to Bonaventure station. This would somewhat alter the present station, the elevated portions of which would be reached by staircases & elevators. Into the station proper there would run from Mountain street at least eight tracks, with platforms covered in & provisions made for the handling of baggage. The scheme also includes the building of a series of arches of 20 ft. span each, & iron bridges at all the streets, & iron trestle-work at the station. It is estimated that the iron trestle-work necessary for the whole work would cost, with wooden floorings, about \$927,000, & with buckled plates & permanent filling for tracks, \$1,034,000. The proposed work on the viaduct would be most substantial. The entrance to the station would be something like the entrance to the C.P.R.

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between Guy & Aqueduct streets, that is to say, a retaining wall on each side of the right of way, sustaining the filling on which the tracks would be laid. The streets would pass under the tracks by a series of arches, which would not be all similar in design. It is expected that all masonry would have to be placed on a cement foundation on account of the unstable nature of much of the ground. An iron pipe railing would run on each side of the right of way, on the masonry coping, adding to the appearance of the work.

Canadian Pacific Betterments, Etc.

Ottawa Short Line.—The Co. is purchasing right of way for a line of 6 miles, which it is proposed to build to facilitate the handling of freight between the Co.'s Sussex St. Station, Ottawa, & the Union Station there. The new line will leave the Prescott line some distance east of the white bridge over the Rideau River, running away from the river till it reaches the Co.'s Montreal & Ottawa short line near the junction of that road with the Ottawa & New York Ry. The remainder of the distance will be covered as at present & will shorten the freight route about 8 miles as against the present haul by way of the Chaudiere Jet. No bridges will be required. It is not certain that the line will be built this year.

Montreal to Toronto Double Track.—The grading is completed between Montreal & St. Anne's. The second track is being laid with 100 lbs. rails & will very soon be completed. The 72 lbs. rails on the old track are being replaced by 100 lbs. rails. It is expected the work of double tracking will be pushed on from St. Anne's westward next season.

Considerable work is being done just east of Sharbot Lake, on some 6 miles of the line, by reducing curvature & by reducing gradients from a maximum of 1% to .8%.

Fort William.—The yard sidings are being extended for about 4 miles. The new round-house is well under way, the work being done by the Co. Altogether about 300 men are employed on the local improvements. (May, pg. 139.)

Rat Portage.—The station is expected to be completed by the end of Oct., except the inside finishings, & the round-house should be completed a month later. (Aug., pg. 233.)

Winnipeg Station & Hotel.—The plans are still under consideration, & will probably be changed considerably before being finally adopted. The building will probably be 6 stories high, & will certainly be a magnificent one. It is probable work will be commenced this fall. (Aug., pg. 233.)

Winnipeg to Brandon.—Crossing sidings 2,000 ft. long are being put in at a number of stations between Winnipeg & Brandon not already served in this respect, to facilitate the shipment of grain.

Branch from McGregor.—In our last issue we gave, on pg. 236, under the head of "Great Northwest Central Ry.," particulars of a line which is being built from McGregor, on the main line of the C.P.R., 22 miles west of Portage la Prairie, to a point near Forrest or Varcoe on the G.N.W.C. We are informed that this line is being built by the C.P.R. Co., the contract having been let to A. D. McRae. It will be 56 miles in length, & it is intended to grade as much as possible this year.

Snowflake Branch.—In the middle of Aug., H. D. Lumsden, C.E., stated that work was progressing very satisfactorily, that 16 miles had been graded, & that the branch should be completed by the end of Aug. (Aug., pg. 234.)

Deloraine to Waskada.—H. D. Lumsden, C.E., reported in the middle of Aug. that contractor Egan had 100 men & 60 teams at

work, & that 20 miles of the line should be completed by Sept. 15. It runs through a splendid wheat district. (Aug., pg. 234.)

Pipestone Branch.—Track has been laid this season from Reston, 18 miles west to Antler, which is 49 miles from Menteith Jct. In the middle of Aug., H. D. Lumsden, C.E., reported grading completed 7 miles west of Antler, & that contractor Strelve hoped to complete the 50 miles from Antler by Nov. 10. This will carry the line a few miles west of Carlyle in the Moose Mountain District. (Aug., pg. 234.)

North Star Mine Branch.—Reports about this branch are conflicting. In the middle of Aug. a Cranbrook, B.C., correspondent stated that contractors Reid & McRae, & Grant & Shady were pushing work, while at about the same time a correspondent wrote from Fort Steele that work had been stopped by instructions from Montreal. (Aug., pg. 234.)

Crow's Nest Pass Ry.—The Nelson Miner asserts positively that it has information to the effect that the construction of the portion of this line between Nelson & Balfour will be gone on with this season. (July, pg. 208.)

Nelson.—The Nelson Miner asserts that that town will shortly become the divisional point for the C.P.R. lines in southern British Columbia, & that on the completion of the Crow's Nest Pass line from Kootenay Landing to Nelson, a round-house, repair shops, & probably a foundry will be erected by the Co. at Nelson.

Kaslo Wharf.—A floating wharf has been built in the Co.'s yard at Nelson, to be used at Kaslo, B.C. It is built in the form of a large scow with a square stern. At the rear is a 50 ft. frame building, to serve as a warehouse. The roof of the building projects 25 ft., terminating in a large mast, to which is affixed a chain, which, passing over a smaller mast at the bow, is attached to a movable platform fixed in front of the bow, & which can, by means of the chain, be lowered as the water of the lake falls.

Arrowhead & Kootenay Lake Branch.—This line runs from the north end of Kootenay Lake, via the Duncan & Lardo valleys, to Arrowhead, on Arrow Lake, connecting there with the Arrow Lake branch & is intended to tap the rich mining districts of Duncan & Trout lakes, & Fish Creek. The distance from Kootenay Lake to Arrowhead is 78 miles, with a branch of 20 miles from the summit at Trout Lake, passing by Ferguson at the north fork of Lardo River to Gainer Creek, on the south fork of the same river. The grading from Kootenay Lake to Duncan Lake is fairly heavy, & is mostly rock & debris. From Duncan Lake to the summit at Trout Lake the work is light, & from the summit to Arrowhead rather heavy. The gradients & curvature throughout are easy, with the exception of that portion from the summit to Arrowhead, where a 2.8 grade is necessary. The distance between Kootenay & Duncan lakes will be ready for tracklaying by the middle of Sep. There are 500 men at work. A. E. Doucet is engineer in charge. (July, pg. 208.)

Columbia & Western Ry.—On Aug. 11 the first train on the extension from West Robson to Midway, reached Cascade. Grading is completed to Midway, 99 miles from West Robson, & it is thought the rails will be laid to Midway by the end of Sept. The long tunnel through Bull Dog mountain, which is half done, or over 1,500 feet, is now progressing rapidly, & will be completed by winter. Pending its completion, the mountain is crossed by switchbacks. It has been decided not to put in false work for the span over Kettle River, at the head of the falls, but to put in the 120 ft. span itself. It is the intention to use a lighter steel from Cascade on, than the 73 lbs. rail laid in the mountains. All

the stringers for the bridges come from the Coast, & it is difficult to get rolling stock to handle them.

It is stated that the Co.'s engineers are running a line south of that previously run between Midway & Rock Creek.

Snow Sheds in the Selkirks.—Some trouble having been experienced last spring from small snow slides between Bear Creek & Illecillewaet, in the Selkirk mountains, it is said the snow sheds will be extended so as to prevent temporary interruption of traffic.

Vancouver Terminals.—As soon as the new station is completed the present ticket office, platform and all, will be moved to Heatley avenue crossing, so as to give a station to the east end of the city. Filling is proceeding for the yards along the water front. There will be a wide net-work of tracks & a system of gates will probably have to be provided for an exit to the water-front. At Gore avenue there will be a city crossing. Richards street will be extended & a bridge will be put across with a continued wharf, & of course there will be the same entrance to the larger part of the wharf as there is at present. (May, pg. 140.)

Vancouver to Steveston.—When Assistant General Manager McNicholl was in Vancouver recently, he attended a special meeting of the Board of Trade to consider the subject of securing communication between that city & Steveston, on the Fraser River. He stated that the executive had the matter under consideration. He was inclined to favor a steam railway rather than an electric one, thinking it could be more easily handled, & he promised to lay the whole question before the executive on his return east. (Aug., pg. 234.)

Duluth, South Shore & Atlantic.—It is said that surveys have been completed, & that grading is to be started at once on the extension from Newtonville, Mich., to Greenland, 60 miles.

Surveys, Construction, Betterment, &c.

Algoma Central.—J. Conmee, M.L.A., Port Arthur, has been awarded the contract for building this line between Sand Beach, Michipicoton Bay & the iron mines of the Lake Superior Power Co. & has already started work. (Aug., pg. 235.)

Atlantic & Lake Superior.—At the last session of the Dominion Parliament a subsidy was voted for the construction of 32 miles of railway from Paspebiac, Que., the terminus of the A. & L. S. Ry., to Gaspe. Mayor Prefontaine, of Montreal, recently had an interview with the Minister of Railways & afterwards stated that it was certain that the railway would be built from Paspebiac to Gaspe Basin, by the people interested in the coal oil fields, with the assistance of the Dominion subsidy.

At a recent meeting of the Canada Petroleum Oil Co., in Manchester, Eng., the Managing Director stated that the board was so convinced that the oil fields had a successful future that the Dominion Government was approached to secure assistance to place the property in direct communication with the Dominion railway system. He added that the railway would pass through the oil properties & give an outlet for the Co.'s products to all parts of Canada & the U.S. & that the Government had decided to erect wharves & harbor facilities at Paspebiac. The Gaspe Board of Trade recently discussed the route for the railway between Port Daniel & Gaspe. It is said to be the intention of the Co. to carry the line a distance of from 25 to 30 miles in the interior & the Board want it to run not more than 10 miles from the shore. (Aug., pg. 235.)

The Canada Atlantic will not rebuild the car shops at the foot of Elgin St., Ottawa, which were recently burned, as the shops

built this year at Ottawa East & Stewarton provide sufficient facilities. An addition of 9 stalls is being made to the round house.

Canadian Northern.—J. Armstrong, C.E., & party of 12 left Dauphin, Man., for Winnipegosis, Aug. 15, to locate the extension of this line to the Saskatchewan, which will be crossed en route to Hudson's Bay. The course of the party will be north to Dawson Bay & thence to Overflowing River & to Cedar Lake Mission. (Aug., pg. 235.)

The Carquet Ry., N.B., has improved its track considerably recently.

Canadian Roadmasters' Association.

The 3rd annual convention will be held at Toronto Sep. 20 & 21. The meetings will be held in court room no. 2 of the I.O.F. Temple Building, starting at 9 a.m. daily, & the members will make their headquarters at the Grand Union Hotel, corner of Front & Simcoe streets, opposite the Union Station, where special rates will be given to them.

The special topics selected for discussion at the convention are the following, the names given being those of the committees appointed to prepare reports on each subject:—

1. TRACK TOOLS.—J. Drinkwater, A. McAuley, W. Shanks.

2. EXPANSION OF DIFFERENT WEIGHTS OF RAILS.—J. Shanks, J. Graham, J. Leslie.

3. PLACING OF TIES & TRIMMING BALLAST.—E. Murphy, T. Hickey, J. Malloy.

4. RAIL JOINTS.—J. Drinkwater, W. Shanks. This matter was reported on at the last convention & partly discussed, to be again taken up at the forthcoming meeting.

A number of other subjects will, doubtless, be discussed, & exhibits will be made by railway supply manufacturers. There is every reason to believe that the meeting will be an interesting & useful one, & we hope to see a good attendance, not only of those who are already members of the Association, but of all roadmasters who can be present & who will join, as we are satisfied they will find the membership of advantage to them. Roadmasters are invited to contribute papers on

any subjects they choose, whether on the programme or not.

The reports of the above mentioned committees were published in our last issue, with the exception of one, which is given below,—

TRACK TOOLS.

The Committee, J. Drinkwater, A. McAuley & W. Shanks, report as follows:—In our opinion it is economy for any railway company to furnish its trackmen with the best & most suitable tools. They should be so designed as to enable the men using them to accomplish the greatest amount of labor without expending a superfluous amount of energy in so doing, by reason of clumsy or improperly designed tools; & they should be so constructed that the parts which require great strength & are subjected to great strain or wear, should be of a quality of steel best adapted to withstand the same, thereby reducing to a minimum the weight of certain tools where strength & not weight are desired, also decreasing the load trackmen have to carry about on their work, as well as decreasing expense to the railway companies, as most tools are purchased & sold by the pound. The committee believe that these tools can be best & most cheaply obtained off concerns which make a study of these points in track tools, & which are supplied with the proper facilities to incorporate them in the same.

The Quebec Bridge Co.'s annual meeting will be held at Quebec Sep. 5.

The C.P.R. Co. has decided to devote a considerable sum per year to the improvement of live stock in Manitoba & the N.W.T.

The Hereford Ry. Co.'s annual meeting will be held at Cookshire, Que., Sep. 5. This Co.'s line is operated by the Maine Central Ry. Co.

The Canada Atlantic Ry. Co.'s annual meeting will be held in Ottawa Sep. 26, also a special general meeting on matters connected with the share & bond issues of the Canada Atlantic & the Ottawa, Arnprior, & Parry Sound Ry. Cos.

The Great Eastern Ry. was sold by the sheriff at Sorel, Que., Aug. 29, in execution of a judgment taken by R. Prefontaine against the G. E. Ry. & C. N. Armstrong purchaser. A deposit of \$1,000 had to be made by each bidder by order of the court. Mr. Prefontaine & Mr. Beauchemin were the only bidders, the former bidding \$500 & the latter \$501, & after a wait of about half an hour the road was finally adjudged to Mr. Prefontaine for \$505. (Aug., pg. 238)

The Winnipeg Western Land Corporation, application for the incorporation of which under the Dominion Companies Act, with a capital of \$1,000,000, has been made, asks for very extensive powers, including among other things the construction & maintenance of works for the improvement of river navigation, the building of tramways & works for the manufacture or utilization of electricity, telegraph & telephone. The incorporators are: W. Hendrie, Hamilton; A. M. Nanton, W. D. Matthews, J. I. Davidson, W. Carruthers, W. R. Brock & J. Hoskin, Toronto.

J. G. Aikman, for 15 years' Superintendent of the Cumberland Ry. & Coal Co., died at Parrsboro, N.S., Sep. 2, after 4 weeks' illness. He was a native of England & was 65 years of age.

Grain Elevator Notes.

John S. Metcalf & Co., Chicago, have closed a contract for the construction of a million bushel grain elevator, with an extensive conveyer system, to be built at Newport News, Va., for the Chesapeake & Ohio Ry. The power house will be equipped with 4 Geary water tube boilers, 1,000 h.p., & a pair of 22x42 Vilter Corliss engines. Belt galleries will be operated by electricity. There will be 2 Ames high speed engines, one 21x18 direct connected to a 250 kw generator, & the other an 8x10 engine, direct connected to a 20 kw generator, for the electric lighting. The Corliss engines & the 21x18 high speed engine, will both be run condensing. The Wheeler Condensing Co.'s condensers will be used. There will also be a 1,200 h.p. Excelsior heater & purifier, a 9x5½x12 Deane duplex

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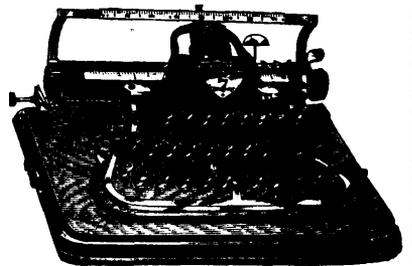
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boiler feed pump, & a 14x7½x12 Deane duplex underwriter's fire pump. The smoke stack will be of steel, self-sustaining, 170 ft. high, lined with brick. The entire elevator structure, together with belt galleries (with the exception of one 100 ft. section of the latter, built of steel), will be constructed of the finest quality of southern pine timber & lumber, covered with corrugated, galvanized iron. The rubber belting for the elevators & conveyers, together with the machinery throughout the house, will be of a higher grade than has ever been put into an elevator in America. J. S. Metcalf & Co. are building a smaller elevator for the Flint & Pere Marquette R.R. at Ludington, Mich. This elevator will be equipped with a marine leg, & will be run entirely by electricity.

SHIPPING MATTERS.

Dominion Notices to Mariners.

The Department of Marine has issued the following notices:—

No. 52, July 28, British Columbia. 1. Beacon on Gabriola reefs. 2. Beacon on Danger reef. 3. Buoy off Celia reef. 4. Uncharted rock in Portier pass. U.S.A., Washington. Dangerous reef at the north end of Rosario strait.

No. 53, Aug. 1, U.S.A., Maine. 1. Intervals of West Quoddy Head fog alarm. 2. Nova Scotia, Liscomb, whistling buoy.

No. 54, Aug. 1, British Columbia. Beacon on north reef, Stuart Channel.

No. 55, Aug. 7, Ontario. Temporary stoppage of Battle Island light.

No. 56, Aug. 8, New Brunswick. 1. Richibucto Channel at entrance. 2. Liscomb Island lighthouse—orthography.

No. 57, Aug. 9, British Columbia. 1. Beacon on Shute reef, Satellite channel. 2. Beacon on Atkins' reef, Trincomali channel. 3. Oyster harbor—hydrographic notes. 4. Uncharted shoals off Halibut Island.

No. 58, Aug. 9, Ontario. Wreck of the Shenandoah.

No. 59, Aug. 14. 1. Prince Edward Island. Change in positions of Summerside buoys. 2. Nova Scotia. Sambro light station. Change in fog signal. 3. Quebec. Beacons on Island of Anticosti.

No. 60, Aug. 15, Quebec. St. Croix bar range lights.

No. 61, Aug. 17, Nova Scotia. Neal Harbor lighthouse.

Richelleu & Ontario Navigation Co.

The rumor that the Co. will build a sister boat to the Toronto is again going the rounds.

Work will probably be commenced before the end of the season on the hotel at Murray Bay which the Co. has decided to erect. It will contain some 200 rooms, & large dining & drawing rooms. The latter will be 65 by 40, while an immense verandah, 360 ft. by 24 wide, will surround the hotel.

The day service between Montreal & Quebec & the daily service to the Saguenay were discontinued at the end of Aug. The daily service to Toronto will be changed to tri-weekly about the middle of Sep. The two boats on the Hamilton route will be kept on as long as business warrants.

A Niagara Falls, N.Y., despatch of Aug. 12 said: "A rate war has been inaugurated between here & the Thousand Islands by the G.T.R. & New York Central Ry. & the R. & O. Navigation Co. A cut of \$4 has been made by the railways owing to the cut made by the steamboat company from Toronto. Round trip tickets are being sold from here & Buffalo to Alexandria Bay for \$5 via the rail lines."

It was recently stated that on account of the size of the locks in the new Soulanges Canal it is possible the steamers Spartan &

Bohemian will be lengthened 40 ft. next winter, that the dining room of the Spartan will be changed from the basement to the main deck, & that another tier of staterooms will be added to the Bohemian. The General Manager says the works indicated have not been decided on, though the reports may have emanated from employees.

In the middle of August an official stated that the receipts of the Co. were largely in excess of the receipts up to the same period last year. The total receipts to the date mentioned were about \$500,000. Owing to the lateness of the opening of navigation this season's business began about \$20,000 behind last year. This amount has not only been made up, but the amount quoted is to the credit of the earnings in addition. The total receipts for last season were nearly \$700,000, & the possibilities are that this season they will be close to the million mark.

Vancouver's Shipping Interests.

The Vancouver Board of Trade's recent annual report contains the following: The City of Vancouver is built on the southern side of Burrard Inlet, 15 miles north of the mouth of the Fraser River. The principal part of the city stands on a peninsula, bounded on the north by the waters of Burrard Inlet, on the south by a small indentation of the sea shore called False Creek, & on the west by English Bay. Burrard Inlet is always safely navigable for the deepest draught vessels & constitutes a magnificent harbor with good anchorage. The passage at the narrows or mouth of the inlet is about half a mile wide opposite the city front, however, the inlet is more than 2 miles wide, with a depth varying from 6 to 20 fathoms, & it extends about 20 miles farther inland. On the west & south sides of the harbor, English Bay & False Creek also afford accommodation for shipping. Since last year's report of this Board, a light-house has been put in operation on Prospect Point at the entrance to Vancouver harbor, known as the Lion's Gate. The continued increase in shipping during the past year has overtaken all the wharfage accommodation. The C.P.R. Co.'s principal wharf, on Burrard Inlet, has a frontage of 1,500 ft., with deep sea water sufficient for the largest ocean steamers. East of this there are a number of smaller wharfs affording accommodation also for sea-going & a large number of coasting vessels. Independent of this & in addition, the sawmill companies operating on the inlet have berths for at least 12 large ships to load at one time for foreign ports. The C.P.R. Co. has already commenced an extension to its wharfs, which, when completed, will give a further frontage of at least 1,000 ft. During the past year this Co. has built a transfer slip, & coal for the Mainland is now brought over in cars from Vancouver Island. A marine railway is under construction & almost completed, capacity 2,000 tons gross weight; length of cradle 212 ft., which, when in operation, will afford accommodation for one large vessel or two smaller boats; it has 3 tracks, 640 ft. long, to cost \$45,000. Exclusive of lumber & salmon fleets & in addition thereto, the following steamers sail from Vancouver:

The C.P.R. Co.'s Empress Line of Royal Mail Steamers for China & Japan. This service has been supplemented during the last year by the s.s. Tartar & s.s. Athenian.

The Canadian-Australian Line for Sydney, calling at Honolulu, the Fiji Islands & Brisbane, Queensland.

The Canadian Pacific Navigation Co.'s steamship to & from Victoria daily.

The Union Steamship Co. of B.C. despatches vessels to Shoal Bay & way ports, 3 days a week; to Alert Bay & way ports, once a week; to Juneau, Dyea & Skagway, Alaska, at scheduled time of sailing.

The Moodyville & North Vancouver ferry leaves Vancouver almost hourly.

The Esquimalt & Nanaimo Ry. Co.'s steamer to & from Nanaimo daily.

Vancouver is a regular port of call for all steamers engaged in the Klondike & Atlin Trade. The Pacific Coast Steamship Co.'s boats from San Francisco every 5 days, calling at Victoria.

Provisions & supplies of all kinds are plentiful & at moderate prices at the Port of Vancouver—imported goods for ships' use being re-shipped ex bonded warehouse.

A Sunday Ferry Case.

On June 22, W. H. J. Evans, J.P. for Lincoln, Ont., issued a summons against Capt. McIntyre, charging him with "unlawfully carrying on the business or work of his ordinary calling on the Lord's day, by being the captain of the steamer Ongiara, engaged on the said Lord's day in Sunday excursions, & having for their only or principal object the carriage of Sunday passengers, for amusement or pleasure only, & to go & return on the same day by the same boat." The Ongiara, owned by the Niagara Navigation Co., plies between Queenston, Ont., & Lewiston, N.Y., as a ferry boat, & evidence was taken at Niagara-on-the-Lake on July 12, the County Attorney appearing for the prosecution, & J. J. Foy, Q.C., for the defence. Several witnesses were examined & the magistrate reserved judgment. It was contended for the defence, among other things, that the Provincial Legislature, which introduced in 1882 the legislation as to Sunday excursions, has no jurisdiction to pass any such law, inasmuch as it purports to create a criminal offence not previously existing, & that the Dominion Parliament alone has such jurisdiction. At the time of Confederation a Lord's Day Act was in force, & it was contended that the Ontario Legislature cannot vary that law, so far, at all events, as to make anything criminal that was not previously so. The case of Regina v. The Dominion Electric Tram Co., decided by the full Bench in Nova Scotia, was cited as authority for this proposition. It was further contended that the local Legislature has no jurisdiction in respect of boats navigating the Niagara River, which is an international highway. The Dominion Parliament alone has jurisdiction in respect of navigation & shipping & navigable rivers, & more especially those forming the boundary of any of the provinces. It was also contended that the running of the Ongiara between Niagara & Lewiston was not for the carrying of passengers for amusement or pleasure only, but to carry travellers, & that the carrying of travellers is not a violation of the Lord's Day Act.

The Magistrate, on Aug. 11, delivered judgment for the defendant, without stating the particular grounds upon which he agreed with the contention of the defence. It is, however, understood that he conferred with the Attorney-General's Department in Toronto before giving his decision.

Maritime Provinces Shipping.

The s.s. Orinoco, running between Halifax & St. John's, Nfld., is doing the trip in from 44 to 47 hours.

W. L. Lovitt & others, of Yarmouth, N.S., are applying for incorporation under the Dominion Companies Act, as the Reform Shipping Co., Ltd., capital \$21,000.

Wm. Butler has made a contract with Smith Bros., of Quoddy, Halifax Co., N.S., for a coastal steamer to be built at once. She will be 68 ft. long, & will be delivered in Nov.

It is stated that another big steamer is to be added to the fleet plying between Boston &

ports in the Maritime Provinces. It is said the new flyer will not touch at Yarmouth but the Co. has St. John or Halifax in its eye.

The contract for carrying mails between St. John, N.B., St. Stephen & Grand Manan has been awarded to H. Cann & Sons, of Yarmouth, N.S., who will put on a steamer to take the place of the Flushing, giving a similar service.

At a recent meeting of the Maritime Board of Trade a motion was introduced asking the Dominion Government to make such increase in the subsidy as would secure daily steamboat service between St. John, N.B., & Digby, N.S. After a brief discussion it was withdrawn.

The Maritime Board of Trade has endorsed a petition to the Minister of Marine requesting that top wharfage charges at the Government pier at Digby be abolished. It is contended that the charges prevent the shipment of goods through St. John & Canadian ports & divert them via Boston.

The strs. Duart Castle & Taymouth Castle, of Pickford & Black's West Indies line, will leave Halifax shortly, to be overhauled in England. They will receive considerable repairs, & will be placed on a footing which will easily enable them to comply with the conditions of the new contract, which goes in force July 1, 1900.

Deal tonnage from the provinces is in demand, & with light offerings the market is regarded as firm upon the basis of 48s 9d to 50s from St. John to E. C. Ireland or W. C. England. Lumber tonnage for the River Plate continues in request, & with no increase in the offerings, the market has retained a strong & buoyant tone. Large & medium vessels from St. John to Buenos Ayres can obtain \$9.50 to \$10, while from the outports \$10.50 has been secured in two instances.—St. John, N.B., Telegraph.

The Dominion Department of Trade & Commerce has received copies of a memorial to Lloyds & British & foreign underwriters, protesting against an increase of 1% in rates of insurance on ships & cargoes to & from the harbor of Sydney, N.S. The memorial presents irrefragable proof of the safety of the harbor as compared with New York & other Atlantic ports. It is pointed out that besides steamers calling for bunker coal, Sydney harbor is annually used by about 4,000,000 tons of shipping. The shipments of coal have increased from 147,051 tons in 1879 to 1,500,000 tons this year. The memorial is signed by about 50 master mariners of the North Atlantic trade.

At the recent session of the Dominion Parliament, \$8,000 was voted for direct steam communication between Halifax & Porto Rico. The contract has been awarded to J. T. Hamilton, Mayor of Halifax, for an 8 months' service for the amount of the subsidy voted. Mr. Hamilton will place on the route the str. Tyrian, of 676 tons net, & a seagoing speed of 10 knots. The service will commence in Oct.

There will be monthly sailings, which will give a subvention of \$1,000 a trip. Porto Rico is now under the U.S. flag, but the order to enforce the U.S. coasting laws, which was given shortly after the close of the war with Spain, has been rescinded. Still, the probabilities are that when Congress meets one of its first acts will be to apply the U.S. tariff to Porto Rico, in which case the chances of keeping up Canadian trade with that island will disappear.

British Columbia Shipping.

It is not unlikely that an improved & fast steamship service will be arranged for between Vancouver & Puget Sound shortly.

The C.P.N. Co. has written the Victoria Board of Trade, answering the complaints about its northern service, which it says are unfounded. A committee of the Board has been appointed to confer with the Co. on the subject.

J. A. Thomson, Inspector of Steamboats, when recently in Nelson on his regular trip of inspection, telegraphed to Kaslo instructing the owners of all steamboats there to send them to Nelson to be inspected. Considerable indignation was expressed by the local owners at being put to the unnecessary expense & trouble of having to go to Nelson, so a meeting of the Board of Trade was held & a strong telegram sent to Ottawa complaining about the matter. As a result the Department of Marine ordered Mr. Thomson to go to Kaslo.

When present plans have been carried out, four new lighthouses will have been established on the B.C. coast this year in direct line of travel to and from Alaskan points. These lights will all have been placed in the most dangerous locations. One is situated at Turn Point, near Bella Bella, at the junction of Seaforth Channel & Lama Passage. Another has been built on Porter Island, where Fitzhugh Sound & Lama Passage join. A 3rd is on Ballimas Island, between Nanaimo & Comax; & a 4th will probably be on Lawyer Island, at the northern outlet of the Skeena river.

The C.P.N. Co.'s proposal to Victoria City Council for an improved service between Victoria & Vancouver is to put on a fast steamer with all modern appliances, first-class in every respect, costing not less than \$400,000, & capable, under ordinary circumstances, of making the trip either way in 4 hours or under. The Co. is prepared to give the following guarantees:—That Victoria shall remain the home port of the Co., & that it will continue as heretofore to purchase its supplies, make repairs & disburse its regular outgoings in the city, which on an average amount to about \$40,000 a month; that the maximum scale of rates for passengers & freight shall not exceed those now charged; that the Co. will do its best to maintain for Victoria the trade of the Northern & West Coast. In return the Co. asks \$25,000 a year for 10 years, which will be about enough to pay marine insurance.

With the passing of the British bark Nanaimo out to sea, on Aug. 9, but two vessels remain in B.C. waters to load lumber. The Nanaimo received cargo at Chemainus, & is bound for Nagasaki. Her place at the mill has been taken by the E. K. Woods, which arrived from Port Townsend, to load for Tientsin. There is but one other ship at Chemainus, the str. Tyr, she & the Woods being the only lumber tonnage in B.C. The fleet is certainly the smallest on record, & is directly attributable to the scarcity of tonnage & the high carrying rates being paid. Not a mast is to be seen at any of the big Mainland mills. The next lumber-carrier to arrive will, however, load at Moodyville. She is a big steamship, which is under a time-charter to the Pacific Export Lumber Co. of Portland, & which a few weeks ago left Port Blakely for China. As in the lumber business, so it is in the coal trade, the bark Charmer, now about loaded at Departure Bay, being the only sailing vessel in port. There are, of course, the regular fleet of coasting steamers in the coal trade, a number of which are now at the collieries.—Victoria Colonist.

Captains Troup, Gore & Forslund have not reported very favorably as to the navigability of the Columbia River above Revelstoke. They say the canyon is not practicable at all for a boat going up stream at the higher stages of water. If the people desire continuous & uninterrupted communication between Revelstoke & La Porte by the river from say May 1 to Oct. 1 it would be necessary to build a wagon road, or have other means of communication by land, from Revelstoke to a point above Nine Mile Riffle. A boat built especially adapted to the business might run probably during the months of May, Aug. & Sep., through from Revelstoke to La Porte; during June & July she would be compelled to stop at the Nine Mile Riffle, or at least above a bad place about a mile from the canyon. By having an extremely light draft boat it is possible that trips could be made in Oct. & during some seasons in Nov., & possibly during the last week in April. This would be the limit of the season of navigation on that portion of the river. The river is so rapid that light boats would be the rule going up stream, but good cargoes could be brought down stream.

General Shipping Notes.

The Canadian-Australian steamers will not in future call at the Fiji islands, as they have for several years in consideration of a mail subsidy for the purpose.

Chief Engineer Murphy, of the C.P.R. Co.'s R.M.S. Empress of Japan, has resigned to become a partner in a firm of building engineers & surveyors in Hong Kong. He has been succeeded by the ex-Chief Engineer of the Co.'s s.s. Athenian.

The Canadian-Australian line of steamers between Sydney & Vancouver has been sold by the liquidator as a going concern for £145,700.

BURN 

E. B. EDDY'S

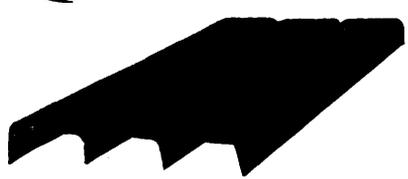
MATCHES

Q. & W. TIE PLATES

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U.S. RAILROADS 

SEE ROADMASTER'S CONVENTION TIE PLATE REPORT

F. E. CAME, 17 Place d'Armes Hill, **Montreal**

ooo to the New Zealand Shipping Co. The mortgages will be paid, the unsecured creditors will receive a dividend, & the shareholders will get nothing. J. Huddart, the pioneer of the line, & a heavy shareholder, loses all he put into the venture, but it is stated that with characteristic energy he is promoting another company to put on a larger & better class of steamers to compete for the rapidly developing trade between the two continents.

Ontario & The Great Lakes.

Wm. Powers, well known as a ship builder, died in Kingston, Ont., Aug. 29.

The U.S. Lake Carriers' Association has advanced the wages of all men employed on the boats, from second mate down, 10%.

It is said there is now 20 ft. of water from the lake to the new elevator at Goderich, although some portion of the harbor cut is not quite 50 ft. wide.

Capt. Frank Kendall, of the str. Clipper, was drowned Aug. 24 in the Rainy River Rapids, being caught in a rope that had been thrown to land & dragged off the boat.

The str. Algonquin grounded in the Port Colborne lock recently, owing to the low stage of water, caused by prevailing north-easterly winds. After seven hours struggling the water rose sufficiently to float her off the bottom.

Good progress is said to be being made with the survey for the proposed Georgian Bay & Ottawa Canal, now being conducted between Lake Nipissing & French River. The engineers in charge are H. McLeod, H. Carre & H. G. Stanton.

The Toronto Harbor Master has been notified by the Deputy Minister of Public Works, that the \$50,000 voted by Parliament for the improvement of Toronto harbor is entirely for the diversion of the Don. The other \$75,000 voted is for improvements at the eastern gap.

Capt. John Ledger, of Buffalo, recently died at his summer residence at Oak Ridge, Ont., aged 72. He sailed the lakes for many years & was prominent in marine circles. He was very popular with vesselmen in the early days. About twenty years ago he retired from sailing.

Capt. Noonan, of the str. James Swift, which plys on the Rideau route between Kingston & Ottawa, is reported to have let a contract for another boat 110 ft. long & 28 ft. wide, with triple expansion engines & a speed of 14 miles an hour. They will enable a daily service to be given.

It is rumored in Buffalo that the Northern Steamship Co. will build two more vessels, duplicates of the Northland and Northwest, which ply between there & Duluth. The Northland & Northwest cost about \$850,000 each. It is said the new vessels will cost even more than the present boats.

The new str. India, owned by the Calvin Company, of Kingston, laden with a cargo of iron, went ashore 8 miles above Port Colborne, Aug. 20, during dense smoke, which had been hanging over the lake for days. Three harbor tugs were sent to her assistance but the captain did not need them.

The people of Fort Erie, Ont., have been dissatisfied for some time with the running hours of the ferry to Buffalo, & applied to the Minister of Inland Revenue, with the result that a 20 minute service is to be given between 6 a.m. & 10 p.m., from May 1 to Dec. 1, & from 6 a.m. to 8 p.m. during the winter.

The passenger traffic on the Northern Navigation Co.'s steamers is exceptionally heavy this season. All the steamers have their capacity taxed to accommodate the large number of U.S. tourists who are visiting Mackinac, & taking the picturesque trip

among the thousand islands on the Parry Sound route.

The str. Alice Stafford will have company on the Owen Sound-Gladstone, Mich., route, during the balance of the season, in the str. Hennepin, owned by the "Soo line." The latter vessel has a carrying capacity of fully 50% larger than the Stafford & this means an enormous increase in the quantity of freight handled at Owen Sound.

Under the regulations governing masters & pilots, no pilot has a right to take a vessel down Niagara river unless his papers mention it or specify both Lakes Erie & Ontario. It is a mistake to undertake this work unless a pilot is well acquainted with the river, as there are a great many narrow passages, & a pilot needs to be acquainted with the current as well.—Marine Record.

The Canadian steamer Ontario, bound for Nepigon with a cargo of coal, went ashore Aug. 11 near Rossport, & is a total loss. She went on the beach in a dense fog. Her crew were rescued & her consorts escaped to the beach. The Ontario was formerly a passenger steamer, & is owned by Capt. John Cornwall & others, of Sombra, Ont. She had in tow the schooners Wawanosh & Eureka.

U.S. Engineer Fitch, of Oswego, has received authority from the Chief Engineer at Washington to remove the spars of the wreck of the large schooner St. Peter, which lies in the bottom of Lake Ontario, a few miles west of the port of Sodus Point, & about 1½ miles off the shore. The wreck is in the path of the vessels plying between Sodus, Charlotte & Oswego, & the spars are a danger to navigation.

Archibald McBride, died at Kingston, Ont. Aug. 8, after three weeks illness. He came from County Antrim, Ireland, 60 years ago, with his parents, settled in Kingston, & had lived there ever since. For some years he was continuously employed by the R. & O. N. Co. as engineer, serving on all its boats. His last boat was the Corsican, on which he was working till within three weeks of his death. He was unmarried & was a brother of R. McBride, engineer on the str. Bohemian.

Attention should now be turned to the reconstruction of the St. Clair Flats canal. It is thought it should be enlarged to double its present width & a new one built of the same dimensions, so as to accommodate up & down-bound traffic. Whatever improvements are made, stone & concrete should be used, at least, the U.S. government should do clean, slightly & permanent work in these large undertakings, & not string together a line of old, decaying, rickety wooden structures.—Marine Record.

Shortly after midnight, Aug. 5, the steam barge W. B. Morley, bound up, collided with the car ferry Lansdowne, bound down, the Morley being sunk opposite the D. & M. elevator, with a large hole in her bow about 5 ft. from the stem. The damage to her amounted to some \$10,000, & her cargo of coal was damaged about \$1 a ton. The port quarter of the Lansdowne was stove in & the forward compartments rapidly filled. The cars were knocked off the track & the ferry sidled into her slip with a decided list. The wrecking apparatus was called out & the cars removed as quickly as possible. She was damaged to the extent of about \$15,000.

A collision occurred in the Detroit River on Aug. 9 at 3 a.m. between the U.S. barge Leader, bound up with a cargo of coal, in tow of the str. Point Abino, & the Canadian barge Dunmore, bound down with grain, in tow of the str. Bannockburn. As the boats were passing each other in the river just above the head of Belle Isle the Dunmore took a sheer, & struck the Leader on the port bow, causing her to sink in 5 minutes. She lies in 25 ft. of water, just

above the red stake on the U.S. side of the channel. The crew were all saved. The Dunmore had a couple of planks stove in above the water line, but a temporary patch was put on, & she left for Kingston in tow of the Bannockburn at 7 o'clock.

A Brockville despatch says:—"The Northern Transit Co. of Cleveland, Ohio, now plying on lakes Erie & Ontario, & St. Lawrence river, & running between Detroit & Ogdensburg, will in all probability run their boats to Montreal next year. The Co. is handling more passengers than it can accommodate, so that in order to give perfect satisfaction an order will be given for 2 swift side-wheeler steamers, so constructed that they will run the rapids, & will make 20 miles an hour. The reason the management of the Co. have decided to have the new boats built is so that they can compete with other lines running to Montreal. The Empire State & Badger State are too small to accommodate the trade.

The Lakeside Navigation Co. has been unable to handle all the business which came its way part of this season, so popular has the Toronto-St. Catharines route become. Next season it will be prepared for a big increase. It is its intention to build a steel vessel after the model of the Lakeside, at a cost of between \$35,000 & \$40,000. She will be 165 ft. long & thoroughly modern in all appointments. The contract has not been let, but estimates are being prepared, & she will likely be built either in Toronto or Hamilton. It is intended to have a vessel capable of going 17 miles an hour, & ready for business by May 24 next. The str. Lincoln will be taken off the route, as she is too small, & the Lakeside will be lengthened 25 ft., making her the same size as the new boat.

The water in the St. Lawrence is considerably lower than is usually the case at this time of year. At Lachine it is 3 ins. lower than it was last season, & at Kingston a foot lower. The extreme range of difference in the level of the river is 7 ft. These changes are not the immediate effects of the excessive rains but appear to be occasioned by the different quantities of rain falling, in some years more than in others, & which finds its way down months afterwards. An experienced captain says the water rises until about June 15, & then steadily falls until Oct. The present fall is accountable to the strong prevailing northeast winds blowing up the Great Lakes. This lowers the volume flowing over Niagara & the corresponding decrease in Lake Ontario & the St. Lawrence follows. Navigation is not affected by the changes, as none of the channels are so shallow that the loss in water would render them unsafe for navigation.

According to the July report of Col. Lydecker, in charge of Government international improvements at Detroit, the gross tonnage passing through the St. Mary's & Canadian canals at Sault Ste. Marie has, for the first time in the history of those waterways, exceeded the 4,000,000 ton mark. July showed an increase of more than 700,000 tons in the freight tonnage through the canals. The U.S. canals passed freight tonnage to the volume of 3,689,805 tons, & the Canadian canal 484,924 tons. The total tonnage since the opening of navigation up to July amounted to 10,433,000 tons, an increase of 865,000 tons over the corresponding months of last year. In regard to the capacity of the Soo canals, the report says the record was broken on July 15 by the passage down of the tow barge Manilla with 8,205 tons of iron ore. This is the first passage through the canals of a cargo exceeding 8,000 tons. The draft of the vessel with this cargo was 18 ft. 1 in.

It is more than probable that the movement of freight of all kinds to & from Lake Superior during the present season will be close to 23,-

000,000 net tons. The aggregate for 1898 was 21,234,664 net tons. Reports from both canals at the Sault to Aug. 1 this year show a total movement of 10,433,875 tons, against 9,568,599 on the same date last year, & only 7,872,695 on Aug. 1, 1897. The principal gain this year is in wheat moving eastward from the head of Lake Superior. The wheat movement to Aug. 1 aggregates 21,076,558 bus. as compared with 10,101,450 on the same date in 1898. The shortage in bituminous coal moved through the canals is not as large as was expected. The figures are 1,227,038 net tons to Aug. 1 this year, compared with 1,630,568 on Aug. 1, 1898, or a shortage of 403,530. Of anthracite coal there was moved through the canals to Aug. 1 of this year 392,523 tons. On Aug. 1, 1898, the movement of anthracite aggregated only 193,535 tons.—Marine Review.

"I was at Amherstburg, Ont., a few days ago," says a Cleveland vessel owner, " & I am quite sure from what was said there that the Canadian light-house officials will soon refuse to maintain the line of black stakes on the west side of the channel leading up the river from Bar point light, unless vessel masters are more careful in navigating the channel. The stakes have been carried away repeatedly, & there is quite an expense attached to providing new ones. In one night recently five of them were carried off by passing vessels. There is no reason why vessels should work so far over to the westward of this channel, & it would seem that the captains should have some consideration for important marks of this kind maintained for their guidance. There are few deep-draught Canadian vessels making use of this channel, & it would not be at all surprising, if the trouble continues, to hear of an order from the Canadian government for the removal of the stakes altogether."—Marine Review.

The Marine Review thinks representatives of the Canada-Atlantic Transportation Co. seem to have made a serious mistake in not buying the Menominee steamers which they have under charter, & which go to the National Steel Co. with the close of this season. It says:—"The ships are suited in every way to the Chicago-Parry Sound service of the C. A. Company, & it would seem almost impossible to replace them for next season. In the negotiations, several weeks ago, with M. A. Hanna & Co., a price had been agreed upon for the 5 steamers, & it was undoubtedly 20% lower than they could now be bought for, but the C.A. people allowed the deal to fall through on a question of insurance for the balance of the season. They said they understood they were not to pay insurance for the balance of the season, while the owners of the vessels insisted, of course, that if the vessels were to be sold the insurance was to be paid by the purchasers from the date of sale, as

much so as provision bills or any other items of operating expense would be paid by the new owners."

The organization of the Great Lakes Towing Co., which has taken in all the leading U.S. tug lines on the lakes with the exception of a few, was perfected at Cleveland, Ohio, Aug. 22. The officials of the trust are still figuring with the owners of the lines that are not in the syndicate, & their interests will probably be centered before the close of the season. All the property that was purchased by the organization will be operated by the new company from now on. The principal officers of the company are Cleveland men, & members of the board of directors & executive committee are among the leading vessel owners on the lakes. The principal officers elected are as follows: President & Treasurer, T. F. Newman, General Manager of the Cleveland & Buffalo Transit Co.; First Vice-President, Capt. J. Davidson, of Bay City, President of the Davidson shipyards; Second Vice-President, A. B. Wolvin, of Duluth; Third Vice-President, E. Smith, of Buffalo; Secretary, H. M. Wardwell, formerly with the Inman Towing Co., of Duluth; General Manager, W. A. Collier, Manager of the Vessel Owners' Towing Co., of Cleveland; Chairman of Executive Board, Gen. G. A. Garretson. The capital stock is \$5,000,000, half common & half preferred.

Province of Quebec Shipping.

It is said tenders will be invited at once for the enlargement of the Quebec graving dock, for which Parliament recently voted \$1,170,000.

The revenue of the port of Montreal from the opening of navigation to the end of July was \$94,164, as against \$100,456 for the corresponding period of 1898. The report of the acting harbor master shows a decrease of 37 sea-going vessels arriving in Montreal since the opening of navigation as compared with 1898, the number in the latter year being 424 & this year 387. There is also a decrease in tonnage of 13,679 this year. Up to Aug. 1, 1898, the sea-going vessels entering the port totalled up to a tonnage of 762,276; this year they only reached 748,597 tons.

Hon. R. R. Dobell, of Quebec, presided at a meeting of the Canadian marine insurance section of the London, Eng., Chamber of Commerce on Aug. 24, to consider whether the time had not arrived for a reduction in the shipping rates of insurance to Canada. Mr. Dobell quoted figures proving the security of the St. Lawrence route. In 1898, he said, 249 ships containing large cargoes traversed the route, with but one loss; this year to date 196 steamers with no loss. The growth of Anglo-Canadian trade demanded the removal of the British North America clause from the

insurance policies. He mentioned the Canadian deck load legislation as an illustration of Canada's care for marine interests. A resolution was passed urging the underwriters to alter the conditions now favoring the U.S. as against Canadian trade.

An unusual & dangerous feat of towing was performed Aug. 17. Davis & Sons, contractors for the Montreal Waterworks, had a dredge & 3 scows working just abreast of the big chute in the Lachine rapids, known as Verdun, or the lost channel. As the dredging job was completed, they wished, if possible, to take the dredge & scows out of the rapids & use them elsewhere. The Calvin Wrecking Co. surveyed the channel & placed buoys on the shoals. Their wrecker, Capt. O'Brien, with 2 powerful steamers, was sent down & placed as near to the dredge & scows as possible without descending the rapids. From there about half a mile of steel wire cables were dropped down to the dredge & scows, & with the powerful steam winches, on one of the steamers, they were drawn one by one, until they reached the stern of the first steamer, when both steamers put on full steam & towed them up the seething current through the Lachine bridge & thence into the canal.

Canada's Spirited Canal Policy.

The St. Louis, Mo., Globe Democrat, says: "Whatever may be the faults of Canada, it has given the world a remarkable illustration of enterprise in building important canals. In a short time loaded vessels of 2,500 tons capacity will be able to pass through Canadian canals, with a depth of 14 ft. from Lake Superior to the Atlantic. The Dominion has spent upon its ship canals \$55,000,000, or \$10 per capita. A like expenditure in the U.S. would amount to \$700,000,000, or enough to build four Nicaragua canals, according to the latest estimate. The Mississippi could be deepened to 20 ft. from Minnesota to the mouth for a fraction of the amount. Canada's canals are frozen up half the year, & yet

The Canadian Pacific Railway Company.

Dividends for the half-year ended 30th June, 1899, have been declared as follows:

On the Preference Stock two per cent.

On the Common Stock two per cent.

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

The Preference Stock dividend will be paid on Monday, October 2nd, to Shareholders of record at the closing of the books at the Company's London Office, 1 Queen Victoria Street, London, E.C.

The Common Stock transfer books will close in London at 3 p.m. on Friday, 25th August, and in Montreal and New York on Friday, 8th September. The Preference Stock books will close at 3 p.m. on Friday, 1st September.

All books will be re-opened on Tuesday, October 3rd.

By Order of the Board.

CHARLES DRINKWATER,

Secretary.

MONTREAL, 14th August, 1899.

Spokane Falls & Northern System.
Nelson & Ft. Sheppard R'y Co.
Red Mountain R'y Co.

THE DIRECT AND ONLY ALL RAIL ROUTE
BETWEEN THE

KOOTENAI DISTRICT

And all British Columbia Points, Pacific Coast Points, Puget Sound Points, Eastern Canada and the United States.

Connects at Spokane with Great Northern Railway, Northern Pacific Railway, O.R.R. & Nav. Co. Maps furnished. Tickets sold and information given by local and connecting line ticket agents.

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the people have willingly spent a vast sum to perfect a system reaching from the head of the great lakes to the sea. The money has been properly handled, the engineering is efficient, & the people are satisfied with the investment. There are no canal scandals & no anti-canal party. The whole business has been carried forward practically, honestly & steadily.

"In view of such results secured by a people not very rich or numerous, & restricted to a cold climate, it is certain that the waterways of the U.S. are destined to receive far more attention than now. The smallest Canadian hamlet on Lake Superior will soon have the advantage of a depth of 14 ft. all the way to the ocean. Imagine the Mississippi below St. Paul improved to that extent. A splendid empire would be opened up to steamships able to carry 2,500 or 3,000 tons, at the most favorable rates in the world. Canada deserves credit for pointing the way & spending its millions with far-sighted judgment & liberality."

A Richelieu River Steamer.

On this page is an illustration with deck plans of the passenger steel steamer Majestic recently built in Toronto by the Polson Iron Works for the Richelieu River Navigation Co., of St. John's, Que. Her dimensions are:

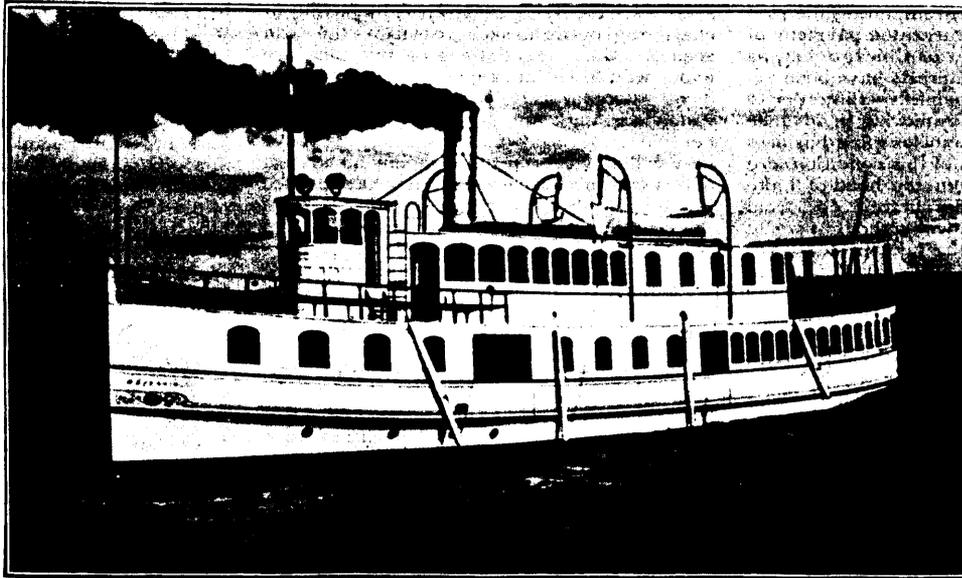
Length, extreme.....	112 ft.
Beam.....	22 1/2 "
Depth of hold.....	7 "
Draft aft.....	6 "

She is fitted with fore & aft compound jet condensing engines, having cylinders 14 & 28 ins. diameter respectively, with 18 in. stroke. She has 2 Fitzgibbon boilers 66 in. diameter & 13 ft. long, tested to 170 lbs. pressure per square inch of steam, & with this machinery is guaranteed by her builders to make a speed of 14 3/4 miles an hour.

The boat is a handsome model, well finish-

ed throughout, & is fitted with 9 staterooms on the promenade deck in addition to the usual day equipment of a boat of her class. She has main promenade & shade decks. The ladies' cabin, upon the promenade deck, is handsomely upholstered in maroon plush, & the general cabin is upon the main deck aft. She is lighted by electricity & has a modern

to about half the required height of 14 ft., & the foundation is being prepared for another 700 ft. of cribbing. The piers of the swing-bridge over the canal are complete on one side, & the abutment on the other side is well under way. The embankments from Cardinal down to Iroquois are all built up to the full height & width, & are being finished off.



THE RICHELIEU RIVER NAVIGATION CO.'S STEAMBOAT MAJESTIC.

The lock at Cardinal is complete, & the contractors are now working on the weir, which is intended to develop a water-power at that point. At Farran's Point there is a cut throughout that a vessel drawing 14 ft. can pass. The lock is also finished. Three powerful dredges are widening out the prism, & a steam shovel is taking off the slopes. In addition to this, a force is employed putting the superstructure on the cribs for the approach to the lower entrance.

Tenders have been invited for the improvements at the upper entrance of the Cornwall canal.

equipment throughout. Her passenger capacity is 400, & her route from St. John's to Lake Champlain through the Richelieu river & Chambly canal. She was designed by W. E. Redway, naval architect, Toronto, & built under his superintendence.

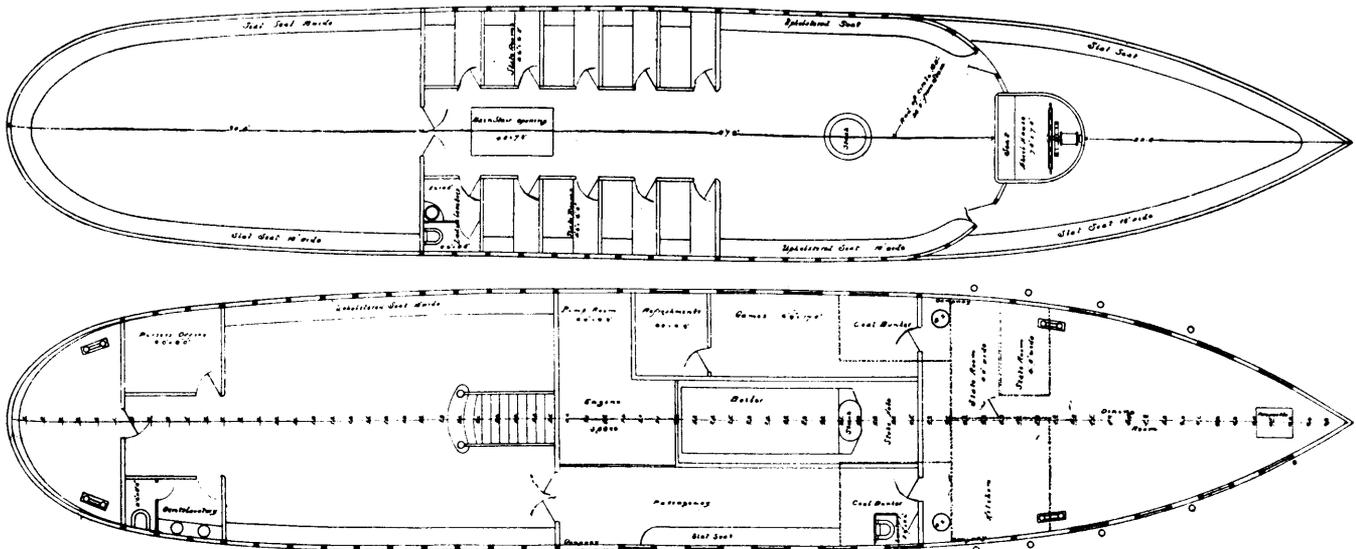
The work consists largely of excavation & cribwork in front of Dickenson's Landing.

High Lake Freight Rates.

The lake freight market is a vessel owners' market for the balance of the season. There is no difference of opinion on this score. Predictions as to how high rates will go are worthless, but it would seem that there is every reason to expect an advancing market up to the closing days of navigation in view of the action of the ore interests during the past 10 days. Last week not more than 3 or 4 charters were made for immediate loading of grain out of Duluth, & yet the rate was advanced to 3 1/2 c. for "spot" vessels, & one ore concern paid \$1.50 for a steamer to make 6 trips with ore from the head of Lake Superior. It is said that this particular ore house, shipping probably 3,000,000 tons in a season, had not secured up to Aug. 1 more than 20-

St. Lawrence Canal Works.

The Deputy Minister of Railways & Canals on returning to Ottawa, Aug. 21, from inspecting the work between Prescott & Cornwall, said he found the north channel, one of the most important undertakings of the route, finished except for the removal of a couple of dams, upon which work has been begun, so that the water will be let in at once. On the Cardinal section the contractors have not a great quantity of excavation to do, & are putting in the cribwork which forms the sides of the prism of the canal. About 700 ft. of this cribwork has been built up



PROMENADE AND MAIN DECKS OF THE RICHELIEU RIVER NAVIGATION CO.'S STEAMBOAT MAJESTIC.

ooo of "wild" vessel capacity. The great bulk of its ore had, of course, been covered by freight contracts running over the greater part of the season, but the general demand for vessels not tied up by contracts resulted in a different situation as to the ore that was uncovered. Chicago grain shippers have claimed that if it were not for the unprecedented demand for vessels in the ore & coal trades the shipments of grain during the past month would not have warranted payment of more than 1c. a bus. out of Chicago, but, as noted above, the ore interests have been actually bidding against themselves, in order to keep their product steadily moving in advance of the grain crop that promises a big business for the fall. As a result of this condition, ore rates are up to \$1.25 from the head of Lake Superior, \$1.10 from Marquette & 90c. from Escanaba, figures which it was thought would never return again in the lake trade, & yet there is no more surplus of vessels than there was in the first days of the season when the leading ore rate was down to a 60c. basis.

Vessel men are indulging in some speculation regarding business for next season. With pig iron sold well into next year at prices that would warrant the payment of high lake freights, rather than chances being taken on a repetition of this season's experience in transportation matters, the ship owners are of the opinion that there will be a call very early for the use of their property, & some of them think that advances made to the ore interests even now might result in contracts being closed at \$1 a ton on ore. Their ideas of the market for next year are based on nothing less than the dollar figure, but there is, of course, nothing tangible as yet on this score. It is reasonable to expect, however, that contracts for 1900 will be closed up much earlier than in past years.

The few coal shippers who covered Lake Superior sales at 30c. lake freight contracts certainly have reason to congratulate themselves. There was probably 600,000 tons in all covered at the opening of navigation at this rate. Practically the entire output to Lake Superior could have been covered at the same figure if the shippers had started in early enough, but when they were willing to pay the 30c. contract rate it was too late. Now they are called upon to follow the repeated advances in ore and grain, & the Lake Michigan coal rate has reached 80c. with vessels going light to Lake Superior rather than accept anything less than 60c. to Duluth, Superior and other ports at the head of that lake. These marked advances are certainly a great hardship in the coal trade, especially with shippers who sold coal delivered, but as with other commodities, it would seem that the season is so far advanced & coal shipments so much short of requirements, that advancing rates must be expected up to the last days of navigation.—Marine Review, Aug. 17.

There is no let-up in the advance of freight rates on the great lakes. The efforts of grain shippers at Duluth to charter vessels for Sep. & Oct. at prices that are considerably better than \$1.50 on ore from the head of Lake Superior, would indicate that there is some fear among these shippers of inability to move the grain at any price. The ore companies that will be hardest pressed for the balance of the season are fortifying themselves by buying or chartering outright such vessels as they can secure. More negotiations of this kind are under way & will be announced within a few days. Lumber rates are following the advance in grain & ore, & as the owners of lumber carriers rarely make season contracts, they will all store up more money as a result of this season's business than they have earned in the past 3 or 4 years put together. From the head of Lake Superior to either Chicago or Lake Erie ports are almost anything that is asked. Charters are said to have been made at \$3.25 a thousand for the most desirable boats.—Marine Review, Aug. 24.

Yukon & Northern Navigation Matters.

During June & July 36 vessels arrived at Dawson with an aggregate capacity of 7,285 tons.

The Empire Steamship line has built warehouses at Dawson containing 52,750 cubic feet of space.

The str. Canadian, which left Dawson July 22, made a record trip of 3 days, 21 hours & 55 minutes to White Horse, winning a purse of \$500 offered by N. McAaulay to the first boat that should make the run in less than 4 days.

The Bennett Lake & Klondike Navigation Co.'s steamers Ora & Flora are reported as making their trips between White Horse & Dawson with great regularity. The Flora recently made a round trip between Dawson & White Horse in a little over seven days, including a delay on Lake Laberge loading fish.

It is reported from Seattle that another northern combine has just been effected by Manager Flockton, of the Bennett Lake & Klondike Navigation Co.; Capt. J. Carroll, of the Flyer line, operating the steamers Pingree & Low; Col. Williams, operating the Clifford Sifton; & possibly Capt. John Irving, operating the Gleaner. The compact, it is stated, will compete for the through freight & passenger business against the Canadian Development Co., & will work in conjunction with the Humboldt & the City of Seattle. The report further states that the proposed movement has the hearty approval & support of the White Pass & Yukon Ry. Co.

The steamship companies operating on the Lake Bennett & Upper Yukon route, composed of the Canadian Development Co., Bennett Lake & Klondike Navigation Co., &

the John Irving Navigation Co., have issued a notice to shippers to the effect that shipments for Dawson City & Yukon points can only be accepted subject to these conditions: That the carriers do not guarantee to effect delivery before the close of the present season of navigation, & are released by the shippers & consignees from all claims in respect of non-delivery. That freight charges to Bennett, B.C., be prepaid. The carriers will make every effort to deliver all shipments this season, but cannot undertake the responsibility of a guaranteed delivery.

Large numbers of scows are being used on the Upper Yukon. Shippers say they can save 2 to 4c. a pound on freight by scows as against steamers, & that the time consumed is very little, if any, more. The str. Kilbourne of the Upper Yukon route is towing scows to Miles canyon, where they shoot the rapids to White Horse, & are there taken in tow by the str. A. J. Goddard, of the same line, which tows them down to Thirty Mile river or any other point desired. This Co. has a monopoly of the towing below the canyon. Considerable freight, in from 4 to 15 ton lots, goes down by the scows, & now that the water is falling all along the route, many shippers predict that it is the safest way, as large steamers below White Horse will be in danger from now on of grounding. According to recent reports Lake Lindeman has fallen a foot & a half, but Bennett continues to rise slowly.

The steamers Tyrrell & Anglian, the former owned by the British America Corporation & the latter by the Canadian Development Co., were wrecked in July—one below White Horse & the other at Five Fingers. The Tyrrell, the larger of the two, struck a rock at Thirty-Mile. The Anglian struck a snag 9 miles below Big Salmon. She left White Horse July 23, with about 30 tons of freight, all of which, except about 2 tons, was saved. The Anglian is the smallest of the Canadian Development Co.'s fleet of four steamers, & was very fast, having recently undergone extensive repairs, including a new boiler. She was only on her

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

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second trip. The Tyrrell is a composite vessel of wood & iron, & was built last year by the Polson Iron Works, Toronto, & put together at Vancouver for the C.P.R. Co. to ply on the Stikine. She was a very good vessel, & like the Anglian, equipped with all modern conveniences. When the Stikine business fell off she was taken to the Yukon, & has only completed one or two trips on the river. She was probably worth on the lakes \$80,000, although of course she did not cost that to build. At the latest advices both steamers had been raised & left on Aug. 6 for Dawson, neither being very badly damaged.

On July 31, the Alaska Commercial Co.'s str. Louise was wrecked on the Yukon, a short distance above St. Michael, resulting in the total loss of a government cargo, amounting to about \$100,000. She was chartered by the U. S. Government to haul 3 barges, containing cargoes of government supplies for Rampart & Circle City, up the Yukon. She left St. Michael on the day before the disaster, with one barge lashed to each side, & fastened by means of guy-ropes in front. When 24 hours out one of the guy-ropes broke & the barge swinging around loosened the others. The shock in striking the side of the boat turned one of the barges upside down, & the entire contents were lost. The other two barges, after drifting about among the rocks, were finally beached. A fraction of the cargo had gone into the river, & what still remained on board was so thoroughly damaged as to be of little or no value. In the meantime the big steamer, while trying to save the barges from destruction, went on a rock. A huge hole was punched through her bottom, & she settled rapidly in 10 ft. of water. When the str. Alliance left St. Michael on Aug. 6 the Louise had been raised, & a crew was engaged in pumping her out. Beyond the water damage to her appointments, & the hole in her bottom, she was all right. No effort had been made to pick up a salvage on the cargo, as it was not considered worth the trouble.

& unitedly, present questions of grave, national & international importance in connection with the economical navigation of the Great Lakes, their connecting waterways & harbors. An able U. S. engineer estimated that the Chicago drainage canal alone would cause a reduction of 7 ins. in the Lake Erie levels. In almost all of the communications upon the subject it is assumed that small lowerings of levels caused by such works as the Chicago drainage canal, for example, are unimportant because the changes in level due to natural causes are so much greater. This may be a serious mistake. The important lake levels to the modern navigator are the lowest levels resulting from natural causes. Vessels are so loaded as to utilize every inch of available

whatever in comparison with the uncertainty & variability & the great importance of the rainfall & evaporation." The latest of the proposed projects affecting lake levels appears to be an open cut canal from Lake St. Clair to Lake Erie. It is time for those interested in maintaining, and, if possible, increasing the lake levels, to advocate & obtain the appointment of an international commission of able U. S. & Canadian engineers to carefully investigate & consider this entire question, recommending to their respective governments a permanent policy that may protect the interests of lake navigators without needlessly restricting important private enterprises desiring to utilize for power or other useful purposes the waters of the Great Lakes. It is a

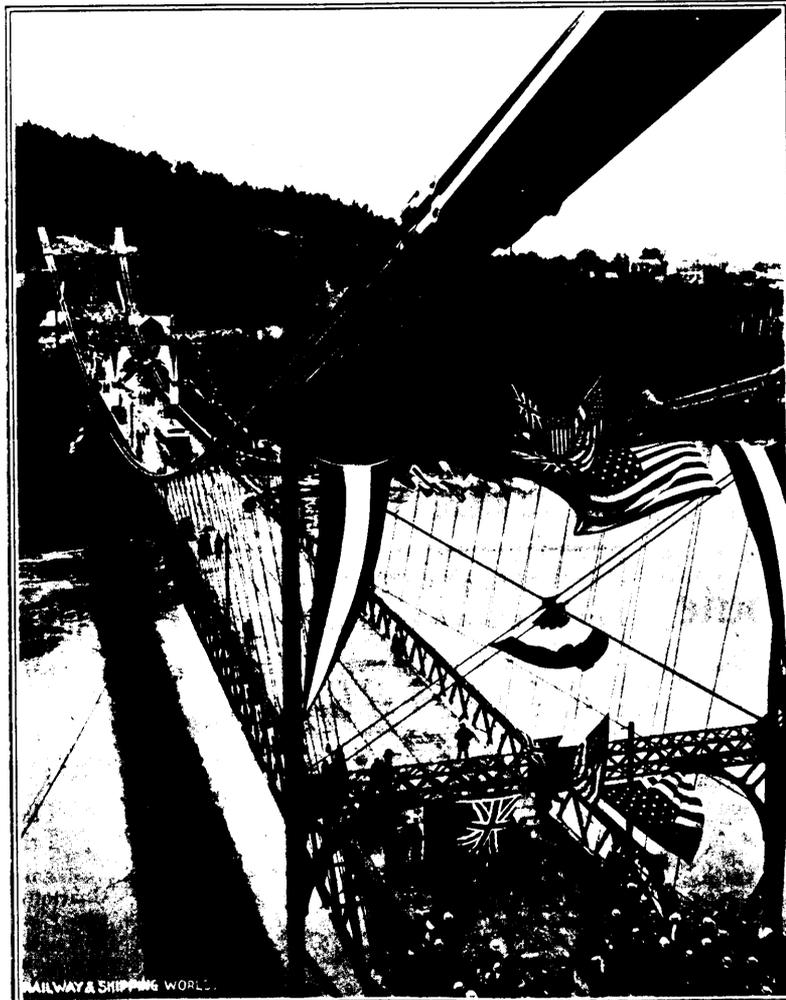
question affecting all the producers & consumers of grain, ore, lumber, coal & other staples depending upon the Great Lakes for their cheap movement to the home & foreign markets.

Commenting on the foregoing, Col. W. P. Anderson, Chief Engineer of the Dominion Department of Marine, writes: "I am sorry I have not time at present to go fully into this important subject, but I endorse most emphatically Mr. Firth's view, that comparatively small reductions in lake levels are of vital importance, especially to modern U. S. lake freighters, & I also agree with Mr. Firth in urging a permanent policy which may protect the interests of lake navigators without needlessly restricting private enterprises."

Q., H. & F. W. Navigation Co.

The directors of this recently incorporated company are A. T. Wood, M.P., R. A. Lucas, W. Southam, C. E. Doolittle, C. S. Wilcox, W. D. Long & A. B. McKay, all of Hamilton. The prospectus is as follows: This Co. is being formed for the purpose of constructing, acquiring & navigating steam & other vessels for the conveyance of passengers, goods & merchandise between the ports of Canada & any port of any other country, & of carrying on the business of common carriers of passengers & goods, & of forwarders, wharfingers & warehousemen, & of dealing in goods, wares & merchandise. The new canals between Prescott

& Montreal are expected to be opened this autumn. These waterways will allow steamers to go down to 14 ft. instead of to 9 which is the present capacity of the canals. It is believed there is a good opening for a line of large steel vessels to run in connection with the railways operating between Quebec, Montreal, Fort William & Duluth & other intermediate ports, carrying grain & ore down & general merchandise up. The down cargoes of grain & ore are unlimited & the return loads only require the boats to work up the business, because every year increases the quantity of goods passing westward from Montreal. This tonnage is increasing from 10 to 20 % a year, & with the opening of the new canals, when large vessels can go through from Fort William to the



THE QUEENSTON-LEWISTON BRIDGE OVER THE NIAGARA RIVER.

The photograph, taken from the U. S. side, shows the first electric car crossing on July 21. A full description & plans of the bridge appeared in our Aug. issue, pg. 248.

Lowering the Lake Levels.

F. J. Firth, of Philadelphia, President of the U. S. Lake Carriers Association, recently wrote the Marine Record as follows: During the many years in which the important questions of lake levels has received much intelligent consideration there has been a practically universal assent to the conclusion that the governing factors are rainfall & evaporation. It is also well understood that these factors cause wide variations in levels between seasons & between different periods in the same season. Of late years new factors have called for investigation & careful consideration. The construction of the American & Canadian locks at the "Soo" with no remedial works in the river to offset their draft upon Lake Superior; the "Soo" power canals upon the Canadian & U. S. sides of the river; the power canals at Niagara Falls; & the Chicago drainage canal; all, separately

depth of water. Lowering of levels from natural causes will often hold a fleet of deeply laden vessels at the head of a strait or the entrance of a harbor, until the conditions change & there is a sufficient depth of water to enable the vessel to proceed with safety. If artificial constructions, such as drainage & power canals, are to still further & permanently reduce the lowest natural levels it becomes a very serious matter, & one that may involve hundreds of thousands of dollars added each season to the cost of carrying the ore, grain or other staple products of our country.

It is a mistake to assert, as was done in a recent communication on lake levels in your paper, that comparatively small reductions in lake levels are "of no practical importance

ocean without lightering at Kingston a tremendous impulse should be given to the freight carrying business.

At present it is only intended to build 2 large vessels to carry grain, iron, ore & coal between Fort William or Duluth, Montreal & intermediate ports. It is estimated these will each cost from \$120,000 to \$130,000. It is therefore intended now to issue only \$175,000 of stock, & the balance required for the Co.'s purposes will be raised by issuing debentures. Following is an estimate of the operating expenses of such a vessel as the Co. will build, namely, one of 2,200 tons burden (75,000 bus. of wheat), & 14 ft. draught, per day.

Expense account.....	\$ 4 00
Profit and loss.....	1 00
Steward (provisions).....	5 00
Telegrams & Customs.....	1 00
Crew.....	23 00
Engine.....	2 00
Fuel.....	25 00
Insurance.....	25 00
Outfit.....	5 00
	\$91 00

The following is an estimate of the earnings of such a vessel in a season of 236 days, with no return cargo :

9 trips of 11 days each with ore, with 1,900 gross tons of \$1.00, Duluth to Hamilton, \$1,900.....	\$17,100 00
Less canal tolls, \$52 x 9.....	\$ 468 00
Less expenses for 99 days at \$90 a day.....	8,910 00
	9,278 00
8 trips grain, Lake Superior to Montreal, 16 days each, 75,000 bus. at 4c. \$3,000.....	\$24,000 00
Deduct handling charges.....	\$ 2,120 00
Tolls on cargo.....	1,800 00
Tolls on vessels.....	640 00
Expenses 130 days at \$90 each.....	11,700 00
	16,260 00
Profit.....	7,740 00
Add profit on grain trips.....	7,722 00
	15,462 00

Estimate of earnings of grain & ore down, & return cargoes of coal, from Lake Erie ports to Fort William :

9 trips of ore, 15 days a trip, with return cargoes of coal, 1,900 tons of ore a trip, at \$1.00 Duluth to Hamilton, \$1,900 x 9.....	\$17,100 00
2,400 tons of coal a trip at 25c (\$600).....	5,400 00
	\$22,500 00
Less canal tolls.....	\$ 468 00
Expenses 132 days at \$90.....	12,150 00
	12,618 00
Profit on ore & coal trips.....	\$ 9,882 00
6 trips grain from Lake Superior to Montreal 75,000 bus a trip at 4c. (\$3,000).....	18,000 00
6 trips coal Lake Erie ports to Fort William 2,400 tons a trip at 25c.....	3,600 00
	\$21,600 00
Less handling charges.....	\$1,590 00
Tolls on grain.....	1,350 00
Tolls on vessel.....	480 00
	3,420 00
Less expenses 108 days at \$90.....	9,720 00
	\$18,180 00
Profit on grain & coal trips.....	\$ 8,460 00
Add profit on coal & ore trips.....	9,882 00
	\$18,242 00

Designedly the above estimates of profits have been made on a much lower rate of freight than that prevailing now, in order that the estimates will stand the most critical examinations by those who are familiar with the transportation business. At present there are not more than 4 vessels, Canadian & United States combined, capable of taking 75,000 bushels through to Montreal, & it is not to be expected that such a low average as 4c a bus. will prevail on this route for some years to come. This season the average has been 6c a bus. through to Montreal. At this date they are offering \$1.50 a ton on ore from Two Harbors on Lake Superior to Deseronto, & the rate on coal from Lake Erie ports to Fort William is 60c. Therefore at present rates

the total profit for the season on each of these vessels, instead of being as in the 1st of the above estimates, \$15,462, would be \$36,000, & on the 2nd estimate instead of being \$18,342 would be \$47,000, but on either basis of freight the Co. should earn good dividends. If the Hamilton Steel & Iron Co. succeeds in obtaining ore from the north shore of Lake Superior, it will be absolutely necessary for it to have Canadian vessels of a sufficient tonnage, as no U.S. vessel can trade between Canadian ports. So far as competition is concerned, it would take 6 vessels of the above tonnage to deliver from Fort William at Hamilton, during July & Aug., 100,000 tons of ore, and it would not pay the Co. to keep its vessels employed upon ore in spring & fall when the rates on grain are high. Recollecting that this Co. may reasonably expect to carry the ore for the Hamilton furnaces, that there are between 30,000,000 & 40,000,000 bus. of Canadian grain to be transported during the season, without considering the vast quantity of U.S. grain, the question of competition is a matter of no particular concern to the Co.

ELECTRIC RAILWAYS.

Quebec Electric Railways.

Montreal Park & Island Ry.—At a recent meeting of Montreal City Council it was decided that the cars of the Park & Island Co. must not enter the streets of the city, & a resolution was passed ordering the City Attorney & the City Surveyor to take action to prevent it. These officials have decided to ascertain just what cars bearing the name of the Park & Island Co. belong to that Co., & just what cars bearing this name are owned by the Street Ry. Co. It is known the Street Ry. Co. has rented the Park & Island Co. a

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number of cars, which the former Co. claims are its own, & which are allowed to use the city's streets. The City Surveyor says it may be necessary, in order to put the resolution of the Council into force, to employ the aid of the police to stop Park & Island cars, if any enter the city, from doing so. The legal aspect of the case is being considered by the City Attorney.

Montreal St. Ry.—The gross earnings are:

	1898.	1897-8.	Increase.
Oct.	\$133,419.69	\$116,093.09	\$17,326.60
Nov.	125,126.10	110,698.98	14,427.12
Dec.	127,678.00	113,029.33	14,648.67
Jan.	125,276.04	110,155.96	15,120.08
Feb.	113,838.02	102,425.99	11,412.03
Mar.	123,754.11	114,476.98	9,277.13
Apr.	130,405.96	110,510.27	19,786.69
May.	145,466.38	123,308.08	22,158.30
June.	156,858.34	132,964.61	23,893.73
July.	154,048.07	143,986.63	10,061.44
	\$1,335,870.71	\$1,177,758.92	\$158,111.79

The Montreal Terminal Ry. Co.'s annual meeting will be held at Montreal Sep. 20. This Co. was formerly known as the Montreal Island Belt Line Ry. Co.

The Quebec Ry. Light & Power Co.'s annual meeting will be held in Quebec Sep. 12.

The Lines in Western Canada.

British Columbia Electric Ry.—Application has been made to the London Stock Exchange Committee to appoint a special settling day in & grant a quotation to this Co.'s 20,000 ordinary shares of £10 each; 12,000 non-cumulative 5% preference shares of £10 each, & £250,000 4½% 1st mortgage debentures.

General Manager Buntzen has written the New Westminster Board of Trade, explaining delay in building the extension of the New Westminster city service to Sapperton, & stating that the Co.'s engineers have been instructed to survey the proposed line, construction on which is to be commenced early next spring.

Nelson Electric Tramway.—The following officers have been elected: President, F. W. Peters; Vice-President, T. J. Duncan; other Directors, C. S. Drummond, E. Garcke, W. A. Macdonald, J. Laing; Secretary, T. C. Duncan. It has been decided to push on construction as fast as possible, & it is said the two miles of track required by the city by-law will be exceeded. (Aug., pg. 247.)

Winnipeg Electric Ry.—The Portage Avenue line has been extended. The Co. has notified the city council that if insisted on a line will be built on Sherbrooke St., but it would prefer to make some other arrangement.

Ontario Electric Railways.

Brantford Electric Ry.—The City Council has called the attention of the Co. to a number of clauses in its franchise & agreement with the city, which it is alleged has not been observed, notably in regard to the repair of tracks & the running of a 15 minutes' service on all lines, with the exception of the Park extension, from 6.30 a.m. Commenting on the matter the Courier says:—"Citizens who complain about the car service, perhaps, should not forget the fact that it is entirely owing to outside enterprise that Brantford, for so many years now, has had an electric car service. We think we are right in saying that there is not a dollar of Brantford money in the enterprise. Ratepayers should also not forget that it is thanks to the enterprise of the Co. that Mohawk Park was inaugurated, & the park is undoubtedly one of the best advertisements Brantford ever had, bringing thousands of people to the city. We are of the opinion that if an up-to-date service was inaugurated in Brantford it could be made a dividend getter. We believe that a 10 minute service on the Brant Ave. & East Ward loop could be made

to pay better than a 15 minute service. We believe, in fact, that it would be to the advantage of the street railway to have a well ballasted track, the latest & most up-to-date cars, a service running on scheduled time, & live up to the letter of its agreement all through with the city, or even go it one better."

Manager Barron has written the Council claiming that the tracks & wires are in good shape.

On Brantford's civic holiday, Aug. 14, the Co. carried over 9,000 passengers to Mohawk Park.

Chatham.—It is expected another project for the establishment of an electric street railway will be submitted to the City Council in the near future.

Fort Erie to Chippawa.—Messrs. Frenyear & Hatmeyer, of the Westinghouse Electric Co. at Buffalo, & E. Baxter, of Fort Erie, called on the Chairman of the Niagara Falls Park Commissioners, in Toronto, recently & talked over a plan for building an electric railway along the Canadian bank of the Niagara River from Fort Erie to Chippawa. They are anxious to secure the privilege from the Ontario Government of running along the chain reserve, & are endeavoring to make terms & conditions in order that a company may be formed for the carrying out of the project. The matter will be brought up at the next meeting of the Park Commissioners, when a proposition will be submitted. The railway, if completed, would form the last link in the chain of electric roads along both sides of the river. Mr. Baxter is the owner of a line of ferries which operate between Buffalo & Fort Erie, & these would probably be used to convey the trolleys to Buffalo, where connection with the lines of the International Traction Co. would be secured.

The Hamilton Consolidations.—A meeting of shareholders of the Cataract Power Co. was held at Hamilton, Aug. 9, Hon. J. M. Gibson presiding, to ratify by-laws for the absorption of the Hamilton St. Ry., the Radial Ry. & the Hamilton & Dundas Ry. The action of the directors in buying stock in these companies was approved of, & the necessary assent was given to the carrying out of the big deal. All the financial arrangements have been made, & as soon as details are settled, these systems will pass into the hands of the Cataract Power Co. Then the systems will be operated by power from Decew Falls. Another transmitting wire will be put up between Hamilton & Decew Falls. It is not known what change of management will be made. It was decided to increase the capital stock of the Co. from \$250,000 to \$4,000,000. The other companies will be merged into the Cataract Co. The question of the building of the lines to Galt & Guelph did not come up, but this scheme will be taken up as soon as the big deal is completed.—Spectator.

London St. Ry.—The strike still continues. The following London despatch of Aug. 20 shows what the Co. has to contend with:—"One of the St. Ry. Co.'s cars ran off the track at the Pottersburg loop, 2 miles from the city, about 9.30 last evening & was badly wrecked by a crowd numbering between 150 & 200. A coupling pin had been placed on the track. The car was no. 96, in charge of Motorman Rogers & Conductor Clough, both of whom ran away when the crowd gathered. The car windows were all broken, the seats smashed into kindling wood, & fire started in two or three places in the car. The mob dispersed on the arrival of two carloads of special police, & the wrecked car was taken to the barns without trouble. The point at which the trouble occurred is outside the city limits. No arrests have been made."

The conduct of a large portion of London's citizens in connection with this strike has been disgraceful, & of course the city is suffering in

consequence. It is said some business men are working quietly towards securing united effort to break the boycott of the street cars which is damaging business materially.

Metropolitan Electric Ry.—The extension from Richmond Hill to Newmarket was opened Aug. 14. The time from North Toronto to Newmarket is 1½ hours, 4 round trips being made. As soon as the power plant at Bond's Lake is completed, which is expected to be early in Sep., the service will be increased & baggage cars will be put on. The Postmaster-General recently went over the line & it is said the Co. is likely to receive a mail contract.

Ottawa Electric Ry.—The line to Britannia will start about 500 ft. from Holland Avenue, Hintonburg, & will run parallel to the Richmond Road & at a distance of 300 yards from it. The line will be 4½ miles long, & the terminus will be at the beach about an eighth of a mile past Britannia. A station will be erected at the village & another at the lake shore. E. E. Perreault, C.E., is laying out the line. The construction work will be very solid, the rails being 70 lb. These will be ordered forthwith. Construction will be started as speedily as possible, & the line will be in operation this autumn. The line will be double track giving direct connection with all parts of the city. The beach to which the line runs is an ideal one for bathing. No steps have been taken to arrange for the laying out of a park which will be undertaken later.—Citizen.

Owen Sound.—J. H. McLauchlan says work will soon be started on the projected electric street railway, & that he anticipates no difficulty in disposing of all the stock necessary to build & equip the road. This year's experience with the park prompts the expectation that there will be sufficient traffic to meet running expenses, & that in two or three years the road would be a paying concern. No finer route could be desired than one skirting the water's edge along the bay shore.

Queenston-Lewiston Bridge.—The illustration on page 275 shows the first car crossing on July 21. The photograph was taken from the U.S. side of the river. (Aug., pg. 249.)

The Queenston Heights Bridge Co.'s annual meeting will be held at Niagara Falls, Ont., Sep. 12.

Toronto Railway.—The gross earnings are:

	1899.	1898.	Increase.
Jan.	\$95,690.12	\$86,502.36	\$9,187.76
Feb.	91,860.30	82,402.19	9,458.11
Mar.	103,234.88	92,318.42	10,916.46
April.	95,212.37	86,898.83	8,313.54
May.	104,806.62	92,670.35	12,136.27
June.	109,063.18	94,119.32	14,943.86
July.	116,824.94	104,302.92	12,522.02
	\$716,692.41	\$639,214.39	\$77,478.02

On Aug. 7, the Civic Holiday, the Co. carried 139,000 passengers, exclusive of transfers, an increase of 18,000 passengers over the Civic Holiday of 1898. For the quarter ended June 30 the Co. paid the city \$1,934.39 percentage & \$1,854.96 mileage.

Maritime Provinces & Newfoundland.

Halifax, N.S., to Annapolis or Digby.—At a recent meeting of the Maritime Board of Trade W. V. Brown moved.—Whereas the need of a second & competing transportation railway line between Halifax & St. John, through Western Nova Scotia, is generally recognized, & whereas certain London & Berlin capitalists have intimated their willingness to construct an electric railway from Halifax to Annapolis or Digby provided certain concessions be offered; therefore resolved, that in the opinion of this board every encouragement should be given towards the furtherance of this enterprise by our Government, boards of trade, municipal & town council & the press. After discussion the motion was withdrawn for this year.

ASSESSMENT SYSTEM.



THE BEST FRATERNAL BENEFIT SOCIETY IN THE WORLD.

THE SPLENDID RECORD OF THE I. O. F.

Cost to Join the I.O.F.

(For \$1,000 Mortuary Benefit.)

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

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

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

Benefits given by the I.O.F.

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

The Members, the Benefits, and Their Assurance

At 31st December Each Year.

Year.	Total Membership.	Benefits Paid.	Total Surplus.	Surplus per Capita.	Death Rate per 1,000.
1881	1,019	\$ 1,300 00	\$ 4,568 55	\$ 4 48	4.50
1882	1,134	12,058 86	2,967 93	2 61	11.00
1883	2,210	9,493 68	10,857 65	4 91	4.73
1884	2,558	13,914 31	23,081 85	9 01	4.23
1885	3,642	26,576 99	29,802 42	8 18	7.76
1886	5,804	28,499 82	53,981 28	9 30	4.85
1887	7,811	59,014 67	81,384 41	10 44	5.78
1888	11,800	89,018 16	117,821 96	9 98	6.43
1889	17,349	116,787 82	188,130 36	10 84	5.85
1890	24,604	181,846 79	283,967 20	11 51	5.18
1891	32,303	261,436 21	408,798 20	12 65	6.40
1892	43,024	344,748 82	580,597 85	13 49	6.25
1893	54,484	392,185 93	858,857 89	15 76	5.47
1894	70,055	511,162 30	1,187,251 11	16 94	5.67
1895	86,521	685,000 18	1,560,733 16	18 03	5.50
1896	102,838	820,941 91	2,015,484 38	19 60	5.56
1897	124,685	992,225 60	2,558,832 78	20 52	5.66
1898	144,000	1,176,125 14	3,186,370 36	22 12	5.67

For Further Information Respecting this Great Fraternal Benefit Society, Apply to

Oronhyatekha, M.D., S.C.R., Toronto, Ont.

James Marshall, 24 Charing Cross, London, Eng.

John A. McGillivray, Q.C., S.S., Toronto, Ont.

A. E. Stevenson, 6436 Kimbark Ave., Chicago, Ill.

Or Any Officer or Member of the Order.

Moncton, N.B. St. Ry.—It is said the Co. has plans prepared for considerable extensions of its system & the establishment of a park at the outskirts of the town.

St. John's, Nfld.—The contract for this line provides for its running from the cross-roads, Riverhead, through Water St., to a distance convenient for running up to Duckworth St., thence along past the railway station up Military Road around Prescott St. to Queen's Road, thence down Playhouse Hill, along Gower Street to Patrick St. It is probable that a track will also run along Le Marchant Road connecting with the main line, & thus practically bringing the whole city within a block or so of the cars.—Nfld. News.

The New York, New Haven & Hartford Ry. has put in service on the line from Braintree, Mass., to Cohasset a combination passenger & baggage car fitted with electric motors, with which it can propel itself & 4 or 5 other cars. The car has four motors of 160 h.p. each, & it is claimed it can draw 7 others at the rate of 50 miles an hour.

General Telegraph Matters.

The cable rates between South Africa & England will be reduced to 4 shillings a word in Sep.

The following offices have been opened on the government line to Yukon: Bennett, Caribou Crossing, Tagish, Whitehorse, Lower Labou, Hootalinqua.

It is said funds have been raised at Juneau, Alaska, for the construction of a telegraph line to Skagway, to connect with the line to Dawson, & that it is hoped to have the line in operation by October.

A London cablegram says, that on Aug. 16, Marconi, in his experiments with wireless telegraphy at Dover, made a complete success, the messages passing through several miles of cliffs, upon which Dover Castle stands and 12 miles across the sea.

A certificate of reduction of the capital stock of the Pacific Postal Telegraph Cable Co. of New York City from \$1,000,000 to \$100,000 has been filed. The amount of the company's capital actually paid in is \$1,000,000 & the liabilities are less than \$5,000. Among the directors are J. W. Mackay, the Bonanza millionaire, & C. R. Hosmer, of Montreal.

Telegraph & telephone matters in the Kootenay district of British Columbia continue to make progress. The Vernon & Nelson Telephone Co. now has telegraphic as well as telephonic communication between its Greenwood office & Rossland. It is stated though, that when the C.P.R. telegraph is extended to Boundary Creek, the V. & N. Co. will confine its operations to the telephone, leaving the telegraph to the C.P.R. Another report is that a branch of the Corbin telegraph system now connecting Nelson & Rossland with Spokane, Wash., is to be constructed from Marcus, via Cascade City, Grand Forks & Greenwood to Midway, & be afterwards extended thence back across the International Boundary line to Republic, Wash. The Columbia Telegraph & Telephone Company, which lately opened a telephone office at Midway, is completed to Camp McKinney, which camp has the advantage of telephone connection with all the Boundary towns & with Rossland & Spokane.

It is said in connection with the announcement that Marconi, the inventor of wireless telegraphy, will shortly visit the United States, that he will in all probability be asked to confer with officials of the Light-House Board with reference to the use of the invention in marine work generally. Experiments with wireless telegraphy have been carried on for

some time past at the U.S. light-house depot at Tompkinsville, Staten Island, by William F. Clarke, a New York electrician, under the direction of Col. D. P. Heap, engineer officer in charge of the third light-house district. These experiments have been made with a view to determining the availability of wireless telegraphy for purposes of communication between light-houses, light-ships, merchant vessels and light-house stations. The interest of the Light-House Board in the present efforts will be readily appreciated when it is understood that the board has sought for years for some method of establishing communication between the shore and moving ships. Some years ago a telephone system was tried but it proved impracticable.—Marine Review.

At a recent meeting of the Maritime Board of Trade, Mr. Hassard, of Charlottetown, introduced the question of improved telegraph communication between Prince Edward Island & the mainland. He said the Anglo-American Telegraph Co. was subsidized to the extent of \$2,000 a year. It is an old monopoly in existence since 1855. For some reason or other the Government seemed to have the opinion that P.E. Islanders would be satisfied with anything. One complaint was that there was no communication with the mainland after 8 p.m. It was also complained that rates from the Island were double that from other points of Canada. A telegram to Boston cost \$1, for instance. He moved a resolution to the effect that the Dominion Government be memorialized to either take over the service or insist on a readjustment of rates. The Government had a right to demand better service from the Co. The closing of the offices at 8 p.m. was a grievance to the newspapers of the Island and their readers. They wanted the offices open till midnight. There are 9 miles of cable. It was exceedingly inconvenient not to be able to send a message after 8 p.m., & visitors to the province wonder at the Island people putting up with such inconvenience. The papers could not get late press despatches & the public were prevented from getting the latest news in a reasonable time. The matter was referred to a committee for the purpose of communicating with the Dominion authorities.

Wireless Telegraphy at Sea.

The Marconi system did marvels in the recent Imperial naval manoeuvres. Admiral Domville's fleet was hastening to a rendezvous, to pick up the convoy of food ships which Canada was supposed to have sent to the mother country, & was all on fire with eagerness to learn whether the opposing fleet, which simulated the predatory ships of France, had been beforehand. A flying squadron steamed ahead of the laboring battleships 17 knots an hour to the big ships' 11. It found the convoy, & then by means of 2 ships disposed between the squadrons the battle fleet was told the news. Eighty-six miles separated the two squadrons, & communication could have been established in storm, in darkness or in fog, as easily as in fine weather. The news anticipated by 4 hours the actual juncture of the two squadrons, which were approaching each other at a combined speed of 21 knots an hour.

The tactics of the fleets throw a strong light upon modern naval warfare. Sir Compton Domville had a strong but rather slow battle squadron of 10 battleships, which, when working together, could go at best 11 knots an hour. He also had a score of cruisers, some fast, some of medium speed, & 28 torpedo boat destroyers. A couple of slow ships, representing a food convoy from Canada, were approaching the British Isles. In theory the convoy had been sent from Halifax, our easternmost port & safely-guarded harbor, had presumably been escorted for part of the way

by the warships on our coast, & had then steered across the Atlantic, trusting to the immensity of the ocean to elude discovery by hostile warships of strength or numbers superior to the one big cruiser which escorted it. Approaching the narrow seas, where all ocean routes converge & where discovery would be easy, it was to be met at a previously arranged rendezvous by the big British fleet of Sir Compton Domville & escorted home. That is, no doubt, very much the way in which our wheat, our cattle, our bacon, our exports generally would be sent to Britain if the Empire were at war with an enterprising naval foe. Meanwhile a lighter but swifter fleet, under Admiral Rawson, 8 battleships, which could easily make 14 knots an hour in company & 19 cruisers, backed by 24 torpedo boats, disposed along what represented the French coast, was eagerly looking for this convoy, even as the high seas would in time of war swarm with squadrons & single cruisers bent on crippling Great Britain's huge foreign trade. The "French" fleet had the speed & the start; the British fleet had the strength to win any battle in which it might engage, & knew exactly where the convoy was. Moreover, it had the Marconi system to aid its search.

Admiral Domville steered for the rendezvous, arranging a series of other rendezvous so as to make it next to impossible to miss the convoy fleet. One of his 1st class cruisers, the Galatea, was already with it as escort. His other 1st class cruisers were sent on ahead at high speed to pick up the convoy at the earliest possible moment; the 2nd class cruisers were sent out in a cloud to search for the opposing fleet, so that, if it were getting near the convoy, it could be fended off. The Juno, on which was Signor Marconi, with the installation of his wireless telegraphy system, kept some 30 miles ahead of the battleships. In due time the big cruisers found the convoy, all safe. One, the Europa, immediately turned back, & soon was some 25 miles from the convoy & 30 from the Juno. Then the two ships got into communication. From the Europa to the Juno, from the Juno to the fleet went the news; & Sir Compton Domville, 86 miles from the convoy, was in definite touch with it & had won the game. Meanwhile, the opposing fleet was desperately searching an immense area of blue water & had for hours at a critical moment been paralyzed by a fog so dense that ships might have passed within a mile of it without detection.

To understand the full value of the feat performed when the fleet & the convoy, invisible to each other, practically conversed, we may assume France & Great Britain to be at war, & need to arise for a close watch upon, say, Brest. From Brest to the Lizard is 110 miles, & from the Lizard messages can be sent to British naval stations. A cruiser could remain outside the harbor mouth, 2 or 3 more could be disposed at equal distance intervals between there & the Lizard. Whatever the advanced cruiser might see would be known in Plymouth in an hour. With flag signalling a chain of 8 or 9 cruisers would be needed & they could communicate only in clear weather. With the Marconi system the news would go in fog or sunshine, storm or calm. If a French ship were to leave Brest, within an hour or two a British ship could be leaving Plymouth, 130 miles away, to look after her. Such a system of intelligence would greatly lessen the dim uncertainty as to the enemy's movements which someone has called "the fog of war."

Defects in the system there are as a matter of course. Two showed themselves during the manoeuvres. It is slow work transmitting the messages, & signals from other transmitters may disturb the process. For instance, the Juno was once taking a message from the flagship when suddenly a despatch began to come in which was being sent from Alum Bay in the Isle of Wight, 50 miles away, to Poole,

on the English coast, some 25 miles away from the Isle of Wight. The sector through which the ray is sent can be limited to a certain degree, but at a range of 30 miles would spread out to a width of seven miles. An enemy would be sure to set his transmitters so as to interfere with signals to the utmost, while his receivers would be adjusted to take in signals from any fleet he was watching. Thus all messages would have to be in cipher, & in cipher constantly changed, as no cipher is undiscoverable. It is obvious, however, that the discovery is in its infancy, & with further improvements marvels may be accomplished in the direction of keeping touch between ships that to the eye are solitary upon the face of the waters.—Globe.

General Telephone Matters.

C. F. Sise, President of the Bell Telephone Co., & Mrs. Sise, returned to Montreal Aug. 14, from a short holiday spent at St. John, Nfld.

Some information about the telephone lines in the Kootenay district will be found under the head of General Telegraph Matters on page 279.

The Eastern Telephone Co. has built a line between the Dominion Iron & Steel Co.'s office, at Sydney, N.S., & the International pier, for the private use of the Dominion Co.

On Aug 1 the Bell Telephone Co. made a sweeping reduction in rates on all its long distance lines for night messages. Between the hours of 6 p.m. & 8 a.m. the rates have been reduced to one-half the day rate, except where the tariff is 25c. or under, no rate being reduced below 25c. The following are a few examples:—

	Day rate.	Night rate.
Toronto.... Montreal	\$2.00	\$1.00
".... London	.60	.30
".... Kingston	1.00	.50
".... Brockville	1.25	.65
".... Morrisburg	1.50	.75

The only cases where the night rate is not one-half the day rate, is where the day rate

is less than 50c., as seen by the following cases:—

The 45c. day rate would be 25c. at night,
 " 40c. " " 25c. "
 " 25c. " " 25c. "
 and anything under 25c. remains unchanged.

Among the Express Companies.

The Canadian Ex. Co. has closed the Montreal & St. Laurent route.

The Canadian Ex. Co. has opened offices at Anson, Ont.; Carmel, Que.; Depot Harbor, Ont.; Dunbarton, Ont.; Norwich Jct., Ont.; St. Nicolas, Que. Summer offices have been opened at Niagara-on-the-Lake & Queenston, Ont.

On Aug. 15 there was received at Joliette, Que., by Dominion Express, \$7,000 in bills for the local branch of the Banque Nationale. As the safe in the local express office had been out of order for several days, the Co. sent an inspector at once to open it & arrange for the safe storage of the money. After working until nearly midnight the inspector was forced to give up the task, & the \$7,000 was handed over to the C.P.R. agent, who put it in the chimney in the cellar. In the morning he found the chimney vacant & the money gone, & it has not been recovered.

The shipment of two wives by express from Issaquah, Wash., to their husbands at Dawson City, by the Nugget Express Co., is something of a novelty in the express business. Mrs. L. T. Mullarkey & Mrs. L. T. Jones are the ladies who constitute the novel consignment. An express messenger accompanies them to look after their baggage, etc., & he will take a receipt from the respective husbands on delivery of the goods. Precisely what would happen if either of the husbands was dead or could not be found, & where the liability of the Co. would end, is not stated.—Express Gazette.

A recent despatch from Seattle, Wash., said:—"Some of the wealthiest capitalists of Pittsburg, Toronto, Ont., & Denver are in-

terested in the passenger & express line to be established from the Yukon River, in Alaska, to the Klondike mining region. J. T. Cornforth, of Denver, is the Western guiding spirit. J. H. Ruse, a Toronto capitalist, is President. The company will be known as the Yukon Overland Express & Transportation Co. Mr. Cornforth stated that work on the line would be commenced inside of two weeks. He is hiring large gangs of men for the construction work. A thousand will be needed." There is no J. H. Ruse in the Toronto directory, & we are not aware of any such "capitalist" in this vicinity. Perhaps the balance of the despatch is equally reliable.

Advertising Express Business.

The Commercial Appeal of Memphis recently contained a large advertisement of the Southern Express Co., which suggests the thought that express companies are losing an opportunity in not keeping their advantages before the public. Particularly is this true in the case of express money orders, which have undoubted advantages over post office orders. Nor do the majority of people know of all the things one may get an express company to do; take, for instance, this summary from the advertisement mentioned:—

"The Southern Express Co. receives & forwards freight, valuables, money, etc., to all points accessible by express. Collects bills, with or without goods. Carries free any orders sent for goods to be returned by express, when enclosed in a government stamped envelope, & goods are called for & brought on return train. Deeds may be sent through this Co. to be recorded & returned to the sender. Baggage checks taken & baggage obtained & shipped to owner. Goods in pawn redeemed. Money orders sold on all accessible points in the U.S. & Canada—also payable in Cuba. A receipt is always given, & you can get your money back if the order is lost. There is no cheaper way to send money than by Southern Express Co.'s money orders."

THE HUNTER, ROSE CO.,

All kinds of... Limited.

PRINTING, BOOKBINDING,
OFFICE STATIONERY
AND ACCOUNT BOOKS

Temple Building, • • Toronto.

STEEL

LaBELLE STEEL CO.

Pittsburgh, Pa.

MANUFACTURERS OF

FINE TOOL STEEL

For Railway Purposes

Track Tools,

Punches, Dies,

Drills, Magnets, etc.

And all purposes where requirements are exacting.

Steel Forgings. Case Hardening Steel.

W. G. BLYTH,

Agent for Canada,

29 Melinda St., - Toronto

ADVERTISING

ON THE

CANADIAN PACIFIC RAILWAY.

The exclusive privilege of advertising in the Stations, Ticket Agencies and Hotels of the CANADIAN PACIFIC RAILWAY, and on that Company's buildings, premises, telegraph poles and fences, is controlled by THE ACTON BURROWS COMPANY.

The franchise embraces the whole of the C. P. R. System, including all branches and leased lines, comprising 7,178 miles of railway, 69ⁿ stations, and a number of ticket agencies and hotels.

Advertising on the C. P. R. is like every department of that Company's service, modern, up-to-date and reliable.

FOR RATES AND FURTHER PARTICULARS APPLY TO

The Acton Burrows Company,

29 Melinda St., Toronto, Canada

BRANCH OFFICE:

197 Lombard Street, Winnipeg—S. A. Erskine, Resident Agent.

The Purchasing Agents' Guide

To the Manufacturers of & Dealers in Steam & Electric Railway, Steamship, Express, Telegraph & Telephone supplies, &c.

Accident Insurance Travelers' Insurance Co. Montreal.	Foghorns Rice Lewis & Son. Toronto.	Semaphore Arms Acton Burrows Co. Toronto.
Aerated Waters E. L. Drewry. Winnipeg.	Forgings Rhodes, Curry & Co. Amherst, N.S.	Shafting Rice Lewis & Son. Toronto.
Air Brakes & Fittings Westinghouse Mfg. Co. Hamilton, Ont.	Gas & Gasoline Engines Northey Manufacturing Co. Toronto.	Shipbuilders' Supplies Rice Lewis & Son. Toronto.
Ales E. L. Drewry. Winnipeg.	Gates Page Wire Fence Co. Walkerville, Ont.	Ship Carpenters' Tools Rice Lewis & Son. Toronto.
Aluminum Rice Lewis & Son. Toronto.	General Supplies The Hudson's Bay Company.	Ships Polson Iron Works. Toronto.
Anchors Rice Lewis & Son. Toronto.	Grain Elevators John S. Metcalfe & Co. Chicago, Ill.	Shovels Rice Lewis & Son. Toronto.
Asbestos Eureka Min. Wool & Asbestos Co. Toronto.	Grease Eureka Min. Wool & Asbestos Co. Toronto.	The Hudson's Bay Company.
Axles Rhodes, Curry & Co. Amherst, N.S.	Groceries The Hudson's Bay Company.	Signal House Numbers Acton Burrows Co. Toronto.
Babbitt Rice Lewis & Son. Toronto.	Half Tones Acton Burrows Co. Toronto.	Signals Noah L. Piper & Sons. Toronto.
Badges John Martin, Sons & Co. Montreal.	Hardware Rice Lewis & Son. Toronto.	Signs Acton Burrows Co. Toronto.
Beams Rice Lewis & Son. Toronto.	The Hudson's Bay Company.	Snow Ploughs Rhodes, Curry & Co. Amherst, N.S.
Bells Rice Lewis & Son. Toronto.	Headlights Noah L. Piper & Sons. Toronto.	Speed Indicators Rice Lewis & Son. Toronto.
Bells Rice Lewis & Son. Toronto.	Hose Rice Lewis & Son. Toronto.	Spikes Rice Lewis & Son. Toronto.
Belting Eureka Min. Wool & Asbestos Co. Toronto.	Illustrations Acton Burrows Co. Toronto.	Springs Rhodes, Curry & Co. Amherst, N.S.
Rice Lewis & Son. Toronto.	Iron Rice Lewis & Son. Toronto.	Station Name Signs Acton Burrows Co. Toronto.
Blankets and Bedding The Hudson's Bay Company.	Iron Signs Acton Burrows Co. Toronto.	Steamboats Polson Iron Works. Toronto.
Block & Tackle Rice Lewis & Son. Toronto.	Japans McCaskill, Dougall & Co. Montreal.	Steamboat Signs Acton Burrows Co. Toronto.
Blocks Rice Lewis & Son. Toronto.	Lager Beer, &c. E. L. Drewry. Winnipeg.	Steam Whistles Rice Lewis & Son. Toronto.
Boat Fittings & Hardware Rice Lewis & Son. Toronto.	Lamps Rice Lewis & Son. Toronto.	Steel W. G. Blyth. Toronto.
Boiler Covering Eureka Min. Wool & Asbestos Co. Toronto.	Noah L. Piper & Sons. Toronto.	Rice Lewis & Son. Toronto.
Mica Boiler Covering Co. Toronto.	The Hudson's Bay Company.	Switch Targets Acton Burrows Co. Toronto.
Boilers Polson Iron Works. Toronto.	Lanterns Rice Lewis & Son. Toronto.	Telegraph Office Signs Acton Burrows Co. Toronto.
Boiler Tubes Rice Lewis & Son. Toronto.	Launches Polson Iron Works. Toronto.	Telegraph Spoons Rice Lewis & Son. Toronto.
Bolts Rice Lewis & Son. Toronto.	Life Insurance Independent Order of Foresters. Toronto.	Telephone Office Signs Acton Burrows Co. Toronto.
Bridge Numbers Acton Burrows Co. Toronto.	Travelers' Insurance Co. Montreal.	Tie Plates F. E. Came. Montreal.
Buckets Rice Lewis & Son. Toronto.	Linoleum and Floor Coverings The Hudson's Bay Company.	Tobacco and Cigars The Hudson's Bay Company.
Bunting Rice Lewis & Son. Toronto.	Locomotives Baldwin Locomotive Works. Philadelphia.	Toilet Paper Rice Lewis & Son. Toronto.
The Hudson's Bay Company.	Lubricators Rice Lewis & Son. Toronto.	The Hudson's Bay Company.
Carpets The Hudson's Bay Company.	Matches E. B. Eddy Co. Hull, Que.	Tools Rice Lewis & Son. Toronto.
Cars Rhodes, Curry & Co. Amherst, N.S.	The Hudson's Bay Company.	Track Jacks Duff Manufacturing Co. Allegheny, Pa.
Car Wheels Rhodes, Curry & Co. Amherst, N.S.	Milepost Numbers Acton Burrows Co. Toronto.	A. O. Norton. Coaticook, Que.
Castings Rhodes, Curry & Co. Amherst, N.S.	Mohair The Hudson's Bay Company.	Track Tools Rice Lewis & Son. Toronto.
Chains Rice Lewis & Son. Toronto.	Numbers Acton Burrows Co. Toronto.	Trucks Rice Lewis & Son. Toronto.
Cross Arms, Top Pins & Side Blocks The Firstbrook Box Co. Toronto.	Oakum Rice Lewis & Son. Toronto.	Typewriters Creelman Bros. Typewriter Co. Georgetown.
Curtains The Hudson's Bay Company.	The Hudson's Bay Company.	Creelman Bros. Typewriter Co. Toronto.
Cuts Acton Burrows Co. Toronto.	Oils Eureka Min. Wool & Asbestos Co. Toronto.	Uniforms John Martin, Sons & Co. Montreal.
Door Signs Acton Burrows Co. Toronto.	Galena Oil Co. Franklin, Pa.	Uniform Caps John Martin, Sons & Co. Montreal.
Dry Goods The Hudson's Bay Company.	Office Signs Acton Burrows Co. Toronto.	Valves Rice Lewis & Son. Toronto.
Electric Car Route Signs Acton Burrows Co. Toronto.	Packing Eureka Min. Wool & Asbestos Co. Toronto.	Varnishes McCaskill, Dougall & Co. Montreal.
Electric Car Trucks Baldwin Locomotive Works. Philadelphia.	Pipe Rice Lewis & Son. Toronto.	Vessels Polson Iron Works. Toronto.
Enameled Iron Signs Acton Burrows Co. Toronto.	Pipe Covering Eureka Min. Wool & Asbestos Co. Toronto.	Waste Eureka Min. Wool & Asbestos Co. Toronto.
Rice Lewis & Son. Toronto.	Mica Boiler Covering Co. Toronto.	Rice Lewis & Son. Toronto.
Engines, Stationary & Marine Polson Iron Works. Toronto.	Plushes The Hudson's Bay Company.	Noah L. Piper & Sons. Toronto.
Engraving Acton Burrows Co. Toronto.	Porter E. L. Drewry. Winnipeg.	Water Meters Westinghouse Mfg. Co. Hamilton, Ont.
Toronto Engraving Co. Toronto.	Portland Cement Rice Lewis & Son. Toronto.	Wheelbarrows Rice Lewis & Son. Toronto.
Express Office Signs Acton Burrows Co. Toronto.	Printing The Hunter, Rose Co. Toronto.	Window Blinds The Hudson's Bay Company.
Fencing Page Wire Fence Co. Walkerville, Ont.	Mail Job Printing Co. Toronto.	Wines and Liquors The Hudson's Bay Company.
Ferry Signs Acton Burrows Co. Toronto.	Pumps Rice Lewis & Son. Toronto.	Wire & Wire Rope Rice Lewis & Son. Toronto.
Flags Rice Lewis & Son. Toronto.	Rails Rice Lewis & Son. Toronto.	Yachts Polson Iron Works. Toronto.
The Hudson's Bay Company.	Rivets Rice Lewis & Son. Toronto.	
	Rope Rice Lewis & Son. Toronto.	
	The Hudson's Bay Company.	

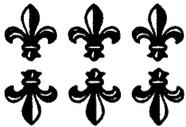
INCORPORATED
1670.



The Hudson's Bay Company

HAS GENERAL STORES

In Manitoba, the Northwest Territories,
and British Columbia, where the best
goods can be obtained at the Lowest
Prices.



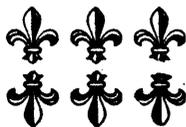
INCORPORATED
1670.



The Hudson's Bay Company

HAS LANDS FOR SALE

Farming and Grazing Lands on Easy
Terms of Payment and without any
conditions of Settlement.



INCORPORATED
1670.



The Hudson's Bay Company

MAKES THE BEST FLOUR

Highest Awards at the Winnipeg Indus-
trial Exhibitions. Mills at Winnipeg and
Prince Albert.