

Canadian Railway and Marine World

March, 1920

The Canadian Pacific Railway's President's Speech at Winnipeg.

During his recent trip of inspection over the C.P.R., to the Pacific coast, the President, E. W. Beatty, K.C., was entertained at luncheon by the Canadian Club at Winnipeg, and made the following remarks:—"Since I had the pleasure of visiting western Canada in May last, a very important change in the transportation situation has taken place, through the sudden consummation of a plan for the acquisition of the Grand Trunk and Grand Trunk Pacific Railways with a view to their incorporation into the Canadian National Railways System. In due course, when the legal and other formalities have been fulfilled, this consolidation will take place and the test of the possibility of successful administration of a vast system of railway under the aegis of the government will be made. It is probably the most ambitious and comprehensive task which any government or any people has taken upon themselves, except temporarily and in emergent necessity. It may be a test over a period of years and the results may be expensive, but under honest management, with independent and nonpolitical administration, and above all with accurate information supplied to the public as to the result of these operations, the people of this country will be able to determine for themselves whether that system is the best and if not what improvement should be made in it. I make no comment on the wisdom or otherwise of this further extension of government ownership of railways in Canada. The matter has been settled by the representatives of the people. I am sorry, however, that a little more time and information were not given, both to the people themselves and their parliamentary representatives, because I would have been better satisfied that the decision then represented the view and desire of the vast majority of the people of this country, especially of the business communities, which have a particular stake in the railway situation and a particular knowledge of what constitutes efficient railway service. The decision has been taken, however, and the consolidated system will be administered by a board selected by the government, with experienced railway operators and executives in immediate charge of the property, with parliament, as is inevitable, in full control of the financial support to be given, and the government of the day with full responsibility for the expenditures of the monies voted for such purposes. The result of this means that the railway situation in Canada is now completely changed, and the country must depend, for some time at least, for additional railway facilities, where needed, upon the Canadian National Rys. or the C.P.R., because with preponderating mileage under government control, it is not likely that much capital will be attracted to new railway enterprise for the rewards which such investments might bring. Therefore, I think it may be fairly stated that such additional construction as takes place within the next few years

will depend upon the willingness of the Canadian National Railways and the C.P.R. to appreciate these needs and their financial ability to meet them. This is a situation which is without parallel in any place in the world where a government-owned and operated railway and a privately owned and operated railway, not greatly different in the matter of mileage, both with, of course, adequate credit, have in their hands the almost exclusive right to remedy transportation insufficient at most places throughout Canada. It is true, I think, that this will provoke a highly competitive condition. How effective this competition will be will depend upon its honesty and its fairness. If political methods are to be introduced into the competition, and facilities provided in accordance with political expediency, or if political rewards follow the extent of the support or otherwise which is granted by shippers to the Canadian National Rys., then I should say the competition would be unfair, and of doubtful commercial or national value.

"During the course of the year, Canadian railway companies had to meet a great many problems, due to the emergencies which prevailed, which were unusual and of great importance, and which required new methods to secure their being dealt with competently. For that purpose the Canadian Railway War Board was constituted, and through it the efforts of all railways were co-ordinated to meet the extraordinary demands through the movement of war traffic and soldiers. The work was well and efficiently done; was so well done, in fact, that not one hour's demurrage was caused to Atlantic shipping by delays on Canadian railways. I have received a letter recently from Sir Joseph Maclay, British Minister of Shipping, in which he points to this fact as a conspicuous example of the effective way in which the work of the Canadian railways was performed. Since the war, there has been constituted the Railway Association of Canada, whose executive comprises the presidents of the principal railways in Canada, and in the organization of which is contained various committees, from the operating, financial and traffic officers of the companies, who are constituted to act jointly, when joint action would be in furtherance of the traffic necessities of the people or of the railways. Mr. Hanna and I sit on the executive committee, and I am very hopeful that with the experience he there gains, he will be confirmed in his original decision to be a railway man and not a politician.

"I have known Mr. Hanna for a great many years, and my appreciation of his personal qualities, and official ability as disclosed in the numerous exacting and difficult positions he has been called upon to fill, is very great. The fact that he was trained in his earlier years in the C.P.R. service and has always, both personally and officially, retained a very sincere affection for his former company

has not detracted from my appreciation of him.

[Editor's note.—Mr. Beatty's reference to Mr. Hanna having been in the C.P.R. service was evidently made under a misapprehension, and probably arose from the fact that Mr. Hanna was from 1886 to 1896 in the Manitoba & North Western Ry.'s service, but he left that company before its property was taken over by the C.P.R., on a lease for 999 years, from July 1, 1900.]

"Mr. Hanna and I have a great many problems in common, and others which are individual, because peculiar to the different systems of railway operation, in which we are respectively involved. Occasionally it may be necessary in public utterances for us to refer to each other, or the interests which we represent, but I recognize that these references will be few and far between, because I can imagine nothing of much less public interest or public importance than my opinion of the Canadian National Railways and Mr. Hanna, unless it is Mr. Hanna's opinion of the C.P.R. and myself. Mr. Hanna rather departed from the rule a few weeks ago in Toronto, and with his characteristic Scotch pawky humor, whatever that means, said that the trouble with me was that I did not believe in public ownership, but that I would hope for its success, and that notwithstanding the fact that the C.P.R. had occupied a very unique and strong position within the empire, in a few months time it would be number two instead of number one, and that was where the shoe was pinching. As I say, Mr. Hanna intended this to be a humorous remark, but Scotch humor is sometimes hard to understand, and his audience, a most intelligent Toronto audience, misunderstood him, and applauded his prophecy of the advent of another railway system, bigger and better than the Canadian Pacific. I imagine that Mr. Hanna and I could sit down today and discuss with the utmost candor the general railway situation. Incidentally to that we could, I think, agree without much discussion as to which was number one and which was number two. I say this without any hesitation or reservation, because I know what a wise and experienced man Mr. Hanna is. I can say with equal confidence, I think, that five years from now Mr. Hanna and I could discuss the question with equal frankness, and agree between ourselves as to which was then number one and which was number two. Of course, it would be the same railway, but as I have said, Mr. Hanna is a very wise man. Five years hence he may even be wiser than he is now, but that would not be necessary to enable him to reach a correct conclusion.

"Mr. Hanna has recently adopted the role of prophet for the Canadian National Rys. He is a cheerful prophet, and he paints a glowing picture of the future of the properties under his charge. This is as it should be, and he is wise in making it as attractive as possible. He has recently taken his

pencil in hand and added together the joint mileages of the Canadian Northern, Intercolonial, National Transcontinental, Grand Trunk and Grand Trunk Pacific Railways in Canada and the United States; he has likewise added the number of locomotives and cars of all descriptions, tons of freight carried on all systems and has concluded the Canadian National Rys. are, or will be, the greatest railway system in the world. I do not dispute his figures as to mileage, and I do not imagine it is of much public importance whether the gross earnings of the combined systems are greater or less than the C.P.R. Up to the present, they are less, although the mileage is greater, but I do say that the test of the best or worst railway is not necessarily determined by mileage, and 'best' and 'biggest,' are not necessarily synonymous terms. Companies must stand or fall on the character of the service they render, and if one railway's service is consistently better than another's, if its officers are more efficient, its service more expeditious and its business transactions with the public more satisfactory, it is the railway which will be rightly regarded as the best, whether its mileage be somewhat more or somewhat less than its rival's.

"The Canadian National Railways and ourselves are confronted with conditions of operating which are almost without precedent, and which, with the largest measure of support we can both receive, still render these operations extraordinarily difficult. We both appreciate that the people is a jealous and exacting mistress, but we also know that the public is a generous and persistent friend, once its confidence is secured. We know, too, that no sentiment will control the success of our efforts. Heretofore in Canada there has been, I think, a prevailing decency in competition, which has been encouraging. I have no reason to expect that that will change, or that the Canadian National Rys. to further its interests, and extend its business, will be any less reputable than those taken by the C.P.R. or by the Canadian Northern, the Grand Trunk, or any other system, which is now consolidated, or to be consolidated into the Canadian National Railways, but there is always the danger of political methods being adapted to the business of railroading, and political influence being used where business methods fail to accomplish the desired result. I was very glad to read Mr. Hanna's strong plea for independent administration, which means business administration, because I would dislike to see post offices, docks, and public works and institutions of all sorts made dependent upon whether the community desiring them gave support to the Canadian National Rys. If that happened, we might have to establish libraries, hospitals, theaters and parks, in order to meet that new and peculiar political railway competition. The foundation of competition should be the same. The legislative control of parliament, the regulatory control of the Board of Railway Commissioners should be the same in respect of all railways operating under the federal jurisdiction. This is not the case as yet, the government having reserved by statute special rights to the Canadian National Rys. not enjoyed by private companies, and withheld it in certain particulars from the Board of Railway Commissioners' jurisdiction, but I am hopeful that in time this will be remedied. The ac-

counting methods and financial returns of all companies should likewise be absolutely identical. Given these essential premises and the Canadian National Rys. the independent administration which their officers desire, and you will see railways competing in this country under conditions which will stimulate their efforts and redound to the advantage of all those who do business with them. Whether these conditions will prevail, I cannot say, because the almost irresistible inclination of those who supply the money is to demand a voice in its expenditure and in the management of the institutions for the financing of which they are responsible.

"I do not pretend to speak for the Canadian National Rys., but no doubt, as in the case of the C.P.R., large sums are required to complete work that has been heretofore impossible to undertake, and to extend facilities to meet the rapidly increasing needs of the country. Neither of us can stand still; we must progress if we are to receive our fair share of the country's prosperity. In order to do this we must have money, and money can be obtained only in two ways, by stock or bond issues, or by revenue. Operating increases cannot be taken care of by the former. The extraordinary recent costs of maintenance and operation can be met only in one way and that is by increased revenue to the companies, and in this we need the sympathetic support of the people, who demand a high standard of railway operation and railway service which can be secured only, in view of the prevailing high prices, by paying a transportation charge at least equal to the increased cost of operating. You are all aware that in 1918 railway wages were increased in Canada by an amount aggregating \$77,000,000, an amount greater than the interest on the whole of Canada's war debt; the rates were at the same time increased and they brought in \$43,000,000 additional revenue to the companies; in other words, the increase in rates failed to equal the increase in wages by the enormous sum of \$34,000,000. There can be only one end to that condition, unless the revenues are readjusted to meet these increasing costs. While rates will have to be again increased, they cannot be increased indefinitely, and our great struggle from now on will be to reduce costs in order that in time rates themselves may be lowered. There are only two ways of reducing railway rates; one is by large increase in the volume of traffic, and the other is by decreased cost in the carrying of traffic. No ordinary increase in business will be sufficient to take care of the extraordinary increases in the cost of labor and material which the railway companies have experienced in recent years. I know that you, gentlemen, are very well informed on the subject of railways. I know that many of you are, or have been, persistent users of the railways, that you have competent critics, and that you have come in contact with their operations in a more intimate way than most citizens of this country. You will I think be the first to appreciate the accuracy of my statement when I say that at no time in the history of this country has there been more need for an appreciation of the problems of the railways and more need for support to the railways than now.

"There is little if any, merit in that old time aloofness with which railway companies dealt with the public. The

C.P.R. is a citizen of Canada, not the first citizen of Canada, but one of the most corpulent. Its problems are the problem of Canada; it has a grave interest in the economic and industrial future of Canada. I can imagine nothing which concerns Canada's progress that does not concern directly, or indirectly, the C.P.R. It is, therefore, proper in its own interest and that of its shareholders, that its officers should take an interest in its commercial and trade problems, and further the solution of them to the best of their ability. It is equally proper that Canadians should concern themselves somewhat with the problems and administration of the C.P.R., and there is no occasion, so far as the C.P.R. or any other railway, is concerned, for the people to regard them as soulless corporations, when their stake in the country is so great, and their interests and your interests so much in common. There is always in the minds of some people a mystery in the existence and operation of any large corporation, whether government owned or privately owned. It is supposed to conceal within the walls of its offices machinery for many things not directly connected with its enterprise. Nothing could be further from the facts. Being public utilities, they are open to more criticism than other institutions. Their affairs are more public and their officers better and more widely known. They are easier to understand, though they are huge in size, and their ramifications are great. Since 1904 Canadian railways have been required to justify every rate, act and practice which affected the public or the public interest. Can this be said of any other enterprises?

"The problem of increased costs practically brings the railway companies in common position with other Canadian citizens. The cure for it is greater production and trade expansion, hard work and thrift. It sometimes seems to me that we lose sight of the very fundamentals on which the prosperity of this country has been heretofore based. The foundation of our economic stability rests upon perseverance, work and the rewards which come from it. We have no more right to expect to receive high wages and high compensation unless we can give an adequate return in service, than we have a right to expect to appropriate and keep what does not belong to us. The necessity is preached from one end of the country to the other, and it cannot be preached too often, because unless it is practiced this country will not enjoy its share of the world's prosperity and will not be able to meet the very disquieting conditions which have resulted from the economical upheaval of the last five years. Heads of financial interests see it, and advise economy of all kinds. Individuals appreciate it and to some extent are practising it. Governments, federal, provincial and municipal, must also see it, and practice it, or else hard times will succeed our present era of prosperity. It has always seemed to me that hard times do succeed any era of great spending or extravagance, and it is a serious commentary on the common sense and sanity of people that it is necessary for the realization of these consequences to be obtained by experience, instead of by a careful appreciation of the trend of events, and by modification and prudence anticipate and prevent the natural consequences of extravagance and

Birthdays of Transportation Men in March.

imprudence. I am an optimist; I do not see how anyone could be anything else so far as Canada is concerned, with its natural wealth, and the virility of its people, but with great optimism can go equally great discretion, and the fact that a man, or a nation, is full of hope and confidence, does not mean that he should disregard the warnings of the times or with his eyes on his own future fail to observe the economical pitfalls immediately in front of them.

"I would seriously urge upon you all the paramount necessity of quiet, sane consideration of Canada's economic problems as they develop. It is, I think, now conceded that most of the errors made in past years have been due to a too ready acquiescence in illconsidered policies, and a serious indifference by the people as a whole to the correctness, or otherwise, of the conclusions reached. I am, I think, quite within the mark in saying that our principal railway and economic mistakes have been due to the lack of keen appreciation in those whose concurrence permitted the adoption of these policies. There is no time in the history of this country when the views of extremists should prevail as little as now. The difficulties which confront us are not insurmountable, if the solution of them is given the moderate and sane consideration which is indispensable to a correct conclusion. Appeals to prejudice and traditional hostility are fruitless of permanent good. Given the proper recognition of the diversity of economic necessities which inevitably exists in a country the size of Canada, and a serious and single desire to meet and dispose of them in the interests of the country as a whole, and I would have every confidence that our errors would be reduced to a minimum and the economic strength of the country increased beyond the possibility of serious setback."

Change in Maintenance of Way Flagging Rules for Impassable Track.

The Board of Railway Commissioners passed general order 280, Dec. 23, 1919, as follows: Re general order 188, April 23, 1917, approving regulations for uniform maintenance of way flagging rules for impassable track, and general orders 216 and 248, amending the same, and the board's direction that part of the said orders affecting flagging, other than manual flagging, stand for further consideration. Such further consideration having been had, it is ordered that general order 248, Aug. 19, 1918, be amended by striking out regulation 9 on page 2 of the order and substituting therefor the following, viz.: "That a signal of a serviceable type, to be approved by the board, be used to display the signals directed to be provided under rules 3 (b) and 6 (yellow signal) of this order and rule 35 (yellow signal) of the Uniform Code of Operating Rules."

Regulation 9, of general order 248, which has been repealed, was as follows: "9. That the Brennan signal device, as approved by the board, or a signal of an equally serviceable type attached to the base of the rail, to be approved by the board, be used to display the signals directed to be provided under rule 3 (b) and 6 (yellow signal) of this order and rule 35 (yellow signal) of the Uniform Code of Operating Rules."

Many happy returns of the day to:—

W. G. Annable, General Passenger Agent, Canadian Pacific Ocean Services, Ltd., Montreal, born at Ottawa, Mar. 3, 1875.

John Archibald, Locomotive Foreman, C.P.R., Coquitlam, B.C., born at Edinburgh, Scotland, Mar. 13, 1872.

Allan Cameron, Superintendent, Land Branch, Department of Natural Resources, C.P.R., Calgary, Alta., born near Owen Sound, Ont., Mar. 14, 1864.

H. S. Carmichael, Passenger and Freight Manager, Canadian Pacific Ocean Services, Ltd., London, Eng., born at Glasgow, Scotland, Mar. 7, 1874.

F. G. J. Comeau, District Freight Agent, C.P.R., Halifax, N.S., born at Meteghan River, N.S., Mar. 10, 1859.

W. A. Cooper, Manager, Sleeping, Dining and Parlor Cars and News Service, C.P.R., Montreal, born there, Mar. 22, 1871.

A. E. Cox, General Storekeeper, Canadian National Rys., Winnipeg, born at Huddersfield, Eng., Mar. 12, 1863.

Senator N. Curry, Chairman, Canadian Car & Foundry Co., Montreal, born in King's Country, N.S., Mar. 26, 1851.

C. C. Curtis, Manager, Cape Breton Electric Co., Sydney, N.S., born at Battle Creek, Mich., Mar. 27, 1883.

C. T. Delamere, Engineer of Construction, Eastern Lines, C.P.R., Montreal, born at Brainerd, Minn., Mar. 18, 1881.

H. G. Dring, European Passenger Manager, Canadian Pacific Ocean Services Ltd., London, Eng., born at Easton, Northamptonshire, Eng., Mar. 8, 1881.

Patrick Dubeé, Secretary-Treasurer, Montreal Tramways Co., Montreal, born there, Mar. 4, 1876.

Frederick Elliott, President, Victoria Navigation Co., Ltd., Thurso, Que., born at Montreal, Mar. 8, 1858.

M. P. Fennell, Jr., Secretary-Treasurer and Comptroller, Montreal Harbor Commissioners, and Secretary, American Association of Port Authorities, Montreal, born there, Mar. 13, 1885.

W. R. Fitzmaurice, Superintendent, Division 2, Maritime District, Canadian National Rys., Campbellton, N.B., born at Bedford, N.S., Mar. 19, 1870.

R. A. Gamble, General Yardmaster, Winnipeg Terminals, C.P.R., born at Dublin, Ireland, Mar. 1, 1876.

J. Halstead, Division Freight Agent, C.P.R., Calgary, Alta., born at Bracebridge, Ont., Mar. 2, 1877.

R. M. Hannaford, Assistant Chief Engineer, Montreal Tramways Co., Montreal, born there, Mar. 22, 1865.

C. A. Hayes, Vice President, Traffic, Canadian National Rys., Toronto, born at West Springfield, Mass., Mar. 10, 1865.

H. T. Hazen, Engineer, Maintenance of Way, Canadian National Rys., Toronto, born at Truro, N.S., Mar. 14, 1870.

J. I. Hobson, Treasurer, Canada Steamship Lines, Ltd., Montreal, born at Guelph, Ont., Mar. 30, 1872.

N. J. Holden, President, The Holden Co., Ltd., Montreal, born at Nobleton, Ont., Mar. 22, 1866.

A. R. Holby, Master of Bridges and Buildings, Mountain Division, Grand Trunk Pacific Ry., Smithers, B.C., born at Rawdon, Que., Mar. 23, 1859.

Frank Lee, Engineer, Maintenance of Way, Western Lines, C.P.R., Winnipeg, born at Chicago, Ill., Mar. 7, 1873.

J. M. McKay, Superintendent, Saska-

toon Division, Saskatchewan District, C.P.R., Saskatoon, born at Tiverton, Ont., Mar. 13, 1868.

J. B. McLaren, General Auditor, G.T. R., Montreal, born at Perth, Ont., Mar. 5, 1878.

M. Magiff, Superintendent of Car Service and Telegraphs, Central Vermont Ry., St. Albans, Vt., born at Planks Point, N.Y., Mar. 24, 1852.

Sir Donald D. Mann, President, Canadian North Eastern Ry. and ex Vice President, Canadian Northern Ry., Toronto, born at Acton, Ont., Mar. 23, 1853.

H. H. Melanson, Passenger Traffic Manager, Canadian National Rys., Toronto, born at Scadou, N.B., Mar. 9, 1872.

P. J. Melvin, Contracting Freight Agent, Marine Navigation Co. of Canada Ltd., Montreal, born at Trim, Ireland, Mar. 3, 1872.

W. T. Moodie, Superintendent, Division 3, Central District, Canadian National Rys., Port Arthur, Ont., born at Glasgow, Scotland, Mar. 10, 1882.

Peter Paton, ex Purchasing Agent, Canada Steamship Lines, Ltd., Montreal, now President, Mackenzie, Milne & Co., Ltd., Sarnia, Ont. born at New Lovell, Ont., Mar. 13, 1868.

F. W. Peters General Superintendent, British Columbia District, C.P.R., Vancouver, born at St. John, N.B., Mar. 25, 1860.

J. W. Pugsley, Secretary, Department of Railways and Canals, Ottawa, Ont., born at Amherst, N.S., Mar. 12, 1861.

L. G. Roblin, Master Mechanic, Prairie District, Canadian National Rys., Saskatoon, Sask., born in Prince Edward Island, Mar. 24, 1864.

C. J. Smith, Manager and Secretary, Montreal Warehousing Co., Montreal, born at Hamilton, Ont., Mar. 10, 1862.

G. L. Snelling, Secretary-Treasurer, Ottawa Electric Ry., Ottawa, Ont., born there, Mar. 2, 1880.

W. Y. Soper, Vice President, Ottawa Electric Ry. Co., Ottawa, Ont., born at Oldtown, Me., Mar. 9, 1854.

E. F. L. Sturdee General Agent, Passenger Department, C.P.R., Seattle, Wash., born at St. John, N.B., Mar. 29, 1876.

G. W. Vaux, ex-General Agent, Passenger Department, Union Pacific Rd., Chicago, now General Manager, Zeigler Coal Co., Zeigler, Ill., born at Montreal, Mar. 21, 1866.

A. T. Weldon, Assistant Freight Traffic Manager, Eastern Lines, Canadian National Rys., Montreal, born at Dorchester, N.B., Mar. 6, 1876.

D. O. Wood, Traffic Manager Export and Import Department, Canadian National Rys., Toronto, born at Kleinburg, Ont., Mar. 16, 1864.

C.P.R. War and Employment Figures.

The following figures, revised to Jan. 31, show C.P.R. employes who enlisted, and who have been given employment on their return from overseas:

Total reported as joining the army.....	10,931
Dead	1,063
Wounded	2,050
Re-employed in the service.....	6,586
Other soldiers given employment.....	8,728
Total soldiers given employment to Jan. 31	15,314

Express Franks Considered by Board of Railway Commissioners.

The Chief Railway Commissioner, Hon. F. B. Carvell, prepared the following memorandum, dated Jan. 19: "The question has arisen as to what rights Canadian express companies have in issuing franks, and an examination of the Railway Act, 1919, shows that, so far as tariffs and tolls are concerned, they are governed entirely by Sec. 360, sub-sec. 2, which provides that: 'The board may disallow any express tariff or any portion thereof which it considers unjust or unreasonable, and shall have and may exercise all such powers with respect to express tolls and such tariffs as it has or may exercise under this act with respect to freight tolls and freight tariffs.' Therefore, so far as tolls and tariffs are concerned, they are governed entirely by the law regarding freight tolls and tariffs, and, as I can find no provision in the act specifically allowing a railway company to carry freight free of charge, an express company has no such right, unless it can be found within the provisions of secs. 345, 346 and 347, dealing with reduced rates and free transportation.

"The whole intention of sec. 345 is to give to the railway companies certain rights which may be exercised under their own discretion, subject always to the provisions of this section, and, in certain cases, if approved and permitted by this board, always provided, however, that in doing so no discrimination shall be practised. Sec. 345 begins with the following words: 'Nothing in this act shall be construed to prevent,' and sub clause (a) thereof allows the railway companies to carry, store, or handle traffic free, or at reduced rates, for the Dominion Government or for any provincial or municipal government, or for charitable purposes, or to or from fairs and expositions for exhibition thereat. As the word 'traffic' in the definition clause includes passengers, goods, and rolling stock, I therefore take it that it would mean goods carried by an express company, and I think an express company under this clause would have a right to carry goods free of charge for the parties and purposes mentioned therein. The remainder of the subclause (a) clearly refers to the carriage of passengers. Subclause (b) refers to the carriage at reduced rates of goods and effects belonging to immigrants and settlers, and commercial travellers' baggage. Subclause (c) refers expressly to the carriage of passengers, and subclause (d) allows railways and transportation companies, under which the express companies would come, to exchange passes or free tickets with other railways or transportation companies 'for their officers, agents, and employes, and their families, goods, and effects,' and also for the issuing of passes or free tickets to 'the officers and employes of the Department of Railways and Canals, or their families, and their goods and effects.' I can find no other authority in the Railway Act, by which the express companies are justified in issuing express franks.

"It has been urged upon this board that clause (c) would justify express companies in granting franks to the members of this board, as well as our officers, agents, and employes, on the ground that at least the officials of this board would be officers, agents, or employes of the Department of Railways

and Canals. As to the members of the board themselves, I have no doubt whatever that the express companies would not have the right to grant to us express franks, because whatever rights of free transportation we possess are given us under the provisions of sec. 346, which is very explicit, and states that, as a matter of law, we, and such other of our officers and staff as we may determine, have the right of free transportation, with our baggage, equipment, and official car. As to all of the officials of the board, including the members thereof, I am unable to come to the conclusion that we are in any way officers or employes of the Department of Railways and Canals. This board is created by statute as found in the Railway Act, 1919, secs. 9 to 71 both inclusive, and, by sec. 9, we are distinctly created a court of record, with an official seal which shall be judicially noticed. The only section in the Railway Act which might be invoked in support of the contention that we are in any way a part of the Department of Railways and Canals is sec. 31, which provides that: 'The board shall, within two months after Dec. 31 in each year, make to the Governor in council through the Minister an annual report.' It is true that the estimate for the members and staff of this board are presented to the House of Commons through the Minister of Railways and Canals, just the same as those of the judges of the Supreme and Exchequer Courts and the staffs thereof are presented to the house by the Minister of Justice, but no person would argue that the Supreme or Exchequer Court of Canada is a part of the Justice Department of Canada. I find, on an examination of the estimates for 1919-1920, that a lump sum is included in the estimates of the Railways and Canals Department for the maintenance and operation of this board, and also an estimate for the salaries of the Board of Railway Commissioners, although it is plainly stated these are authorized by statute. I also find that the estimates for the judges of the Supreme and Exchequer Courts, as well as all other judges in Canada, together with a lump sum for contingencies and disbursements for the officers of the Supreme and Exchequer Courts, are included in the estimates of the Minister of Justice. I find further confirmation of this contention in the provisions of the Civil Service Act, 1918, chap. 12, as amended by chap. 10, of the second session of the Dominion Parliament of 1919. By this act, for the purpose of administration thereof, the Board of Railway Commissioners means the same thing as the deputy or deputy head of a department, and the head of the department means the minister of the Crown for the time being presiding over the department, and I, therefore, take it that, for the purpose of the Civil Service Act, we are a department, with the Minister of Railways as our head, just the same as he is the head of the Department of Railways and Canals. In other words, the Minister of Railways, for the time being, occupies the dual position of Minister of Railways and Canals and as Minister at the head of the Railway Commission for the purpose of the Civil Service Act. If I am right in my contention that we are not a part of the Department of Railways and Canals, then the officers

and employes of this board would not have the right under sec. 345 to receive, and the express companies would not have the right to grant, express franks.

"I have already referred to the authority by which members and officials of this board are entitled to free transportation as provided in sec. 346, which also provides that members of the Senate and House of Commons, with their baggage, shall be entitled to free transportation on any of the trains of a railway company, and as this is a right granted specifically by statute, and not a favor from the railway companies, I hold that had parliament intended that these persons specially referred to in sec. 346 should be entitled to receive free express franks, it would have said so, and, not having done so, and they not coming within any of the classes referred to in sec. 345, I am forced to the conclusion that express companies have no right to grant franks to them. I realize that for many years the express companies have granted express franks to a number of people in different parts of Canada, but I fail to find any authority therefor in the Railway Act, 1919, excepting in the few cases to which I have previously referred, namely to those persons and for the purposes set forth in the first part of clause (a) sec. 345, for the exchanging of passes with other transportation companies, and probably to some of the officers and employes of the Department of Railways and Canals, although in the exercise of this latter privilege, in my judgment, very great caution should be observed in the manner in which they are exchanged. Sec. 347 of the Railway Act is as follows: 'Subject to the provisions of sections 345 and 346 of this act, no company shall hereafter, directly or indirectly, issue or give any free ticket or free pass, whether for a specific journey or periodical or annual pass, and no company shall otherwise arrange for or permit the transportation of passengers except on payment of the fares properly chargeable for such transportation under the tariffs filed under the provisions of this act, and at the time in effect.' Therefore, unless the express companies can find some express authority for granting express franks, or can successfully extend the provisions of secs. 345 and 346 beyond my interpretation, I fail to see where they are justified in granting express franks, excepting as hereinbefore referred to.

"My object in thus expressing this opinion is to give, both to the transportation companies and the public, my views in the face of the fact that the express companies, as well as all other public utilities in Canada under the jurisdiction of this board, either have come, or are expressing an intention of coming, to this board for an increase in their rates in order that they may properly carry on the business of the country for which they were created, and, such being the case, while probably the amount of express matter carried on these franks forms a very small proportion of the total traffic of the express companies, yet the principle involved is just as important as though it amounted to a very large percentage thereof, and, if rates must be increased in order to place the companies in a position to properly exist, then every dollar's worth of free transportation given by means

of franks must be made up by the general paying public, a policy which is entirely inconsistent with the express provisions of the Railway Act against discrimination."

The foregoing was concurred in by Hon. W. B. Nantel, Deputy Chief Commissioner and Commissioners Boyce and Goodeve.

Assistant Chief Commissioner McLean submitted the following memorandum relating to the Chief Commissioner's memorandum: "Page 1, line 14: I would suggest adding the word 'specifically,' before 'allowing,' which is the last word in the line. This will make the meaning clearer.

"I agree in the memorandum of the Chief Commissioner. At the hearing on Jan. 20, he made a statement as to this memorandum having been prepared. His intention is that it should issue as an interim judgment, giving an opportunity, within a reasonable time, for hearing, if such is asked for. As what is primarily concerned is the power of express companies to issue franks, and the types of persons to whom same may be issued, it seems to me that, subject to whatever may be developed in further discussion, the express companies are really the only people who shall be given an opportunity to speak to the matter at a hearing. The recipients of franks do not receive them as a matter of right."

Commissioner Rutherford agreed with the Assistant Chief Commissioner.

The Rhondda Interests in the Peace River Valley.

The late Lord Rhondda, the Welsh colliery proprietor, held extensive interests in the Peace River Valley and adjacent territory of northwestern Canada, including coal and oil lands. In order to provide for the development of these areas a charter was secured from the Dominion Parliament for the Peace River Tramway and Navigation Co., to build two pieces of railway to connect navigable stretches of the river, so as to secure an extensive trading route in the northwest. In connection with this enterprise a steamboat, the D. A. Thomas, was built on the river, and the Peace River Trading Co.'s assets were acquired. It was also reported that control of a railway charter for building a railway from Edmonton northerly to navigable water, and another for building a railway from tidewater on the northern British Columbia section of the Pacific coast inland had been acquired. All of this was done prior to the outbreak of the war in 1914. A recent visit of Lady Rhondda to the Peace River country has revived interest in the company's activities. The first result of the visit appears to have been the decision to give up the trading business, which a press report states has been disposed of to the Lamson, Hubbard Canadian Co., with head office at Boston, Mass. This transaction, it is stated, includes the stores at Peace River crossing, Fort Vermilion, Vermilion Chutes and Hay River. The transportation interests do not seem to be affected by this sale, as the report states that other steamboats will be added to carry freight through to the Arctic Ocean, in addition to the present steamboats operating from Hudson's Hope to Fort Vermilion.

Classification, Qualifications and Salaries for Railway Engineers.

The Engineering Institute of Canada's Toronto branch adopted and recommended recently the following classification of engineers employed in railway work. The sums mentioned being the minimum salaries:

1. Chief Engineer, \$10,000.
2. Assistant Chief Engineer, \$7,200.
3. (a) Engineer of Maintenance. Should preferably be a graduate from an engineering school recognized by the institute and should have 8 to 10 years practical experience in engineering work, or, if not a graduate, should have from 12 to 15 years practical experience and should be thoroughly familiar with the mathematics of engineering, \$6,600. (b) Engineer of Construction—Same qualifications as for Engineer of Maintenance, \$6,600. (c) Bridge Engineer—Same qualifications as for Engineer of Maintenance, \$6,600. (d) Principal Assistant Engineer—Same qualifications as for Engineer of Maintenance, \$6,000.
4. (a) District Engineer—Should preferably be a graduate from an engineering school recognized by the institute and should have 6 to 8 years practical experience in engineering work, or, if not a graduate, should have from 10 to 12 years practical experience and should be familiar with the mathematics of engineering, \$4,800. (b) Signal Engineer—Should preferably be thoroughly familiar with the theory and practice of signalling and of train operation, and should have had, in addition, at least five years practical experience in mechanical and electrical signal work on railways, \$4,800. (c) Architect or Engineer of Buildings—Should have sufficient architectural training to design railway stations, shops, locomotive houses, dwellings, etc., of normal types, and should have 6 or 8 years practical experience in responsible design of railway buildings, \$4,000. (d) 1st Assistant Engineer—Same qualifications as for District Engineer, \$4,200. (e) Assistant Bridge Engineer—Should preferably be a graduate engineer with from 5 to 6 years practical experience in the office and in the field, \$4,800.
5. (a) Division Engineer—Should preferably be a graduate engineer with 3 or 4 years experience of practical engineering, or, if not a graduate, should have 8 to 10 years practical experience and should be well grounded in the mathematics of engineering, \$3,600. (b) 2nd Assistant Engineer—Same qualifications as for Division Engineer, \$3,000. (c) Chief Draftsman—Should have a thorough knowledge of general drafting, but not necessarily knowledge of design, and should be able to control a number of subordinates and supervise their work, \$2,500. (d) Designing Engineer in Structural Department—Should be thoroughly grounded in the theory of design and detail in his particular department, and should be able to control a number of subordinates and supervise their work, \$3,600. (e) Leading draftsman in architectural department—Same qualifications as given for Designing Engineer in structural department, \$2,400. (f) Signal Supervisor—Should be thoroughly familiar with the mechanical and electrical details of signalling, should have sound elementary knowledge of the principles of signalling and should be quali-

ged to carry out and supervise construction and maintenance of all types of signal plants, \$2,400.

6. (a) *Resident Engineer (construction only)—Should preferably be graduate engineer or have 3 or 4 years practical experience in the junior branches of engineering work, \$2,700. (b) 3rd Assistant Engineer—Same qualifications as for Resident Engineer, \$2,400. (c) Draftsman—Should be able to plot accurately from field note or notes and sketches supplied to him by a senior officer, \$1,800. (d) *Inspector, class A—Should have a thorough knowledge of the class of work that he is employed to inspect and in the case of steel or reinforced concrete structures, should be a man of sufficient intelligence to understand the elementary principles of design and realize the necessity for close adherence to plans, and must be able to read and interpret plans correctly, \$2,400.

7. (a) *Junior assistant or instrument man—Should have sufficient training in the use of level, or transit, or both, to do accurate work at a reasonable rate of speed, and should be thoroughly grounded in the mathematics required for the proper reduction and application of his instrumental work, \$1,800. (b) Inspector, class B—Should have some practical experience in the class of work that he is employed to inspect, and have sufficient intelligence and firmness to enforce the carrying out of specifications, \$1,800. (c) Junior Draftsman—Should have passed through his training as a tracer, and should have working knowledge of the use of drafting instruments, \$1,500.

8. (a) Chainman—No previous experience required, \$1,200. (b) Rodman—No previous experience required, \$1,500. (c) Tracer—No previous experience required, \$1,200.

*Indicates that expenses are paid.

Assessment of Transportation Companies, Etc., in Toronto.

The Toronto Assessment Commissioner's annual report for 1919, shows that the various public service corporations in the city are assessed for \$42,088,278, equal to about one-fourteenth of the entire assessment of the city. Following are the assessments of the steam and electric railway and telegraph companies:

	1920	1919
Grand Trunk Ry.	\$12,191,904	\$11,871,267
Canadian Pacific Ry.	9,307,274	9,302,203
Canadian National Rys.	1,389,337	1,385,695
Toronto Ry.	4,886,457	4,996,323
Toronto & York Radial Ry.	360,560	369,136
Toronto Suburban Ry.	46,669	78,293
C.P.R. Co.'s Telegraphs.	240,073	203,170
G.N.W. Telegraph Co.	211,730	206,434

Caraquet & Gulf Shore Ry. Proposed Sale—In reference to the information in this connection, published in Canadian Railway and Marine World for February, pg. 77, we were advised from Ottawa, Feb. 11, that no negotiations in regard to the acquisition of the line by the Dominion Government, were then going on. As stated previously, parliament provided \$200,000 in the estimates, to buy the line, and should the company be willing to accept this, no doubt arrangements will be made for taking it over.

Canadian Northern Railway System Annual Report.

The Canadian Northern Ry. System's 4th annual report, dated Sept. 15, 1919, was issued early in February, over the signature of D. B. Hanna, President, as follows:—

The directors submit herewith the 4th annual report of the Canadian Northern Ry. System for the year ended Dec. 31, 1918. The previous annual report was for the 12 months ended June 30, 1917, since which date the company's fiscal year has been changed to conform with the general practice of most other railway companies on this continent. The results of operation from June 30 to Dec. 31, 1917 are shown in the statements included in the present report.

Since the last annual report the Canadian Government, by the acquisition of 600,000 additional shares in your company (having previously acquired 400,000 shares by way of bonus for guaranteeing certain securities of the company), became the beneficial owner of the company's entire capital stock then outstanding, with the exception of five shares which were issued in exchange for an equivalent amount of Canadian Northern Ry. 5% income charge convertible debenture stock. The purchase was made as of Sept. 30, 1917, the price payable by the government being subject to arbitration, on the conclusion of which and the delivery of the shares, the actual control of your company passed to the government, and a new board of directors was appointed in Sept., 1918.

The results of the operations of the system for the fiscal year ended Dec. 31, 1918, were as follows:—

Gross earnings—	
Passenger traffic	\$ 7,824,444.44
Freight traffic	36,735,869.46
Express, mail and tele- graphs	1,212,881.95
Miscellaneous earnings	1,536,816.06
	\$47,310,011.91
Interest and profits from elevator and other subsidiary com- panies, investments, etc.	1,752,700.59
	\$49,062,712.50
Working expenses	\$44,062,949.94
Hire of equipment, taxes, rentals and miscellaneous charges	1,599,325.32
	45,662,275.26
Net earnings	\$ 3,400,437.24
Interest charges	17,898,246.98
Net deficit	\$14,497,809.74

Mileage—The average mileage operated during the year was 9,452 miles, and at Dec. 31, 1918, the mileage in operation was 9,566.5 miles, an increase of 133.1 miles over 1917.

Operating Revenues—Gross earnings for 1918 increased by \$5,839,990.07 over 1917 or 14.08% but, as referred to later on in detail, this increase in gross is due to the increased rates which took effect during the year under review.

Traffic Movement—Passenger traffic during the year shows an increase of \$769,016.63 over 1917, notwithstanding that 388,993 passengers less were carried. The fact, however, that the passengers carried have averaged a larger mileage indicates that your company is securing an increasing share of western and Pacific business.

The number of revenue tons carried decreased by 545,035 tons as compared with 1917, and the average length of haul decreased by 10.27 miles. This is due largely to the shrinkage in grain

tonnage due to the poor crop of 1917. The commodity statement shows a decrease of 18,986,113 bush. of grain handled as compared with the previous year. There was also less lumber carried, less building material, and less miscellaneous tonnage. While there was a substantial increase in flour traffic of 1,765,571 sacks of 100 lb. and in coal traffic of 247,651 tons, and a good increase in live stock traffic, these did not produce enough tonnage to overcome the loss in grain and other traffic.

Operating Expenses—In considering the 12 months under review, it must be remembered that the year had a most inauspicious beginning. Jan., Feb. and Mar., 1918 completed a winter which, for severity, stands without parallel in the history of railway operation. The intense cold and heavy snowfall which was general throughout Canada and all the northern states made operations so burdensome that net earnings for all lines thus affected were entirely wiped out, and many roads, including the most important trunk lines, accustomed to operate at a comparatively low ratio during the winter, showed large deficits. The cold weather extended well into April, and later on during the autumn and winter of 1918, the operating staff was badly crippled by the very serious influenza epidemic.

The effect of these adverse conditions was increased by other events which made further inroads on net earnings. The United States Government on Dec. 26, 1917, decided to take over the operation of all U.S. railway mileage of importance from Jan. 1, 1918, and one of the first acts of the administration was to establish a commission to enquire into the requests for increased wages which were then collectively before the managements of the U.S. railways. This commission's report was issued on Apr. 30, 1918, and recommended substantial increases for all railway employees. These recommendations were largely accepted by the Director General, and promulgated in his order 27, May 23, 1918, better known as the McAdoo award. There was an immediate and insistent demand from Canadian railway employees that the scale of increases provided in the McAdoo award be adopted in Canada. Many requests for wage increases were pending at the time. Wages on Canadian lines have in recent years been on a par with those on U.S. lines, the fact that the large brotherhoods of railway employees on this continent are international, having a direct bearing on the matter. The situation was a serious one, and governmental action was necessary, as it was apparent that the railways could not pay the increased wages without substantial increase of revenue.

Concurrently with the promulgation of general order 27, the U.S. Railroad Administration found it necessary to raise tariffs on freight and passenger business. Similar action was taken in this country, but only in respect of freight tariffs. While it was felt at the time that the increase in rates would largely compensate the railways for the heavy burden thrown on them in respect of increased wages, yet subsequent conditions have shown that the wage increases granted (which have applied to every department of railway operation) have enormously exceeded the increased revenue

obtained from the higher scale of tariffs. The new scale of rates for employees in the shops and mechanical plants of Canadian railways took effect from May 1, 1918, and for other classes generally from Aug. 1, 1918. Supplements have been issued from time to time, augmenting the allowance to various classes of employees, shortening the hours of service, and generally adopting the 8 hour day, with many other specific improvements in working conditions, all having the immediate effect of largely increasing the employees' compensation. The result of this was that at the end of the calendar year the company's payroll which had previously averaged \$1,890,000 a month, reached the enormous total of \$2,815,000 a month, equivalent to an additional \$925,000 a month, representing an increase of almost 50% over the wages paid up to the date the McAdoo award took effect. Besides wage increases, other items of operating expenses continued to show large advances. Under these exceptional circumstances, the cost of operation for the year advanced by \$10,036,297.51, or 29.49%.

Land Sales for the period since the last annual report were 81,661.346 acres for \$1,588,264.14, an average of \$19.45 an acre, compared with an average of \$17.82 for the preceding year. During the same period, sales previously entered into, aggregating 58,920.10 acres, were, by mutual agreement, cancelled, so that the acreage of land available for sale has been decreased by 22,741.246 acres, leaving a total of 818,958.532 acres unsold.

Car Trusts Obligations—Since the last annual report additional car trusts obligations have been created to the extent of \$5,000,000, for the purchase of equipment of different kinds, and \$4,705,500 has been repaid in respect of previous obligations, thus making a net increase on this account of \$294,500.00.

Freight and Passenger Rates—In the previous annual report reference was made to certain rate increases which took effect on Mar. 15 and June 1, 1918. As already mentioned in this report a further increase in freight rates only was arranged for in connection with the adoption of the McAdoo scale of wage increases. This latter increase has been popularly known as a 25% increase, but, in actual application (being coupled with the previous increase and being utilized in the direction of equalization of rates as between eastern and western Canada) has only produced an increase in freight revenue of about 15½%, so that, putting the two increases together, freight tariffs are increased by less than 30%.

Conditions and Prospects—Shortly after the signing of the armistice, traffic began to fall off, and from January to the date of this report, the tonnage carried shows a large decrease compared with the same period of the previous year. The present situation is, therefore, a very serious one. In the first place, the wage increases under the McAdoo award have greatly exceeded the increase in revenue granted to offset them, largely due to the supplements to the award which were not contemplated at the time the tariffs were increased, and also due to the fact that business on which the increased tariffs were estimated to apply has fallen off to a considerable extent. The prices of materials and supplies still stand at the highest

point, and so long as these conditions continue no improvement can be expected in net revenue.

Construction and Betterments—Prior to the war the company had in western Canada a number of branch lines under construction, but work on these lines, owing to limitation on spending of capital moneys, and also the difficulty of obtaining material, was necessarily discontinued. Since the signing of the armistice, urgent requests from settlers along the projected lines were renewed, and after many delegations from various sections of the prairie provinces had been received by your directors and the executive, and after the entire situation had been carefully reviewed, a programme of construction was adopted providing for the completion of certain partly constructed and projected lines which would serve new districts where settlement had preceded the railway and where the settlers were suffering most through lack of transportation facilities. Provision for this construction programme and for the company's betterment and equipment requirements, have been made in the government estimates for the current year and the work is under way. Due to the difficulty of securing material, expenditures beyond those actually required for current operation where not incurred during the war, and the shortage in some respects was so great that actual operating requirements could not always be met, with the result that in the year under review, only a comparatively small amount of betterment work could be undertaken. For this reason the programme of betterment work submitted by the management for the present year was an extensive one, and your directors have approved the expenditure of a substantial sum to be devoted to providing improvements to the physical property of your system.

New Equipment—To provide for additional train service and to take care of new mileage, equipment was ordered and delivered during the year as follows—60 consolidation locomotives; 10 six-wheel switching locomotives; 10 passenger refrigerator cars; 140 forty ton freight refrigerator cars; 5,000 forty ton steel underframe and side frame box cars; 300 thirty ton wooden stock cars; 500 forty ton steel frame flat cars; 250 fifty ton steel underframe gondola cars; 250 fifty ton wooden dump cars; 25 fifty ton steel tank cars; 15 forty ton steel tank cars.

Lines Acquired—The Toronto Suburban Ry. (operated by electricity) with 46 miles of suburban line from Toronto to Guelph, and 19 miles of urban lines, mostly within the City of Toronto, and the Toronto Eastern Ry. (electric) with 19 miles of partly constructed line between Bowmanville, Oshawa and Whitby, Ont., have been acquired by your company. The operations of these lines will be included with those of the Niagara, St. Catharines and Toronto Ry. in a separate statistical statement, the net return alone being included in the system accounts.

Leaside Terminals—The first units of the Leaside terminals at Toronto, which were about completed at the close of 1918, were put into operation in the early summer of 1919. This plant will provide repair facilities for Ontario lines which have hitherto lacked suitable shop accommodation. The shops are conveniently located near the North Toronto terminals in which your lines have a

joint interest with the C.P.R.

Montreal Tunnel—On Oct. 21, 1918 last, service through the Montreal tunnel was inaugurated, and since then, regular service between Montreal, Ottawa and Toronto has been given, using the new short line between Hawkesbury and Montreal.

Ocean Steamship Services—Early in 1918 the Dominion Government, realizing the need for a mercantile fleet to develop Canadian export trade, placed orders with Canadian shipbuilding firms for a large number of ocean-going steamships. The government has arranged for these ships to be operated by a company under the charter name of the Canadian Government Merchant Marine Ltd., the directors of which company are members of your board. Up to date 12 ships have been delivered, and the following services have been established; Between Montreal and St. John's, Nfld., Cuba, the West Indies, South America and various United Kingdom ports, which services will continue from Halifax, or St. John, during the winter. Cargoes have also been carried to French ports, and from Vancouver to United Kingdom ports via the Panama Canal, and a service from Vancouver to Australia is just about to be established. Additional services have been arranged for as soon as further vessels are delivered by the builders, and the operation of the boats is confidently expected to reflect most satisfactory results in the building up of Canadian trade and from which the Canadian National Rys. should receive substantial benefits in traffic returns.

Vancouver-Victoria Car Ferry—During the year, the car ferry Canora was completed at Quebec, and made the trip from there to Vancouver via the Panama Canal. It is now in regular operation between Vancouver Island and the mainland.

Organization—Immediately following their appointment, the directors took up the reorganization of the official staff of the Canadian Northern Ry. System. This matter was under way when, by order in council passed on Nov. 20, 1918, your directors were constituted a board of management for the Canadian Government Railways. This necessitated a more extensive rearrangement of official personnel, and the amalgamation of the staffs of the two systems. In anticipation of post-war developments, the Resources Department has been strengthened and is carrying on active work. It will handle immigration matters.

The use of the collective title "Canadian National Railways," as representing both the Canadian Northern System and the Canadian Government lines, was authorized by order in council passed Dec. 20, 1918, and by special act of the Dominion of Canada, the Canadian National Ry. Co. has been incorporated, in order that the various railways under federal control may be operated by the new company for the government.

The members of your board have made inspections of most of your lines, and additional inspection trips will be made from time to time, so that your board may have first hand information as to the general condition, upkeep and operation of the railway.

Your board is glad to welcome back to the service of the railway those officers and employes who have been serving with Canada's expeditionary forces in the great war. To those who have suffered bereavement, the directors desire to convey their sincere sympathy. The

board expresses to the management and employes its thanks for loyal and efficient services rendered throughout the year. In this connection it should be remembered that the epidemic of influenza created conditions of great hardship, and resulted in overtaxing those on whom fell the burden of carrying on, during the periods when many employes were forced to remain out of service. To the families of those who succumbed to the attack of this dread disease, the board desires to tender its sympathetic condolences and to record its sense of loss by the death of a number of valued officers and employes.

Income Statement Year Ended Dec. 31, 1918.

Revenue	\$47,310,011.91
Subsidiary miscellaneous earnings	1,752,700.59
	\$49,062,712.50
Working Expenses	\$44,062,949.94
Taxes, rentals, joint facilities, etc.	1,599,325.32
	45,662,275.26
Net earnings	\$ 3,400,437.24
Fixed charges — Canadian Northern Ry.	\$ 6,875,465.58
Fixed charges — Affiliated companies	4,301,207.57
Interest on demand and short term notes—	
Government	3,926,279.61
Other	2,795,294.22
	17,898,236.98
Deficit carried to profit and loss statement	\$14,497,809.74

Profit and Loss Statement at Dec. 31, 1918.

Deficit on income account	\$14,497,809.74
Discount, etc., on funded debt	694,624.97
Taxes accrued to Dec. 31, 1918	409,657.67
Adjustment interest on D.R.L. and Winnipeg Ry. bonds included in D.W.P.R. account in C.N.R. accrued interest statement, Sept. 30, 1917	24,999.99
	\$15,627,092.37
Less delayed income, debits and credits, credit balance	47,237.24
	\$15,579,855.13
Adjustment of land sales	936,101.83
Net deficit	\$14,643,753.30
Surplus brought forward	32,575,977.91
Total surplus to Dec. 31, 1918, carried to balance sheet	\$17,932,224.61

Operating Revenues Years Ended Dec. 31.

%	1918	Class	1917	%
16.54	7,824,444.44	Passenger	7,055,427.81	17.01
77.65	36,735,869.46	Freight	32,012,791.03	77.19
.52	245,187.12	Mails	249,983.06	.62
2.04	964,617.55	Express	856,402.77	2.06
		Miscellaneous	1,295,417.17	3.12
3.25	1,539,893.34			
100.00	47,310,011.91	Total	41,470,021.84	100.00

Operating Expenses Years Ended Dec. 31.

%	1918	Class	1917	%
20.56	9,060,264.79	Maintenance of way and structures	7,059,883.88	20.75
19.29	8,498,673.11	Maintenance of equipment	6,086,901.56	17.89
1.81	797,191.68	Traffic expenses	777,121.18	2.29
54.26	23,907,348.28	Transportation expenses	18,247,439.92	53.62
1.31	576,071.12	Miscellaneous operations	546,378.12	1.61
2.77	1,223,410.96	General expenses	1,308,927.77	3.84
100.00	\$44,062,949.94	Total	\$34,026,652.43	100.00

Summary of Revenues and Expenses Years Ended Dec. 31.

%	1918	Class	1917	%
	\$47,310,011.91	Operating revenues	\$41,470,021.84	

93.13	44,062,949.94	Operating expenses	34,026,652.43	82.04
6.87	3,247,061.97	Net earnings	7,443,369.41	17.96
100.00				100.00

Earnings, Expenses and Net Earnings

Per mile operated year ended Dec. 31.

Year	Average miles operated	Earnings	Expenses	Net earnings
1917	9,433	\$4,396.27	\$3,607.19	\$789.08
1918	9,452	5,005.29	4,661.76	343.53

Fixed Charges Per Mile of Line.

	1918	1917
Amount required per mile of road to pay fixed charges, including leased lines	\$1,893.60	\$1,695.24

Description of Freight Carried for Years Ended Dec. 31.

	1918	1917
Flour, sacks (100 lb. each)	8,904,498	7,138,927
Grain, bushels	93,985,078	112,971,191
Live stock, head (all kinds)	654,583	609,409
Logs and lumber, ft., m.f.	1,614,829	1,970,656
Firewood, cords	362,118	334,489
Coal, tons	2,373,985	2,126,334
Immigrants' effects, cars	5,279	3,958
Building material (lime, stone, brick, sand, etc.), cars	29,794	33,340
Miscellaneous, tons	4,048,065	4,269,115

Passenger, Freight and Miscellaneous Statistics Compared With Previous Fiscal Year.

PASSENGER TRAFFIC

	1918	1917
Passengers carried (earning revenue)	4,114,965	4,503,958
Passengers carried one mile	288,067,800	293,322,255
Passengers carried one mile per mile of road	30,477	31,425
Average distance carried	70.01	65.13
Total passenger revenue	\$7,127,141.55	\$6,437,305.25
Average amount received per passenger	\$1.73.225	\$1.42.925
Average amount received per passenger per mile, cents	.02.474	.02.194
Total passenger train earnings	\$8,783,084.63	\$7,970,489.84
Passenger train earnings per train mile	1.28.903	1.14.649

FREIGHT TRAFFIC

	1918	1917
Revenue tons carried	13,289,641	13,834,676
Revenue tons carried one mile	4,021,275,963	4,328,241,986
Revenue tons carried one mile per mile of road	425,442	463,707
Average distance haul of one ton	302.59	312.86
Total freight revenue	\$35,674,816.63	\$31,134,034.68
Average amount received for each ton of freight	\$2.68.441	\$2.25.043
Average revenue per ton per mile, cents	.00.887	.00.719
Total freight train earnings	\$36,719,136.76	\$31,937,926.59
Freight train earnings per train mile	\$3.24.220	\$2.69.118

TRAIN MILEAGE

	1918	1917
Mileage of passenger trains	5,044,607	5,037,334
Mileage of freight trains	9,556,238	9,952,918
Mileage of mixed trains	1,769,124	1,914,725

EXPENSES PER TRAFFIC TRAIN MILE

	1918	1917
Maintenance of way and structures, cts.	54.67	41.28
Maintenance of equipment, cts.	51.12	35.39
Traffic expenses, cts.	04.79	04.52
Transportation expenses	1.43.69	1.05.83
Miscellaneous operations, cts.	03.52	03.23
General expenses, cts.	07.10	07.42
Total	\$2.64.89	\$1.97.67

Operations of Electric Lines Not Included in Above Statement.

	1918	1917
Passengers carried (earning revenue)	6,036,625	5,859,032
Total passenger revenue	\$504,319.84	\$441,875.72
Revenue tons carried	409,704	423,642
Total freight revenue	\$252,746.20	\$225,809.38

Summary of Equipment at Dec. 31.

	1918	1917
Locomotives	788	735
Sleeping and dining cars	116	116
Passenger cars	596	624
Baggage, mail and express cars	191	187
Business cars	25	22
Freight, refrigerator and stock cars	31,828	29,489
Conductors' vans	426	443
Boarding, tool, auxiliary cars, steam shovels and snow equipment	1,675	1,520

Miles of Railway.

The total mileage operated at Dec. 31, 1918, including lines owned and leased, was 9,566.5 miles, made up as follows:

Lines	Miles.
Lines in Nova Scotia	374.6
Quebec Division	786.3
Ontario Division	1,792.2
Minnesota Division	172.6
Central Division	2,678.0
Western Division	2,989.9
Pacific Division	711.3

Electric lines in Ontario	61.6
Total	9,566.5

Location of Lines.

Province	Miles.
Nova Scotia	374.6
Quebec	729.5
Ontario	2,253.3
Manitoba	1,995.7
Saskatchewan	2,218.3
Alberta	1,246.9
British Columbia	531.9
Minnesota	216.3

Total	9,566.5
Average miles operated for fiscal year	9,452

Summary of Mileage.

Mileage owned by Canadian Northern Ry. System	9,067.5
Joint running rights, etc.—	
Toronto to Rosedale, G.T.R.	3.8
Grand Trunk Crossing, Orillia, C.P.R.	2.8
Riverside to Ottawa Union Station, G.T.R.	18.6
Current River to Port Arthur, C.P.R.	1.7
Chip Lake to Obed, G.T.P.	2.1
Snaring to Geikie, G.T.P.	77.8
New Westminster to Vancouver, Great Northern	21.0
Halifax to Southwestern Jct., C.G.R.	13.8
Middleton Jct. to Middleton, D.A.R.	6.0
Duluth to D.W. & P. Jct, Nor. Pac.	.6
Duluth to D.W. & P. Jct, Nor. Pac.	3.5
Lines leased—Northern Pacific in Manitoba	151.7
	347.3
Total mileage operated	9,566.5

Suit Against Express Company for Damage to Strawberries.

The Quebec Court of Appeal gave judgment at Montreal, recently, on the appeal of H. V. Clogg, trading as J. R. Clogg and Co., fruit importers, against a Superior Court decision, dismissing an action brought against the Canadian Express Co. and the American Express Co. to recover \$424.74 loss on a car load of strawberries which had deteriorated in quality in transit from Independence, La. The fruit was consigned from Independence by the American Express Co., May 5, 1916, and was transferred on Clogg's instructions to the Canadian Express Co., at Port Huron, Mich. The cost laid down in Montreal was \$1,725.94. On delivery it was found that the fruit had deteriorated, and it was sold for \$1,301.20. Clogg alleged that the deterioration was due to the carriers' negligence in not keeping the car sufficiently cooled, and sought to recover the difference in value from the Canadian Express Co.—the American Express Co. being subsequently added as a defendant. The Superior Court dismissed the action, and Clogg appealed. After argument, Justice Demers found that the consignment was shipped in good order, and there was a new contract when the car was transferred to the Canadian Express Co. at Port Huron. Article 1675 of the Civil Code provides that carriers are liable for loss or damage of things entrusted to them unless they can prove that such loss or damage was caused by a fortuitous event or irresistible force, or arose from a defect in the thing itself. It was not Clogg's duty to show how the loss was occa-

sioned. It was evident that the Canadian Express Company showed lack of care in transportation. It ought to know its business sufficiently not to take over a defective car from another company, if it was necessary to assume in this case to believe that this car was not in a proper condition when taken over at Port Huron. As it was admitted the temperature of the car was too high when it arrived at Montreal, it was probable that it had not been sufficiently iced between Port Huron and Montreal. The Superior Court's decision dismissing the action as against the American Express Co. was affirmed, and reversed as against the Canadian Express Co. Judgment for \$424.74 with interest and costs was entered against the Canadian Express Co.

Railway Situation in Gaspe Peninsula.

A meeting of merchants, lumbermen and others interested in the development of the Gaspe Peninsula was held in Quebec, Feb. 5, to consider the railway situation in their district. It is served by the Quebec Oriental Ry., from Matapedia on the Intercolonial Ry., to New Carlisle, 98 miles; and the Atlantic, Quebec and Western Ry., from New Carlisle to Gaspe Basin, 104 miles; both lines being under one management. After hearing reports as to the condition of the roadbed, the rolling stock and the service being given, an association for the improvement of the railway situation on the Gasp coast was formed, with Hon. J. H. Kelly as President, and a number of resolutions were passed. The two important ones were: To authorize the executive committee to place before the Dominion Government the real situation as to the railways, and to ask that the government acquire the lines either by agreement as to value, or by arbitration, and that meanwhile the Board of Railway Commissioners be asked to order the companies to furnish a daily mail and passenger service in each direction between Matapedia and Gaspe Basin.

Ice Railway at Port Arthur—The Contractors for the extension of the breakwater at Current River, Port Arthur, Ont., Chambers, McQuigge, McCaffrey Co., have laid a single track narrow gauge railway, with passing tracks, over the ice from the mainland to where the breakwater is being built. The rolling stock consists of 4 locomotives and a large number of dump cars. Each train consists of 6 cars, the load being about 50 tons, about 1,000 tons a day being dumped into 40 ft. of water. The contract covers the construction of 1,500 ft. of breakwater.

Cornwall International Bridge Taxation—The Ontario Legislature is being asked to ratify a Cornwall Tp. Council bylaw confirming an agreement made between the council and the Ottawa and New York Ry., fixing an annual assessment of \$150,000 on the portion of the international bridge between Canada and the United States, which is in Cornwall Tp.

The Canadian Transfer Co.'s Toronto stables were damaged by fire Feb. 6, the loss being put at \$1,500. About 40 horses in the stables were saved.

Spanish Railway Companies have asked authority to increase freight rates 35% to meet increased operating expenses.

Mainly About Railway People Throughout Canada.

W. R. Baker, C.V.O., formerly Assistant to the President, and Secretary, C.P.R., who returned to Montreal from Europe recently, passed through Vancouver, at the end of January, on his way to California, intending to return to Montreal in the spring. Mrs. Baker is spending some time in Austria.

John Bollen, Foreman, Locomotive Shops, C.P.R., Winnipeg, who has retired from active service, was presented with a case of pipes and a purse of money by his staff, Feb. 13.

George Hugh Brown, whose appointment as Commercial Agent, G.T.R., Minneapolis, Minn., was announced in our last issue, was born at West Lebanon, N.H., Oct. 17, 1876, and entered G.T.R., service Jan. 2, 1882; since when he has been, to Jan. 1, 1898, messenger, stenographer, clerk, Chicago, Ill.; Jan. 1, 1898 to July 1, 1915, Soliciting Freight Agent, Chicago, July 1, 1915, to July 1, 1918, Commercial Agent, Omaha, Neb.; July 1, to Nov. 1, 1918, Tariff Inspector, Chicago; Nov. 1, 1918 to Jan. 1, 1920, Traveling Representative, Chicago. His father, David Brown, was in G.T.R. service from 1866 to 1903, retiring as First Assistant General Freight Agent, Chicago.

R. L. Burnap, who has been appointed Freight Traffic Manager, G.T.R. lines in the U.S., west of Detroit and St. Clair Rivers, Chicago, Ill., was born Sept. 20, 1872, and entered railway service in 1894, since when he has been, to May 1, 1896, consecutively, clerk in Local Freight Agent's office, Central Vermont Ry.; clerk in Division Freight Agent's office, Ogdensburg Transit Co., and clerk in Division Freight Agent's office, Central Vermont Ry., Ogdensburg, N.Y.; May 1 to Sept. 1, 1896, clerk in Commercial Agent's office, Central Vermont Ry., New York City; Sept. 1, 1896 to Feb. 1, 1900, Travelling Freight Agent, Central Vermont Ry., New London, Conn.; Feb. 1, 1900 to Aug. 1, 1905, Commercial Agent, Central Vermont Ry., New York City; Aug. 1, 1905 to May 1, 1908, General Freight Agent, Central Vermont Ry., St. Albans, Vt.; May 1, 1908 to Oct. 16, 1911, Assistant General Freight Agent, G.T.R., Chicago, Ill.; Oct. 16, 1911, to May 1, 1918, Assistant Freight Traffic Manager, G. Y. R., Chicago, Ill.; May 1, 1918, to Mar. 1, 1920 Traffic Manager, Grand Trunk Western Lines Rd. (U.S. R.A.) Chicago, Ill.

William Byers, car inspector, G.T.R., Niagara Falls, Ont., after 48 years service, retired under the company's pensioned rules, early in February. He commenced service with the Great Western Ry. in 1872, and continued with the G.T.R. when the former company was taken over.

Hon. Frank Cochrane, ex Minister of Railways and Canals, who died some months ago, left an estate valued at \$423,974.93. Mrs. Cochrane is to receive one-half of the income for life; the son and daughter are each to receive one-quarter of the income during Mrs. Cochrane's life, after which the estate is to be divided equally between them.

A. E. Corbett, locomotive foreman, Canadian National Rys., St. John, N.B., was accidentally killed while at work recently. He was 34 years old, and had been in government railway service for 8 years.

Edward Cassidy Elliott, who has been

appointed District Passenger Agent, G.T.R., Montreal, was born there, Oct. 12, 1877, and entered G.T.R., service, June 15, 1894, since when he has been, to Feb. 1, 1898, junior clerk; Feb. 1, 1898 to June 1, 1902, clerk; June 1, 1902 to June 1, 1907, freight clerk; June 1, 1907 to June 1, 1913, excursion clerk; June 1, 1913, to Jan. 1, 1916, chief clerk to General Passenger Agent; June 1, 1916, to Feb. 1, 1920, chief clerk to Passenger Traffic Manager, all at Montreal.

D. W. Fraser, heretofore Managing Director, Montreal Locomotive Works, Montreal, has been appointed Vice President, in charge of sales, American Locomotive Co., and Montreal Locomotive Works, with office in New York, N.Y., succeeding J. D. Sawyer, who has retired. He will be succeeded at Montreal by Mr. Butler, heretofore Works Manager.

F. E. Gautier, Purchasing Agent, Western Lines, C.P.R., who died at Winnipeg some little time ago, left an estate valued at approximately \$60,000, which, owing to a peculiar codicil to his will, appeared to have been left to the St. John Ambulance Association, but by a recent decision of a local court, has been handed over to his widow.

G. E. Graham, General Manager, Dominion Atlantic Ry., Kentville, N.S., who was injured in a train wreck on the C.P.R. at North Bay, Ont., at the end of January, expects to return to his duties early in March.

Grant Hall, Vice President; F. L. Wanklyn, General Executive Assistant, Allan Purvis, General Superintendent, Ontario District; A. Williams, Superintendent, London Division, and M. H. Brown, Division Freight Agent, C.P.R., were the principal guests at a dinner given by the London, Ont., Chamber of Commerce directors, Feb. 11.

John Hall, formerly roundhouse foreman, G.T.R., died at Hamilton, Ont., Feb. 20, aged 89. When 16 years old, he was fireman on a locomotive at Newcastle, Eng., built by Geo. Stephenson, and for two years ran a locomotive on the old railway between Liverpool and Carlisle, Eng. He was locomotive man on the first train that ran between Madrid and Aranquery, Spain. He came to Canada in 1853, entered Great Western Ry. service at Hamilton and ran the first train between Hamilton and Niagara Falls, Ont., and continued with the G.T.R. when the G.W.R. was taken over.

H. H. Hamill, who has been appointed General Agent, Freight Department, G.T.R., Detroit, Mich., was born at Somerville, Mass., Apr. 6, 1874, and entered transportation service with the Johnson Steamship Line, Boston, Mass., in 1893, and from Feb. 1, 1900, to June 1, 1906, was city solicitor, National Despatch Line, Boston, Mass.; June 1, 1906, to Apr. 1, 1910, Travelling Agent, National Dispatch-Great Eastern Line, Boston, Mass.; Apr. 1, 1910 to Nov. 1, 1911, Soliciting Freight Agent, G.T.R., New York City; Nov. 1, 1911 to June, 1914, Travelling Freight Agent, G.T.R., New York; June, 1914 to Nov., 1918, Commercial Agent, G.T.R., Detroit, Mich.; Nov., 1918 to May, 1919, General Agent, Freight Department, Lines in Canada, G.T.R., Detroit, Mich.; May, 1919 to Mar. 1, 1920, General Agent, Freight Department, Grand Trunk Western Lines Rd. (U.S.R.A.), Detroit, Mich.

D. B. Hanna, President, Canadian National Rys., Mrs. Hanna, and their two daughters, returned to Toronto, Feb. 9, after spending some three weeks at Miami, Florida.

J. M. Hannaford, who has been elected President, Northern Pacific Ry., was born at Claremont, N.H., Nov. 19, 1850, and entered railway service, June, 1866, as clerk in the general freight offices, Central Vermont Ry., St. Albans, Vt. He entered Northern Pacific Ry.'s service May 11, 1872, since when, he has been, to May 1, 1879, chief clerk, General Freight Department; May 1, 1879 to 1881, Assistant General Passenger Agent; 1881 to Aug. 1, 1883, General Freight Agent, Eastern Division, Aug. 1, 1883 to Mar. 1, 1884, Assistant Superintendent, Freight Traffic; March 1, 1884 to May 1, 1886, General Freight Agent, main line and branches; May 1, 1886 to 1890, Traffic Manager; 1890 to Feb. 1, 1899, General Traffic Manager; Feb. 1, 1889-1899 to April 1, 1902, Third Vice President; April 1, 1902 to Aug., 1913, Second Vice President; Aug., 1913 to the taking over by the U.S. railways by the U.S. Railroad Administration, President; and during the last named period he was Federal Manager, Northwestern Region, U.S.R.A. He is also President, Northern Pacific Ex. Co.

Lieut.-Col. T. A. Hiam, who, before the war, was private secretary to Sir Donald Mann, at Toronto, has been appointed Vice President, Canadian North Eastern Ry. Co., and Vice President, Pacific Coast Exploration Co., of both of which companies Sir Donald Mann is President. His office is at Stewart, B.C. He went overseas with the Canadian Buffs in the autumn of 1916 as a lieutenant, and was at Witley Camp, Eng., for nearly a year, while the Buffs formed part of the 5th Canadian Division, and during which time he was promoted to captain and made assistant quartermaster. On the Buffs being broken up, for reinforcing purposes, he transferred to the Imperial Railway Troops, going to France in Feb., 1918 as captain, and was engaged for some time in railway operating work. He returned to England in Oct., 1918 on leave, and was sent almost immediately to Salonica, as railway transportation officer, and after being there a very short time, was transferred to Constantinople, promoted to major and made Deputy Assistant Director of Railway Transport, which department had charge of the Orient Ry. in European Turkey (Compagnie d'Exploitation des Chemins de Fer Orientaux) and also the Bagdad Line, which commences on the Bosphorus and extends to Bagdad, with a break from Nissibin to Samara, which is still under construction. This line is operated by the Societe Imperiale Ottomane de Chemin de Fer de Bagdad. From Constantinople he was transferred to Haidar Pasha as Assistant Director of Railways, and was promoted to lieutenant-colonel.

Robt. Hobson, President, Steel Company of Canada, and one of the Canadian National Rys. directors, has resigned from the Dominion Council for Scientific and Industrial Research, and has been succeeded by Lloyd Harris.

Sir Herbert Holt, one of the C.P.R. directors, and President, Royal Bank of Canada and Montreal Light, Heat and Power Co., has been elected a director of Canadian Fur Auction Sales Co.

Chas. R. Hcsmer, one of the C.P.R. directors, has been re-elected President, Ritz-Carlton Hotel Co., Montreal.

W. C. Hunter, who has been appointed Air Brake Inspector, Eastern Lines, Canadian National Rys., Montreal, was born at St. John, N.B., Jan. 4, 1865, and entered railway service in June, 1882, since when he has been, to Nov. 1, 1901, consecutively, car oiler, locomotive wiper, fireman, and locomotive man, Intercolonial Ry.; Nov., 1901 to June, 1904, General Air Brake Inspector, I.R.C. In 1904 he was appointed Manager, New Brunswick Ry. and Coal, and a few years later, left railway service for the railway supply business. He returned to railway service in 1919 with the Canadian National Rys. He was for a time Second Vice President of the Air Brake Association and took a prominent part in its work.

Howard G. Kelley, President, Grand Trunk Ry. and Grand Trunk Pacific Ry., is reported to have left Montreal, Feb. 26, with Hon. J. A. Calder, acting Minister of Railways, to meet the Prime Minister, Sir Robert Borden, in New York.

W. A. Kirkpatrick, whose appointment as acting Assistant Superintendent, Division 2, Central District, Canadian National Rys., Sioux Lookout, Ont., was announced in our last issue, was prior to Nov., 1911, Assistant Superintendent, Canadian Northern Ry., Winnipeg; Dec., 1911 to Sept., 1913, Transportation Inspector, same road; Sept. 1, 1913, to Sept., 1915, Assistant Superintendent, same road, Neepawa, Man.; Sept., 1915 to Dec., 1919, Trainmaster, same road, Neepawa, Man.

Capt. David Kyle, M.C., Vice President, Algoma Steel Corporation, which controls the Algoma Central and Hudson Bay Ry., Algoma Eastern Ry., and International Transit Co., died at Sault Ste. Marie, Ont., Feb. 5, from pneumonia.

T. J. Macabe, Registrar and Transfer Officer, Canadian National Rys., Toronto, who has been seriously ill with pneumonia, is convalescing.

Col. A. H. Macdonald, K.C., who had been Secretary of the Guelph Junction Ry. Co., since its inception, died at Guelph, Ont., Feb. 12, aged 71.

J. D. McDonald, who has been appointed General Passenger Agent, also in charge of Baggage Department, Lines west of Detroit and St. Clair Rivers, G.T.R., Chicago, Ill., was born at Toronto, Aug. 27, 1885, and entered G.T.R. service in 1868, since when he has been, to 1870, messenger, Toronto; 1870 to 1875, Assistant Ticket Agent, Toronto; 1875 to 1896, Ticket Agent, Buffalo, N. Y.; 1896 to May, 1902, City Passenger and Ticket Agent, Buffalo, N.Y.; May, 1902 to Mar. 1, 1911, District Passenger Agent, Toronto; Mar. 1, 1911 to Oct., 1918, Assistant General Passenger Agent, Chicago, Ill.; Oct., 1918 to May, 1919, Assistant General Passenger Agent, Chicago, Ill.; Oct., 1918 to May, 1919, Assistant General Passenger Agent, Eastern Regional District, U.S. Railroad Administration, Chicago, Ill.; May, 1919 to Mar. 1, 1920, General Passenger and Baggage Agent, Grand Trunk Western Lines Rd. (U.S.R.A.), Chicago, Ill.

C. W. McMullen, City Freight Agent, C.P.R., Toronto, was presented with a number of electrical appliances by the freight department staff recently, on the occasion of his marriage to Miss M. Dalby.

G. P. Magann, who died at Toronto, Feb. 13, aged 71, was President, Magann and Hawke Lumber Co., and Haliburton Lumber Co., and some years ago carried out some important construction works on the G.T.R., and C.P.R. as well as for the Dominion Government.

A. Z. Mullins, who has been appointed Division Freight Agent, G.T.R., Grand Rapids, Mich., was born at Appin, Ont., Feb. 14, 1862, and entered G.T.R. service Feb. 10, 1884, since when he has been, to May, 1887, telegraph operator, Komoka, Ont.; May, 1887 to Oct., 1896, rate clerk, chief clerk and Travelling Freight Agent, Buffalo, N.Y.; Oct., 1896 to Apr., 1900, Agent, National Despatch—Great Eastern Line, Grand Rapids, Mich.; Apr., 1900 to June, 1907, Agent, Lackawanna—Grand Trunk Line, Detroit, Mich.; July, 1907 to Apr. 30, 1919, Commercial Agent, Grand Rapids, Mich.; May, 1919, Division Freight Agent, G.T.R., Grand Rapids, Mich.; May, 1919 to Mar. 1, 1920, Division Freight Agent, Grand Trunk Western Lines Rd. (U.S. R.A.), Grand Rapids, Mich.

Patrick Nelson, formerly roadmaster, G.T.R., Hamilton, Ont., died there, Feb. 20, aged 78.

George Henry Nowell, who has been appointed Master Mechanic, Lethbridge Division, Alberta District, C.P.R., Lethbridge, was born at Montreal, Nov. 13, 1885, and entered railway service, July 2, 1889, since when he has been, to July 2, 1904, machinist apprentice, C.P.R., Montreal; July 2 to Nov. 5, 1904, machinist, C.P.R., Montreal; Nov. 5, 1904 to Feb. 15, 1905, machinist, C.P.R., North Bay, Ont.; Apr. 15 to Sept. 1, 1905, machinist, G.T.R., Montreal; Sept. 1, 1905, to Sept. 30, 1908, machinist, C.P.R., Montreal; Sept. 30, 1908 to Jan. 15, 1910, leading hand, C.P.R., Montreal; Jan. 15, 1910 to Jan. 15, 1913, charge hand, C.P.R., Montreal; Jan. 15, 1913 to Sept. 5, 1915, Erecting Shop Foreman, C.P.R., Ogden, Alta.; Sept. 5 to Dec. 1, 1915, Locomotive Foreman, C.P.R., Cranbrook, B.C., Dec. 1, 1915 to Feb., 1920, Master Mechanic, Nelson Division, British Columbia District, C.P.R., Nelson.

F. H. Phippen, K.C., formerly General Counsel, Canadian Northern Ry., returned to Toronto, Feb. 23, after a business trip to England.

Joseph Quinlan, District Passenger Agent, G.T.R., Montreal, after 43 years faithful service, will retire under the provision of the company's superannuation fund on April 1. He has held his present position for 18 years. He was granted leave of absence, Jan. 30.

Hon. J. D. Reid, Minister of Railways and Canals, returned to Ottawa at the end of February after spending about a month with Mrs. Reid at St. Augustine, Florida.

James Rogers, who died at Montreal, Feb. 2, aged 83, was formerly a railway contractor, and carried out considerable work on the G.T.R., C.P.R., Lake Superior and Sudbury branches, and at Port Arthur, Ont., the Baie des Chaleurs Ry., etc. He served during the Fenian Raid, as a lieutenant in the Grand Trunk Engineers.

H. T. Ruhl, Engineer, Maintenance of Way and Superstructures, Delaware and Hudson Rd., Albany, N.Y., died there, Feb. 16, of pneumonia, after 10 days illness. He was born at Mifflinburg, Pa., Sept. 29, 1882, and entered railway service, Sept. 22, 1902, since when he had been, to June, 1904, rodman, C.P.R.,

Nomining, Que.; June, 1904, to July, 1905, transit man, Construction Department, Residency 2, Toronto - Sudbury Branch, C.P.R.; July to Aug., 1905, transit man on location, C.P.R., Ingersoll, Ont.; Aug. to Oct., 1905, transit man, on bridge surveys, C.P.R., Coldwater, Ont.; Oct., 1905, to Jan., 1906, transit man, on bridge surveys, C.P.R., Parry Sound, Ont.; Jan. to May, 1906, transit man on location, C.P.R., Parry Sound, Ont.; May, 1906, to Jan., 1908, Resident Engineer on Construction, C.P.R., Point au Baril, Ont.; Jan. to Oct., 1908, Resident Engineer on Construction, C.P.R., Muskoka, Ont.; Oct., 1908, to Nov., 1909, transit man on maintenance, C.P.R., North Bay, Ont.; Nov., 1909, to Oct., 1911, Resident Engineer, C.P.R., Sudbury, Ont.; Oct., 1911, to Sept., 1913, Resident Engineer, C.P.R., Farnham, Que.; Sept., 1913, to Nov. 20, 1915, Resident Engineer, Intercolonial Ry., New Glasgow, N.S.; Nov. 20, 1915, to June 15, 1917, Division Engineer, Canadian Government Railways, Moncton, N.B. From June 15, 1917, Engineer, Maintenance of Way and Superstructures, Delaware and Hudson Rd., Albany, N.Y.

Henry Russel, Vice President and General Counsel, Michigan Central Rd. Co., died at New York, Feb. 25, of pneumonia, just prior to embarking for Europe to bring back the body of his son, Lieut. W. M. Russel, who was killed in an aeroplane fight with the enemy in France in Aug., 1918. He was born at Detroit, Mich., and entered railway service in 1877 as attorney, Michigan Central Rd.

John Vass, who has been appointed Locomotive Inspector, lines in U.S., west of Detroit, and St. Clair Rivers, G.T.R., Milwaukee Jct., Wis., was born at Braidwood, Scot., and went to the U.S. in 1888, and was, to 1894, locomotive fireman, Wabash Rd., Chicago, Ill.; 1894 to 1895, locomotive fireman, G.T.R., Battle Creek, Mich.; 1895 to 1903, locomotive man, G.T.R., Battle Creek, Mich.; 1903 to June, 1918, Road Foreman of Locomotives, Nichols, Mich.; June, to Oct., 1918, Assistant Master Mechanic, Ont.; Oct., 1918 to Jan., 1920, Assistant to Superintendent of Motive Power, Ontario Lines, G.T.R., Allandale, Ont.

J. D. Wells, who died at Montreal, Feb. 20, aged 83, was interested in the Central Ry. of Canada project, and was Secretary of the company from 1903.

H. E. Whittenberger, who has been appointed General Manager, G.T.R. lines in the U.S., west of Detroit and St. Clair Rivers, Detroit, Mich., was born at Peru, Ind., Nov. 9, 1869, and entered transportation service, in 1885, since when he has been, 1885 to Feb., 1897, in various positions, Wabash Rd.; Feb., 1897 to May, 1902, Trainmaster, Middle Division, G.T.R.; May, 1902 to Sept., 1904, Superintendent, Denver & Rio Grande Ry.; Sept., 1904 to Jan., 1906, Superintendent, Cincinnati, Hamilton & Dayton Rd., Indianapolis, Ind.; Jan., 1906 to Sept. 30, 1907, Superintendent, Kansas City & Southern Rd.; Sept. 30, 1907 to Oct. 17, 1912, Superintendent, Eastern Division, G.T.R., Montreal; Oct. 17, 1912 to Jan. 14, 1913, Superintendent, Middle Division, G.T.R., Toronto; Jan. 14, 1913 to May 1, 1918, General Superintendent, Ontario Lines; G.T.R., Toronto; May 1, 1918 to May 1, 1919, General Manager, Grand Trunk Western Lines Rd. (U.S. R.A.), Detroit, Mich.; May 1, 1919 to March 1, 1920, Federal Manager, Grand Trunk Western Lines Rd. (U.S.R.A.), Detroit, Mich.

The Taking Over of Grand Trunk Railway System by Dominion Government.

The G.T.R. shareholders met in London, Eng., Feb. 19, to consider, and, if thought advisable, approve of the agreement made between the Dominion Government and the directors for the taking over by the government of the G.T.R. property. The terms of the agreement were discussed fully in the Dominion Parliament when the act was before it in Oct., 1919, and a summary was given in Canadian Railway and Marine World, for Nov., 1919, pg. 593.

Sir Alfred Smithers, Chairman of the board, having explained the agreement and the circumstances leading up to its being adopted is reported to have stated to the meeting that the G.T.R. had been forced by the government to carry on under impossible conditions, and he felt that they were being held up. He had received figures showing that the profits were being 'swallowed up in increased wages, without the company being granted power to charge increased rates, thus meaning a loss to shareholders of at least \$1,250,000 to \$1,500,000 in each of the last three years. In regard to the G.T.P.R., he felt that the G.T.R. was entitled to be shown the same consideration as the Canadian Northern Ry. He continued: "Under the agreement if the maximum amount is awarded it will still leave the preference and ordinary shareholders compelled to make a sacrifice. It becomes more apparent when you contrast it with the treatment given to the Canadian Northern. I have received letters suggesting that we should break off all negotiations and let the government do its worst. I am sure the writers do not realize what that means. To enter on an unknown sea of litigation with the government would carry us no one knows where." In concluding he said: "We have fought hard for nearly two years, and now we earnestly and unhesitatingly ask you to accept the agreement."

There was considerable discussion on the agreement, the most outspoken criticism being offered by Rev. L. Dawson, a former resident of British Columbia, who expressed the opinion that the chief opposition directed against the company was because it was a British owned and managed concern. He is reported to have said: "Speaking quite frankly, you are dealing with a Canadian Government, which has no morals. I have had to fight the government there myself over local matters. If we had had a real Canadian board, who really understood the floor of the house and in the lobbies, and who could say to the government like the C.P.R. say: 'If you do that mind what you are about because an election will come,' then we should be better. I know it is not a nice way to conduct a country, but unfortunately that is the way things are done there. I am sorry to say it. I have been a Canadian citizen and like the country. I believe this will lead British investors to send no more money to Canada."

The agreement was approved by the shareholders present with about a dozen dissentients. At a subsequent meeting of these dissentients a resolution proposing against the terms of sale was passed.

Arbitration Proceedings.

The act passed by the Dominion Par-

liament in 1919 provides for arbitration as follows:—"The value, if any, of the first, second and third preference stocks and the common or ordinary stock of the Grand Trunk now issued and outstanding to the face values above mentioned (hereinafter together called the "preference and common stock") shall be determined by a board of three arbitrators, one to be appointed by the government, one by the Grand Trunk, and the third by the two so appointed, or, failing agreement, by judges to be designated in the said agreement. New guaranteed stock, to an amount not exceeding the value, if any, so determined, carrying a dividend as hereinbefore authorized, shall be distributed among the holders of the preference and common stock, upon the transfer to or vesting in the government of such stock in proportions which shall be determined by the arbitrators."

The Dominion Government's counsel for the arbitration will be W. N. Tilley, K.C., Toronto; Pearce Butler, of the Minnesota Bar; H. A. Lovett, K.C., Montreal; Hector MacInnes, K.C., Halifax, N.S., and E. E. Fairweather, Solicitor, Railway Department, Ottawa. The G.T.R. will, it is said, be represented by W. H. Biggar, K.C., Vice President and General Counsel; F. H. Phippen, K.C., Toronto; A. W. Atwater, K.C., and Eugene Lafleur, K.C., Montreal.

G.T.R. Board of Management.

The act provides that as soon as the agreement has been ratified by a majority of the holders of the stocks enumerated in the preamble, "a committee of management shall be formed, consisting of five persons, two to be appointed by the Grand Trunk, two by the government, and the fifth by the four so appointed, to ensure the operation of the Grand Trunk System (in so far as it is possible so to do) in harmony with the Canadian National Rys., the two systems being treated in the public interest as nearly as possible as one system. The committee shall continue to act until the preference and common stocks are transferred to or vested in the government, when it shall be discharged." The agreement provides for the entrusting to the said committee of management by the Minister of Railways and Canals as receiver of the G.T.P.R. system, on terms to be approved by the governor in council, of the exercise of such of his powers as receiver as the Governor in council may deem requisite in order that the operation and management of the said G.T.P.R. system may be conducted in harmony with the operation of other railways and properties under the control of the said committee.

Canadian Railway and Marine World is of the opinion that the government will appoint as its two members of the committee of management, C. A. Hayes, Vice President in Charge of Traffic, and S. J. Hungerford, Assistant Vice President, both of the Canadian National Rys. Press reports say that the G.T.R. will select its two representative from among W. D. Robb, Vice President in Charge of Operation and Maintenance, G.T.R., W. P. Hinton, Vice President and General Manager, G.T.P.R., and J. E. Dalrymple, Vice President in Charge of Traffic, G.T.R. It is also stated that

Howard G. Kelley, President, G.T.R., and G.T.P.R., is likely to be chairman of the committee.

Canadian National Railways Earnings.

	1919	1918
January	\$ 6,744,018	\$ 4,696,567
February	6,000,342	4,421,504
March	6,827,491	5,710,660
April	6,909,632	7,165,890
May	7,518,244	6,580,745
June	6,009,585	6,868,864
July	7,657,402	5,733,299
August	8,274,882	8,255,942
September	8,627,268	7,053,881
October	9,389,795	8,480,468
November	8,739,457	7,836,384
December	8,828,482	7,289,969
	\$91,625,593	\$80,098,633

	1920	1919
January	\$ 7,726,562	\$ 6,787,517
Earnings for 3 weeks ended Feb. 21, 1920, against \$4,687,011 for same period, 1919.		

Canadian Northern Ry. Earnings.

	1919	1918
January	\$ 4,026,000	\$ 2,715,300
February	3,363,800	2,691,000
March	3,564,350	3,436,300
April	3,878,149	3,958,100
May	4,387,750	3,762,000
June	3,181,000	4,031,100
July	4,347,300	3,739,400
August	4,901,150	3,983,300
September	5,260,500	4,050,900
October	5,799,400	5,175,000
November	5,393,000	4,679,500
December	5,263,400	5,043,300
	\$53,255,799	\$47,215,200

Canadian Pacific Railway Earnings, Expenses, Etc.

Gross earnings, working expenses, net earnings, and increases or decreases, from Jan. 1, 1920, compared with those of 1919:

	Gross	Expenses	Net	Increase or decrease
Jan. ...	\$13,914,569	\$13,328,628	\$585,941	*\$967,571
	\$13,914,569	\$13,328,628	\$585,941	*\$967,571
Incr. \$	886,241	\$ 1,853,812		
Dec.			\$967,571	

Approximate earnings for 3 weeks ended Feb. 21, \$9,736,000, against \$8,191,000 for same period, 1919.

*Decrease.

Grand Trunk Railway Earnings, Expenses, Etc.

Gross earnings, working expenses, net earnings, and increases or decreases, from Jan. 1, 1919, compared with those of 1918:

	Gross	Expenses	Net	Increase or decrease
Jan. ...	\$ 4,402,229	\$ 5,118,234	\$ 716,005	*\$ 81,794
Feb. ..	4,088,028	4,397,953	309,952	660,229
Mar. ..	5,513,593	4,673,298	840,295	762,766
Apr. ..	5,857,537	4,601,550	755,987	92,889
May ..	5,272,060	4,603,411	668,649	*36,495
June ..	4,947,795	4,644,659	303,136	*707,067
July ..	6,021,746	4,886,147	1,135,599	*35,347
Aug. ..	6,719,921	5,043,662	1,676,259	*101,890
Sept. ..	7,004,277	5,611,125	1,393,152	164,047
Oct. ...	7,136,376	5,764,044	1,372,331	189,280
Nov. ...	6,092,603	5,589,730	502,873	*398,214
	\$62,556,165	\$54,933,813	\$7,622,352	\$508,404

†Deficit. *Decrease.

Approximate earnings for Jan., 1920, \$5,054,034, and for 3 weeks ended Feb. 21, \$3,327,386, against \$4,402,229, and \$2,827,558, for same periods, 1919, respectively.

London and Lake Erie Ry. Liquidation

—We are advised that out of the proceeds of sales of rails, and other material and equipment, from this dismantled line, the company has been able to pay off about 30% of its outstanding bonds.

Canadian Pacific Railway Construction, Betterments, Etc.

New Brunswick District—A press report states that the appropriations for betterments on this district during this year include the laying of 80 miles of new rails between St. John, N.B., and Megantic, Que., the rails taken up to be relaid on branch lines in the district; 50 miles of track to be reballasted; about 4 miles of spruce hedges to be planted along sections where the snow drifts interfere with operation. The grain conveyor serving no. 2 berth at Sand Point, St. John, will be rebuilt and so placed that ships may be loaded at all tides; the trackage at Fairville yard is to be enlarged to accommodate the increased business. A 2 story frame station is to be built at Westfield; an improved station is to be built at Westfield; an improved station is to be built at Fredericton, the present site being utilized; a 100,000 gal. steel water tank is to be built at Brownville Jct., and 4 section foremen's houses are to be built at different points on the line in Maine.

St. John Cold Storage Plant—A press report states that additional property has been acquired adjoining the company's cold storage plant on Main St., St. John, N.B., and that it is probable the plant may be added to.

St. John, N.B., Bridge—A press report states that provision has been made in the appropriations for this year for the putting in of the substructure for a new bridge across the St. John River at the reversible falls at St. John, N.B., and that the contract for the superstructure, to be erected in 1921, will be let. The bridge will have a steel span of 413 ft., supported on concrete abutments, and will be located between the two bridges which now span the river at that point.

St. Maurice River Bridge—The Board of Railway Commissioners has authorized the rebuilding of the bridge across the St. Maurice River, at mile 1.8, Cap de la Magdeleine Subdivision, Que.

Ontario District—A press report states that permission has been given for the closing of King St. and Bay St., Kingston, Ont., running to the harbor, in order so that the C.P.R. may carry out its plans for a new freight yard. The plans are said to include the erection of a freight shed and locomotive house.

Plans for the season's betterments on the London Division are said to include a station at Ayr, to cost \$23,000; a station at Puslinch; the remodelling of Galt station at a cost of \$16,000, and considerable improvements at Chatham at a cost of \$45,000.

Fort William Locomotive House—Tenders will be received to Mar. 5 for building a 4-stall addition to the locomotive house at Fort William, Ont.

Western Lines Contracts—We are officially advised that contracts have been let as follows:

To Canadian Construction Co., Winnipeg, for grading 20 miles of the Rose-town south branch line; in addition to 25 miles awarded in 1919 and not yet completed.

To Canadian Construction Co. for grading 25 miles of the Empress-Milden branch line; in addition to 34 miles awarded to Stewart and Welch in 1919 and not yet completed.

To A. G. Creelman Co. of Calgary, Alta., for building 18 section houses on the Manitoba District; and for building stations at Lydiatt, Harrowby and

Schwitzer, Man., and to H. G. McDonald, Edmonton, Alta., for completion of 5th and 6th floors of the office building at Edmonton.

Western Branch Line Extensions—The Dominion Parliament is being asked to authorize the building of the following additional branch lines: From near Cory, Tp. 36, Ranges 5 or 6, west 3rd meridian, northwesterly to Birch Lake, Tps. 51 and 52, Ranges 15 and 16, west 3rd meridian, Sask.; from near Asquith, Tp. 36, Ranges 9 or 10, west 3rd meridian, northwesterly to near Cloan Tp. 42, Range 20, west 3rd meridian, Sask., from near Rosetown, Tp. 30, Range 15, west 3rd Meridian, to near Keppel, Tp. 35, Ranges 12 or 13, west 3rd meridian, Sask.; from near Kelfield, Tp. 34, Range 19, west 3rd meridian, easterly to Tps. 32 or 33, Range 14, west 3rd meridian, Sask., from near Amulet, Tp. 8, Ranges 20 or 21, west 2nd Meridian to Dunkirk, Tp. 12, Range 28, west 2nd meridian, Sask., from near Kipp, Tp. 9, Range 22, west 4th meridian easterly and north-easterly to near Retlaw, Tp. 13, Range 17, west 4th meridian, Alberta. Power is asked to issue bonds for \$40,000 a mile for the construction of these lines.

Manitoba District Betterments—Tenders will be received to Mar. 5 for building concrete culverts and bridge abutments at various points in the district, and for the following works: Mess room and locomotive foreman's office, Winnipeg; extension of air brake shop at Weston; and a car cleaners' building at Winnipeg.

Saskatchewan District—Tenders will be received to Mar. 5, for the following works in the Saskatchewan District: Two bridge abutments at Weyburn; 4 bridge abutments on Shaunavon Subdivision; 2 bridge abutments on Govanlock Subdivision; 4 concrete arch culverts on Colonsay Subdivision; 6 concrete arch culverts on Sutherland Subdivision; 12 concrete arch culverts on Wilkie and Hardisty Subdivisions.

A press report states that the betterments to be done during this year on the Regina Division will include extensive improvements to Regina station, the building of a coal dock, a 4-stall addition to the locomotive house, and other improvements to the tracks in the yards. The total expenditure proposed at Regina is said to be \$200,000.

The Board of Railway Commissioners has approved route map showing general location of a branch northerly from Rosemary, Sask., mile 0 to 25.03.

Consul to Assiniboia Loop Line—Replying to a general question as to railway construction in Saskatchewan in the Legislature, Feb. 2, Hon. Mr. Dunning gave the following information relative to this line: During 1919 there were graded 12.3 miles, and the Saskatchewan Railways Department had been advised that it is the company's intention to complete, as early as possible this year, the balance of the grading of the 25 miles for which contract was let last year, but it is not in a position to state whether any work in addition to the completion of this mileage may be undertaken this year.

British Columbia District—A press report states that a permit has been issued by Vancouver City Council for the erection of a cold storage plant at the foot of Nelson St., to cost \$14,500. The permit is in the name of the Mainland

Cold Storage Co., but the report says the plant is to be used by the C.P.R. dining car department.

A press report states that a contract has been let to the Pacific Construction Co., Vancouver, for the dredging and filling for the construction of the new dock to be built between piers A and D, the work to be completed in 8 months.

Quebec Subsidies for Railway Construction.

The Quebec Legislature has passed an act authorizing the granting of subsidies in aid of the construction of the railways on conditions to be fixed by the government.

Montreal, Joliette and Transcontinental Junction Ry. Co.—A subsidy of 4,000 acres of land a mile, not convertible into money, by the government, for a railway from Mercier-Maisonnette Ward, Montreal, northerly across the Hochelaga, Assomption, and Montcalm Counties, to Joliette, thence northwesterly to St. Michel-des-Saints, and thence to Parent on the National Transcontinental Ry., 60 miles. Unless the company completes 25 miles by Dec. 1, this subsidy will be cancelled.

Quebec, Montreal and Southern Ry.—A subsidy of 2,000 acres of land a mile, not convertible into money by the government, in lieu of the subsidy voted in 1912, for an extension of its line from St. Philomen de Fortierville in the direction of Levis, 52 1-3 miles.

Malbaie to Ha Ha Bay—A subsidy of 4,000 acres of land a mile, not convertible into money by the government, to a company building a railway from near Malbaie to Ha Ha Bay, 75 miles. The Roberval-Saguenay has a charter to build this line.

Chicoutimi to St. Felicien—A subsidy of 4,000 acres of land a mile, not convertible into money by the government, to a company building a railway from near Chicoutimi, on the Quebec and Lake St. John Ry., to St. Felicien, to the west of Lake St. John, running through the region situated east and north of the lake, as well as all branch lines authorized, the length of main line and branches being 120 miles.

Quebec Central Ry.—A subsidy of 2,000 acres of land a mile, not convertible into money by the government, for the extension of its line from St. Lucie de Beauregard (Lac Frontiere) to St. Pamphile, 25 miles.

Canadian Pacific Ry.—A subsidy of \$1,600 a mile, in lieu of the subsidy voted in 1919, in aid of the construction of a line from the present terminus of the company's branch line at Timiskaming or Kipawa, northeasterly to the Riviere des Quinze, by way of Ville Marie, 66 miles. In the event of the Dominion Government not granting a subsidy for the construction of this line, the act provides that a further sum of \$6,400 a mile shall be paid by the province.

J. G. Scott, ex-General Manager, Great Northern Ry. of Canada, and Quebec & Lake St. John Ry., and Chairman of the Quebec Board of Trade's transportation committee, writes Canadian Railway and Marine World from Quebec: "I congratulate you upon your last issue. It was full of information."

Canadian National Railways Construction, Betterments, Etc.

Betterments, Extensions, Etc.—The President and several other chief executive officers have been devoting considerable time recently to the preparation of estimates for betterments, new construction, etc., to be done this year, these have been submitted to the directors, and subsequently to the Minister of Railways and other members of the government. The betterments will necessarily be extensive, and will require the expenditure of many millions, but construction of new railway lines is likely to be limited, owing to the necessity of keeping the public expenditures down as much as possible.

Springhill Jct., N.S.—A recent press report states that Springhill Jct., N.S., will probably be made a divisional point, eliminating Oxford Jct., and lessening the work at present divided between a number of other points. A second track is under construction between Springhill Jct., and Athol, and the report, after referring to a good deal of survey work, which has been going on during the winter, suggests that it all points to some rearrangement of lines, which would give a direct line along the north shore, shortening the distance between Sydney and Moncton, and bringing eastern Nova Scotia several hours nearer to Upper Canada.

The Guysboro, N.S., Municipal Council is reported to have endorsed a route outlined for a branch line to open up the Guysboro district. The route is said to be from Sunny Brae along the Salmon River Valley to Guysboro Town, then passing to the north shore of Chebucto Bay to the Strait of Canso.

Alfred Center Station—The Board of Railway Commissioners have approved of location and plant of a station for Alfred Center, Que., mileage 70.2, Grenville Subdivision.

Brockville-Westport Subdivision—A press report states that municipalities along the old Brockville, Westport and Northwestern Ry., from Brockville to Westport, Ont., 44 miles, have been asked to request the Hydro Electric Power Commission of Ontario to report on the cost of electrifying the section.

Orient Bay Bridge—The Board of Railway Commissioners has authorized the rebuilding of the bridge at Orient Bay, mile 44.1 from Jellicoe, Ont., Thunder Bay District.

Construction in Saskatchewan—The Saskatchewan Legislature was informed by Hon. Mr. Dunning, Feb. 2, that during 1919 the C.N.R. graded 146.77 miles of new lines and extensions in the province, and laid 63.18 miles of new track. The government had been advised that survey parties were working on the territory west of Bengough during the past season, but the reports thereon had not been submitted. It is the company's intention to take the matter of the construction of a line westerly from Bengough into consideration when the 1920 construction programme is being decided upon, and estimates are prepared to submit to the Dominion Railways Department for approval.

The Saskatchewan Legislature has passed an act extending for a year the time for building lines proposed to be built by the Canadian Northern Ry., and the Canadian Northern Saskatchewan

Ry., and in respect of which bonds were issued and sold within the province's guarantee as to principal and interest. This act will release for construction purposes the unexpended balances now held by the Saskatchewan Government in respect of several partially completed branch lines.

Lampman-Peebles Line—The Board of Railway Commissioners has authorized the crossing of 13 highways by this branch line now under construction in Saskatchewan.

Macrorie Westerly Branch—The Board of Railway Commissioners has authorized the temporary opening for traffic of the extension of the Macrorie Westerly line, from Glidden, mile 105 to Edam mile 115, Sask., speed of trains to be limited to 19 miles an hour.

Gravelbourg-Swift Current Line—A recent press report stated that rails had been laid into Hodgeville.

Acadia Valley Branch—The Board of Railway Commissioners has authorized the crossing of the road between Sections 29 and 20, Tp. 26, Range 28, west 3rd meridian, Sask., by this branch now under construction.

Hanna-Medicine Hat Line—The Board of Railway Commissioners has authorized the C.N.R. to build across and divert the road between Sec. 36, Tp. 28, Range 20, and Sec. 31, Tp. 28, Range 19, west 4th meridian, Alta.

Munson-Wayne Second Track—The Board of Railway Commissioners has authorized the carrying of the second track between Munson and Wayne, Alta., across 12 highways.

Kamloops - Kelowna - Vernon - Lumby Line—The Board of Railway Commissioners has authorized the diversion and crossing of roads at miles 63.35, 64.54, 64.72, 65.37 and 69.03, on this line now under construction in British Columbia. The board has rescinded a former order approving location of the line between miles 66 and 82.22.

A report on railway construction laid before the British Columbia Legislature, recently, showed that about 62% of the grading on the line had been completed.

Vancouver and Victoria Terminals—The annual report of the British Columbia Railways Department, laid before the legislature recently, shows, according to a press report, that during the 11 months ended Nov. 30, 1919, the government paid out of funds in its bonds \$340,740.66 on account of terminal construction. Work on the Vancouver terminals is in progress, the present plans providing for yardage, the erection of a 5-stall locomotive house, a machine shop, coaling station, turntable, temporary station and freight shed. There had been expended up to Nov. 30, 1919, on account of these works, \$34,000.

Vancouver Island Lines—The report of the B.C. Minister of Railways for the year ended Nov. 30, 1919, laid before the legislature recently, states, according to a press report, that 52.5 miles of track has been laid on the Victoria-Alberni line; that a bridge is being erected over the Kokesila River, and that track laying and other construction work will be gone on with on this line during the ensuing construction season. (Feb., pg. 75).

United States Railway Notes.

It was stated in Washington, Feb. 7, that, according to a forecast of operating results for the year, only 2 3/4 % was earned by U.S. railways on their total investment of \$19,000,000,000 in 1919, the second year of government operation. The figures show while railway revenues passed the \$5,000,000,000 mark for the first time in the country's history, the high cost of labor and material resulted in net operating income of only \$515,000,000.

Acting Secretary Crowell, at the Railroad Administration's request, signed an order at Washington, Jan. 30, commanding 72,500 tons of steel rails, in addition to the 42,500 tons contracted for previously by the government. The order is to be filled by various steel rail mills, on the basis of their productive capacity, and it is stated that the price will be decided later.

The Director, Division of Purchases, U.S. Railroad Administration, reports that more than a billion dollars were spent through that division during the first 10 months of 1919 in obtaining materials for railways under government control. The report lists value of material bought for railways as follows: Fuel, \$403,815,632; rails, \$60,764,970; cross ties, \$108,232,363; other material, \$568,119,009.

According to official calculation at Washington the operation of the railways, Pullman lines, express companies and waterways, unified, under federal control, has cost the U.S. approximately \$700,000,000 since they were taken over two years ago. Figures made public by the administration revealed a net loss of \$594,200,000 from railway operation alone in the two year period. Statistics gathered from official sources, as to operating costs of Pullman lines, and waterways, and express companies, while operated by government show the addition of \$100,000,000 to the transportation costs.

Non-Prepayment of Freight to the United States.

The following circular was issued by Canadian railways, recently: "Effective Mar. 1, on account of the existing adverse rate of exchange, and in order to avoid discrimination as between shippers, agents must not accept prepayment of charges from shippers or connecting railways on freight traffic from Canada to the United States, except on such classes of traffic as the classification or commodity tariff applicable, requires prepayment."

The Montreal Board of Trade's Transportation Bureau has protested to the Board of Railway Commissioners, against the regulation being put in operation on the ground that it is illegal, and that it should not be enforced until a hearing shall have been given to interested shippers. The matter is expected to be brought before the Board of Railway Commissioners at Ottawa, Mar. 2.

The Port Arthur, Ont., Public Utilities Commission, for this year, which operates the Port Arthur Civic Ry., and other city utilities, is composed as follows: M. C. Campbell, Chairman; E. J. Blaquier, W. Marrigan, R. Tourtellot, and I. L. Mathews, Mayor. M. M. Inglis is Manager.

Grand Trunk Railway Construction, Betterments, Etc.

Work Done in 1919—The length of the G.T.R. maintained and operated under corporate control, and exclusive of lines under the United States Railroad Administration, during 1919 was 3,618.05 miles. On lines in Canada, 289 miles of new 85 lb. rail were laid during 1919, of which 121 miles were laid on lines east of Toronto and the balance west of there. Seventy-three miles of 100 lb. rail were laid, where there is very heavy and fast traffic on the main lines. Partly worn 80 lb. rail was laid to replace rail of lighter sections, on the more important branch lines, and 15 miles of partly worn 100 lb. rail were relaid on the St. Thomas Division, joint section between Fort Erie and Welland Jct., Ont. Approximately 250,000 cu. yd. of ballast were put under the track on Ontario Lines, west of Toronto, and about 310 miles on the Eastern Lines, east of Toronto, were lifted, surfaced and dressed with new ballast. During the year 2,287,000 cross ties were renewed, this quantity being about equally divided between the Eastern and Ontario Lines. The company bought and applied 296,000 rail anchors and about 234,000 tie plates for all lines in Canada.

At Gravenhurst, Ont., important work was done in connection with track changes, and in constructing a new brick and wood station, concrete platform, restaurant and freight shed, immediately adjacent to the main street and a short distance from Gull Lake summer resort. A mechanical coal chute has been practically completed at Muskoka Jct., about half a mile south of the new station at Gravenhurst. A coal chute was built and put into operation at Victoriaville, Que.

A shop for fabricating steel bridges was built at East Toronto. The locomotive house at York, near Toronto, which had been closed for a number of years, was repaired, remodelled and reopened.

A new yard was constructed at Port Colborne, Ont., containing $3\frac{1}{4}$ miles of track, to serve the Canada Cement Co., the Maple Leaf Milling Co., and the Dominion Government elevator. The locomotive house at this point was enlarged to take care of additional locomotives.

One mile of double track was laid through the yard at Welland Jct., Ont., and between that point and Fort Erie the embankment was strengthened by putting in 15,000 cu. yd. of filling.

New 100 lb. rail was laid across the Niagara Falls steel arch, the floor system was strengthened and an entirely new deck put on it.

The building of concrete piers on the Narrows swing bridge at Atherley Jct., Ont., was taken in hand, piling was driven and coffer dams completed and, it is ready for cement work, preparatory to the construction of the draw span.

New ties were framed and placed on 6 spans of the Victoria Jubilee Bridge, and the planking on the roadway of this structure was renewed. A number of bridges were renewed.

A pumphouse, with electric pumps, was built at Richmond, Que. A 60,000 gal. water tank was built at Bowmanville, Ont. A 100,000 gal. water tank and extension to freight shed were built at Madawaska, Ont., were erected, this point being a district terminal for the 31st district between Ottawa and Depot

Harbor. At the latter point an office building was erected.

The renewal of the ferry dock at Cobourg was completed. From this point a subsidiary company operates car ferry steamships to Rochester, N.Y.

A number of stations were extended at various points and stations were built at Mitchell, Palgrave, St. Agapit and Mille Roches. A heating system is being installed at Stuart St. station and offices at Hamilton, Ont. The track scales at Midland, Ont., were moved to Tiffin, and new scales were installed at Windsor, Ont., at a cost of about \$7,600.

A great number of bridges, buildings, water tanks, etc., were painted, culverts renewed, single and double tool houses constructed, ties renewed on bridges, and numerous concrete crossing signs, whistle posts and section posts were built. In the track department, while it was possible to keep regular sections fairly well manned, there was more or less difficulty in obtaining labor for the extra gangs and it was necessary to pay very high rates for this class of labor. On the Eastern Lines there were from 1,500 to 2,000 men employed during the summer, doing extra work, such as lifting in new ballast, laying rail, applying tie plates and rail anchors, etc. In the bridge and building department there was a considerable shortage of mechanics, especially on lines west of Toronto.

The amount of money spent on maintenance and new works during 1919, greatly exceeded that of former years, partly due to the fact that there was a considerable amount of maintenance which it was absolutely necessary to defer during the war period.

Montreal Division Bridge Rebuilding—The Board of Railway Commissioners has authorized the use of the bridges rebuilt recently across Little Trout Creek, mile 94.99, near Kingsey, District 3, Montreal Division, and has authorized the rebuilding of the bridge on Lot 27, s.w. Concession, St. Rogers, in St. Isadore Parish, Que.

Ottawa Tracks—The Ottawa Rotary Club discussed recently the G.T.R. cross town tracks in that city, and advocated a petition asking for their removal, or the separation of grades.

Bridge Rebuilding East of Toronto—The Board of Railway Commissioners has authorized the rebuilding of the bridge carrying the highway across the company's tracks between Lots 14 and 15, Broken Front Concession, East Whitby Tp., at mile 301.70, Belleville Subdivision, about 1.25 miles west of Oshawa, Ont., and has authorized the use of the bridges built recently at mile 10.30, Lot 10, Range 6, Markham Tp., Ont., at mile 15.88, Lot 21, Range 8, Markham Tp., and bridge 61 on line of Bethune St., Peterborough, Ont.

Highway Bridge near Georgetown—The Board of Railway Commissioners has authorized the rebuilding of the bridge carrying the highway over the company's tracks, at mile 29.62, district 15, Stratford Division, near Georgetown, Ont.

London Division—A press report states that about \$425,000 has been appropriated for betterments on the London Division to be done during this year. The work is reported to include the relaying of 85 miles of track between Paris and London, Ont., with 100 lb. steel

rails; the 85 lb. rails at present in use to be relaid on other lines; the building of stations at Clandeboye, and Hawtrey, on the Port Dover branch, and the remodelling of stations. The question of the signal system to be adopted between London and Paris has not yet been announced, but the report states that an electric block system is favored.

The company is, according to a press report, prepared to go ahead with laying out of a reclamation yard at London, Ont., details of which were given in Canadian Railway and Marine World for Dec., 1919. The question of closing Wilson Ave., in connection with the carrying out the work is before the London City Council.

London and Sarnia Ice Houses—A press report states that ice houses are being built at London and Sarnia, Ont., to store ice for the company's use, and that the ice is being cut by the company on Lake Simcoe, for the first time in several years. The building under construction in London will, it is stated, have a 1,400 ton capacity. (Jan., pg. 18).

Northern Alberta Tourist Route—A press report states that arrangements are being completed for the carrying of tourists through from Edmonton, Alta., to Fort McPherson. After leaving the railway at Peace River they will be carried by the Peace River Development Corporation (controlled by the Rhondda estate), and the Lamson Hubbard Canadian Co. Beginning May 1, the report says, a regular weekly service will be provided from Peace River to Hudson's Hope, B.C., and Fort Vermilion, whence other river steamboats and smaller craft will be used to carry passengers along Slave River, to Great Slave Lake, and along the Mackenzie River to Fort McPherson. A portage route of 90 miles is contemplated from the Mackenzie River to the Yukon River, which will give a through route to the Pacific, making a scenic tour of unique interest. V. Lloyd-Owen, Vancouver, B.C., represents the Rhondda interests, and J. H. Bryan, is Vice President and General Manager of the Lamson Hubbard Canadian Co.

The Railway and Steamship Employees Club has been incorporated under the Quebec Companies Acts with a capital of \$20,000 and office at Montreal, to establish a club for the accommodation of members and their friends, and among other purposes, to buy clothing, provisions, and other necessities to be divided amongst the members on a co-operative basis. The incorporators are: A. Clair, J. P. Picard, W. Shore, W. J. Ryan, L. T. Bourdeau, L. Toussaint, L. McGlynn, and D. Robert, clerks, all of Montreal.

The Railwaymen's Club has been registered under the British Columbia Beneficent Societies Act with offices at 1015 Granville St., Vancouver, to promote "social intercourse, mutual helpfulness, mental and moral improvement and rational recreation." The first directors are: G. M. Alexander, F. M. Goodman and P. W. Baumgardner, switchmen.

The C.P.R. Co. is applying to the Dominion Parliament for the amendment of its act of 1902, sec. 12, by changing the maximum number of directors from 15 to 16.

Aerial Transportation Notes.

The London, Ont., Aviation Club is reported to have appointed a committee to find a site near the city for an aerodrome.

A press report states that the Nova Scotia, New Brunswick and Prince Edward Island governments are being asked to guarantee the Eastern Canada Air Lines' bonds.

Major K. E. Clayton-Kennedy, of the Aircraft Manufacturing Co., London, Eng., is reported to have made arrangements for an aircraft service for the Newfoundland seal fishing fleet.

Capt. E. C. Hoy, D.F.C., Vancouver, B.C., is reported to be applying to the Dominion Government, for permission to operate an aerial mail service daily between Vancouver and Victoria.

N. A. Yarrow, of Yarrows Ltd., ship-builders, etc., Esquimalt, B.C., is reported to have announced that that company is prepared to proceed with the manufacture of aeroplanes as soon as there is a sufficient demand.

A press report states that it has been announced in London, Eng., that new air routes between London, Paris and Brussels, for the operation of freight as well as passenger and mail traffic, will be announced early in the spring.

A Montreal press dispatch states that a group of steamship owners, airship building companies, business, engineering and transport companies, are combining to buy aircraft of all kinds to establish a weekly trans-Atlantic service.

The Second Assistant United States Postmaster General stated, Feb. 9, that a powerful mail plane is being developed to carry mail over the mountains to San Francisco, and that a new British triplane is to be tried between Chicago and Omaha.

The United States Post Office Department on Feb. 9 asked the Senate Post Office Committee for an appropriation of \$3,400,000 to establish new aerial mail routes between New York and San Francisco, Pittsburg and Kansas City, Detroit, Toledo and Cleveland, New York, Washington and Atlanta; and St. Paul, Chicago and St. Louis.

Capt. J. W. Hobbs, of the Canadian Air Board, is reported to have advised the establishment of a seaplane base at Vancouver, B.C., with refueling stations at several interior points, in connection with government departmental work. Seaplanes are recommended for use, as natural landings are obtainable throughout the province without any expenditure.

A Washington, U.S., press report states that an air route from Mineola, N.Y., to Nome, Alaska, has been planned by the army air service. The route will cross the Canadian border at Minot, N.D., thence to Hazleton, B.C., where it will turn north between the Coast Range and the Rockies to White Horse, Yukon, and will cross the Yukon-Alaska border at Fort Egbert.

Plans are reported to have been completed for the inauguration of an air service between Winnipeg, Man., and St. Paul, Minn., a press report stating that bookings for air trips between the two cities have been made for April. One of the intermediate stations will be at Grand Forks, Minn. The service will, it is said, be operated by the recently

incorporated Aerial Transport and Taxi Co., Winnipeg.

It was reported from Ottawa, early in February, that numerous applications were being received by the Canadian Air Board, for certificates as private pilots, but at that time, only 10 certificates had been issued. It was stated that all former members of the Royal Air Force are entitled to private pilots' certificates, provided they were physically fit on leaving the force. The board has also received a number of applications for the establishment of aerodromes.

The Eastern Canada Air Lines Co., is the successor of the Prince Edward Island Aerial Transportation Co., which was incorporated by Dominion charter about a year ago. The authorized capital of the new concern is \$500,000 and it proposes to establish three routes, viz., from Charlottetown to the Magdalen Islands and Newfoundland; from a New Brunswick point to Boston, New York or Philadelphia, and from a New Brunswick point to Quebec and Montreal. The Air Craft Co. of Montreal, is reported to be interested in the venture. Charlottetown is being asked to take \$25,000 of the company's capital stock.

The Civil Service Commission has announced a competition open to all residents of Canada, for the position of aeronautical intelligence officer for the air board at an initial salary of \$2,400 a year, which will be increased, on condition of efficient service, by \$120 a year, to a maximum of \$2,800, and the initial salary will be supplemented by whatever bonus is provided by law. The duties are, to gather and distribute information, relative to aviation, aeronautical signs, aeroplanes production, and all relative subjects, to supervise the preparation and editing of the Aeronautical Year Book, and to assist the Secretary of the Air Board, and perform other related work as required.

The Aero Club of Canada held its first annual meeting in Toronto recently when the following officers were elected: Hon. President, Lieut.-Col. Barker, V.C.; President, Lieut.-Col. A. K. Tylee, O.B.E.; Vice President, Major V. S. Wemp, D.F.C.; Vice President for Ontario, Major A. M. Shook, D.S.O., D.F.C.; Hon. Secretary, A. F. Penton; Hon. Treasurer, Capt. E. A. McKay, D.F.C.; directors, Major M. M. Sissley, A.F.C.; Capt. Joe Clark, D.F.C.; Capt. H. A. Hember, Lieut. M. C. Purvis, J. K. Shook. A resolution was adopted to be presented to Ottawa, urging the necessity of forming a volunteer air force, independent of the military or naval forces of the country, on somewhat similar lines to the Canadian militia.

The Aeronautical Association of Canada, held its first annual dinner in Montreal recently, when the Governor General and Col. O. M. Biggar, Vice President of the Canadian Air Board, were the chief guests. The latter spoke of the work already done by the air board and said that the board had put forward proposals which he believed would be favorably received by airmen, but he did not divulge their nature. He however, intimated that development in the immediate future will be upon the lines of the creation of special air routes by the government in the more isolated areas, to the exclusion of the populated

centers, and suggested that if municipalities want to encourage air transportation, they must afford the inducements by providing the necessary landing facilities.

The Civil Service Commission of Canada invited applications recently for the following positions under the air board; the tenure of office to be three years, renewable, at the salaries named: Air Station Superintendent, \$3,360; Air Substation Superintendent, \$2,940; Air Equipment Officer, \$2,400; Air Photographer Inspector, \$2,340; Air Wireless Inspector, \$2,340; Air Pilot Navigator, \$2,460; Airship Pilot, \$2,460; Air Pilot, \$1,920; Air Foreman Mechanic, \$1,500; Air Photographer, \$1,500; Air Wireless operator, \$1,500; Air Engineer fitter, \$1,080; air rigger, \$1,080; fabric worker, \$1,080; hydrogen plan operator, \$1,080. In addition to salary the Air Board will make provision for insurance against injury or death due to accident while on or about aircraft. Preference will be given to persons who have been on active service overseas.

Regulations controlling aerial navigation issued in Ottawa provide that aircraft must be registered under conditions somewhat similar to those governing marine craft, all their operations from taking off to alighting being under strict regulation. "Air harbors," "seaplane stations," "aerodromes," "customs air harbors," "air worthiness," are new terms which will come into common use. The qualifications of pilots and engineers are set forth at length. All machines must bear, on top, bottom and sides, letters indicating nationality, for the information of the customs. The painting of buildings, raising of lights, or marking of ground in a way which might lead aircraft to alight by mistake are forbidden. Water craft must keep clear of portions of harbors set aside for the lighting of aircraft, and arrivals and departures of aircraft will be chronicled just as marine craft are now. Machines must carry white lights fore and aft, and green and red lights on right and left, respectively. Stations to report the arrival of aircraft will be established, and mail aircraft must be specially authorized.

Major Lincoln, in reporting to the Canadian Air Board as to the possibilities of aircraft in Saskatchewan, is reported to have made the following recommendations: The establishment of air service stations in the north part of the province; the establishment of an air service training school in Regina; the establishment of air patrols to cover the forest areas in the northern sections of the province; the possibilities of the use of aircraft for commercial purposes, such as bringing down small shipments of valuable furs from the north country; aeroplanes available for police service in the north country as well as on the border line between Saskatchewan and the United States; aeroplanes for use in photographing the unsurveyed areas of the north country to assist in mapping out the districts which are available for ranching, etc., the use of aeroplanes on certain mail services in districts where the present mail service is very poor, owing to lack of railway facilities. Major Lincoln is reported to have made similar recommendations for the development of an aeroplane service in Alberta.

Railway Rolling Stock Orders and Deliveries.

The C.P.R. has ordered 18 steel sleeping cars from the National Steel Car Corporation.

The Jamaica Government Ry. has had ordered 60 standard cars from National Steel Car Corporation.

The Bengal-Nagpur Ry. (India) has ordered 80 large capacity ore cars from National Steel Car Corporation.

The G.T.R. has received 2 steel frame stock cars, 60,000 lb. capacity, from Canadian Car and Foundry Co.

The Canadian Car & Foundry Co. is stated in a Montreal press report to have some \$20,000,000 of orders booked.

The Grand Trunk Pacific Ry., will, it is reported, be in the market in the near future for locomotives and freight cars.

The C.P.R., between Jan. 14, and Feb. 12, ordered 3 vans from its Angus shops, Montreal, and bought 67 automobile cars.

The C.P.R., between Jan. 14, and Feb. 12, received 2 vans, 1 single track steel snow plough, and 2 locomotives from its Angus shops, Montreal.

The Minneapolis, St. Paul and Sault Ste. Marie Ry. is reported to be in the market for 5 locomotives and 1,000 flat cars, 40 tons capacity.

The C.P.R. is stated in a Montreal press report to have ordered some \$5,000,000 worth of rolling stock, principally freight cars, from Canadian Car & Foundry Co.

The Canadian Locomotive Co. has delivered 3 12 wheel (4-8-0) locomotives to the Jamaica Government Rys. Details of these were given in our February issue, pg. 69.

The Nova Scotia Steel and Coal Co. is having 2 stock pile cars, 10 tons capacity, built by the Eastern Car Co. They will have hopper bottoms, side doors entered from end to trip levers, four 12 in. wheels, one fixed bearing and one floating bearing.

The G.T.R. is reported to be about to build 25 six-wheel (0-6-0) switching locomotives at its Point St. Charles shops, Montreal, and is also reported to be in the market for 3,000 automobile box cars, 1,000 flat cars, 50 baggage and express cars, 15 express refrigerator cars and 10 express horse cars.

The Canadian Car and Foundry Co., shipped recently, 3 sleeping cars to Canadian National Rys., 92 repaired box cars, and 147 repaired hopper cars to G.T.R. The company has on hand orders for 35 steel frames for sleeping cars, for C.P.R.; 25 air dump cars, 20 yds. capacity, for Great Winnipeg Water District; and 15 frames and bogies, and 2 extra bogies, for Dorado Extension Ry.

The British American Nickel Corporation is having built, 3 furnace charging cars, 35 tons capacity, by Eastern Car Co. They are a special type of car, with 4 hopper compartment doors on one side of car only, operated by shaft levers, and fitted with Canadian Fairbanks-Morse Co.'s scales, with scale box indicating weight of car contents. The trucks will be of the special arch bar type, with 8 wheels, modified M.C.B. axles and journal boxes, special draft gear rigging and couplers. The inside dimensions will be: length, 31 ft. 4½ in., width 5 ft. 7½ in.

Canadian National Rys., as announced in our last issue, has ordered 80 ca-

booses from Canadian Car & Foundry Co., which will be built at Amherst, N.S. They will have wooden underframe, reinforced at draft rigging with 7 in. channel 20.1 lb., and wooden superstructures. Following are the chief details:

Length over body end sills	30 ft.
Length over platform end sills	35 ft. 2 in.
Width over side sills	9 ft. 1½ in.
Height, top of rail to bottom of side plate	6 ft. 6 in.
Center to center of bolster	20 ft. 4 in.
Draft gear	Miner tandem
Air brakes	Westinghouse

The Pacific Great Eastern Ry. has ordered 3 Mikado (2-8-2) locomotives from Canadian Locomotive Co. Following are the chief details:—

Fuel used	Oil
Weight of drivers	162,000 lb.
Weight of engine, total	212,000 lb.
Wheel base of engine, rigid	13 ft. 6 in.
Wheel base of engine, total	30 ft. 9 in.
Wheel base of engine and tender	61 ft. 3 in.
Heating surface, fire box and arch tubes	179 sq. ft.
Heating surface, tubes	2,244 sq. ft.
Heating surface, total	2,423 sq. ft.
Driving wheels, diar.	51 in.
Driving wheels, centers	Cast steel
Driving journals, diar. and length	9½ and 9 x 12
Cylinders, diar. and stroke	22 x 28 in.
Boiler, type	Extended wagon top, radial stayed
Boiler, pressure	190 lb.
Tubes, number and diar.	24—5%; 189—2 in.
Tubes, length	17 ft.
Injectors	Nathan No. 9
Air valves	3 in. Lunkenheimer
Air brakes	Westinghouse American
Packing	King, metallic
Superheater	Locomotive Superheater Co., type A
Frame cradle	Commonwealth
Trailing truck	Delta
Valve motion	Walschaert
Headlight	Electric
Weight of tender loaded	153,500 lbs.
Tank capacity, oil	2,700 imp. galls.
Tank capacity, water	6,000 imp. galls.
Tank, type	Water bottom
Tank, type	Equalized
Wheel, diar.	33 in.
Wheel type	Steel tread
Journal diar. and length	5½ x 10 in.
Brakebeam	Safety simplex

Imperial Oil Ltd., as announced in a previous issue, is having built by Canadian Car and Foundry Co., 100 general tank cars, 8000 gall. capacity, without heaters; 125 tank cars for asphalt, 8,000 galls. capacity with heaters; 50 general service tank cars, 6,500 galls. capacity, with heaters, and 25 three compartment general service tank cars with heaters. The underframes of all the cars will be the same, the center sills consisting of two 15 in. channels, 35 lb. with ½ in. top and bottom cover plates, side sills of 9 in. channels, 15 lbs., extending from under sill to bolster, on all the cars except the three compartment cars, on which the sills will extend the full length between the end sills, cast steel tank saddles at bolsters and 40 ton capacity trucks. The tanks will all be 76 in. inside diar. and in accordance with M.C.B., specifications for class 3 tanks. The cars will be equipped with Westinghouse 10 x 12 air brakes, Cardwell friction, draft gear, and Sharon 6 x 8 in. type D couplers. Following are the chief details:

8,000 Gallon Cars.

Length over coupler knuckle	40 ft. 8 in.
Length over end sills	37 ft. 10 in.
Truck centers	27 ft. 10 in.
Truck wheel base	5 ft. 6 in.

6,500 Gallon Cars.

Length over coupler knuckle	34 ft. 1½ in.
Length over end sill	31 ft. 3½ in.
Truck center	21 ft. 3½ in.
Truck wheel base	5 ft. 6 in.

Three Compartment Cars.

Length over coupler knuckle	34 ft. 5 in.
Length over end sills	31 ft. 7 in.
Truck center	21 ft. 7 in.
Truck wheel base	5 ft. 6 in.

Canadian National Railways Orders.

The Dominion Government passed an order in council early in February authorizing the expenditure of \$20,000,000 for rolling stock, for Canadian National Rys., and this has since been supplemented, or will be, by a further \$5,000,000. Canadian Railway and Marine World for February gave particulars of orders placed for cabooses, and of tenders invited for other rolling stock by Canadian National Rys., in addition to which options were taken on additional requirements. Up to Feb. 28, the following orders had been placed this year:—

42 Pacific type (4-6-2) locomotives; (10 heavy, of 40,000 lb. tractive effort, and 32 medium, of 38,000 lb. tractive effort), and 25 Santa Fa type (2-10-2) locomotives from Montreal Locomotive Works Ltd.

30 six-wheel switching (0-6-0) locomotives and 15 Mikado locomotives, Canadian Government Rys. standard, from Canadian Locomotive Co., Kingston, Ont. 18 sleeping cars, 73½ ft. long; 12 dining cars; 20 baggage cars; 1,000 box cars, 40 tons capacity; 600 refrigerator cars, 30 tons capacity with steel sub sill, and 80 cabooses, from Canadian Car and Foundry Co., Montreal.

500 box cars, 40 tons capacity; 1,150 general purposes (coal) cars, 50 tons capacity, and 6 steel snow plows from Eastern Car Co., New Glasgow, N.S.

350 ballast cars, 50 tons capacity, from Hart-Otis Car Co., Montreal.

1,500 box cars, 40 tons capacity from National Steel Car Corporation, Hamilton, Ont.

20 cabooses from Preston Car and Coach Co., Preston, Ont.

Four 120 ton industrial wrecking cranes; one industrial self propelling pile driver; four 100,000 lb. all steel Jordan ballast spreaders; two ¾ yd. Erie steam ditchers; from F. H. Hopkins & Co., Montreal.

One 15 ton 8 wheel Brown hoist, second hand, from T. J. McGovern, Toronto.

One 60 ton Lidgerwood rapid unloader, second hand, from Canadian Equipment Co., Montreal.

Some of the rolling stock ordered, as stated above, will probably be allocated to the Grand Trunk Pacific Ry.

The C.N.R. has also invited tenders for 350 stock cars, and has under consideration the ordering of 30 more cabooses.

Railway Employes Purchases—The Brotherhood of Maintenance of Way Employes and Railway Ship Laborers, according to a Detroit, Mich., press report recently announced the purchase of four clothing factories from which goods will be sold at price reductions ranging from 25 to 60%. Negotiations are reported to be underway for the purchase of two other factories. This is part of a movement among labor unions in the United States in the direction of co-operation in order to meet the high cost of living.

Paper Pulp from Flax Straw—The C. P.R., which has been investigating the problem of manufacturing paper pulp from flax straw, will give full particulars to any accredited organizations interested in the commercial development of the process in Canada. Application should be made to Colonization and Development Department, C.P.R. Montreal.

Romance of the Telegraph, Telephone and Wireless.

By H. Hulatt, Manager of Telegraphs, G.T.R. and G.T. Pacific Ry.

In the Grand Trunk Pacific Telegraph Co., of which it is my privilege to be Manager, the slogan of our selling force is:—"Efficiency is the conservation of time; time is money; telegraphing saves time." The thought created by this slogan is by no means a new one; the need for more prompt method of communication other than verbal or by courier was felt even by the ancients. Various schemes in those ancient days were adopted to overcome the difficulties of communication. Theseus devised the method of colored sails, to convey messages from ship to ship of the fleet, and incidentally caused the death of his father by his failure to handle the signals properly. He sailed into conflict with the enemy, with black sails set, the signal of battle and of death. Unfortunately when the battle was over, and he was the victor, in the excitement of the moment he forgot to lower the black sails and replace them with red, which it was understood would represent victory. His venerable father, Ageus, seeing the black sails from afar, believed the signal reported his son defeated and dead, and, without waiting to make further enquiries, drowned himself.

Ancient Persians carried messages by having them shouted from sentinel to sentinel, instead of adopting the slower method of by courier. A similar method of communication was also used occasionally by the ancient Gauls. Caesar records that the news of the massacre of the Romans at Orleans was sent to Auvergne, a distance of nearly 150 miles, by such a method, the information reaching Auvergne the evening of the day of the battle. A perusal of the history of the Red Indians of the North American continent, the Aztecs of Mexico, and the Incas of Peru, shows that they also had various methods of signalling, by means of smoke rings and puffs by days, and by signal lights and fire arrows by night.

Doubtless many readers have seen in old books references to the lodestone, and the following legend may be of interest. A shepherd, Magnes, whilst tending his sheep in ancient Greece, found that his crook was attracted by a strange rock; thus was the lodestone, the natural magnetic iron discovered. It is claimed the words magnet and magnetism are derived from the name of the shepherd. The ability of amber, when rubbed, to attract straws was also known to the early peoples, and as a matter of fact the word electricity is derived from elektron, the Greek name for amber. Prior to the 18th century, the old alchemists, who, while they knew nothing about electricity, had discovered the peculiar properties of the lodestone and of amber, for many years derived, due to their knowledge of such peculiar properties, a lucrative business fooling the public. Incidentally, however, they ran the risk of being charged with dabbling in the black art, the penalty for which was death, by being burned at the stake, or drowned.

It was not until the latter half of the 18th century that scientists began to make any extensive investigations or experiments in connection with the possibility of developing the use of electricity. It is needless for me, I am sure, to state that as to what electricity ac-

tually is, even at this date, no one really knows; all we do know is that it is a power which scientists have been able to control in such a way as to prove of utility to mankind. Credit for the first steps towards an electric telegraph must be given to an unknown writer at the middle of the 18th century. Scott's Magazine of Feb. 17, 1755, contained an article signed simply "C.M." The writer's idea was to lay an insulated wire for each letter of the alphabet, the wires to be charged from an electrical machine in any desired order, and at the receiving end they would attract discs of paper marked with the letter which that wire represented, thereby enabling any message to be spelled out. Such a scheme was not, of course, commercially practicable, but the article undoubtedly caused thinkers to experiment, and ultimately led to the development and subsequent demonstration of the commercial practicability of an electric telegraph system.

As an indication of the importance of speedy communication in the carrying on of the activities of life in this old world, it is interesting to record that the early scientists, experimenting in the control of electricity, considered the problem from a communication standpoint, rather than to utilize electricity for transportation and machinery purposes. There were several pioneers in the early 19th century, who concentrated on the problem of the electric telegraph, among others Ampere, the celebrated Frenchman, after who mis named the ampere, one of the units of electrical measurement, Profs. Gauss and Weber, of Gottingen, and Edward Davey of England. The two outstanding men, however, in the development of the telegraph from a practical commercial point of view were undoubtedly Wheatstone of England, and S. F. B. Morse, of the United States.

The actual first working telegraph line in England placed at the service of the public was in 1841 on the Great Western Ry. It did not, however, commend itself to the public, until its utility was strikingly demonstrated by the capture of a celebrated criminal called Kwaker. Early one morning a woman was found dead in her home in the suburbs of London; a man had been seen leaving the house and enquiry revealed the fact that he left on a slow train for London. Without the telegraph he could not have been apprehended, but fortunately this particular telegraph line was available and the police in London was by this means instructed to arrest him. The message read: "He is dressed as a kwaker." The reason for incorrectly spelling the word Quaker was due to the fact that on the receiving instrument there was no provision for the letter Q, and the incorrect spelling very nearly resulted in the criminal getting away.

Morse conceived the present application of electricity to telegraphy whilst on board a ship in 1833 en route to America. He developed his thoughts, and his apparatus was first exhibited to the public in 1837 and to the members of the Royal Society in London in 1839. The first actual telegraph line erected in the United States was between Washington and Baltimore, it being put into service on May 23, 1844. Morse's great

problem was how to tie the wire to the poles, and his first procedure was to bore through the top of the pole a hole sufficiently large to let the wire through. It was found in practice, however, that in rainy weather there was too big a leakage of current, and consequently he subsequently enlarged the holes, and insulated the wire at the poles, by inserting the neck of a bottle in the holes. Consequently the neck of a bottle may be said to be the preliminary development of the glass insulator so commonly in use today.

One of the railways I represent was one of the first in America to go to the expense of erecting a telegraph line. In 1852 the Grand Trunk Ry. gave a contract to the Montreal Telegraph Co. to build a telegraph line consisting of a pole line and one wire from Longueuil to Portland for £12 7s 6d a mile. The G.T.R. was also the first railway to experiment in wireless telegraphy from a moving train, in Oct., 1902.

As a result of the development of land line telegraphs, thought was naturally given to the possibility of laying a submarine cable across the Atlantic, and many attempts were made without success; the first being in 1858. In 1864, no success having then been obtained, and as an indication of how hope of ever being successful had practically been given up, despite the fact that at that time the field telegraphic cable was under construction, the Western Union Telegraph Co. undertook to connect Europe and America by land line telegraphs from San Francisco to the Yukon, thence through Alaska to the Behring Sea, the latter to be crossed by a short submarine cable, connecting in Siberia with a telegraph line to be built to the mouth of the Amur River, where it would connect with the Russian Government telegraph line already built; and so continue throughout Europe. The erection of this land line telegraph was a matter of agreement between the United States, the British and the Russian Governments (Alaska at that time being owned by Russia), and the work was placed in charge of Col. C. S. Bulkley, U.S. Army Telegraph Corps. Construction was proceeded with promptly, the line running through Canada from New Westminster, via the Cariboo trail to Quesnel, thence via Fraser Lake, and Hazelton to the Naas River, the latter point being reached in July, 1866, a distance from New Westminster of 850 miles. The Bulkley River and Bulkley Canyon, in Northern British Columbia are both named after Col. Bulkley. On July 29, 1866, the construction party of 250 men, on receiving news that the field telegraphic cable referred to previously, had on that date been completed and successfully operated, without waiting further instructions, quit their work and left all material and supplies behind. The famous Indian bridge over the Bulkley River was built by Indians from the material left behind by the telegraph construction crew. It consisted of wood and telegraph wire, and the most astonishing thing is that, despite the fact that these Indians so far as it is known had never seen a suspension bridge, and also had not the assistance of white man in the construction, built a bridge conforming to all the standard principles usually

employed in connection with suspension bridges. It is only recently that the bridge was taken down, due to extreme age.

In 1870 the Western Union Telegraph Co. sold the telegraph line between New Westminster and the Naas River, to the British Columbia Government, which in turn transferred it to the Dominion Government when British Columbia came into the confederation in 1871. The Dominion Government subsequently, due to the Klondike rush, extended the line to Dawson and it is in operation today, in fact is in competition part of the way with the telegraph line of which I have charge.

The telegraph was first used in connection with the dispatching of trains on the Erie Rd. in 1861, due to the initiative and vision of Chas. Minot, then General Superintendent, and it sounds almost ludicrous today to read what trouble he had, in connection with the first telegraphic train dispatching order, to make the train crew realize that it was perfectly safe to operate under it and go ahead.

Developments in the telegraph field, after Morse had successfully inaugurated it, were not very great until a few years ago, although there had been developed the duplexing and quadding of wires, enabling 2 and 4 messages to be transmitted over the same wire simultaneously, and also the use of motor generators as against gravity cells for the supply of requisite current.

No progress can be made if people are all absolutely satisfied and contented. The increased speed of communication brought about by the telegraph, after people had become used to it, failed to satisfy, a still more flexible means of communication being desired. This led to the discovery and development of the telephone, which was invented largely as a side line in connection with the study of means for educating deaf and dumb people, undertaken by Alex. M. Bell in Scotland starting in 1849, Dr. Graham Bell, the actual inventor of the telephone, being his son.

Dr. Graham Bell proceeded to develop his ideas, with the result that the first telephone was exhibited at the Centennial Exhibition in 1876, and the first telephone conversation was made over a telegraph wire owned by the Walworth Manufacturing Co., Boston, to its factory at Cambridgeport, two miles distant. This took place on Oct. 9, 1876, and created world-wide astonishment. In passing, simply as an indication of the wonderful development in telephone transmission, I may say that early in 1916 it was my privilege to be the first subscriber of the Bell Telephone Co. of Canada to talk over its long distance wires from Montreal to Vancouver, B.C. Dr. Bell had a tremendously hard time in developing and demonstrating his invention, which was very different from that of today, being extremely cumbersome, and it was operated by only one wire, which limited the distance of conversation possible, and also, due to ground noises, etc., did not permit of a very quiet talking circuit. Instruments have since then been tremendously improved and to eliminate ground noises, etc., telephone companies now erect, in connection with their circuits, two wires, known as metallic circuits.

A most wonderful performance, in the opinion of the public at that time, took place in Montreal in 1878, when five telephones were connected at one end of a circuit, and one telephone at the other

end, enabling the party using the latter telephone to talk to five different people at one and the same time. This was the first step probably in demonstrating the feasibility of what today is known as a party line.

The pioneers in the commercial telephone field had quite a hard task, and needed a great deal of courage to hang on, in fact in connection with the Bell patents in Canada, I believe the original holders sold them about 1880 at a ridiculously small sum.

Canada and the United States have, I believe, generally speaking, a telegraph and telephone service unexcelled by any other countries in the world. In 1916, the last figures I have available, there was one telephone to every 14 people in Canada, and in the United States there is a still greater number of telephones per capita in use. In England, where both telegraphs and telephones come under the Government Post Office Department, neither system has ever proved profitable, and the public in connection with both services, has never received service that could begin to compare with that given by the companies on this side of the Atlantic. Anyone who has been in England and has had to use the long distance telephone lines will realize the truth of this statement.

The telegraph and telephone companies, particularly the American Telegraph and Telephone Co., which controls the Bell companies of the United States, and, while it does not control, works very much in harmony with the Western Union Telegraph Co., have always maintained, at tremendous expense, engineering research departments, and it is due to the wonderful work done by the men of such departments and the enterprise displayed by the companies referred to that we have the remarkable facilities we enjoy today.

Up to within 10 years all railways operated their trains by telegraph. It was considered that they could not do so by telephone, due to the fact that they would, at the best, have only one pair of wires available for telephones, and, if 20 stations cut in on the line, code ringing would have been necessary when the dispatcher wished to raise an office, and every receiver would undoubtedly have been taken off the hook and everybody on the line would have been listening in; furthermore the dispatcher would not be sure whether he had got the right office or not. In 1906 and 1907, there was invented what is known as the selector, which, installed on metallic circuits, enables the train dispatcher, by the twisting of a key, to ring the bell of any specific office, and at the same time does not allow the bells in any other office to ring. As a consequence today, all the main trunk lines of railways are equipped with telephone train dispatching apparatus, resulting not only in the more prompt movement of trains, but, what is more important, increasing tremendously the safety, not only of the public, but employees. There was naturally considerable opposition, on the part of the old train dispatchers, to the inauguration of the telephone in connection with train dispatchers, to the inauguration of the telephone in connection with train dispatching, probably due to the thought that such inauguration would result in their losing positions. In practice, needless to say, this is not the case; there are very few dispatchers who, once having used a telephone, would care to go back to straight telegraph train dis-

patching. As a result of railways adopting telephone train dispatching, and the consequent expense of erecting heavy copper wires, thought was given to the possibility of not only using the two wires for telephone purposes, but at the same time to use them for telegraph transmission. This resulted in the development of a simple apparatus known as the simplex panel, which permits simultaneous operation of telegraph and telephone over the same circuit without conflict.

Both in the telegraph and telephone field we have been very largely dependent upon employe, who, in order to fulfill their duties, had very often to go through quite a lengthy period of training. Some few years ago there was introduced in the telegraph field the printer telegraph, which has since been brought to a high state of development, by means of which I could take stenographers from any office and within a comparatively short time have them sending messages between Montreal and say, Toronto or Winnipeg, faster and possibly just as correctly as the average telegraph operator.

The automatic telephone has been developed and brought to a high state of efficiency and there are several installations in successful operation in Canada, viz. at Edmonton, Regina, Calgary and Saskatoon, and a big installation is contemplated in Winnipeg.

Before discussing very briefly the subject of wireless I would like to say a few words as to what is called "wired wireless." I have, I hope, given some idea as to how the telegraph and telephone companies have endeavored to increase the uses to which existing plant can be put, thereby obviating the necessity for additional heavy capital expenditures, and in this connection I may say that some considerable time ago telephone companies developed and put into use what is known as a phantom circuit. Where a telephone company has copper wires on a pile line erected on the same plane, by a system of what is known as transpositions, it can from those 4 wires obtain 3 telephone circuits, and by means of a simplex at least 2 telegraph circuits. The new wired wireless is simply a still further development of the principles that have been previously put into effect. It has been largely developed by Gen. Squires, of the U.S. army, and also by American Telephone and Telegraph Co. engineers. They have had an experimental line in operation in the U.S. and so far have been able, over one circuit, to get 8 to 10 telephone conversations and 1 or 2 telegraph communications in operation simultaneously without conflict.

In connection with wireless, Marconi, whose mother was Irish, and who was himself a pupil for sometime at Bedford Grammar School and Rugby School in England, secured his first patent in June, 1896, and the first commercial use it was put to was in the autumn of 1897. Since then there have been very great developments. One of the perpetual troubles up to recently in connection with wireless was static, a condition in the atmosphere which completely put the wireless out of commission. This trouble was particularly prevalent during summer, and it may be of interest to know what it has been overcome by a discovery by Chief Engineer Wegeant, of the Marconi Co. in the U.S., and a graduate of McGill University, Montreal.

A recent development in connection with wireless is a device invented by C. A. Hoxey, Engineer of the General Electric Co., whereby wireless messages are visualized and also photographed. One of the troubles in connection with wireless has been the fact that signals heard in the received are often very faint. This invention provides a check on the safe copying of wireless messages by the receiving operator. The signals are recorded by a beam of light being reflected from a small mirror attached to a galvanometer of special design. This galvanometer is placed in parallel with telephone receivers of an ordinary wireless receiving set, a portion of the energy of the incoming signal being used to operate the galvanometer. By this means the mirror is made to vibrate very rapidly, whenever a dot or dash is impressed upon the circuit. The source of light comprises 2 incandescent lamps of special design, the reflection of one being used to make a record on the sensitized tape, the light from the other being projected on a small ground glass screen, thus making the vibrations visible, which enables the operator to properly adjust the machine and also read the message if the rate of sending is not too rapid. The sensitized paper is automatically passed through a developing and fixing bath, and washing and drying tubes, to a basket at the end of the machine, the elapsed time between the time of exposure and its delivery in the basket being about 2 minutes. Whereas heretofore the speed at which a wireless operator could transmit a message was regulated very largely by the capacity of the receiving operator, this machine, it is claimed, will ultimately be capable of recording at a speed of 1,250 letters, or 250 words a minute.

Wireless telephony has made remarkable strides during the last 2 or 3 years, though up to the present most developments have been made in receiving, rather than in transmitting features. One of the great features in the develop-

ment of wireless communication since 1914 is the invention of the Thermionic or French valve, for the perfecting of which much credit must be given to our Signal Corps in France and Flanders. One of these valves amplifies sound 6 times, 2 valves 36 times, 3 valves 216 times, and so on. The Australian station used 15 valves recently, receiving from Carnarvon, Wales. This number of valves, at a short distance, sounds like a steam whistle, and a signaller remarked that with any more in service he would surely have heard the angels singing.

I have my dreams as to what future developments will be, but I think readers will agree with me that the improvements so far attained have been of tremendous benefit to mankind, and what is more that they will appreciate such developments, and the future developments to be, will result in the closer binding together of the different peoples of the world in different localities, and thereby, by bringing them into closer contact, and a better realization of one another's problems, tend very largely to remove what is a very prolific source of discord and strife, namely, a lack of knowledge of one another.

Editor's Note—In the foregoing no mention is made of the fact that Dr. A. G. Bell invented the telephone in Brantford, Ont., and that many experiments with it were carried on there. We therefore think it well to give the following synopsis of a letter he wrote, when a memorial was proposed to be erected there to commemorate the event. The following are the facts he stated:

Invention of the telephone at Tutela Heights, Brantford, 1874 (summer). First telephone constructed and speech sounds heard, Boston, Mass., June, 1875. First draft of telephone patent specification prepared, Brantford, Sept., 1875. Complete sentences first clearly understood by telephone, Boston, Mar. 10, 1876. Telephone exhibited at Centennial

Exhibition, Philadelphia, June 25, 1876. First attempts to transmit speech over telegraph lines, Boston, July 7, 9 and 12, 1876. First successful attempt to transmit speech over telegraph lines Brantford, Aug. 10, 1876. First public demonstration of ability to speak over a telegraph line, Brantford, Aug., 1876. First transmission of a number of voices simultaneously over a telegraph line, Brantford, Aug., 1876. First conversation by telephone over a telegraph line (reciprocal communication), Boston, Oct. 9, 1876. First long distance conversation over a telegraph line (143 miles), Boston, Dec. 3, 1876. First newspaper dispatch sent by telephone, Salem, Mass., Feb. 12, 1877. First telephone line opened, Boston, April 4, 1877.

Dr. Bell also wrote as follows: "In this way, Brantford became my thinking place; here the telephone was invented, the first draft of the patent specification prepared, the proper relation of the parts of the telephone to enable it to be used on long lines were worked out; and the first transmission of the human voice over miles of telegraph line was actually accomplished. Here also the first public demonstration of this result was given to the world. I think, therefore, that Brantford is fully justified in considering itself as integrally associated with the development of the telephone, and I need hardly say that I am deeply grateful to Brantford for seeking to perpetuate this association by the magnificent memorial you are now establishing in your city."

The following Brantford, Ont., press dispatch of Feb. 12 is of interest, in connection with the foregoing: The death of Norbett Burnett at Ogdensburg, N.Y., recalls the first telephone wire built in this city, by the deceased for Prof. A. G. Bell, when the first sound of the human voice was transmitted by telephone. Burnett was employed by the Montreal Telegraph Co. and erected six poles between Brantford and Tutela, using beer bottles as insulators.

Freight and Passenger Traffic Notes.

Since the closing of Broad St. station, Ottawa, at the beginning of the year, 36 trains arrive at, or leave, the central station daily.

A U.S. press report states that three shipments of cattle, totalling 110 cars and 3,645 animals, reached Denver, Col., recently, from Cardston, Alta., en route for Texas.

A St. John, N.B., press report states that an office for the transfer of baggage to and from the union station in that city was opened at the station there, Feb. 2.

The Canadian National Railways put in operation, Feb. 20, on the night trains running between Toronto and Ottawa, the club compartment cars, Marmora and Bancroft.

The Canadian National Rys. are opening a ticket office on the upper floor of the building at pier 2, Halifax, N.S. When this office is completed the C.N.R. city ticket office on Hollis St., Halifax, will be refitted.

The Canadian National Rys. put in operation, Feb. 6, a parlor car service between St. John, N.B., and Halifax, N.S., on trains 13 and 14, in addition to the sleeping car and other accommodation provided on them.

The Board of Railway Commissioners has dismissed the application of the Wawota, Sask., for an order requiring better train service on the C.P.R. Reston and Wolseley Branch, with connection at Wolseley with the westbound train.

The Canadian National Rys. has been authorized by the Board of Railway Commissioners to open for freight traffic its line from the junction with the Patricia Bay line, mile 1.80 from Victoria, to mile 26.5 in the direction of Alberni, B.C., the speed of trains being limited to 10 miles an hour.

Victoria, B.C., merchants waited on the B.C. Government recently and asked for equitable freight rates from Victoria to points on the Pacific Great Eastern Ry. on the mainland. The premier replied that he would have a conference with Canadian Pacific and Canadian National Rys. officials.

The C.P.R. is reported to have carried over 4,000 tons of fruit, including 30 carloads of prunes, from the Grand Forks district during 1919, and 3,822 carloads of fruit and vegetables from the Okanagan Valley, between July and Nov., 1919. In the latter case there was an increase of about 1,000 carloads over 1918.

The Ontario Vegetable Growers' Asso-

ciation is reported to have asked the Board of Railway Commissioners to consider the adoption of a protective service under which railways will assume liability for damage to freight due to freezing, or artificial overheating, during transit.

The C.P.R. is reported to have handled on its Lethbridge Division, Alta., between Aug. 1, and Dec. 31, 1919, over 133,000 cattle, representing 5,200 carloads. About one-half went to Chicago, Ill.; one-quarter to Calgary, Winnipeg or other stockyards, and the remainder were shipped from point to point for feeding purposes.

The Fredericton and Grand Lake Coal & Railway Co.'s and New Brunswick Coal & Railway's bylaws authorizing their respective passenger traffic managers and assistant freight traffic managers to prepare and issue passenger and freight tariffs, respectively, have been approved by the Board of Railway Commissioners.

The Dolly Varden Mines Ry., an ore carrying railway line from the Dolly Varden Mines to Alice Arm, B.C., closed down for the winter. A press report states that small quantities of high grade ore are being sent by teams to Alice Arm for shipment, and that large

ore dumps are being accumulated at the mines awaiting the opening of the railway in the spring.

The Premier of British Columbia is reported to have received a letter from D. B. Hanna, President, Canadian National Rys., explaining that under present circumstances, it is not feasible, without the expenditure of a large sum, which the business offering in such a short section does not justify, to put on a train service on the Victoria and Sooke section of the company's line on Vancouver Island.

Traffic in 1919 over the Fraser River bridge at New Westminster, B.C., owned by the B.C. Government, and used for railway traffic by the Great Northern Ry., and the Canadian National Rys., is reported to have been as follows: Passenger trains, 6,720, carrying 32,187 passengers; freight trains, 4,260 with a total of 62,788 cars; mixed trains, 2,326, with a total of 7,854 cars. The auto traffic was heavy, at times as many as 65 cars an hour crossing.

D. C. Coleman, Vice President, C.P.R., Western Lines, in addressing the Western Canada Fruit Jobbers' convention at Vancouver, B.C., recently, is reported to have said that the company's programme for 1920 calls for the building of 500 refrigerator cars at a cost of approximately \$1,500,000. The representations of the convention as to the type of car suitable for the fruit trade in western Canada would be given every consideration before the type was finally decided upon.

The G.T.R. was ordered by the Quebec Superior Court, Jan. 18, to pay J. G. Heon, \$281.55 damages for delay in transportation of a carload of oats from Richmond to Sherbrooke, Que. The oats were shipped April 15, 1918, and were not delivered in Sherbrooke until May 2, between which time the price had fallen, and Heon claimed that he lost the amount claimed. It appeared from the evidence that the car containing the oats did not leave Richmond until May 2, arriving in Sherbrooke a few hours afterwards. Justice Pouliot held that this was an unreasonable delay, which the company had not attempted to justify or explain. Judgment was given for the full amount claimed with costs.

The Board of Railway Commissioners, sitting in Montreal, Feb. 24, heard a large volume of evidence in support of complaints made by residents along the route of the New York Central Rd. trains into Montreal, as to the service given. The company's officials stated that steps had been taken to remedy the matters complained of, and that it was willing to readjust its time schedule to suit the public. Hon. F. B. Carvell, Chief Commissioner, intimated that it appeared to be a case where a railway secured an entrance for its through traffic into Montreal and paid little attention to the needs of local traffic. As matters were being rectified the board would take into consideration the only remaining question, viz., whether an order should be issued directing the giving of the increased service asked for.

The Canadian National Rys. arranged recently with the G.T.R. for an optional interchange by which tickets issued by either line, and reading from Toronto or points south or west of it, to Winnipeg, or any place beyond, or vice versa, will be accepted for travelling either by Canadian National train 1, which runs via Port Arthur, or G.T.R. National train via North Bay and Cochrane. The for-

mer leaves Toronto union station 9.15 p.m., Sunday, Monday, Wednesday and Friday, and the latter at the same hour Tuesday, Thursday and Saturday, so that travellers from Windsor in the west to Halifax in the east, are thus afforded, via Toronto, a daily service between

eastern and western Canada, in addition to that given by the C.P.R. Both trains carry full transcontinental equipment, standard and tourist sleeping cars, compartment, observation, library cars, dining cars, first class and colonist cars, etc.

Telegraph and Telephone Franks Discussed by Board of Railway Commissioners

Hon. F. B. Carvell, Chief Commissioner, prepared the following memorandum, dated Jan. 17: "As the question of telegraph and telephone franks has frequently been brought to my attention during the past two months, owing to certain changes in the Railway Act in 1919, I deem it my duty to give expression to my views on the rights of telegraph and telephone companies, under the provisions of the act. Sec. 375 deals explicitly with these companies and first defines what is a telegraph company, and then sets forth in a general way its chief powers, and as all the telegraph companies in Canada come within the provisions of this section, what will apply to one will apply to all, and also to all telephone companies coming under the board's jurisdiction.

"Subsec. 12 makes, subject to certain reservations, the Railway Act, apply to telegraph and telephone companies, and leaving out the unnecessary portions, would read as follows: 'Without limitation of the generality of this subsection by anything contained in the preceding subsections the jurisdiction and powers of the board, and, in so far as reasonably applicable . . . the provisions of this act respecting such jurisdiction and powers . . . and the other provisions of this act (except . . . shall extend and apply to all companies as in this section defined.'

"Secs. 345, 436 and 347 deal with reduced and free transportation, and therefore, wherever reasonably applicable, the telegraph and telephone companies possess the same rights in issuing free or reduced transportation of messages as the railway companies possess as to reduced transportation of passengers, etc. The provisions for tolls, filing of tariffs, etc., as to these companies is provided for in Sec. 375, subsecs. 2, 3 and 4, and, generally speaking, are entirely subject to the board's approval and may be revised by the board from time to time, and therefore I can find no provision for free carriage of messages, excepting what may be found in secs. 345 and 346 as hereinbefore referred to. Sec. 346 deals with members of the Senate and House of Commons, the members of this board, and such officers and staff of the board as we may determine.

"Sec. 345 gives to the railway companies, and therefore telegraph and telephone companies, the right, if they so desire, of granting free transportation to persons, and certain classes of persons, therein specifically designated, and to such other persons as this board may approve or permit, subject always to the provisions regarding discrimination, and sec. 347 expressly provides the following: 'Subject to the provisions of secs. 345 and 346 of this act, no company shall hereafter, directly or indirectly, issue or give any free ticket or free pass, whether for a specific journey or periodical or annual pass, and no company shall otherwise arrange for or permit

the transportation of passengers except on payment of the fares properly chargeable for such transportation under the tariffs filed under the provisions of this act, and at the time in effect.' It also provides that nothing shall affect the furnishing of free transportation where such is specifically provided by any other general act of the Parliament of Canada.

"First, as to those persons who are entitled to free transportation by sec. 346. As they receive their right to free transportation by law, I take it they are entitled to only what is specifically mentioned therein, and in general words this includes free transportation to members of the Senate and House of Commons, with their baggage, and free transportation to members of this board and such officers and staff of the board as we may determine, with our baggage, equipment, and official car, and I am unable to convince myself by any course of reasoning that the provisions of sec. 345, being the section stating what the railway companies may do on their own initiative, could be held reasonably applicable to this section, and, therefore, the persons mentioned therein are not entitled to receive telegraph and telephone franks, but I have not the same view regarding the persons referred to in sec. 345, because, as that provides what the railway companies may do in the granting of free or reduced transportation, I feel it reasonably applicable that telegraph and telephone companies have the same rights of granting free transportation for messages, that the railways would have in granting free transportation to the parties therein referred to.

"The opinion which I have already expressed regarding the provisions of sec. 345 with respect to express companies applies very largely to franks by telegraph and telephone companies, with the addition that the exchange of telegraph, telephone, and cable franks is expressly provided for with other telegraph and telephone companies, their officers, agents, and employes, and it is my opinion that in carrying out the privileges granted the telegraph and telephone companies by the act, very great care should be exercised in the distribution of franks, because an application is now pending before this board by the telegraph companies, asking for a very substantial increase in their rates, amounting to from 30 to 35% of the rates now in force, and any revenue lost by the giving of franks must be made up by the remainder of the community. Holding these views, I consider it my duty to express them as I have done, and trust that the telegraph and telephone companies will be guided, as far as possible, by the interpretation of the Railway Act as herein set forth."

The foregoing memorandum was concurred in by Hon. W. B. Nantel, Deputy Chief Commissioner and by Commission-

ers Boyce and Goodeve. S. J. McLean Assistant Chief Commissioner added the following: "I agree in the Chief Commissioner's memorandum. At page 1, line 29, after the word 'and,' being the first word in the line, I would suggest the addition of the words 'not being excluded.' This will make the meaning clearer. At the hearing on Jan. 20, the

Chief Commissioner made a statement as to this memorandum having been prepared. His intention is that it should issue as an interim judgment, giving an opportunity, within a reasonable time, for hearing, if such is asked for. As what is primarily concerned is the power of telegraph and telephone companies to issue franks, and the types of persons

to whom same may be issued, it seems to me that, subject to whatever may be developed in further discussion, telegraph and telephone companies are really the only people who should be given an opportunity to speak to the matter at a hearing. The recipients of franks do not receive them as a matter of right." Commissioner Rutherford concurred.

Transportation Appointments Throughout Canada.

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

Canada Steamship Lines Ltd.—J. H. B. ADAMS, has been appointed General Agent, Import and Export from Mar. 15. Office, Montreal.

D. E. COOPER, heretofore Agent, Import and Export, Toronto, has been appointed General Agent, Import and Export from Mar. 15. Office, Toronto.

J. H. EDWARDS, heretofore chief clerk, Claims Department, Montreal, has been appointed Assistant Freight Claims Agent, succeeding J. J. Lynch, deceased. Office, Montreal.

W. J. HUGHES, heretofore agent, Victoria Pier, Montreal, has been appointed District Freight Agent from Mar. 15. Office, Montreal.

W. J. KING, heretofore Division Freight Agent, Montreal, has been appointed General Freight Agent from Mar. 15. Office, Montreal.

W. P. O'BRIEN, heretofore agent at Quebec, has been appointed agent, Victoria Pier, Montreal, from Mar. 15.

JOHN F. PIERCE, heretofore Assistant Traffic Manager, freight and passenger lines, Prescott and east, has been appointed Passenger Traffic Manager, with jurisdiction over all passenger lines. The position of Assistant Traffic Manager is abolished.

Canadian National Rys., Canadian Government Merchant Marine Ltd.—WILLIAM PHILLIPS, heretofore, Canadian Representative, Cunard Line Steamships, Montreal, has been appointed European Manager, C.N.R. and C.G. M.M. Office, Orient House, London, Eng.

Canadian National Rys.—R. N. BLACK has been appointed airbrake instructor, Eastern Lines. Headquarters, Moncton, N.B.

E. BRODERICK, heretofore chief clerk, Right of Way Department, Winnipeg, has been appointed Right of Way and Property Agent, Western Lines. Office, Winnipeg.

T. J. GRACEY, heretofore Auditor Auditor of Disbursements and Accountant, Timiskaming and Northern Ontario Ry., Toronto, has been appointed Auditor of Disbursements, Canadian Northern Ry. System, vice T. R. Ralph, deceased. Office, Toronto.

J. HAWKINS, heretofore Road Foreman of Locomotives, has been appointed Assistant Master Mechanic, Ottawa Division, Ontario District, and his former position has been abolished. Office, Ottawa, Ont.

W. C. HUNTER has been appointed Airbrake Inspector, Eastern Lines. Headquarters, Montreal.

D. W. STEEPER, heretofore Assistant Superintendent, Division 2, Central District, Sioux Lookout, Ont., has been appointed acting Superintendent, Division 4, Central District. Office, Winnipeg.

W. G. STRACHAN, heretofore Road Foreman of Locomotives, has been appointed Assistant Master Mechanic, Superior Division, Ontario District, and his former position has been abolished. Office, Hornepayne, Ont.

Canadian North Eastern Ry.—Lieut.-Col. T. A. HIAM, who, prior to the war, was private secretary to Sir Donald Mann, at Toronto, has been appointed Vice President of this company, of which Sir Donald Mann is President. Office, Stewart, B.C.

Canadian Pacific Ocean Services Ltd.—A. R. DEAN, has been appointed Traveling Passenger Agent, Chicago, Ill.

G. W. WOOD has been appointed Auditor, vice John Leslie, Comptroller, C.P.R. and Auditor C.P.O.S., who has resigned as Auditor, C.P.O.S., to devote his time to C.P.R. duties. Office, Montreal.

Canadian Pacific Ry.—G. BRUCE BURPEE, heretofore General Travelling Passenger Agent, Montreal, has been appointed Agent, Passenger Department, Cleveland, Ohio, vice G. A. Clifford, assigned to other duties.

R. H. ELLIOTT has been appointed Road Foreman of Locomotives, Kenora, Ont., vice J. McFadyen.

F. F. W. LOWLE, heretofore General Agent, Alaska and Yukon Territory, Juneau, Alaska, has been appointed Local Freight Agent, Edmonton, Alta., vice R. F. Richardson, whose appointment as General Agent, Alaska and Yukon Territory, Juneau, was announced in our last issue.

J. McFADYEN, heretofore Road Foreman of Locomotives, Kenora, Ont., has been appointed Trainmaster and Divisional Master Mechanic, Cranbrook, B.C.

J. V. McNAB, heretofore Roadmaster, Maple Creek, Sask., has been appointed Divisional Engineer, Saskatoon Division, Saskatchewan District, Saskatoon, vice C. H. Fox, promoted.

T. MOFFATT, heretofore, chief engineer, s.s. Princess Victoria, has been appointed Machine Shop Foreman, Victoria, B.C., vice E. Scaplen, resigned to enter Consolidated Whaling Corporation's service.

W. M. NEAL, heretofore General Secretary, Railway Association of Canada, Montreal, has been appointed Assistant General Superintendent, Quebec District, C.P.R. Office, Montreal.

G. H. NOWELL, heretofore Master Mechanic, Revelstoke Division, British Columbia District, Revelstoke, has been appointed Master Mechanic, Lethbridge Division, Alberta District, vice G. Twist, transferred. Office, Lethbridge.

B. J. QUILTY has been appointed Trainmaster, Brownville Division, New Brunswick District. Office, McAdam, N.B.

D. M. SMITH, heretofore Master Mechanic, Cranbrook, B.C., has been appointed Master Mechanic, Medicine Hat

Division, Alberta District. Office, Medicine Hat.

H. G. STUDD, has been appointed Auditor for Europe. Office, London, Eng.

Grand Trunk Ry.—Upon the release of G.T.R. lines in the U.S. west of Detroit and St. Clair Rivers, and east of Norton Mills, Vt., from Federal control, Mar. 1, the jurisdiction of the company's executive officers will be extended over them.

Upon the release of G.T.R. lines in the U.S. east of Norton Mills from Federal control, Mar. 1, they will revert to and be embraced in the Eastern Lines, G.T.R. System, and the jurisdiction of the general and divisional officers of the transportation, engineering, telegraph, motive power and car departments is extended accordingly.

J. H. BURGIS, heretofore General Agent, Passenger Department, Grand Trunk Western Lines Rd. (U.S.R.A.), Detroit, Mich., has been appointed General Agent, Passenger Department, G.T.R., there.

R. L. BURNAP, heretofore Traffic Manager, Grand Trunk Western Lines Rd. (U.S.R.A.), Chicago, Ill., has been appointed Freight Traffic Manager, G.T.R. lines in the U.S., west of Detroit and St. Clair Rivers. Office, Chicago.

J. CAMERON, heretofore Chief of Tariff Bureau, Grand Trunk Western Lines Rd., Chicago, Ill., has been appointed Chief of Tariff Bureau, G.T.R., there.

J. D. EDWARD, heretofore Federal Treasurer, Grand Trunk Lines in New England (U.S.R.A.), Portland, Me., has been appointed Local Treasurer of these lines, on their release from federal control, Mar. 1. Office, Portland, Me.

E. C. ELLIOTT, of the Passenger Traffic Manager's office, has been appointed District Passenger Agent, at Bonaventure Station, Montreal, succeeding **JOS. QUINLAN**, who, after 43 years faithful service, will retire under the provisions of the company's superannuation fund, on Apr. 1, to which date he has been given leave of absence.

R. H. FISH, heretofore Superintendent, Stratford Division, Stratford, Ont., has been appointed General Superintendent, Eastern Lines, vice W. R. Davidson, transferred to Western Lines. Office, Montreal.

E. F. FLINN, heretofore General Western Freight Agent, Chicago, Ill., has been appointed General Freight Agent, Grand Trunk lines in the U.S., west of Detroit and St. Clair Rivers. Office, Chicago.

F. FOSTER, heretofore General Foreman, Ottawa, Ont., has been appointed Assistant to Superintendent, Motive Power, Allandale, Ont., vice J. Vass, transferred.

C. A. GORMALY, heretofore Division Freight Agent, Grand Trunk Western Lines Rd. (U.S.R.A.), Chicago, Ill.,

has been appointed Division Freight Agent, G.T.R., there.

H. H. HAMILL, heretofore General Agent, Freight Department, Grand Trunk Western Lines Rd. (U.S.R.A.), Detroit, Mich., has been appointed General Agent, Freight Department, G.T.R., there.

J. D. McDONALD, heretofore General Passenger and Baggage Agent, Grand Trunk Western Lines Rd. (U.S.R.A.), Chicago, Ill., has been appointed General Passenger Agent, also in charge of Baggage Department, G.T.R., there.

A. Z. MULLINS, heretofore Division Freight Agent, Grand Trunk Western Lines Rd., Grand Rapids, Mich., has been appointed Division Freight Agent, G.T.R., there.

G. L. NELSON, heretofore General Freight and Passenger Agent, Grand Trunk Lines in New England (U.S.R.A.), Portland, Me., has been appointed Division Freight Agent, G.T.R., Portland, Me.

C. G. ORTTENBERGER, heretofore General Agent, Passenger Department, Grand Trunk Western Lines Rd. (U.S.R.A.), Chicago, Ill., has been appointed General Agent, Passenger Department, G.T.R., there.

H. W. PLOSS, heretofore General Agent, Freight Department, Grand Trunk Western Lines Rd., Milwaukee, Wis., has been appointed Commercial Agent, G.T.R., there.

W. PULFORD is reported to have been appointed Supervisor of Track, with territory from Guelph to Harrisburg, and Kitchener to Weston, Ont. Office, Guelph, Ont.

W. H. SAMPLE, General Superintendent of Motive Power and Car Department, Montreal, has also been appointed Consulting Engineer, Motive Power and Car Department, G.T.R. lines in U.S., west of Detroit and St. Clair Rivers.

W. H. SPICER, heretofore Assistant General Freight Agent, Grand Trunk Western Lines Rd. (U.S.R.A.), Detroit, Mich., has been appointed Assistant General Freight Agent, G.T.R., Detroit, Mich.

W. C. TOMKINS, formerly Local Treasurer, G.T.R. Lines west of Detroit and St. Clair Rivers, Detroit, Mich., resumes that position, on the release of the G.T.R. lines in the U.S., from federal control, Mar. 1.

JOHN VASS, heretofore Assistant to Superintendent, Motive Power, Allandale, Ont., has been appointed Locomotive Inspector, U.S. lines west of Detroit and St. Clair Rivers. Office, Milwaukee Jct., Wis.

H. E. WHITTENBERGER, heretofore Federal Manager, Grand Trunk Western Lines Rd. (U.S.R.A.), Detroit, Mich., has been appointed General Manager, G.T.R. Lines in the U.S., west of Detroit and St. Clair Rivers, effective on the release of G.T.R. lines from federal control, Mar. 1. Office, Detroit, Mich.

Grand Trunk Pacific Ry.—O. CARLSON has been appointed Roadmaster, Prince Rupert, B.C., with territory from Pacific to Prince Rupert, vice E. Gunder-son, who has returned to his former duties as section foreman, Smithers, B.C. The office of the roadmaster of this territory will be moved to Pacific, B.C., in the near future.

P. McGETTIGAN, heretofore acting Roadmaster, has been appointed Roadmaster, Endako, B.C.

C. B. MUTCHLER, heretofore Trainmaster, has been appointed Assistant Superintendent, Melville, Sask.

Guelph Junction Ry.—T. J. MOORE, City Manager, Guelph, Ont., is reported to have been elected Secretary-Treasurer, Guelph Jct. Ry. Co., in succession to the late Col. A. H. Macdonald. The duties of the position are little more than nominal, and in making the present appointment the city, which owns the railway, will save the \$500 a year paid as salary to the late Secretary-Treasurer.

Oshawa Ry.—J. E. DALRYMPLE, Vice President (Traffic), G.T.R. and G. T.P.R., Montreal, has also been elected President, Oshawa Ry. (electric), vice E. W. Rathbun.

Railway Association of Canada—C. P. RIDDELL, heretofore Assistant Secretary, has been appointed Secretary, vice W. M. Neal, resigned to re-enter C.P.R. service. Office, Montreal.

G. A. BALFOUR, heretofore Assistant to General Superintendent, Quebec District, C.P.R., Montreal, has been appointed, Assistant Secretary, Railway Association of Canada, vice C. P. Rid-dell, promoted.

Timiskaming and Northern Ontario Ry.—D. HAMILTON has been appointed acting Auditor of Disbursements and Accountant, Toronto, vice T. J. Gracey, resigned to enter C.N.R. service.

United States Railways Returned to the Companies by the Government.

The act to provide for the termination of federal control of railroads and systems of transportation, to provide for the settlement of disputes between carriers and their employes, to further amend the act to regulate commerce as approved, Feb. 4, 1887, and as amended, and for other purposes as passed by the U.S. Senate and House of Representatives, was sent to President Wilson on Feb. 25, and having been signed by him went into effect at 12.01 a.m., Mar. 1. It is divided into four parts, the first dealing with definitions. The second opens with the declaration that federal control of the railways and other systems of transportation shall terminate at 12.01 a.m., Mar. 1, and the following sections deal with the manner of the closing out of all matters as between the government control and the private owners.

A section dealing with the guaranty to carriers after the termination of federal control, provides that the companies shall file an acceptance of the terms by Mar. 15, upon filing of which the government guarantees to the railways, for six months, half a year's standard returns, and should there be any excess earnings over the guaranteed amount, one-half of such excess is to be paid to the general railroad contingent fund. During the guaranty period any of the companies concerned may make application to the Interstate Commerce Commission for advances on account of fixed charges and operating expenses in excess of the guaranty, and such advances may be made at 6%. Provision is also made for the ending to the companies for five years on capital account, \$300,000,000 to be used as a revolving fund.

Another section deals with the position of labor and provides for the establishment of the Railway Tribunal Board of Appeal to consist of nine members, three to represent labor; three the public, with power to take jurisdiction

of disputes between the companies and their employes which threaten interference with interstate commerce.

The headquarters of the board will be in Chicago, Ill., but it may hold sittings anywhere. The members of the board are to be appointed for five years, will be paid \$10,000 a year each, and must be approved by the Senate. This section also provides that wages and salaries not less than those in effect at the termination of federal control must be paid by the companies until Sept. 1, next.

The outstanding feature of the act is contained in sec. 4, which directs the Interstate Commerce Commission to establish rates that will yield to the carriers in each rate making group, a net railway operating income equal to 5½% of the aggregate property value of the roads in such group. The commission may add to this rate ½ of 1% for additions, betterments and improvements, which under the commission's accounting rules, are charged to capital account. Earnings in excess of 6% will be divided equally between the railway's reserve fund and the federal general contingent fund, which will be administered by the commission in aiding the development of transportation, by loans to companies and the purchase of equipment to be leased to companies. The section also provides that after 120 days from the act going into effect, it shall be unlawful for any of the companies to issue new capital stock or bonds, or to assume any liability as lessor, guarantor, etc., except with the authority of the Interstate Commerce Commission.

The Canadian Traffic League, which was formed in Oct., 1917, consists of commercial traffic managers, and others in charge of traffic for firms shipping in Canada, and has a membership of nearly 100. The officers are A. W. Bell, Traffic Manager, General Motors Ltd., Oshawa, Ont., President; F. W. Dean, Traffic Manager, Steel Company of Canada; Hamilton, Ont., Vice President, and A. H. Thorpe, Traffic Manager, Wm. Davies Co., Toronto, Secretary-Treasurer. Regular meetings are held at the Canadian Manufacturers' Association's offices in Toronto on the first Wednesday of each month, but the meeting on Mar. 3 will be at the Board of Trade offices, Hamilton, Ont.

Dutch Railways Electrification—A cablegram from The Hague, Holland, states that a commission of Dutch engineers will visit this continent shortly to study the electrification of railways, with a view to changing the motive power on the Dutch railway systems from steam to electricity.

The United Brotherhood of Maintenance of Way Employes and Railway Shop Laborers has opened a retail store in Windsor, Ont., for the sale of gloves, mittens, etc., and has made arrangements with other stores in the city for the supply of goods of various kinds to members at reduced rates.

The Canadian Brotherhood of Railway Employes is reported to have elected the following officers at a meeting in Montreal, Feb. 16: Chairman, C. E. Cole, Moncton, N.B.; Vice Chairman; L. E. Leferie, Toronto; Secretary, B. Cummings, Moncton.

U.S. shipbuilders are reported to be building or have under contract for private companies, 93 tank steamships of more than 1,000,000 d.w. tonnage, to cost \$200,000,000.

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NOTICE TO ADVERTISERS.

ADVERTISING RATES furnished on application. ADVERTISING COPY must reach the publishers by the 10th of the month preceding the date of the issue in which it is to appear.

TORONTO, CANADA, MARCH, 1920.

PRINCIPAL CONTENTS.

Aerial Transportation Notes.....	125
Appointments, Transportation	131
Birthdays of Transportation Men.....	113
Board of Railway Commissioners,—	
Orders by, Summaries of.....	137
Traffic Orders	139
Canadian National Rys., Construction.....	123
Canadian Northern Ry. Report.....	116
Canadian Pacific Ry., Construction.....	122
President's Speech at Winnipeg.....	111
Edmonton, Dunvegan and British Columbia	
Ry's Future	134
Electric Railway Department	141 to 148
British Columbia Electric Ry.'s Report.....	146
Finance, Meetings, Etc.	147
Freight and Passenger Rate Increases.....	141
Hydro Electric Power Commission of Ontario's Railway Projects	143
New Brunswick Power Co.'s Report.....	148
Ottawa Electric Ry.'s Service at Cost.....	142
Projects, Constructon, Etc.	145
Toronto Ry. Report and Meeting.....	144
Wages, Working Conditions, Etc.....	143
Express Companies, Among the.....	140
Express Franks Considered by Board of Railway Commissioners	114
Freight and Passenger Traffic Notes.....	129
Grand Trunk Ry., Acquirement by Dominion Government	121
Construction, Etc.	124
Mainly About Railway People	119
Marine Department	149 to 165
Canada Steamship Lines' Report.....	155
Canadian Government Merchant Marine, Shipbuilding, Operation, Etc.	149
Government Grain Elevators, Etc., at Atlantic Ports	164
Shipbuilding, General, in Canada.....	160
Shipbuilding in Canada for British Government	152
Shipbuilding in Scotland, 1919 and 1920.....	153
United States Shipping Board's Work and Policy	154
Vancouver Dry Dock	156
Railway Development	135
Railway Earnings	121
Railway Engineers' Classification, Qualifications, Etc.	115
Railway Rolling Stock Orders and Deliveries	126
Railways, British, Results of Government Control	133
Railways in United States Released from Federal Control	132
Telegraph, Telephone and Cable Matters.....	140
Telegraphs and Telephones, Romance of.....	127

Results of Government Control of British Railways.

The Minister of Transport issued a report recently showing the results of working the railways during the periods of government control of railways in Great Britain, from Aug. 5, 1914 to Aug. 31, 1919, and in Ireland from Jan. 1, 1917 to Aug. 31, 1919.

For the period, Aug. 5, 1914 to Mar. 31, 1919, the revenue earned from all sources exceeded expenditure and the guarantee by about £2,000,000 to £7,000,000, according as the lower or higher figure (£10,000,000 or £15,000,000), of the value of the services rendered to the government during the period of control by the "other businesses" (i.e. apart from conveyance by rail) is taken. There are, however, to be set against this margin serious deferred liabilities in respect of replacement of stores and materials, arrears of maintenance and abnormal wear and tear. The amount of these liabilities cannot at present be ascertained.

In the current financial year the results for the first five months show a balance of revenue over expenditure of £12,183,934. The proportion of the guarantee for the same period is £21,226,600, and the deficit is therefore £9,042,666. Two important factors affect the expenditure for the whole year as compared with the first five months: The increased price of coal, which took effect on July 21, 1919, is not reflected fully in the August figures, whereas it will be a heavy item in the later months, and various concessions to railwaymen, not fully operative in the earlier months, will also increase the wages bill. It must further be borne in mind that railway revenue accrues disproportionately in the earlier months of the financial year. The sum of £60,000,000 was taken in the estimates to represent the anticipated cash payments in the financial year ending Mar. 31, 1920, which will include a portion of the liabilities for earlier years, but will not cover the whole of the 1919-20 and other outstanding liabilities.

An estimate of the deficit which will fall on the exchequer in respect of the financial year has been made, based on the latest operating results, and is as follows:

Estimate of Deficit for Year Ended Mar. 31, 1920.

OPERATING RESULTS.	
Receipts.	
Railway working—	
Public traffic	£157,400,000
Government traffic	19,200,000
Expenditure	£176,600,000
Net receipts	£ 3,100,000
Other businesses—Net receipts	300,000
	£ 3,400,000

GOVERNMENT LIABILITY.	
Guarantee of 1913 net revenue	£47,400,000
Interest on new capital.....	1,000,000
	48,400,000
Deduct—	
Net receipts as above.....	3,400,000
Net deficit falling on Exchequer	£ 45,000,000

The figures thus show a probable deficit of £45,000,000. Any improvement in the position is mainly due to the extraordinary increase in passenger traffic last summer, and to the decision to apply, from April 1, 1919, to government traffic the same rates of increase as have been made to the public. The latter results in a credit to the railway account of about £5,000,000, but this

credit involves a corresponding charge to other government departments. It should be added that the present estimate of £45,000,000 as the amount of the deficit may prove to be inadequate, if the drop from the summer level of passenger receipts is more marked than usual, as may well be the case in view of the unprecedented height attained, and as a result of the dislocation of business by labor troubles. On the other hand, no allowance is made for any growth of revenue from increases in freight rates which may become operative before the close of the financial year.

Toronto Viaduct and Union Station

The question of the erection by the C.P.R. and the G.T.R. of a viaduct along the Toronto water front to eliminate level crossings, came before the Toronto Board of Control, Feb. 17, when it was decided to have a conference with the Toronto Harbor Commissioners on the matter. A meeting was arranged to be held Feb. 26 between representatives of the city, the Harbor Commission and the Board of Trade. The mayor of Toronto is reported to have said, Feb. 19:—"Both the harbor commissioners and the city are in favor of the viaduct order and are opposed to any departure therefrom in any particular. We have laid down a policy which I think will be agreeable to the city and the board of trade, that if the railways will buy the right of way of the viaduct, between Scott and Cherry Sts., which will give us ample evidence of their intention to go on with the work, we will be glad to discuss with them the temporary operation on the level of the new union station, but not otherwise. There has been some delay owing to the change of owners of the G.T.R."

Railway Finance, Meetings, Etc.

New York Central Ry. Co.—There has been deposited with the Secretary of State at Ottawa, an agreement dated Jan. 24, between the New York Central Rd. Co. and others, and the Guaranty Trust Co. of New York as trustee, being supplemental to a lease of June 8, 1910, under the New York Central Lines Equipment Trust of 1910.

Canadian National Rolling Stock Ltd. has been incorporated under the Dominion Companies Act, with \$500,000 authorized capital, and office at Toronto, to build, own, operate, manager and deal in engines, movable and stationary, and rolling stock of every form and description, rails, ties, machinery, tools, stores and equipment of all kinds for construction, operation and maintenance of railways, and ships of every description. The incorporators are: D. B. Hanna, A. J. Mitchell, G. Ruel, Toronto; E. E. Fairweather, Ottawa, all officials of Canadian National Rys., and G. A. Bell, C.M.G., Deputy Minister of Railways and Canals, Ottawa.

The Canadian Transfer Co.'s directors for the current year as elected at the recent annual meeting at Montreal, are: Hugh Paton, G. R. Starke, Sir Montagu Allan, F. W. Molson and F. M. McRobie. The Dominion Public Works Department will receive tenders to April 15, for packing of material and supplies for points along the Yukon telegraph line, between Hazelton and Atlin, during 1920, 1921 and 1922.

The Edmonton, Dunvegan and British Columbia Ry.'s Future.

The present position and future prospects of the Edmonton, Dunvegan and British Columbia Ry. and its two allied lines, the Alberta and Great Waterways Ry., and the Canada Central Ry., have been discussed at great length for the last year or so. The E.D. & B.C.R., which starts at Edmonton, Alta., and its two subsidiaries have a total length of about 756 miles, the present terminals being near McMurray, at the Peace River, at Grand Prairie, and at the Spirit River. There has been some grading done beyond the two latter points, the original intention having been to connect with the Pacific Great Eastern Ry., at the Alberta-British Columbia boundary. The total mileage in operation during 1919 was approximately 594 miles. Some negotiations took place in 1919 with the Dominion Government to have the lines taken over and linked up with the Canadian National Rys., but nothing definite was done. Other reports credited the C.P.R. with being desirous of acquiring these lines, but President Beatty, during his recent visit to the west, is reported to have stated positively that his company does not want them. Early this year negotiations were reported to have resumed with the Dominion Government.

The Premier of Alberta is reported to have made the following statement in the legislature on Feb. 20:

"At various times during the past year, particularly during the feed shortage, complaints have been made to the government as to the unsatisfactory service being rendered by the E.D. & B.C.R. Lack of proper transportation of both passengers and freight had created a situation which in the government's opinion, it was absolutely necessary to remedy. Default had already taken place in payment of interest, on the guaranteed bonds and the government commenced legal proceedings for the appointment of a receiver, under the provision of the trust deed by way of mortgage securing the bondholders and the government. J. D. McArthur then informed the government that negotiations were being carried on between the company and the Dominion Government either for financial assistance or purchase of the road. In informed him that, in order to stay proceedings under the deed of trust, it would be necessary for this government to have documentary evidence of the intentions of the Dominion Government in connection with this matter. In compliance with this request, evidence has been placed in the hands of this government, and at the conclusion of the address in reply to the speech from the throne, I will be pleased to lay copies of the correspondence on the table of the house."

The Premier of Alberta made the following further statement in the legislature, Feb. 23:—"I saw the contents of a letter from Sir Robert Borden to J. D. McArthur, informing him that he had appointed a committee of the government to deal with his request for assistance or purchase, just prior to his leaving Ottawa, in December, and I also saw a letter written by Sir George Foster to J. D. McArthur, copy of which I am placing on the table today. That we were not called upon by the railway company to pay interest on guaranteed bonds, which became due on Feb. 16, is evidence, I think, that the financial interests backing the company feel confident that the arrangement can be con-

sumated between the company and the Dominion Government."

The correspondence laid on the table consisted of the following letters:

From J. D. McArthur to Premier Stewart, Feb. 6, 1920:—"Just prior to the departure of Premier Borden from Ottawa last month, a sub-committee of the Dominion Cabinet was appointed to consider the applications which I had made to the Dominion Government for assistance to the E.D. and B.C.R. by way of subsidy or otherwise. This committee has since had the matter under consideration and I enclose a copy of letter received by me from Sir Geo. E. Foster, acting Prime Minister, which sets forth the government's decision in this matter. Negotiations referred to in Sir George's letter are in progress and in view of that fact, I trust that your government will see its way clear to withhold any contemplated legal action against the company by reason of any default on its part."

From Sir Geo. E. Foster to J. D. McArthur, Jan. 24, 1920:—"With regard to the application made by you in your letter of Jan. 20, for a subsidy or other assistance to the E.D. & B.C.R., and its branches. I beg to advise you that the government, after due consideration, has come to the decision that it would not be justified, under financial conditions now prevailing, to ask parliament to approve a cash subsidy to these lines. On the other hand, the government recognizes that the railway referred to was projected and constructed to open up, develop and colonize a very large and desirable section of western Canada in which practically all the natural resources are now owned and controlled by the Dominion and that for this reason there would have been justification in the past for granting a subsidy to assist in the construction of the lines mentioned to the extent of some three or four million dollars. The government must, however, take into consideration conditions as they now exist and as they are likely to continue for some years to come. Realizing that owing to the settlement of the Peace River country and its proper further development, the lines of railway referred to must continue to be operated and in all probability extended into new territory, the government has reached the conclusion that negotiations should be forthwith proceeded with for the purpose of ascertaining the possibility of arriving at an agreement whereby the E.D. & B.C.R. and its branches may be acquired and operated by the Canadian National Rys., as a part of its system, upon terms and conditions that the government will feel justified in submitting to parliament for approval at its next session."

New Brunswick Government and Transportation Interests.

The annual statements of the finances of the Province of New Brunswick for the year ended Oct. 31, 1919, were published in the N.B. Gazette, recently, signed by Price, Waterhouse and Co., chartered accountants, Montreal, who made the following observations thereon: "During the year, \$244,807.45, representing interest charges on the bonds and other indebtedness of the St. John

and Quebec Ry., less the province's proportions of the railway earnings, has been capitalized."

The statements contain the following information relative to the receipts and expenditures, liabilities and assets in respect of railways and other transportation interests.

The statement of cash receipts and expenditures on current account, includes among receipts, \$15,082.01, balance of St. John and Quebec Ry. earnings for the year ended Oct. 31, 1918, and \$10,000 deposit by the Railway Passengers' Assurance Co., and among the expenditures, \$101,727.91 balance of St. John and Quebec Ry. interest to Oct. 31, 1918.

The statement of revenue and expenditure contains the following items:—Receipts—Taxes from incorporated companies—Express companies, \$500; telegraph companies, \$1,500; street railways, \$2,475.42; railway companies, \$57,197; Southampton Ry. earnings, \$2,149.69; rent reversing falls bridge, \$3,000. Expenditures—Southampton Ry. earnings, previously taken into revenue, not recovered, \$2,975.05.

The balance sheet as at Oct. 31, 1919, shows: Assets—Southampton Ry. earnings, \$793.47; New Brunswick Power Co., cash and bonds held by province to provide for retirement at maturity of bonds issued by St. John Ry. as required by N.B. Companies Act, 1916, \$250,521.08. Liabilities—New Brunswick Power Co., cash and bonds, \$250,521.08. A note to this statement says: "A contingent liability exists in respect of bonds guaranteed by the province amounting, as far as can be ascertained, to \$1,117,000. In addition to amounts held in trust stocks and bonds of a par value of \$176,500 and assignment of certain mortgages were also held in trust by the province. Claims in respect of maintenance and construction work have been filed by certain companies operating railways leased from the province, but in respect of which the liability of the province, if any, has not been determined."

The statement showing the capital assets and liabilities, contains the following as to transportation companies: Assets—St. John and Quebec Ry. investment, balance as at Oct. 31, 1918, \$6,488,584.17; construction expenditure to Oct. 31, 1919, less Dominion subsidy, \$214,032.04; interest on bonds and other indebtedness, less province's share of the company's earnings, \$244,807.45, total, \$6,947,423.66. New Brunswick Coal and Ry., taken over and leased by the province, \$1,246,431.77. Cash available for future capital expenditures—St. John and Quebec Ry., cash retained by the trustees for the bondholders under the provisions of the trust deed, \$388,473.87; amount receivable on account of railway earnings to Oct. 31, 1919, \$30,581.28. The capital liabilities specifically incurred for railway companies are—St. John and Quebec Ry. 5½% bonds, \$450,000; 4½% bonds, \$1,700,000; in addition to these bonds which were issued by the province in aid of construction, the province assumed liability for \$4,250,000 of 4% bonds issued by the company.

The liabilities on construction account of the St. John and Quebec Ry. are:—Bank overdraft, \$770,022.99; construction holdbacks, \$12,766.66; contractors' deposit, \$75,000; interest accrued on bonds issued by and in aid of the railways, \$108,689.16, a total of \$966,478.81.

Railway Development, Projected Lines, Surveys, Construction, Betterments, Etc.

Alaska—A recent report to the United States Government on the government railway from Seward to Fairbanks, Alaska, states that the work to be done to complete the line consists of the completion of the rehabilitation of the Alaska Northern Ry., including construction of snowsheds and enlarging of tunnels, and the building of a line from mile 237, ten miles north of Talkeetna, to unite 365, five miles north of Nanana Canyon. This is the only gap in the line from Seward to Fairbanks, 471 miles, with the exception of the bridge at Nenana, crossing the Nenana River, and a permanent bridge at mile 373, over the Nanana River. The dock at Anchorage also has to be built. (Nov., 1919, pg. 602).

Alberta Hudson Bay Ry.—The Alberta Legislature is being asked to extend the time within which this company may build the railway authorized by its act of incorporation. The High River and Hudson Bay Ry., which was incorporated by the Alberta Legislature some years ago, to build a railway from High River to the Alberta-Saskatchewan boundary, obtained authority in 1917 to change its name to the Alberta Hudson Bay Ry., also an extension of time for the construction of line for the railway authorized previously, and power to build a number of branch lines between High River and the International Boundary in Pincher Creek district. The people who hold this charter also hold a Saskatchewan charter in the name of the Saskatchewan Hudson Bay Co., to build a line from the Alberta-Saskatchewan boundary across Saskatchewan. They also have Dominion charters to building railways under the titles of the Calgary and Fernie Ry., and the High River, Saskatchewan and Hudson Bay Ry. (May, 1918, pg. 186, and Sept., 1919, pg. 491).

Bagotville Ry. Co.—The provisional directors named in an act passed by the Quebec Legislature recently incorporating a company with this title, are:—J. L. MacDougall, W. Murdock, H. Fitzsimons, C. Watt, B. Moses, Ottawa. Power is asked to build a railway from the Quebec and Saguenay Ry. at Nairn Falls, northerly along the Malbaic River to the Cabanie River, thence south of Lake Ha Ha, and the Mars River, or near either of them to Chicoutimi or as an alternative to follow the Mary's Road, together also branch lines. (Jan., pg. 18).

Canadian Niagara Bridge Co.—A press report says that M. C. Spratt, a Buffalo, N.Y., solicitor, stated recently that a sufficient area of land has been acquired on Grand Island, in the center of Niagara River, in connection with the project for building another bridge across the river, and that the New York Central Rd., Canadian Pacific Ry., and the Toronto, Hamilton and Buffalo Ry. are interested in the project. The bridge will, it is said, be a double track one, and will also be available for ordinary traffic. (Jan., pg. 18).

Dolly Varden Mines Ry.—A Victoria, B.C., press report says that counsel for the Dolly Varden Mines Co. has advised the B.C. Government that it is proposed to test the validity of the act passed by the B.C. Legislature, at its last session affecting the company's interests, and a later dispatch states that the B.C. Government has been advised that a peti-

tion has been sent the Minister of Justice at Ottawa, asking for the disallowance of the act on the ground that it was ultra vires of the legislature.

The Dolly Varden Mines Co. was given power, under the title of the Dolly Varden Mines Ry. Co. to build a railway from the mines to tidewater on Alice Arm, B.C. The Taylor Engineering Co. obtained the contract to build the line and some dispute arose over the cost of the work. When the company applied for further powers at the 1919 session of the legislature, the Taylor Engineering Co. protested and a special committee was appointed to investigate the matter. Upon the committee's report, an act was passed to enforce the terms of a settlement with the Taylor Engineering Co., which resulted in the latter obtaining control of the mines, subject to carrying out certain conditions. (Nov., 1919, pg. 602).

Dominion Atlantic Ry.—We are officially advised that tenders have been invited for the erection of a station building at Digby, N.S. It will be 2 stories high and 130 x 30 ft. The foundations and main floor will be of concrete. The floor plan provides for waiting rooms, baggage room, freight room, office, restaurant and lunch counter. The platform will be of concrete.

A press report states that the management is contemplating laying out new yards and shops, but that whether they will be at Kentville or Middleton, N.S., has not been decided. W. E. Boyd, of the C.P.R., Montreal, and M. K. McQuarrie, of the D.A.R., were reported to have been in Middleton, Jan. 12, looking over possible sites. (Dec., 1918, pg. 541).

Esquimalt and Nanaimo Ry.—Victoria, B.C., ratepayers, by a vote of 2,986 to 445, carried a bylaw recently to raise \$420,000 to build a railway and general traffic bridge across Victoria Harbor at Johnson St., and provide the approaches. Negotiations for building this bridge have been carried on for several years. The E. and N.R. built a bridge across the harbor for its traffic, in connection with which there was some understanding with the city respecting the future erection of a traffic bridge there. When, about three years ago, the company proposed to replace the bridge by a heavier one, for the increased traffic, the city took up the question of carrying out the old understanding. As the result of lengthened negotiations an agreement was signed Dec. 27, 1919, by the Mayor of Victoria and R. Marpole, Vice President, E. and N.R., and a supplementary agreement was entered into on the same date between the city and the B.C. Government with respect to the bridge. The bylaw contains these agreements in full. The agreement between the city and the company, provides for a joint application to the Board of Railway Commissioners for approval of the agreement and for the construction of a railway and general traffic bridge from the foot of Johnson St., to the Songhees Reserve, with approaches. The bridge is to have a clear width of 20 ft., and is to be provided with a single track railway line on the north side, and is to be built of steel on pier of concrete or masonry or both. Plans for the bridge are annexed to the agreement, but the city may sub-

stitute truss span construction for plate girder construction, and place the bascule pier on the west side of the harbor channel instead of the east side. The city is to provide at its own expense the approaches to the highway portion of the bridge, and may permit street car or railway traffic on its portion of the bridge, subject to restrictions as to loading. The ties and rails for the present single track railway are to be furnished and laid by the E. and N.R. The agreement also provides for the payment of the cost of the maintenance of the bridge, and for various matters incidental to its construction. The company undertakes to pay the city \$100,000 towards the construction of the bridge. The agreement between British Columbia and the city providing for the construction of the bridge, grants the city certain lands necessary for approaches, and also provides for the payment of \$200,000 towards the work. The estimated cost of the bridge and its approaches is \$720,000.

Application is being made to the Dominion Parliament for an act authorizing the company to build a railway from its present terminus at Courtenay, northwesterly to Duncans Bay on the east coast of Vancouver Island.

We were officially advised recently that application would be made forthwith to the Board of Railway Commissioners and the Dominion Government for the approval of the bridge plans and it is expected that tenders for the bridge will be invited by the city early in May. The plans provide for approach spans of 120 ft. each, and a single leaf bascule with one 120 ft. channel. The approximate weight of steel in the superstructure will be 2,800,000 lb., and there will be approximately 10,000 cubic yards of concrete in the piers and abutments.

The city council is reported to have approved of the city engineer's recommendations as to the type of bascule span to be adopted, and to have passed a resolution that each step in connection with the bascule be subject to the approval and inspection of the engineers of British Columbia Government, the city and the E. and N.R. (Jan., pg. 18).

Kettle Valley Ry.—The Dominion Parliament is being asked to authorize the company to build a railway from near Coalmount, on the joint section operated by the K.V.R., and the Vancouver, Victoria and Eastern Ry., and Navigation Co., generally southerly to the Granite Creek coal areas, 12 miles. The company is also asking for a further extension of time for building following previously authorized lines: From Grand Forks, 50 miles up the North Fork of the Kettle River, and from near Otter Summit to the Aspen Grove mineral district, 30 miles. Power to issue bonds for \$70,000 a mile in respect of these lines is also asked.

The Board of Railway Commissioners has approved plan of standard trestle to be built on the Copper Mountain branch, now under construction. (Jan., pg. 18).

Lievre Valley Power, Traction and Manufacturing Co.—The bill introduced in the Quebec Legislature recently to amend the company's charter was withdrawn, and the legislature on Jan. 29,

ordered the return of the fees paid, less cost of printing and translation. The company was incorporated in 1895 as the Buckingham Electric Ry., Light and Power Co., the name being changed to its present one in 1905. It has power to build a railway, to be operated by steam, electricity, or any other motive power, from Hull to the mouth of the Lievre River, and along that river's valley to the National Transcontinental Ry. (Jan., pg. 16).

New Westminster Bridge—The British Columbia Railways Department's annual report for 1919, contains the following information with respect to the bridge over the Fraser River at New Westminster, B.C.: New 80 lb. steel rails have been laid across the bridge; the southern highway approach has been re-floored, and painting and general repairs have been completed. A painting machine has been bought. Contracts have been let for the renewal of lumber in the southern approach and for sidewalk carried by steel brackets on the upstream side of the bridge.

Normandin Farmers Ry. Co.—The provisional directors named in the act passed by Quebec Legislature recently, incorporating a company with this title, are: T. Bassiers, A. Villeneuve, farmers; B. Fraser, merchant, and S. N. Turcotte, notary, all of Normandin. The company's head office is to be at Normandin, but it is proposed to hold meetings at any other place in the county of Roberval, provided a bylaw to that effect is passed. The capital stock of the company is fixed at \$2,000,000. The railway to be built is to run through Roberval, Ashuapmouchouan, Demeules, Dufferin, Normandin, Girard, Albanel, Racine and Dolbean Tps. to deep water on the Saguenay River at Saint Fulgence. Construction is to be commenced in 1920 and a line from Normandin to a connection with the Quebec and Lake St. John Ry. must be completed and put in operation within two years from the passing of the act.

Subparagraph 22, of article 6474 of the Revised Statutes of 1909, respecting the construction of branch lines for certain purposes is repealed and a new subparagraph substituted. With the exception of some verbal changes in the second paragraph of the subparagraph the only change is that the branch lines to be built are not to exceed in any one case 20 miles instead of the 6 miles authorized under the existing subparagraph. (Jan., pg. 18).

North Ry.—The Quebec Legislature has granted the company an extension of two years for the commencement, and of seven years for the completion of its projected railway. The North Eastern Ry. Co. was the title under which the company was incorporated in 1906, the provisional directors being: J. C. Heintz, P. Harnischfeger, New York; J. T. Marchand, J. B. Lapointe, Montreal; R. Chevrier, Ottawa, and the company was authorized to build a line from near Ville Marie, on the east shore of Lake Timiskaming, via the Des Quinze, Victoria and Kakabonga Lake to Quebec City, with branches to the National Transcontinental Ry. near Lake Abitibi, from near the crossing of the Gatmean River to Nominig, from Lake Kakabonga to Maniwaki and other branch lines not to exceed in any one case 15 miles. An extension of time for construction was granted in 1909, and also in 1912. The act of 1912 changed the company's name to the North Ry. Co.,

and it was given power to build a railway from Montreal to a junction with the National Transcontinental Ry., and thence to James Bay. In 1914 the company sold to the Dominion Government for \$250,000 its charter rights to build from Montreal to the National Transcontinental Ry. (May, 1915, pg. 171).

The North West Route Limited—The Dominion Parliament is being asked to incorporate a railway and navigation company for the general advantage of Canada, with this title, to build a railway to be operated by steam, electricity or other power, from the westerly end of Baker Lake, northwesterly to the easterly end of Schultz Lake, and from the confluence of the Hanbury and Theton Rivers, westerly and southwest-erly to old Fort Reliance at the eastern end of Great Stave Lake, from the Hanbury and Thelon Rivers westerly to the northeasterly end of Artillery Lake, and from the southwest-erly end of Artillery Lake southwest-erly to old Fort Reliance at the eastern end of Great Stave Lake. The applicants desires power to dredge or otherwise improve Thelon River channel to build and operate steam and other ships, to build wharves, docks, elevators, warehouses, etc. Smeltic and Lewis, Ottawa, are solicitors for the applicants. Application was made to the Dominion Parliament at the regular session of 1919, for the incorporation of a company with the same title and similar powers. The bill was passed by the House of Commons, but the Senate's railway committee reported June 6, that the incorporation of the company would not be in the public interest, and the bill was thrown out. (July, 1919, pg. 382).

Pabos, Amqui and Edmundston Ry. Co. The Dominion Parliament is being asked to incorporate a company with this title to build a railway from Pabos, Gaspé County, along the valley of the Grand Pabos River, cross Pabos Seigneurie and run through Blais, Lepage, Amqui, Pineau and Jette Tp. in Matane County, Lake Metis Seigneurie in Matane and Rimouski counties; Rimouski County, Timiskaming Seigneurie, Timiskaming County, Que., to Edmundston, N.B., with a branch from Grand Vallee, on the St. Lawrence River to the main line by the shortest possible route. G. L. Dionne, Amqui, Que., is solicitor for the applicants.

Pacific Great Eastern Ry.—A report on railway construction in British Columbia has been presented to the legislature in which considerable references are made to the P. and G.E.R. The report states that repairs to the roadbed and bridges of the sections in operation have been made, and cribwork to protect the line from washouts has been built. There have been used in maintenance 21,000 new ties, and the line has been placed in good condition. The Cheakamus bridge, which was burned, was rebuilt, traffic being interrupted for six weeks.

The Newport waterworks system has been acquired for \$14,256, and has been extended so as to provide adequate water supply for Squamish Town and the railway. A power wheel and electric generating plant had been installed, providing light and power for the railway works, and machine shop and the town.

Regarding new construction on the extension from Clinton to Fort George, the report states that work was gone on with throughout 1919 and is still in progress. The material assembled at Lone Butte locomotive house and machine shop consisted of 300,000 ties, 3,000

poles, 75 miles of fencing and 24,000 tons of other material. A water tank and temporary buildings were erected; 18.5 miles of new grading was done; bridges were built; 73 miles of track were laid, bolted and spiked to Sept. 15; spur tracks were laid to ballast pits, and 250,000 yards of ballast got out; 102 miles of telegraph line were strung; 49 miles of fencing put up; 15 bridges containing 1,750,000 ft. b.m. built; three 40,000 gall. water tanks were put up, and there were also built 7 stations, and 2 section houses, and 2 stock yards were laid out. Twelve cottages have been built at Squamish for railway workmen at a cost of \$18,989. The expenditure on new construction was approximately \$1,800,000, and the cost of engineering was 2.25%.

A contract to complete the railway to Fort George has been let to the Northern Construction Co., and the programme for the year is a heavy one. Forty-one timber bridges requiring 8,000,000 ft. b.m. and 3 steel bridges, regrading of 130 miles and the construction of 20 miles of entirely new line is required, 3 locomotives, 45 flat and 25 boarding cars additional will be required.

In order to avoid sliding hill sides and excessive cost for regrading and bridging, it was decided to divert the line at Quesnel and the crossing of the Cottonwood River. The Chief Engineer estimates as follows:

Cost of completing original line with bridges across Quesnel and Cottonwood (permanent structures).....	\$1,821,825.00
New line	1,210,340.00
Difference in favor of new line.....	\$ 611,485.00
Capitalized operating value.....	600,000.00
Total saving	\$1,211,485.00

Besides the above economic saving the diversion will take the railway to the edge of the Fraser River at Quesnel, affording close connection between river steamers and the railway.

Surveys were made during last summer between Ashcroft and Clinton. Sixty-six miles of trial line were run. The projected line is 41.5 miles and with the exception of 6.8 miles at Ashcroft, a 1% line has been obtained without excessive construction cost.

The report says that the West Vancouver ferry will be discontinued and the P.G.E.R. north shore line will handle the West Vancouver passenger traffic. This railway has handled 7,000 passengers in a single day between North Vancouver and Whitecliffe.

The report gives a brief summary of the resources of the country adjacent to the P.G.E.R. and concludes by estimating the cost of completing it to Fort George and supplying necessary equipment at \$4,000,000. The cost of the Peace River extension is estimated approximately at \$18,000,000.

Quebec and Chibougamman Ry. Co.—The provisional directors named in the act recently passed by the Quebec Legislature, incorporating a company with this title, are: J. C. Cote, G. E. Paradis, Quebec; P. C. Costo, Montreal; D. Roy, Beaumont, Que.; W. J. Ewing, Richmond, Que. The company's office is to be in Quebec, its capital is placed at \$1,000,000, and it is empowered to build a railway to be operated by steam or electricity, from Quebec northerly through Quebec, Montmorency, Charlevoix and Chicoutimi Counties to Chicoutimi on the Saguenay River, and thence through Chicoutimi and St. John Counties to Lake Chibougamman, and also branch lines. (Dec., 1919, pg. 655).

Quebec, Que., to St. Stephen, N.B.—The Quebec Board of Trade passed a resolution recently urging the Dominion Government to study the practicability of building a railway from Quebec City to St. Stephen, N.B. D. F. Maxwell, C.E., of St. Stephen, N.B., is reported to have informed the board that the line suggested would give a route of about 250 miles from Quebec to deep water at St. Stephen, with a 0.4% gradient, and would effect a saving of about 300 miles, as against the present route. This projected route was first surveyed in 1832. (July, 1919, pg. 382).

The Quebec Central Ry. has, we are officially advised, completed the location for an 8.11 mile extension of its line from Scotts, to connect with the Canadian National Rys. at 2.5 miles west of St. Isidore station, and that construction will be proceeded with in the spring. The company expects to make arrangements by which it will be enabled, by means of this extension, to operate its train service over the Canadian National Rys. lines and the Quebec Bridge into the Champlain St. terminal in Quebec City. (Jan., pg. 18).

Quebec Colonization Ry. Co.—The provisional directors named in the act passed by the Quebec Legislature, recently incorporating a company with this title, are: F. C. Harriman, by J. L. Bunnell, attorney, New York; J. S. Morrison, Outremont, Que.; E. de C. Porcheron, L. Saint-Jacques, Montreal. The company has power to build a railway from Mont Laurier, Labelle County, southwesterly to the C.P.R. near Maniwaki, and running through Campbell, Kiawika, Dudley, Pope, Robertson, Boutillier, Kensington, Cameron, Wabasse, Aumond, Egan, Maniwaki and Bouchille Tps., or any of them, or through unorganized territory;

then from Maniwaki westerly, in the direction of Lake Expance and Lac des Quinze, to the C.P.R., near Timiskaming, then southeasterly through Tabaret, Mercier and Gendreau Tps.; also to build a railway from the Coulonge River, in Pontiac County, northerly to near Nottaway on the National Transcontinental Ry., thence northerly to the Bell River north of Lake Shabogama; with connecting lines and branches, the lines to be operated by steam or electricity. It also has authority to develop water powers, to distribute electric energy, to carry on business as hotelkeepers, and to operate ships. (Jan., pg. 18).

Regina Spur Lines—A press report states that Regina, Sask., City Council is considering a bylaw authorizing the building of a spur line to serve the T. Eaton Co., and the Wood Vallance Co.'s premises.

Roberval-Saguenay Ry.—The Quebec Legislature has passed an act authorizing the building of a line from the Quebec and Lake St. John Ry., near Malbaie "passing by the most advantageous places." The company is also given power to begin building this and other authorized, but unconstructed lines, by Mar., 1922, and to complete them by Mar. 24, 1925. (Jan., pg. 19).

Salmon River and Northern Ry. Co.—The Quebec Legislature has confirmed the company's charter rights as given in the statutes of 1905, chap. 59, has extended the time for building the projected railway for 10 years, has given authority to build branch lines not to exceed, in any one case, 15 miles, and has changed the company's office from Montebelle to Fasset, Labelle County. The line authorized in 1905, the time for the construction of which was extended on different occasions, is projected to

start at Grenville, and run westerly to Montebello, thence northerly along the Salmon River Valley, to the west side of Lake Papineau; thence northerly on the east side of the North Nation River and Lake Noming to the Rouge River Valley, where it would turn to the south-east, and along the western valley of the Rouge River to the National Transcontinental Ry. (Jan., pg. 19).

Sydney and Louisburg Ry.—The locomotive house at Sydney, N.S., is reported to have been destroyed by fire, Feb. 1; the loss being estimated at \$10,000.

Vancouver Terminal Belt Ry. Proposed—H. H. Stevens, M.P., in the course of an address before the Vancouver Electrical Club, recently, at which W. G. Murrin, Assistant General Manager, British Columbia Electric Ry., presided, referred to the harbor improvements proposed to be made by the Dominion Government at Vancouver. He is reported to have said that the amount expended during the last seven years for the improvement of the harbor, including the building of the government elevator, dredging, widening the First Narrows, etc., had been over \$7,500,000. He also said he believed there was an absolute necessity for a belt railway system which would run along the north and south shores of the harbor and be connected by a bridge, probably at the Second Narrows. Such a railway must of necessity be under public control. All private lines should be granted free access so as to enable their cars to load and unload at the ships and docks. The railway should be built so as to serve every portion of the waterfront. The problem of the amount of trackage required from the piers to deal with freight is one on which the Dominion Government will consult experts.

Orders by Board of Railway Commissioners for Canada.

Beginning with June, 1904, Canadian Railway and Marine World has published in each issue summaries of orders passed by the Board of Railway Commissioners, so that subscribers who have filed the paper have a continuous record of the Board's proceedings. No other paper has done this.

Important traffic orders made by the board are given in full on another page of this issue.

General order 282, Jan. 29.—Amending general order 25, Jan. 25, 1909, respecting lighting systems to be used on trains.

29,283, Jan. 19.—Authorizing G.T.R. to build sidings and spurs for Lake Simcoe Ice Supply Co. and Chapmans Ltd., Belle Ewart, Ont.

29,284, Jan. 17.—Authorizing C.P.R. to build spurs for T. Eaton Co., Regina, Sask.

29,285, Jan. 19.—Authorizing Alberta Public Works Department to make highway crossing over C.P.R. in north half of Sec. 2, Tp. 34, Range 1, west 5th meridian.

29,286, Jan. 22.—Relieving G.T.R. from providing further protection at Brenton's crossing, Corbyville, Ont.

29,287, Jan. 22.—Authorizing Canadian Northern Western Ry. to cross 24 highways with its Hanna-Medicine Hat Branch, mile 22.22 to 58.94, Alta.

29,288, Jan. 22.—Dismissing complaint of United Grain Growers, Ltd., Winnipeg, that Canadian National Rys. have refused compensation for loss by delivery to Thunder Bay elevator, instead of Paterson's elevator, of car of grain ex Deepdale, Man., Dec. 5, 1918, consigned to complainants in care of C.N.R. terminal elevator, Port Arthur, Ont.

29,289, Jan. 22.—Authorizing C.P.R. to build spur for Northwestern Milling & Export Co., Moosemin, Sask.

29,290, Jan. 22.—Approving Grand Trunk Pacific Branch Line Co.'s clearances at coal tipples and works to build adjacent to tracks to serve Foothills Collieries, in n.e. ¼ Sec. 24, Tp. 47, Range 20, west 5th meridian, Alta.

29,291, Jan. 19.—Relieving Lake Erie & Northern Ry. from providing further protection at Gilkins St., Brantford, Ont.

29,292, Jan. 19.—Authorizing Essex Terminal Ry. to build siding across Walker Road, Walker-ville, Ont.

29,293, Jan. 23.—Approving Toronto Suburban Ry. Standard Freight Mileage Tariff C.R.C. 1.

29,294, Jan. 23.—Authorizing C.P.R. to build temporary flood opening at mileage 92.7, Belleville, Ont.

29,295, Jan. 22.—Authorizing Canadian National Rys. to build spur to freight sheds over Regina Municipal Ry., Fifth Ave., Regina, Sask.

29,296, Jan. 23.—Authorizing C.P.R. to build spur for Gregory Tire and Rubber Co. Ltd., Westminster Jct., B.C.

29,297, Jan. 23.—Authorizing C.P.R. to close and divert road on its Archive-Wymark Branch at mile 16.71 east of s.e. ¼ Sec. 23, Tp. 13, Range 11, west 3rd meridian, Sask., and to close diverted road at mile 16.80 in s.w. ¼ Sec. 24.

29,298, Jan. 19.—Approving extension of Canadian National Rys. St. Rose du Lac Branch, mile 121.04 to 140.19, Man., and to build same across 19 highways.

29,299, Jan. 19.—Relieving Michigan Central Rd. from providing further protection at the crossing east of Aylmer station, Ont.

29,300, Jan. 24.—Ordering C.P.R. to erect station buildings at Islington, Ont., in accordance with plan H22-67, work to be completed by July 31.

29,301, Jan. 22.—Approving location and plans of G.T.R. station to be built at Hawtrey, Ont.

29,302, Jan. 23.—Authorizing G.T.R. to use bridge 174, across Little Trout Creek, near Kingsey, Que.

29,303, 29,304, Jan. 23.—Authorizing C.P.R. to close and divert highway at mile 18.76, to cross at grade and divert road at mile 18.79, to close and divert highway at mile 18.84, to cross at grade and divert road at mile 21.96, and close and divert highway at mile 22, on its Archive-Wymark Branch, Sask.

29,305, Jan. 24.—Authorizing Canadian National Rys. to make highway crossing over its track, between Sec. 3, Tp. 23, and Sec. 33, Tp. 22, Range 29, west principal meridian.

29,306, Jan. 24.—Approving deviation of Grand River Ry. in Waterloo Tp., and Kitchener, Ont., and authorizing it to build diverted line across Maurice and Sydney Sts., Ida Ave., Carl St., Cedar Grove, Dundas and Prince Arthur Aves.

29,307, Jan. 23.—Authorizing Vancouver Power Co. to install gates in lieu of interlocking plant

at crossing of New Westminster Southern Ry., at Cloverdale, B.C.

29,308, Jan. 27.—Authorizing Canadian Northern Pacific Ry. to carry traffic from junction with Patricia Bay line, mile 1.80, to mile 52.5, B.C., speed of trains between mile 26.5 and 52.5 not to exceed 15 miles an hour, and over crossings 10 miles an hour.

29,309, Jan. 26.—Authorizing railways operating in western Canada to increase charge from \$3 to \$4 a car for lining cars used for flaxseed.

29,310, Jan. 26.—Ordering Canadian National Rys. forthwith to appoint station agent at Clair, Sask.; additional station accommodation to be further considered by the board.

29,311, Jan. 26.—Authorizing C.P.R. to build spur for Robin Hood Mills, Ltd., Moose Jaw, Sask.

29,312, Jan. 30.—Ordering C.P.R. to provide at least 125 cars and Canadian National Rys. at least 50 cars until otherwise ordered, at elevators at Fort William and Port Arthur, Ont., for receipt, handling, and carriage of grain, other than wheat, also flaxseed, for domestic use in Canada; cars to be allocated in proportion to cars ordered for which the necessary documents have been surrendered.

29,313, Jan. 28.—Approving agreement, Jan. 10, between Bell Telephone Co. and Sydenham Union Telephone Co., Grey County, Ont.

29,314, Jan. 29.—Authorizing Oshawa Ry. to build siding for Pedlar People Ltd., Oshawa, Ont.

29,315, Jan. 29.—Authorizing G.T.R. to build extension of siding for Durham Furniture Co., Durham, Ont.

29,316, Jan. 28.—Authorizing C.P.R. to build its Langdon North Branch, Acme to Empress, at grade across 36 highways in Alberta.

29,317, Jan. 28.—Authorizing G.T.R. to operate siding to be built by Toronto Harbor Commissioners for C.R. Peckover.

29,318, Jan. 29.—Suspending order 18,242, Nov. 19, 1912, which authorized City of Brandon, Man., to carry its municipal railway across Canadian Northern Ry. at First St., for 12 months from Jan. 29, during which, operation as authorized by order 21,106, Dec. 26, 1913, be continued.

29,319, Jan. 29.—Ordering Canadian National Rys. to build cattle pass on G. H. Dickson's pro-

perly, Redcliff, Alta., mile 127, where C.N.R. contemplates installing drainage culvert.

29,320. Jan. 29.—Approving road diversion at crossing of highways by Canadian National Rys. near Humboldt, Sask.

29,321. Jan. 30.—Approving alteration in Grand Trunk Pacific Ry. right of way plan between mile 452.94 and 453.75, Prince Rupert East, B.C.

29,322. Jan. 30.—Authorizing G.T.R. to rebuild bridge 221, on lot 27, southwest concession of St. Regis, Que.

29,323. Jan. 30.—Approving New Brunswick Coal & Ry. Standard Passenger Tariff C.R.C. 4.

29,324. Feb. 2.—Ordering Grand Trunk Pacific Ry. to provide a one pen stock yard at Lydden, Sask.

29,325. Feb. 2.—Authorizing G.T.R. to build spur for Canadian Wood Products Ltd., Toronto.

29,326. Feb. 3.—Ordering G.T.R. to extend station platform at St. Marys, Ont., at least 200 ft. westward.

29,327. Feb. 3.—Authorizing C.P.R., pending further order, to remove station agent at Cheviot, Sask., caretaker to be appointed to keep station clean, heated and lighted for passengers, and to care for l.c.l. freight and express shipments.

29,328. Feb. 2.—Approving agreement, Jan. 15, between Bell Telephone Co. and New Glasgow Telephone Co., Elgin County, Ont.

29,329. Feb. 3.—Authorizing Town of Walkerville, Ont., to make crossing over Essex Terminal Ry. at Kildare Road.

29,330. Feb. 2.—Relieving C.P.R. from providing further protection at crossing of Howard Road, just east of Lake Shore Jct., Ont., and Windsor, Essex & Lake Erie Ry.'s diamond.

29,331. Feb. 2.—Ordering Grand Trunk Pacific Ry. to erect shelter at Haysport, B.C., and to continue stopping trains for passengers and mail at Haysport so long as owners of wharf maintain same in such serviceable condition as will permit of reasonable and proper use by steamboat passengers using the wharf.

29,332. Feb. 2.—Authorizing C.P.R. to cross Canadian National Rys. at Watson, Sask., and ordering it to erect station at mile 29, near Watson, north of C.N.R. crossing.

29,333. Feb. 2.—Authorizing G.T.R. to renew overhead bridge at Henry St. over its tracks in Whitby, Ont.

29,334. Feb. 3.—Amending order 29,279, Jan. 16, showing details of C.P.R. proposed subway at mile 28.3, MacTier Subdivision, Ont.

29,335. Feb. 3.—Relieving G.T.R. from providing further protection at first crossing south of Sundridge Station, Ont.

29,336. Feb. 5.—Amending order 29,312, Jan. 13, directing C.P.R. and Canadian National Rys. to provide certain number of cars for loading of grain at Fort William and Port Arthur, Ont.

29,337. Feb. 4.—Authorizing Canadian National Rys. to make highway crossing between Secs. 9 and 10, Tp. 54, Range 23, west 4th meridian, Alta.

29,338. Feb. 3.—Ordering G.T.R. to install automatic bell at crossing of Victoria Road, near Guelph, Ont.

29,339. Feb. 5.—Rescinding order 5,885, Dec. 22, 1908, re diamond crossing of G.T.R. by Kitchener and Waterloo St. Ry., at Kitchener, Ont., in so far as it orders Kitchener Light Commission to pay the G.T.R. 90c a day, and providing that from Aug. 1, 1918, the watchmen's wages be apportioned equally between G.T.R. and Kitchener Light Commission.

29,340. Feb. 5.—Authorizing C.P.R. to build spur for Imperial Oil Ltd., at Carman, Alta.

29,341. Feb. 2.—Ordering Canadian National Rys. forthwith to appoint station agent at Redland, Alta.

29,342. Feb. 7.—Authorizing Canadian National Rys. to rebuild bridge over St. Charles River, at mile 8.7 from Quebec, Que.

29,343. Feb. 7.—Relieving Toronto, Hamilton & Buffalo Ry. from maintaining station agent at Vanessa, Ont., station to be kept clean, heated and lighted when necessary, and arrangements made for care of express shipments.

29,344. Feb. 7.—Approving location and plans of C.P.R. proposed station at Braeside, Ont.

29,345. Feb. 7.—Relieving G.T.R. from providing further protection at first crossing east of Canfield station, Ont.

29,346, 29,347. Feb. 6.—Authorizing G.T.R. to build spurs for Manhasset Mfg. Co., St. Hyacinthe, Que., and Westmount Improvement Co., Kitchener, Ont.

29,348, 29,349. Feb. 9.—Authorizing Canadian National Rys. to divert and cross the highways at mile 64.54, and 69.03, Division B, Okanagan Branch, B.C.

29,350. Feb. 6.—Authorizing Canadian National Rys. to remove station agent at Cap Sante, Que., caretaker to be appointed to keep station clean, heated and lighted for accommodation of passengers.

29,351. Feb. 10.—Authorizing G.T.R. to build spur for Empire Cotton Mills, Welland, Ont.

29,352. Feb. 10.—Authorizing Canadian National Rys. to divert and cross highway at station 1045-00, mile 64.73, Division B, Okanagan Branch, B.C.

29,353. Feb. 9.—Authorizing C.P.R. to cross road allowance at mile 1.33, Lac du Bonnet Subdivision, Man.

29,354. Feb. 10.—Authorizing Canadian Na-

tional Rys. to divert road at mile 65.37, Division B, Okanagan Branch, B.C.

29,355. Feb. 9.—Ordering G.T.R. to erect building at least 75 x 30 ft., 80 ft. west of station at West Toronto, Ont., for Canadian Express Co., with sheltered platform at least 30 ft. wide, at east end for empty trucks; to be completed by Aug. 31.

29,356. Feb. 4.—Relieving G.T.R. from providing further protection at crossing of Elmhurst Ave., Montreal West, Que.

29,357. Feb. 10.—Approving agreement Jan. 27, between Bell Telephone Co. and Brougham and Grafton Telephone Co., Renfrew County, Ont.

29,358. Feb. 9.—Authorizing Canadian Northern Saskatchewan Ry. to cross 5 highways on its Peebles-Lampman Branch, mile 0 to 32.39.

29,359. Feb. 9.—Authorizing Saskatchewan Government to carry highway over C.P.R. in s.w. ¼ Sec. 17, Tp. 38, Range 27, west 3rd meridian.

29,360. Feb. 10.—Approving agreement Jan. 27, between Bell Telephone Co. and East Woodville Telephone Co., Victoria County, Ont.

29,361. Feb. 12.—Authorizing Canadian National Rys. to cross and divert highway at mile 63.35, Division B, Okanagan Branch, B.C.

29,362. Feb. 11.—Approving route map showing general location of C.P.R. Rosemary Northerly Branch, mile 0 to 25.03, Alta.

29,363. Feb. 12.—Authorizing Saskatchewan Government to build highway across C.P.R., in Sec. 1, Tp. 14, Range 18, west 3rd meridian.

29,364. Feb. 12.—Authorizing Canadian National Rys. to cross and divert the road in s.w. ¼ Sec. 16, Tp. 27, Range 28, west 3rd meridian, Sask.

29,365. Feb. 4.—Approving British Columbia Telephone Co. bylaw authorizing W. Farrell, President, and G. Farrell, Secretary, to prepare tariffs of tolls, and other charges, both local and long distance.

29,366. Feb. 10.—Ordering Canadian National Rys. to maintain regular station agent at Dropmore, Man.

29,367. Feb. 13.—Authorizing C.P.R. to rebuild bridge over St. Maurice River, at mile 1.8, Cap de la Madeleine Subdivision, Que.

29,368. Feb. 10.—Ordering G.T.R. to maintain watchmen at crossings of Metcalfe and Caradoc Sts., Strathroy, Ont., between 6 a.m. and 10 p.m., two watchmen in each case working eight hours a day.

29,369. Feb. 12.—Authorizing Lake Erie and Northern Ry. and G.T.R. to operate over crossing at station 7.23, Brantford, Ont., without first stopping.

Proposal to Revalue the Canadian National Railways.

Hon. T. A. Crerar, M.P., ex Minister of Agriculture, who resigned from the Dominion Government some months ago, in speaking at Winnipeg recently, said that the public administration of 20,000 miles of railway is made more difficult by the fact that Canada's railway policy in the past has not been sound in all its aspects. Lines have been duplicated and railways built at enormous cost through territory not sufficiently settled to provide profitable business. Faced with these handicaps he favors a revaluation of the whole Canadian National Railway system. He asked: "What does a business man do if he finds he has got into business difficulties, if he finds that he has expended money that is useless? In fact, what do his bankers insist that he do? He has got to re-establish his position by revaluing his assets and putting them down at a proper worth. That, to my mind, is one of the first things that should be done with our national system of railways. Their worth should be put down to a sound value and the difference written off to the debt of Canada. When this has been done these roads will be placed in the position where they can have a fair chance to compete in the public business of the country."

Grain in Store at Terminal Elevators, Interior Terminal Elevators and Public Elevators in the East.

	Wheat. Bush.	Oats. Bush.	Barley. Bush.	Flax. Bush.	Rye. Bush.	Totals. Bush.
Week ended Feb. 6, 1920.						
Fort William—						
C.P.R.	113,855	24,082	110,705	.....	43,063	291,705
Empire Elevator Co.	368,292	288,406	217,118	15,892	37,544	927,252
Consolidated Elevator Co.	439,230	73,288	62,907	40,297	10,280	627,002
Ogilvie Flour Mills Co.	251,359	76,612	89,743	.....	45,082	462,796
Western Terminal Elevator Co.	374,439	38,715	15,021	19,589	7,854	455,618
G. T. Pacific	686,067	338,443	40,104	24,507	31,454	1,120,575
Grain Growers' Grain Co.	988,516	417,161	170,653	.....	65,004	1,641,334
Fort William Elevator Co.	276,857	380,248	47,305	14,272	12,042	730,724
Northwestern Elevator Co.	554,859	20,075	26,866	44	69	601,813
Port Arthur—						
Port Arthur Elevator Co.	1,802,794	725,322	214,863	2,181	52,171	2,297,571
Sask. Co-op. Elevator Co.	1,459,939	359,473	44,601	38,304	21,258	1,923,575
Canadian Government Elevator	164,549	92,787	26,581	68,920	15,317	368,154
Account Imperial Government.....	.....	.....	.....	7,207	.....	7,207
Thunder Bay	335,511	499,384	90,993	8,879	17,124	951,891
Davidson and Smith	384,463	42,782	13,204	.....	1,081	95,530
Eastern-Richardson	313,153	169,450	36,164	8,502	33,848	561,111
Vancouver Can. Gov't. Elevator.....	1,588	32,192	6,190	.....	*1,425	41,395
Total public terminal elevators....	7,669,471	3,579,420	1,213,018	248,594	394,616	13,105,113
Saskatoon Can. Gov't. Elevator.....	391,814	361,580	2,338	.....	*2,740	755,732
Moose Jaw Can. Gov't. Elevator.....	260,912	179,755	6,056	7,825	1,270	468,863
Calgary Can. Gov't. Elevator.....	1,186,836	827,317	54,121	182	13,066	2,088,466
Total Interior Terminal Elevators..	1,839,562	1,368,652	62,515	8,007	18,720	3,297,456
Midland—						
Aberdeen Elevator Co.	4,500	177,822	121,767	.....	.....	304,089
Midland Elevator Co.	31,071	346,521	24,561	.....	71,557	473,710
Tiffin, G.T.P.	292,998	.....	.....	.....	31,751	1,370,383
Port McNicoll	414,413	854,366	70,453	.....	31,751	1,370,383
Goderich—						
Elevator and Transit Co.	627,644	76,400	.....	.....	.....	704,044
Toronto—						
Campbell Flour Mills Co.	111,642	.....	.....	.....	.....	111,642
Kingston—						
Commercial Elevator Co. ....	.....	25,363	.....	.....	.....	25,363
Montreal—						
Harbor Commissioners No. 1 and 2....	156,602	298,509	28,868	.....	3,439	487,418
Montreal Warehousing Co.	441,323	28,471	.....	.....	.....	469,794
Ogilvie Flour Mills Co.	314,309	.....	7,492	.....	.....	321,801
Quebec Harbor Commissioners.....	.....	1,943	.....	.....	.....	1,943
West St. John, N.B., C.P.R.	585,616	9,103	206,729	.....	.....	801,448
St. John, N.B., Can. Nat. Rys.	139,460	.....	34,940	.....	.....	174,400
Halifax, N.S.	468,569	.....	.....	.....	.....	468,569
Total Public Elevators.....	3,588,147	1,818,498	494,810	.....	106,747	6,008,202
Total Quantity in Store.....	13,097,180	6,766,570	1,770,343	256,601	520,083	22,410,777

†Corn.

Traffic Order by Board of Railway Commissioners.

C.P.R. Weyburn-Lethbridge Line Rates and Extension.

29,230. Jan. 2.—Re application of Associated Board of Trade and Saskatchewan Grain Growers' Association for a reduction in rates to stations on the C.P.R. Weyburn-Lethbridge line, and for the construction of the uncompleted portion of the line. Upon hearing the application at Regina, Mar. 1, 1919, the applicants, the Shaunavon Board of Trade, and the railway company being represented at the hearing, John George appearing in person, and what was alleged, it is ordered that the application be dismissed.

Fredericton and Grand Lake Coal & Ry.'s Freight Tariff.

29,263, Jan. 10. This order, as issued originally, and published in Canadian Railway and Marine World for February, pg. 71, has been changed to read as follows: Re application of Fredericton & Grand Lake Coal & Ry. Co., under sec. 330 of the Railway Act, 1919, for approval of its Standard Mileage Freight Tariff, C.R.C., no. 84. Upon the report and recommendation of the board's Chief Traffic Officer, it is ordered that said tariff of maximum mileage freight rates, to apply between stations on the Fredericton & Grand Lake Coal & Ry. Co.'s railway, be approved, the tariff, with a reference to this order, to be published in at least two consecutive weekly issues of the Canada Gazette.

New Brunswick Coal & Ry. Freight Tariff.

29,264, Jan. 10.—This order, as issued originally, and published in Canadian Railway and Marine World for February, on pg. 71, has been changed to read as follows: Re application of New Brunswick Coal & Ry., under sec. 330 of the Railway Act, 1919, for approval of its Standard Mileage Freight Tariff C.R.C. no. 51. Upon the report and recommendation of the board's Chief Traffic Officer, it is ordered that the said tariff of maximum mileage freight rates, to apply between stations on the New Brunswick Coal and Railway, be approved; and that the tariff, with a reference to this order, be published in at least two consecutive weekly issues of the Canada Gazette.

Supply of Grain Cars at Port Arthur and Fort William.

29,312. Jan. 30.—In pursuance of the powers conferred upon the board by the Railway Act, 1919, sec. 312, and order in council 1,589, July 31, 1919, as continued in full force and effect by act of the Parliament of Canada, 10 George V., chapt. 9, and of all other powers possessed by it in that behalf, it is ordered as follows: That on Monday, Feb. 2, 1920, and on each succeeding Monday until otherwise ordered by the board the C.P.R. provide at least 125 cars and the Canadian National Rys. at least 50 cars at the elevators at Fort William and Port Arthur, Ont., for the receipt, handling, and carriage of grain, other than wheat, also flaxseed, for domestic use in Canada; the said cars to be allocated in proportion to the cars ordered for which the necessary documents have been surrendered.

This order was amended by order 29,336 Feb. 5, as follows: Upon its being represented to the board that the effect of the order allocating the cars upon the

surrender of the necessary documents is to exclude users of private elevators which do not issue warehouse receipts from any benefit thereunder, it is ordered that order 29,312 be amended by striking out the words "for which the necessary documents have been surrendered," at the end thereof.

New Brunswick Coal & Ry., Passenger Tariff.

29,323. Jan. 30.—Re application of New Brunswick Coal & Ry., under sec. 334 of the Railway Act, 1919, for approval of its Standard Passenger Tariff, C.R.C. 4. Upon the report and recommendation of the board's Chief Traffic Officer, it is ordered that the said tariff, to apply between stations on the New Brunswick Coal and Railway, be approved; and that the tariff, with a reference to this order, be published in at least two consecutive weekly issues of the Canada Gazette.

Fredericton Grand Lake Coal & Ry. Co.'s Passenger Tariff.

29,370. Jan. 30.—Application of Fredericton & Grand Lake Coal & Ry. Co., under sec. 334 of the Railway Act, 1919, for approval of its Standard Passenger Tariff C.R.C. 4. Upon the report and recommendation of the board's Chief Traffic Officer, it is ordered that the said tariff, to apply between stations on the Fredericton & Grand Lake Coal & Ry. Co.'s railway be approved; the tariff, with reference to this order, to be published in at least two consecutive weekly issues of the Canada Gazette.

Free Time for Ordering and Paying Freight Charges.

29,389. Re application of Saskatchewan Supply and Fuel Co., for consideration by the board of the question of free time allowed for ordering and paying freight charges. Upon hearing the application at Saskatoon, Nov. 29, 1919, the applicant, the Canadian Freight Association, and the C.P.R., being represented at the hearing, and what was alleged, it is ordered that the application for a modification of rule 2 (b) of Canadian Car Demurrage Rules to afford free time for alternative placement orders for unloading cars, also far an allowance of free time for payment freight charges be refused.

Passenger Commutation Rates Tariffs Suspended.

29,407. Re complaints of City of Toronto; residents of Oakville, and stations between Oakville and Toronto; residents of Laval des Rapides, Que.; Gatineau Residents Association; E. N. Brown, of Montreal; the Town of Weston, Ont., and residents of the Town of Lasalle, Que., against proposed increase in commutation rates published by railway companies to become effective March 1. Upon hearing the complaint of the residents of the Town of Lasalle at Montreal, Feb. 25, the Town of Lasalle and the railway companies interested being represented at the hearing, and what was alleged and upon reading the submissions filed on behalf of the other parties interested, it is ordered that the following tariffs be suspended, pending hearing by the board, viz.: Tariffs C.R.C. 139, G.T.R. Tariff C.R.C. no. E-2822. Canadian National Rys. Tariffs C.R.C. no. W-90 and no. E-114. Toronto, Hamilton and Buffalo Ry. Tariffs C.R.C. 1,279, 1,281, 1,284. New York Central Rd.

Supplement 4 to Tariff C.R.C. 9. Central Vermont Ry. Supplement 1 to Tariff C.R.C. 525.

Regulations for Car Lighting Systems.

The Board of Railway Commissioners passed general order 282, Jan. 29, as follows: Re general order 25, Jan. 25, 1909, prescribing lighting systems to be used on each and every car requiring lighting on the railway, or portion of railway, operated by every railway company, subject to Dominion jurisdiction. Upon reading what is filed on behalf of the Canadian Pacific, Grand Trunk, Grand Trunk Pacific, Canadian National Railways and the Wabash and Michigan Central Railroads, and the report and recommendation of the board's Mechanical Expert, concurred in by its Chief Operating Officer, it is ordered that general order 25, be amended by adding after sub clause (3) of clause (h), paragraph 3, the following, viz.: "4. That in all cases of derailment or accidents to passenger cars lighted with Pintsch gas or Commercial acetylene, the supply of gas must be shut off, if possible, by closing the stud valves in storage tanks underneath the body of the car. Arrangements must be made to place a key securely in the gauge box underneath the car, where it will readily be accessible. Instructions must be issued to train and wrecking crews to govern this matter, so that there will be no misunderstanding in case of accident."

Grain Inspected at Western Points.

The following figures, compiled by the Dominion Bureau of Statistics, show the number of cars of grain inspected at Winnipeg and other points on the Western Division, during January, and during five months ended Jan., 1920 and

	Jan., 1920	5 mons. to Jan., 1920	5 mons. to Jan., 1919
C.P.R.	5,564	50,363	51,662
C.N.R.	4,010	30,781	33,513
G.N.R. (Duluth)	20	475	709
G.T.P.R.	1,817	14,328	12,116
Totals	11,411	95,947	98,000

A Concordance of the Railway Act, statutes of Canada, 1919, chap. 68, by A. H. O'Brien, M.A., ex House of Commons Law Clerk, and counsel of the House of Commons Speaker, being a new edition of Currier's Concordance, has been issued. It contains the full text of the act, an analytical index of it, a table of reference from the old act to the new, a list of other acts affecting railways, and the Board of Railway Commissioners' rules and regulations, with index. It is published by Canada Law Book Co., Toronto.

Railway Lands Patented—Letters were issued during January for Dominion railway lands in Manitoba, Saskatchewan, Alberta and British Columbia as follows:—

	Acres.
Canadian Northern Ry.	1602.00
Canadian Pacific Ry., roadbed and station grounds	1.09
Central Canada Ry.	3.77
Total	1606.86

W. B. Way, Superintendent, Canadian National Rys., Cochrane, Ont., in sending Canadian Railway and Marine World some suggestions, says: "I consider the circulation of your paper is of value to railways and railway men."

C.P.R. Scholarships in McGill University.

Grant Hall, Vice President, C.P.R., has issued the following circular:—A free scholarship, covering four years tuition in architecture, chemistry, civil, mechanical or electrical engineering at McGill University, Montreal, is hereby offered, subject to competitive examination, to apprentices and other employes enrolled on the company's permanent staff and under 21 years of age, and to minor sons of employes. The competitive examination, which will be the regular entrance matriculation examination provided for in the university's annual calendar, will be held at the university, and at other centers throughout Canada, in June, 1920. The candidate making the highest average, and complying with the requirements of admission, will be awarded the scholarship and have the option of taking any of the above courses. Scholarships will be renewed from year to year, to cover a period not exceeding four years, if, at the close of each session, the holder thereof is entitled, under the rules, to full standing in the next higher year. In case a scholarship holder finds it necessary to interrupt his course for a year or more, notice must be given at the close of the session to the C.P.R. Co., and to the Dean of the Faculty of Applied Science of the University, in order that the scholarship may be open to other applicants. In order to establish prior claim to the next available scholarship, notice of the student's intended return must be given to the C.P.R. Co. and to the Dean of the Faculty of Applied Science, not later than Jan. 1, preceding the opening of the session in which such scholarship will be available. Applications for certificates entitling eligible persons to enter the competition should be addressed to C. H. Buell, Staff Registrar and Secretary, Pension Department, C.P.R., Montreal. Copies of the annual calendar containing the conditions of admission and announcement of courses may be obtained upon application to the Registrar, McGill University. Certificate holders should, not later than May 10, 1920, apply to the Registrar of the University, for admission to the examination, and such application must be accompanied by the company's certificate of eligibility.

Esquimalt and Nanaimo Ry. Land Grant—Replying to a question asked in the British Columbia Legislature, Feb. 10, as to the amount contributed by the E. and N.R. to the provincial revenue under the E. and N.R. Co.'s Land Grant Tax Exemption Ratification Act, 1912, the Finance Minister said: "The sum of 1½c in respect of each acre of the company's land grant remaining vested in the company and exempt from taxation on June 30 in each year, the payments made on this account to date being as follows: 1913, on 1,101,725 acres, \$16,525.87; 1914, on 1,087,118 acres, \$16,307.77; 1915, on 1,063,254 acres, \$15,948.81; 1916, on 1,059,270 acres, \$15,890.55; 1917, on 1,057,992 acres, \$15,869.88; 1918, on 1,056,030 acres, \$15,840.45; 1919, on 1,054,302 acres, \$15,814.53."

Promoters of a railway to connect Antofagasta, Chile, and Buenos Aires, Argentine, at a cost of \$25,000,000, are said to be seeking capital for construction in North America.

Snow and Cold Paralyze Newfoundland's Transportation Facilities.

St. John's, Nfld., press dispatch, Feb. 10.—Owing to continuous snowstorms, the Reid Newfoundland Co. was unable to run any trains in January, and it is certain that all railway traffic will be abandoned until spring opens. The intense cold, reaching 38 degrees below zero, has made matters still more serious, the whole island having been for four weeks in a state of natural blockade by ice. Every bay is frozen over sufficiently to drive horses from side to side, a state unknown for 100 years.

The coastal service has collapsed and sealing steamships are powerless to carry food and coal to sections, suffering from the hardest deprivations. The steamships Prospero, Diana and Eagle, carrying foodstuffs north, are frozen in off Fogo, and will be unable to prosecute the seal fishery this year. This means that only seven ships will endeavor to face the Arctic floe. Sealing crews must walk from the northern districts to St. John's, distances ranging from 120 to 200 miles. A serious coal shortage intensifies the situation. Food shortage is so great in the lumber camps that horses have been killed for want of food, trains being snowbound.

The railway problem is the most serious the new government must face. The railway has run down, it lacks rolling stock and motive power, and only the expenditure of many millions can remedy the situation. Under the Reid railway contract, the Reid Newfoundland Co. is supposed to repair the line, but it is evident that it is not in financial position to do so, the railway, it contends, being a losing concern. A government expenditure of \$10,000,000 to repair the railway will place a heavy financial burden on the country.

To ease the situation the government has invited tenders for four steamships for the north and west coasts, and the press urges that the present bay service be doubled.

The ice blockade had seriously interfered with the export of fish to the Mediterranean, and fish exporters fear that the half million quintals of fish yet unshipped will reach Latin countries too late for the Lenten season, in which case a serious slump in prices may result.

Among the Express Companies.

The Canadian National Ex. Co. has opened offices at Neuville and Cap Rouge, Que., and Cronyn, Ont.

H. A. Fairborne, heretofore at Winnipeg, has been appointed agent, Dominion Ex. Co., Portage la Prairie, Man., vice A. W. Hodgson, transferred.

A. W. Hodgson, heretofore agent, Dominion Ex. Co., Portage la Prairie, Man., has been appointed agent, same company, Maple Creek, Sask., vice R. Fennell, given leave of absence on account of ill health.

The Canadian Ex. Co. has granted increases in wages to its employes, ranging from 10% to 20%, effective from Feb. 7. The negotiations between the company and the employes were conducted by the Canadian Brotherhood of Railway Employes, and it is stated that the agreement affects indoor clerks as well as outdoor employes.

The G.T.R. has been directed by the Board of Railway Commissioners' order 29,355, Feb. 9, to construct a building, at least 75 x 30 ft., at a point 80 ft. west of the station at West Toronto, Ont., for the Canadian Ex. Co. A sheltered platform, at least 30 ft. wide is to be provided at the east end of the building, for empty trucks, and the work completed by Aug. 31.

Telegraph, Telephone and Cable Matters.

John Stanton, Agent, Great North Western Telegraph Co., Port Dalhousie, Ont., for about 30 years, died there, Feb. 13, aged 69.

Representatives of Canadian telegraph employes will, it is announced, meet in Winnipeg during March, to revise and standardize wage agreements.

The Great North Western Telegraph Co. has closed its offices at Pokemouche, N.B.; Ameson, and Bala, Ont.; and Victoria Beach Man., and has opened offices at Kabina and Savoff, Ont.

Glyn Osler, Toronto, and G. D. Milne, New York, have been elected directors, Bell Telephone Co. of Canada, succeeding the late A. Lash, and the late N. C. Kingsbury, respectively.

The new cable line connecting Santos and Rio de Janeiro, Brazil, with the cable system at Montevideo and Buenos Aires, thus providing direct communication between the United States and Brazil, will be in operation about March 20.

The following transfers in the Pacific Cable Board's staff have been announced: H. Baxendale, from Sydney, New South Wales, to Bamfield, B.C.; R. S. M. McCombie, from Bamfield, B.C., to Fanning Island; T. F. Price, from Halifax, N.S., to Auckland, New Zealand, and H. K. Balcombe, from Montreal to Calgary, Alta.

A further development in the possibilities of commercial wireless telephone business, took place early in February, when W. Marconi, G.C.V.O., spoke between London and Canada by that system. He is reported to have stated that conversations across the Atlantic, will be more or less common in the near future, at a cost of not more than 24c for one minute.

The Mackay Companies' annual meeting was held Feb. 16, when it was reported that notwithstanding all the troubles due to the war, and to government operation, the gross receipts of the ocean and land line systems since the return of the properties to the companies' control on Aug. 1, 1919, have steadily increased, and the net profit is satisfactory. Sir Vincent Meredith, President, Bank of Montreal, resigned as one of the trustees, the vacancy not being filled.

The Farmers' Telephone Co., Hartland, N.B., at its annual meeting recently, passed its annual dividend, "on account of the extraordinary advance in the cost of supplies and operating expenses, without corresponding increases in rentals and tolls." It was announced that in order to keep the property in the present hands, additional capital would have to be forthcoming, and that rentals must be increased, in accordance with the increases in the cost of operating. It was also hinted that the company may pass under the New Brunswick Telephone Co.'s control.

Electric Railway Department

Increases in Electric Railway Freight and Passenger Rates.

British Columbia Electric Ry.—The Board of Railway Commissioners issued order 29,237, Jan. 10, dismissing complaint by Broadview Ratepayers' Association, Burnaby, B.C., against fares charged by B.C.E.R. in Burnaby district. Victoria City Council has applied to the B.C. Legislature for an act to amend its act of incorporation in various details. One of the sections of the bill provides for the passing of regulations by the city council as to jitney traffic, which would have the effect of prohibiting it within certain areas. The introduction of this section is the result of an understanding arrived at with the British Columbia Electric Ry., as a preliminary to an agreement for an increase of fares on the city lines. The proposed new contract between the city and the company is reported to contain the following sections: The company shall put into effect a fare schedule making the regular fare on all lines 6c with transfer privileges; 6 tickets being sold for 35c; special tickets for children under 12, at all hours, and for school children, during school hours, to cost 25c for strip of 10; children under 5 being carried free of charge. The same rates for electric lights to be in force in Victoria as in Vancouver. This would probably make the rate per kilowatt 6c, abolish meter rent and make the minimum per month 50c. That the company undertake to maintain the strip of roadway between the tracks within 18 in. of both sides of the rails.

Calgary Municipal Ry.—The Calgary, Alta., City Council's wage committee is reported to have recommended, after a consultation with representatives of employees of the various departments, the granting of increases in wages, estimated to amount to \$225,000. City Commissioner Graves is reported to have expressed the fear that these increases cannot be met without increasing the fares on the Calgary Municipal Ry., and the rates charged for other public utilities. The rate of wages recommended to be paid the motormen is reported to be 72½c an hour. The present rate is 65c and the men asked 75c.

London and Port Stanley Ry.—A London, Ont., press dispatch stated recently that the L. & P.S.R. management had served the required six months notice on the Michigan Central Rd. that rates for hauling the latter's freight and passenger traffic between London and St. Thomas must be advanced next summer, it being claimed that the L. & P.S.R. is losing money on the Michigan Central business, because of the sharp advance in operating costs since the agreement was made in 1914, and that provision is made for rate adjustments in five-year periods, and for arbitration by the Board of Railway Commissioners in the event of failure to agree.

We were officially advised by the L. & P.S.R. management Feb. 20, that no such notice had been served, that under the agreement, it is impossible to advance rates for hauling freight next summer and that passenger rates are not controlled by the agreement.

Montreal and Southern Counties Ry.—Application has been made recently to

the Board of Railway Commissioners for an increase of 20% in the commutation fares between points on the Montreal and Southern Counties Ry. and Montreal. Following is a comparison between the present rates and those for which approval is asked:

	Present.	Proposed.
55 trip books	\$3.15	\$3.80
46 trip books	2.65	3.20
10 trip slips	85	1.00

The company gave the following facts in support of its application. The financial results of the company's operations between 1914 and 1917 are set out in the board's judgment of July 10, 1918. The results of operations during 1918

The road has been properly and carefully operated and its affairs has been administered with a due regard for economy. The increase in operating expenses, evidenced by the above figures, is largely due to the increased wages which it has been necessary for the company to pay its trainmen. The following are the rates of pay for trainmen, in effect July 1, 1918; Oct. 1, 1918, and Aug. 1, 1919, in cents per hour:

Year	July 1, 1918	Oct. 1, 1918	Aug. 1, 1919
1	28-30	30-32	37-38
2	29-31	31-33	39-40
3	29-31	31-33	42-44
4	30-32	32-34	44-46
5	30-32	32-34	46-48
6	31-33	33-35	
7	31-33	33-36	
8	33-35	35-37	
9	33-35	35-37	
10	35-37	37-39	

The increases granted on Oct. 1, 1918, to shopmen, substation operators, station agents, trackmen, linemen, supervisors, dispatchers, and office forces, as well as to trainmen, produced an increase of 26% over the wages paid in 1917, and for 9 months ended June 30, 1919, amounted to \$32,917. The wage schedule effective Aug. 1, 1919, entails an increase of 30% over the rates previously in force, and as the amount paid for wages for the year ended June 30, 1919, was \$161,139.82, the increase will amount to \$48,341 a year.

The total passenger revenue for the year ended June 30, 1919, was \$313,787 on which a 20% increase would amount to \$62,757, assuming that the same traffic would continue. The proposed increase probably could not be made effective before Jan. 1, 1920. The proportion of this, which could be collected during the present fiscal year would not exceed \$30,000. The applicant's present maximum mileage rate is 2.875c a mile, whereas steam roads, operating in the same territory, have a maximum rate of 3.45c a mile, except the Quebec, Montreal & Southern Ry., which has recently been authorized to charge 4c a mile. The results of the applicant company's financial operations show that upon the present rates charged it has been unable to pay the interest on its fixed charges, to say nothing of earning any return upon the amount invested in the road.

The New Brunswick Power Co., owning the electric railway and gas and electric light and power plants in St. John, N.B., is applying to the New Brunswick Legislature for power to vary its rates for electric, gas and railway service to meet changes in their cost to make its charter conform to the recommendations of the Currier commission, and to give the company further relief. The Currier commission sat in the early part of 1919, and presented a report, a summary of which was given in Canadian Railway and Marine World for May, 1919, pg. 269. The legislature passed an act bringing the report into effect, provision being made for a reference to the N.B. Supreme Court as to the justice of the award. The court's decision has not yet been given.

Ottawa Electric Ry.—The arguments before the Supreme Court of Canada upon the three questions submitted by the court in the appeal to it on the pro-

Canadian Electric Railway Association.

Honorary President, Lieut.-Col. J. E. Hutcheson, General Manager, Montreal Tramways Co.

Honorary Vice President, Acton Burrows, Proprietor and Editor, Canadian Railway and Marine World.

President, A. Gaboury, Superintendent, Montreal Tramways Co.

Vice President, G. Gordon Gale, Vice President and General Manager, Hull Electric Co.

Honorary Secretary-Treasurer, pro tem, A. Eastman, Vice President and General Manager, Windsor, Essex & Lake Shore Rapid Railway Co.

Executive Committee, The President, Vice President, and F. D. Burpee, Superintendent, Ottawa Electric Railway Co.; C. C. Curtis, Manager, Cape Breton Electric Co.; A. Eastman, Vice President and General Manager, Windsor, Essex & Lake Shore Rapid Railway Co.; Geo. Kidd, General Manager, British Columbia Electric Railway Co.; M. W. Kirkwood, General Manager, Grand River Railway Co. and Lake Erie & Northern Railway Co.; A. W. McLimont, Vice President and General Manager, Winnipeg Electric Railway Co.; R. M. Reade, Superintendent, Quebec Railway Light & Power Co.; Lt.-Col. G. C. Royce, General Manager, Toronto Suburban Railway Co.; C. L. Wilson, Assistant Manager, Toronto & York Radial Railway Co.

Official Organ—Canadian Railway and Marine World, Toronto.

and the first 10 months of 1919, are as follows:

	Jan. to June, 1918	July to Dec., 1918
Gross revenue	\$144,702.78	\$180,290.43
Operating expenses (including rentals)	168,173.81	160,442.67
Taxes	2,700.00	3,400.00
Interest on unfunded debt at 5%	32,600.97	20,584.60
	Jan. to June, 1919	July to Oct., 1919
Gross revenue	\$183,907.65	\$143,368.94
Operating expenses (including rentals)	179,509.34	181,528.82
Taxes	4,300.00	4,000.00
Interest on unfunded debt at 5%	38,463.76	25,165.36
Deficit	38,365.45	17,325.24

The advances made to the company by the G.T.R. Co. for capital expenditure up to June 30, 1919, amounted to \$1,534,827.74. The increased rates authorized by the board's judgment above referred to became effective Aug. 11, 1918, and the total passenger revenue for the year ended June 30, 1919, was \$313,787. This figure, however, includes revenue for July and the first part of August before the increase became effective, amounting to \$45,540. The increase, therefore, is included in the balance of the total receipts for the year, viz: \$268,247.

posed raising of fares on the Britannia lines, were concluded Feb. 5. The company desired to put an increased schedule of fares in operation on its suburban line to Britannia, and being refused permission by the Board of Railway Commissioners, an appeal was taken to the Supreme Court. The court heard arguments at the end of 1919, and subsequently submitted three questions upon which it invited further argument. The parties to the appeal were Nepean Tp., the City of Ottawa and the Ottawa Electric Ry.

Toronto Suburban Ry. — Standard Freight Tariff C.R.C. 1, has been approved by the Board of Railway Commissioners, by order 29,293, dated Jan. 23. It is governed by Canadian Freight Classification on file with the Board of Railway Commissioners, and subject to the general rules and conditions of carriage published by the company; also by the car service, warehouse storage, switching rates and regulations in effect at shipping point and destination, and published in tariffs relating thereto, which are on file with the Board of Railway Commissioners.

Distances, miles.	Classes in cents per 100 lb.									
	1	2	3	4	5	6	7	8	9	10
Over	24	21	18	15	12	11	9	10	10	7½
Not Over	25	23	20	17½	15	14	11½	10	11½	9
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name of the Ottawa City Railway Commission. The council also resolved that it is in favor of the city taking over the Ottawa Electric Ry. in 1923, under the terms of the agreement, and that notice be given the company in ample time to carry this into effect."

The Hydro Electric Power Commission of Ontario's Railway Projects, Etc.

In the voting by York Township rate-payers on Jan. 17 on a bylaw to raise \$381,587 towards the purchase completion and equipment of the Toronto Eastern Ry., from Bowmanville to Toronto, while there were 252 votes for and only 10 against, the total number of votes cast did not bear the proportion to the total number of voters required by the act. The council, when giving the bylaw its final reading on Feb. 17, was advised by the Hydro Electric Power Commission of Ontario that it is proposed to apply to the Ontario Legislature to amend the act of 1914, which requires bylaws granting aid to railways to be approved, not only by a majority of votes cast, but that one-third of the total electorate eligible must vote, so as to permit such bylaws to be carried by a majority of votes cast.

During February several meetings were held in the Niagara Peninsula to discuss the linking up of the whole of the electric railways in that area. This would involve taking over Niagara, St. Catharines and Toronto Ry. from the Canadian National Rys., and linking it up with the same local lines in the vicinity of Welland, on the one hand, and the taking over of the Dominion Power and Transmission Co.'s lines in Hamilton and vicinity. Negotiations are reported to have been in progress in connection with the two larger lines for some time past, and according to a recent statement in Hamilton, action is expected to be taken in regard to one or both during March.

Guelph, Ont., City Council is reported to have signed the agreement for the transfer of the Guelph Radial Ry. to the Hydro Electric Power Commission of Ontario, the transfer to be made on July 1. The commission is to put the line in first class condition and to provide a 10 minute service. The cost of the work is estimated at \$150,000.

The Sandwich, Windsor and Amherstburg Ry. will, it is reported, be taken over in the near future by the Hydro Electric Power Commission of Ontario under the agreement approved of recently.

The survey of the Sarnia, Ont., St. Ry. by the Hydro Electric Power Commission of Ontario's engineers, was reported on Feb. 13, to be completed. The report is being prepared and, it is expected that it will be presented to the Sarnia City Council at an early date.

Votes on Hydro Radial Railway By-laws—The Hydro Electric Power Commission of Ontario has announced that it will ask, at the Ontario Legislature's forthcoming session for an amendment to the Hydro Radial Railway Act, to provide that a majority of the votes polled, and not a majority of the possible votes, will carry any bylaw relating to the construction of radial railways under the commission's scheme.

Electric Railway Employes' Wages, Working Conditions, Etc.

Hamilton St. R.—A press report states that the company's employes have asked that a new wage schedule be put in operation upon the expiration of the present agreement in April. The present schedule has a minimum of 34c an hour and a maximum of 41c. The new demand is as follows: First six months, 50c; second six months, 55c; second year, 60c; and third year and over 65c per hour. Men operating snowplows and sweepers 5c an hour extra, and free overalls. They also want one week holiday a year, with full pay. All employes to operate on an 8-hour day straight, no runs to be less than 8 hours daily.

Niagara, St. Catharines and Toronto Ry. (Canadian National Rys. System)—The board of conciliation and investigation which was appointed by the Labor Department in connection with the dispute between the Niagara, St. Catharines and Toronto Ry. and its conductors, motormen, barn, shop and power house men and members of Amalgamated Association of Street and Electric Railway Employes of America Division 846 and which consisted of County Judge C. C. Snider, Hamilton, Ont., Chairman; J. D. Kelley, K.C., Ottawa, representing the company, and Jno. McAninch, representing the men, presented a unanimous report to which was attached a schedule of wages and rules drafted as an agreement to be signed by both parties to the dispute. The articles in the draft agreement submitted by the employes which were not included in the schedule were omitted on the ground that they were "of a character as should be in the control of the management of the employer."

The following are the principal provisions of the draft agreement:—Nine hours to constitute a day's work for all passenger trainmen, to be completed within 11 consecutive hours. Overtime to be paid 15c an hour for first hour, or part thereof, over 9 hours, and at time and a half for all time served over 10 hours. The rates of wages to be paid passenger trainmen per hour are as follows, to which we have added a column showing the rates paid hitherto:

	New	Old
First six months	36c	39c
Second six months	39c	39c
Second year	41c	41c
Third year and afterwards.....	45c	.....
Third year .....	.....	48c
Fourth year and afterwards.....	.....	45c

A bonus of 2c an hour to be paid after 10 years continuous service. Conductors or motormen to be paid 25c a day, or any part of day, extra for training a student. The company to pay half cost of uniform for each trainman who has been in its employ for not less than a year and to provide one uniform a year if required for each trainman thereafter paying one-half its cost. Cap to be supplied free by company.

The hours of trainmen employed in freight service shall be a minimum of 10 hours a day, 6 days a week, to be completed in the least number of hours possible. On week day wages of freight conductors and freight locomotive men during the first, second and third years of their service shall be 47c; after the third year, 48c, after 10 years of continuous service a bonus of 2c an hour will be allowed Brakemen and polemen's wages shall be for first 6 months,

41c, and after first year, 43c. Freight trainmen will receive extra pay at rate of 15c an hour for the first hour, or part of an hour, after 10 hours service, and time and a half for all time after 11 hours service. All freight motors without cars shall be operated by at least 2 freight trainmen. The crews of all freight trains consisting of one or more cars, in addition to the motor, shall consist of not less than three men, and a fourth man shall be supplied in other cases where the freight is heavy enough to require it. Freight train conductors and locomotive shall receive 25c a day, or any part of a day extra, for training a student. The company will pay for meals of all trainmen who are kept out over 10 hours on snowplow work.

Hours of barn and shop men to be the same as existing heretofore. Time and a half to be paid for all overtime, including all time worked on Sundays and legal holidays when they shall be paid double time.

Baggagemen, watchmen and ticket agents to receive \$100 a month, hours remaining as heretofore. Substation operators to be increased \$5 a month. Linemen to be paid 45c to 50c an hour; groundmen, 37c to 42½c an hour, hours remaining as heretofore. Time and a half for overtime. Company to supply rubber boots and gloves for line cars. Towerman to be paid, 1st class, \$80 a month; 2nd class, \$90 a month, hours as heretofore. Section foremen, \$100 to \$110 a month; section men, \$35 to \$40 a month, hours as heretofore. Time and a half for overtime.

All employes to get double time for Christmas Day and Labor Day. The agreement to be in force from Aug. 31, 1919 to Feb. 1, 1921.

We have been informed that some mistakes were made in some figures in the board's report as sent to the Labor Department, but up to Feb. 25, no corrections had been received by the department.

A St. Catharines press dispatch of Feb. 26 said the men had decided not to accept the board's award, and had voted to strike, if an appeal to the Minister of Labor should not be successful.

Grand Valley Ry. Financing—The investigation by the official referee at Toronto into the Standard Reliance Mortgage Corporation's affairs, has again brought into prominence the financing of the old Grand Valley Ry. from Brantford to Galt, Ont. The official liquidator stated that investigation had shown that the amount shown by C. S. Dinnick's books to have been invested in Grand Valley Ry. securities was, as a matter of fact so invested. The transaction, it was brought out, involved over \$600,000 in cash and securities belonging to the Standard Reliance Mortgage Corporation, being put in the project eventually to be written off as a complete loss. The loss was transferred to the Dovern Court Land Co., because Mr. Dinnick said the Standard Reliance could not afford to show such a loss on its own books.

The Nova Scotia Power Commission has been authorized to proceed with the development of an 8,000 h.p. unit at Margarets Bay, about 20 miles from Halifax. K. H. Smith is the engineer in charge.

Toronto Railway Co's Annual Report and Meeting.

Following are extracts from the report for the calendar year, 1919, presented at the annual meeting in Toronto on Feb. 4:

The gross revenue increased over 1918 by \$708,593.01, while there remained only \$13,274.49 of such increase to be carried forward. The higher wages paid to employes and increased cost of materials, account for this very small balance.

Gross earnings were	\$7,234,895.38
Charges for operating, maintenance, etc.	5,655,658.57
Net balance from operation	\$1,579,236.81
Distributed as follows:—	
Bond interest, etc.	\$128,432.85
War and Ontario Govern- ment taxes	39,059.51
	\$ 167,492.36
Payments to city—	
Percentage on earnings	\$1,152,515.43
Pavement charges	98,793.60
General taxes	147,160.93
	1,398,469.96
Balance carried forward	13,274.49
	\$1,579,236.81

The gross earnings were \$7,234,985.38, an increase of \$708,593.01 over 1918. The payments to the city were \$1,398,469.96, an increase of \$97,203.78 over 1918.

The agreement with the employes expired in June, 1919, when new demands were submitted which the company could not grant, and negotiations for an amicable settlement being fruitless, the company applied for a conciliation board under the Labor Act. The board was appointed by the government, but while it was sitting the men resorted to a strike which continued for 12 days. During the strike, the conciliation board made unsuccessful efforts to effect a settlement and the Ontario Railway and Municipal Board, under its powers, took over the property, making two offers to the men, both of which were refused. The conciliation board then made an interim report, suggesting an increase in wages, and changes in operating conditions, contingent upon an increase in fare being granted by the city. The Ontario Railway and Municipal Board thereupon made an offer to the men of these rates of wages and conditions, but stated that they had no power to change rates of fare. The men accepted the offer and returned to work. There was then no course open to the company but to carry out the undertaking of the Ontario Railway and Municipal Board. The obligations imposed upon the company by the action of the conciliation board and the Ontario Railway and Municipal Board involved an increase of 16c an hour in wages, together with a reduction in the working day to 8 hours; overtime after 8½ hours and special rates for Sundays and holidays; the cost to the company amounting to approximately \$1,500,000 a year. We have paid the increased rates for only half the current year, or, to be exact, from July 4, 1919, when, the strike ended, the men returned to work. For 1920 the increases will have to be paid for the full year.

The reason why dividends have not been declared this year is due entirely to the abnormal increase in wages during the past few years, combined with a rapidly increasing cost of materials. In 1916 we were paying a maximum rate of wages of 27½c an hour. In 1917 an arbitration board increased this rate to 37c an hour; and before the agreement

had expired, the men sought a conciliation board and secured a war bonus of 2c an hour, bringing the rate up to 39c. In 1919, under the action of the conciliation board and the Ontario Railway and Municipal Board, the maximum rate was fixed at 55c and the length of the working day reduced from 10 to 8 hours, with provision for overtime rates as above mentioned. Thus, in three years, the rates of wages of employes have doubled, making the additional annual cost to the company approximately \$2,500,000. During the same period, materials have increased in price from 100 to 300%. In consequence, the money that would otherwise have gone towards improvement of the property and into dividends, has been swallowed up by increases in wages and increased cost of materials. And it must be remembered the company has had to face these expenditures with revenues drawn from rates of fare fixed 28 years ago, the average fare being 3.9c per revenue passenger, the lowest rate of fare on the continent for a city of Toronto's size. With the object of meeting the increase in wages, the company applied to the city council for permission to increase the fare, pointing out that about 400 roads in North America, many of them with agreements similar to ours, had obtained increases in rates of fare, but the city refused to alter the agreement. Your directors also approached the Ontario Government, seeking relief, but secured no assistance. The company then offered to make an immediate sale of the property to the city, upon the terms set forth in the franchise agreement for sale in Sept. 1, 1921, but council would not favorably consider the offer.

The ninth drawing of the company's currency and sterling bonds, under the terms of the mortgage deed, dated Sept. 1, 1892, took place on June 24. Under said terms the company draws annually during the last 10 years of its franchise, 5% of the amount of bonds issued, thus reducing, during the 10 years mentioned, the outstanding bonds to 50% of the original issue, and all bonds so drawn are to be redeemed on or after Aug. 31, following the date of drawing, from which date no interest is payable on bonds so drawn. There has been drawn to date a total of \$2,047,413.30.

Revenue Statement, Year Ended Dec. 31, 1919.

Gross earnings	\$7,234,895.38
Operating, maintenance, etc.	5,655,658.57
Interest on bonds, etc.	128,432.85
Percentage on earnings.....	1,152,515.43
Pavement, taxes	285,014.04
	7,221,620.89
	\$ 13,274.49

Profit and Loss Account, Dec. 31, 1919.

Balance from 1918 (all re-invested in the company's property)	\$5,565,252.67
Surplus earnings after payment of all expenses, interest, taxes, etc.....	13,274.49
	\$5,578,527.16

Comparative Statement, 1919-1918.

	1919	1918
Gross income	\$7,234,895.38	\$6,526,302.37
Operating, maintenance, etc.	5,655,658.57	4,509,651.33
Net earnings	1,579,236.81	2,016,651.04
Passengers carried	182,377,494	166,510,326
Transfers	70,446,128	63,176,397
Percentage of charges, etc., to passenger earnings	79.5	71.7

At the annual meeting on Feb. 4, the President, in response to a question as

to whether the company had discontinued attempts to secure an advance in fares, said that nothing had been done for several months, and seeing that the end of the franchise was so near, he did not think there was much possibility of getting any relief.

H. H. Pitts, of Ottawa, one of the directors, in commenting on the report, mentioned the difficulties encountered during the year, in regard to labor and high cost of materials, and complained of the refusal to the company of the right to increase fares, which he considered was unfair and immoral. He spoke strongly against the present sentiment favoring the municipalization of public utilities, and considered that there would be a change on this question before long. He mentioned that a year ago he said the Toronto city hall officials were "a lot of fakers" and he would not take back a single word of it.

The directors were re-elected as follows: Sir William Mackenzie, President; Senator F. Nicholls, Vice President; Sir Henry M. Pellatt; Senator C. P. Beaubien, E. R. Wood, G. H. Smithers, H. Mackay, K.C., H. H. Pitts and F. W. Ross.

The Manitoba Public Utilities Act's Validity Questioned.

The question of the validity of the Manitoba Public Utilities Act has been raised in an action before Justice Curran in the Manitoba High Court. The Winnipeg City Council appealed to the Court to set aside the Public Utilities Commissioner's interim order fixing the fare to be charged by the Winnipeg Electric Ry. at 6c, until such time as a final order was made. Argument was begun Jan. 26, when the city's counsel argued that the commission had no power to raise fares, and that the whole Public Utilities Act was unconstitutional. The Deputy Attorney General argued that all the workings of the act were at stake, whereupon the city's counsel asked that the arguments be limited to the case of the electric railway, but Justice Curran held that the whole of the acts brought under the Public Utilities Act should be included. The company's counsel asked for the dismissal of the action on the ground that the order appealed against was merely an interim one; that sec. 29 of the act provides that no action of the commission can be questioned by an injunction action, and that sec. 70 prescribes the course to be taken to have the commissioner's acts reviewed. The arguments were continued on subsequent days, and a large amount of documentary evidence was put in, covering the whole period elapsed since the appointment of the commissioner in 1912. In the course of the putting in of the documents the judge remarked that the carrying out of the orders applied for by the city had caused the expenditure by the company of very large sums and had been a big factor in forcing the company to seek higher fares. On another occasion the judge intimated that if he upheld the city's contention he would not dream of interfering with the present rate of fares until time had been given to enable the company to carry the case to a higher court. Judgment has not yet been announced.

Electric Railway Projects, Construction, Betterments, Etc.

The British Columbia Electric Ry. is, we are officially advised, preparing to spend more than \$1,000,000 on extensions and improvements around Vancouver. Among the extensions planned is the double tracking of Hastings St. East, in addition to the extension of Granville St. south to Kerrisdale, which is now under way. The latter line will be in operation in March. Changes in the electrical equipment along the Fraser Valley line will cost \$500,000, and \$200,000 more is proposed to be spent on the equipment of other interurban lines. These expenditures are necessary, to take care of increased population and increased travel.

A press report states that Vancouver City Council is asking for the construction of a side track where cars could await the rush from the Coughlan ship yards every afternoon; the extension of the Broadway West line; the extension of the Nanaimo Road line to 22nd Ave., and the laying of tracks over the Georgia St. viaduct.

A press report states that the company will extend its Mount Tolmie line on Vancouver Island, down the hill, provided Saanich Municipal Council will regrade Mount Tolmie Road, eliminate the jitney traffic, and authorize the charging of a 6c fare to the terminus at Bay Road intersection. The proposition is under consideration by the council. (Feb., pg. 81).

Calgary Municipal Ry.—A press report states that a contract has been let for the supply of 8 tons of railway bolts at \$1,047.20, and that no tenders were submitted for the supply of track ties. (Feb., pg. 81).

Grand River Ry.—We are officially advised in reference to the proposed sale of the company's steam plant at Preston, Ont., that this power unit is now obsolete for the operations of the company's lines. This plant has not been used since 1911. The company has under consideration the question of the provision of a modern steam plant, but no definite decision has yet been reached in regard to it. (Jan., pg. 34).

Hamilton St. Ry.—The Hamilton, Ont., City Council's street railway committee is, a press report states, considering the advisability of asking the company to lay new tracks on its York St. line. (Sept., 1919, pg. 501).

Hull Electric Co.—A press report states that the alterations of the company's substation on Main St., Hull, Que., at a cost of \$30,000 will be completed shortly. Two new transformers, each with a capacity of 1,500 h.p., are being installed, increasing the power available from 200 to 300 h.p. The rearrangement is being made to provide for additional power, better facilities for the handling of railway loads, and improved light and power service. (June, 1919, pg. 324).

Kitchener and Waterloo St. Ry.—A press report states that the Dominion Tire Co. has asked the Kitchener Light Commissioners to extend the Kitchener and Waterloo St. Ry. to its plant, and that plans and estimates are being prepared by Superintendent McIntyre. In connection with the increase of traffic between Kitchener and Waterloo, a 5 minutes service is recommended, to make which possible it is said that a second

track will be required from Union St. to William St., Waterloo.

London and Port Stanley Ry.—About three years ago the London, Ont., City Council voted \$100,000 to the London Railway Commission to build a grain elevator at Port Stanley, the terminus of the line. Owing to war conditions, the work was not gone on with, and it is now proposed to undertake it. An elevator with a capacity of 20,000 bush. an hour, would, it is estimated, cost \$200,000 as against the original estimate of \$100,000. A press report states that the co-operation of the municipalities and boards, trade of the district will be asked to put the matter before the Dominion Government with a view of obtaining financial aid towards the project.

A press report states that the London Railway Commission proposes to erect a slip dock at Port Stanley, at an estimated cost of \$8,500. (Feb., pg. 81).

London St. Ry.—A London, Ont., City Council's committee has approved of the street paving programme for this year. It involves work on seven streets on which there are street railway tracks, on some of which, a press report, states, new track will have to be laid. (Nov., 1919, pg. 612).

Moncton Tramways, Electricity and Gas Co.—We are officially advised that the car barn and machine shop at Moncton, N.B., which were destroyed by fire Dec. 25, 1919, will be rebuilt in the spring. It is expected to put up a concrete building, but the plans have not been decided on. (Feb., pg. 81).

Montreal Tramways Co.—The Montreal Tramways Commission is reported to have had under consideration recently a plan for building a line to the top of Mount Royal to replace the disused incline railway. The proposal is to build a line from the Cote des Neiges Road to the mountain top, starting from the Shakespeare Road. These would be a 5% gradient, and a possible tunnel at the Outremont incline. The matter was left over for further consideration, and in the meanwhile engineers will prepare plans and estimates not only of the above route, but of a possible one via Guy St. (Feb., pg. 81).

New Brunswick Power Co.—The St. John, N.B., City Council is reported to have been advised that the city solicitor and council for the New Brunswick Power Co. have arranged to file briefs before the New Brunswick Public Utilities Commission, respecting the city's application for an order to compel the company to operate its main line cars down Rodney wharf. (Jan., 1919, pg. 40).

Nipissing Central Ry.—A press report of Feb. 21, states that the Liskeard, Ont., Board of Trade has been advised by the acting Chairman of the Timiskaming and Northern Ry. Commission, which operates the line, that as soon as the M. J. O'Brien interests begin the construction of the projected pulp and paper mill at North Timiskaming the railway will be extended there. The projected extension would be about 13 miles long and would run easterly from Liskeard.

The Ontario Premier was reported, Feb. 27, to have announced that an extension of about 17 miles extending from Liskeard, Ont., to the Des Quinze River

Falls, Que., will be built as soon as the government receives a guarantee from the M. J. O'Brien interests that they will build a paper mill at the latter point. (Jan., pg. 34).

The Oshawa Ry. is, we are officially advised, completing 9 new sidings for the General Motors of Canada, in Oshawa, Ont. The company contemplates building about half a mile of second track on its freight line, and putting in 2 new spur tracks at the Pedlar People's plant. It also has under consideration the addition of a 500 k.w. motor generator to take care of the increased business. (Feb., pg. 81).

Ottawa Electric Ry.—Application is reported to have been made to the Hull, Que., City Council for permission to build a loop at the terminus in Hull. The present line is a stub one, on which 2 two way operated cars are run. They are the oldest cars owned by the company, and, therefore, the least reliable. Nothing can be done to improve the service to Hull, until a loop, round which the one way cars could be operated, is built. (Jan., pg. 24).

Toronto Civic Ry.—Offers for the construction of the projected St. Clair-Mount Pleasant car line, were invited to be sent in by Feb. 17, but with the exception of some bids for roadway work in connection with it, no tenders were received. Whether the city will proceed with the construction by day labor is under consideration. (Feb., pg. 81).

Cars for Toronto Civic Railway.

The Toronto Works Department will receive tenders to March 16, for 13 double truck, double end, semi convertible electric cars, complete, with plain arch roofs, delivered at Toronto. Following are the general dimensions:

Length over body corner posts.....	31 ft. 8 in.
Length over each platform	7 ft. 8 in.
Length over bumpers	47 ft.
Width at drip rail.....	8 ft. 6 in.
Height, top of rail to top of trolley board	11 ft. 8½ in.
Truck centers	19 ft. 8 in.
Truck wheel base	4 ft. 10 in.
Wheels, cast iron	33 in.
Seating capacity	48
Motors, per car	4
Top of rail to first step	14 in.
First step to platform floor.....	12¼ in.
Platform floor to body floor	10¼ in.
Weight of car body	20,890 lb.
Weight of trucks	12,750 lb.
Weight of electrical truck equipment.....	14,360 lb.

The motors specified are Canadian Westinghouse Co.'s type 533-T-4, to be interchangeable with those now in Toronto Civic Ry. service, and the controllers are to be type K-35, and equipped with an automotoneer. The motor driven air compressor specified is Canadian General Electric Co.'s type C.P.-27-A.

Australian Motor Bus Traffic — The Australian Government Commercial Agent at Sydney, Australia, reports as follows: "Traffic by motor bus between Sydney and the suburbs is becoming increasingly popular and many new lines have been opened recently. The chief cause of this is the congested state of tram traffic, which is controlled by the state government, and the heavy increase in fares which has taken place recently. Many of the chassis of these vehicles are of a well known Canadian make."

British Columbia Electric Railway Company's Annual Report

The following report for the year ended, June 30, 1919, was presented at the annual meeting in London, Eng., Feb. 3.—The following charges have been made against the revenue account for the year:—

Provision for depreciation, sinking fund and renewals	£154,727	5	8
Addition to capital amortization fund....	1,818	6	11
	£156,545	12	7

Ordinary net revenue for year from all sources, after making above deductions	£224,600	15	9
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To which is added—			
Profit on exchange in remitting earnings from Vancouver to London and moneys formerly set aside for contingencies and now no longer required for such....	138,419	1	7
Balance brought forward from last year..	6,085	0	11
	£269,104	18	3

Deduct—			
Interest on debenture stock to June 30, 1919	£132,447	4	10
Dividend paid on 5% cumulative perpetual preference stock for the year ended June 30, 1919	72,000	0	0
Interim dividend of 2½% on preferred ordinary stock stock, paid June 30, 1919	36,000	0	0
	£240,447	4	10

Leaving available for further distribution	£128,657	13	5
From this the directors have decided to recommend the payment of a final dividend on preferred ordinary stock of 2½%, making 5% for the year ended June 30, 1919.....	36,000	0	0
A dividend on deferred ordinary stock of 3% for year ended June 30, 1919	43,200	0	0
A bonus on deferred ordinary stock of 3%	43,200	0	0
	£224,400	0	0
Leaving, to carry forward to next account	£ 6,257	13	5

In recommending the distribution of a bonus of 3% upon the deferred ordinary stock, the directors desire to point out that it must be regarded as an exceptional distribution, and not as an indication of a similar distribution in future years. The bonus is rendered possible this year, by profit on exchange in remitting moneys from Vancouver to London, and by the appropriation of certain moneys held for contingencies, which, under the altered conditions, the directors consider may now be safely distributed. It is also possible to recommend the distribution of a dividend of 3% on the deferred ordinary stock, and in this case the directors consider that the improvement in local conditions, as reflected in the current earnings shown below, is such as to justify reasonable hope that a distribution on the deferred stock may be maintained. The net earnings for the current year, as compared with the year under review, are as follows:—

	1918.	1919.
July	*\$ 19,165	\$149,109
August	88,436	166,808
September	130,548	181,811
October	124,326	183,415
	\$362,475	\$681,143

*Strike in progress for 11 days during July, 1918.

In last year's report it was stated that the Province of British Columbia had introduced a bill to establish a public utilities commission, which would have an important bearing upon your company. The bill became law in March, 1919, and provided for the appointment of a single commissioner with very wide powers over public utilities. Subsequently Major J. L. Retallack was appointed commissioner. Both the terms of the act and the commissioner's decisions have shown every indication of a desire to treat your company with justice.

British Columbia is the last of the Canadian provinces to establish a public utilities commission, and such commissions exist in all the other Canadian provinces and in nearly all the United States cities. The commissioner has power under the act to regulate the rates to be charged and the services to be rendered by the company, whether such rates or services are the subject of agreement or otherwise, and to this extent the act overrides the company's franchises and agreements. The commissioner is directed, in fixing any rates to have due regard on the one hand to giving the public utility company a fair and reasonable return upon the appraised value of the company's property, and, on the other hand, to the protection of the public from rates that are excessive as being more than a fair and reasonable charge for the service rendered. The commissioner is empowered to make an appraisal of the company's property for the purpose of ascertaining the value upon which the company is entitled to earn a fair return, and in making such appraisal the act provides that he "may enquire into every fact which, in his judgment, has any bearing on that value, including the condition and value of the company's undertaking as a going concern, and the amount of money actually and reasonably expended in that undertaking in order to furnish service reasonably adequate to the requirements of the community." The act gives a right of appeal from the commissioner's decision subject to leave being first obtained from the commissioner, and in the event of his refusal, from the Lieutenant Governor in council.

There is a special clause in the act relating to the 6c fare now being charged on the Vancouver city lines. As stated in last year's report, the Vancouver City Council in July, 1918, granted the company the right to charge a 6c fare for 9 months. The Public Utilities Act was passed before this period expired and provided for the continuance of the 6c fare, subject to the company being able to satisfy the commissioner that such rate is just and reasonable. The act also provides that until such proof is furnished to the commissioner's satisfaction, the amount received by the company in excess of the 5c fare charged previously, is to be deposited in a special account in a chartered bank in Vancouver, and that if the rate should be fixed at less than 6c the excess

amount is to be handed over to the Vancouver General Hospital. Owing to an amendment of the Dominion Railway Act, the company's railways passed from the jurisdiction of the Province of British Columbia and of the Public Utilities Commission to that of the Dominion of Canada and of the Dominion Board of Railway Commissioners, but it is anticipated that amending legislation will be passed early in 1920 which will place the company's railways again under the public utilities commission, and the company has joined with the local authorities in petitioning for this to be done. When this has been done it is expected that an investigation, which was commenced by the commissioner some time ago to ascertain the correct fare to be charged in Vancouver City, but which, owing to the circumstances reported above, has been temporarily adjourned, will be resumed, and that an appraisal of all the company's property on the mainland will be made.

In June, 1919, the employes of the company and of most other industries in Vancouver went on strike, not for any increased wages, or any improved conditions, but in sympathy with the general unrest which was then prevalent in labor circles throughout Canada, particularly in Winnipeg. This strike, the longest in the company's history, lasted from June 5 to 29, when the men returned to work on the old terms. The company's revenues on the mainland from its railway system were reduced to almost nothing during the 24 days that this strike lasted. In Aug., 1919, a request was received for a further increase in wages, which was submitted to arbitration, and under the arbitration award increases were granted which will cost the company a large sum. The replacing of returned men has been a task of considerable difficulty, but the management have been able to reinstate all men who returned to the company from active service.

The directors consider that the improved conditions warrant a return to the practice of paying the dividend on the 5% cumulative perpetual preference stock half-yearly as before the war, and a half year's dividend of 2½% has been declared payable on Jan. 15, 1920. The end of the war and the gradual return to normal conditions is having a good effect upon the company's revenues. In addition to the return of the men who left British Columbia for overseas service, it is stated that a large number of men who enlisted in other parts of Canada went to British Columbia on being demobilized. Whether all of these men will find immediate employment in the province it is impossible to say. At present there is a great shortage of houses in Vancouver, but comparatively little building has yet been undertaken on account of the high prices of labor and materials. The shipbuilding industry, which employed several thousands of men during the last two or three years, is expected to be gradually reduced in extent as the contracts in hand are completed; but, as apart from shipbuilding, Vancouver did not benefit to any appreciable extent by war industries, it is likely that the adjustment to normal conditions will be made without very serious dislocation.

In Sept., 1919, John Davidson, at the board's request, kindly consented to visit

Mainly About Electric Railway People.

British Columbia to confer on the spot with the management on several important questions and inspect the company's properties. The visit proved eminently satisfactory and successful. The directors desire to record their very great appreciation of the valuable services rendered by the management and staff during the past year. Sir William Mackenzie and John Davidson, who are due to retire, offer themselves for re-election.

Expenditure on Appropriations on Capital Account, Year Ended June 30, 1919.

Rolling stock	\$ 3,948.93
Track extensions and improvements.....	58,598.66
Lighting and power extensions.....	113,931.21
Steam plant (credit)	82.27
Lands and buildings and bridges.....	20,376.08
Electrical machinery	40,366.81
Transmission lines (credit)	917.64
North Vancouver — Rolling stock, meters, transformers, and initial installations	247.33
Sundries	5,552.29
Railway feeders	5,008.90
Automobiles	18,280.48
Machinery, tools and loose plant.....	9,506.94
Crossings, fences, cattleguards and signs	3,196.61
Extending l. and p. system under municipal charter	10,703.44
	\$288,717.77

Electric Railway Finance, Meetings, Etc.

British Columbia Electric Ry. and allied companies—

	6 mons. to		6 mons. to	
	Dec., 1919	Dec., 1918	Dec. 31, 1919	Dec. 31, 1918
Gross	\$783,324	\$691,065	\$4,221,916	\$3,418,095
Expenses	522,079	451,760	3,065,409	2,644,178
Net	266,245	239,305	1,156,507	773,917

Kitchener and Waterloo Railway—

	1919	
	Dec. 31,	Dec. 31,
Receipts	\$81,203.11	\$58,788.55
Expenditures	77,154.97	57,473.69
Net profits	\$ 4,048.14	\$ 1,314.86

The profits are divided between the City of Kitchener and the Town of Waterloo in the proportion of 75% to 25%.

The Pictou County Electric Co., which operates the electric railway line in New Glasgow, and connecting the mining towns of Stellarton and Westville and Trenton, N.S., some time ago obtained permission to issue \$130,000 in 3 year coupon notes. It found these were not easily marketable and it applied recently to the Nova Scotia Public Utilities Commission, asking that the notes be changed to short term debentures for the same period. The greater security of the debentures, with the charge on the company's assets which they carry, was needed to enable it to find purchasers except at too heavy a discount. The interest on both securities was the same, 7%. The funds are required for paving the tracks and improving the rails.

Toronto Civic Railway—

	Jan., 1920	Jan., 1919.
Passenger revenue	\$41,989.44	\$32,232.12
Passengers carried	2,493,296	1,950,461

Winnipeg Electric Ry.—According to a report submitted to the Winnipeg City Council's finance committee, the Winnipeg Electric Ry.'s total earnings for 1919, on which are based the payment to be made to the city, were \$2,706,703.09, made up as follows: Cash fares, \$932,684.05; ticket sales, \$1,844,161.25; Sunday earnings, \$19,857.79. These figures show an increase of \$633,000 in 1918. The city is entitled to 5% on this amount, viz.: \$139,825. The number of cars in service was reported as 328.

Thos. Ahearn, President, Ottawa Electric Ry. has been re-elected President, Ottawa Light, Heat and Power Co.

O. E. Baldwin, who was appointed Manager, Guelph Radial Ry., recently, at a yearly salary of \$1,800, has resigned to enter a Guelph manufacturing company's service. We are officially advised that as the Hydro Electric Power Commission of Ontario is to take over the railway on July 1, it is not likely that the city will appoint a manager for the short time that it will retain possession of the railway.

Sir Adam Beck, Chairman, Hydro Electric Power Commission of Ontario, and Lady Beck, whose departure from England has been delayed, were, it was announced recently, expected back in Canada about Mar. 15. It has since been reported that Lady Beck has had to undergo an operation.

W. J. Brunless is acting temporarily as Superintendent, Edmonton Radial Ry., Edmonton, Ont. **J. H. Moir** having resigned, as stated in Canadian Railway and Marine World previously.

L. A. Cherrier, heretofore timekeeper, Dominion Power and Transmission Co., Hamilton, Ont., who has been in the company's service for over 20 years, has been appointed chief clerk, succeeding **N. S. Cumming**, who resigned on his appointment as Superintendent, Niagara, St. Catharines and Toronto Ry.

G. Comba is, according to a press report, acting as Superintendent, Calgary Municipal Ry., pending the appointment of a successor to **T. H. McCauley**.

J. E. Dalrymple, Vice President, Traffic, G.T.R., Montreal, has been elected President, Oshawa Ry. (electric), vice **E. W. Rathbun**; Deseronto, Ont.

G. Gordon Gale, Vice President and General Manager, Hull Electric Co., has been re-elected on the Royal Ottawa Golf Club's executive committee.

H. M. Hopper, heretofore General Manager and Secretary, New Brunswick Power Co., St. John, N.B., continues as Secretary, and has also been appointed Treasurer, succeeding **G. M. O. Peters**. Mr. Hopper has also been appointed General Manager, Eastern Electric Co. Ltd., a N.B. Power Co. subsidiary.

W. O. LeBer, heretofore Chief Dispatcher, Montreal and Southern Counties Ry., has been appointed Superintendent, Transportation and Maintenance Departments, vice **A. F. Laberge**, who has been appointed temporarily as Chief Dispatcher. Office, St. Lambert, Que.

J. B. Mack, who has had charge of the Calgary Municipal Ry.'s advertising and publicity department, is reported to have resigned to enter the New Brunswick Power Co.'s service at St. John.

T. H. McCauley, heretofore Manager, Calgary Municipal Ry., Calgary, Alta., has been appointed General Manager, New Brunswick Power Co. (street railway, gas, electric light, and power), St. John, N.B., succeeding **H. M. Hopper**, whose new appointments are referred to above.

John Murphy, Electrical Engineer, Railways and Canals Department, and Board of Railway Commissioners, addressed the Engineering Institute of Canada's Montreal branch, on Feb. 12, on ice formation.

Paul Paradis, Engineer, Montreal

Tramways Commission, died in Montreal, Feb. 10, after a long illness.

C. U. Peeling, Manager, Cornwall St. Ry., Light & Power Co., Cornwall, Ont., has resigned to enter the Illinois Traction Co.'s service.

J. S. Shepherd, for the past 10 years an accountant in the British Columbia Electric Ry.'s supply, died in North Vancouver Hospital, Feb. 18, following an operation for peritonitis.

Warren Y. Soper, Vice President, Ottawa Electric Ry., has been re-elected a director of the Ottawa Light, Heat & Power Co., and has also been re-elected Vice President, Royal Ottawa Golf Club.

Russell Stephens, who has been appointed assistant to City Manager Moore, at Guelph, Ont., will, it is reported, take over the office work in connection with the Guelph Radial Ry., heretofore handled by **O. E. Baldwin**, until the line is transferred to the Hydro Electric Power Commission of Ontario on July 1.

W. N. Warburton, General Manager, London and Lake Erie Ry. and Transportation Co., has been confined to his house at London, Ont., for some time, is reported to be in a serious condition.

The London Street Railway Situation.

The questions at issue between the London Street Ry. and the London, Ont., City Council have been discussed at length from various angles since the beginning of the year, but nothing definite seems to have been evolved in the direction of a settlement. A suggestion has been made that the operation of one man cars on the city lines would enable the company to give a more frequent service, and continue without the necessity for an increase in fares. The company is said to be favorable to adopting one man car operation as far as possible provided the city will sanction the use of the cars for a term of years. Another suggestion is said to favor the placing of the whole matter before the Ontario Railway and Municipal Board, and leaving the board and the company to agree to terms.

Niagara Falls, Wesley Park and Clifton Tramway Co.—A Niagara Falls, Ont., press dispatch of Feb. 24 says that **C. U. Fairlie**, of the Hydro Electric Power Commission of Ontario's Railway Department, had arrived there, with other members of the staff, and that they were going over the Niagara Falls, Wesley Park and Clifton Tramway Co.'s line in the city, which is owned and operated by the Niagara, St. Catharines and Toronto Ry. The dispatch also stated that the Niagara Falls City Council requested the Hydro Electric Power Commission to have the line examined, and report on it, as the ratepayers had voted in favor of its acquisition by the city, the franchise expiring Mar. 31.

Montreal Tramways Co. and Cost of Sewers.—The Quebec Legislature has passed an act adding a new section to the Montreal Tramway's Co's Act, providing that the company shall be relieved of paying taxes on its right of way for the construction of sewers, etc. Heretofore the company has had to pay one-half of the cost of sewers built on highways along its right of way.

Electric Railway Notes.

Peterborough, Ont., trade unions are reported to favor a Sunday street car service there.

The Levis County Ry. has received a snow sweeper from Ottawa Car Manufacturing Co.

The Windsor, Essex and Lake Shore Rapid Ry. is in the market for a passenger car.

The Oshawa Ry. is having a 50 ton electric freight shunter built by Ottawa Car Manufacturing Co.

British Columbia Electric Ry. shareholders have, for the first time in five years, received a dividend of 3%, with a bonus of 3%.

The Nelson, B.C., City Council is reported to have decided against the operation of one-man cars on Nelson Electric Ry.

The Saskatoon, Sask., City Council is reported to be considering a project for building cars for Saskatoon Municipal Ry.

The St. Thomas, Ont., City Council is reported to be considering changing the cars on its electric railway for one-man operation.

The Fort William, Ont., Municipal Ry. is reported to have put in service, Feb. 8, two of the cars bought recently in Cleveland, Ohio.

The Niagara, St. Catharines and Toronto Ry., has placed an order for the remodelling of 12 local line electric cars with Ottawa Car Manufacturing Co.

The Montreal City Council arranged with the Montreal Tramways Co. recently for the use of 3 flat cars in the removal of snow from the streets.

The London, Ont., public utilities hydro department is reported to have notified the London St. Ry. that the power supplied for the operation of the railway will be reduced by one-half.

During January the cost of snow removal from the streets in Montreal on which the Montreal Tramways Co., operates was \$12,269.12 against \$26,835 for Jan., 1919. Half the cost of this work is paid by the company.

The Moncton Tramways, Electricity & Gas Co., Moncton, N.B., which had a passenger car and sweeper destroyed by fire on Dec. 25, 1919, advised us Feb. 6, that it expected to give an order to replace the same, in the near future thereafter.

An exceptionally severe snow storm struck St. John, N.B., Feb. 7 and 8, stopping street car service for several days. The New Brunswick Power Co.'s loss through the tying up of traffic and damage to property is estimated at \$20,000.

The Regina, Sask., City Council, has been asked by its special committee, which has been considering the question of operating one-man cars on the Regina Municipal Ry., to send a delegation to Edmonton and Calgary to make a personal investigation.

North Vancouver, B.C., has assessed the B.C. Electric Ry.'s three bridges and sub-station in the municipality. An amendment of the Assessment Act, passed by the legislature in 1919 has, it is claimed, rendered these properties subject to municipal taxation.

J. G. Glassco, Manager of Winnipeg's City Light and Power Department, is reported as expressing the opinion that within seven years motor omnibusses will be the prevailing system of transportation there, that the present street

railway system will be obsolete and that the tracks will be removed.

The Toronto Ry. proposed to the Toronto Board of Control, Feb. 19, that the city take over the railway at once, instead of in 1921, or buy the additional cars, which it desires the company to provide, and allow the company to operate them. The Board of Control has since declined to consider the company's proposals. In the meantime, the city is pressing an application to the Ontario Railway and Municipal Board, for an order on the company, with penalty attached, for the supply of additional cars immediately.

The Board of Railway Commissioners is reported to have called the attention of Edmonton, Alta., City Commissioners, to the fact that the Edmonton Radial Ry. was authorized in 1908 to operate its cars over the low level bridge until the completion of the high level bridge. The city solicitor is reported to have been instructed Feb. 2, to apply to the commissioners for a further order to permit the continuance of the operation of street cars over the low level bridge.

The Ottawa Board of Trade is reported as proposing to ask the Dominion Government to rearrange the hours at which civil servants go to and leave their offices, to do away, to some extent, with the crowding of Ottawa Electric Ry. cars. The board has expressed the opinion that it is unfair to expect the company to keep up a sufficient number of cars to transport 10,000 people at the same hour four times a day, and carry but a few people the remainder of the time.

R. Savignac, a former Montreal Tramway Co.'s employe was awarded \$9,000 damages and costs recently in an action which was carried to the Imperial Privy Council. The plaintiff, in order to secure his money, seized the company's movables and put a saisie of conservatoire into the hands of the Royal Bank against any of the company's funds it might have on hand. The amount of the damage was paid, but the amount of the costs, which was stated in sterling, was tendered in currency at the rate of exchange prevailing on the date of the judgment. This latter amount was accepted as on account, and a court is being asked to decide whether it, or the statutory basis of the English pound, \$4.86 2-3 should be paid. The amount in dispute is said to be \$411.

London, Ont., ratepayers having defeated a bylaw to raise \$200,000 for London and Port Stanley Ry. purposes, the commissioners are without funds to buy additional rolling stock for which they were negotiating to take care of the increasing traffic. In order to finance the purchase, the commission was reported, Feb. 25, to have applied to a London City Council Committee for a line of credit of \$75,000 in addition to an increased credit of \$50,000 granted a year ago. The committee passed a resolution recommending that the commission be authorized to borrow \$125,000 from the Bank of Montreal to be applied for purchase of equipment and for working capital; the repayment of which is to be met out of the earnings of the L. & P.S.R. It is said the commissioners propose to buy an electric locomotive and 6 cars.

New Brunswick Power Co.'s Annual Report and Meeting.

Following are extracts from the report for the calendar year 1919 of this company, which owns and operates the electric railway in St. John:—

A bill, drafted by the Currier commissioners and giving effect to their recommendations, was introduced at the last session of the legislature. Among other objections to the bill the city contended that the company's assets did not warrant a rate base of \$2,800,000 as established by the Currier commission and at the city's instance this matter was referred by the legislature to the Court of Appeal for consideration. It is expected that the court will make a finding before the legislature meets early in March.

Railway receipts	\$390,587.89
Light and power	443,459.11
Gas earnings	101,189.87
Merchandise and nonoperating income	5,687.78
	\$940,924.65
Operating expenses	\$731,339.74
Interest on bonds	87,500.00
Other interest	6,904.12
Net earnings to surplus account.....	115,180.79
	\$940,924.65
Dividends due Sept. 1, 1918, paid, May 24, 1919	\$ 23,625.00
Other dividends paid in 1919.....	82,541.67
Accrued on first preferred for December	5,833.33
Transferred to profit and loss	3,180.79
	\$155,180.79

The following special report was presented by President L. R. Ross at the annual meeting, Feb. 23:—The company regrets that, owing to the severe storm and extremely cold weather of the present winter, it is compelled to pass the dividends on its preferred stocks. In December and January certain of the city water mains were frozen, and burst, flooding the company's gas pipes, causing them to freeze and burst, thereby entailing a loss of several million feet of gas and putting the company to great expense in repairing the damage. The heavy February storms completely interrupted the street railway service for several days. Notwithstanding the utmost effort of our employes, and the employing of a large force of extra labor night and day, the full service has not yet been resumed. In addition to the loss of earnings, due to interrupted service, in consequence of the storm, very considerable damage was done to the electric light and power distributing systems. After the last storm a heavy rain flooded portions of the streets, in some places to a depth of several feet, burning out the motors of all the company's cars with the exception of 8. The total losses will aggregate upwards of \$40,000. The narrow margin afforded by the rates allowed, prevent the company from accumulating a surplus adequate to car for such contingencies.

The directors and officers were re-elected as follows: President, L. R. Ross; other directors: F. R. Taylor, H. P. Robinson, W. E. McGregor, P. W. Thomson, R. B. Emerson, and L. C. Gerry. H. M. Hopper, heretofore Secretary and General Manager, was appointed Secretary-Treasurer; T. H. McCauley, heretofore Superintendent, Calgary Municipal Ry., having been appointed General Manager.

Marine Department

Canadian Government Merchant Marine, Ltd., Shipbuilding, Operation, Etc.

Orders for Steamships—In addition to the 60 steel cargo steamships, particulars of which were given in Canadian Railway and Marine World for February, we are advised that the Marine Department has ordered 3 more ships as follows:

Port Arthur Shipbuilding Co., Port Arthur, Ont., one, approximately 3,890 d.w. tons, at \$182,50 per long d.w. ton, \$709,925, builder's yard nos. 15 and 16.

J. Coughlan & Sons, Vancouver, B.C., two, approximately 8,390 d.w. each; at \$167.50 per long d.w. ton; \$1,405,325 each.

The Marine Department has under consideration the placing of further orders, and it is said to be probable that at least 7 more steel cargo steamships will be ordered, which will bring the total number up to 70. Harbour Marine Co., Victoria, B.C., is endeavoring to obtain orders for 2 more ships.

The Minister of Marine is reported to have stated in Ottawa, Feb. 27, that the government will ask the Dominion Parliament for a further vote of \$20,000,000 to complete its present shipbuilding programme.

Passenger Steamships — Information in regard to the government's policy for adding passenger steamships to Canadian Government Merchant Marine Ltd., will be found under government building of 18 knot passenger steamships opposed by Quebec Board of Trade, on another page of this issue. The question of providing passenger services for trans-Atlantic and trans-Pacific traffic is undoubtedly being seriously considered by the Minister of Marine and will be discussed at a conference he will have with D. B. Hanna, President, Canadian National Rys., during the first week in March.

Launchings of Steamships — Since Canadian Railway and Marine World for February was issued, we have been advised of the following launching of a ship for Canadian Government Merchant Marine Ltd.

Feb. 24, s.s. Canadian Prospector; Marine Department contract 37; builder's yard no. 14; approximately 8,390 d.w. tons; J. Coughlan & Sons, Vancouver, B.C.

If weather conditions are favorable the steel cargo steamship, Canadian Miner; Marine Department contract 41; builder's yard no. 6; approximately 2,800 d.w. tons; which is being built by Nova Scotia Steel & Coal Co., New Glasgow, N.S., for Canadian Government Merchant Marine Ltd., will be launched early in March.

The steel cargo steamship, Canadian Otter; Marine Department contract 44; builder's yard no. 4; approximately 4,575 d.w. tons; which is being built by the British American Shipbuilding Co., Welland, Ont., for Canadian Government Merchant Marine Ltd., will probably be launched towards the end of March.

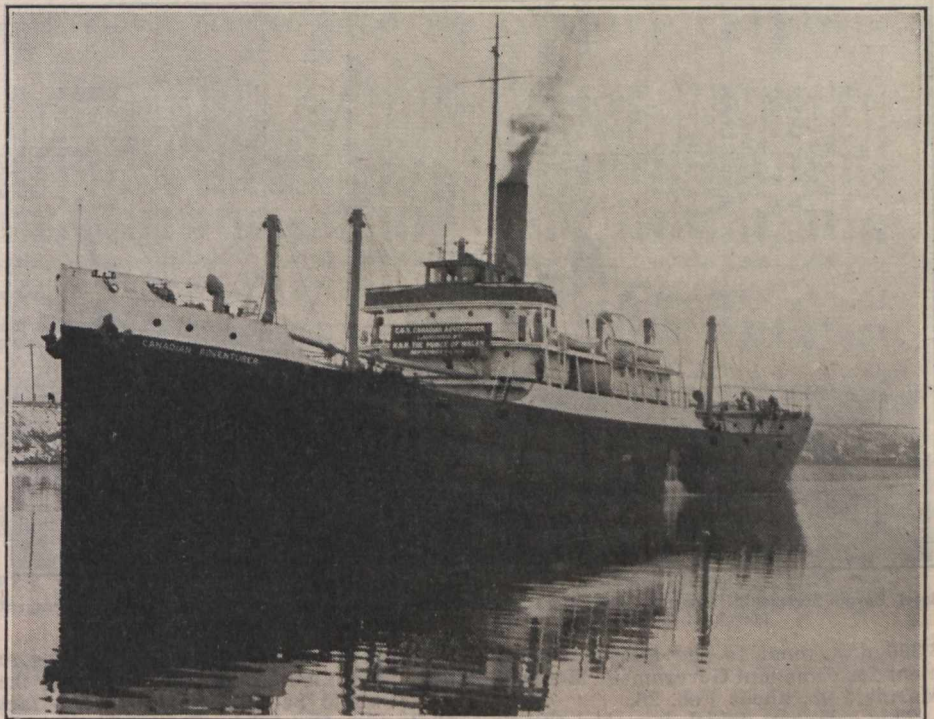
The steel cargo steamship Canadian Armourer; Marine Department contract 29; builder's yard no. 1; approximately 8,390 d.w. tons, which is being built for Canadian Government Merchant Marine Ltd., by Harbour Marine Co., Victoria,

B.C., will probably be launched about the middle of April.

The steel cargo steamship Canadian Observer; Marine Department contract 47; builder's yard no. 66; approximately 3,990 d.w. tons; which is being built for Canadian Government Merchant Marine Ltd., by Collingwood Shipbuilding Co., Collingwood, Ont., will not be launched until the weather is more favorable, the heavy snow and ice making it altogether too difficult and costly to launch at present.

Deliveries of Steamships—In addition to the steamships mentioned in Canadian Railway and Marine World previously,

Steamship Services—W. A. Cunningham, Export and Import Freight Agent, Montreal, issued the following notice to shippers, Jan. 30: "Effective with our next sailing from Halifax for the Argentine, we propose sending our steamships into one or more Brazilian ports on the southbound passage. At present the ports chosen are Pernambuco, Rio de Janeiro and Santos, and as a basis for the ocean rates we are following those in effect from New York. This is really the first opportunity Canadian shippers have had for a Canadian service to Brazil, and it is expected full advantage will be taken of it. The steamships are about 8,300



Steel cargo steamship Canadian Adventurer, approximately 3,400 d.w. tons, for Canadian Government Merchant Marine Ltd., built by Port Arthur Shipbuilding Co., and launched by the Prince of Wales, Sept. 8, 1919.

the following were delivered to Canadian Government Merchant Marine Ltd., on the dates mentioned.

Feb. 5; s.s. Canadian Importer; Marine Department contract 34; builder's yard no. 11; approximately 8,390 d.w. tons; J. Coughlan & Sons, Vancouver, B.C. This ship was loaded with general cargo and sailed Feb. 23 for Australia and New Zealand.

J. Coughlan & Sons, Ltd., Vancouver, B.C., advised us Feb. 13, that it expected to deliver the s.s. Canadian Exporter; Marine Department contract 35; builder's yard no. 12; approximately 8,390 d.w. tons; to the Marine Department about Feb. 26.

Officers of Steamships—The following officers have been appointed by Canadian Government Merchant Marine, Ltd. The first column contains the names of the ships, the second those of the captains, and the third those of the chief engineers:

Canadian Exporter	W. Bradley	.....
Canadian Importer	.....	J. D. Robertson
Canadian Navigator	E. C. Sears	.....
Canadian Raider	.....	M. Honour

d.w. tons, and should make the passage during the winter from Halifax to the first Brazilian port in about 20 days."

British American Shipbuilding Co., Welland, Ont., which has contracts from the Marine Department for 2 steel cargo steamships, approximately 4,575 d.w. tons each, advised us that the s.s. Canadian Otter; Marine Department contract 44; builder's yard no. 4; will probably be launched about the end of March.

Collingwood Shipbuilding Co., Collingwood, Ont., which is building a steel cargo steamship, Canadian Observer; Marine Department contract 47; builder's yard no. 66; for Canadian Government Merchant Marine Ltd., will not launch it until the weather is more favorable, the heavy snow and ice making launching at present too difficult and costly. This company also has orders from the Marine Department for 2 other steel cargo steamships of approximately 3,890 d.w. tons each.

J. Coughlan & Sons, Ltd., Vancouver, B.C., has received additional orders from

the Marine Department for 2 steel cargo steamships, for Canadian Government Merchant Marine Ltd., of 8,390 d.w. tons each, at \$167.50 per long d.w. ton, the approximate cost of each ship being \$1,405,325.

This company delivered the s.s. Canadian Importer; Marine Department contract 34; builder's yard no. 11; approximately 8,390 d.w. tons; to the Marine Department, Feb. 5. She was transferred to Canadian Government Merchant Marine Ltd., and loaded with a general cargo for Australia and New Zealand.

This company launched, on Feb. 24, the steel cargo steamship, Canadian Prospector; Marine Department contract 37; builder's yard no. 13; approximately 8,390 d.w. tons for Canadian Government Merchant Marine Ltd.

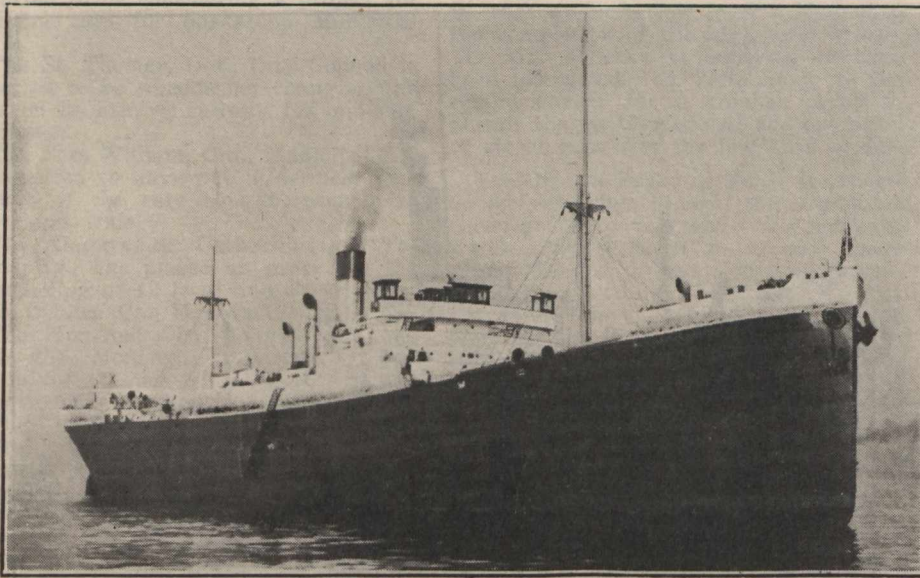
This company advised us Feb. 13 that it expected to deliver the s.s. Canadian Exporter; Marine Department contract 35; builder's yard no. 12; approximately

from the Marine Department, for a steel cargo steamship for Canadian Government Merchant Marine Ltd., approximately 3,890 d.w. tons, at \$182.50 per long d.w. ton, \$709,925. The builder's yard no. will be 45. This makes the seventh ship ordered from the company by the Marine Department.

This company expects to launch 2 steel cargo steamships, approximately 4,375 d.w. tons each, which it is building for Canadian Government Merchant Marine Ltd., as follows: Canadian Runner; Marine Department contract 32; builder's yard no. 43; about April 24. Canadian Carrier; Marine Department contract 33; builder's yard no. 44; about May 1.

Wallace Shipyards Ltd., North Vancouver, B.C., which was given orders by the Marine Department recently for 2 steel cargo steamships of approximately 8,390 d.w. tons each; builder's yard nos. 103 and 104; in addition to the 4 ships ordered previously, and delivered, ad-

Great Lakes trade, but, notwithstanding, there was more or less labor trouble both ashore and afloat, and many lines considered themselves fortunate to break even at the end of the season.



Steel Cargo Steamship, Canadian Importer; approximately 8,390 dw. tons; for Canadian Government Merchant Marine Ltd.; built by J. Coughlan & Sons, Vancouver, B.C.

8,390 d.w. tons; to the Marine Department for Canadian Government Merchant Marine Ltd., about Feb. 26.

This company, which launched the s.s. Canadian Inventor; Marine Department contract 36; builder's yard no. 13; approximately 8,390 d.w. tons; on Jan. 24; expects to deliver her to the Marine Department early in March.

Harbour Marine Co., Victoria, B.C., which has orders from the Marine Department for 2 steel cargo steamships, approximately 8,390 d.w. tons each, Canadian Armourer and Canadian Composer, the keels of which were laid July 14, 1919, and Aug. 9, 1919, respectively, expects to launch Canadian Armourer about the middle of April. It is proposed to install the boilers and engines before launching the hull, if approved by the Marine Department. This company is endeavoring to secure contracts from the department for 2 more ships.

Nova Scotia Steel & Coal Co., New Glasgow, N.S., advises us that if weather conditions are favorable, the steel cargo steamship Canadian Miner; Marine Department contract 41; builder's yard no. 6; approximately 2,800 d.w. tons; for Canadian Government Merchant Marine Ltd., will be launched early in March.

Port Arthur Shipbuilding Co., Port Arthur, Ont., has received another order

vised us Feb. 18 of being unable to give any approximate date as to when the keels would be laid, owing to the fact that the Dominion Steel Corporation could not advise when it expected to roll the steel.

Great Lakes Seamen's Wages.

Detroit, Mich., press dispatch, Feb. 15. —With the approach of the opening of navigation on the Great Lakes, ship owners are beginning to hear rumors of renewed demands from various classes of marine labor. Among the requests to be made of the Lake Carriers' Association by members of the Seamen's Union is the granting of an 8-hour day, a 25% wage increase, and possibly a 3 shift system. Last season sailors and firemen on lakes were paid \$100 a month, including quarters and meals. Men doing similar work on ocean-going ships received only \$90 to \$95, but they also had an overtime allowance, which brought the average pay up to about \$125 a month. The lake sailors are preparing to demand the same rate of pay as their salt water brethren. The Seamen's Union will formulate their demands, which include some minor concessions in working conditions. Ship owners last year paid their employes the highest wages in the history of the

Details of the Different Types of Steamships for Canadian Government Merchant Marine Ltd.

The following are comparative details of the seven different types of steamships being built for Canadian Government Merchant Marine Ltd.:

	2,800 ton.	3,400 ton.	3,750 ton.	4,300 ton.	5,100 ton.	8,100 ton.	10,500 ton.
Length, overall.....	280 ft.	260 ft.	260 1/2 ft.	333 ft. 7 ins.	344 ft.	413 ft. 1 in.	445 ft.
Length, bet. perpendiculars.....	270 ft.	251 ft.	251 ft.	320 ft.	331 ft.	400 ft.	430 ft.
Breadth, moulded.....	38 ft.	43 1/2 ft.	43 1/2 ft.	44 ft.	46 1/2 ft.	52 ft.	56 ft.
Depth, moulded.....	20 1/2 ft.	23 ft.	26 ft.	25 ft.	25 1/2 ft.	31 ft.	38 ft.
Draft, loaded.....	17 1/2 ft.	20 ft.	22 ft. 2 in.	21 ft. 2 ins.	21 ft. 8 ins.	25 ft. 1 in.	29 ft.
Type.....	Tri-compound	S.d., p.b. & f'c's'le	Lake, s.d., p.b. & f'c's'le	S.d., p.b. & f'c's'le	S.d., p.b. & f'c's'le	2d., p.b. & f'c's'le	3d., p. & f'c's'le
Engines—Type.....	17 1/2 x 28 3/4 x 47 ins.	Triple expansion	Triple expansion	Triple expansion	Triple expansion	Triple expansion	Triple expansion
Cylinders, diam.....	83 ins.	20 1/2 x 34 x 56 ins.	18 x 30 x 50 ins.	25 x 41 x 67 ins.	25 x 41 x 68 ins.	27 x 44 x 78 ins.	29 1/2 x 50 x 80 ins.
Stroke.....	87 1/2	40 ins.	36 ins.	45 ins.	45 ins.	48 ins.	54 ins.
Ind. h.p.....	11 1/2	1,800	1,200	1,800	2,500	3,000	4,000
Boilers—Type.....	S.d., p.b. & f'c's'le	Single ended	Single ended	Single ended	Single ended	Single ended.	Single ended
No.....	2	2	2	2	3	3	4
Diam. and length.....	15% x 10% ft.	14 x 10 1/4 ft.	14 x 10 1/4 ft.	15 1/2 x 11 1/2 ft.	14 x 11 1/2 ft.	15 1/2 x 11 1/2 ft.	15 1/2 x 11 1/2 ft.
Working pressure.....	185 lbs.	190 lbs.	180 lbs.	180 lbs.	180 lbs.	180 lbs.	180 lbs.
Furnaces—No.....	2	6	6	6	9	9	12
Grate surface.....	80 sq. ft.	135 sq. ft.	100 sq. ft.	132 sq. ft.	156 sq. ft.	198 sq. ft.	270
Heating surface.....	2,000 sq. ft.	4,870 sq. ft.	3,900 sq. ft.	5,162 sq. ft.	7,275 sq. ft.	7,743 sq. ft.	10,500 sq. ft.
Speed.....	8 1/2 knots	9 knots	9 knots	11 knots	11 knots	11 knots	12 knots
Classification.....	Lloyd's	Lloyd's	Brit. Corp.	Lloyd's	Lloyd's	Lloyd's	Lloyd's

Orders for Steel Cargo Steamships for Canadian Government Merchant Marine Ltd.

The following is a complete list of steel cargo steamships which the Dominion Marine Department has been authorized, by order in council, to place orders for, and which orders are to be carried out. The following contractions are used in the column giving the type of the vessels to be built:—s.d., single deck; 2.d., two deck; 3.d., three deck; lake, lake type; p. poop; b., bridge; f'c's'le, forecastle.

Contract	Contract date	Name	Builder	Yard no.	Long tons d.w.	Price per ton d.w.	Total price	Type	Classification	Speed knots	Keel laid	Launched	Delivered.
1	Mar. 4, 1918	Canadian Voyageur	Canadian Vickers Ltd.	66	4,575	\$207.	\$ 947,025	S.d., p. b. and f'c's'le.....	Lloyd's	11	June 11, 1918	Nov. 23, 1918	Feb. 22, 1919
2	May 22, 1918	Canadian Pioneer	" "	67	8,390	180.	1,510,200	2.d., p., b and f'c's'le.....	"	11	July 17, 1918	Dec. 3, 1918	May 9, 1919
3	May 18, 1918	Canadian Warrior	Collingwood Shipbuilding Co.	61	3,990	205.	817,950	Lake, s.d., p., b. and f'c's'le	Bri. Corp.	9	Not stated	Dec. 21, 1918	Apr. 26, 1919
4	Mar. 15, 1918	Canadian Volunteer	Wallace Shipyards Ltd.	100	4,485	207.	923,395	S.d., p., b. and f'c's'le.....	Lloyd's	11	Oct. 1, 1918	Apr. 5, 1919	June 19, 1919
5	Nov. 25, 1918	Canadian Trooper	" "	106	4,540	217.	985,180	S.d., p., b. and f'c's'le.....	"	11	Nov. 15, 1918	May 31, 1919	Aug. 7, 1919
6	Nov. 25, 1918	Canadian Aviator	" "	101	5,100	210.	1,071,000	S.d., p., b. and f'c's'le.....	"	11	Apr. 5, 1919	Oct. 9, 1919	Nov. 15, 1919
7	Nov. 25, 1918	Canadian Raider	" "	102	5,100	210.	1,071,000	S.d., p., b. and f'c's'le.....	"	11	May 31, 1919	Dec. 11, 1919	Jan. 17, 1920
10	July 5, 1918	Canadian Recruit	Collingwood Shipbuilding Co.	62	3,990	205.	817,950	Lake, s.d., p., b. and f'c's'le	Bri. Corp.	9	June 3, 1918	May 8, 1919	June 7, 1919
11	Oct. 17, 1918	Canadian Signaller	" "	63	3,990	205.	817,950	Lake, s.d., p., b. and f'c's'le	"	9	Jan. 16, 1919	June 28, 1919	Aug. 30, 1919
12	Oct. 17, 1918	Canadian Gunner	" "	64	3,990	205.	817,950	Lake, s.d., p., b. and f'c's'le	"	9	Feb. 10, 1919	Oct. 4, 1919	Nov. 6, 1919
13	Aug. 9, 1918	Canadian Settler	Tidewater Shipbuilders Ltd.	5	5,100	200.	1,020,000	S.d., p., b. and f'c's'le.....	Lloyd's	11	Jan. 8, 1919	Sept. 20, 1919	Dec. 2, 1919
14	Aug. 9, 1918	Canadian Rancher	" "	6	5,100	200.	1,020,000	S.d., p., b. and f'c's'le.....	"	11	Jan. 10, 1919	Nov. 1, 1919	Dec. 27, 1919
15	Jan. 24, 1919	Canadian Fisher	" "	7	5,100	200.	1,020,000	S.d., p., b. and f'c's'le.....	"	11	Sept. 20, 1919	.....	.....
16	Jan. 24, 1919	Canadian Forester	" "	8	5,100	200.	1,020,000	S.d., p., b. and f'c's'le.....	"	11	Nov. 1, 1919	.....	.....
17	Sept. 4, 1918	Canadian Trapper	Davie Shipbuilding & Repairing Co.	459	5,100	200.	1,020,000	S.d., p., b. and f'c's'le.....	"	11	Mar. 11, 1919	Oct. 9, 1919	.....
18	Sept. 4, 1918	Canadian Hunter	" "	460	5,100	200.	1,020,000	S.d., p., b. and f'c's'le.....	"	11	Mar. 28, 1919	.....	.....
19	Sept. 4, 1918	Canadian Trader	Port Arthur Shipbuilding Co.	39	3,400	205.	697,000	Lake, s.d., p., b. and f'c's'le	"	9	Dec. 9, 1918	May 5, 1919	July 18, 1919
19a	Mar. 1, 1919	Canadian Adventurer	" "	41	3,400	210.	714,000	Lake, s.d., p., b. and f'c's'le	"	9	Mar. 31, 1919	Sept. 8, 1919	Oct. 29, 1919
20	Sept. 4, 1918	Canadian Sailor	" "	40	3,400	205.	697,000	Lake, s.d., p., b. and f'c's'le	"	9	Dec. 10, 1918	May 31, 1919	Aug. 7, 1919
20a	Mar. 1, 1919	Canadian Sower	" "	42	3,400	210.	714,000	Lake, s.d., p., b. and f'c's'le	"	9	Mar. 31, 1919	Oct. 9, 1919	Nov. 18, 1919
21	Sept. 13, 1918	Canadian Mariner	Halifax Shipyards Ltd.	1	8,390	195.	1,636,050	2.d., p., b. and f'c's'le.....	"	10	Feb. 24, 1919	.....	.....
22	Sept. 13, 1918	Canadian Explorer	" "	2	8,390	195.	1,636,050	2.d., p., b. and f'c's'le.....	"	10	Mar. 15, 1919	.....	.....
23	Oct. 11, 1918	Canadian Navigator	Canadian Vickers Ltd.	73	4,575	215.	983,625	S.d., p., b. and f'c's'le.....	"	11	Jan. 22, 1919	Oct. 18, 1919	Nov. 22, 1919
24	Oct. 11, 1918	Canadian Ranger	" "	68	8,390	188.	1,577,320	2.d., p., b. and f'c's'le.....	"	11	Aug. 26, 1918	Apr. 19, 1919	May 23, 1919
25	Oct. 11, 1918	Canadian Seigneur	" "	69	8,390	188.	1,577,320	2.d., p., b. and f'c's'le.....	"	11	Nov. 30, 1918	May 7, 1919	Aug. 14, 1919
26	Oct. 11, 1918	Canadian Miller	" "	70	8,390	188.	1,577,320	2.d., p., b. and f'c's'le.....	"	11	Dec. 2, 1918	Aug. 16, 1919	Sept. 24, 1919
27	Oct. 11, 1918	Canadian Spinner	" "	71	8,390	188.	1,577,320	2.d., p., b. and f'c's'le.....	"	11	Apr. 23, 1919	Nov. 8, 1919	Dec. 6, 1919
28	Oct. 11, 1918	Canadian Planter	" "	72	8,390	188.	1,577,320	2.d., p., b. and f'c's'le.....	"	11	May 10, 1919	Nov. 22, 1919	Dec. 27, 1919
29	Jan. 24, 1919	Canadian Armourer	Harbor Marine Co. Ltd.	1	8,390	198.	1,661,220	2.d., p., b. and f'c's'le.....	"	11	July 14, 1919	.....	.....
30	Jan. 24, 1919	Canadian Composer	" "	2	8,390	198.	1,661,220	2.d., p., b. and f'c's'le.....	"	11	Aug. 9, 1919	.....	.....
31	Dec. 11, 1918	Canadian Beaver	Collingwood Shipbldg. Co., Kingston	15	3,990	205.	817,950	Lake, s.d., p., b. and f'c's'le	Bri. Corp.	9	Apr. 7, 1919	Dec. 10, 1919	.....
32	Mar. 1, 1919	Canadian Runner	Port Arthur Shipbuilding Co.	43	4,575	215.	983,625	S.d., p., b. and f'c's'le.....	Lloyd's	10 1/2	Aug. 29, 1919	.....	.....
33	Mar. 1, 1919	Canadian Carrier	" "	44	4,575	215.	983,625	S.d., p., b. and f'c's'le.....	"	10 1/2	Aug. 29, 1919	.....	.....
34	Nov. 22, 1918	Canadian Importer	J. Coughlan & Sons	11	8,390	198.	1,661,220	2.d., p., b. and f'c's'le.....	"	11	Apr. 26, 1919	Dec. 6, 1919	Feb. 5, 1920
35	Nov. 22, 1918	Canadian Exporter	" "	12	8,390	198.	1,661,220	2.d., p., b. and f'c's'le.....	"	11	May 3, 1919	Dec. 27, 1919	.....
36	Nov. 22, 1918	Canadian Inventor	" "	13	8,390	198.	1,661,220	2.d., p., b. and f'c's'le.....	"	11	July 24, 1919	Jan. 24, 1920	.....
37	Nov. 22, 1918	Canadian Prospector	" "	14	8,390	198.	1,661,220	2.d., p., b. and f'c's'le.....	"	11	Sept. 26, 1919	Feb. 24, 1920	.....
38	Dec. 10, 1918	Canadian Cruiser	Halifax Shipyards Ltd.	3	10,500	197.50	2,073,750	3.d. p., and f'c's'le.....	"	12	Oct. 2, 1919	.....	.....
39	Dec. 10, 1918	Canadian Constructor	" "	4	10,500	197.50	2,073,750	3.d. p., and f'c's'le.....	"	12	Oct. 6, 1919	.....	.....
40	Mar. 31, 1919	Canadian Sealer	Nova Scotia Steel & Coal Co.	5	2,800	210.	588,000	S.d., p., b. and f'c's'le.....	"	8 1/2	Mar. 27, 1919	Oct. 8, 1919	Dec. 20, 1920
41	Mar. 31, 1919	Canadian Miner	" "	6	2,800	210.	588,000	S.d., p., b. and f'c's'le.....	"	8 1/2	Mar. 31, 1919	.....	.....
42	Feb. 21, 1919	Canadian Reaper	Prince Rupert Dry Dock & Eng. Co.	1	8,390	198.	1,661,220	2.d., p., b. and f'c's'le.....	"	11	Sept. 27, 1919	.....	.....
43	Feb. 21, 1919	Canadian Thrasher	" "	2	8,390	198.	1,661,220	2.d., p., b. and f'c's'le.....	"	11	Oct. 20, 1919	.....	.....
44	Jan. 23, 1919	Canadian Otter	British American Shipbuilding Co.	4	4,575	215.	983,625	S.d., p., b. and f'c's'le.....	Bri. Corp.	10	Mar. 29, 1919	.....	.....
45	Jan. 23, 1919	Canadian Squatter	" "	5	4,575	215.	983,625	S.d., p., b. and f'c's'le.....	"	10	July 14, 1919	.....	.....
46	Sept. 11, 1919	Canadian Farmer	Collingwood Shipbuilding Co.	65	3,990	180.	718,200	Lake, s.d., p., b., and f'c's'le	Lloyd's	11	Sept. 3, 1919	Dec. 27, 1919	.....
47	Sept. 11, 1919	Canadian Observer	" "	66	3,990	180.	718,200	Lake, s.d., p., b. and f'c's'le	"	11	Sept. 12, 1919	.....	.....
48	Sept. 2, 1919	Canadian Artificer	Dominion Shipbuilding Co.	10	3,500	180.	630,000	Lake, s.d., p., b. and f'c's'le	"	11	Nov. 8, 1919	.....	.....
49	Sept. 2, 1919	Canadian Engineer	" "	11	3,500	180.	630,000	Lake, s.d., p., b. and f'c's'le	"	11	Nov. 8, 1919	.....	.....
50	Sept. 18, 1919	Canadian Victor	Canadian Vickers Ltd.	77	8,390	170.	1,426,300	2.d. p., b. and f'c's'le.....	Lloyd's	11	Dec. 10, 1919	.....	.....
51	Sept. 18, 1919	Canadian Conqueror	" "	78	8,390	170.	1,426,300	2.d. p., b. and f'c's'le.....	"	11	.....	.....	.....
52	Sept. 18, 1919	Canadian Commander	" "	79	8,390	170.	1,426,300	2.d. p., b. and f'c's'le.....	"	11	.....	.....	.....
53	Sept. 18, 1919	Canadian Leader	" "	80	8,390	170.	1,426,300	2.d. p., b. and f'c's'le.....	"	11	.....	.....	.....
54	Feb. 26, 1920	.....	Midland Shipbuilding Co.	10	3,990	180.	718,200	Lake, s.d., p., b. and f'c's'le	Lloyd's	11	.....	.....	.....
.....	.....	.....	Wallace Shipyards Ltd.	103	8,390	167.50	1,405,325	2.d. p., b. and f'c's'le.....	"	11	.....	.....	.....
.....	.....	.....	" "	104	8,390	167.50	1,405,325	2.d. p., b. and f'c's'le.....	"	11	.....	.....	.....
.....	.....	.....	Collingwood Shipbuilding Co.	.....	3,890	182.50	709,925	Lake, s.d., p., b. and f'c's'le	Lloyd's	11	.....	.....	.....
.....	.....	.....	Collingwood Shipbldg. Co., Kingston	.....	3,890	185.50	709,925	Lake, s.d., p., b. and f'c's'le	"	11	.....	.....	.....
.....	.....	.....	Nova Scotia Steel & Coal Co.	8	2,800	190.	532,000	2.d. p., b. and f'c's'le.....	"	8 1/2	.....	.....	.....
.....	.....	.....	Davie Shipbuilding & Repairing Co.	.....	8,390	167.50	1,405,325	2.d. p., b. and f'c's'le.....	"	11	.....	.....	.....
.....	.....	.....	Port Arthur Shipbuilding Co.	45	3,890	182.50	709,925	Lake, s.d., p., b. and f'c's'le	"	11	.....	.....	.....
.....	.....	.....	J. Coughlan & Sons	15	8,390	167.50	1,405,325	2.d. p., b. and f'c's'le.....	"	11	.....	.....	.....
.....	.....	.....	" "	16	8,390	167.50	1,405,325	2.d. p., b. and f'c's'le.....	"	11	.....	.....	.....

383,615 \$73,042,835

Steel and Wooden Cargo Steamships Built in Canada for British Government.

It was announced early in February, that the steel cargo steamships War Magic and War Vixen, built by Canadian Allis-Chalmers Ltd., Bridgeburg, Ont., for the British Government, under orders from the Imperial Munitions Board, had been delivered to the owners at Halifax, N.S., during January. As announced in Canadian Railway and Marine World for Dec., 1919, these vessels were scheduled to sail from Bridgeburg for the coast on Nov. 20 and 13, 1919, respectively. This delivery marked the completion of the orders placed in Canada for steamships, both steel and wood, by the Imperial Munitions Board, on behalf of the British Government. As soon as this was accomplished, some of the daily newspapers in Canada, or the agencies responsible for the dissemination of news amongst the daily newspapers, seemed to have awakened to the fact that Canadian shipyards had actually been building steamships, and in placing the "facts" before, what it apparently anticipated would be an astounded public, made the following astonishing statement:

"In the building, great secrecy had to be maintained, and this survey of the operations of the Imperial Munitions Board in Canadian shipyards is the first that has been made public."

A more absurd claim than that a survey of the shipbuilding carried out in Canadian yards since 1917, published on Feb. 10, 1920, is the first that has been made public, could not have been made. With regard to the alleged secrecy of the work, we may say that in the early stages of the building, some attempt was made by some of the officials concerned, to withhold information as to orders placed, specifications, etc., but on Canadian Railway and Marine World taking the matter up with the higher officials of the Imperial Munitions Board at Ottawa, and with the British Ministry of Shipping in England, it was clearly shown that the "secrecy" was purely a local folly and was not endorsed by the heads.

Towards the end of 1916, Canadian Railway and Marine World published a statement covering the condition of shipbuilding in Canada, and announced that the Dominion Government had prohibited the export of ships without its consent, and again that it had granted permission for the building of 21 steel cargo steamships, by several Canadian shipbuilders, for export to allied or neutral powers, which, it was hoped would pave the way for the placing of shipbuilding in Canada on a permanent basis. In April, 1917, we stated that J. P. Esplen, as representing the British Controller of Shipping, had arranged with the Imperial Munitions Board, at Ottawa, to secure all cargo steamships which might be available in Canada for delivery by May 31, 1918, and also that it was probable that the majority, if not all, of the steamships then building in Canada for export under permission, were to be taken over by the British Government. Details were also published of the building of a number of trawlers and drifters in Canada, for British use, and of the preparation of a number of shipbuilding plants, for further ship construction. In Aug., 1917, we announced that the Imperial Munitions Board had placed contracts for about 30 wooden steamships, and published plans and specifications of the hulls, which had been

adopted as standard for steamships of this class, the plans and specifications of the propelling machinery being published in our issue of Feb., 1918. Our issue of Aug., 1917 also contained the first complete list to that date of all orders placed for steel and wood steamships in Canada by the Imperial Munitions Board, and also details of steamships which were under contract for neutral owners, and which were to be relinquished to the British Government. This list was added to, from time to time, and information as to the building progress, launching, equipping, completion, trials and delivery, was published each month in Canadian Railway and Marine World, until the completion of the contracts.

The number of steel steamships built in Canada under these orders, was 42, with an aggregate d.w. tonnage (ap-

Dominion Marine Association.

President, A. E. Mathews, Managing Director, Mathews Steamship Co., Toronto.

First Vice President, H. W. Cowan, Director of Operation, Canada Steamship Lines, Montreal.

Second Vice President, A. A. Larocque, President, Sincennes - McNaughton Line, Montreal.

Executive Committee, E. H. Beazley, Union Steamship Co. of British Columbia, Vancouver; W. E. Burke, Canada Steamship Lines, Montreal; T. R. Enderby, Montreal Transportation Co., Montreal; L. Henderson, Montreal Transportation Co., Montreal; W. J. McCormack, Algoma Central Steamship Line, Sault Ste. Marie, Ont.; G. J. Madden, George Hall Coal Co. of Canada, Montreal; E. W. Oliver, Niagara, St. Catharines & Toronto Navigation Co., Toronto; W. H. Smith, Ontario Car Ferry Co., Montreal; J. F. Sowards, Sowards Coal Co., Kingston, Ont.; J. F. M. Stewart, Point Anne Quarries Ltd., Toronto; Jno. Waller, Keystone Transportation Co., Montreal; Lorne C. Webster, Webster Steamship Co., Montreal; J. Wilkie, Imperial Oil Ltd., Toronto; A. A. Wright, honorary member, Toronto.

General Counsel, Francis King, M.A., Kingston, Ont.

Official Organ, Canadian Railway and Marine World, Toronto.

proximate), of 243,100 tons; and of wood steamships, 46, with an aggregate d.w. tonnage (approximate) of 141,680 tons, a grand total of 88 steamships and 384,780 tons. Contracts were actually placed for 43 steel steamships, one steel steamship, named Alaska, built by J. Coughlan and Sons, Vancouver, B.C., for Norwegian interests, being taken over, and 2 steel steamships, out of an order for 4, placed with Canadian Allis-Chalmers Ltd., Bridgeburg, Ont., being cancelled. The recent daily press review of the British Government shipbuilding in Canada, includes the car ferry Leonard, which was bought by the Imperial Munitions Board, but as this was not built in Canada, we have not included it in our figures. The first steel steamship, War Dog, was launched by Wallace Shipyards Ltd., North Vancouver, B.C., May 18, 1917, and the first wood steamship, War Songhee, was launched by the Foundation Co. of British Columbia, Victoria, B.C., Dec. 28, 1917.

The collection, classification and dissemination of news at the proper time, is the first duty of a newspaper to the

public, and in this present instance, we feel, that having regard to all the difficulties which had to be contended with during the war period, Canadian Railway and Marine World, not only carried out a particular service to its immediate clientele, but also to Canada as a whole, in keeping the shipbuilding position and possibilities well to the front, and bringing the matter before all who are interested in the establishment of Canadian shipbuilding on a firm and lasting foundation. From the earliest stages of the shipbuilding revival, we have spared no pains in the collection and tabulation of such information as relates to the work, and this is being continued in the case of the shipbuilding for the Canadian Government Merchant Marine Ltd. In fact, we can safely assert, that in this matter of shipbuilding, no such classification of information has ever been carried out by any other paper, either in Canada or elsewhere.

Assistant Engineer for Quebec Canals Staff.

The Civil Service Commission has given notice that applications will be received for appointment as an assistant engineer, at an initial salary of \$2,100 a year, which will be increased on recommendation for efficient service at the rate of \$120 a year until a maximum of \$2,580 has been reached. This initial salary may be supplemented by such bonus as is provided by law. Candidates must possess the following qualifications: Education equivalent to graduation in engineering from a school of applied science of recognized standing, with at least 4 years of engineering experience in canal work, one year of which shall have been in a position of professional responsibility; firmness, tact, ability to manage men and ability to speak and write fluently both English and French. While a definite age limit has not been fixed for this position, age may be a determining factor when making a selection. The successful candidate must be able to take responsible charge of canal design and construction work and be proficient in hydraulic and structural engineering work, reinforced concrete work, and roadway building, and be able to take charge of survey work. Candidates will be examined in the following subjects, which have the relative weights indicated: Education, training and experience, 300; oral interview, if necessary in the commission's opinion, 100. A written examination will be held to test the competency of technically suitable applicants in both languages.

German Marine Plant for Canada—Ottawa press dispatch, Feb. 16.—In the material which the allies are requiring for Germany to deliver as compensation for the loss of German battleships at Scapa Flow are several floating docks, dredges, hydraulic cranes, etc. It is said that the British Government has asked the Canadian Government if it would like to acquire any of these on account of Canada's reparation claim, and the matter is now being considered by the government at Ottawa.

Oil fuel will, it is said, be used on 70% of the ships now building in Swedish yards.

Shipbuilding in Scotland in 1919 and 1920

A Glasgow correspondent writes: The shipbuilding returns for the United Kingdom for 1919 are somewhat disappointing. It was anticipated that after the war there would be a great and rapid advance in shipbuilding, but there has been practically none so far. In 1918, 1,244 ships of 1,840,029 tons were built; in 1919, 1,268 ships of 1,931,769 tons. It has to be remembered, however, that in 1918 a considerable volume of the work was naval. The department of the Controller-General of Shipbuilding, now demobilized, did its best to speed up the building of merchant steamships, but was tremendously handicapped by the amount of naval work on the stocks, and by refitting and repairing of the ships of the fleet which had to be given first place.

Neither does the output of the United Kingdom compare very favorably with that of the United States, where 1,337 ships were built of, approximately, 4,700,000 tons, and developing, approximately 2,590,000 i.h.p., while in the United Kingdom 1,268 ships of 1,931,000 tons and 3,210,000 i.h.p. left the stays. These figures show the U.S. tonnage to be more than twice that of the United Kingdom; but it consists of many ships for the lakes traffic and a very large number of wooden ships. The sea going value of the ships is fairly well represented by the indicated horse power, which is considerably greater in the case of the United Kingdom.

The Clyde production of 646,154 tons is an advance over 1918 of 114,000 tons, and is the second highest on record. It has been gradually recovering since 1915, when it dropped to 306,400 tons, the lowest output since 1897; but it has some little way to go before it reaches the record year of Clyde shipbuilding, 1913, when the output was 756,976 tons. The output on the Clyde compares favorably with that of the other large British rivers. Four hundred and twenty-two ships were built in 1919 on the Clyde of a tonnage of 646,154 and 1,479,771 i.h.p., while on the Tyne, Wear, Tees, and Lagan, together, 239 ships were built of a total tonnage of 968,174 and 1,164,081 i.h.p. Following is a comparison of the building on the different Scotch rivers:

	Ships.	Tons.	I.h.p.
Dee & Moray Firth.....	68	13,488	20,640
The Clyde	422	646,154	1,479,771
The Forth	42	51,280	33,963
The Tay	13	17,765	27,520
	545	728,687	1,561,894

On the Clyde the increase in tonnage over 1918 was only about 114,000 tons. There was no corresponding increase, however, on the horsepower, which fell to an extent of almost 400,000. Several reasons may be given to account for the comparative failure in output in this area. First of all, labor remained in an unsettled state throughout the year, although recently it has become more stabilized, at any rate on the surface. Second, the working week had been shortened, without adequate compensation in an increase of numbers of workmen. Third, besides the usual repair work, there had to be done a great deal of work on the refitting of steamships which had been on war service. Lastly, many contracts which had been partially completed for the Admiralty, were cancelled. For example, one firm had contracts cancelled for a battle cruiser, a light cruiser, 2 torpedo boat destroyers,

and 3 submarines, on which a considerable amount of work had been done on the hulls and machinery.

The rescinding of the contracts for naval ships freed many of the stocks for ocean going craft; and 1919 may be said to have been the premier year of the tramp steamship. Of the total of 422 ships built on the Clyde, 96 were cargo steamships of a total of 378,512 tons; and only seven were passenger steamships of an aggregate of 28,142 tons. When it is taken into account that one of the vessels was the Cameronia of 16,500 tons, the tonnage of the other six must have been very small. Twenty-six war ships of 91,676 tons were launched and 10 oil tankers of 55,491 tons. Of the total of 422 ships, 235 aggregated only 30,537 tons. The Cameronia, the first liner laid down after the declaration of the armistice, was completed in the record time of 9½ months.

It is said that a considerable number of transocean liners have been placed on order with the big shipbuilding concerns so that as 1919 has been the year of the tramp steamship, 1920 may turn out to be the year of the liner. These liners will replace those torpedoed during the war. Many of them will be fitted with geared turbines, and oil fuel will be almost universally used, to the saving of bunker space. The accommodation for passengers should in consequence be improved; there will be economy in respect of the labor employed in firing the boilers; and a greater efficiency in driving power should result, making itself manifest in the rate of going. It should not be long either before more than a few vessels of the Lusitania type are crossing the Atlantic, and that within

the five days. The prospects of shipbuilding in 1920 are right; and, perhaps especially so in the Clyde area.—Christian Science Monitor.

Government Merchant Marine Operations Criticized.

W. J. Noble, President of the United Kingdom Chamber of Commerce, said in a recent address: "The rise of the United States merchant fleet is one of the world facts arising from the war. It would be a profound mistake to underestimate its growing strength. It probably will not continue at its recent rate of progress, but the ship building potentialities of the U.S. justify its people in hoping ultimately to occupy the supreme position. They are now, as in the middle of the last century, following closely upon Great Britain's heels.

"I have faith in my own countrymen as shipbuilders and shipowners. Britain is prepared to meet any fair competition. But no one can regard the present policy of the U.S. Shipping Board and that of our own dominions as fair competition. The policy of each is to build up a mercantile marine at any cost, relying upon the national purse to make good any deficiency, which is a serious menace to private enterprise."

In voicing his fear that the U.S. might capture the world's coal trade, Mr. Noble said: "The U.S. is now putting coal aboard steamships at 30 shillings a ton, as against England's present figure of 100 shillings. The discrepancy is due largely to the fact that only 8% of British coal is cut by machinery, while the U.S. is cutting 50% of her output by machinery. The U.S. miner is producing two and a half times the quantity put out by the British miner."

The United Kingdom's Shipbuilding Position.

The most noteworthy feature of the shipbuilding returns for the quarter ended Dec. 31, 1919, from a British point of view, is that on that date the gross tonnage of merchant ships under construction in the United Kingdom, for the first time for several years, exceeds the total United States figures, although the margin is a small one, the totals being respectively 2,994,249 tons against 2,966,515 tons. The detailed table of construction in the United Kingdom is as follows:

	Dec. 31, 1919.		Sept. 30, 1919.		Dec. 31, 1918.	
	No.	Gross tonnage.	No.	Gross tonnage.	No.	Gross tonnage.
Steamships—						
Steel	722	2,980,938	723	2,796,154	414	1,975,962
Ferro - concrete	5	1,700	8	2,482	.....	.....
Wood and composite.....	7	2,502	8	2,298	2	1,240
Total	734	2,985,140	739	2,800,929	416	1,977,202
Sailing—						
Steel	14	3,388	29	6,749	8	2,750
Ferro - concrete	8	5,571	13	9,095	..	.....
Wood and composite	1	150	.....	.....	..	.....
Total	23	9,109	42	15,844	8	2,750
Total (steam and sail).....	757	2,994,249	781	2,816,773	424	1,979,952

The total for the empire is increased by the 251,480 tons being built in the Dominions, of which 188,375 tons are Canadian. It is also satisfactory to learn from the table reproduced above, that while the United Kingdom figures mark a very large advance upon those of a year ago, there is an encouraging increase over the previous quarter. The shipbuilding work of the United Kingdom during the past three months was as follows:

During quarter ended Dec. 31—	Steam.		Sail.	
	No.	Gross tonnage.	No.	Gross tonnage.
Ships commenced	159	601,572	9	2,060
Ships launched	137	451,915	16	7,439

The figures of the merchant ship construction in the whole world, show that the total production of other countries still largely exceeds that of the United Kingdom, the chief contributors, outside of the United States, already noted, being Holland, 328,338 tons; Italy, 314,547 tons; Japan, 309,474 tons, and France, 216,775 tons; while Norway, Spain and Sweden each have about 100,000 tons under construction.

The United States Shipping Board's Work and Future Policy

By John Barton Payne, Chairman, U.S. Shipping Board.

The shipping board has felt and now feels the keenest interest in bringing South America so close to the United States that we may shake hands almost daily, and we keenly realize that this can only be done by ships, and more ships. Indeed, the board's great desire to inaugurate and establish an adequate service to the important cities of South America has sometimes manifested itself in an optimism which the cold logic of fact has not justified.

This has not always been the board's fault. For instance, our great desire inspired Chairman Hurley to plan the inauguration of this service by sending the s.s. Mount Vernon to South America with a passenger list of representative business men. It was then assumed that the Mount Vernon and other ships would speedily be delivered to the board for use. In this we were disappointed. The Mount Vernon is still in the War Department's possession, and is out on the Pacific, and the government has found it necessary to retain the use of others of these ships for a much longer time than was then supposed necessary.

Prior to our entrance in the war in April, 1917, we had few ships, few shipyards, and only a small number of people in the business of shipping, and it is interesting to know our actual progress since then, for, by our actual accomplishment we can best show that, while we have been slow in starting, when the U.S. enters upon the business of shipping as it now has, it will go forward and establish a permanent merchant marine service.

In April, 1917, there were in the U.S. only 61 shipyards with 234 ways in which ships of 3,500 d.w. tons could be constructed. In Nov., 1918, when the armistice was signed, this number had increased to 223 yards with 1,099 ways. In 1917, the U.S. Shipping Board Emergency Fleet Corporation launched 106 ships, totalling 708,970 d.w. tons. Of these it delivered complete 49 ships, amounting to 302,115 d.w. tons. In 1918, the Emergency Fleet Corporation launched 812 ships, amounting to 4,244,126 d.w. tons, and delivered to the Shipping Board 532 of these ships completed, representing a tonnage of 3,026,006 d.w. In 1919, we launched 1,065 ships, representing 5,982,277 d.w. tons, and actually delivered 1,181 ships with a tonnage of 6,385,123 d.w. There remains of the war construction programme 534 ships of 3,661,767 d.w. tons. These will be completed and delivered by Aug., 1920. Besides this, we purchased or contracted with Japan for the building of 45 ships of 372,023 d.w. tons. The total of these Japanese ships actually received and in service is 18, of 148,323 d.w. tons.

These activities and the taking over of German and Austrian cargo tonnage have given the U.S. 8,700,917 d.w. tons of steel ships; 1,799,123 d.w. tons of wooden ships; 63,000 d.w. tons of composite and 10,000 tons of concrete ships, a total tonnage of 10,573,040 d.w., excluding the 3,661,767 tons to be completed in 1920. We have lost, reconveyed to former owners or sold 194 ships, representing 1,274,371 d.w. tons. Some of the ships now in operation we will sell for use by foreign flags, but the fleet as a whole, representing 1,688 ships of 9,298,669 d.w. tons, will be operated un-

der the U.S. flag as a permanent merchant marine, and will be available to serve the trade routes to South America and other countries.

The demand for ships to win the war—ships to carry men and food to France—was so imperative and so pressing, that passenger ships, as such, were not considered. Questions of this kind, however important, were compelled to wait. The result is we have much less passenger tonnage than we need, and much less than we could have had, had our fleet been built under peace conditions. It is not, of course, possible to inaugurate a passenger service to South America without an adequate number of passenger ships. We are building 26 passenger ships for delivery this spring, the War and Navy Departments have turned over to us 27 ex-German passenger ships, but these having been made into troop ships, are not in condition to be used for a passenger service until reconditioned. The first of these was the Moccasin, a small ship of only 4,630 d.w. tons. This was placed immediately under contract service, is now completed, and on its way to South America, and will be followed by other and larger ships as fast as they can be made ready for service.

It may be wondered why we inaugurate our South American service with so small and modest a beginning. This was not so much due to our modesty, as to the fact that we could not do better in the present circumstances. Our present plans for the passenger service to the East Coast of South America are: Five steamships, maintaining a two weekly service between New York, Rio de Janeiro, Santos, Montevideo and Buenos Aires. Southbound, these ships will proceed directly to Rio de Janeiro; northbound, they will call at St. Thomas for fuel. The 5 ships selected for this service are all ex-German steamships of 15 knots speed—the Aeolus, Huron, Pocahontas, Dekalb, and Princess Matoika. The Huron, Dekalb and Aeolus have been returned from the army and are being reconditioned. The Huron is expected to be ready for service in April, and the Dekalb and Aeolus in May. The Princess Matoika and the Pocahontas will be returned from the army shortly. They are all being completely remodeled, and will be converted to burn fuel oil. Their accommodations will be first-class in every respect, and part of their cargo holds will be refrigerated to care for the movement of perishable products.

The board regards the passenger service to South America as of paramount importance, and, pending the reconditioning of the 5 steamships mentioned above, is doing what it can to provide a temporary service. The Moccasin, a 12½ knot ship, sailed from New York, Dec. 29. The Callao will follow early in March, and it is hoped to secure temporary use of one of the vessels now in the army transport service to fill the gap and maintain for the present at least a monthly sailing. It is recognized that vessels of the Moccasin and Callao type are not suitable for this service, but it seemed to us wise to begin by even a temporary expedient. Our friends would at least know we are thinking of them.

For the year 1919, 100 Shipping Board steamships were dispatched from U.S.

ports to Brazil, carrying 444,400 tons of cargo. To the River Plate, 129 steamships with 689,600 tons of cargo. Of these steamships 21 proceeded from the Plate to Europe on their homeward voyages, carrying approximately 160,000 tons of cargo, and the remainder to the U.S., with homeward cargoes totalling 588,000 tons. We inaugurated a regular monthly service between the River Plate, Antwerp and other European ports in February, and will place on this run refrigerated cargo steamships capable of lifting approximately 3,000 tons of frozen beef, loading such general cargo as may be available. Further, cargo steamers will be added to this service from time to time, there being an ample reserve to care for cargo offerings.

Following its policy of encouraging established U.S. steamship companies rather than competing with them, the board will place in service under the management of W. R. Grace & Co., the Santa Theresa and the Santa Elisa, both 13 knot ships, now reconditioning after release from army service. These, together with the Santa Luisa and the Santa Ana, now operated by W. R. Grace & Co., are combination freight and passenger ships built especially for this trade. They will call at Callao, Arica, Iquique, Valparaiso, and will furnish a sailing every two weeks from New York. A sister ship, the Santa Leonora, still in the army service, will be added to these as soon as possible.

During 1919, 62 Shipping Board steamships loaded from U.S. ports to the west coast, carrying 179,000 tons southbound and 196,000 tons northbound. Such additional cargo steamers as this business requires will be allocated as needed. We are asked why we do not allocate the ocean greyhounds like the Leviathan to this service. There are certain physical difficulties, such as the fact that at Rio the depth of water is only 26 ft., that makes this impossible. Our friends in South America will know from this frank statement that if our own ability to supply this service could keep pace with our desire, they would have nothing to desire, and if they have any suggestions which they desire to have us consider, they will find the members of the board receptive and appreciative.

The question of national policy involved in the ownership and operation of passenger and cargo steamships constituting a merchant marine is one now occupying the earnest attention of the President and the Congress. It is hoped that the merchant marine may be owned and operated by private persons and corporations rather than by the government. As a step in this direction, we have advertised for sale 30 of our ex-German passenger ships and if these are sold, we hope to follow this by the sale of our remaining passenger vessels. This, however, will not affect the shipping programme which is here discussed. It is provided that the ships, if sold, are to be sold with reference to the particular routes selected and assigned by the Shipping Board, and whether we sell the ships to private persons or operate them by the board, the service here indicated will be carried out, and the board will see to it that the growing needs of South America are served by the U.S.

Canada Steamship Lines' Annual Report.

Following is the report for the calendar year, 1919:—The net earnings were \$4,580,272.96 and the net profit \$2,336,679.12 after deducting all fixed charges, including depreciation, making ample provision for government war taxes and providing reserves for all possible liabilities. Your directors are pleased to advise that both freight and passenger earnings have been eminently satisfactory during the past year. Considering that this is the first year that the company has operated its enlarged system under peace conditions, these results must be regarded as gratifying, and on this account there is every justification for looking to the future with confidence.

In conformation with our announced policy of extending the company's field of operations abroad, thus co-ordinating Great Lakes, river and ocean traffic, your directors have inaugurated several new services between Canada and Europe, and between New York, West Indies and South America, through the purchase of modern steamships. Some of these ships have passenger accommodation, as it is the belief of your directors that the immigration business will assume large proportions. The results obtained have already justified the policy adopted. The ocean services, besides enjoying a substantial revenue, have contributed to the increased earning power of all branches of the company's operations. The increase in the 1918 vessel property is \$5,619,247.83; the increase in fixed assets indicated under the heading "Real estate, buildings, docks and wharves" is \$296,872.57, and the increase in other fixed assets, etc., is \$398,343.27, the last two increases being attributable very largely to extensions made to our ship-building plant at Three Rivers.

After careful consideration, your directors have decided to place the common shares on a 7% per annum basis, payable quarterly.

All the company's properties have been thoroughly maintained and are in good condition.

The following statements include Canada Steamship Lines Ltd., and subsidiary companies.

Assets:	
Fixed assets:	
Ships at Dec. 31, 1918.....	\$20,078,575.98
Add net additions for year, being excess of additions to fleet, over ships lost and sold.....	5,619,247.83
	\$25,697,823.81
Real estate, buildings, docks and wharves, as at Dec. 31, 1918.....	\$6,054,144.53
Add net additions for year	296,872.57
	6,351,017.10
Other fixed assets as at Dec. 31, 1918.....	1,034,649.21
Add net additions for year	398,343.27
	1,432,992.48
	\$33,481,833.39
Less depreciation reserve.....	4,564,921.29
	\$28,916,912.10
Current and working assets:	
Cash in banks and on hand	\$ 565,515.65
Cash in hands of debenture stock trustees (since released to company)	733,607.18
	\$1,299,122.83
Canadian and U.S. war loan bonds.....	175,000.00
Accounts receivable, less reserve for doubtful accounts.....	1,936,755.53
Adjusted losses due by underwriters	370,479.17

Insurance and other claims, estimated amount recoverable.....	1,223,505.02
Interest receivable accrued	45,190.32
Inventories of stores and supplies and shipyard work in progress	816,820.64
	5,866,873.51
Charges deferred to future operations:	
Insurance unexpired.....	\$ 602,476.51
Repairs, etc., applicable to 1920	122,464.05
Miscellaneous	33,578.93
	758,519.49
Investments	551,709.32
Funds deposited with trustees for mortgage bonds and debenture stock	38,517.79
	\$36,132,532.21
Leases, contracts and goodwill.....	8,424,646.79
	\$44,557,179.00

Liabilities:	
Capital stock:	
125,000 shares 7% cumulative preference stock of \$100 each.....	\$12,500,000.00
120,000 shares common stock at \$100 each	12,000,000.00
	\$24,500,000.00
Funded debt:	
5% debenture stock	\$7,120,506.66
Less amount held in treasury	598,400.00
Amount retained by operation of sinking fund	763,373.98
	1,361,773.98
	\$5,758,732.68
First mortgage bonds.....	2,220,886.70
	7,979,619.38

Current and accrued liabilities:	
Bank loan	\$ 700,000.00
Accounts payable	2,647,327.39
Bond interest accrued.....	155,828.55
Government war tax reserve	1,215,668.86
Preference dividend declared (payable Jan. 2, 1920)	218,750.00
	4,937,574.80
Balances of uncompleted voyages.....	232,629.98
Reserves:	
For freight and other claims	\$ 10,000.00
For premium on redemption of Richelieu and Ontario Navigation Co. bonds.....	1,557.76
Surplus arising from sinking fund purchases of debenture stock	130,886.17
	142,443.93
Surplus	6,764,910.91
	\$44,557,179.00

Contingent liabilities—None ascertained.

Operating Account for year ended Dec. 31, 1919.

Operating revenue:	
Ships	\$14,495,657.82
Docks and wharves	238,426.45
Miscellaneous	305,192.45
	\$15,039,276.72
Other revenue	201,137.37
	\$15,240,414.09
Expenses	10,660,141.13
	4,580,272.96
Net earnings	4,580,272.96
From which deduct:	
Interest on mortgage bonds	\$ 64,658.94
Interest on debenture stock	293,305.15
Other interest	2,980.69
Special bonus to employees	47,687.95
Reserve for depreciation	1,371,286.11
Reserve for doubtful debts and claims	30,000.00
Directors' fees	33,675.00
Reserve for government war taxes	400,000.00
	2,243,593.84
Profit for year.....	\$ 2,336,679.12

Surplus Account, Dec. 31, 1919.	
Balance at Dec. 31, 1918.....	\$ 5,009,630.64
Profit for year ended Dec. 31, 1919, as per account	2,336,679.12
Net profit on sales, etc., of fixed assets	773,601.15
	3,110,280.27
	\$ 8,119,910.91
Deduct:	
Dividends for year ended Dec. 31, 1919:	
Preference stock 7%.....	\$ 875,000.00
Common stock 4%.....	480,000.00
	1,355,000.00
Surplus as per balance sheet.....	\$ 6,764,910.91

The total revenue, an increase of about \$1,150,000 over 1918, was the largest in the company's history. Operating expenses, however, increased \$903,828, the ratio of these to revenue being approximately 70% against 70.3% in 1918 and 71.1% in 1917.

The net profits increased \$12,581 over 1918, the earnings being at the rate of approximately 12.2 on the common stock, against 11.3 in 1918.

Although the year was a highly prosperous one, the position as to working capital underwent considerable impairment as compared with the end of 1918. Current assets increased by upwards of \$400,000, but liabilities of the same classification grew from \$2,602,725 at Dec. 31, 1918, to \$4,937,575 on Dec. 31, 1919, an increase of \$2,334,850. This was due chiefly to upwards of \$1,300,000 in accounts payable and bank loans of \$700,000, no obligations of the latter class appearing in last year's statement. The position as to working capital as indicated in the balance sheets of the two years is shown in the following:

	1919.	1918.
Assets	\$5,866,873	\$5,438,976
Liabilities	4,937,575	2,602,725
Working capital	\$ 929,298	\$ 2,836,251

The impairment in the way of working capital is reflected in an increase in fixed assets during the year, which stand at over \$5,000,000 higher than at the end of 1918, their valuation of \$28,916,912 being reached after allowance was made for depreciation reserve of \$4,564,921. These additions to the company's fleet and other properties are also indicated in an increase of nearly \$1,500,000 in first mortgage bonds outstanding, these amounting to \$2,220,886, against \$757,020 at Dec. 31, 1918.

Arctic Ice Conditions—Newfoundland newspapers state that ice conditions in the Arctic this year are the most severe in the memory of those having to do with them. The solid pack is reported to extend to eight miles south of Wainwright, about 100 miles north of Point Lay. Officers of the patrol ship Bear, who say that the pack extends farther south this season than any year in their experience, report that the lower edge of the pack is literally black with walrus and other animals, indicating that the ice is solid for a great distance north, as the walrus stay close to open water.

Quebec Shipping Corporation, Ltd., has been incorporated under the Dominion Companies Act, with \$1,000,000 authorized capital, and office at Montreal, to build, own and operate steam and other ships of every description, and carry on a general transportation business within and without Canada. The incorporators are: L. McFarlane, K.C.; G. Berkeley, W. B. Scott, A. Knatchbull-Hugessen and J. G. Cartwright, Montreal.

Vancouver Drydock to be Built by J. Coughlan and Sons, Ltd.

The Dominion Government passed the following order in Council, no. 413, Feb. 21:—The committee of the Privy Council have had before them a report, dated Feb. 19, from the acting Minister of Public Works, submitting as follows: That application has been made by J. Coughlan and Sons, under the Dry Dock Subsidies Act, 1910, chap. 17, and under chap. 51, 1919, an act to amend the Dry Dock Subsidies Act, 1910, for a subsidy for the construction of a dry dock and appurtenant works at Vancouver, the dimensions of the proposed dry dock are as follows:

Length from caisson stop to head wall..... 725 ft.
 Length from back of sill to head wall.....700 ft.
 Clear width of entrance at bottom.....110 ft.
 Width of entrance at top.....116 ft. 2½ in.
 Depth over sill at extreme high water.... 32.23 ft.
 Depth over sill at higher water (equivalent to high water ordinary spring tide)..... 30 ft.

The entrance to the dock will be closed by a steel or wrought iron floating caisson. The width of the dock proper, at coping level, will be 129 ft. with 110 ft. clear width from altar at sill level. The floor of the dock will be 4½ ft. below the level of the entrance sill, and will have a fall of 6 ft. from the center to the side drains. The detailed estimated cost of the dock and appurtenant works are given respectively by the applicant company and the Chief Engineer of the Public Works Department as follows:

	Applicant's	Chief Engineer's
Drydock	\$1,468,898	\$1,244,245.50
Drydock equipment	94,000	88,500.00
Buildings and equipment..	725,499	559,152.00
Piers and dredging	502,410	460,500.00
Marine railway	309,800	Nil
Land	323,800	100,000.00
Engineering and supervision	128,237	*117,619.88
Contingencies	168,983	.....
	\$3,720,727	\$2,570,017.38

*Engineering, supervision and contingencies on items 1, 2, 3 and 4.

The proposed dock will come, therefore, within the second class, and the subsidy to be allowed under the Dry Dock Subsidies Act, 1918, sec. 8, subsec. 1, paragraph b, as amended in 1919 by chap. 51, is 4½% on \$2,500,000 for 35 years, with provision for half-yearly payments on account of the subsidy at the rate mentioned, on 75% of the cost of all work done and materials provided at the time of such payment, such progress payments to be made when the work done and materials provided shall have cost at least \$500,000. The Public Works Department's Chief Engineer reported on Dec. 19, 1919, that the proposed dock is to be built on the main harbor front, in the immediate vicinity of the government wharf, that the site is easy of access for vessels, that there is sufficient room for shops and plant for handling repairs; and that the location is well situated in regard to railway accommodation. The Chief Engineer also reported on Nov. 24, 1919, in accordance with the requirements of the said acts, that the construction of the drydock at Vancouver is required in the interests of commerce. He certifies that the proposed drydock is of sufficient capacity to meet the public requirements of Vancouver. He has likewise recommended that if the application be granted the following conditions be imposed, in addition to those mentioned in the act: That further detailed plans of the work to be done be supplied when requested by the Chief Engineer. That the applicants commence work within six months from

the date of the signature of the subsidy agreement. That the applicants fully complete the graving dock, installation of machinery, etc., within two years from the date of the signature of the subsidy agreement. That the applicants agree to give any desired assistance to the departmental inspectors during construction. That the drydock and appurtenant works must be maintained in good condition and to the satisfaction of the Public Works Department's Chief Engineer, who is to be the sole judge as to what repairs and renewals are necessary.

It is to be noted that the drydock proposed by J. Coughlan and Sons, will have the following dimensions:

Length from caisson stop to head wall.....725 ft.
 Length from back of sill to head wall.....700 ft.
 Clear width of entrance at bottom.....110 ft.
 Depth over sill at high water, o.s.t..... 30 ft.

While the minimum dimensions for drydocks of the second class are fixed, under the act, as follows:

Length from caisson groove to head.....650 ft.
 Clear width at entrance

It will therefore be seen that the dimensions of the Coughlan dock are considerably larger than the standard dimensions of a second class dock. The dock proposed can accommodate the largest vessels on the Pacific coast, plying between Vancouver and the Orient. The largest two are the Empress of Russia and the Empress of Asia, owned by the C.P.R., which are each 590 ft. long, and 68 ft. wide. Their net registered tonnage is 16,580 and they have a displacement of 30,625 tons.

The subsidy in the case of a first class dock is 4½%, on a maximum of \$5,500,000, or \$247,500 a year, for 35 years. The subsidy on second class docks is 4½%, on a maximum of \$2,500,000, or \$112,500 a year, for 35 years, and the difference between the first and the second drydock subsidy is therefore \$135,000 a year, representing at 5½% a capital investment of \$2,454,545.

Graving docks, when site and foundation are favorable, and easily accessible of approach, constitute in general the most satisfactory solution of the problem of docking large vessels, and the conditions obtaining with the present proposed dock are entirely in accord with the above.

While the Dry Dock Subsidies Act provides as stated above for the payment of half yearly subsidies during progress of construction, J. Coughlan & Sons, have waived this provision and desire payment of the subsidy only on the entire completion of the dock. J. Coughlan & Sons have been incorporated as J. Coughlan and Sons, Ltd., under the British Columbia Companies Act as a limited company, and have submitted evidence to that effect, in accordance with the provisions of the Dry Dock Subsidies Act, 1910, sec. 3, but it will be necessary for the company to secure Dominion incorporation as well, before a subsidy agreement can be executed with it.

The Minister considers that J. Coughlan and Sons, Ltd., have the ability to construct a drydock and appurtenant works at Vancouver, as referred to, and he recommends, in the circumstances, that an agreement be entered into with the company in the usual form, when it

shall have secured Dominion incorporation, for the payment to it by the Dominion Government for 35 years, of an annual subsidy of 4½% on the cost of the said works, when constructed in accordance with the plans and specifications attached hereto, such cost for the purpose of determining the subsidy being fixed at \$2,500,000 the payment of the subsidy to be subject to the provisions of the Dry Dock Subsidies Act, 1910, and the amending act of 1919 mentioned. It is to be understood, however, that no advances during the construction of the dock, as provided under the Dry Dock Subsidies Act, 1919, sec. 2, are to be made to the company and that the subsidy shall become payable only on the full completion of the dock; the payment of the subsidy to be subject to the further following conditions: That further detailed plans of the works to be done be supplied when requested by the Chief Engineer. That the company commence work within one month from the date of the signature of the subsidy agreement. That the company fully complete the graving dock, installation of machinery, etc., within two years from the signature of the subsidy agreement. That the company agree to give any desired assistance to the departmental inspectors during construction. That the drydock and appurtenant works must be maintained in good condition and to the satisfaction of the Public Works Department's Chief Engineer, who is to be the sole judge as to what repairs and renewals are necessary.

The committee concur in the foregoing recommendation and submit the same for approval.

Other Applications. As stated in Canadian Railway and Marine World for Nov., 1919 and Jan., 1920, other applications for aid under the Dry Dock Subsidies Act for the construction of drydocks at Vancouver were made as follows:

Davidson and Cameron—For a concrete graving dock, 1,150 ft. long, 125 ft. wide at the entrance, 38 ft. depth of water over sill at ordinary spring tide, to be built at Deadman's Island, at an estimated cost of \$6,600,000.

Wallace Shipyards Ltd.—For a floating drydock of 15,000 tons capacity, to be built just east of the ferry landing at North Vancouver, at an estimated cost of \$3,500,000.

Raymond Concrete Pile Co., Montreal—For a masonry graving dock of the first class at Burrard Inlet.

Kingston Harbor Improvements—As stated in Canadian Railway and Marine World for February, pg. 92, plans of improvements proposed at Kingston, Ont., to provide facilities for transshipping cargoes arriving through the new Welland Ship Canal, as approved by the Public Works Department's District Engineer, an engineer engaged by the city of Kingston, and engineers for the three railway companies, were submitted to the Dominion Marine Association at its annual meeting and were referred to its executive committee. We are advised that it is not expected that any appropriation will be made by the Dominion Parliament for the proposed work this year, as it appears to have been decided that there will be ample time to do the work prior to the completion of the new canal.

National Association of Marine Engineers of Canada.

Ottawa press dispatch, Feb. 20.—The Grand Council of the National Association of Marine Engineers of Canada has concluded its biennial convention session. P. M. Draper, Secretary, Trades and Labor Congress, addressed the council, pointing out the advantages that would accrue from affiliation with that body, and the council decided to affiliate.

Proposed amendments to the Canada Shipping Act regarding conditions of employment, and wages paid on government steamers, were discussed and a deputation was appointed to wait on the Marine, Public Works and Railways and Canals Departments. Representations are to be made to the departments concerned on the variance in rates of pay on the Atlantic coast as compared with the Pacific. Marine engineers leaving Vancouver at certain rates of pay are, it is claimed, on reaching Atlantic ports, compelled to take their choice of considerably lower rates or make their way back to Vancouver at their own expense, and the council is attempting to establish a universal scale of wages throughout the country.

Wages and living conditions on government owned boats, as compared with those privately owned, were discussed, and representations will be made to the departments concerned with regard thereto; also as to lake boats not being fully manned at times.

The following officers were elected: Grand President, E. Reed, Vancouver; Vice President, Eugene Hamelin, Montreal; Secretary-Treasurer, N. J. Morrison, St. John, N.B.; Grand Conductor, A. E. House, Midland, Ont.

The Lord Strathcona Steamship Co. Ltd. has been incorporated under the Dominion Companies Act with \$1,500,000 authorized capital, and office at Montreal, to own and operate steam and other ships of every description, and carry on a general transportation business on land and water. The incorporators are: A. R. Holden, C. G. Heward, H. W. Shearer, A. B. Wright, and C. Arnold, Montreal.

Tugs for Fisheries Protection Service on Lake Erie—With reference to the advertisement published in Canadian Railway and Marine World for January, inviting tenders for the construction of 3 first class single screw tugs to be delivered at Port Stanley, or Kingsville, Ont., we are officially advised that, since tenders were invited, 3 ships, already belonging to the government, and which can be utilized for the purpose, have been made available to the Marine Department unexpectedly, and that it is not proposed to accept any of the tenders received.

Suggested Restrictions Favoring U.S. Ships on the Pacific.

Will Clark, who is described in a Washington, D.C., press dispatch of Feb. 20, as "of the Pacific Coast Steamship Co., Seattle, Wash.," is said to have told the U.S. Senate's Commerce Committee that amendments to the U.S. coastwise navigation laws are needed to prevent Canadian railways participating, through their ships, in the trade between the U.S. and Alaska, that present restrictions confining coastwise trade to U.S. ships are being evaded under departmental rulings, and that during the war Canadian ships were left in the trade, while U.S. ships were taken off and put into war service. He advocated the barring of all ships from the trade between the Phillipine Islands and the U.S. except those owned by U.S. citizens. Senator Chamberlain, democrat, Oregon, suggested that freight rate regulation might be required under the circumstances, but Clark said that he considered shipping should be free from rate regulation for the present.

The latest editions of official guides do not show any Will Clark as being a Pacific Coast Steamship Co. official.

Sales of Trawlers—The steam trawler T.R. 57, which the Anderson Co. of Canada, Montreal, has sold to the Gulf Export and Transportation Co., Beaumont, Texas, was expected to clear from Halifax, about the end of February for Beaumont, and to make the trip of approximately 3,000 miles in 13 days, including the time which she would be tied up at the mouth of the Mississippi River. The trawler T.R. 41, which was sent to Europe for exhibition purposes, as stated in our last issue, arrived at Boulogne-sur-Mer, France, Feb. 11, having made the voyage from Halifax, N.S., in 15 days, which is considered remarkable performance for a ship of this type, at this time of the year.

Forester Navigation Co. Ltd. has been incorporated under the Dominion Companies Act, with \$47,000 authorized capital, and office at Sussex, N.B., to build, own and operate steam and other ships for the conveyance of passengers and merchandise, and to act as a common carrier. The incorporators are: N. G. White, H. H. Reid, Sussex, N.B.; J. A. Cleveland, F. P. Keirstead, Alma, N.B.; G. W. Smith, Apple River, N.S.

Chignecto Lighterage Co. Ltd. has been incorporated under the Dominion Companies Act, with \$40,000 authorized capital, and office at Sussex, N.B., to own and operate steam and other ships of every description and carry on a general navigation business. The incorporators are: W. Thompson, Sussex, N.B.; J. A. Cleveland, Alma, N.B.; E. Taylor, G. W. Smith, Apple River, N.S.; and W. E. Moore, Point Wolfe, N.B.

Canadian Shipping Losses During the War.

Canadian Railway and Marine World for January, contained some official information of Canadian merchant shipping losses, which occurred during the war, as supplied to the British House of Commons by the Admiralty. The list, as then published, did not purport to be a complete as to all Canadian ships lost during war time, but dealt with those which were actually lost by enemy attack, either by submarine or mine. Some figures published recently show that 149 steamships, operating on the Great Lakes, passed out of the St. Lawrence to the ocean, primarily for war purposes. It is estimated that the loss of Great Lakes steamships amounted to 297,103 gross tons, with a carrying capacity of 432,400 tons. Of the total number of steamships leaving the Great Lakes for war purposes, it is stated that 64 were of Canadian registry, of which 44 were bulk freight steamships representing 157,366 gross tons, with carrying capacity of 244,500 tons. Among the Canadian steamships lost, either through enemy action or from other causes, are mentioned the following: Carleton, Chemung, A. D. Davidson, Donnacona, Dunelm, W. H. Dwyer, George L. Eaton, Empress of Fort William, Empress of Midland, C. A. Jaques, Midland Queen, Northmount, Port Dalhousie, Scottish Hero, Stormount, Strathcona, Algonquin, Fairmount, Meaford, etc.

Several Canadian ships which went overseas during the war are still in service under British control, and it is not expected that many, if any, of them will return to the Great Lakes.

The Dominion Government s.s. Montcalm, which, as announced in our last issue, became icebound while on a trip to the Magdalen Islands with winter supplies, and which, it was reported, was ordered to abandon the trip and return to Halifax, N.S., was reported to have arrived within half a mile of Grindstone Island, Feb. 22, and was then unloading supplies on the ice. The Montcalm left Souris, P.E.I., Jan. 24, and became icebound three days later, having only made 25 miles in that time. She was then allowed to drift with the ice, and was carried past Cape North and into Cabot Strait, where gales scattered the ice and allowed her to proceed to the Magdalen Islands.

German Steamship Sales in United States—The U.S. Government requested tenders recently for the acquirement of several German steamships which have been allocated to it under the terms of the peace treaty, but owing to some political dissensions, the Senate requested that the sale be deferred until it is prepared to take some definite action in the matter. Several bids were received, including one of \$14,050,000 for 9 steamships for service between North America and United Kingdom and northern European ports, from the International Mercantile Marine Co., and another of \$13,100,000 for 6 steamships, from the same company. The Oriental Navigation Co. offered \$700,000 for the s.s. Black Arrow, trading recently in the Black Sea service, with the condition that she be retained in that service. An injunction was applied for to restrain the proposed sale, and it was later decided to decline all tenders and discuss the sale further.

Ships Built in 1919 and Exported Without Being Registered in Canada.

The following information has been furnished by the Marine Department:

From ports in:	Sailing Wood		Steam Wood		Steam Steel	
	No.	G.T. N.T.	No.	G.T. N.T.	No.	G.T. N.T.
Nova Scotia	2	747 747	2	4,593 2,761	.....	.....
New Brunswick .....	.....	.....	5	11,525 6,999	.....	.....
Quebec .....	.....	.....	10	13,776 8,102	7	21,534 11,265
Ontario .....	.....	.....	.....	.....	8	10,545 6,083
British Columbia .....	.....	.....	43	82,818 50,660	3	17,245 12,723
Total	2	747 747	60	112,712 68,522	18	49,324 30,071
Grand Total			No. of vessels. 80	Gross tonnage. 162,783	Net tonnage. 99,340	

Ships Built in Canada in 1919 for Overseas.

According to figures supplied by the Marine Department, there were built in Canadian shipyards last year 80 ships which were sent overseas without being registered in Canada. A considerable proportion of these were built for French interests and there were several for the Imperial Munitions Board, as well as two or three for Norway. The total net tonnage of the ships that left the country was 99,340, including wooden sailing ships, wooden steamships and steel steamships. Of wooden sailing ships there were only two built viz., in Nova Scotia, and were 747 net tonnage.

The number of wooden steamships built was 60, with a total net tonnage of 68,522. Of these British Columbia sent 43, with 50,660 net tonnage; Quebec built 10; New Brunswick 5, and Nova Scotia 2. Ontario built none.

There were 18 steel steamships built with total net tonnage of 30,071. In this class Ontario built 8, total net tonnage 6,083; Montreal built 7, total net tonnage of 11,265; and British Columbia built 3, total net tonnage 12,723.

These figures relate only to ships built in 1919 to overseas orders. The orders for the British Government were all carried out by the Imperial Munitions Board. An order from the French Government for 50 wooden ships for the Mediterranean explains the activity of Pacific Coast and Quebec yards in wooden shipbuilding. The Quebec orders were filed by Fraser Brace & Co., Montreal, and Tidewater Shipbuilders Ltd., Three Rivers.

Canadian Notices to Mariners.

New Brunswick, Grand Manan Island—To increasing the audibility of the fog signal at Swallow-Tail light station, to the northward and westward, the bell, which is 450 ft. southerly from the lighthouse, will be moved closer to the lighthouse in the near future.

Nova Scotia, South Coast, White Haven Harbor—Uncharted shoal $4\frac{1}{2}$ cables, $348^{\circ} 30''$ (N. 13° E. mag.) from the most easterly extreme of Deming Point, east tangent of Fisherman Island, in line with west tangent of Sheep Island, depth 15 ft., shoal of small extent, smooth rock sloping off gradually on all sides to 6 fathoms.

Nova Scotia, Sydney Harbor—Owing to the pier at southeast bar light station having been damaged by storms, it may be found necessary to suspend operation of light on short notice, and if so, a temporary light will be exhibited from the old lighthouse and fog bell discontinued; the light will be of the 4th order, dioptric, fixed red, acetylene gas, at an elevation of 30 ft.

Prince Edward Island—The Souris east breakwater light has been moved to 60 ft. from the outer end of the breakwater.

New Brunswick, Miramichi Bay, Portage Island range light. Day beacon established on southern end of island; diamond shaped, wooden slatted, daymark on front range pole; color, white.

Nova Scotia, St. Mary Bay—Change in position of Grand Passage whistling buoy, on or about Mar. 1, to about 1,600 ft. east of present position, and one mile from Peter Island; color, black and white, vertical stripes.

Quebec, River St. Lawrence, ship

channel between Quebec and Montreal—Cap a la Roche curve, change in numbers of buoys—On the opening of navigation, the following changes will be made in the numbers of Cap a la Roche curve buoys, black gas buoy $93\frac{1}{2}Q$, will be $95Q$; red gas buoy $94\frac{1}{2}Q$, will be $96Q$; black can buoy $95Q$, will be $97Q$; red conical buoy $96Q$, will be $98Q$; black gas buoy $97Q$, will be $99Q$; red gas buoy $98Q$, will be $100Q$; red spar buoy $100Q$, will be $102Q$.

Quebec, St. Lawrence River, ship channel between Quebec and Montreal, Batis-can traverse, change in character of buoy.—On opening of navigation, black spar buoy $111Q$, will be replaced by a black can buoy.

Ontario-Detroit River—On the opening of navigation, a lightship will be established at the junction of Amherstburg and Livingstone channels, in position formerly occupied by U.S. lightship. She will be a wooden schooner with two masts, red painted hull, with "Bar Point No. 21" in white letters on each top side, with a red ball near the top of the foremast, and if for any reason she is off her station, the ball will be lowered. The illuminating apparatus will be dioptric, consisting of 3 fixed white lights round the foremast, visible all round the horizon, and elevated 30 ft. above water. During thick or foggy weather a steam whistle will give a blast of 10 seconds every 40 seconds.

Ontario, Lake Superior, Thunder Bay and port Arthur harbor—On the opening of navigation the red spar buoy $8A$, on north side of channel, immediately inside breakwater, at main entrance channel, will be moved to a new position, 150 ft. from the lighthouse on north breakwater. The red spar buoys $2A$ and $4A$, on north side of channel, at entrance to main harbor, will be discontinued.

Appreciation of Canada's Aids to Navigation—Capt. Griffiths, of Canadian Pacific Ocean Services' s.s. Scandinavin, while in Canada recently, stated that he had been sailing to the Dominion for 23 years, first on the Beaver Line's s.s. Lake Huron, and later on C.P.R. steamships, and fully appreciated the great improvement in the navigation aids along the Nova Scotia and New Brunswick coasts, especially the distance finding stations at Canso, Camperdown and Cape Race, from which points any steamship losing her bearings, through fog or other causes, can obtain her location by wireless.

The Lady Mine Shipping and Fishing Co. Ltd. has been incorporated under the British Columbia Companies Act, with \$25,000 authorized capital, and office at Vancouver, B.C., to carry on a general fishing business, and to own and operate steam and other ships. The company has bought the schooner Lady Mine, from A. J. Bechtel, and is having her equipped with auxiliary power. She was built at Port Ludlow, Wash., in 1880, her dimensions being: length, 76 ft.; breadth, 21.9 ft.; depth, 8.4 ft.; tonnage 55 registered.

Contracts for Marine Public Works—The Dominion Public Works Department has let the following contracts: Lauzon, Que., construction of lavatories, etc., at Lorne drydock; Jos. Gosselin Ltd., Levis, Que.; Jan. 30, \$3,150. Powell River, B. C.; construction of addition to wharf; Fraser River Pile Driving Co., New Westminster, B.C.; Feb. 7; schedule of prices.

United States Shipping and Shipbuilding Notes.

The Atlantic Shipbuilders' Association announces that steel ships totaling close to 1,500,000 d.w. tons, or 1,000,000 gross tons, are being built in U.S. shipyards.

The U.S. Bureau of Navigation reports 112 sailing, steam, gas and unrigged ships of 253,579 gross tons built in the U.S. and officially numbered during Jan., 1920.

Rear Admiral Benson, Chief U.S. Naval operations during that country's participation in the war, and since on the retired list, has been selected by President Wilson to succeed J. B. Payne as a member of the U.S. Shipping Board.

C. W. Morse, head of 2 steel shipyards, told the U.S. Senate Commerce Committee, Feb. 7, that government owned ships built during the war should be, and could be, sold to private operators for prices covering the cost, overhead, and total investment.

The aggregate authorized capitalization of shipping and shipbuilding companies organized in the U.S. during January, was \$76,305,000, the second highest investment in new shipping enterprise for any one month since the outbreak of war in 1914.

The U.S. Bureau of Navigation announces that the total number of masters, officers, and men required at present to man U.S. registered, enrolled, and licensed vessels, including 1,450 documented yachts, and aggregating in round numbers 15,325,000 gross tons, is about 266,000.

The U.S. Shipping Board announces that one of its committees has recommended awards totaling \$12,089,149 on the claims of foreign ship owners for vessels and materials requisitioned during the war. Of a total of 55 claims filed by Norwegian, Russian, Italian, French and Danish interests, three were for ships and the remainder for shipbuilding materials.

The U.S. Commerce Department's reports state that steel merchant shipbuilding on a commercial basis in the U.S., is making steady progress, private shipyards on Feb. 1 having 183 steel ships of 791,911 gross tons for private shipowners under construction or under contract to build, compared with 165 ships, of 679,170 gross tons, on Jan. 1.

Chairman Payne, of the U.S. Shipping Board, has asked Henry M. Robinson, formerly Shipping Board Commissioner, to serve as chairman of a committee of bankers to discuss problem of obtaining a wide public interest in shipping securities with view to disposition of government fleet. It is anticipated that within the next few years vessels to value of more than \$2,000,000,000 must be sold.

A Cleveland, Ohio, press dispatch says that shipbuilders on the Great Lakes turned out 188 steamships and 29 tugs during 1919, making a total of 217 ships for the U.S. Emergency Fleet Corporation for salt water service. Not all the ships that were ordered for 1919 delivery were completed, 57 steamships and 19 tugs being carried over. Not a single steamship was built for lake trade last season, as the yards were all busy on government work. A number of steamships have been ordered for salt water service for 1920 delivery, and some bulk freighters may be built for the lake trade this year.

Mainly About Marine People.

Sir Montagu Allan, formerly of the Allan Steamship Line, was reported, Feb. 21, to be in a critical condition with pneumonia at Montreal. It was stated, the following day, that he had had a slight attack of influenza, but was convalescent.

Hon. C. C. Ballantyne, Minister of Marine, was the chief guest at a dinner given by the Canadian Federation of Returned Soldiers and Sailors at Montreal, Feb. 9. A day or two afterwards he was reported to be suffering from a mild attack of influenza, from which he recovered satisfactorily.

Henry Blackwell Beaumont, who has been appointed General Agent, Passenger Department, Canadian Pacific Ocean Services, Ltd., Montreal, was born there, Aug. 3, 1887, and entered steamship service in June, 1904, since when he has been, to June, 1909, clerk; June, 1909 to July, 1911, private secretary; July 11, 1919, to Jan., 1913, chief passenger clerk; Jan., 1913 to July 1917, City Passenger Agent, Allan Line Steamship Co., Montreal; July to Oct., 1917, City Passenger Agent, Canadian Pacific Ocean Services, Ltd., Montreal; Oct., 1917 to June, 1919, chief passenger clerk, same company, London, Eng., June, 1919, to Jan., 1920, Assistant to Passenger Manager, same company, London, Eng.

H. W. Cowan Director of Operation, Canada Steamship Lines, Ltd., Montreal, returned to Canada, Feb. 10, after a three months trip to Europe, in connection with the company's ocean services and connections.

B. Guerard, harbor master, Port Arthur, Ont., died there, Feb. 9, aged 94, from pneumonia.

James J. Lynch, Assistant Freight Claims Agent, Canada Steamship Lines Ltd., Montreal, died there Feb. 1, aged 31, from pneumonia, after a short illness. He entered transportation service with the G.T.R. at Hamilton, Ont., in the freight department, and was later in Central Illinois Ry. service at Chicago, Ill. He returned to Canada, as agent, Canada Lake Line, at Windsor, Ont., and was appointed to his last position early in 1919.

John A. Mara, who died in Victoria, B.C., Feb. 12, aged 79, was one of the pioneers of inland water navigation in British Columbia, and was one of the founders of the Columbia & Kootenay Navigation Co., of which he was President, when it sold out its steamboats, etc., to the C.P.R. He was born in Toronto in 1840 and on April 23, started from Queenston, Ont., with a party, travelling by the usual stage route to St. Paul, Minn. From there they proceeded to Georgetown on the Red River, and had to wait for the completion of a stern wheel steamboat, which was building for the trade. The party reached Fort Garry in May after a six weeks trip. Later on the steamboat was captured by Indians, and a number of the passengers and crew were murdered. They arrived at Fort Garry, now Winnipeg, on May 18 and left there June 2. They had Red River carts drawn by oxen, mules and horses, most of the carts being covered in. At night the transport was drawn up in a triangular group, with the carts in a wedge shape, with sufficient room for the animals to pass inside the area so provided, the tents being round the triangle. Outside sentries

were posted to give warning of hostile attack. Fort Edmonton was reached without molestation, on July 21. There an exchange of carts took place for pack saddles, and a guide was secured to pilot the party to Tete Jaune Cache. As the party approached the foothills of the Rockies, the herds of buffalo and the numerous species of wild game gave place to mountain sheep, and the furred inhabitants of the foothills. Jasper House was reached by forest and swamp, and then the parties proceeded by the valleys of the Athabasca and Mayette Rivers to the Yellowhead Pass. Tete Jaune Cache was reached on Aug. 28, and then the parties divided for the descent of the Fraser River. With the exception of three men, the remainder got through in safety, and reached Quesnel on Sept. 11. Owing to the mines being closed, the majority went on to the coast to winter. Mr. Mara went into business at Yale. He was elected to the B.C. Legislature at the first election after that colony entered confederation, and remained a member until 1886, from which date until 1896 he represented Yale in the House of Commons.

W. Grant Morden, M.P., arrived in Montreal Feb. 17, from England. He was elected recently a member of the Dominion Steel Corporation's London, Eng., advisory committee, and is also a member of Canada Steamship Lines' London advisory committee.

Commander P. C. Musgrave, R.N., in charge of hydrographic survey work on the British Columbia Coast, died suddenly at Esquimalt, B.C., Feb. 17.

J. W. Norcross, President and Managing Director, Canada Steamship Lines Ltd., has been elected a director, Dominion Steel Corporation.

J. B. Payne, Chairman, United States Shipping Board, has been appointed U.S. Secretary of the Interior.

Jas. Playfair, President, Great Lakes Transportation Co., Midland, Ont., and Mrs. Playfair, are spending some time in California.

H. B. Smith, President, Collingwood Shipbuilding Co., and Northern Navigation Co., also a director of Canada Steamship Lines, has bought a house on St. Clair Ave., Toronto, and will remove there, with his family, from Owen Sound, Ont., in the spring.

W. L. Stamford, heretofore Assistant Engineer, Dominion Marine Department, Victoria, B.C., was presented with a smoking set, by the department staff there, Feb. 12, on leaving for Prince Rupert, B.C., where he has been transferred as engineer.

P. D. Sutherland, whose appointment as General Passenger Agent for the Orient, Canadian Pacific Ocean Services, Ltd., Hong Kong, China, was announced in our last issue, was born at Toronto, Nov. 2, 1879, and entered C.P.R. service in the General Freight Department, under his father, J. N. Sutherland, subsequently transferring to the Passenger Department at St. John, N.B., where he spent four years in the City Ticket Office, and the West St. John Atlantic Terminal, and was then transferred to Toronto as chief clerk in City Passenger and Ticket Agent's office, and was from 1906 to Feb. 1, 1920, General Agent, Passenger Department, C.P.O.S., Hong Kong.

Mrs. C. J. Thorley, who died in Toronto Feb. 25, aged 86, from pneumonia, was the mother H. G. Thorley, Passenger Agent for Ontario, International Mercantile Marine Co.

J. W. Troup, Manager, British Columbia Coast Service, C.P.R., Victoria, returned to Canada, Feb. 7, via New York, from Great Britain, where he had been in connection with the possible building of an additional steamship for the service to northern B.C. ports.

Jas. Watson, returned soldier, Toronto, has been appointed junior draftsman, Marine Department, Ottawa, at an initial salary of \$900.

Shipping Federation of Canada.

The report for the past year, presented at the annual meeting at Montreal, Feb. 11, showed that additional new tonnage is coming on the market, and competition for the freight offering is increasing, that freight rates are tending downward and operating expenses upward. During 1919 shipping conditions at Montreal were reported good, with a good supply of freight and passenger traffic, which was limited only by a shortage of steamships. The value of exports from Montreal is given as \$700,000,000, thus placing it the second North American port, regarding value of exports. Pilotage conditions were unsatisfactory, especially in Montreal district, as the pilots had commenced pooling their earnings in a similar manner to that adopted in the Quebec district, and this had a tendency toward lack of incentive and increase of slothfulness. The shipping interests, therefore, petitioned the government to throw open the pilotage districts of Montreal and Quebec, by abolishing the compulsory payment of pilotage dues, and it is said that this will be taken up during this year. There were no labor disturbances at Montreal during 1919, the various unions having kept to their agreements. The report was signed by John Torrance, President, who has now retired and who was not at the meeting, being in the south on account of ill health. A resolution was passed expressing regret at his retirement, coupled with the hope that his health will soon be restored.

Officers for this year were elected as follows: President, R. W. Reford; Treasurer, J. R. Binning; Assistant Treasurer, E. W. Foulds; executive council, J. R. Binning, D. W. Campbell, P. A. Curry, A. E. Cook, W. R. Eakin, A. M. Irvine, A. MacKenzie and R. B. Teakle.

Dominion Marine Association's Activities—At a meeting of the executive committee in Montreal, Feb. 13, a committee, consisting of H. W. Cowan, Canada Steamship Lines, T. R. Enderby and L. Henderson, Montreal Transportation Co., Francis King, the association's General Counsel, and two Ottawa members, were appointed to wait upon certain ministers and officials at Ottawa, with regard to important pending questions, including the completion of the Port Colborne elevator, and transshipping matters at that point, regulations for steamboat inspection, ice breaking at the head of the Great Lakes, the Canadian Wheat Board, pilotage on the St. Lawrence River, and several other matters.

General Shipbuilding Matters Throughout Canada.

Alberta Motor Boat Co., Edmonton, Alta., is reported to be building a number of motorboats for service on the northern lakes and rivers to the Arctic Ocean, and one for a private owner, who intends operating it on northern waters during the summer.

Canadian Allis-Chalmers Ltd., Bridgeburg, Ont., which, as announced in previous issues is building 2 steel steamships, similar to the 2 built recently for the British Government, under orders from the Imperial Munitions Board, has sold them to the American Metal Transport Co., New York. They are being built under yard nos. 302 and 303, the keel of the first having been laid in Mar., 1919, and that of the second in Nov., 1919. It is expected that the first one will be launched during April, and completed in June, while the other will follow about two weeks later.

Cholberg Ship Co., Victoria, B.C.—In connection with the building of 4 wooden auxiliary powered schooners at this yard, under the Dominion Government's loan scheme, as outlined in our last issue, British Columbia Shipowners Ltd., has been organized to finance and control the construction. It is stated that, in addition to a number of local business men, several of those who will be engaged on actual construction of the vessels, as well as of those who will supply material, have taken shares. The company's directors are: R. P. Butchart, S. Hoard, Capt. H. C. Hansen, W. Mead, Capt. M. D. Harbord, F. Pemberton and W. Spencer.

Dominion Shipbuilding and Repairing Co. Ltd. has been incorporated under the Dominion Companies Act with \$3,000,000 authorized capital, and office at Toronto, to build, own and operate steam and other ships of every description, and carry on a general shipbuilding, shipowning, transportation and forwarding business. The new company is a reincorporation of the Dominion Shipbuilding Co., with extended powers and increased capitalization, and will take over the whole of the latter company's assets and continue its business.

Dominion Steel Corporation, Sydney, N.S., is, a press reports states, considering the construction of a drydock and shipbuilding plant at South Bar, Sydney, and that dredging will be started there in the near future. Sydney officials of the company, are reported as stating that they have no knowledge of the proposal.

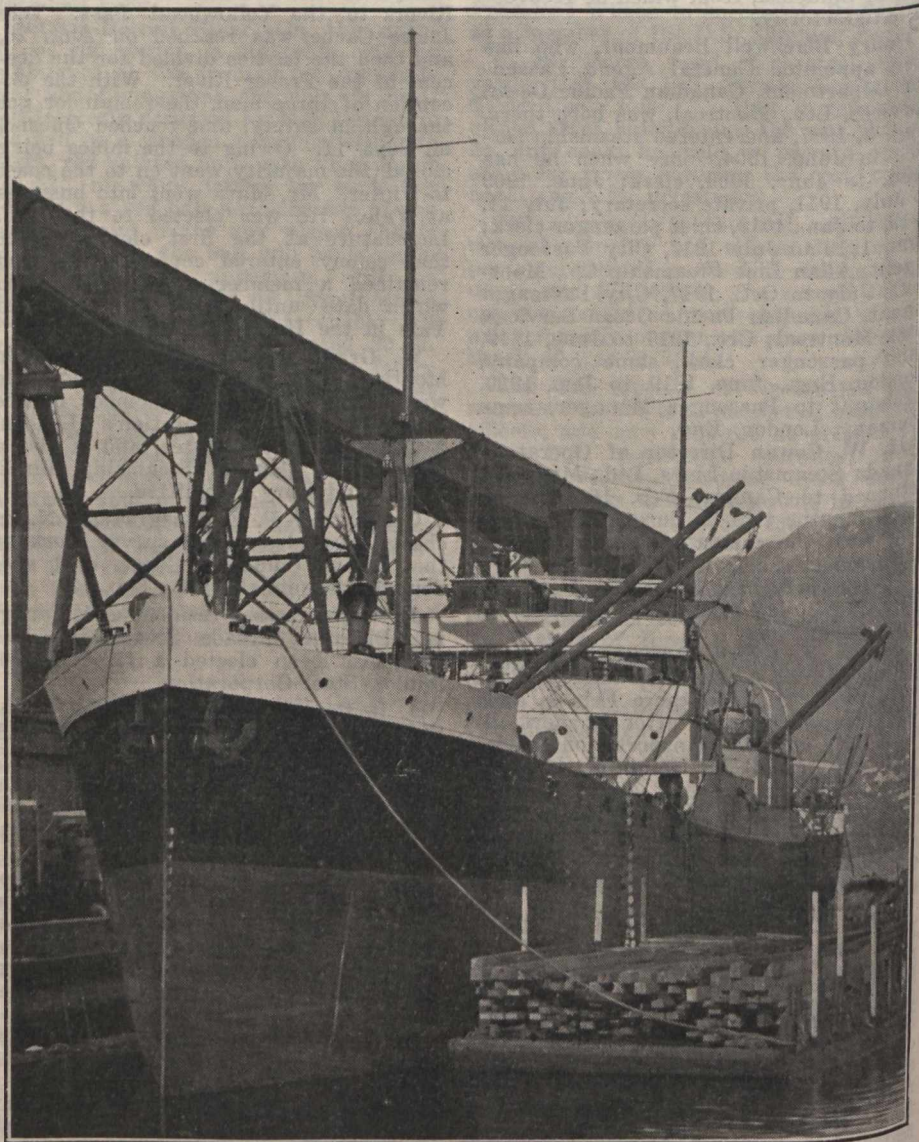
Foundation Co. of British Columbia Ltd., Victoria, B.C.—It was reported recently that negotiations were proceeding with the company by Capt. E. V. Argon, on behalf of French interests, for the purchase of the company's shipyards at Victoria. It is stated that appraisers have been over the plants at Point Ellice and Point Hope, and that considerable French capital is behind the project. The building of wooden steamships will, it is said, be carried out on a large scale. A press dispatch of Feb. 20, states that the company has declined the offer made, and that the yards will be dismantled.

Halifax Shipyards Ltd., Halifax, N.S.—At a meeting of the Halifax Board of Trade, Feb. 3, a letter was read from J. E. McLurg, General Manager, Halifax Shipyards, Ltd., and a member of the board's council stating that it is the company's intention to place a float-

ing drydock, with a capacity up to 20,000 tons, in the harbor shortly, and that the company's representatives are in Great Britain, in connection with the acquisition of such a dock. We are officially advised that Mr. McLurg has been misquoted in the press report, and that he did not say that the company will build a 20,000 ton drydock. It is reported that negotiations are proceeding between the company and the British Government for acquiring one of the floating drydocks, which Germany

mentioned vessel, it is said, is to be practically refitted internally, and up to date accommodation provided for 100 passengers, comprising staterooms, cabins, dining room, smoking room and crews' quarters.

J. E. McClurg, General Manager, in speaking at a dinner given on Feb. 20, by the company's departmental heads, is reported to have said: "We are builders, not bankers. The French are anxious to place orders and the Halifax Shipyards could accept them, but for the



Steel cargo steamship Canadian Raider, approximately 5,100 d.w. tons, for Canadian Government Merchant Marine Ltd., built by Wallace Shipyards Ltd., North Vancouver, B.C., loading lumber at Dominion Government dock, Vancouver.

has surrendered to the allies, under the terms of the peace treaty.

During February work was carried out on the United States Shipping Board's s.s. Buffalo Bridge, a new tail shaft and propeller being fitted. Canadian Government Merchant Marine s.s. Canadian Spinner was also overhauled, after her experience in the ice in the Gulf of St. Lawrence during January, and she is awaiting a new rudder stock which is being made at New Glasgow, N.S. The U.S. steamship Wakulla was also dry-docked during February, for examination and overhaul, as was also the Quebec Steamship Co.'s s.s. Kamerina. The last

present condition of exchange. The payment would be in French bonds, but not at the existing exchange. They want the bonds taken at a rate to be agreed upon, but that is a hopeless proposition." He expressed the belief that the plant would be the best in Canada and the equal of any on the Atlantic coast.

Nova Scotia Steel & Coal Co., New Glasgow, N.S., laid the keel for a steel cargo steamship; builder's yard no. 7; on Jan. 5. This ship is being built for the company's account, and will be exactly the same as its ships 5 and 6, Canadian Sealer and Canadian Miner, approximately 2,800 d.w. tons each.

which it built under orders from the Marine Department for Canadian Government Merchant Marine Ltd.

Polson Iron Works, Ltd., Toronto—G. T. Clarkson, liquidator, notified an Ontario Court recently that he has successfully completed the contracts the company had on hand, and asked leave to advertise its property for sale. The required permission was given.

Prince Rupert Dry Dock and Engineering Co., Prince Rupert, B.C.—An interim injunction was granted to Newman Erb and his associates in the Prince Rupert Dry Dock and Engineering Co., placing the control of the company in their hands, subject to certain conditions. An application to dissolve the interim injunction, made on behalf of J. L. Mullen and his associates, was dismissed at the end of January, and the interim injunction continued until the trial of the action. Counsel for the Grand Trunk Pacific Ry., which is interested in the matter as owner, stated in court that he had been instructed by the Minister of Railways and Canals, to support the claim of the Erb interests. The company has contracts for building 2 steel cargo steamships for Canadian Government Merchant Marine Ltd.

St. John Dry Dock and Shipbuilding Co., St. John, N.B.—The receipt of a quantity of machinery, consisting of boilers, motors, dynamos and other electrical equipment, is announced, to be utilized in connection with the operations of the dry dock, which is one of the chief works to be carried out in Courtenay Bay, by the company.

St. Lawrence Dock and Shipbuilding Co., Levis, Que., the incorporation of which was announced in a recent issue, was formed to take over the National Shipbuilding Co.'s interests in the shipbuilding and repairing yard at Levis. The National Shipbuilding Co. will continue to operate the plant at Goderich, Ont., in the construction of marine engines, boilers and auxiliaries. The St. Lawrence Dock and Shipbuilding Co. has received an order from the George Hall Coal Co. of Canada for the reconstruction and repair of the s.s. Lehigh, which it has bought from the Lehigh Steamship Co., Cleveland, Ohio, for use in the coal trade. The work consists chiefly of the addition of steel poop and fore-castle, with steel decks and pilot house, 7 cargo hatches, steel main deck, crew's quarters in poop and fore-castle, new masts, booms and rigging. This work is well in hand, and it is anticipated that the ship will be ready for operation by the reopening of navigation.

Sorel Shipbuilding & Drydock Co., Sorel, Que.—This company's property was sold by auction in lots, Feb. 26, by order of the liquidator. It consisted of 6 schooners under construction, machinery, tools, yard equipment, general stock, and fixtures valued at \$628,129.29, apart from the partially built schooners.

Wallace Shipyards Ltd., North Vancouver, B.C.—The steamship which this company is building for the Union Steamship Co. of British Columbia, was expected, according to our advices, to be ready for launching about the end of February.

Farquhar and Co.'s s.s. Stella Maris, Bay, N.S., early in February, to release the s.s. Kinburn, icebound there, had her propeller stripped while turning in the

Atlantic and Pacific Ocean.

Canadian Pacific Ocean Services Ltd., has announced that its first sailing on the St. Lawrence route this year, will be the s.s. Melita, on May 15.

Canadian Pacific Ocean Service Ltd. has inaugurated an additional passenger service between Canada and Great Britain, with Tilbury as the British port. The s.s. Melita opened the service, when she sailed from Tilbury, Feb. 12.

Canadian Pacific Ocean Service's s.s. Empress of Japan, which arrived at Victoria, B.C., Feb. 19, with part of her port rail carried away, together with a lifeboat, and some other damage to her structure, reported that the trip from Japan had been the roughest in the past 30 years.

Elder Dempster and Co. has arranged for the inauguration of a direct steamship service between Canada and the west coast of Africa, to commence in May. It is expected that a monthly service, at least, will be operated and calls made at the various ports along the coast from Dakar to Forcados.

Vancouver will, a press dispatch states, be the trans-shipping point for 150,000 Czecho-Slovaks and Russian refugees who are to leave Siberia and Northern China and return to Europe. Arrangements are said to have been made by the Blue Funnel Line, and the C.P.R. to transfer them from ship to train at Vancouver. The liners Tyndareus and Protesilaus are in the Orient, the latter to take on its first batch of refugees at Vladivostok.

The s.s. Sobo, owned formerly by Elder Dempster and Co., and for some years operated between Liverpool, Eng., and West African ports, and later chartered to Pickford and Black Ltd., Halifax, N.S., for the service between Canada and the West Indies, was offered for sale by auction in London, Eng., recently. She was built in 1899, and has accommodation for 80 first class and 40 second class passengers. She has about 4,720 d.w. tons capacity, on 22½ ft. draft, and a speed of about 11 knots an hour. She is 345 ft. long, 44 ft. broad and 14¼ ft. deep.

The keel of the White Star-Dominion Line's s.s. Calgary, a triple screw 15,500 ton steamship, for service between Liverpool, Eng., and Canada, was laid at Belfast, Ireland, at the end of January. She will have accommodation for 650 cabin and 2,000 third class passengers. She is expected to be ready for service on the opening of St. Lawrence navigation in 1921. Her dimensions will be: length, 600 ft.; breadth, 67½ ft.; depth, moulded, 45½ ft. The propelling machinery will consist of a combination of turbines and reciprocating engines, for a speed of 15 knots an hour.

Maritime Provinces and Newfoundland.

The Eastern Steamship Corporation has announced the resumption of its steamship service between St. John, N. B., and Boston, Mass., about the end of April, or early in May.

The St. John's, Nfld., Board of Trade, passed a resolution at its annual meeting recently, that the present condition of transportation constitutes a serious handicap to the trade and commerce of the country, and called upon the government to appoint a commission forth-

with, to take evidence in the matter, with a view to providing adequate train and water service.

The schooner Associate, owned by J. Backman, Riverport, N.S., en route from Naples, Italy, to St. John's, Nfld., is reported to have been lost in mid-Atlantic about Feb. 15, nine of the crew having been rescued by the s.s. La Touraine and landed at Havre, France. The Associate was built at Liverpool, N.S., in 1912, her dimensions being: length, 107.6 ft.; breadth, 26 ft.; depth, 10.8 ft.; tonnage, 96 registered.

The s.s. Prospero, running between St. John, N.B., and Newfoundland ports, and which became icebound in a heavy field, northeast of Fogo, Nfld., in Dec., 1919, reached Twillingate, Nfld., with 60 passengers and 15 of a crew, Feb. 16, after having spent 8 weeks in the ice. Those on board were on short rations for 3 weeks, and such supplies as they had were taken on board on sleds hauled by men from the shore.

The three master schooner Meredith A. White, which was built by C. T. White and Son, Alma, N.B., in 1918, is being advertised for sale in England. She is classed with Bureau Veritas for 12 years, and is equipped with motor for handling cargo, sails and pumps, and is electrically lighted. Her dimensions are: length, 152 ft. 5 in.; breadth, 35 ft. 5 in.; depth, 12 ft. 9 in.; d.w. capacity 800 tons. She arrived at Bordeaux, France, recently, with coal from Canada.

Litigation in connection with the collision between the steamships, Imo and Mont Blanc, in Halifax Harbor, in December, 1917, and which resulted in the Halifax disaster, through the terrific explosion which took place, is now before the Imperial Privy Council's judicial committee. The Nova Scotia Admiralty Court found that the s.s. Mont Blanc was entirely to blame for the collision, and the Supreme Court held that the two vessels were equally responsible. It was announced, Feb. 21, that judgment had been reserved.

The Militia Department received tenders to Feb. 24, for the purchase of the motor boat Cockawee, then lying at the Engineers' wharf, Halifax, N.S. The boat's dimensions are: length, 52 ft. 2 in.; breadth, 12 ft. 3 in.; draft, 5 ft.; tonnage, 11 gross. She is built with oak frame and cypress planking with galvanized fastenings. The deck house and cabins are finished in mahogany and oak. The engine is 50 h.p. and the gasoline tanks have capacity for 165 gal. The speed is 6 knots. The equipment includes anchor, chain, compass, cushions, awning, two masts and davits for small boat and rowing boat.

The Newfoundland Government received tenders recently for the service of 4 steamships, suitable for use in ice, for the postal and freight service along the north, south and west coasts of the island. Two of these steamships are to ply north from May 1, each year to the close of navigation, leaving St. John's alternate weeks and giving a fortnightly service. The other two steamships are to ply to the south and west coasts, one leaving St. John's weekly, and running as far as Port aux Basques, calling at the principal ports only, and making the round trip in 7 days, carrying chiefly, passengers and mail and express packages, and only taking freight when it will not interfere with making schedule time. The other steamship will leave St. John's every two weeks, and the two

latter vessels will ply all the year, but may be taken off for six weeks in February and March each year, for seal fisheries work, when they will be replaced by others. The rates for passengers and freight are to be the same as at present, except that for the weekly service on the south coast, they will be 25% above the existing rates. A contract will be entered into for 15 years, and passenger and freight rates on all the vessels will be subject to amendment or alteration at the expiration of each 5 years of the contract.

Province of Quebec Marine.

The Dominion Public Works Department received tenders, Feb. 27, for general restoration and refitting of the interior of the marine store building at Kings wharf, Quebec.

The Quebec Salvage and Wrecking Co.'s steamships Gopher and Musquash are operating under charter to the British Government; the s.s. Lord Strathcona and schooner G.T.D., are in winter berths at Quebec.

Ontario and the Great Lakes.

The C.P.R. steamships Alberta, Athabasca and Manitoba, of the Great Lakes Service, are being equipped with new steam winches for mooring purposes, made by The William Kennedy and Sons, Owen Sound.

The Ottawa River Navigation Co.'s s.s. Empress was seized at the end of January, under an execution in respect of a judgment against the company for \$750 for work done, and was advertised for sale by the sheriff on Feb. 11.

During the 262 days of the 1919 navigation season on the Great Lakes from Mar. 27 to Dec. 18, an average of one ship passed Windsor, Ont., every 20¾ minutes. There were 6,938 ships passing Windsor upbound and 9,447 downbound.

Four 600 ft. steamships will be launched during the next few months by the American Shipbuilding Co., at Cleveland, Ohio, for Great Lakes trade. The first is expected to be launched in March, and 2 will probably be in service by July; the remaining 2 are expected to be ready for operation towards the end of the season.

The Prescott and Ogdenburg Ferry Co.'s ferry steamship Miss Vandenburg is having her accommodation increased for better handling of automobile traffic across the river. The company is reported to have bought the ferry steamship Ferdinand, which, it is stated, will be placed in service during the forthcoming season, whenever occasion warrants.

The U.S. Lake Survey reports the stages of the Great Lakes in feet above mean sea level, for January, as follows: Superior, 602.08; Michigan and Huron, 580.08; St. Clair, 573.10; Erie, 571.38; Ontario, 245.31. Compared with the average January stages for the past 10 years: Superior was 0.03 ft. above; Michigan and Huron, 0.14 ft. above; Erie, 0.25 ft. below; Ontario, 0.07 ft. below.

N. Cauchon, Ottawa, has proposed the building of a deep water canal from Montreal to near Ottawa, and thence to the St. Lawrence River at Cardinal. It is claimed that if this plan were

adopted, it would be less expensive than the deepening of the present canal system between Cardinal and Montreal. The scheme was to be laid before the International Joint Waterways Commission during February.

Amherst Island Tp. is applying to the Ontario Legislature for an act to ratify an agreement made with the Kingston Navigation Co., providing for payment by the township to the company of \$10,000, by way of loan, in consideration of the establishment of a steamship service between Amherst Island and Kingston, the loan to be secured by mortgage upon the steamship, and to be repaid with interest in 10 annual instalments.

The s.s. Charles R. Vanhise, which was cut in two, about two years ago, for passage from the Great Lakes to the ocean, but did not go, has been rejoined and lengthened 96 ft. at Ashtabula, Ohio, and it is expected it will be ready for operation, by May 1, when it will be renamed A. R. Schneider. Attempts were made with the first section of this steamship, to take it through the Welland Canal on its side, but this was unsuccessful.

Canada Steamship Lines' s.s. Chicora, which has been operated on the Niagara River route from Toronto, for several years, and which sank at her moorings at Toronto, last year, was sold by tender, early in February for, it is said, \$4,400, after having been raised by the underwriters. In connection with this sale, F. Torno, Toronto, has entered action, asking for an injunction to restrain F. W. Callaghan, Toronto, the purchaser, from disposing or dealing with the ship, and claiming that he had engaged certain parties to purchase the ship for him for \$4,400, and made a deposit of \$1,000. His deposit was returned to him, and later, he heard that the ship had been sold.

The George Hall Coal Co. of Canada has bought the s.s. Lehigh, from the Lehigh Steamship Co., Cleveland, Ohio, and has transferred the ship to the St. Lawrence Dock and Shipbuilding Co.'s yard at Levis, Que., for reconstruction to make it suitable for the coal trade. The Lehigh was built at Wyandotte, Mich., in 1880, and rebuilt in 1913. The hull is of composite wood and iron construction of the well deck type, with 3 watertight bulkheads, and is of the following dimensions: length, 238 ft.; breadth, 36 ft.; depth, 16 ft. 4 in. She is equipped with Steeple compound engine, with cylinders 24 and 54 in. diam., by 36 in. stroke, 600 i.h.p., and supplied with steam by a single Scotch boiler, 12¾ diam., by 13¾ ft. long, at 150 lb.

Capt. W. J. Eber, master of the s.s. Veronica, owned by the Standard Navigation Co., Buffalo, N.Y., was plaintiff in an action against Noel Marshall and the Standard Fuel Co., Toronto, for an accounting of profits on the steamship's operation, and for \$3,500 as his share of demurrage due to the ship. The defence was that the ship was bought for \$5,000, of which Capt. Eber supplied \$1,000, receiving in return, a quarter share. She was sold in 1918 for \$35,000, and the plaintiff was paid \$8,750 as his share, and a disinterested accountant found from the books that his share of the profits was \$3,816, which amount has been offered to him. The defendants paid \$4,000 into court, and the case was dismissed, plaintiff being given that amount.

The Montreal Transportation Co. has bought the s.s. Valcartier, from the Al-

goma Central Steamship Line, Sault Ste. Marie, Ont. The Valcartier was built at Cleveland, Ohio, in 1903, and named William Henry Mack. She is built on the channel system with steel tank top, where no wood ceilings are fitted, and the hull is divided by 3 watertight and 2 non watertight bulkheads. She has a steel boiler house, steam pump well, and complete electric lighting equipment. The hatches are spaced 24 ft. centers. The hull is of steel and has the following dimensions: length, 354 ft.; breadth, 48 ft.; depth, 28 ft.; tonnage, 3,748 gross, 2,250 net, and she is equipped with triple expansion engines, having cylinders 20, 33½ and 55 in. diam., by 40 in. stroke, 1,170 i.h.p., at 85 r.p.m., supplied with steam by 2 Scotch boilers, each 12 ft. 10½ in. diam., by 13 ft. long, at 175 lb. She was owned originally by the Jenkins Steamship Co., Cleveland, Ohio, and was acquired by Lake Commerce Ltd., Toronto, in 1914, and in the following year was sold to the Algoma Central Steamship Line.

Manitoba, Saskatchewan and Alberta.

With reference to the sale of the Peace River Trading Co.'s assets to the Lamson-Hubbard Canadian Co., as mentioned in our last issue, the Peace River Development Co., of which the Peace River Trading Co. was a subsidiary, is reported to have announced that it will continue the steamboat service on the Peace River, as hitherto, with the steamboats D. A. Thomas and Lady Mackworth.

British Columbia and Pacific Coast.

The Dominion Public Works Department will receive tenders Mar. 5, for the construction of a wharf at Stewart.

The North Vancouver City Ferries showed a deficit of \$2,695,59 for January. The receipts were \$13,495.44, a decrease of \$1,799.30, compared with Dec., 1919. The number of passengers carried during January was 222,395.

A Victoria report states that, up to Dec., 1919, the associated timber exporters reported that 48,000,000 ft. of lumber, out of 70,000,000 ft. ordered by Great Britain, had been shipped.

Grant Smith and Co. and McDonnell Ltd., contractors, are plaintiffs in an action against the Dominion Government for \$306,813 for excavation work in connection with building two wharves at Victoria.

It was stated in the British Columbia Legislature, Feb. 18, that the s.s. Beaver, now employed in ferry service at Ladner, was bought from the C.P.R. for \$25,000, and since it had been repaired was valued by an insurance company at \$85,801.

The Dominion Government dredge Ajax is being overhauled by the British Columbia Marine Co., Vancouver, the contract having been obtained in competition with other local yards. It is expected that the work will be completed about the end of March, when she will do dredging at Williams Head.

It was announced in Vancouver, recently, that up to Dec. 31, 1919, 48,000,000 ft. of the British Government's order for 70,000,000 ft. of lumber had been shipped. Approximately 7,000,000 ft. was shipped during January, and 5,

000,000 was expected to be shipped during February, most of it being sent across in the wooden steamships built in British Columbia recently for the French Government.

The Grand Trunk Pacific Coast Steamship Co.'s s.s. Prince Albert, which grounded at Masset Bar, towards the end of January, was docked at Yarrows Ltd., yard, Victoria, Feb. 3. It was found that several plates had to be replaced, and a few minor repairs made to her machinery. The work was completed by Feb. 10, and she resumed her sailing between Vancouver and northern ports.

Plans for the construction of a government pier on Burrard Inlet, Vancouver, were expected to be ready early in February, after which, it was anticipated that tenders would be called for. The site of the projected pier is to the west of the Great Northern Ry. property. It is stated that tenders will probably be called for in two sections, one for the dredging and filling, and the other for the actual construction.

The s.s. Nouvelle Ecosse, the last of the wooden steamships to be built for the French Government by the Foundation Co. of British Columbia, arrived at Fraser River Mills, early in February, to load lumber for Europe. The dispatching of the steamships from British Columbia has been handled by Edward White and Sons, Victoria, the rule being followed that they call at Queenstown, Ireland, for orders, and after unloading their cargoes at a British port, proceed to Brest, France.

The C.P.R. s.s. Princess Patricia resumed her sailings between Nanaimo and Vancouver, Feb. 9, after the completion of repairs at Victoria. The s.s. Princess Victoria was withdrawn from service on the Victoria-Vancouver-Seattle route, Feb. 9, for overhaul and refit. The s.s. Princess Royal, which had replaced the s.s. Princess Patricia, between Nanaimo and Vancouver, resumed her service between Victoria and Vancouver, running in conjunction with the s.s. Princess Adelaide.

The Coastwise Steamship and Barge Co., Vancouver, has ordered a steel steamship of approximately 2,350 tons, to be built by J. F. Duthie and Co., Seattle, Wash., for its ore carrying and towing business between British Columbia and Puget Sound ports. The steamship's dimensions will be: length, 220 ft.; beam, 40 ft.; depth, 21 ft. The engines will be placed aft, and built for a sea speed of 11 knots an hour. In addition to the usual loading machinery, a towing machine, similar to those now in use for towing the company's barges, will be installed.

The Navy League of Canada has been presented by the Dominion Government with the s.s. Restless for training boys for the Canadian merchantile marine. It is especially provided that she is intended solely for this purpose, and must not be disposed of nor used for any other purpose without the Naval Service Department's consent. She was built at New Westminster, B.C., in 1906, and is screw driven, by engine of 16 n.h.p. Her dimensions are: length, 71 ft.; breadth, 17 ft.; depth, 7 ft.; tonnage, 76 gross, 53 registered. She was engaged for a number of years in the fisheries protection service in British Columbia, and was used later as a tender for the Royal Naval College of Canada.

Government Building of 18-Knot Passenger Steamships Opposed by Quebec Board of Trade.

J. T. Ross, President, Quebec Board of Trade, wrote Sir George E. Foster, acting Prime Minister, Jan. 30, as follows:—"At a meeting of the Quebec Board of Trade's Council, held on Jan. 26, I was instructed to write you with reference to a published statement as to the intention of the government to build in Canada a number of 15,000 ton passenger steamships, with a speed of 18 knots, for the Canadian service. The board, while congratulating the government upon its policy of having so many freight steamships built in this country, would respectfully suggest that it might be wise for the government, for the present, to continue to employ the existing shipyards in the construction of 5,000 and 10,000 ton freight steamships, such as are now being built, and defer the building of passenger ships for the present, for the following reasons:—

"The most urgent requirement of Canada at present is freight tonnage, to carry out grain and other produce to Europe, and the other markets of the world. The control of that tonnage by the United States and other nations is diverting our export grain to New York, to the great detriment of Canadian seaports, with an unfavorable influence on the rates of British exchange. A passenger steamship of 15,000 tons, running 18 knots, will probably cost twice as much as a 10,000 ton freight steamship, and will only carry 3,000 tons of cargo, or less than one-third of the deadweight carried by the freight boat. So that by continuing the policy of building freight boats only, we would probably get six times the amount of freight space for the money that would be used in building passenger boats. We would suggest that it would be wiser for the government to pay a sufficient subsidy to the C.P.R., or to some of the large English steamship lines, to induce them to put on a weekly service of two 20 knot steamships between Canada and Great Britain, such as was recommended to the Imperial Government, last year, by the Dominions Royal Commission. Possibly, in view of this recommendation, the Imperial Government might contribute towards such a subsidy.

"If Quebec were made the terminus of this line during the season of St. Lawrence navigation, and Halifax during the five winter months, the weekly service could be run with three 20 knot steamships, whereas four 18 knot boats are now used for that purpose. The distance from Liverpool being as follows—To New York, 3,100 miles; to Halifax, 2,480, and to Quebec, 2,680, the comparative time occupied in the voyage of a 20 knot (23 miles) boat would be—To New York, about 135 hours; to Halifax, about 108 hours; to Quebec, about 117 hours, as compared with the time of the 25 knot Mauretania to New York, which is about 5 days. So that it will be seen that a 20 knot service to Quebec and Halifax would be better for all Canadian points than making use of a 25 knot steamship to New York.

"It should not be forgotten that a steamship reaching Quebec is practically in the center of the country, being 670 miles closer to the interior of Canada than a steamship arriving at Halifax, and that, owing to the completion of the National Transcontinental Ry., which shortens the distance from Quebec to the

western provinces by 214 miles, passengers and mails from Europe, landing by a 20 knot steamship at Quebec, would reach Winnipeg about 24 hours quicker than they now do by the present route, with an 18 knot service. The time of passengers and mails from Europe to Toronto, Chicago and other western points would also be shortened as compared with New York. Nor should be overlooked the very great advantages of such a line, in attracting to Canada a class of travel that now goes only to New York, on account of faster and better accommodation, a class of travel that would be of great advantage to Canada financially and otherwise. For all these reasons we would suggest that the government should carefully consider the question before committing the country to an 18 knot service."

Sir George Foster's Reply:

Sir Geo. E. Foster replied on Feb. 4 as follows:—"No policy has as yet been adopted by the government looking to the construction of 15,000 ton passenger ships with a speed of 18 knots, or indeed any passenger ships, with any speed, in the Canadian service. The appropriations have hitherto been used for the construction of freight steamships, and I do not think it probable that for the present this policy will be altered. I note the considerations adduced by you in favor of your contention, which it is not necessary for me to enlarge upon, in view of the intimation made above."

What the Minister of Marine Said:

In connection with the foregoing it is interesting to recall what Hon. C. C. Ballantyne said at the Dominion Marine Association's annual dinner in Montreal, Jan. 9, as reported in Canadian Railway and Marine World for February, as follows:—"Our Canadian shipbuilders have demonstrated that they can build freight ships. I am happy to tell you that on the representations that have been made to Dr. Reid and Mr. Hanna for passenger ships of a one-class type, that is, a passenger ship of 15,000 gross tons, with speed of 18 knots, and carrying both passengers and freight, the government has under consideration the building of such a type of steel ship. The government has no intention of ordering one outside of Canada, but it is the government's intention to have these passenger ships built in this country by our Canadian workmen and to use Canadian materials."

The British Ministry of Shipping (Canada), which, during its 5½ years' existence, practically controlled Canada's export trade of Canada, inland and overseas, clearing over 3,000 line steamships from Canadian ports and Portland, Maine, will, according to a Montreal, press report, be demobilized on Mar. 31. Between 1914 and 1919 in excess of 16,000,000 gross tons of munitions, war materials and supplies were moved inland and overseas.

British Ship Purchases During War.—It is stated that during the war the British Government bought 13 ships in the United States at an average cost of £45 7s 10d a ton; 19 in Japan at £44 17s 8d a ton; 3 in China at £41 a ton; 11 in Hong Kong at £31 11s 9d a ton; and 44 in Canada at £33 1s 9d, or about \$190 a ton.

Government Grain Elevators for Atlantic Ports, Freight Rates, Etc., Discussed by Quebec Board of Trade's President and the Minister of Railways.

Canadian Railway and Marine World has been favored with copies of the following correspondence between J. T. Ross, President, Quebec Board of Trade, and the Minister of Railways, Hon. J. D. Reid. The first letter from Mr. Ross to the Minister, dated Jan. 20, was as follows:—"I am instructed by the Quebec Board of Trade's Council to draw your attention, and to ask you to draw the attention of the cabinet to the alarming result of the absence of proper railway terminal facilities at Canadian seaports. You will, no doubt, remember that this board has repeatedly urged the government, since 1912, by correspondence and by delegations, to complete the National Transcontinental Ry. by providing grain elevator storage for 10,000,000 bush. at each of the ports of Quebec, Halifax and St. John, N.B.—Montreal being already fairly provided for—together with the necessary steamship berths to keep these elevators employed. This has not been done. Instead of doing so, the government has built a large elevator at Port Colborne, Ont., which is more or less tributary to New York, and the elevator storage at the head of the Great Lakes, and in the interior, has been increased to such an extent, that about 80% of the elevator storage is now situated on the Great Lakes and in the interior, and less than 20% at our seaports. The result has been, and it could not, for this reason, be otherwise—because 80 will not go into 20—that, as Senator Bennett stated recently in parliament, 80% of our western grain trade, a trade which was our great inducement for going to the enormous expenditure of building three transcontinental railways, goes to New York for export.

"At a public meeting held at St. John, N.B., on Jan. 10 instant, it was stated that on account of the failure to extend the grain conveyors to the new berths, 23 ships had been diverted from St. John, and that 11 large cargo ships are now anchored in and off St. John harbor, waiting to get berths. I am sure you must realize, and the government must realize, that this position is nothing less than a calamity for the trade of the country, which calls for immediate action by the government.

"Although you have proved by actual operation that it is profitable to carry wheat all rail from Winnipeg to Quebec by the government railway for 3c a bush. cheaper than the lake and rail rate to New York or to Montreal, we understand that not a bushel of wheat came by that road for export during the season of 1919. It has been asserted that the principal reason which has enabled New York to divert our western trade is that marine insurance underwriters discriminate against Canadian ports. This could be overcome, and, we believe, without cost to the country, by the government assuming the marine insurance of all Canadian ports, at New York rates.

"I am therefore instructed, respectfully to renew the request made to the government by this board, seven years ago, and since, that elevator storage should be provided for 10,000,000 bush. at each of the ports of Quebec, Halifax and St. John, together with the necessary steamship berths. And I would

again respectfully point out to you that the City of Quebec is strictly entitled to this, under the terms of a written contract with the government executed in 1910. We are convinced that the policy we have indicated would put a stop to this alarming diversion of our trade to New York and would bring it back to Canadian seaports."

The Minister of Railways' Reply.

Hon. J. D. Reid replied Jan. 23 as follows:—"One statement you make in your letter I must take issue with at once, which is 'that I have proved by actual operation that it is profitable to carry wheat all rail from Winnipeg to Quebec by the government railway for 3c a bush. cheaper than the lake and rail rate to New York, or to Montreal.' This statement is incorrect. Several years ago the late Mr. Cochrane did experiment by carrying grain from a point on the National Transcontinental Ry. opposite Fort William, to Quebec, for 6c a bush. At the time his officials led him to believe it could be carried for that rate, but after investigation it was proved that on every bushel that was carried a heavy loss was the result. So that now you can take it as quite sure it is an absolute impossibility to carry it from Port Arthur to Quebec at a rate less than lake and rail, or all water. The facilities at Quebec will, no doubt, be taken up by the board of management, who are, as you are aware, in charge of the operation of the Canadian National Rys., and if they feel at any time the facilities are not sufficient they will deal with the same. You evidently do not realize the enormous expenditures which have been caused by the war, and are still continuing, and also the very large loans that are necessary in order to meet conditions of this kind. The government must curtail all expenditures to the smallest point, until matters again resume normal conditions. So far as I am concerned, I have asked the management to do this in connection with the Canadian National Rys. the same as is being done by other public works. I am therefore sorry there is no possible chance of any new elevators being built in the City of Quebec during the coming season."

The Quebec Board of Trade's Rejoinder.

The Quebec Board of Trade's President wrote the Minister again on Feb. 6 as follows:—"You say that you must take issue at once with the statement in my letter of Jan. 20 that you had proved by actual operation that it is profitable to carry wheat all rail from Winnipeg to Quebec by the government railway for 3c a bush. cheaper than the lake and rail rate to New York or to Montreal. You say that this statement is incorrect, that the rate of 6c a bush. from Armstrong (a point opposite Fort William) to Quebec and Montreal resulted in a heavy loss, and that we 'can be quite sure that it is an absolute impossibility to carry it from Port Arthur to Quebec at a rate less than lake and rail, or all water.' I based my statement upon your own words in Parliament on April 25, 1916, as given in Hansard, page 3184, in which you say: 'There was a loss when the wheat was taken to Montreal, for the reason that there were three railways that had to get a portion of the 6c. We can carry

grain from Armstrong to Quebec at a profit, but we cannot do so when the grain has to be hauled over three railways,' and again on page 3187, where you say: 'I do not say that there is very much profit in the 6c rate between Armstrong and Quebec, but it pays with a train load such as I have stated.' I think I was justified by this declaration in parliament by you as Minister of Railways, in my statement that you had proved by actual operation that the rate to Quebec was profitable.

"If, as you say, the government had to divide the 6c rate to Montreal between its own line, the Grand Trunk and the Timiskaming and Northern Ontario Ry., it is not to be wondered at that you lost money on the shipments to Montreal by such a circuitous route over bad grades. It could not be otherwise. But why should this loss apply to your direct line to Quebec, where you own all the mileage and receive all the earnings? Surely it is not fair to condemn the Quebec route, because that to Montreal was not profitable. Even, if it were subsequently proved, as you now say, that the 6c rate was not profitable, it is not to be wondered at, because all this grain was hauled during the winter over a new road, having no snow fences or other provisions against snow blockades, having no terminals, docks or elevators of its own, exposed to costly charges for the use at Quebec of the terminals of its greatest rival, besides dock dues and elevating, having no rolling stock or snowplows of its own, and dependent for motive power upon broken down, or obsolete Intercolonial Ry. locomotives the use of which had doubtless to be paid for.

"Moreover, even if the 6c rate was unprofitable that does not justify the conclusion that it is impossible to compete with the lake and rail, or the all water, route. The point of comparison is not Port Arthur, but Winnipeg. To the 6c from Armstrong to Quebec we must add 4 8-10c from Winnipeg to Armstrong, making the through rate 10 8-10c, or say 11c, from Winnipeg to Quebec. At that time the through rate from Winnipeg, via Fort William and Buffalo, to New York, including elevating and insurance, was about 14c. Last year it was 17c or more. The cost by lake and rail to Montreal is about the same as to New York, or perhaps rather in favor of New York, and the all water route from Fort William to Montreal does not seem to be used, as only 330,000 bush. of wheat went all water last year, probably owing to the necessity of transshipping into small boats at Port Colborne.

"To prove that the rate of 11c for 1,350 miles from Winnipeg to Quebec (6c from Armstrong), was not an unusual one, I would ask you to refer to the joint tariff of all the large railways, in force during the present winter, and you will see that today's rate on export wheat from Goderich to Halifax, 1,305 miles, is 10 4-10c a bush., over road having 1% grades, where little more than half the tonnage can be hauled that you haul on the National Transcontinental. Further than this, we are informed by the General Manager of one of the greatest grain carrying roads in America, that the present cost of carrying wheat over the National Transcontinental from Win-

nipeg to Quebec, would be less than 12½¢ a bush.

"All these facts go to show that it was quite possible to compete successfully with the lake and rail routes, and with the all water route, and that there was a legitimate margin in favor of the National Transcontinental of 3¢ a bush. In the special rate made in 1916. And though, doubtless, the cost of operating has increased since then, the increase will apply to both routes, and there would seem to be no reason whatever why the margin of 3¢ in favor of Quebec should not be maintained, thus turning the traffic to Canadian seaports, and putting a stop to the lamentable diversion of our western trade to New York, where, according to Senator Bennett's statement in parliament, four-fifths of it has gone. Senator Bennett says that our much vaunted water route by the lakes has proved a great disappointment, and that by using it we are losing our grain trade and New York is getting it.

"The last issue of the Dominion Government Bureau of Statistics contains a map showing the movement of all Canadian grain. It shows that 65,000,000 bush. of our northwestern wheat was exported at New York in 1918, and only 14,000,000 bush. at Montreal, the balance of the Montreal export being presumably made up of Quebec and Ontario grain. The result is that United States seaports are getting the benefit of the traffic created by our money; U.S. railway crews and U.S. lake craft men are getting the benefit of the cost of transportation—for it must not be forgotten that 70% of the cost of transportation is spent in the country through which the goods are transported—and that our own goods are helping to demoralize the New York exchange market, and to lower the value of the pound sterling for the Mother Country. Is not this a desperate position into which we have got, after having spent the enormous cost of three transcontinental railways, to get this very trade which is being taken away from us?

"The National Transcontinental Ry. has cost the government more than \$150,000,000. It is one of the best built roads in America. It is so straight that it shortens the distance between Winnipeg and Quebec by 214 miles. Its grades are so level that our own engineer tells us that you can haul over it nearly double the tonnage that can be hauled with the same power by any of its rivals. Although it is not yet finished, because it is not properly equipped with rolling stock and because the government has not yet built the terminals which it contracted with the City of Quebec to build, it has given ample proof, if the above statements are true, of its ability to do what it was intended to do, namely to save to the farmer of the northwest 3¢ a bush. on the transportation of his wheat, and to bring to Canadian seaports the trade of the northwest, which we have made such heavy sacrifices to obtain. This was promised to us in parliament in 1904, when the building of this railway was undertaken, promised to us largely by members from Ontario, who were experts in such matters. If these promises had not been made, the people of the eastern seaports would never have consented to this vast expenditure.

"Surely it cannot be the government's intention to continue to allow our trade to slip away from us in the heart-breaking manner in which it has done for the last six years. Surely you, as Min-

ister of Railways will make use of the costly instrument which has been placed in your hands for the purpose of putting a stop to this diversion of our trade and of bringing it back to Canadian seaports. We quite realize what you say as to the enormous expenditures which the country has incurred, and we continue to regret that so very great a portion of it should have been in connection with the acquisition by the government of two great railway systems, against the advice of commercial men. But even that should not paralyze your efforts for good, and we respectfully call upon you, once more, as Minister of Railways, to use the National Transcontinental Ry. for the purpose for which it was built, namely, to bring the western grain trade to Canadian seaports."

Trade and Supply Notes.

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

Independent Pneumatic Tool Co., Chicago, Ill., has issued an illustrated circular describing its Thor universal assembling and repair vice for pneumatic drills.

Metal & Thermit Corporation, 120 Broadway, New York, N.Y., has issued, and will send on request, a large 1920 map calendar, showing railway time zones in the United States and Canada, with illustrations of Thermit welding jobs, including stern frames of ships, rail special work, and locomotive frame repairs.

National Steel Car Corporation Ltd.—Some information in regard to the National Steel Car Corporation's incorporation was given in Canadian Railway and Marine World for February, since which additional particulars have been received. The incorporation is under the Dominion Companies Act, the capitalization being 100,000 shares of no par value. The corporation has taken over the National Steel Car Co.'s plant, assets and business at Hamilton, Ont., and assumed its liabilities, the transfer having been made on Dec. 18, 1919. The corporation's head office is at Hamilton, with branch office at 30 Church St., New York, N.Y. The following are the directors: R. J. Magor, President, Magor Car Corporation, New York, N.Y.; Donald Symington, President, Locke Insulator Co., Baltimore, Md., Vice President and Secretary; H. H. Pierce, Sullivan and Cromwell, New York, N.Y.; D. B. Dewar, Canadian Bank of Commerce, Hamilton. The Treasurer is L. B. Churchill, and the Assistant Secretary is H. Van Hassel. The other three directors, to make up a total of seven, have not been appointed, the positions being filled by temporary directors in the legal representatives' office in Toronto.

The Ohio Brass Co., Mansfield, Ohio, has taken into its service, W. J. Stanton, who has been identified with the electric industry for 20 years, having started with the General Electric Co., and remaining with it for 18 years, in the testing, engineering and sales departments.

Taylor & Arnold Engineering Co. Ltd., Montreal, is an amalgamation of Taylor & Arnold Ltd.; Central Engineering Co., Ltd., which was Taylor & Arnold's shop, and Canadian Detroit Lubricator Co. The new company is going to extend considerably, as manufacturers of railway marine, and mechanical brass supplies, in addition to carrying on its business as agents and jobbers.

Transportation Conventions in 1920

Mar. 16-18—American Railway Engineering Association, Chicago, Ill.

May—Association of Railway Claim Agents, Atlantic City, N.J.

May—International Railway Fuel Association, Chicago, Ill.

May 5-7—Air Brake Association, Chicago, Ill.

May 12—Railway Accounting Officers' Association, Washington, D.C.

May 25-28—Master Boiler Makers' Association, Minneapolis, Minn.

June—American Association of Freight Agents.

June 9-16—American Railroad Association's Mechanical Section, Atlantic City, N.J.

Oct. 5-7—Maintenance of Way Master Painters' Association, Detroit, Mich.

Oct. 19-21—American Railway Bridge and Building Association, Atlanta, Ga.

Transportation Associations, Clubs, Etc.

The names of persons given below are those of the secretaries unless otherwise stated:

American Association of Port Authorities. M. P. Fennell, Jr., 57 Common St., Montreal.

Belleville Railway Men's Educational Club. Meets each Tuesday, 7.30 p.m. F. A. Pinkston, Belleville, Ont.

Canadian Car Service Bureau—W. J. Collins, Manager, 401 St. Nicholas Building, Montreal.

Canadian Electric Railway Association—A. Eastman, 70 Bond Street, Toronto.

Canadian Freight Association (Eastern lines)—G. C. Ransom 909 Shaughnessy Bldg., Montreal.

Canadian Freight Association (Western lines)—W. E. Campbell, 805 Boyd Block, Winnipeg.

Canadian Railway Board of Adjustment No. 1—R. Chapple, 263 St. James Street, Montreal.

Canadian Railway Club—W. A. Booth, 181 Charron St., Montreal. Meetings at Montreal 2nd Tuesday, each month, 8.30 p.m., except June, July and August.

Dominion Marine Association—F. King, Counsel, Kingston, Ont.

Canadian Ticket Agents' Association—E. de la Hooke, London, Ont.

Eastern Canadian Passenger Association—G. H. Webster, 54 Beaver Hill, Montreal.

Engineers' Club of Montreal—C. M. Strange, 9 Beaver Hall Square, Montreal.

Engineers' Club of Toronto—R. B. Wolsey, 94 King Street West, Toronto.

Engineering Institute of Canada—F. S. Keith, 176 Mansfield St., Montreal.

Express Traffic Association of Canada—C. N. Ham, Montreal.

Great Lakes and St. Lawrence River Rate Committee—A. E. Storey, 310 G.T.R. General Offices, Montreal.

Hydro-Electric Railway Association of Ontario—T. J. Hannigan, Guelph, Ont.

International Water Lines Passenger Association—M. R. Nelson, 89 Chatham Ave., Buffalo, N.Y.

Niagara Frontier Summer Rate Committee, James Morrison, Montreal.

Quebec Transportation Club—A. F. Dion, Harbor Commissioner's Office, Quebec, Que.

Railway Association of Canada—W. M. Neal, Montreal.

Shipping Federation of Canada—Thos. Robb, Manager, 42 St. Sacramento Street, Montreal.

Transportation Club of Toronto—W. A. Gray, 257 Roxton Road, Toronto.

Transportation Club of Vancouver—H. W. Schofield, 556 Church St., Vancouver, B.C.

The Mount Royal Trading Co. Ltd., has been incorporated under the Dominion Companies Act, with \$100,000 authorized capital, and office at Montreal to carry on a general manufacturing and trading business and in connection therewith to own and operate steam and other ships of every description, and carry on a general transportation business for passengers and freight. The incorporators are: L. Beauregard, J. Boyle, J. B. Johnson, N. A. Collins, and H. L. Dugan, Montreal.

**CANADIAN PACIFIC RAILWAY
COMPANY.**

NOTICE.

The Canadian Pacific Railway Company will apply to the Parliament of Canada at its next Session for an Act authorizing it to construct the following lines of railway:

(a) From a point on the Pheasant Hills Branch at or near Cory in Twp. 36, Ranges 5 or 6, West of the 3rd M., thence in a general North Westerly direction to a point at or near Birch Lake, in Twps. 51 and 52, Ranges 15 and 16, West of the 3rd M., all in the Province of Saskatchewan.

(b) From a point on the Pheasant Hills Branch at or near Asquith, in Twp. 36, Ranges 9 or 10, West of the 3rd M., thence in a general North Westerly direction to a point on the Wilkie North Westerly Branch at or near Cloan, in Twp. 42, Range 20, West of the 3rd M., all in the Province of Saskatchewan.

(c) From a point on the Moose Jaw North Westerly Branch, at or near Rose-town, in Twp. 30, Range 15, West of the 3rd M., thence in a generally Northerly

and North Easterly direction to a point on the Pheasant Hills Branch, at or near Keppel, in Twp. 35, Ranges 12 to 13, West of the 3rd M., all in the Province of Saskatchewan.

(d) From a point at or near Kelfield, on the Wilkie-Anglia Branch, in Twp. 34, Range 19, West of the 3rd M., thence in a generally Easterly direction to a point in Twps. 32 or 33, Range 14, West of the 3rd M., all in the Province of Saskatchewan.

(e) From a point on the Weyburn-Stirling Branch, at or near Amulet, in Twp. 8, Ranges 20 or 21, West of the 2nd M., thence in a Westerly and North Westerly direction to a point on the Moose Jaw South Westerly Branch, at or near Dunkirk, in Twp. 12, Range 28, West of the 2nd M., all in the Province of Saskatchewan.

(f) From a point on the Crowsnest Subdivision, at or near Kipp, in Twp. 9, Range 22, West of the 4th M., thence in an Easterly and North Easterly direction to a point on the Suffield-Blackie Branch, at or near Retlaw, in Twp. 13, Range 17, West of the 4th M., all in the Province of Alberta.

And to authorize it to issue Bonds in

respect thereof to the amount of Forty thousand dollars (\$40,000) per mile or in lieu of such Bonds to issue Consolidated Debenture Stock to the same amount.

DATED at Montreal this 28th day of January, 1920.

E. ALEXANDER,
Secretary.

Pringle, Thompson, Burgess & Cote,
Ottawa, Agents.

**THE ESQUIMALT AND NANAIMO
RAILWAY COMPANY.**

NOTICE—The Esquimalt and Nanaimo Railway Company hereby gives notice that it will apply to the Parliament of Canada, at its next session, for an Act empowering it to construct a line of railway from its present terminus at Courtenay, thence in a general northerly and northeasterly direction to a point at or near Duncans Bay, on the east coast of Vancouver Island.

Dated at Montreal this 7th day of February, 1920.

W. F. SALSBURY,
Secretary.

Pringle, Thompson, Burgess & Cote,
Ottawa, Solicitors.

Geo. P. Nichols & Bro.

Electric Turntable Tractors
Electric Transfer Tables

More than 100 American railroads have adopted the Nichols Tractor as standard.

Office and Factory, 2139 Fulton St., Chicago, Ill.

Tenders for Street Cars

Tenders will be received by registered post only, addressed to the Chairman, Board of Control, City Hall, Toronto, up to 12 o'clock noon, on Tuesday, March 16th, 1920, for the supply of the following.

Tender No. 41—13 Street Cars Complete.

Envelopes containing tenders must be plainly marked on the outside as to contents. Specifications and forms of tender may be obtained at the Works Department, Room 12, City Hall. Tenders must comply strictly with conditions of City By-Laws as to deposits and sureties, as set out in specification and forms of tender. The lowest or any tender not necessarily accepted.

T. L. CHURCH (Mayor),
Chairman, Board of Control.

BARBER

LATERAL MOTION TRUCK DEVICE
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