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Government versus Private Ownership of Railways.

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One of the most marked tendencies throughout the world during the last half or three-quarters of a century has been the tendency of governments to intervene more and more in industrial affairs. During a long period, which ended at about the time of the French Revolution, governments everywhere, and especially on the continent of Europe, were active participants in industry, and regulated closely almost every class of business which they did not undertake to manage. There then began a great and widespread reaction both in economic and political philosophy and in economic and political affairs. The leading thinkers on economic and political subjects began to teach that that government was best which governed least, and a very large amount of legislation was enacted to take governments out of business and to emancipate industrial enterprises from public control. The period during which the doctrine of laissez faire prevailed lasted, roughly, until the beginning of the latter half of the nineteenth century. Then the pendulum commenced to swing the other way, and it has continued to do so until now throughout the leading countries of the world governments are managing many important enterprises and are strictly regulating many which they do not manage.

In no field has this increasing tendency of government to intervene in industrial affairs been more strikingly illustrated than in the railway field. So extensive has the policy of government ownership and management of railways become that it is often represented as having grown to be the dominant policy of the world. This, however, is by no means correct. The mileage of railways owned and managed by private companies is still more than twice as great as that owned and operated by governments. In 1913, the latest year for which we have complete statistics, there were in the world 690,133 miles of railway. Of this, 464,421 miles, or 67%, belonged to private companies, and only 225,712 miles, or 33%, belonged to governments.

It is a fact, however, that North America is the great stronghold of private ownership, and that outside of this continent there is now a greater mileage in the hands of governments than in those of private companies. There are over 305,000 miles of railways in North America, and of this more than 290,000 miles, or over 95%, is privately owned and operated. In all the world outside of North America there are 385,000 miles, and of this 211,147 miles, or 55%, is owned by governments, while 174,000 miles, or 45%, is owned by private companies. It will be seen, therefore, that the mileage in North America which is privately owned and operated exceeds the total mileage owned by governments in all the world, while even outside of North America almost one-half the mileage is owned and operated by private companies.

Nor does it give a correct idea to say that government ownership has been adopted by most leading countries. Germany has adopted it, but Great Britain adheres to private ownership. Most of the railways of Austria-Hungary are state-operated, but most of those of France are still in private hands. Most of the railways of Italy and Russia are state-owned, but in the principal country of South America, Argentina, with a mileage greater than that of Italy, and in Canada, with a large and rapidly increasing mileage, private ownership is still greatly preponderant. Japan is committed to government ownership, but in the United States, which alone has a mileage exceeding that of the combined state-owned railways of the world, private management is the sole policy.

To say, therefore, as some do, that countries such as the United States and Canada should nationalize all their railways because the enlightened public sentiment of the world has decided in favor of this policy is to reason from an assumption which is not based upon facts. Furthermore, even if it were true that all the rest of the world had adopted government ownership, this would be no very forcible argument for adopting it in North America. In reasoning regarding any policy which is proposed for adoption we should give the greatest weight to the particular conditions under which it would have to be carried out. Now, the conditions, political, military and economic, which prevail in the United States and Canada are widely different from those which prevail in Europe, for example. Military considerations have been very influential in shaping the railway policy of some of the European countries, and especially Germany. The conditions which have made it desirable, or which have been regarded as making it desirable, for some of the governments of Europe to directly own their railways, so that they can be prepared to use them for military purposes at a moment's notice, do not exist on this continent, and we all hope and believe that they never will. Many of the countries of Europe which have extensively adopted government ownership are monarchies, while, regardless of constitutional forms, Canada as well as the United States is a democracy. It is hardly necessary to add that the economic conditions on this continent are widely different from those in Europe. If we on this continent are going to decide wisely on the question of private versus government ownership, we must get clearly and keep constantly in mind our own peculiar conditions, and then try to determine which policy will produce the better results under those particular conditions.

The policy of government ownership is sometimes advocated on the somewhat theoretical ground that the provision of highways is a function of the state, and that railways are highways. Of course, on this theory, it follows that railways

should be owned and managed by the government. But this argument disregards the fact that railways not only provide a highway but also carry goods and passengers. Now, this fact is of some importance, for never before the railway was invented was it considered a function of the state to become a carrier for hire, and even since it was invented governments very seldom have assumed the function of carriage except when they have become the owners and managers of railways. They provide highways for water carriers; but they do not ordinarily own the ships operated on them. They provide highways for vehicle traffic; but they do not ordinarily own the teams and wagons, the motor trucks and taxicabs which use them. While it must be conceded that governments always have provided highways, it cannot logically be concluded from this fact that the ownership and management of railways is naturally a government function. How can it be held to be naturally a government function, when about 60% of the expenses usually incurred are attributable to the service of carriage, which, on historical grounds, may be held to be within the normal scope of private enterprise?

The question of government versus private ownership has various phases, but there are two whose importance is paramount. One of these is the economic phase. Which policy will better promote the material welfare of the public—in other words, which will better promote the efficient production and the equitable distribution of wealth? The other phase which is of the first importance is the political phase. Will private ownership or government ownership have the better effects on the government of the country, and especially on that of a country having democratic institutions such as yours in Canada and ours in the United States.

Let us turn, first, to the question of which policy will more efficiently promote the production of wealth. The transportation of freight by rail, and the transportation of passengers by rail when they are travelling on business, is merely one of the processes of production. If the management of the railways is inefficient and wasteful and, in consequence, the expense incurred in furnishing the service of transportation is excessive, this reduces the efficiency and increases the cost of all the industrial processes carried on in the entire country. This remains true whether the total cost incurred in rendering the service is covered by the rates charged for it, or only part of it is covered by the rates charged and the other part of it is covered by taxes levied upon the public to pay deficits incurred by the railways. If it actually costs \$10 to move 1,000 tons of freight one mile the burden directly or indirectly imposed upon the industry of the country for the transporting of that 1,000 tons one mile is just the same whether \$5 of the cost is paid by the taxpayer and \$5 by the shipper, or

the entire \$10 is paid by the shipper.

As, in the long run, the entire expense incurred in providing the service of transportation must be borne by the industry of the country, the public welfare demands that, other things being equal, that railway policy shall be adopted which will keep this expense at the lowest practicable minimum. Now, assuming that there are certain unit costs, such as the wages of labor and the prices of materials, which must be met, and a certain standard of service which must be maintained, it is evident that that railway policy will be most conducive to economical management which is adapted to securing the ablest and most energetic administration of the affairs of the railways.

Business costs are always of two classes—return to invested capital and expenses of operation. It is as absolutely impossible to avoid incurring the one as to avoid incurring the other. If private companies are to be permanently successful in furnishing railway service they must be able to raise capital, and they will not be able to raise capital unless they are able to, and do, pay interest and dividends on it. Likewise, if a government is to provide railway service it must raise capital, and if it is to raise capital it must pay interest on it. The books may be so kept as not to show how much interest actually is paid on the investment, but because the books are not made to show the facts will not alter the facts. You might also so keep the books as not to show all the operating expenses, but this would not make the operating expenses any less.

The advocates of government ownership contend that it enables capital for the construction and development of railways to be raised more cheaply, and that it causes their administration to be more efficient than private ownership and management. Governments ordinarily can borrow money cheaper than private companies. But the total return which must be paid on the capital invested in railways does not depend merely on the rate of interest paid. The total return required on the investment in a mile of railway is determined not only by the rate of interest, but also by the amount of capital spent to produce that mile of railway. If a company would have to pay 5% for capital and a government only 4%, but the company would build a railway for only two-thirds as much as the government would spend, the total interest which the company would have to pay on the investment would be less than the total interest the government would have to pay.

Now, whether the cost of building a new railway or of improving an old one will be high or low will be determined chiefly by whether its affairs are skilfully administered. The same thing is true as to operating expenses. The situation is precisely similar to that met in other lines of business. One man builds a factory extravagantly and operates it expensively, and it is a commercial failure. Another, with perhaps less credit and financial resources, builds a factory economically and operates it efficiently, and it is a commercial success. In the railway field, as in that of manufacturing, costs of production depend upon the skill of the management; and the requisites of skilful administration are the same under government as under private management.

Probably the most fundamental and important difference between government

regulation and government ownership of railways is that under the former public officials exercise merely the authority of supervision and correction, while under the latter they exercise the authority and perform the duty of actual administration. The two functions are widely dissimilar. The main function of all regulating bodies is to make broad general rules for the guidance and control of the acts of others. The administrative, or managing, function, on the other hand, is initiating, dynamic, executive. The management of a railway system conceives projects and carries them out. It determines where it will be advantageous and desirable to build extensions and make improvements and how these things shall be done. It determines according to what ideals and standards the property shall be maintained and operated. It selects and directs the officers of all ranks. It selects, directs, trains and disciplines the employes and determines within limits fixed by law and public opinion their wages and working conditions. On its judgment, courage, energy and ability in doing these things mainly depends the success of the railways, whatever their ownership.

Whether the governments of Canada and the United States, under the political conditions which prevail in these countries, may be confidently relied on to develop and support railway administrative organizations which will manage the railways as well and economically as private companies, is open to grave question. One of the greatest difficulties met in securing the skilful administration of government concerns is that of obtaining and retaining efficient managers for them. Governments, and especially democratic governments, will seldom pay as high salaries as private concerns to get men for positions demanding first class ability. However, the honor inherent in public office is more attractive to many able and public spirited men than a large income, and therefore, in spite of small salaries, governments may often get strong men if their appointments and tenure of office are made to depend on their merits and if they are left free to do their work without political influence. But in most democratic countries, such as Canada and the United States, the appointments to important offices in the public service are usually determined chiefly by political considerations. There is hardly an officer of a railway or of an industrial corporation on this continent who does not owe his position to his experience and proved ability in his special line of work. There are few high public officials, except in the army, the navy and the courts, who do owe their positions to such qualifications.

The managers of any business, public or private, even though of great ability, cannot administer it with energy and skill unless left free from interference except on business grounds. But are the officers of government railways in democratic countries likely to be as immune from such interference as those of private railways? You have had some experience with government management of railways in Canada, and I do not understand that the higher officers of your state railways always have been appointed solely because of their qualifications or that they have always been left free from political interference. But if the managers of government railways are not to be chosen and retained solely because of their peculiar qualifications for their duties, and are not to be left free from

political interference, upon what ground can it be assumed that they will be able to develop and operate the properties so as to keep down the cost of transportation to what it would be under private management?

Political considerations tend to cause lines to be built and improvements to be made where they are not most needed to promote the economic welfare of the country. They cause men to be taken into, retained and advanced in the service largely regardless of their merits. They cause a greater number of men to be employed than are actually needed. They sometimes cause contracts to be let and purchases to be made which would not be countenanced if business principles alone prevailed. They sometimes cause passenger and freight service to be rendered, not on business principles, but to placate the voters in certain forward communities. These statements are not based merely on surmise. They can be substantiated by evidence afforded by government management of railways in many countries. Nor are those directly charged with the management of the railways to be held entirely responsible. In many cases they have fought courageously and determinedly against such abuses, only to find that their resistance availed but little.

The conclusion necessarily suggested is that, under democratic conditions at least, state railways are less likely to be efficiently and economically developed and operated than private railways. This conclusion is supported by evidence afforded by the operating and financial results of government and private railways throughout the world. There are 17 countries in the world in which the capitalization, or cost of construction per mile of the railways exceeds the average of the railways of the United States. In only six of these does private ownership preponderate, while in eleven, government ownership preponderates. The cost of construction of the Intercolonial Railway of Canada, the oldest, and until recently the largest, government-owned railway on this continent, is officially reported at \$75,000 per mile. This is about the same as the cost of the leading railways of Australia, the state railways of New South Wales. The National Transcontinental, which also has been built by the government of Canada, has cost substantially more than this. These figures greatly exceed the average capitalizations per mile of the private railways of Canada and of the United States. The average net capitalization of the railways of the United States, including all the great systems, with their numerous multiple track lines and dense traffic in the populous eastern part of the country, is only \$67,000 a mile. There are, of course, exceptions, but the general rule throughout the world is that governments invest more capital in railways to handle a given amount of traffic than private companies do.

When we turn to a comparison of the expenses of operation that state and private railways incur in proportion to the total traffic which they handle, we find facts of a similar character. The private railways of France handle more traffic in proportion to their operating expenses than do the state railways of that country. The railways of Prussia are the best state managed railways in the world, and yet the private railways of France handle more traffic in proportion to their operating expenses than do the state railways of Prussia. The private rail-

ways of Canada handle more traffic in proportion to their operating expenses than does the Intercolonial. In fact, the private railways of Canada and of the United States handle more traffic in proportion to their operating expenses than any other railways in the world, in spite of the fact that railway wages on this continent are the highest in the world. I would not undertake to maintain that private railways always are more economically managed than state railways. I do not believe that is a fact. But I am sure, after having studied the subject for a long time, that, as a rule, private management is more economical than state management.

It may be suggested that the higher expenses of state railways are due to the fact that they give better and more adequate service than private railways. But the strongest stimuli which promote the development and improvement of the service under private ownership are wanting under government ownership. The opportunity for private gain is abolished. Competition is eliminated. There is no superior regulating authority to compel the government to remedy the defects of its service. As substitutes for these influences there is a public sentiment which demands the construction of new mileage and the making of improvements, and a management desirous to please that part of the government or the public which can apply the most pressure. It does not seem probable that ordinarily the influences tending to promote the improvement of railway service under government ownership will prove to be more potent than those tending to promote it under private ownership, and, furthermore, the facts do not show that state railways ordinarily do give better service than private railways.

It may be said, and truly said, that even though it be demonstrated that it costs more to develop and operate railways under government than under private ownership, this does not make out a case, even on economic grounds, in favor of private ownership. Equity in the distribution of wealth is as important to the welfare of the public as efficiency in its production, and it may be contended that under government ownership the wages paid to labor will be higher, the passenger and freight rates charged to the public will be lower, the public instead of private companies will receive the profits earned by the railways, and, in consequence, the public, on the whole, will be better off. Let us, then, turn to a brief consideration of the relative effects which private and government ownership may be expected to have on the distribution of wealth. It may safely be assumed at the outset that under either system there will always be a struggle going on between the various classes of the community and sections of the country to determine how the burdens and benefits resulting from the development and operation of the railways shall be divided. Under either system travellers and shippers always will want low rates, labor will want short hours of work and high wages, and the owners of the railways, whether they be private capitalists or the public, will want to keep the profits large or the deficit small, as the case may be. The welfare of the public demands that this struggle shall be kept within reasonable bounds, and that at the same time it shall not be allowed to result in some of those engaged in it securing unfair privileges and advantages at the expense of the

others who are engaged in it. The only authority which conceivably can thus at once control and arbitrate the struggle is obviously the government of the country.

But the government of a country is not a mere mechanical device which automatically registers what is right and wrong, what is fair and unfair, and in the same manner issues its decrees and compels obedience to them. The government of a country is composed of ordinary men who enact and administer laws; and in a democratic country those who make and administer the laws owe their offices, and depend for the opportunity to continue in them, on the votes of their fellow-citizens. Therefore, we may be sure that under either system, the men who, in a democratic country, compose the government will always deal with matters affecting railways with some regard to their own political interests as well as with some regard to the economic welfare of the public; and the system which will be most likely to cause equity to be done between all parts of the people is that system which will tend most strongly to make it to the interest of those in office to hold the balances even as between all classes.

Under the system of private ownership and public regulation—and public regulation has become the rule wherever private ownership exists—public officials, including especially those particularly delegated to regulate the railways, occupy positions of more or less detachment with respect to railway affairs, and the pressure brought to bear upon them by the various classes and sections of the country tends to cause them to deal out approximate justice. Railways cannot be successfully developed and operated under private ownership unless those who invest in them are allowed to derive a reasonable return from their investment, and the arguments that may be marshalled and the pressure which may be brought to bear in support of making the practice conform to sound principle usually result in private railways being allowed to earn enough to raise adequate capital. There are likely to be temporary deviations from the correct practice in this respect, as we have found in the United States, but recent decisions of the Interstate Commerce Commission have shown that even in our country, where hostility to the railways has been extreme, it is by no means impossible to convince intelligent regulating bodies and the public that advances in rates are sometimes as justifiable as reductions are at other times.

At the same time, under the system of private ownership and public regulation rates and earnings are not likely to be allowed to become excessive, for, as experience has shown, and nowhere more conclusively than in Canada and the United States, those who directly pay the rates are quite capable of organizing effectively for the purpose of fighting for reasonable reductions in rates and to prevent unreasonable advances in them, and are not at all loath to do so. Similarly, the employees of private railways subject to public regulation have shown that by organizing, arguing, threatening to strike and even going to the government for legislation, they are able to get and keep their wages on quite as high a basis as the employees of other classes of concerns and even as the employees of governments themselves. Finally, where railways are privately owned public officials are pretty sure in the long run to be alert and active

in compelling the companies to contribute in the form of taxes and otherwise their fair share, if not more than their fair share, toward the support of the government.

The situation is most radically changed when railways become the property of the government. As I have said, the struggle between the various classes and communities of the country over railway matters continues under this system, but the government and the men who compose it then cease to be in a position where they can arbitrate between the various parties involved, and become directly involved as parties to it themselves. In a democratic country, such as yours and ours, the authority of the law-making body over the railways under government ownership becomes omnipotent and it can make any distribution of the burdens and benefits of railway operation that it sees fit. It may delegate the regulation and management of the railways to commissions or other officers and give to them a large amount of independence, but this is seldom done except for short periods, for no matter how much independent authority may theoretically be given to others under government ownership, it is always well known that the authority the lawmakers have given they can take away, and, therefore, there are always bound to be constant appeals from the railway managers or the railway commission to the law-making body itself. In consequence, the lawmakers, and through them the management of the railways, are bound to be constantly subjected to political pressure from all of the interested classes and communities. They will be subjected to pressure by bodies of the employes for higher wages and easier conditions of work. They will be subjected to pressure by organized bodies of shippers for low freight rates and by organized bodies of commercial travellers, workingmen and commuters for low passenger rates.

There is, however, one class in the community which is not susceptible of organization, except, perhaps, very sporadically and temporarily, for the purpose of influencing government in its behalf. This class is that composed of the taxpayers. It is a much larger class than any of the others, but an organized body of voters, having a single interest which it has been organized to promote, is as much more efficient than a larger unorganized body of voters, in exerting political pressure in a democratic country as a trained body of regular soldiers is superior as a fighting body to a mob of untrained, undisciplined recruits. The consequence is that the one class which under government ownership of railways is likely not to have its interests protected by the government is the taxpayers. Most of us pay some taxes directly. All of us pay taxes indirectly. They enter into our house rent, into the cost of our clothing, into the prices of everything we eat or drink. There is no way by which their payment can be evaded, and, in consequence, the cost of living of all classes increases with the increase of taxes. Because of this increase of taxes the results of government ownership to certain persons may be different actually from what they are nominally. The passenger or shipper who may get lower rates or the employes who may get easier conditions of work, may largely, or wholly, pay for these advantages in the form of higher taxes and a higher cost of living; and for a large majority of the public the increase in their taxes and cost

of living caused by government ownership will be a net loss. Unfortunately, the taxes raised to pay the deficits incurred by state railways are usually so mixed up with the taxes raised for other purposes that those who pay them have no idea what part of them is to be used to pay the ordinary expenses of the government and what is to be used to pay the deficit of the railways.

The conclusion that the increased economic burden which will usually have to be borne by industry and by the public as a result of government ownership will be imposed mainly on the taxpayers, is supported not only by theoretical reasoning, but by the actual experience of most countries where government ownership of railways obtains. It cannot be shown that the average wages paid by state railways are ordinarily higher, under comparable conditions, than those paid by private railways, although undoubtedly under government ownership more men usually are employed to do a given amount of work. It cannot be shown that under comparable conditions the rates of state railways usually are lower than those of private railways. It is true that in Canada the rates of the Intercolonial, both passenger and freight, are relatively low, but the usual rule is that the passenger rates of state railways are somewhat lower than those of private railways, while the freight rates are somewhat higher. Considering the passenger and freight rates together, the total amount which has to be paid for the transportation of a given amount of traffic usually is relatively more on state railways than on private railways.

One thing, however, which may be conclusively demonstrated is that while private railways invariably are required to pay taxes to the public, the usual rule as to state railways is that taxes have to be collected from the public to make up deficits which they incur. One of the most extreme examples of this kind is afforded by your own Intercolonial Railway. My study of its figures, and a somewhat hasty and cursory observation of the physical property itself, have led me to believe that the Intercolonial is now being managed with an economy and skill which are a vast improvement over those shown in its management until within the last two years. Regardless of that, however, during the years from 1867 to 1914 the Intercolonial failed by \$9,600,000 to earn even its fair operating expenses. In 1914 the property was carried on the books at a cost of \$103,431,000. I had a calculation made to ascertain the total amount the road had cost the people of Canada. This was based on the assumption that, on the average, it ought to earn its operating expenses and 4% on the actual investment in it. This certainly is a conservative basis. This estimate showed that up to 1914, including the actual investment in the road and the total losses it had incurred, the road had cost the people of Canada over \$348,000,000. Assuming that it is actually worth today the cost at which it is carried on the books, its total cost to the taxpayers of Canada has been \$245,000,000 more than its present value. These losses have been partly due to the lowness of its rates, and partly to its uneconomical management; but to whatever cause they have been due, the losses have had to be borne by the taxpayers of this country.

While the case of the Intercolonial is an extreme one, it is by no means exceptional. There are some state railways which earn the interest on the total in-

vestment in them, and even more. This is true, for example, of those of Prussia and of Japan. But in Belgium, Italy, France, Norway, Sweden, Austria, Hungary, Switzerland, Russia, Australia, New Zealand, Argentina, and most other countries the state railways have on the average failed to earn their operating expenses and interest, thereby incurring deficits which have had to be borne by the taxpayers. I am aware that it can be shown that in some years the railways of some of these countries have earned their interest. I am speaking now of what they have done on the average over substantial periods, and the rule is, that over any considerable period almost every state railway in the world imposes burdens on the taxpayers, while almost every system of private railways pays taxes into the public treasury.

One question which may be raised in this connection is as to whether it is a violation of sound principle for state railways so to make their rates as to cause deficits, and thereby impose burdens on the taxpayers. It is a well known fact that the rates of your Intercolonial Railway are relatively low, and it is sometimes contended that all its losses have been due to the lowness of its rates. My study of its statistics and observation of its physical condition convince me that its losses, at least until within the last year or two, have been due more to uneconomical management than to low rates. This conclusion derives strong support from the fact that within the last two years the present management has been able to increase the earnings about \$1,600,000 a year, while actually reducing the expenses by about \$600,000 a year. But suppose its losses have all been due to the lowness of its rates. Is that a sufficient defense of them? Either those who pay non-compensatory rates and those who pay the taxes levied to meet the deficits they cause, are the same people, or they are different people. If they are the same people, what they gain by the rates is taken from them in increased taxes. If they are different people, those who pay the rates get their transportation for less than cost and those who pay the taxes pay for something they do not get. It is hard to see how anybody can be benefited by saving money through low rates and having it all taken away in increased taxes. It is also hard to find justice in giving some people low rates at the cost to others of higher taxes.

Both common sense and equity require rates to be so fixed that those who receive transportation service shall pay for it in full. The application of this principle to the situation in Canada makes it easy to decide in regard to the soundness of the rate-making policy followed on the government railways, if to it are due their losses. These railways serve only the people of the Eastern Provinces, and but part of them. The people of the entire Dominion must pay the taxes levied by the government. Therefore, if the trouble with the government railways is that their rates are too low, the few who use their service are unfairly benefiting at the expense of all the people of the country.

There is absolutely no more justification, on grounds either of economics, or of equity, for so making railway rates as not to cover interest on the investment, and then calling on the taxpayers to make up the deficit, than there would be for charging no rates at all, and calling on the taxpayers to pay both the total operating expenses and the interest. The interest on

the investment is just as clearly a part of the cost of providing the service as are the operating expenses.

The conclusion suggested by the foregoing facts and considerations, it seems to me, is that not only are private railways more likely than state railways to be so managed as to keep the economic cost of transportation down to the minimum, but that they are more likely under the system of public regulation, which now obtains almost universally where private ownership obtains, to be so managed and regulated as to promote equity in the distribution of wealth than state railways.

Let us now turn to some of the political considerations bearing on the subject. Many years ago a commission of the Italian Government investigated the subject of government ownership and reported that, in its opinion, under that policy "politics would corrupt the railroads and the railroads would corrupt politics." I have given my reasons for believing that especially under democratic conditions political considerations and political pressure are bound to exert so great an influence on the management of state railways as to cause them to produce less satisfactory economic results than would be produced by private railways. But whatever makes political considerations and political pressure exert more influence on the management of railways under government than under private ownership will at the same time make the railways under government ownership a more demoralizing influence in politics than they would be under private ownership. If it tends to demoralize the management of the railways to have men taken into and advanced in their service for political reasons, this taking them into and advancing them in the service for political reasons will also have a demoralizing effect on politics. If the giving of railway contracts for political reasons will tend to demoralize the management of the railways, it will at the same time tend to demoralize politics. If the granting of concessions to the employes for political reasons will tend to demoralize the management of the railways it will at the same time tend to demoralize politics. And so all along the line.

Now, a country with an autocratic government, such as that of Prussia, may be able to keep politics out of its state railways and its state railways out of politics. In such a country, therefore, the dictum that under government ownership "politics will corrupt the railroads and the railroads will corrupt politics" may not be true. In Prussia the suffrage is so regulated that the political influence of the different classes of the people is determined by their wealth and not by their numbers, and therefore the railway employes are almost entirely without political influence. It is in consequence of this that the government is able to, and does, prohibit them from belonging to labor unions of any kind and subjects them to a strict military discipline. But what can be done in a country having such a government, and having a people willing to submit to such a government, as Prussia, is no criterion of what can be done in a country having such a people and such political institutions as we have in Canada and the United States.

I am not sufficiently familiar with your affairs to know just to what extent politics pervades your government affairs and enterprises. I have, however, devoted much study to the results of your state railways, especially the Intercolonial, and

I have talked a good deal about the management of these roads with citizens of your country, and I have gained a very strong impression that these railways at times have played some part in politics and that politics have played some part in their management. My familiarity with affairs in the United States is greater, and certainly there is no department or enterprise of the government of my own country in which politics does not play an important part. Therefore, to assume in the United States that under government ownership the railroads would not corrupt politics and that politics would not corrupt the railroads would be to disregard practically all past experience.

One may sincerely and ardently believe that democracy is the best form of government to secure to the citizen the inalienable rights to life, liberty and the pursuit of happiness; one may have confidence that democracy can succeed in so regulating the relations between large business concerns and the public, as well as between individual and individual, as to protect the rights and further the interests of all; and yet be convinced that so far as democratic government has as yet developed in most parts of the world it is not a good form of government for managing commercial enterprises. A government to be successful in the management of very large commercial enterprises must, to a very great extent, be organized and administered as successful private business concerns are organized and administered. The fundamental requisites of successful business management cannot be altered by the simple expedient of transferring concerns from private to public ownership. Whether a business is owned and managed by a corporation, or owned and managed by the public, the owners, in order that it may be run successfully, must choose and retain the managers solely because of their special fitness for their duties. Having done this, the owners must give the managers wide discretion and authority, especially for dealing with the employes. The owners must interfere very little with what the managers do, and ordinarily must try to hold them responsible only for general results. A democratic government may successfully regulate private concerns that are thus organized, officered and managed; but few democracies have ever shown an effective disposition to have business concerns owned by themselves organized, officered and managed in this way; and until they do show such a disposition it is folly to expect them to manage railways and other great industrial enterprises efficiently and beneficently.

EDITOR'S NOTE.—The foregoing paper was read by Samuel O. Dunn, of Chicago, Editor, Railway Age Gazette, before the Canadian Club, Toronto, Oct. 30, and before the Canadian Club, Montreal, Nov. 7.

Sleeping Car Berth Rates Advanced.

The Railway Executive Committee in Great Britain has advanced the prices for sleeping car berths as follows:—From or to London and any other English station to or from places south of Berwick and Carlisle (both stations exclusive), from 7s 6d to 10c; Berwick and Carlisle and places north thereof, from 10s to 15s.

The Grand Trunk Pacific Ry has had taken under its auspices a series of films showing the life and resources of Western Canada which will be displayed this winter over a circuit of some 4,000 moving picture theatres in the United States.

Lake Superior Corporation's Subsidiary Transportation Companies.

Following are extracts from the Lake Superior Corporation's report for the year ended June 30, 1916:

Algoma Central and Hudson Bay Ry. Co.—A settlement of outstanding questions as between the Algoma Central & Hudson Bay Ry. Co., the Algoma Central Terminals, Ltd., and The Lake Superior Corporation has been arrived at which it is believed, will lead to a speedy discharge of the receivers of both the railway company and the terminals company. A bondholders' committee, representing both railway and terminal bondholders, has been appointed, and in this committee has been vested the outstanding common stock of the railway company for the purpose of exercising all voting and other rights incidental thereto. Of the \$5,000,000 preferred shares issued to and held by the public, \$3,000,000 of a new substituted non-cumulative preference stock will be issued as fully paid to the bondholders' Committee for distribution amongst the railway bondholders and terminal bondholders. Your corporation are the holders of \$5,000,000 of common stock and subject to the voting trust referred to, will retain this holding intact and in addition will receive in satisfaction of the debt of \$318,800, a like amount of the railway company's second mortgage bonds. Monies representing the unexpended balance of the proceeds of the terminal bonds will be paid over to the bondholders' committee, for the benefit of the railway company in the development of its properties and otherwise. Both the terminal bondholders and the railway bondholders have made certain modifications and concessions as to the payment of their respective interest. Briefly, the terminal bondholders will be paid interest at the rate of 3% per annum from Aug. 1, 1914, to Aug. 1, 1915, on account of interest due for that period, as soon as practicable after the scheme becomes effective. Subject to this special payment, the interest on the railway bonds from June 1, 1914, and on the terminal bonds from Aug., 1914, together with the sinking fund on the latter, shall only be payable if and to the extent that company and the terminals company are sufficient to pay the same. After Aug. 1, 1921, 1½% shall be definitely paid on terminal bonds each half-year. Interest unpaid in any year on railway bonds and terminal bonds is to be cumulative, and is to be paid out of the joint net earnings of subsequent years.

As from June 1, 1914, joint net earnings in each year are to be applied in the following order of priority: (1) In paying interest at 3% on terminal bonds for year in question and interest at like rate for any preceding year or years so far as interest to that amount shall not have been paid, and in recouping to capital account expenditures therefrom, after Aug. 1, 1921, in payment of such interest. (2) In paying interest up to 2% per annum for the year in question to railway bondholders and interest up to a further 2% per annum for the year in question to terminal bondholders *pari passu* as if they were one class of bonds. (3) In paying interest to a further 3% per annum for the year in question on railway bonds. (4) In paying railway bondholders and terminal bondholders any arrears of interest up to 5% per annum on their respective holdings *pari passu* in propor-

tion to amount of outstanding arrears on each issue. (5) In providing sinking fund for terminal bonds for year in question. (6) In paying on railway bonds further interest up to 1% per annum for year in question and on terminal bonds further interest up to ½% per annum for year in question *pari passu* as if they were one class of bonds. With approval of bondholders' committee any part of joint net earnings not exceeding 1% on total amount of railway and terminal bonds outstanding may be carried forward to following year instead of being applied as above.

No interest or sinking fund is to be paid in respect of the securities of the railway company ranking after the railway bonds and no dividends are to be paid on railway company shares until all payments provided for as above have been made.

The guarantee of The Lake Superior Corporation still remains in full force and effect, but no holder of railway or terminal bonds is entitled to take action without the consent of the bondholders' committee or unless extraordinary resolutions at bondholders' meetings are passed. Provision is made for the re-transfer of the stock, and for the rights of the committee to cease when principal and interest of both companies' bonds have been paid in full.

Your directors in the foregoing have attempted to summarize the settlement, which is regarded as being the best obtainable in the circumstances. Through the increased activity of the Algoma Steel Corporation, and of the various industries at Sault Ste. Marie, the outlook is much better than it has been for some time. Whilst the railway company's report for the year is not yet to hand, it is understood that earnings, particularly from the steamship line, show a substantial increase. Your directors in the interests of all concerned will do their utmost to co-operate with the new management towards making the Railway Operations a success.

Algoma Eastern Railway Co.—The earnings of this Railway show an increase. During the year financial arrangements were made through which the railway has been equipped with additional rolling stock necessitated through prospective additional traffic. Patents have been received in respect of the entire land grant lands of the railway, aggregating nearly 700,000 acres. Every effort will be made to so deal with these lands as to bring about all possible benefits to the railway company, especially in a financial direction.

International Transit Co.—**Trans St. Mary's Traction Co.**—The former has been disposed of, your Corporation having received \$100,000 for its holdings of common stock. The bonds which were held by outside parties, were assumed by the purchasers. The Trans St. Mary's Traction Co.'s operations are not satisfactory. From an earnings point of view, this street railway has never been a success, and in view of additional and costly paving schemes, which have been launched by the council of Sault Ste. Marie, Mich., and to which the street railway has to contribute your directors have under consideration a sale of the property. This is one of the minor assets of The Lake Superior Corporation,

which on account of the lack of development on the other side of the river has made but little progress.

Great Northern Railway's Annual Report.

The G.N.R. report for the year ended June 30, shows that of the authorized capital stock of \$250,000,000 there has been issued and is now outstanding \$249,476,850. Of the stock unissued 17½ shares of G.N.R. stock is reserved for acquiring 14 shares of the St. Paul, Minnesota & Manitoba Ry., of which 10 shares are the in the company's treasury and four still outstanding; also under the \$19,000,000 issue, 14 shares are not paid in full and 5,200 have not yet been offered for subscription. The bonds issued and outstanding total \$194,863,909.09, against \$194,773,909.09 at June 30, 1915.

The company's investment in Canadian companies, on account of advances made to pay for property, construction, additions and betterments, has been changed during the year, as follows:—

Midland Railway of Manitoba ..Credit	\$ 3,797.72
Manitoba Great Northern Ry.	1,877.68
Crow's Nest Southern Ry. ....Credit	2,001.43
Vancouver, Victoria & Eastern Ry & Nav. Co.	367,404.75
New Westminster Southern Ry....Credit	20,250.27

Total \$343,233.01

The Midland Ry. Co. of Manitoba has laid .35 mile of additional industrial tracks. The New Westminster Southern Ry. Co., in March, 1916, sold the part of its line from Brownsville to Port Kells, B.C., 8.55 miles, to the Canadian Northern Pacific Ry. Co., for \$256,500. The G.N.R. continues to operate over that line under a trackage arrangement.

Following is the financial report of operations for the year:—

Operating revenues	\$81,262,478.29
Operating expenses	43,914,076.14
Net operating revenue	\$37,348,402.13
Taxes accrued	5,132,208.29
Operating income	\$32,216,193.84
Other income	2,845,627.79
Gross corporate income	\$35,061,821.63
Deductions from same	7,461,207.34
Net corporate income	\$27,600,207.34
Dividend on capital stock	\$17,456,390.00
Renewal of Allouez Big Ore stock	256,331.64
Fund for permanent improvements and betterments	3,500,000.00
Pension fund	1,000,000.00
Miscellaneous appropriations	3,100,865.27
Total	\$25,313,586.91

Transferred to profit and loss

The President's report contains the following reference to one of the company's lines in Canada: "Work was recommenced upon the line of the Vancouver, Victoria & Eastern Ry & Navigation Co. between Sumas Landing and Kilgard, B.C., a distance of 9.37 miles. This line will be completed and placed in operation early in September, 1916, and will give this company a through Canadian line from Oroville to Vancouver." Referring to the work in progress or completed during the year, the President says 54% of the material required for filling on the False Creek flats at Vancouver, B.C., had been completed; and 1.87 miles of side track and spurs had been completed on lines in Canada. The most important work in progress on the company's property in Canada was the filling in of the False Creek flats and the building of the passenger station thereon.

The consolidated balance sheet shows that the company's investments in its

lines in Canada are as follows:—Midland Ry. of Manitoba, \$2,352,975.89; Manitoba Great Northern Ry., \$2,067,877.68; Brandon, Saskatchewan & Hudson Bay Ry., \$2,150,000; Crow's Nest Southern Ry., \$4,216,485.59; Bedlington & Nelson Ry., \$65,000; Nelson & Fort Sheppard Ry., \$2,119,019.51; Vancouver, Victoria & Eastern Ry & Navigation Co., \$22,248,929.23; New Westminster Southern Ry., \$250,000.

The total length of track operated by the company at June 30 was 10,468.79 miles, of which 8,052.81 miles was main track. The company operated over 305.82 miles under trackage rights and owned but did not operate 6.99 miles of the Minneapolis Western Ry. The Midland Ry. of Manitoba, 17.51 miles, is jointly owned with the Northern Pacific Ry. The Bedlington & Nelson Ry. in British Columbia, 12.58 miles, including spur tracks and sidings, was not operated during the year. The company owns in Canada through its controlled companies 167.62 miles of main track and 31.38 miles of sidings and spurs in Manitoba; and 428.08 miles of main track and 73.38 miles of sidings and spurs in British Columbia; it leases trackage rights over 41.53 miles of track in British Columbia to other companies, and leases from other companies 69.24 miles in Manitoba and 15.45 miles in British Columbia.

Americans to Build Chinese Railway.

A contract for the location and construction of about 1,000 m. of railways in China was signed Sept. 30 by the Chinese government with the Siems-Carey Railway & Canal Co., in which firm the American International Corporation is financially interested. According to the first announcement on Oct. 3 the necessary funds will be raised by a Chinese bond issue to be marketed by the American International Corporation. Reports that the probable cost will be \$50,000,000 or more are unconfirmed by the corporation, as nothing like a definite figure can be agreed upon until the lines are located and the nature of the construction determined.

According to a statement by Willard Straight, Vice President of the American International Corporation, the lines will be located by an American chief engineer who will later, on behalf of the Chinese government, superintend the construction. He will, upon the road's completion, act as its chief engineer. An American auditor and a traffic manager will also be appointed. No routes have been selected, although \$500,000 has been advanced to cover the cost of investigations and surveys. At present there are only about 6,000 miles of railway in China. The construction of the new lines, on which actual work will start in about a year, will therefore almost triple that country's railway mileage.

Siems & Carey are railway contractors of St. Paul, Minn. Last May they signed a preliminary agreement with the Chinese government for the construction of railways there. About the same time preliminary contracts for dredging the Grand Canal were concluded, and the American International Corporation, together with the Siems-Carey Co., organized the Siems-Carey Railway & Canal Co., to undertake the construction of railways and the dredging of the canal. Final agreements for the canal work are now under negotiation. The appointment of F. C. Hitchcock, formerly vice president of the MacArthur Brothers Co., to a similar position with the Siems-Carey

organization in China indicates that possibly he is the American engineer who will have charge of the work. The new contract will be handled on a percentage basis.

Intercolonial Railway Grain Elevator at St. John, N.B.

The electric plant to be built at St. John, N.B., for the Intercolonial Ry. will consist of a working house and a conveyor gallery to the wharf. The principal business of the elevator will be to receive from railway cars and to load into ocean vessels. Facilities for cleaning grain will be included in the equipment. All material used in the construction and equipment, excepting belts and ropes, will be non-combustible. The foundations will be of reinforced concrete piers, going to rock. The elevator will be 106 x 92 ft. It will be entirely of the up-house construction, with two railway tracks going through the first floor. The storage capacity will be 537,000 bush. The first story and bins will be built of reinforced concrete, with the curtain walls of first story of brick. Above the first story will be of structural steel with galvanized corrugated iron covering. The floors and roof will be of reinforced concrete.

The elevator will be equipped with three elevator legs, two for receiving grain from cars and one for shipping. All three, however, may be used for shipping. Each leg will elevate grain to the top story of the cupola and discharge to a 2,000 bush. garner. Beneath each garner 2,000 bush. scale hoppers will be erected supported on 120,000 lb. hopper scale. Each scale hopper will be arranged to discharge to distributing spouts. One of the scales will also be arranged to spout to a carloading spout. On the distributing floor a separator will be installed to receive grain from one of the scales and discharge directly to one of the bins. A passenger elevator will be installed to run between the first and top floors. Power shovel machines will be erected to unload the cars into track hoppers situated beneath the track. There will be four hoppers, two being opposite each receiving leg. Each hopper will have a holding capacity of a carload of grain. The lower end of each hopper will be equipped with a valve so designed and constructed that it will be impossible to have a valve of more than one hopper at a leg open at the same time. A 2-drum car pulled will be erected and arranged so that cars may be handled in either direction on either of the tracks. All power will be electric.

The John S. Metcalf Co., Ltd., Montreal, have prepared the plans and specifications under the instructions of C. B. Brown, Chief Engineer, Canadian Government Railways. The substructure contract has been awarded to Engineers & Contractors, Ltd., Moncton, N.B. Tenders for the superstructure were received up to Nov. 15.

At present the I.R.C. has no grain elevator in St. John, the previous one having been burned some time ago. The new elevator will be built below Prince William St., near Reed's Point Wharf.

Canadian Society of Civil Engineers.—Paul A. N. Seurot, M. Can. Soc. C. E., who has returned from France recently, exhibited and described a series of interesting photographs from the western battle front, at a meeting of the society's general section in Montreal, Oct. 19.

Birthdays of Transportation Men in December.

Many happy returns of the day to:—
 E. T. Agate, M.Can.Soc.C.E., ex-Assistant Superintendent Lake Superior Division, Canadian Northern Ry., Capreol, Ont., born at Pittsford, N.Y., Dec. 7, 1874.
 A. G. Albertsen, City Ticket Agent, C.P.R., San Francisco, Cal., born at Copenhagen, Denmark, Dec. 31, 1887.
 J. H. Barber, M.Can.Soc.C.E., Assistant Engineer, North Toronto Grade Separation, C.P.R., Toronto, born at Cobourg, Ont., Dec. 20, 1856.
 O. C. Bishop, Superintendent, Sleeping and Dining Cars and News Service, Canadian Northern Ry., Winnipeg, born at Escanaba, Mich., Dec. 10, 1876.
 N. E. Brooks, M.Can.Soc.C.E., ex-Engineer of Maintenance of Way, Western Lines, C.P.R., now at Sherbrooke, Que., born there, Dec. 25, 1866.
 Harold Browning, steamship agent, etc., Windsor, Ont., born at Stamford, Lincolnshire, Eng., Dec. 2, 1864.
 W. W. Butler, Vice President, Canadian Car and Foundry Co., Montreal, born at Danville, Ohio, Dec. 9, 1862.
 J. M. Cameron, General Superintendent, Alberta District, C.P.R., Calgary, born at Lochabar, N.S., Dec. 18, 1867.
 M. M. Campbell, Building Inspector, G.T.R., Montreal, born at Bridgeton, N.B., Dec. 17, 1879.
 W. C. Casey, General Agent, Passenger Department, Canadian Pacific Ocean Services Ltd., Winnipeg, born at Moncton, N.B., Dec. 12, 1882.
 G. W. Caye, General Purchasing Agent, G.T.R., Montreal, born at Malone, N.Y., Dec. 1, 1865.
 W. H. Gardiner, City Freight Agent, C.P.R., and District Freight Agent, Esquimalt and Nanaimo Ry., Victoria, B.C., born there Dec. 6, 1859.
 A. S. Goodeve, member Board of Railway Commissioners for Canada, born at Guelph, Ont., Dec. 15, 1860.
 A. J. Gorrie, ex Superintendent District 1, Transcontinental Division, Canadian Government Railways, Quebec, born at Raith, Kirkcaldy, Scotland, Dec. 10, 1868.
 W. H. Grant, Manager of Construction, Mackenzie, Mann & Co., Ltd., and General Tie and Timber Agent, and acting General Storekeeper, Eastern Lines, Canadian Northern Ry., Toronto, born at Acton, Ont., Dec. 8, 1858.
 F. P. Gutelius, M.Can.Soc.C.E., General Manager, Canadian Government Railways, Moncton, N.B., born at Mifflinburg, Pa., Dec. 21, 1864.
 Jas. H. Hall, President, Western Transportation Co., Ltd., Ottawa, Ont., born at Hawkesbury, Ont., Dec. 20, 1863.
 J. T. Hallisey, Superintendent, District 6, Intercolonial Division, Canadian Government Railways, Truro, N.S., born at Beaver Bank, N.S., Dec. 29, 1862.
 D. B. Hanna, Third Vice President, Canadian Northern Ry., Toronto, born at Thornliebank, Scotland, Dec. 20, 1858.
 J. J. Hennigar, Agent Great Lakes Transportation Co., Windsor, Ont., born at Topeka, Kan., Dec. 21, 1884.
 E. W. Holton, General Passenger Agent, Northern Navigation Co., Sarnia, Ont., born at Belleville, Ont., Dec. 15, 1872.
 A. J. Isbester, ex Assistant District Engineer, Port Arthur District, Canadian Northern Ry., Port Arthur, Ont., born at Ottawa, Dec. 18, 1879.
 R. Johnson, Assistant Locomotive Foreman, C.P.R., Hochelaga, Montreal, born at Quebec, Que., Dec. 24, 1863.
 J. T. McGrath, ex-Superintendent of

Motive Power and Equipment, Chicago and Alton Rd., Bloomington, Ill., born at Toronto, Dec. 6, 1869.
 A. T. McKean, Division Freight Agent, C.P.R., Winnipeg, born at St. John, N.B., Dec. 18, 1886.
 J. M. MacArthur, Superintendent, Kenora Division, Manitoba District, Kenora, Ont., born at Toronto, Dec. 8, 1885.
 A. E. Macdonald, General Claims Agent, Canadian Northern Ry., Winnipeg, born at Woolwich, Eng., Dec. 11, 1870.
 L. Macdonald, Division Freight Agent, G.T.R., Toronto, born at Montreal, Dec. 10, 1871.
 A. D. McTier, General Manager, Eastern Lines, C.P.R., Montreal, born at Blairgowrie, Scotland, Dec. 27, 1867.
 J. C. O'Donnell, Superintendent, Districts 2 and 3, Central Division, Canadian Northern Ry., Winnipeg, born at Cobden, Ont., Dec. 17, 1879.
 S. R. Payne, Manager, Ottawa Division, New York Central Rd., Ottawa, Ont., born at Jefferson, Ohio, Dec. 21, 1865.
 A. Price, Assistant General Manager, Eastern Lines, C.P.R., Montreal, born at Toronto, Dec. 6, 1861.
 W. J. Radford, Assistant to General Manager, Toronto Suburban Ry., Toronto, born at Boldre, Hampshire, Eng., Dec. 23, 1870.
 G. D. Robinson, Export Freight Agent, C.P.R., Montreal, born at St. John, N.B., Dec. 7, 1877.
 Sir Collingwood Schreiber, K.C.M.G., Hon. Mem. Can.Soc.C.E., General Consulting Engineer to Dominion Government, Ottawa, Ont., born at Bradwell, Essex, Eng., Dec. 14, 1831.
 W. Tansley, Assistant Superintendent, London Division, Ontario District, London, born at Shelburne, Ont., Dec. 27, 1872.
 M. F. Tompkins, Division Freight Agent, Intercolonial Division Canadian Government Railways, Halifax, N.S., born at Margaree, N.S., Dec. 6, 1878.
 H. H. Vaughan, M.Can.Soc.C.E., Consulting Engineer, C.P.R., Montreal, born at Forest Hill, Essex, Eng., Dec. 26, 1868.
 R. C. Vaughan, Assistant to Third Vice President, Canadian Northern Ry., Toronto, born there, Dec. 1, 1883.
 A. P. Walker, M.Can.Soc.C.E., Assistant Division Engineer, Ontario District, C.P.R., Toronto, born at West Hartlepool, Eng., Dec. 9, 1860.
 E. H. Wood, General Car Foreman, Michigan Central Rd., Chicago, Ill., born at St. John, N.B., Dec. 30, 1880.

New Union Station for St. Paul.—The St. Paul Union Depot Co. has approved the new plans for a union station at St. Paul, Minn., and authorized the executive committee to proceed with the acquiring of land and the construction work. Plans for this union station, which involved the changing of the Mississippi River channel, were prepared over a year ago, but were vetoed by the Chief of Engineers because of improper provision for navigation requirements. The new scheme does not contemplate any change in the channel. The revised layout makes it necessary that the Great Northern, Northern Pacific, Chicago, Burlington & Quincy, Chicago, St. Paul, Minneapolis & Omaha and Chicago, Milwaukee & St. Paul railways turn in considerable land, the basis for which has already been made. Only one piece of private property remains to be taken.

Annual Passes to G.T.R. Employees.

E. J. Chamberlin, President, G.T.R., has issued the following circular:—Effective Jan. 1, 1917, meritorious or long service annual passes will be issued as follows:—To employes who have been continuously in the company's service for not less than 15 years, annual passes for themselves and, if married, to include their wives (one pass for the two persons), good over either the Eastern, Ontario or Western lines, according to the respective territory on which they may be employed. Off line employes will have the option of designating the particular territory over which their passes shall be made good. To employes who have been continuously in the company's service for not less than 20 years, annual passes for themselves and, if married, to include their wives (one pass for the two persons), good over the entire system. To head office employes who have been continuously in the company's service for not less than 15 years, annual passes for themselves and, if married, to include their wives (one pass for the two persons), good over the entire system. Ex-employes at present on the pension or superannuation funds, or who may hereafter come on those funds, will be considered, as regards length of service, the same as employes, and be accorded pass privileges as above. Female employes will be treated the same as male employes except that passes will be good for themselves only.

Snow Ploughs for Canadian Government Railways.

The 20 steel snow ploughs which Canadian Government Railways ordered recently from Canadian Car and Foundry Co., as previously stated in Canadian Railway and Marine World, will have the following dimensions, etc.:

Length, over all	32 ft. 1 9-16 in.
Width, over side sills	8 ft. 9 1/8 in.
Height, rail to top of eaves angle	11 ft. 3 in.
Height, rail to top of cupola, about	14 ft. 10 in.
Width, over wings extended	16 ft.
Extreme width, cupola	8 ft. 9 in.
Extreme length, cupola	4 ft. 11 1/2 in.
Truck centre	18 ft.
Wheel base, leader truck	4 ft. 2 in.
Wheel base, rear truck	5 ft. 3 in.
Weight, approximately	60,700 lbs.
Draft gear	Tandem springs
Couplers	5 x 7 shank, 8 1/2 in. end
Air brakes	Westinghouse, K.D. 812
Trucks (front end)	30-ton truck
Wheels	Cast steel, 28 in. diam.
Journal boxes	Tender type
Trucks (rear end)	30-ton standard
Wheels	M. C. B. 33 in.
Axles	M. C. B. standard
Brake shoes	Steel back
Springs	M. C. B. class
Brake beams	M. C. B.

The ploughs now ordered will be practically duplicate of some built some little time ago for the Intercolonial Ry., except that the large draw bar castings on the front of the plough will be extended so as to facilitate of coupling of ploughs nose to nose. The ploughs previously built did not have this feature. In addition to this modification, the side wings have been redesigned, and will have curved plates, instead of the straight plates previously used, in order that the ploughs will clear themselves more readily from the snow. The new ploughs will also have an ice cutter applied to the front truck. These cutters will be operated by air cylinders, which will remove the ice at the inside of the rails. The front operating device will also be changed and instead of being lowered and raised by air, will be raised by means of levers and springs.

Quebec Central Railway Co's Annual Report.

The annual report for the year ended June 30, 1916, signed by George Bury, President, says:—Under agreement, dated Oct. 2, 1912, approved by an Act of the Quebec Legislature, this company's property was leased to the C.P.R. Co. for 999 years, and the lease became effective Jan. 1, 1913. Interest on the ordinary stock at 4% per annum for four years from July 1, 1912, and 5% per annum in perpetuity thereafter, and interest and principal on the 4% first mortgage debenture stock, 3½% second mortgage debenture stock, and 5% third mortgage bonds, is guaranteed under the terms of the lease by the C.P.R. Co. Under the company's constitution the voting power is vested in the holders of the securities above mentioned at the rate of one vote for every £25 sterling of such stock or bonds.

Revenue Account.

Freight revenue	\$1,043,107.85
Passenger revenue	378,364.14
Mails	28,139.62
Express, miscellaneous, etc.	37,646.55
	\$1,487,258.16
Maintenance of way and structures..	\$208,266.46
Maintenance of equipment	150,602.81
Traffic expenses	27,004.37
Transportation expenses	523,800.73
General expenses	54,767.26
Taxes	18,492.76
Expenses outside operations	12,045.73
	994,984.12
Total operating expenses	994,984.12
Balance carried to net revenue account	492,274.04

Net Revenue Account.

Balance from revenue account	\$492,274.04
Other income	16,639.78
	\$508,913.82
Interest on 4% debenture stock 12 months	117,741.61
Interest on 3½% debenture stock 12 months	57,572.66
Interest on 5% third mortgage bonds 12 months	82,246.66
Balance to surplus income account..	251,352.89
	\$508,913.82

Surplus Income Account.

Balance from 1915	\$ 84,043.46
Balance net revenue account	251,352.89
	\$335,396.35
Dividend on share capital stock (4%)	\$135,264.12
Balance (per condensed balance sheet	200,132.23
	\$335,396.35

Appropriation Account.

Balance (per condensed balance sheet)	200,132.23
	\$200,132.23
Appropriation for additional equipment and betterments and improvements	\$90,000.00
Transfer to reserve contingent fund..	25,000.00
Balance carried forward	85,132.23
	\$200,132.23

The principal officers are:—George Bury, President, Montreal; I. G. Ogden, Vice President, Montreal; J. H. Walsh, General Manager, Sherbrooke; H. C. Oswald, Secretary, Montreal; W. S. Fry, Treasurer; E. O. Grundy, General Freight and Passenger Agent; T. J. Maguire, Accountant; J. T. Reid, Superintendent, Sherbrooke.

The G.T.R. Barrie Division Railway Men's Patriotic Association has voted \$300 to the British Red Cross Association, \$300 to the Canadian Field Comforts Commissioner in England, and \$300 to the local branch of Field Comforts. The association has also sent \$500 to England to supply Christmas boxes for over 100 employes of the company, now on active service. Up to date, the association has contributed over \$17,000 for patriotic purposes.

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 our paper have a continuous record of the Board's proceedings. No other paper has done this.

The dates given of orders, immediately following the numbers, are those on which the hearings took place, and not those on which the orders were drawn.

General Order 173. Oct. 26.—Defining rates to be charged by railway companies for refrigerator cars for carriage of vegetables in carloads and rescinding orders 24680, Jan. 27, 1916, 24994, May 22, 1916, and General Order 152, Nov. 2, 1915.

25533. Oct. 13.—Amending order 25268, Aug. 14, re C.P.R. road diversion in Saskatchewan.

25534. Oct. 14.—Approving location and detail plans of G.T.R. new station at Port Colborne, Ont. 25535. Oct. 17.—Dismissing application of City of Hamilton, Ont., for order directing Hamilton Radial Ry. to carry out provisions of order 15241, Oct. 11, 1911, to extend Birch Ave. northerly to Gilkison St.

25536. Oct. 16.—Ordering Canadian Northern Ontario Ry. to build cattle pass on line with N. Lalonde's lane, St. Genevieve Parish, Que.; approaches to grade crossing on west boundary of applicant's farm to be put in good shape, within 15 days from date; approaches to be maintained by C. N. O. R. and cattle pass to be completed by Dec. 1.

25537. Oct. 16.—Authorizing Saskatchewan Highway Commissioners to carry highway over west end of C.P.R. station grounds at Leslie.

25538. Oct. 17.—Authorizing Canadian Northern Ry. to build across certain highways in Tps. 7 and 6, r. 18, w. 2 m., Laurier rural municipality.

25539. Oct. 18.—Authorizing Toronto, Hamilton and Buffalo Ry. to open for traffic portion of its line between Dunnville and Port Maitland, Ont., 5.3 miles.

25540. Oct. 17.—Ordering that crossing in Riverdale Park, Toronto, be protected by flagman between 10 a.m. and 8 p.m. from May 1 to Oct. 31, each and every year; watchman appointed by Canadian Northern Ry.; wages to be paid, 25% by City of Toronto, 40% by C.N.R., 25% by C.P.R. and 10% by G.T.R.

25541. Oct. 17.—Ordering C.P.R. to appoint agent at Upper Kent, N.B., by Nov. 1, and to provide station facilities there by July 1, 1917.

25542. Oct. 17.—Relieving Canadian Northern Ry. from erecting fences, gates, and cattle guards along its line between mileage 62 and 70, and between mileage 71 and 72.7, Nipigon Tp., Ont., until land becomes settled or improved.

25543. Oct. 19.—Relieving Canadian Northern Ry. from providing further protection at first crossing west of Labroquerle station, Man.

25544. Oct. 19.—Authorizing Grand Trunk Pacific Branch Lines Co. to carry traffic over its Moose Jaw Northwest Branch between mileage 64.6 and Riverhurst, mileage 69.9; speed of trains not to exceed 15 miles an hour.

25545. Oct. 20.—Authorizing Canadian Northern Alberta Ry. to build a bridge across the Athabaska River in Sec. 1, Tp. 51, R. 26, w. 5 m.

25546. Oct. 21.—Authorizing C.P.R. to build spur 580 ft. long for A. Lesage, Ste. Therese de Blainville Parish, Que.

25547. Oct. 21.—Relieving New York Central Rd. from providing further protection at Larocque highway about 2½ miles south of Valleyfield station, Que.

25548. Oct. 21.—Relieving G.T.R. from providing further protection at Belfrey's crossing, about 3 miles east of Cornwall station, Ont.

25549. Oct. 19.—Authorizing C.P.R. to build spur for Canadian Consolidated Rubber Co. and Campbell, Wilson & Horne, Calgary, Alta.

25550. Oct. 18.—Authorizing Niagara, St. Catharines & Toronto Ry. to build trestle over its main Port Dalhousie Line, and siding for McKinnon Dash Co., St. Catharines, Ont.

25551. Oct. 20.—Approving agreement between Bell Telephone Co. and Union Telephone Co. Oct. 6.

25552. Oct. 18.—Amending order 25338, Aug. 21, re Toronto, Hamilton and Buffalo Ry. crossing of G.T.R. and Hamilton Radial Ry., Earlinton, Ont.

25553. Oct. 20.—Authorizing Grand Trunk Pacific Branch Lines Co. to build three sidings adjacent to its Moose Jaw Northwest Branch across road allowance between Secs. 25 and 26-22-7, w. 3 m., Sask.

25554. Oct. 20.—Authorizing City of Sault Ste. Marie, Ont., to build highway crossings over C.P.R. at Tancred and Francis Sts.

25555. Oct. 24.—Granting relief from provisions of order 16900, June 27, 1912. This order relating to the omission of symbols from class freight rate tariffs was published in full in Canadian Railway and Marine World for November, pg. 450.

25556. Oct. 25.—Authorizing C.P.R. to build siding for Canada Metal Co., Toronto.

25557. Oct. 24.—Authorizing Canadian Northern Ontario Ry. to build spur for Haight & Dickson Lumber Co., Wisner Tp.

25558. Oct. 20.—Ordering that crossings of highway by G.T.R. and C.P.R. at Dorval, Que., be protected by watchmen on each line between 6 a.m. and 7 p.m. daily; cost of protection reserved; watchman for C.P.R. to be appointed by C.P.R., and for G.T.R. to be appointed by Town of Dorval.

25559. Oct. 25.—Authorizing C.P.R. to build spur for Kennedy Construction Co., St. Francois de Sales Parish, Que.

25560. Oct. 24.—Amending order 25264, Aug. 15, re Canadian Northern Ry. spur to water front, Port Arthur, Ont.

25561. Oct. 20.—Approving agreement between Bell Telephone Co. and Shamrock & Renfrew Telephone Association, Renfrew, Ont., dated Apr. 1, 1913.

25562. Oct. 23.—Amending order 25256, Aug. 10, re Grand Trunk Pacific Ry. station at Riverhurst, Sask.

25563. Oct. 26.—Dismissing complaint of H. R. Moodie, Golden, B.C., against C.P.R. placing gates and fences at Second St. crossing at Golden.

25564, 25565. Oct. 25.—Approving Great Northern Ry. Standard Freight Tariffs C.R.C. 1251 and 1244, covering rates between stations on lines in B.C.

25566. Oct. 27.—Authorizing Three Rivers Traction Co., to build across C.P.R. Wayagamack spur, in Cap de la Madeleine Parish, Que., trains and cars of both companies to stop and not proceed over crossing until one of trainmen has gone ahead and signalled way clear.

25567. Oct. 25.—Authorizing G.T.R. to build two branches for Toronto-Hamilton Highway Commission, New Toronto, Ont., and to remove existing track.

25568. Oct. 25.—Approving plans and specifications of Bauslaugh Creek drain under G.T.R. in South Norwich Tp., Ont.

25569. Oct. 28.—Authorizing Canadian Northern Ry. to build interchange track for C.P.R. at Moose Jaw to cross Moose Jaw Electric Ry. at Tenth Ave.; to be protected by half interlocking plant and to build transfer track over Main St., and 10th and 11th Aves. and along Home St.

25570. Oct. 27.—Authorizing Lake Erie and Northern Ry. to build interchange track with Toronto, Hamilton and Buffalo Ry. and G.T.R. at Brantford, Ont.

25571. Oct. 26.—Amending order 25483, Sept. 29. The Canadian Northern Ry. location and building of two sidings at Port Arthur, Ont.

25572. Oct. 27.—Relieving C.P.R. from further protection at crossing of Elmhurst Ave., east of Montreal West station, Que.

25573. Oct. 24.—Approving Hull Electric Co.'s plan 150-2-2, showing standard pilots and fenders.

25574. Oct. 27.—Authorizing Canadian Northern Ry. to build extension spur from Winnipeg Transfer Ry. for J. H. Ashdown Hardware Co., Winnipeg.

25575 to 25578. Oct. 27.—Approving Bell Telephone Co. agreements with Massey Station Telephone Co., Oct. 12, 1916; Millbrook Rural Telephone Co., Oct. 14, 1916; Ardrea Telephone Association, Feb. 6, 1915, and Ontario Department of Lands, Forests and Mines, Oct. 12, 1916.

25579. Oct. 27.—Ordering G.T.R. to install improved type of automatic bell at crossing just north of milepost 109, Island Pond and Richmond Subdivision, Ascut Tp., Que.

25580. Oct. 28.—Ordering C.P.R. to erect three-car stock yard at Etzicom, Alta., by June 1, 1917.

25581. Oct. 31.—Authorizing G.T.R. to build spur for Hamilton Steel Wheel Co., Hamilton, Ont.

25582. Oct. 30.—Approving agreement between Bell Telephone Co. and Wilberforce Rural Telephone Co., Renfrew County, Ont., Oct. 19.

25583. Oct. 30.—Relieving C.P.R. from providing further protection at crossing east of Louiseville, Que.

25584. Oct. 31.—Authorizing Mount Royal Tunnel & Terminal Co. to connect temporarily with Jacques Cartier Union Ry. near Jacques Cartier Jct., mileage 5.01, from Dorchester St.

25585. Oct. 30.—Dismissing complaint of C. A. Bowby and others of Port Medway, N.S., alleging excessive rates charged by the Halifax and South Western Ry. from Halifax to Medway station.

25586. Oct. 30.—Ordering C.P.R. to provide automatic bell at crossing of road allowance between Lots 22, Con. 1, and 22, Broken Front Concession, Darlington Tp., Ont.

25587. Oct. 31.—Authorizing C.P.R. to cross the road allowance between Secs. 33 and 34, Tp. 8, R. 30, w. 2 m., and to close road allowance in Sec. 33, Tp. 8, R. 30, w. 3 m., Sask.

25588. Oct. 31.—Authorizing Alberta Public Works Department to build highway crossing over C.P.R. in Sec. 11, Tp. 40, R. 27, w. 4 m.

25589. Oct. 31.—Authorizing G.T.R. to build extension to siding for Brown Grass Rolling Mills Co., New Toronto, Ont.

25590. Oct. 31.—Authorizing Canadian Northern Ontario Ry. to build spur from near Duncan station on its Toronto-Parry Sound Line to a junction with C.P.R. near bridge over West Don River; to connect with C.P.R.; and to cross highway between Lots 5 and 6, Con. 3, York Tp.

25591. Oct. 31.—Approving location of C.P.R. proposed station at Manberries, Alta.

25592. Oct. 31.—Relieving New York Central and Hudson River Rd. from maintaining flagmen at Primeau crossing, 2½ miles north of Chateaugay, Que.

25593. Nov. 2.—Amending order 17324, Oct. 27, 1912, re Niagara, Welland and Lake Erie Ry. crossing of Michigan Central Rd. at South Main St., Welland, Ont., and authorizing N. W. & L. E. R. to cross M. C. R. by a subway crossing Canal Road.

25594. Nov. 2.—Amending order 25499, Oct. 5, re Alberta Public Works Department's highway crossing over C.P.R. in Sec. 12, Tp. 43, R. 10, w. 4 m. Alta., by providing that the work be paid for by the C.P.R.

25595. Nov. 2.—Authorizing Local Improvement District no. 309, Alberta, to build highway crossing over Grand Trunk Pacific Branch Lines Co.'s track in n.w. ¼ Sec. 2, Tp. 31, R. 24, w. 4 m.

25596. Nov. 2.—Authorizing C.P.R. to make a diversion in lieu of road allowance on southern boundary of s.e. ¼ Sec. 31, Tp. 11, R. 6, e.p.m., Man., and to close diverted portion within its right of way.

25597. Nov. 2.—Approving location of C.P.R. proposed station at Glacier, B.C.

25598. Nov. 2.—Ordering C.P.R. to install half interlocker at crossing at St. Vincent de Paul, Que.

25599. Nov. 3.—Authorizing C.P.R. to cross the Government road allowance on southern boundary of s.w. ¼ Sec. 5, Tp. 17, R. 6, w. 2 m., Sask.

25600. Nov. 3.—Authorizing Lachine, Jacques Cartier & Maisonneuve Ry. to expropriate additional lands required for diversion of Comte and Poupart Sts., Montreal.

25601. Nov. 2.—Ordering G.T.R. to make highway crossing over its track on Lot 236, R. 4, Bulstrode Tp., Que.

25602. Nov. 6.—Authorizing G.T.R. to build two spurs for Ogilvie Flour Mills Co., Montreal.

25603, 25604. Nov. 6.—Authorizing Grand Trunk Pacific Ry. to connect its Prince Albert Branch with Canadian Northern Ry. in Prince Albert, Sask., and to maintain same across 6th Avenue East.

25605. Nov. 6.—Extending to Oct. 31, 1917, time within which Kettle Valley Ry. shall fence its line from mileage 22.5 to 30, Penticton to Princetown Branch, B.C.

25606. Nov. 6.—Relieving Michigan Central Rd. from maintaining day and night watchmen at crossing just east of Charing Cross station, Ont.

25607. Nov. 6.—Ordering Grand Trunk Pacific Ry. to appoint station agent at Ruthilda, Sask., by Jan. 1, 1917.

25608. Nov. 3.—Ordering C.P.R. to connect with Saskatchewan Co-Operative Elevator Co.'s siding with Grain Growers' Grain Co.'s siding at Port Arthur, Ont.

25609. Nov. 3.—Authorizing C.P.R. to build spurs for Energite Explosives Co., Horton Tp., Ont.

25610. Nov. 7.—Authorizing Local Improvement District 158, Alberta, to build a highway crossing over the C.P.R. at Ensign, Ont.

25611. Nov. 7.—Authorizing C.P.R. to build a siding 375 ft. long for Standard Steel Co., Hamilton, Ont.

25612. Nov. 7.—Authorizing C.P.R. to build a highway crossing over its tracks between Lots 10 and 11, Ross Tp., Ont.

25613. Nov. 13.—Ordering Windsor, Essex & Lake Shore Rapid Ry. to equip its motor cars and locomotives with pneumatic or other suitable pantograph controlling devices. This order is given more fully on another page in the Electric Railway Department.

25614. Nov. 6.—Ordering Canadian Northern Ry. to erect standard 4th class station at Stanmore Alta., to be completed by Sept. 1, 1917.

25615. Nov. 3.—Authorizing Town of Aurora, Ont., to build interchange track between G.T.R. and Toronto & York Radial Ry.

25616. Nov. 6.—Disallowing notice of cancellation by Dominion Express Co. of rates on fresh and frozen fish covered by Supplement 3 to its tariff C.R.C. 4434.

25617. Nov. 9.—Ordering C.P.R. to build siding and loading platform facilities at Outlook, Sask.

25618. Nov. 10.—Relieving G.T.R. Co. from providing further protection at crossing of Russell Road, 2½ miles east of Ottawa, Ont.

25619. Nov. 11.—Approving agreement between Bell Telephone Co. and North Cavan Rural Telephone Co., operating in Durham Co., Ont., Oct. 27.

25620. Nov. 8.—Amending order 25590, Oct. 3, 1916, which authorized Canadian Northern Ontario Ry. to build spur near Duncan station, on its Toronto-Parry Sound Line, to junction with C.P.R. near the Don River bridge by providing that authority to connect with C.P.R. be subject to the agreement of Oct. 1, 1915.

25621. Nov. 11.—Approving clearances of C.P.R. coaling plant at Ignace, Ont.

25622. Nov. 14.—Authorizing Toronto, Hamilton & Buffalo Ry. to build car ferry slip dock on its own lands fronting on Grand River at Port Maitland, Ont.

25623. Nov. 14.—Authorizing G.T.R. to rebuild bridge 304 over Little River (not navigable), Thornbury, Ont.

25624. Nov. 14.—Rescinding orders 24030, July 28, 1915, and 24266, Oct. 4, 1915, which relieved Toronto, Hamilton & Buffalo Ry. and Wabash Ry. from maintaining watchmen at crossing in Dunnville, Ont.

25625. Nov. 14.—Rescinding orders 24031, July 19, 1915, and 24244, Sept. 30, 1915, which relieved Toronto, Hamilton & Buffalo Ry., G.T.R. and Wabash Ry. from maintaining watchmen at crossing near Diltz, Ont.

25626. Nov. 15.—Relieving C.P.R. from providing further protection at crossing of Superior St., Sault Ste. Marie, Ont.

25627. Nov. 14.—Ordering that wages of watchmen employed by C.P.R. at Dorchester St., Quebec, Que., under order 25473, Sept. 27, be paid half each by city and C.P.R.

25628. Nov. 15.—Authorizing Halifax & South Western Ry. to remove its station agent at Lower Argyle, N.S.

25629. Nov. 6.—Extending to May 31, 1917, time within which G.T.R. may make improvements to freight facilities at Windsor, Ont.

25630. Nov. 15.—Approving agreement between Bell Telephone Co. and Wolford Rural Telephone Co., operating in Grenville and Lanark counties, Ont., Nov. 6.

25631. Nov. 16.—Ordering that wages of watchmen employed at crossing of Colborne St., Brantford, Ont., by Grand Valley Ry. and G.T.R. be paid half by city and half by G.T.R.

25632. Nov. 17.—Approving clearances of G.T.R. siding for Canadian Cartridge Co., Hamilton, Ont.

25633. Nov. 16.—Ordering G.T.R. to install gates operated by day and night watchmen at the crossing of gravel road, Morrisburg, Ont.

25634. Nov. 17.—Authorizing C.P.R. to build siding for Dominion Lumber & Fuel Co., Winnipeg, Man.

25635. Nov. 15.—Authorizing C.P.R. to cross roadway in s.w. ¼, Sec. 31, Tp. 38, R. 2, w.5m., at Benalto, Alta.

25636. Nov. 15.—Approving agreement between Bell Telephone Co. and Dore Bay Telephone Co., operating in Renfrew Co., Ont., Nov. 8.

25637. Nov. 15.—Relieving Canadian Northern Ry. from further protection of crossing of Albert St., Regina, Sask.

25638. Nov. 16.—Extending to Dec. 10, time within which Esquimalt & Nanaimo Ry. shall install automatic bell at crossing of Lampson St., Esquimalt Tp., B.C.

25639. Nov. 16.—Authorizing Canadian Northern Ry. to remove spur to Saskatchewan Gravel & Supply Co.'s premises, near Findlater, Sask.

25640. Nov. 15.—Authorizing Canadian North-

ern Ry. to rebuild bridge over Shell River, near Shevlin, Man.

25641. Nov. 16.—Approving Esquimalt & Nanaimo Ry. bylaw authorizing C. E. E. Ussher, Passenger Traffic Manager, and C. E. McPherson, Assistant Passenger Traffic Manager, C.P.R., to issue tariff of tolls.

25642. Nov. 15.—Authorizing C.P.R. to cross road allowance between Sec. 23 and 24, Tp. 5, R. 6, w.4m., Alta., overhead, with its Weyburn-Sterling Branch.

25643. Nov. 14.—Authorizing Canadian Northern Ry. to take certain G.T.R. lands for railway purposes at Lyn, Ont., and to cross G.T.R. lands and tracks overhead about 1,400 feet west of G.T.R. Manitoba yards, near Brockville, Ont.

25644. Nov. 17.—Dismissing complaint of Lake Superior Paper Co., Sault Ste. Marie, Ont., alleging excessive and unreasonable freight rates charged by Algoma Central & Hudson Bay Ry. Co. on pulpwood in carloads for distances of 75 to 300 miles.

The Hobbs Customs Defalcations.—The C.P.R. employed one Hobbs as customs broker at Montreal, who, by manipulating his books, managed that amounts paid in as duty were applied as customs duties payable by other clients whose cheques he converted to his own use. In this way the balance of unpaid duties by the C.P.R. appeared to amount to about \$30,000 when the discovery was made. Hobbs subsequently died. The Crown sought to recover the amount of the apparently unpaid duties, and the Court of Exchequer found in its favor. The company's appeal against this decision came before the Supreme Court at Ottawa, Nov. 6, when judgment was reversed.

Pere Marquette Rd. Track Competition.—The annual award of the pennant in the maintenance competition has been awarded to the Detroit-Canadian Division, of which J. J. Corcoran, Detroit, Mich., is Superintendent, and R. S. Black, St. Thomas, Ont., is Assistant Superintendent. The difference between the high and low in the competition was only 2½%.

The Canadian Pacific Railway's Roll of Honor.

Alderman, Robert T.	Brush hand	Ogden	Wounded
Anderson, John	Constable	Ft. William	Died of wounds
Casey, Charles F.	Bridgeman	Brandon	Killed in action
Cullen, Stanley L.	Assistant editor	Montreal	Wounded
Davies, Verdon	Frog rivetter	Winnipeg	Killed in action
Donworth, William	Clerk	Montreal	Died of wounds
Duffin, Joseph W.	Trainman	Minnedosa	Killed in action
Fox, Ernest	Stenographer	Montreal	Wounded
Gilson, John	Wiper	Wilkie	Wounded
Gordon, Henry H.	Material delivery man	Toronto	Wounded
Gwatkins, George V. C.	Chief clerk	Toronto	Wounded
Hain, David	Clerk	Winnipeg	Believed dead
Hamilton, James A.	Conductor	Brandon	Killed in action
Jamison, David	Car checker	Calgary	Killed in action
Kingsbury, C. E. J.	Locomotive fireman	Winnipeg	Suffering from shock
Laing, Charles	Chief Clerk	Regina	Killed in action
McGregor, Peter Roy	Car repairer	Regina	Died of wounds
McIlhagga, Joseph	Waiter	Frank	Wounded
McInnes, Harry	Locomotive fireman	Montreal	Wounded
McKeever, Richard	Laborer	Souris	Killed in action
Masterton, Allan G.	Constable	Outremont	Died of wounds
Miller, Christian G.	Clerk	Quebec Distric	Wounded
Osler, Ralph F. L.	Fireman	Penticton	Died of wounds
Patterson, John C.	Watchman	Montreal	Wounded
Peterson, George	Clerk	Banff	Wounded
Russell, Edward	Boilermaker's Helper	Montreal	Killed in action
Shearer, James	Car Cleaner	Winnipeg	Killed in action
Slattery, Edward	Land inspector	Glen Yard	Wounded
Steedman, John James	Assistant storekeeper	Calgary	Wounded
Taylor, Robert	Locomotive engineer	Winnipeg	Killed in action
Thoreson, Theodore	Storeman	Alyth	Wounded
Wilcox, John		Angus	Wounded

The following casualties to members of the European Staff, on active service, has been reported:

Adlington, Frank	Clerk	Liverpool	Killed in action
Carey, Geoffrey N.	Clerk	London	Wounded
Duffy, Michael L.	Chief clerk	London	Wounded
Gillespie, John G.	Clerk	Glasgow	Killed in action
Tunstall, George	Junior clerk	Liverpool	Died of wounds

Railway Mechanical Methods and Devices.

Oxy Acetylene Welding in Montreal Tramways Co's Shops.

Oxy acetylene welding is being used to very great advantage in the Montreal Tramway's Co.'s shops at Youville, Montreal, and many worn parts and castings that would otherwise be scrapped are

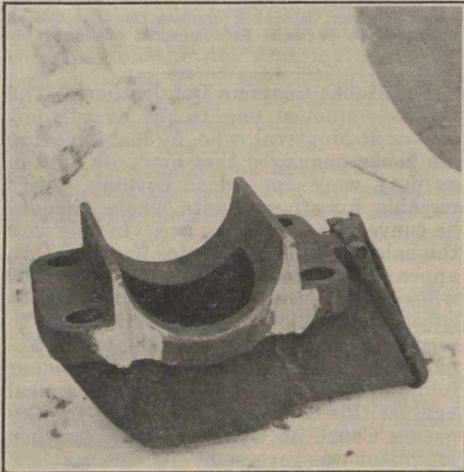


Fig. 1. Repairs to Worn Shoulder on Axle Bearing Cap.

built up, giving longer service. Fig. 1 illustrates the building up of the shoulder on an axle bearing cap which acts as a key to prevent the axle bearing from turning. From the excessive vibration to which motors are subject, these shoulders become worn, allowing the bearing to loosen. The corners are filled up with new metal and machined out to the origi-

to standard dimensions, although on the shaft shown in the illustrations the journal has not been touched.

Fig. 3 shows a crank case. Although they are not subject to an excessive strain, and rarely break, it will serve as an example of the many uses and odd jobs to which the welding process adapts itself. This case was cracked in two



Fig. 2. Repairs to Armature Shaft.

places and a new one would have cost many times the price of repairing.

Perhaps the largest saving occurs in the repairing of truck and motor frames. These large steel castings, with a great deal of machining, are very expensive. The work shown in progress in Fig. 4 is a Westinghouse 101 motor frame, from which the long gear case lug has been broken. A new end is lined up with two bars to register the holes properly and then welded to the frame, which has previously been cut off by the torch to the correct length.

Among other routine jobs in equipment maintenance for which the welding process is used at the Youville shops are filling worn dowel holes in bearing caps, repairing cracks in motor and truck frames, renewing wearing points of steel brake heads, filling worn pedestals of

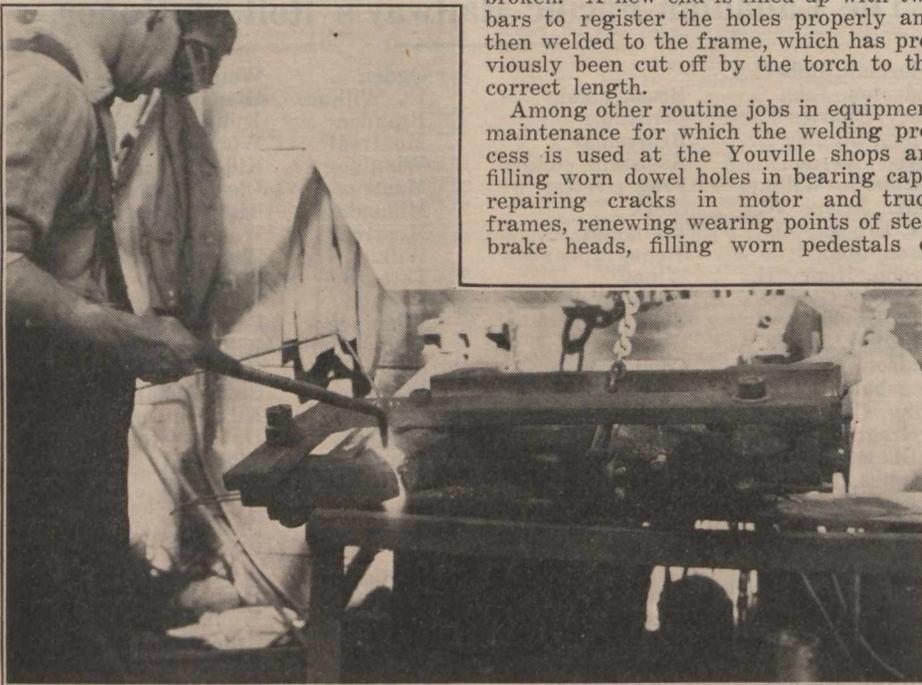


Fig. 4. Welding New Gear Case Lug on Motor.

nal dimensions, thus saving an expensive casting.

Fig. 2 shows an armature shaft on which a new pinion fit has been built up, which is a very frequent job on the older types of motors. They become worn from frequent changing of pinions, and occasionally from loose pinions. Frequently the journal also is built up and re-turned

truck and journal boxes, filling bolt holes where they have to be re-drilled. There are also many details of shop and manufacturing work which can be done by the welding process much cheaper than by any other method. We are indebted for the foregoing information and the photographs to Keith MacLeod, Engineer of Equipment, Montreal Tramways Co.

Locomotive Flange Oiling to Save Rail Wear on Curves.

A committee report presented at the Traveling Engineer's Association's annual meeting recently calls renewed attention to the advantages of flange oiling of locomotive driving wheels in saving

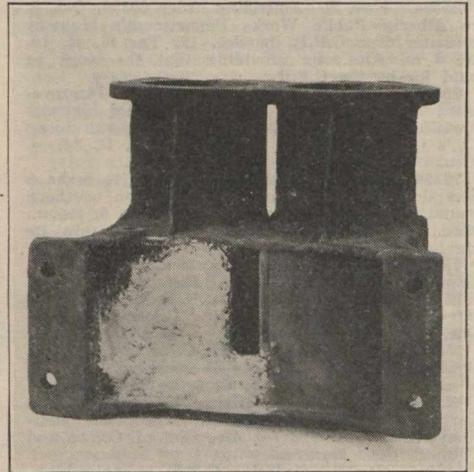


Fig. 3. Repairs to Air Compressor Crank Case.

rail wear. The committee states that on the Erie Rd.'s New York, Susquehanna & Western Division the rail wear on curves has been reduced two-thirds by the use of flange oilers on the locomotives. The committee also believes it to be fully demonstrated that the flange oiler tends to prevent derailments. A number of railways reported that before applying flange oilers they had considerable trouble with wheels climbing the rails on sharp curves, but this trouble has been eliminated since flange oilers have been applied.

For success in the use of the flange oiler a very heavy asphaltum oil must be used. The oil should contain 40 to 60% of asphaltum in solution and be low in grease and paraffin. This heavy oil acts as a lubricant between the wheel flange and the head of the rail when a lighter oil would be forced out. Further than this, the heavy asphaltum sticks to the flange and will not work over on to the tread of the driving wheel, as will an oil with a paraffin base.

From an operating point of view, the saving in tire turning is even more important than the saving in rail wear. The committee estimates that the cost of tire metal used up, labor and loss of locomotive service every time a 6-driver locomotive has to go to the shop for turning tires on account of sharp flanges represents an outlay of \$219. The committee also states that where freight locomotives not equipped with flange oilers will run 9,000 to 12,000 miles before requiring shopping to have their tires turned, they will run between 25,000 and 42,000 before shopping if equipped with flange oilers. In passenger service, locomotives that have to be shopped every 15,000 to 25,000 miles should run 60,000 to 80,000 miles if equipped with flange oilers.

Foley, Welch & Stewart, railway contractors, Vancouver, B.C., have denied that they have contracted with the Russian Government for the construction of 3,000 miles of railway, as reported from Ottawa recently.

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

Cascade Scenic Ry.—We are officially advised that the surveys for this projected railway have been completed, and that it is the present intention to start construction early in next spring. T. C. Deacon, M.Can.Soc.C.E., Winnipeg, is the person principally interested. (Sept. 1915, pg. 348.)

Dominion Government Ry. to Hudson's Bay.—Construction on the railway from Pas to Port Nelson, Man., is reported suspended for the winter. Track has been laid to the Kettle Rapids of the Nelson River, 330 miles from Pas. During the winter, however, work will be gone on with on the erection of the bridge at Kettle Rapids, and upon another bridge further on. It is expected to lay track to Port Nelson early next summer. Work on the terminals at Port Nelson is also reported to have been suspended for the winter. (Nov. pg. 447.)

Esquimalt & Nanaimo Ry.—R. Marpole, Vice President, E. & N.R., and General Executive Assistant, C.P.R., is reported to have said in Victoria, B.C., Nov. 11, with reference to the Johnson St. bridge matter, that the C.P.R. intended to administer the railway as it found conditions, and was not going to be driven from what was thought right by a desire to cater to Victoria civic politics. Pressure had been brought to bear upon the company to modify the terms of participation in the scheme. The company's stand had always been definite and specific and it was not its fault that there had been delays and changed policies. The question at issue has to do with the provision of general traffic facilities at the E. & N.R. Johnson St. bridge, in connection with the opening up of the Songhees reserve for railway and general purposes. The city desires that these facilities be provided, and is trying to have the matter arranged.

Grand Trunk Ry.—G. Mountain, Chief Engineer, Board of Railway Commissioners, visited Brantford, Ont., Oct. 27, to inspect several crossings over the G.T.R. which the city is desirous to have eliminated. Arrangements were made for the reduction of speed of trains at the Market St. crossing; the erection of a semaphore at the Clarence St. crossing, the maintenance of which is to be apportioned between the city and the company by the Board of Railway Commissioners; and for the putting in of a subway at the St. Paul's Ave. crossing, provided the Board decides that this is the only way protection can be given. (Nov., pg. 447.)

The timber overhead bridge at Watford, Ont., is being replaced by a steel structure. In connection with this work there is a considerable amount of grading and filling to be done.

Great Northern Ry.—A U.S. press report states that the G.N.R. is considering plans for the electrification of its lines running into Vancouver, B.C., as well as other lines in Washington. So far only an official statement has been made in respect of the lines converging on Seattle, Wash. This work is expected to take three years to carry out, and it is stated that hydro electric power will then be developed in the Hope Valley district for use on the lines converging on Vancouver.

It is expected that the company's new station building on the False Creek flats, Vancouver, will be ready for occupancy, April 1. The building is 375 ft. east of Main St., and just north of the Main St.

bridge. It is an L-shaped structure, the main building being 230 x 61 ft., and the bottom of the L being a one story building in which will be located the baggage room, mail room, express office, trainman's room, etc. East of this again will be the boiler house, which will supply heat to the whole building. The main building faces Main St., and the centre part, 100 x 60 ft., will form the general waiting room and will be the full height of the building. Each of the wings, 65 x 50 ft., will be two stories high. The ground floor will be devoted to the necessary public purposes of a terminal station, and the upper floors will be offices for the G. N. R. and the Northern Pacific Ry., which will use the building jointly. The building will be of reinforced concrete faced with pressed brick, and with terra cotta trim. The main waiting room will lead out to a covered concourse the whole length of the building, giving access to 11 sets of tracks. (Nov., pg. 447.)

Intercolonial Ry.—We are officially advised in respect to a press report that a second track was being built on the main line between Cortland St. and the National Transcontinental Ry. yard at Moncton, N.B., that what is being done can hardly be called a double tracking of the line. The line being laid is intended to be used as a switching lead between the Moncton yard and the N.T.R. yard, a distance of 2,800 ft. The work is being done by the Government Railway forces, and it is expected it will be finished by Dec. 15.

A press report states that two or three new sidings are to be laid on Ballast Wharf, St. John, N.B.

We are officially advised that the contract for the construction of the substructure of the new grain elevator at the St. John, N.B., terminals has been let to Engineers and Contractors, Ltd., Moncton, N.B. (Nov., pg. 447.)

Lachine, Jacques Cartier & Maison-neuve Ry.—Application is being made to the Dominion Parliament for an extension of time for the construction and completion of the line authorized by sec. 1, chap. 93 of the statutes of 1914. This company is a G.T.R. subsidiary, and W. H. Biggar, K.C., is solicitor for the applicants.

Pacific Great Eastern Ry.—Various reports state that track laying is being proceeded with from Clinton north-easterly, and that grading and other work is in progress from Squamish to Fort George, B.C. This is the section of the line which it is desired to complete as early as possible. Track was laid into Clinton in 1915, and trains from Squamish have since been in operation. With some small exceptions the grading was completed into Fort George. It is not, however, expected to have the track laid to Fort George this season.

A press report states that a contract has been placed in the United States for the delivery early in 1917 of 27,000 tons of steel rails.

We are officially advised that the following buildings are being erected this year:—At Squamish, locomotive repair shop, 80 x 150 ft.; frame construction with concrete pits; store houses, 60 x 80 ft., frame construction; track scales, 50 ft. platform, timber supports, concrete foundations. At Lillooet—four stall locomotive house and bunk house, 24 x 56 ft., both of frame construction. In addition to these frame section houses are to be

erected at Squamish, mileage 25.26; Mons, Pemberton, Birken, D'Arcy, Shalalth, Lillooet, Parilhon, Lough Rayman and Clinton. (Nov., pg. 447.)

Prince Edward Island Ry.—It is reported in Charlottetown, P.E.I. that it is expected to have the car ferry connection between P.E.I. and the New Brunswick mainland ready for operation by Dec. 31. The car ferry terminals are at Carleton Point, P.E.I., and Cape Tormentine, N.B. The apron at the dock at the latter point was reported practically completed Nov. 9, and everything was ready for the installation of that at Carleton. Sidings and other accommodation at Cape Tormentine are well advanced to completion, and at Carleton, both standard and narrow gauge tracks have been laid on the landing pier. The standard gauge cars will be run on to the pier, for loading and unloading to and from the P.E.I.R. narrow gauge cars during the changing of the gauge to the standard.

Peace River, McKenzie & Copper Mine River Ry.—Application is being made to the Dominion Parliament for the incorporation of a company with this title to build a railway from Sawridge, on the Edmonton, Dunvegan & British Columbia Ry., north of the east end of Lesser Slave Lake, to Buffalo Lake, thence on the south side of Peace River to Vermillion and the Chutes, crossing the river at the falls and continuing northerly to the foothills of the Caribou Mountains, then northeasterly to the Little Buffalo River, and on by the valley of that and the Salt River to Bell's Rock, on Great Slave Lake, about 50 miles. Pringle, Thompson, Burgess & Cote, Ottawa, are solicitors for the applicants.

Quebec & Saguenay Ry.—When work was stopped on this line from the point of junction with the Quebec Ry., Light & Power Co.'s Ry. at Cap Tourmente, Que., in 1912, the line was about 95% graded to Pointe au Pic, near Murray Bay, Que., 50 miles. Since that date considerable washouts and slides have occurred, and these will have to be repaired before any tracklaying can be done. The contractors are now at work on the track where these washouts and slides took place. The line being now about to become Government property, the ties for the line, to which reference was made in our November issue, are being purchased through R. W. Simpson, General Fuel and Tie Agent, Canadian Government Railways. Tenders for track and switch ties, according to the C.G. Ry.'s specifications, have been called. The construction work on the line is being carried out under the charge of A. Dick, Division Engineer, Quebec.

The line starts at Cap Tourmente, 30.5 miles from Quebec, which mileage has been acquired from the Quebec Ry., Light & Power Co., and extends to Nairn's Falls. Track has been laid on the line from Pointe au Pic to Nairn's Falls, 7.31 miles, leaving the 50 miles from Cap Tourmente to Pointe au Pic to be completed. (Nov., pg. 447.)

St. John and Quebec Ry.—The section of this railway now under construction from Gagetown to Westfield, N.B., runs down the St. John River Valley, about 200 yards from the right bank of the river. The connection with the C.P.R. near Westfield is below Pamomkeag, at Westfield Beach. A supply line of railway has been built from Westfield Beach to the Nerepis River. The contractors and sub-

contractors engaged on the work are:— Kennedy and MacDonald, Westfield, N.B.; Smith and Matthew, Westfield; Poupore Brothers, Quebec; O’Gorman and Lynch, Gagetown; Loney Brothers; Chisholm and McDonald; G. Kennedy; S. Herbert Mayes, St. John, N.B.; R. Roberts and Son, St. John. (Nov., pg. 447.)

Toronto City Industrial Sidings.—A general rearrangement of industrial spur tracks in the industrial area which is being developed east of Cherry St., Toronto, under the Toronto Harbor Commissioners’ plans has been approved by the Board of Railway Commissioners. The plans provide for the removal of the existing line from the corner of Lake and Cherry Streets, southerly alongside Cherry St., and easterly across the Don River to a

junction with the tracks laid under the Board of Railway Commissioners’ order of Sept. 9, 1915, together with all sidings and spurs along the route. This is to be replaced by a new line, so arranged as to give one line along the front of the sites at present occupied for industrial purposes, and another along the western front of the Don diversion channel, with connecting sidings and industrial spurs. The greater part of the work is to be done at once, but provision is made for putting in two additional connections between the two frontages as they may be required upon development of the property. The total length of track covered by the plan is about two miles. E. L. Cousins is Chief Engineer and Manager for Toronto Harbor Commissioners.

operating in Quebec it made four round trips daily, or a total of 175 miles, and the actual operating cost was 16c. a mile, exclusive of repairs. The car was fully described and illustrated in Canadian Railway and Marine World for April and May.

Proposed Postponement of Toronto Railway Viaduct.

A proposition was laid before the Toronto City Council recently by the railway companies interested with respect to the water front viaduct, the building of which has been directed by the Board of Railway Commissioners. It was suggested that the carrying out of the board’s order be suspended for 15 years, and that certain bridges be built which would eliminate dangerous crossings. The railways state that the saving of interest charges on the cost of the construction of the viaduct for 15 years would more than pay for the work which it is proposed to do at present. At the expiration of the period the temporary bridges could be scrapped and the plans as approved by the Board of Railway Commissioners carried out.

The proposal of the Toronto Terminals Ry., which has the matter in hand for the C.P.R. and the G.T.R., was as follows:— “We will build at our own expense overhead bridges over the tracks on Bay and Yonge Sts. and connect these by a viaduct running at right angles to them on Lake St., so that the cars could run down one street and come up another, and we will also reconstruct the York St. bridge to adapt it for street railway traffic, if the city will consent to an amendment to the viaduct order striking out the time for commencing and completing the structure and all other details in connection with it.”

The reason given for desiring a postponement of the work was that of financing such a big project. The erection of the new union station involves the expenditure of \$7,000,000, and money is required for other works on the different lines in Canada. It is also urged that conditions are not favorable for the city to finance the expenditure it would have to incur in connection with the carrying out of the viaduct plans.

The proposition as outlined to the city council is to build three bridges from Front St down York St., Bay St. and Yonge St., to the proposed marginal way which the Toronto Harbor Commission proposes to construct. The bridge at York St. would be a continuation of the existing structure, but the other two would be entirely new. The gradients proposed would be less than 3%.

The Timiskaming & Northern Ontario Railwaymen’s Patriotic Association contributed as follows, for patriotic purposes, up to Aug. 31,—subscriptions to Red Cross, \$8,973.92; to Canadian Patriotic Fund, \$15,974.79, and donations to enlisted employes, \$7,785.43, a total of \$32,734.14. These amounts are additional to many personal subscriptions for considerable amounts made direct by members of the Commission and employes.

M.C.B. Tank Car Specifications.—Owing to labor difficulties and to delays in deliveries of materials, the Master Car Builders’ Association’s executive committee has extended the time for the coming into force of the Association’s tank car specifications for class 3 and 4 tank cars, for 60 days, the effective date now being Mar. 1, 1917.

Railway Rolling Stock Notes.

The C.P.R. has received 104 box cars from its Angus shops.

The Canadian Northern Ry. has received 150 box cars from Haskell & Barker Car Co.

Canadian Government Railways have received one steel sleeping car from National Steel Car Co.

The Eastern Car Co. is shipping the first delivery of 300 box cars for the Paris & Orleans Ry. of France.

The Michigan Central Rd. has received 150 steel underframes, 50 tons capacity, for flat cars, from Canadian Car & Foundry Co.

The Minneapolis, St. Paul & Sault Ste. Marie Ry. has ordered 800 box cars and 200 automobile cars from Haskell & Barker Car Co.

The Michigan Central Rd. is reported to have placed orders for 6,750 freight cars, at an approximate total cost of \$9,000,000.

The C.P.R. is said to be contemplating building or ordering some Pacific type locomotives which will be the largest in Canada.

The Delaware & Hudson Co. is in the market for 118 steel underframes for hopper cars, 25 steel underframes for stock cars and 25 for refrigerator cars.

It is reported that the Russian Government is expected to place additional contracts shortly for 400 decapod locomotives, and that about 60 of them will be built in Canada.

Sir John Eaton, Toronto, has received a new private car built by Pullman Co., Chicago. It is named Eatonia, the same as his former car, which was burned some little time ago.

The Italian State Railways have ordered, in the United States, 40 consolidated locomotives, with cylinders 21¼ x 27½ in., driving wheels 53½ in., and a total weight, equipped with superheaters, of 147,000 lbs.

The Minister of Railways has announced that arrangements have been made for the conversion of a number of passenger cars into hospital cars for use on the Intercolonial Ry., for transporting the more serious cases of wounded soldiers from the seaboard to convalescent homes and hospitals.

Six Mallet locomotives, built by the C.P.R. at Angus shops, Montreal, 1 in 1909 and 5 in 1911, and all of which have been in service in the British Columbia mountains, are, on account of their high cost of maintenance, being rebuilt at Angus shops into 2-10-0 decapods, 2 having

been completed and 3 more being under way. Their numbers will be 5750 to 5755.

The British Government has increased to 395 an order placed in the U.S. recently for 45 narrow gauge, 4-6-0 tank locomotives, and it is reported that it is also increasing another order placed in the U.S. for 100 tank locomotives, 2-6-2 type, to make the total number to be built 200 or 250.

The Russian Government is reported to have ordered 20 decapod locomotives from Canadian Locomotive Co., 40 from American Locomotive Co., and 40 from Baldwin Locomotive Works. The enquiries originally covered 600 locomotives, and it is anticipated that further orders will be placed later.

A Paris press dispatch says the shortage of freight cars was discussed in the Chamber of Deputies, Nov. 14, when Colonel Gassouin, head of the War Ministry’s railway branch, said the delivery of cars which had been ordered had been delayed, but that it was expected 2,000 cars would be received monthly. Other measures were also being taken to improve the freight car service.

The Quebec Central Ry. has ordered 100 wood box cars, 30 tons capacity, from Canadian Car & Foundry Co. They are being built at Amherst, N.S. Following are the chief details:—

Length over end sills	36 ft. 9¾ ins.
Width over side sills	9 ft. 0¾ ins.
Width inside	8 ft. 6¼ ins.
Length inside	36 ft.
Height, top of floor to under side of carline.	8 ft.
Height, top of rail to top of running board	13 ft. 3¾ ins.
Height, top of rail to centre line of coupler	2 ft. 10½ ins.
Side door opening	7½ by 6 ft.
Bolsters	Simplex
Couplers	M.C.B. 5 by 5 in. shank
Draft gear	Tandem spring
Air brakes	Westinghouse
Trucks .. 30 tons standard diamond arch bar type	
Wheels	M. C. B. 33 ins.
Axles	M.C.B. 4¼ by 3 in. journal
Journal bearings	M.C.B. lead lined
Journal boxes	M.C.B. cast iron
Brake beams	Simplex
Brake shoes	M.C.B. cast iron

The gas-electric car which the Canadian Northern Ry. is putting on the line on Vancouver Island, between Patricia Bay and Victoria, was formerly operated on the Quebec & Lake St. John Ry., between Quebec and Lake St. Joseph. It is self propelled by electric motors on the forward truck, receiving their energy direct from a 375 h.p. generator in the forward compartment of the car, direct connected to a 6 cylinder gas engine. The car is 54 ft. long, with seating capacity for 76 passengers, and it is capable of attaining a speed of 55 miles an hour. When

Mainly About Railway People Throughout Canada.

Mrs. Sinclair, wife of Angus Sinclair, railway contractor, Toronto, died there, Nov. 2, after a long illness.

Lord Shaughnessy had luncheon with the King and Queen, Nov. 21, and took his seat in the House of Lords, Nov. 23.

Lady Van Horne has closed her summer home, Covenhoven, St. Andrews, N.B., and with Miss Van Horne has returned to Montreal.

Chas. T. O'Neal, formerly Superintendent, Lehigh Valley Rd., Buffalo, N.Y., has been appointed General Superintendent at South Bethlehem, Pa.

John Smithers, a well known stock broker, who died in London, Eng., Nov. 17, aged 76, was brother of A. W. Smithers, Chairman, G.T.R.

Miss Winifred B. Goodchild, daughter of A. A. Goodchild, General Storekeeper, C.P.R., Montreal, was married there Nov. 8, to C. W. Byers, of Winnipeg.

J. Murray Gibbon, General Publicity Agent, C.P.R., gave an address on immigration and the electrical industry at the Montreal weekly electrical luncheon, Nov. 8.

H. G. Barber, formerly Resident Engineer, C.P.R., Nelson, B.C., is now a lieutenant in the 239th Battalion Overseas Railway Construction Corps, Canadian Expeditionary Force.

A. McNabb, station agent, G.T.R. Peterborough, Ont., was presented with an address and a travelling outfit by the local staff, Nov. 2, on resigning to enter private business.

Hugh Sutherland, Executive Agent, Canadian Northern Ry., Winnipeg, who has been in New York for several months past, will it is said spend the winter in Bermuda with Mrs. Sutherland.

D. B. Hanna, Third Vice President, Canadian Northern Ry., has resigned as a director of the London & Canadian Loan & Agency Co., in consequence of his many other business engagements.

A. S. Goodeve, member of the Board of Railway Commissioners, accompanied by Mrs. Goodeve, sailed for England, Nov. 9, to meet their daughter in London, on leave from nursing duties at Salonica.

Mrs. F. C. Salter, wife of the European Traffic Manager, G.T.R., and Canadian Express Co., London, Eng., arrived in Canada recently, with her two sons, the elder of whom is to complete his education in Canada.

G. W. Curtis, Industrial Agent, C.P.R., Montreal, has enlisted in the Royal Flying Corps, and will be leaving shortly for England. He has been in C.P.R. service for about 12 years, for 4 of which he was Industrial Agent at Montreal.

Lieut. T. A. Hiam, formerly secretary to Sir Donald Mann, Vice President, Canadian Northern Ry., who has been Assistant Adjutant of the 198th Battalion, Canadian Expeditionary Force, has been appointed Paymaster, with rank of Captain.

S. J. McLean, member of the Board of Railway Commissioners, has been admitted to the Ontario bar. Owing to his exceptional experience and qualifications in his capacity as commissioner, he had been exempt from serving the usual period in a legal office.

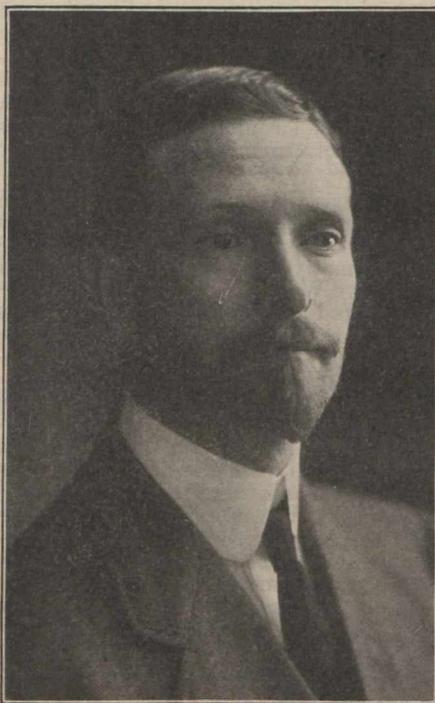
Capt. G. A. E. Bury, of Winnipeg, son of George Bury, Vice President, C.P.R., who went overseas with the 116th Light

Infantry, was for 8 months at the front, and was in June last appointed Deputy Adjutant Quartermaster General of the Training Division, has been promoted to Major.

John Hendry, at one time President, Vancouver, Westminster & Yukon Ry. Co., who died at Vancouver, B.C., recently, left an estate which was valued at about \$1,250,000, the net value being \$725,783.83. Shares held in the V.W. & Y.R., to the number of 25,020, are given as of no value.

H. McEwen, Superintendent, Prince Edward Island Ry., Charlottetown, P.E.I., has retired after 42 years service. He entered P.E.I.R. service May 14, 1875, as station master at Mount Stewart, and was appointed dispatcher in Feb., 1892, Chief Dispatcher in May, 1899, and Superintendent, May 1, 1912.

R. A. C. Young, who has been Superin-



William Phillips
Freight Traffic Manager, Eastern Lines, Canadian Northern Railway.

tendent, Canadian Northern Transfer Co., Ltd., Montreal, since its formation, and who is now a lieutenant and acting Quartermaster in the 5th Royal Highlanders first reinforcing company, was entertained at dinner in Montreal on Nov. 4 by some forty C.N.R. officials and other friends, Guy Tombs, General Freight Agent, presiding.

E. W. Delano, who has been appointed Division Engineer, Lake Superior District, Canadian Northern Railway, Capreol, Ont., was formerly Assistant District Engineer on the construction of the C.N.R. Montreal-Port Arthur line, at Port Arthur, Ont., and on completion of construction, took up engineering work in the U.S. Immediately prior to his present appointment he was in the Bangor & Aroostook Ry. Engineering Department.

Robert H. Fish, who has been appointed Superintendent, Stratford Division, Ontario Lines, G.T.R., Stratford, was born at Oakville, Ont., in 1871, and entered G.T.R. service in 1890, since when he has been, to 1900, locomotive fireman;

1900 to Oct. 1, 1908, locomotive man; Oct. 1, 1908, to Jan. 23, 1913, Road Foreman of Locomotives, London, Ont.; Jan. 23, 1913, to Nov. 14, 1916, Trainmaster, Districts 20 and 21, Ontario Lines, Brantford, Ont.

Robert Gordon Holmes, who has been appointed Assistant General Freight Agent, Western Lines, C.P.R., Winnipeg, was born there June 9, 1881, and entered C.P.R. service Sept. 5, 1898, since when he has been, to May 1, 1899, junior clerk; May 1, 1899, to Jan. 1, 1901, register clerk; Jan. 1, 1901, to Apr. 1, 1902, stenographer; Apr. 1, 1902, to Dec. 1, 1903, statistical clerk; Dec. 1, 1903, to May 1, 1905, tariff compiler; May 1, 1905, to Jan. 1, 1909, chief clerk, Tariff Bureau; Jan. 1, 1909, to Oct. 1, 1916, Chief of Tariff Bureau; all service at Winnipeg.

Charles Thomas Stanger, who has been appointed acting District Freight Agent, C.P.R., Saskatoon, Sask., was born in Rutland, Eng., May 11, 1887, and prior to coming to Canada in 1909, was for six years freight clerk at various points in England, in London & North Western Ry. service. He has been, from Mar. 1, 1909, to May 1, 1911, stenographer, C.P.R., Edmonton, Alta.; May 1, 1911, to Dec. 1, 1912, successively, rate clerk, Travelling Freight Agent, and chief clerk to District Freight Agent, C.P.R., Calgary, Alta.; Dec. 2, 1912, to Mar. 30, 1916, Travelling Freight Agent, C.P.R., Regina, Sask.

Aubrey Cecil Barker, whose appointment as acting Superintendent of Telegraph and Time Service, Intercolonial Division, Canadian Government Railways, Moncton, N.B., was announced in our last issue, was born at Lacadie, Que., Aug. 5, 1878, and entered railway service Oct. 1, 1895, since when he has been, to Apr., 1900, agent and operator, at various points, Eastern Division, C.P.R.; May, 1900, to Oct., 1913, dispatcher, and Chief Dispatcher, consecutively, Lake Superior Division, C.P.R., Chapleau, Ont.; Oct., 1913, to Oct., 1916, Inspector of Stations, Trains and Train Dispatching, Canadian Government Railways, Moncton, N.B.

Sir Eric Geddes has been appointed by the British Secretary of State for War, Director General of Military Railways. He acts as Deputy to the Quartermaster General in matters affecting transport services, and also directs and organizes such services in France under the General Officer Commanding in Chief. He was formerly Deputy General Manager of the North Eastern Ry., England, and is a Lieutenant-Colonel in the Engineer and Railway Staff Corps. A younger brother, Brigadier General A. C. Geddes, who is Director of Recruiting, was, prior to the war, Professor of Anatomy, McGill University, Montreal.

Charles Forrester, who has been appointed Superintendent, London Division, Ontario Lines, G.T.R., London, was born at Wanstead, Ont., Mar. 5, 1876, and entered G.T.R. service July 15, 1891, since when has been, to Aug. 23, 1899, operator at various points in the Middle Division; Aug. 23, 1899, to Aug. 20, 1906, dispatcher, London, Ont.; Aug. 20, 1906, to Oct. 20, 1907, Night Chief Dispatcher, London, Ont.; Oct. 20, 1907, to July 1, 1910, Chief Dispatcher, London, Ont.; July 1, 1910, to Jan. 22, 1913, Trainmaster, Stratford, Ont.; Jan. 22, 1913, to Nov. 14, 1916, Superintendent, Stratford Division, Ontario Lines, Stratford.

George R. Cunliffe, who has been appointed Superintendent, District 3, West-

ern Division, Canadian Northern Ry., Edmonton, Alta., commenced railway service as brakeman, Buffalo Division, G.T.R., and from 1882 to Mar, 1883, was brakeman, C.P.R., Winnipeg; Mar., 1883, to Sept., 1884, conductor, C.P.R., Winnipeg; Sept., 1884, to June, 1887, conductor, Port Arthur, Ont.; June, 1887, to Dec., 1892, conductor, C.P.R., Medicine Hat, Alta.; 1893 to 1898, in Great Northern Ry. service at Spokane, Wash.; 1898 to 1903, not in railway service; 1903 to Sept., 1907, conductor, Canadian Northern Ry., Winnipeg; Sept., 1907, to Nov. 1, 1916, Trainmaster, C.N.R., Brandon, Man.

R. L. Latham, Chief Engineer, Toronto, Hamilton & Buffalo Ry., Hamilton, Ont., who has also been appointed Vice President in charge of maintenance, Toronto, Hamilton & Buffalo Navigation Co., was born at Toronto, Nov. 20, 1876, and graduated in civil engineering from the School of Practical Science in 1899, taking the degree of B.A.Sc. in 1901. During portions of 1898, 1899 and 1900 he was engaged in the City Engineer's office, Toronto, and on re-location surveys for the C.P.R. Ontario Lines, and entered T.H. & B.R. service, May 1, 1901, as Assistant Engineer, which position he held until his appointment as Chief Engineer in Oct., 1909.

B. J. Farr, whose appointment as Master Mechanic, Western Lines, G.T.R., Battle Creek, Mich., was announced in our last issue, entered railway service July 1, 1893, with the Central Vermont Ry., St. Albans, Vt., as a machinist apprentice, and was subsequently Erecting Shop Foreman, Locomotive Foreman and General Foreman there, resigning in 1907 on his appointment as Master Mechanic, Northern Ry. of Costa Rica. From 1909 to 1914 he served on the Panama Ry. during the construction of the Panama Canal, and on Jan. 1, 1915, was appointed General Foreman, Western Lines, G.T.R., Battle Creek, Mich., which position he held to the date of his present appointment.

His Honor David MacKeen, Lieutenant Governor of Nova Scotia, who died at Halifax, Nov. 13, was born at Mabou, N.S., Sept. 20, 1839, and was intimately connected with commercial, banking and manufacturing interests for many years. In his early life he was agent and treasurer of the Caledonia Coal & Ry. Co., and later was General Manager of the Dominion Coal Co., resigning that position in 1896, but remaining for some time as a director. He was at various times a director of the West India Electric Co., Royal Bank, Eastern Trust Co., Dominion Iron & Steel Co., and Demarara Electric Co.; President, Halifax Electric Tramway Co., and was a Governor of Dalhousie University. He was M.P. for Cape Breton from 1887 to 1896, and a Senator from 1896.

Kenneth deSola Joseph, who has been appointed acting Assistant Superintendent, Bruce Division, Ontario District, C.P.R., Toronto was born at Quebec, Que., Oct. 6, 1892, and entered C.P.R. service May 6, 1910, since when he has been, to Aug. 31, 1912, chain man, Marquette, Man.; May 1, 1913, to Nov. 15, 1915, transportation student, following the special course of training in connection with the engineering course at McGill University, except from Nov. 1, 1913, to Apr. 1, 1914, when he was telegraph operator on the Lake Superior Division; Nov. 15, 1915, to June, 1916, Assistant Trainmaster, District 1, Atlantic Division, Brownville Jct., Me.; June to Oct. 16, 1916, acting Trainmaster, District 1, Ontario Division, Havelock, Ont.

George Stephen, who has been appointed Freight Traffic Manager, Western Lines, Canadian Northern Ry., Winnipeg, was born at Montreal, July 5, 1876, and entered railway service in 1889, since when he has been, to 1899, clerk, C.P.R.; 1899 to 1900, chief clerk to Assistant General Freight Agent, C.P.R., Winnipeg; 1900 to 1901, Travelling Freight Agent, Manitoba Lines, C.P.R.; 1901 to 1903, Contracting Freight Agent, C.P.R., Nelson, B.C.; 1903 to Jan., 1907, chief clerk to General Traffic Manager, Canadian Northern Ry., Winnipeg; Jan., 1907, to May, 1909, Assistant General Freight Agent, C.N.R., Winnipeg; May, 1909, to Dec. 31, 1915, General Freight Agent, C.N.R., Winnipeg; Jan. 1 to Nov. 6, 1916, Assistant Freight Traffic Manager, Western Lines, C.N.R., Winnipeg.

William McWood, who died at Montreal recently, after a prolonged illness, was born there in 1830, and served an apprenticeship with John Thornton, coach builder, there. He entered G.T.R. service in 1855, and from 1860 to 1873, was Fore-



Allan Purvis
General Superintendent, Ontario District, Canadian Pacific Railway.

man, Car Department. In 1873 he was appointed Assistant Mechanical Superintendent, with charge of the Car Department of the system, and continued in that position, with a change of title to Superintendent of Car Department, towards the latter end of his service, until his retirement under the provisions of the pension rules, Jan. 1, 1908, after 52 years of service. He was a member of the Master Car Builders' Association from 1875, having taken an active part in its organization. He was Vice President of the association from 1882 to 1887, and President for three successive years, 1888 to 1890.

W. M. Acworth, the English member of the commission appointed by the Dominion Government to enquire into the railway situation in Canada, is expected to arrive in Canada about the middle of December. He has visited the North American continent several times, and represented the British Government at the International Railway Congress at

Washington, D.C., in 1905; gave evidence on English railway law and practice before the Elkins committee of the U.S. Senate in the same year, and before the Hadley commission on railway statistics in 1911. As a barrister he practises considerably before the Parliamentary committees, the Railway Commission, the Light Railways Commission, etc., and he is a director of the London Underground Ry. Co., and several of its affiliated companies, as well as of the London United Tramways Co.

William A. Duff, whose appointment as Assistant Chief Engineer, Canadian Government Railways, Moncton, N.B., was announced in our last issue, was born at Hamilton, Ont., Apr. 20, 1877, and graduated from the University of Toronto in applied science in 1901. He has been, from 1901 to 1902, draughtsman and Assistant Resident Engineer, Vancouver, Victoria & Eastern Ry., in British Columbia; 1902 to 1903, Assistant Engineer, G.T.R., Hamilton, Ont.; 1903 to 1905, draughtsman, Kenwood Bridge Co., Chicago, Ill.; 1905 to 1907, draughtsman, Canadian Bridge Co., Walkerville, Ont.; 1907 to 1908, chief draughtsman, Bridge Department, National Transcontinental Ry., Ottawa, Ont.; 1908 to 1913, Assistant Bridge Engineer, National Transcontinental Ry., Ottawa, Ont.; 1913 to Oct. 1, 1916, Engineer of Bridges, Canadian Government Railways, Moncton, N.B.

John C. O'Donnell, who has been appointed Superintendent, Districts 2 and 3, Central Division, Canadian Northern Ry., Winnipeg, was born at Cobden, Ont., Dec. 17, 1879, and entered railway service, Sept. 15, 1899, since when he has been, to Sept. 1, 1901, freight brakeman, C.P.R., Chappleau, Ont.; Sept. 1, 1901, to May 1, 1902, freight conductor, C.P.R., Chappleau, Ont.; June 10, 1902, to May 1, 1905, brakeman and conductor, C.P.R., Cranbrook, B.C.; May 5 to July 2, 1905, brakeman, Canadian Northern Ry., Kamsack, Sask.; July 2, 1905, to Nov. 1, 1909, conductor, C.N.R., Battleford, Sask.; Nov. 1, 1909, to Feb. 20, 1911, Trainmaster, C.N.R., Dauphin, Man.; Feb. 20, 1911, to June 30, 1912, Trainmaster, C.N.R., Winnipeg, Man.; July 1, 1912, to July 1, 1914, Trainmaster, C.N.R., Rainy River, Ont.; July 1, 1914, to Oct. 31, 1916, Superintendent, District 3, Western Division, C.N.R., Edmonton, Alta.

William Andrew Brickman Russell, whose appointment as Commercial Agent, Grand Trunk Pacific Ry., Regina, Sask., was announced in our last issue, was born at Rednersville, Ont., Jan. 1, 1886, and entered railway service Mar. 20, 1904, since when he has been, to May 1, 1904, clerk, Local Freight Department, Central Vermont Ry., St. Albans, Vt.; May 1, 1904, to Aug. 15, 1905, secretary to General Freight Agent, same road, St. Albans, Vt.; Aug. 15, 1905, to May 1, 1908, secretary to General Freight Agent, G.T.R., Montreal; May 1, 1908, to Jan. 1, 1909, secretary to Assistant Freight Traffic Manager, Grand Trunk Pacific Ry., Winnipeg; Jan. 1, 1909, to Jan. 1, 1911, clerk, Freight Traffic Department, same road, Winnipeg; Jan. 1, 1911, to Jan. 1, 1916, chief clerk to Freight Agent, same road, Winnipeg; Jan. 1 to Oct. 1, 1916, chief clerk to Traffic Manager, Grand Trunk Pacific Ry., who is also Western Traffic Manager, Canadian Government Railways, Winnipeg.

Harry Alexander Irving, whose appointment as acting Trainmaster, District 3, Transcontinental Division, Canadian Government Railways, Graham, Ont., was announced in our last issue, was born at

Moncton, N.B., Nov. 22, 1888, and entered Canadian Government Railways service, Sept. 15, 1904, since when he has been, to Sept., 1907, clerk and stenographer, Engineering and Maintenance of Way Department, Intercolonial Ry., Moncton, N.B.; Sept., 1907, to Sept., 1908, rod man, I.R.C., Moncton, N.B.; Sept., 1908, to Oct. 1, 1910, secretary to Engineer of Maintenance, I.R.C., Moncton, N.B.; Oct. 1, 1910, to May 13, 1912, freight and passenger brakeman, I.R.C., Moncton, N.B.; May 13, 1912, to July 7, 1915, clerk and stenographer, Assistant Superintendent's Office, I.R.C., Moncton, N.B.; July 7, 1915, to Jan. 1, 1916, form clerk and acting paymaster, District 3, Transcontinental Division, Canadian Government Railways, Fort William, Ont.; Jan. 1 to Oct. 11, 1916, chief clerk to Superintendent, District 3, Transcontinental Division, C.G.R., Fort William, Ont.

H. J. Humphrey, who has been appointed Superintendent, Farnham Division, Quebec District, C.P.R., Farnham, was born at Berry's Mills, N.B., Jan. 26, 1879, and entered railway service in June 1896, since when he has been, to Aug. 1897, telegraph operator, at various points, Intercolonial Ry.; Aug. 1897 to Aug. 1901, telegraph operator, Boston & Maine Rd.; Aug. 1901 to Apr. 1902, telegraph operator, I.R.C.; May 9, 1902 to Sept. 6, 1903, telegraph operator C.P.R., Calgary, Alta.; Sept. 6, 1903 to June 1, 1907, dispatcher, C.P.R., Calgary, Alta.; June 1, 1907 to Nov. 1, 1909, dispatcher, C.P.R., Medicine Hat, Alta.; Nov. 1, 1909 to Apr. 10, 1911, dispatcher, C.P.R., Calgary, Alta.; Apr. 10, 1911 to July 1, 1912, Chief Dispatcher, C.P.R., Macleod, Alta.; July 1, 1912 to Jan. 8, 1915, Car Service and Fuel Agent, Saskatchewan Division, C.P.R., Moose Jaw; Jan. 8, 1915 to Jan. 1, 1916, Superintendent of Car Service, Western Lines, C.P.R., Winnipeg; Jan. 1 to Nov. 6, 1916, Superintendent of Car Service, Eastern Lines, C.P.R., Montreal.

George Allen Kyle, Consulting Engineer, Portland, Ore., who has been appointed Chief Engineer, Siems-Carey Railway & Canal Co., St. Paul, Minn., which is to build 1,500 miles of railway in China, was born at Tobasco, Ohio, Sept. 21, 1857. He has been engaged in railway engineering on this continent since 1876, except for three years, 1895 to 1898, spent in mining work in South Africa. From 1902 to 1904, he was Division Engineer on Construction, Grand Trunk Pacific Ry., Winnipeg, and resigned to accept special work on the Northern Pacific Ry. During 1905 and 1906, he was Engineer of Surveys and Consulting Engineer on construction with the Alaska Central Ry.; 1907 to 1909, Assistant Chief Engineer, Chicago, Milwaukee & St. Paul Ry.; 1909 and 1910, Chief Engineer, Oregon Trunk Ry., and was later appointed Vice President and General Manager, and since 1911 he has acted as a consulting engineer, specializing in reports on railway properties.

Frank W. Cooper, A.M.Can.Soc.C.E., who has resigned the position of Superintendent, Schreiber Division, Algoma District, C.P.R., Schreiber, Ont., was born at London, Ont., Feb. 16, 1880, and entered railway service in 1901, since when he has been, to 1903, draughtsman, leveller on preliminary location and construction, Algoma Central & Hudson Bay Ry., Sault Ste. Marie, Ont.; June, 1903, to Nov., 1905, transit man and Assistant Engineer, C.P.R., London and Toronto; Nov., 1905, to Nov., 1911, Resident Engineer, C.P.R., London and Toronto; Nov., 1911, to Apr., 1912, Resident Engineer, C.P.R., Montreal; Apr. to Nov., 1912, Assistant

Engineer, Chief Engineer's office, C.P.R., Montreal; Nov., 1912, to Feb., 1915, Division Engineer, Eastern Division, C.P.R., Montreal; Feb., 1915, to Nov. 1, 1916, Superintendent, District 1, Eastern Division, Farnham, Que., and since the last mentioned date he occupied the position from which he has resigned. He has been appointed Manager, Track Specialty Department, W. W. Butler Co., Montreal.

J. H. Boyle, whose appointment as General Superintendent, Quebec District, C.P.R., Montreal, during the absence of Allan Purvis at Toronto, was announced in our last issue, was born at Waterloo, Que., June 25, 1869, and entered C.P.R. service Apr. 12, 1888, since when he has been, to Aug., 1890, freight brakeman; Aug., 1890, to Nov., 1903, conductor; Nov., 1903, to Sept. 15, 1906, Trainmaster, District 1, Eastern Division, Farnham, Que.; Sept. 15, 1906, to Aug. 15, 1907, Trainmaster, District 3, Eastern Division, Montreal; Aug. 15, 1907, to Jan. 1, 1908, Trainmaster, District 2, Eastern Division, Smiths Falls, Ont.; Jan. 1 to



W. A. Duff, M.Can.Soc.C.E.
Assistant Chief Engineer, Canadian Government Railways.

May 13, 1908, Trainmaster, District 3, Eastern Division, Montreal; May 13, 1908, to Apr. 29, 1911, Assistant Superintendent, District 3, Eastern Division, Montreal; Apr. 29, 1911, to Apr., 1912, Assistant Superintendent, District 4, Eastern Division, Ottawa, Ont.; Aug., 1912, to Jan. 7, 1916, Superintendent, District 3, Lake Superior Division, Schreiber, Ont.; Jan. 7 to Oct. 26, 1916, Superintendent, District 1, Eastern Division, Farnham, Que.

T. McHattie, Master Mechanic, Eastern Lines, G.T.R., Montreal, has retired after 45 years service with the company in various capacities. He was taken seriously ill in June, and was for a time confined to his home, and later visited the Atlantic and Pacific Coasts in search of improved health, but without any great degree of success. He therefore decided to retire and take a well earned rest. He was born at Dufftown, Banffshire, Scotland, Aug. 4, 1854, and entered railway

service in Oct., 1870, since when he has been, to 1878, in locomotive shops, Great Western Railway, Hamilton, Ont.; June, 1878, to Aug., 1886, locomotive man, same road; Aug., 1886, to Apr., 1889, Locomotive Foreman, G.T.R., Palmerston, Ont.; Apr., 1889, to Apr., 1898, General Foreman in charge of locomotives, same road, London, Ont.; Apr., 1898, to Jan., 1909, Master Mechanic, Eastern Division, same road, Montreal; Jan., 1909, to Apr., 1912, Superintendent of Motive Power and Car Department, Central Vermont Ry., St. Albans, Vt.; Apr., 1912, to Nov., 1916, Master Mechanic, Eastern Lines, G.T.R., Montreal.

Jules E. Morazain, who has been appointed Superintendent, District 1, Intercolonial Division, Canadian Government Railways, Levis, Que., was born at Wheatland, Que., July 31, 1875, and entered C.P.R. service May 3, 1890, since when he has been, to May 24, 1890, clerk, Drummondville, Que.; Aug. 1, 1890, to Jan. 8, 1891, operator, Foster, Que.; Jan. 9 to Aug. 12, 1891, operator, Richford, Vt.; Aug. 12, 1891, to Aug. 15, 1892, undertook a commercial course; Aug. 15 to Sept. 26, 1892, operator, Sutton, Que.; Sept. 26, 1892, to Feb. 8, 1894, operator, Highlands, Que.; Feb. 9 to July, 1894, operator, Richford, Vt.; July to Oct., 1894, relieving operator at various points; Oct., 1894, to May 27, 1895, operator, Highlands, Que.; May 27, 1895, to Sept. 24, 1901, agent, Highlands, Que.; Sept. 24, 1901, to Nov. 3, 1908, agent Mile End, Que.; Nov. 3, 1908, to Jan. 31, 1913, General Agent, Operating Department, Quebec, Que.; Feb. 1 to Dec. 6, 1913, Assistant Superintendent, District 3, Eastern Division, Quebec, Que.; Dec. 6, 1913, to May, 1916, Assistant Superintendent, Montreal Terminals; May, 1916, to Nov., 1916, Superintendent, District 1, National Transcontinental Ry., Quebec, Que.

George James Fox, who has been appointed Superintendent, Schreiber Division, Algoma District, C.P.R. Schreiber, Ont., was born at Montreal, Sept. 24, 1883, and entered C.P.R. service, June 6, 1898, since when he has been, to Jan. 6, 1901, clerk, Car Service Department, Montreal; Jan. 6, 1901, to Aug. 1, 1903, stenographer, General Superintendent's office, Montreal; Aug. 1, 1903, to Nov. 1, 1906, secretary to General Superintendent, Eastern Division, Montreal; Nov. 1, 1906, to Mar. 1, 1907, assistant chief clerk, General Superintendent's office, Montreal; Mar. 1, 1907, to Apr. 25, 1909, chief clerk to Superintendent of Terminals, Montreal; Apr. 25, 1909, to Nov. 1, 1910, chief clerk to General Baggage Agent, Montreal; Nov. 1, 1910, to Jan. 1, 1912, assistant chief clerk, General Manager's office, Western Lines, Winnipeg; Jan. 1 to Sept. 12, 1912, clerk, Vice President and General Manager's office, Winnipeg; Sept. 12 to Sept. 27, 1912, Night Yardmaster, Saskatoon, Sask.; Sept. 27, 1912, to Nov. 10, 1913, Yardmaster, Saskatoon, Sask.; Nov. 1, 1913, to July 1, 1915, General Yardmaster, Swift Current, Sask.; July 1, 1915, to Apr. 11, 1916, General Yardmaster, Fort William, Ont.; Apr. 11 to Nov. 15, Trainmaster, Winnipeg.

Edward Warren Delano, who has been appointed Division Engineer, Lake Superior Division, Canadian Northern Ry., Capreol, Ont., was born at Abbot, Me., Sept. 16, 1880, and entered railway service in June, 1902, since when he has been, to Apr., 1903, rod man and instrument man, Bangor & Aroostook Rd., Houlton, Me.; Apr. to Sept., 1903, masonry inspector, Cleveland, Cincinnati, Chicago &

St. Louis Rd., Binny, Ill.; Sept. 1903, to Mar., 1904, Chicago, Burlington & Quincy Rd., Jacksonville, Ill.; Mar., 1904, to Feb., 1905, assistant engineer and draughtsman in Real Estate and Tax Department, same road, Chicago, Ill.; Feb. to Oct., 1905, Resident Engineer, Bangor & Aroostook Rd., Frankfort, Me.; Oct., 1905, to May, 1907, Assistant Engineer, Track Elevation, Chicago, Burlington & Quincy Rd., Chicago, Ill.; May, 1907, to Feb., 1908, Resident Engineer on second track construction, Bangor & Aroostook Rd., Bangor, Me.; Apr., 1908, to May, 1909, chief of engineering party at Pennsylvania Rd., New York terminal, Westinghouse, Church, Kerr & Co.; May to Aug., 1909, Locating Engineer, Bangor & Aroostook Rd., Washburn, Me.; Aug., 1909, to Aug., 1911, Division Engineer, same road, Washburn, Me.; Sept., 1911, to Sept., 1913, Division Engineer, Sudbury-Port Arthur Line, Canadian Northern Ry.; Sept., 1913, to July, 1915, Assistant District Engineer, same road, Port Arthur, Ont.; Mar. to Nov., 1916, Pilot Government valuation party, Bangor & Aroostook Rd.

David McNicoll, who resigned from the Vice Presidency of the C.P.R., Jan. 1, 1915, died at Guelph, Ont., Nov. 26., the immediate cause of death being pneumonia. After his retirement he spent most of his time on his son's ranch in the Okanagan district, British Columbia, but returned to Montreal some two months ago and on account of his condition growing worse he was taken to the Home-wood Sanitarium at Guelph in October. He was born at Arbroath, Scotland, Apr. 7, 1852, and entered railway service Aug. 20, 1866, since when he has been, to 1873, clerk, Goods Manager's office, North British Ry., in Scotland; 1873 to 1874, similar position with the Midland Ry., in England, 1874, billing clerk, Northern Ry., Collingwood, Ont.; 1874 to 1881, chief clerk, General Manager's office, Toronto, Grey & Bruce Ry.; 1882 to 1883, General Freight and Passenger Agent, Eastern and Ontario Divisions, C.P.R.; 1889 to Jan., 1896, General Passenger Agent, all lines and steamships, C.P.R.; Jan., 1896, to Apr., 1899, Passenger Traffic Manager, C.P.R., Montreal; Apr., 1899, to Apr., 1900, Assistant General Manager, C.P.R., Montreal; Apr., 1900, to Dec., 1903, Second Vice President and General Manager, C.P.R., Montreal; Dec., 1903, to Jan. 1, 1915, Vice President (Senior), C.P.R., Montreal. He was elected a director of the company in 1904, and was also appointed a member of the Executive Committee in 1906. He was also a director of Molson's Bank.

Allan Purvis, who has been appointed General Superintendent, Ontario District, C.P.R., Toronto, during J. T. Arundel's absence on account of illness, was born at Batavia, Java, June 29, 1878, and was educated at the Merchant Taylor's School, Liverpool, Eng. He entered C.P.R. service in Vancouver, B.C., at an early age, and was from Aug., 1890, to Feb., 1891, messenger, Stores Department; Feb. to Nov., 1891, storesman; Nov., 1891, to Sept., 1892, junior clerk, Vancouver, B.C.; Sept., 1892, to Aug., 1893, timekeeper, Donald, B.C.; Aug., 1893, to Oct., 1894, clerk, Vancouver, B.C.; Oct., 1894, to Mar., 1895, assistant storekeeper, North Bend and Kamloops, B.C.; Mar., 1895, to Sept., 1896, clerk and operator, Car Service and Fuel Department, Vancouver, B.C.; Sept., 1896, to Jan., 1899, Chief Clerk, Fuel Department, Vancouver, B.C.; Jan., 1899, to Feb., 1908, chief clerk to General Superintendent, Pacific Division, Vancouver, B.C.; Feb. to Nov., 1908, Su-

perintendent, District 4, Central Division, Souris, Man.; Nov., 1908, to Oct., 1909, Superintendent, District 3, Pacific Division, Nelson, B.C.; Oct., 1909, to Oct., 1911, Local Manager, Fraser Valley Branch, British Columbia Electric Ry., Vancouver, B.C.; May, 1912, to Feb., 1915, Manager of Interurban Lines, same company, New Westminster, B.C.; May, 1915, to May 1, 1916, Superintendent, District 2, Ontario Division, C.P.R., London, Ont.; May 1 to Nov. 1, 1916, General Superintendent, Eastern Division, C.P.R., Montreal.

William A. Cowan, A.M.Can.Soc.C.E., who has been appointed acting General Superintendent, Transcontinental Division, Canadian Government Railways, Cochrane, Ont., during the absence of F. P. Brady, on account of illness, was born at Galt, Ont., Jan. 22, 1877, and commenced railway service July 23, 1899, as bridge carpenter, C.P.R., London, Ont., where he remained until Sept. 25, 1901. He graduated from the School of Practical Science, Toronto, Apr. 30, 1904, and



Guy Tombs,
General Freight Agent, Eastern Lines, Canadian Northern Railway.

from May 1, 1904 to Feb. 1, 1905, was transit man C.P.R., London and Toronto; Feb. 1 to Oct. 15, 1905, Assistant Engineer of Terminals, C.P.R., Toronto; Apr. 15, 1905 to Feb. 14, 1908, Resident Engineer, District 3, Ontario Division, C.P.R., Toronto; Feb. 19, 1908 to Nov. 1, 1909, Resident Engineer, District 2, Ontario Division, C.P.R., London, Ont.; Nov. 1, 1909 to Oct. 1, 1911, Resident Engineer, District 1, Eastern Division, C.P.R., Farnham, Que.; Oct. 1, 1911 to Nov. 1, 1912, Assistant Engineer, C.P.R., Montreal; Nov. 1, 1912 to Jan. 9, 1914, Superintendent, District 1, Atlantic Division, C.P.R., Brownville Jct., Me.; Jan. 10 to Mar. 15, 1914, Engineer of Construction, Halifax Ocean Terminals, Intercolonial Ry., Halifax, N.S.; Mar. 15, 1914 to May 1, 1915, Resident Engineer, District 2, Intercolonial Ry., Truro, N.S.; May 1, 1915 to Nov. 1, 1916, Division Engineer, Transcontinental Division, Canadian Government Railways, Cochrane, Ont.

William Phillips, who has been appointed Freight Traffic Manager, Eastern Lines, Canadian Northern Ry., Toronto, was born there Jan. 31, 1870, and entered transportation service Apr., 1886, since when he has been, to Mar. 31, 1896, in G.T.R. offices, Toronto; Apr. 1, 1896, to Feb. 28, 1902, Northwest Agent, Northwest Transportation Co., Winnipeg; for a portion of this time he was also General Agent, Chicago Great Western Ry., and from Apr. 1, 1900, also Northwest Agent, Northern Navigation Co.; Mar. 1, 1902, to May, 1911, General Eastern Agent, C.N.R., Toronto; in Nov., 1906, he was also appointed General Freight and Passenger Agent, Canadian Northern Ontario Ry., and in Apr., 1910, also acting Traffic Manager, Canadian Northern Steamships, Ltd., and in Apr., 1911, this last position was changed to General Freight and Passenger Agent, Canadian Northern Steamships, Ltd.; May, 1911, to May, 1912, he was General Freight Agent, Canadian Northern Ontario Ry., Central Ontario Ry., Bay of Quinte Ry., Irondale, Bancroft & Ottawa Ry., and Niagara, St. Catharines & Toronto Ry. and Navigation Cos., and also General Freight and Passenger Agent, Canadian Northern Steamships, Ltd.; May, 1912, to Nov., 1914, European Traffic Manager, C.N.R., London, Eng., and from Nov., 1914, until the recent absorption of Canadian Northern Steamships, Ltd., by the Cunard Steamship Co., European Railway and Steamship Manager, C.N.R., and Canadian Northern Steamships, Ltd.

P. J. Flynn, who resigned recently as Superintendent, Districts 2 and 3, Central Division, Canadian Northern Ry., Winnipeg, on his appointment as Superintendent, Buffalo Division, Lehigh Valley Rd., South Bethlehem, Pa., was presented with a fitted travelling bag by the office staff at Winnipeg on his leaving. He was born at Fishers, N.Y., Nov. 22, 1872, and entered railway service, Apr. 1, 1888, since when he has been, to Aug. 1, 1891, yard clerk, Lehigh Valley Rd., Buffalo, N.Y.; Aug. 1, 1891, to Apr. 1, 1892, night yardmaster, same road, Buffalo, N.Y.; Apr. 1, 1892, to Jan. 24, 1894, yardmaster, Tift Farm Yards, same road, Buffalo, N.Y.; Jan. 24, 1894, to Nov. 1, 1898, General Yardmaster, same road, Manchester, N.Y.; Nov. 1, 1898, to Apr. 1, 1901, Assistant Trainmaster, Pennsylvania Division, same road; Apr. 1, 1901, to Feb. 1, 1905, General Yardmaster, same road, Sayre, Pa.; Feb. 1 to Aug. 1, 1905, General Yardmaster, New York, New Haven & Hartford Rd., Worcester, Mass.; Aug. 1, 1905, to Feb. 1, 1907, General Yardmaster in charge of Terminals, same road, Providence, R.I.; Feb. 1, 1907, to Oct. 1, 1908, General Yardmaster in charge of Terminals, Lehigh Valley Rd., Buffalo, N.Y.; Oct. 1, 1908, to Jan. 1, 1913, Trainmaster, same road, Buffalo, N.Y.; Jan. 1, 1913, to Sept., 1915, Terminals Manager, Canadian Northern Ry., Grand Trunk Pacific Ry., and National Transcontinental Ry., Winnipeg, Man.; Sept., 1915, to Oct. 31, 1916, Superintendent, Districts 2 and 3, Central Division, Canadian Northern Ry., Winnipeg.

Railway Lands Patented.—Letters patent were issued during October, in respect of Dominion railway lands in Manitoba, Saskatchewan, Alberta and British Columbia, as follows:—

	Acres.
Calgary & Edmonton Ry.	1,591.00
Canadian Northern Ry.	842.74
Qu'Appelle, Long Lake & Saskatchewan Rd. & Steamboat Co.	1,756.00
Total	4,189.74

Canadian Northern Railway Construction, Betterments, Etc.

The Canadian Northern Quebec Ry. proposes to build a bridge on its Huberdeau extension across Rouge River, lots 25 and 32, range 1, Arundel Tp., ue., at mileage 3.33 from the junction with the C.N.Q. Ry.

Montreal Tunnel & Terminal Co.—The tunnel under Mount Royal, through which the C.N.R. will enter Montreal is finished with the exception of a small amount of the concrete lining. It is expected that that will be completed by about Jan. 15, and that the track will be laid and electrified. From the tunnel's city portal at Cathcart St. to Lagachetiere St. there are about 275,000 yards of excavation to be completed. About half of that will be taken out at first and a temporary station will be built at Lagachetiere St., which, on the permanent station's completion, will be used for express and post office purposes, etc. The temporary station's erection is expected to be started in March or April and to be completed by July, by which time the tunnel should be second tracked and fully completed. A power substation is being built at the west portal and the line from there to the Cartierville yards, 3 miles, is being electrified.

The permanent terminal station will be on Dorchester St., but this will not be erected for some time. Details of the plans for this station, which were prepared by Warren & Wetmore, New York, were given in Canadian Railway and Marine World, Oct., 1914, pg. 467. These plans provided for a three storey building (one storey being below the street level), of steel and concrete, having a frontage of 150 ft., and a depth along St. Monique St. of 100 ft., the front to be set back 12 ft. from the sidewalk. Seven swing doors would lead into a vestibule 21 x 100 ft., at the end of which would be the general waiting room, 60 x 100 ft. and 30 ft. high. On one side would be the baggage and express rooms, and on the other ladies' toilet rooms and men's smoking room. The remainder of the ground floor will be laid out for the company's purposes, and the operating offices will be upstairs. There would be three platforms serving six tracks, which would form part of the trackage of the permanent station. The cost of the temporary station was estimated at \$250,000. These plans may, however, be modified.

The Canadian Northern Ontario Ry. is building 100 houses for its trainmen at the following divisional points in its Lake Superior District: Brent, 6; Capreol, 40; Foleyet, 14; Hornepayne, 30; Jellicoe, 10. The houses are being built of sided timber faced three sides in the company's saw mills to 5 in. square and 6 in. square, the half round on the outside. The design of the houses is attractive, they having dormer windows on both sides of the roof with cornice carried around, making a bell-cast end. The interiors are being finished in panelled beaver board. The timber being sided with the saw makes it possible for each piece to lie close to the other, with oakum between, which makes probably the warmest house that could be built for the cold climate of Northern Ontario. The method of construction is also claimed to make the houses slow burning in case of fire.

Canadian Northern Ry.—A contract is reported to have been let to J. J. McKeown, Port Arthur, Ont., for the supply of 200,000 ties for delivery in the spring of 1917. These ties will be used for re-

placement between Port Arthur and Winnipeg.

The Saskatchewan Department of Railways announced, Nov. 3, that the C.N.R. will proceed as soon as possible with the construction of its terminals and bridges at Moose Jaw. Under the authority of chap. 12, Statutes of 1913, the Saskatchewan Government was given permission to affix a provincial guarantee to an issue of \$1,000,000 of bonds for terminal works at Moose Jaw, to include all works and equipment necessary for the same. Three bridges are necessary for the laying out of the terminals, viz., two crossing of Moose Jaw Creek, and a third at the crossing of the C.P.R. The original agreement with the Moose Jaw City Council was made in Feb., 1912, and various concessions have been made. Since the work to be done includes the construction of the Athabasca St. East station; the completion of the trestle connection between the South Hill approach and the main portion of the city, and the completion of the connection between the C.N.R. and the C.P.R. over the property owned by the city, in the vicinity of Gordon, Ironsides & Fare's abattoir. Among the concessions granted is that to construct temporary overhead trestles at Fairford and Athabasca Sts., which are to be replaced by subways within a year after the termination of the war. M. H. MacLeod, General Manager and Chief Engineer, was in Moose Jaw in consultation with the city council on the matter, Oct. 28, when the agreement was finally reached and he was in consultation with Saskatchewan Government officials at Regina prior to the government announcement.

Work is reported to have been started on the connection between the C.N.R. and the C.P.R. at Moose Jaw. This is being done by means of a spur track from the C.N.R. over property owned by the city to a connection with a spur line owned by the city and connecting with the C.P.R. The contract for this spur is reported to have been let to Riddle & Cline, Moose Jaw. The station will be built on Athabasca St., immediately east of Third Ave., on the O. B. Fysh property, and will be of brick and stone construction. A contract is expected to be let for this building at an early date.

We are officially advised that the bricked-in boilers in the boiler house at the Saskatoon locomotive house are being replaced by three of the company's standard locomotive type boilers, each having a nominal capacity of 100 h.p.

A letter was read at the Saskatoon, Sask., Board of Trade, Oct. 27, from W. A. Brown, General Superintendent, Western Division, relative to improvements carried out or in progress on the line between Saskatoon and Drumheller, Alta., in order to handle the coal traffic. He said in part:—"The locomotive house is partly completed; one additional siding is installed, and as quickly as we can get rails, which I am taking up at Plato pit, on the Elrose subdivision, we will lay two more tracks, each with a capacity of 70 cars. In addition, we are erecting an additional water tank and stand pipe, also a new building complete for yardmaster, weighmaster and car checkers, connected with agent's office by telephone. Regarding water supply, the following improvements have been made:—One additional water tank at Drumheller, dam erected and good supply at Mecheche, also abundant supply at Hanna, new well put down

at Chinook, pipe line and reservoir now under construction, dam at Richdale repaired. This will give us an ample supply of water to handle traffic. We are also installing passing tracks at Alsask, Oyen, Youngstown, Cereal, Richdale, Chinook, Craigmyle and Della; two of these sidings have been completed and in use; grading is completed for the balance and is now waiting for steel. I hope to have the additional passing tracks completed in two weeks, providing, of course, I can secure the additional labor required. We may find it necessary to take up pit tracks in a number of our ballast pits in order to get the necessary steel. We have put our roadbed in much better condition than it was at any time last season, particularly the track between Munson and Drumheller, as this has been practically rebuilt, both bridges and roadbed."

The company is erecting a machine shop and a stores building at Edmonton, Alta. The machine shop will be 119 x 61 ft. and 19 ft. high to eaves. It will have a louvred monitor 10 ft. wide, 80 ft. long and 4 ft. high running along the apex of the roof. There will be an annex at the side of the building, 22 x 11 ft., for lavatory and wash room. The walls will be of brick on concrete foundations, and the roof will be of heavy timber construction, covered with asphalt, felt and tar. The roof will be supported on heavy L beams and built up columns. The building will be steam heated and will have a clear space inside, except for one row of columns down the centre. Up to the present the machinery has been situated in one end of the locomotive house, and as more space is required for locomotives, the new shop is being built. It is not intended to buy additional machinery for this shop at present, but arrangements are being made to install electric motors instead of the steam drive hitherto employed. Electric power will be obtained from the City of Edmonton's plant.

The stores building will be 86 x 48 ft., and two stories, 27 ft. high. It is being built on concrete foundations, 7ft. deep in the ground. The walls will be of brick and the general construction of the heavy mill type. The roof will be covered with ready roofing material. The ground floor will be divided into spaces with heavy racks for the heavier general stores supplies, which will be sorted in separate compartments in each rack; also a space for the public and men's lavatory. The first floor will be divided partly into offices for the Storekeeper, Road Foreman of Locomotives, Master Mechanic and women's lavatory, and the remainder into spaces with racks for the lighter material which will be stocked in the building. The building will have a small basement under the offices, 28 x 13 ft. It will be heated by steam. The contractors for both the machine shop and stores building are E. M. Nesbitt & Co.

The Alberta Board of Public Utility Commissioners has authorized the Canadian Northern Western Ry. to build its Oliver-Battleford branch across the highways through Tp. 59, R. 15-14 west of 4th meridian, mileage 75.83 to 88.76; also through Tp. 59, R. 13-12 west of 4th meridian, mileage 88.76 to 101.37.

Canadian Northern Pacific Ry.—Officials of the C.N.R. from Toronto, Winnipeg and other points visited the Port Mann terminals, Oct. 30. They inspected the car shops and other facilities which have been erected or are in progress. It

was reported that the machinery for the car shops had been shipped and would be installed immediately. The present installation of machinery will provide for the building of five cars a day.

It is reported that as soon as the car ferry docks at Patricia Bay, on Vancouver Island, are completed, a direct car ferry service from Port Mann will be put in operation.

Vancouver Terminals.—A large land transaction in connection with the company's terminal plans on False Creek is reported from Vancouver. The company is said to have bought 18 lots on the east side of Main St., with a total frontage of 2,000 ft., for about \$700,000. The acquiring of this property by the company

and the turning it over to the city forms part of the terms of the agreement of Feb., 1913, relative to the False Creek area.

We are officially advised that the contract for the freight offices and shed at the False Creek flats, Vancouver, has been let to McDonald, Nettleton & Bruce, Vancouver.

Vancouver Island Lines.—It was reported, Nov. 8, that tracklaying and other work had been completed on the line from Patricia Bay to Victoria, 17.5 miles, and that it was expected to be put in operation early in 1917. A gasoline electric car has been delivered for use on the line.

The car ferry slip at Patricia Bay is reported to be nearing completion.

Car Supply for Western Grain Shipments.

Sir Henry L. Drayton, Chief Railways Commissioner, gave the following judgment, Nov. 20, which was concurred in by Commissioner McLean:—

A large number of complaints have been received as to the transportation of grain on the Canadian Northern Ry. lines, to the effect that cars are scarce, and, in some instances, have not been supplied for a considerable length of time; that the elevators are, or are becoming, full; and that, in some instances, farmers are unable to market their grain.

The daily average of cars transported over the system is much lower than the result attained last year. The company states that it is doing everything it can do in hauling the traffic as quickly as possible, giving a fair proportion of the share of cars to every point. It accounts for the apparent falling off in its efficiency in a number of ways. It points out that the grain crop last year was well distributed, and that when the large movement of last year was under way it had the benefit of the short haul as well as the long haul, and that the average distance of transportation, and therefore the number of days per car that was required per load, was much less last year than this year; that this year the shorter hauls are comparatively few, and that the real traffic comes from the western portion of the territories. This, of course, itself would diminish the company's efficiency. In addition to this the company also states that the weather has not only hindered its operation, but has greatly hindered the farmer in his loading. A partial record showing the manner in which cars have been delayed at grain loading platforms has been submitted by the company as follows:—

Maon—1 car delayed 13 days.
Oberlin—1 car delayed 6 days; four cars delayed 5 days.
Lanfine—1 car delayed 8 days.
Eckville—1 car delayed 7 days.
Inland—1 car delayed 8 days.
Campbelltown—2 cars delayed 12 days.
Rosallind—1 car delayed 18 days.
Hay Lake—1 car delayed 11 days.
Vanscoy—1 car delayed 3 days; 1 car delayed 4 days.
Rosetown—1 car delayed 8 days.
Delisle—9 cars delayed 2 days; 3 cars delayed 3 days; 1 car delayed 4 days; 1 car delayed 5 days; 1 car delayed 8 days; 1 car delayed 17 days.
Zealandia—1 car delayed 3 days.
Speers—1 car delayed 2 days.
Hafford—7 cars delayed 12 days.
Forgan—1 car delayed 2 days.
Birdview—2 cars delayed 4 days; 1 car delayed 6 days; 2 cars delayed 7 days; 1 car delayed 9 days.
Girvin—1 car delayed 2 days.
Krydor—1 car delayed 3 days.
Laura—1 car delayed 4 days.
Dundurn—1 car delayed 3 days.
Streblov—8 cars delayed 2 days; 3 cars delayed 3 days; 2 cars delayed 4 days; 3 cars delayed 6 days; 1 car delayed 12 days.

Haultain—2 cars delayed 2 days; 5 cars delayed 3 days; 1 car delayed 7 days.
Grasswood—2 cars delayed 2 days; 1 car delayed 5 days; 1 car delayed 7 days.
Saskatoon—12 cars delayed 3 days.
Elrose—1 car delayed 10 days; 1 car delayed 3 days.
Maymont—6 cars delayed 2 days; 3 cars delayed 3 days; 1 car delayed 4 days; 1 car delayed 7 days.
Findlater—2 cars delayed 3 days; 1 car delayed 4 days; 1 car delayed 6 days.
Dana—3 cars delayed 2 days.
Aberdeen—32 cars loaded over platform, 22 of these delayed 35 days over free loading.
Clarkboro—22 cars loaded over platform, 14 of these delayed 49 days over free loading.
Edam—1 car delayed 4 days; 1 car delayed 8 days.
Clyde—3 cars delayed 2 days.
Collinton—1 car delayed 4 days.
Lashburn—1 car delayed 8 days.
Minburn—1 car delayed 3 days.
Benton—1 car delayed 3 days.
Youngstown—1 car delayed 2 days.
Valley River—1 car delayed 18 days.
Gilbert Plains—3 cars delayed 2 days.
Togo—1 car delayed 6 days.
Veregin—3 cars delayed 3 days; 8 cars delayed 4 days; 2 cars delayed 5 days; 2 cars delayed 6 days; 5 cars delayed 7 days; 1 car delayed 8 days; 1 car delayed 9 days; 1 car delayed 10 days; 1 car delayed 13 days.
Mikado—6 cars delayed 2 days; 1 car delayed 3 days; 1 car delayed 6 days.
Canora—4 cars delayed 5 days.
Buchanan—2 cars delayed 2 days; 1 car delayed 3 days.
Invermay—1 car delayed 8 days.
Wadena—1 car delayed 3 days.
Kenville—1 car delayed 7 days.
Norquay—1 car delayed 5 days.
*Hawthorne—1 car delayed 13 days; 1 car delayed 32 days.
Briercrest—1 car delayed 2 days; 1 car delayed 5 days.
Mossbank—1 car delayed 7 days—case of car being ordered before grain cut.
*In the two cases at Hawthorne the same man created both delays.

The company points out that when cars are placed and a few bushels of grain put in, the company can do nothing but leave it there until the loading is completed. During the period of congestion last year the farmers largely abandoned platform loading and loaded through elevators in order to speed the movement. This is a question, however, on which the board can take no action one way or the other. The loading platform has served, and, of course, does serve, a very good end in providing the farmer with a measure of competition for the sale of his grain, which he otherwise, in many instances, would not get. The question is entirely one for him.

The company also claims that the other demands of the provinces have greatly increased, and that the freight deliveries into and out of prairie distributing centres are greatly in excess of last year, and that fair attention must be given to this traffic. Everything, however, ought to be done which can be done in order to facilitate the grain movement and each complaint has been taken up with the company to secure this end. The request has been made that the legislation of last

year, under which the board may require the company, when unable to provide facilities for the movement of grain, to furnish all facilities within its powers for the carriage of such grain to a point of interchange with another company or any terminal elevator, and requiring such other company to then complete the transportation, be put into effect. It is, of course, impossible to do this at present, for two reasons,—first, that this legislation, which was passed entirely to meet a greater emergency, only comes into operation after the close of navigation, so that the board has no jurisdiction at present to make any such order; and, secondly, for the obvious reason that the first duty of the other companies is to farmers on their lines, and that the grain on these other lines has not yet been marketed. The best results will be best obtained by the close co-operation of all interested. The railways can assist very much in seeing that cars are handled with the least possible delay, both to and from the wheat fields, and the producers can similarly assist in seeing that the cars are loaded with as little delay as possible. The board's Chief Operating Officer, Mr. Spencer, will leave today for the west with a view of further assisting the rapid movement as much as possible.

It must, of course, be recognized that car shortage is not confined to the Canadian Northern lines, nor to western territory. The complaint of car shortage in different directions is one more or less common. The Canadian Pacific, for example, has an absolute car shortage in connection with the elevator equipment. While the situation in Canada is not so acute as it is in the United States, nevertheless, the American Railway Association's figures are illustrative of general conditions. Its returns show that while at one period in 1908 there was a surplusage of over 413,000 cars, that the car surplus (which, of course, changes from time to time and becomes in certain districts a shortage), on Aug., 1916, only showed 9,762 idle cars, while there was an actual car shortage on Sept. 1 of 19,873, on Sept. 30 of 60,967, and on Nov. 1 the net car shortage was 108,010 cars. The empty car situation in Canada is aggravated by the fact that a large number of Canadian cars have not been returned by the United States to Canadian railways. The Canadian Pacific reports 24,000 cars off its system and the Canadian Northern 5,112 cars.

Conserving C.P.R. Freight Cars.—On account of the car shortage in the United States and the fact that the interchange rules are being generally disregarded there, the C.P.R. Western Lines management has issued instructions that C.P.R. cars are not to be loaded with grain for points in the U.S. The C.P.R. will, of course, supply any U.S. cars routing in the proper direction for such business.

Alaska Rates.—A Washington, D.C., press dispatch recently stated that the Interstate Commerce Commission had notified the Canadian Pacific Ry., Grand Trunk Pacific Coast Steamship Co. and Border Transportation Co. that they had been made additional parties to the investigation of the railway rates and practices in Alaska. Examiner Wilson conducted hearings at Cordova Nov. 11 and at Juneau Nov. 23, and will conclude at Seattle Dec. 4.

Canadian Railway Club.—J. S. Coffin, Jr., Canadian Sales Manager, Locomotive Pulverized Fuel Co., read a paper on pulverized fuel for locomotives on Nov. 14, in Montreal.

Canadian Pacific Ry. Construction, Betterments, Etc.

New Brunswick District.—A considerable amount of work has been done at the company's terminals at West St. John, N.B., during the past summer, making for the more expeditious handling of the winter freight business. The large piers erected in 1915 have been finally completed and many new tracks laid thereon. There is now accommodation at Sand Point for about 1,500 cars. The last of the new steamship berths has been completed, which means that it will be possible to handle 25 more steamships during the season than was possible last winter.

Quebec District.—The Montreal Board of Control has decided not to make any objection to the company erecting a wooden bridge across Notre Dame St., in place of one burned some time ago, but to reserve the right to ask for the erection of a permanent structure at some future time. The board is discussing a plan for widening the subway under the C.P.R. tracks on St. Denis St.

In order to keep pace with the increasing business the company is enlarging its yards at Smiths Falls, Ont., by adding eight new tracks to the east yard, increasing its capacity from 500 to 1,070 cars; and additional tracks in the west yard, increasing its capacity from 570 to 850 cars. A new cinder pit and additional repairing facilities are also being provided.

Manitoba District.—We are officially advised that three umbrella train platform roofs are being built at Winnipeg station, over the platforms between tracks 1 and 2, 3 and 4, and 5 and 6, their respective lengths being; No. 1, 566 ft. 7 in.; No. 2, 733 ft. 7 in.; No. 3, 877 ft. 10 in. They have the ordinary wooden roof, supported on steel pole structure. The roofs are of slow burning mill construction, 3 in. of timber, with 5 ply tar and gravel on top of it. While the clearance between the cars and the roofs will be ample, the roofs will afford adequate protection to the public. They are expected to be completed by Dec. 1.

Saskatchewan District.—Grant Hall, Vice President and General Manager, Western Lines, accompanied by General Superintendent Stevens and T. C. McNab, Resident Engineer, Moose Jaw, Sask., made a trip of inspection recently, starting from Assiniboia, on the Weyburn-Lethbridge line, through the territory between that line and the International Boundary, with a view to ascertaining the possibilities for railway construction there. The company is just completing the building of a branch from Moose Jaw to Assiniboia, the section being built extending from Vantage to the junction point. The residents of the district south of this line asked recently for railway connection and for a branch line from Aneroid, mileage 172 from Weyburn.

Alberta District.—The tracklaying on the extension of the line from Sterling, Alta., now in operation to Pakowki, mileage 75, easterly towards a connection with the western end of the line from Weyburn, Sask., at the Alberta-Saskatchewan boundary, was expected to have been completed to the Mayberries district by Nov. 30. Track had been laid to Orion on Oct. 30, and was reported completed into Manyberries, Nov. 14. Ballasting is also being done.

British Columbia District.—It is expected that some time during this month a conference will be held between the

Vancouver City Council and Grant Hall, Vice President and General Manager, Western Lines, with respect to the construction of a tunnel beneath the city. A deputation from the city council waited on F. W. Peters, General Superintendent, British Columbia District, Nov. 4, and placed the council's views before him. The matter was under consideration in 1913, when plans for a tunnel were submitted to the Railways Department, Ottawa. The suggestion is that a tunnel be constructed, starting at the inlet bluff at Burrard St., and coming out near the drill hall on Beatty St. A single track tunnel was estimated to cost about \$700,000, and a double track tunnel about \$1,000,000. Mr. Peters is reported to have informed the delegation that much of the congestion which the tunnel was originally projected to relieve had been done away with by the laying out of the new divisional yards at Coquitlam, that the company was also spending large sums of money on other improvements of its lines in Vancouver, but that the city's proposal would receive consideration.

Freight and Passenger Traffic Notes.

Vancouver, B.C., City Council has appointed Aldermen Gale and Mahon to draw up a plan for the co-operation of the city in the work of the Northern Pacific Coast Tourist Association, formed recently at Tacoma, Wash.

The Victoria, B.C., Board of Trade had a conference with J. W. Troup, Manager, B.C. Coast Service, C.P.R., on Nov. 9, for the purpose of developing an improved service between Vancouver Island and the Kootenay District. It was arranged that R. Marpole, General Executive Assistant, and H. W. Brodie, General Passenger Agent, would also meet the board to consider the matter further.

British Columbia trade reports are quoted as showing that the C.P.R. during September and October took 5,650 empty cars to points in British Columbia to carry freight to eastern points, of which 1,639 were to carry fruits and vegetables from the Okanagan Valley. Traffic on the Canadian Northern Ry. during the same months is said to have averaged 48 cars of freight a day from Port Mann, and over 70 cars a day from other points in the Fraser River Valley.

G.T.R. officials at Hamilton, Ont., report that there has been a large falling off of baskets of produce carried by passengers on the trains reaching Hamilton on market days and a corresponding increase in the number of suit cases checked as baggage. The company says the facilities for checking baggage were devised to cover personal effects only, and not market produce, and are taking steps to make the country travellers take care of their own produce or to pay express charges on it.

The G.T.R. management informed the Mayor of Hamilton, Nov. 1, that it would not provide the passenger service asked for on its line between Hamilton and Burlington Beach. The City Solicitor is looking into the whole situation from the legal standpoint, and the Mayor is reported to have said that if the company will not give a proper service, the city will take steps to recover as much as possible of the money voted as bonuses to the companies which now are part of the G.T.R. system.

Railway Finance, Meetings, Etc.

Algoma Central & Hudson Bay Ry.—

It was announced recently that the receivership of the A.C. & H.B.R. was to be discharged Nov. 30. The railway made default in its bond interest, Dec. 1, 1914, and, shortly after, the Algoma Central Terminals Co. defaulted. The latter company's only source of revenue was the A.C. & H.B.R., which held its property under lease, paying an amount sufficient to cover administration expenses, taxes and bond interest, the bonds of both companies being guaranteed by the Lake Superior Corporation, which, so far, has been unable to fulfil its undertaking. Joint receivers were appointed in Feb., 1915, for the railway company, and in May, 1915, for the terminals company. To protect the rights of the bondholders of each company, an agreement was arrived at and ratified by Parliament, by which a bondholders' committee was appointed, and which is now in practical control. The revenues of both companies are paid to the committee and distributed according to the agreement. On the discharge of the receivership, certain expenses will cease and the bondholders' committee will be freed from certain formalities which a receivership imposes, but the arrangement does not absolve the Lake Superior Corporation from its obligation as guarantor of the bonds. Vivian Harcourt and T. J. Kennedy were the joint receivers appointed, the latter, however, died Aug. 29.

Central Ry. of Canada.—A general meeting of bondholders was called to be held in Montreal, Nov. 30, to consider the scheme of arrangement deposited by the directors in the Exchequer Court of Canada, to consider the company's position, and to appoint a committee to assist the directors and the trustees in preserving bondholders' interests. The company has about £850,000 of 5% bonds outstanding, in Canada, New York, Paris, and London. Interest is in arrear from Oct. 1, 1913. A London, Eng., paper says: "Apparently 58 miles of railway have been completed, of which 38 miles are leased to the G.T.R., and 380 miles were under construction, when, early in 1914, all work was suspended, pending new financial arrangements." A general contract was let for the entire line it was proposed to build between Montreal and Midland, but the only two sections which were ever brought to a construction stage were a 38 mile section from Hawkesbury to South Indian, Ont., and a 15 mile section from Ste. Agathe des Montes to Francetown, Que., and the only track laid was on a small piece from Hawkesbury westerly for 2.50 miles in 1912. Location plans were authorized early in 1913 for a piece of line from mileage 0 to 7, and revised location plans from mileage 5 to 16 in Quebec, and a subsidy contract was entered into with the Dominion Government for the construction of a line from Ste. Agathe des Montes to Howard Tp., Que., 15 miles. Early in 1913, the general contractors, C. J. Wills & Co., London, Eng., commenced proceedings against the company, claiming \$230,000 for 20 miles of line which they claimed to have built, and since then no actual construction has been done.

Temiscouata Ry.—Net earnings for July, \$4,471; for August, \$6,031; aggregate for two months ended Aug. 31, \$10,502.

White Pass & Yukon Route.—Gross earnings from Jan. 1 to Oct. 14, \$1,779,406, against \$1,434,855 for same period, 1915.

Transportation Appointments Throughout Canada.

Allan Line Steamship Co.—See under C.P.R.

Canadian Government Railways. — R. COLCLOUGH, heretofore Superintendent, District 1, Intercolonial Division, Levis, Que., has been appointed Superintendent, District 1, Transcontinental Division, vice J. E. Morazain transferred. Office, Quebec, Que.

J. E. MORAZAIN, heretofore Superintendent, District 1, Transcontinental Division, Quebec, Que., has been appointed Superintendent, District 1, Intercolonial Division, vice R. Colclough transferred. Office, Levis, Que.

W. A. COWAN, A.M.Can.Soc.C.E., heretofore Division Engineer, Transcontinental Division, Ont., has been appointed acting General Superintendent, Transcontinental Division, during the absence of F. P. Brady, on account of ill health. Office, Cochrane, Ont.

A. V. REDMOND has been appointed acting Division Engineer, Transcontinental Division. Office, Cochrane, Ont.

M. W. JENNINGS has been appointed acting Resident Engineer, District 2, Transcontinental Division. Office, Cochrane, Ont.

JOHN BIRSE, whose appointment as District Master Mechanic, District 3, Transcontinental Division, was announced in our last issue, has his office at Fort William, Ont., and not at Transcona, Man.

Canadian Northern Ry. — WILLIAM PHILLIPS, heretofore European Railway and Steamship Manager, London, Eng., has been appointed Freight Traffic Manager, Lines East of Port Arthur, Ont. Office, Toronto.

GUY TOMBS, heretofore General Freight Agent, Lines east of, and including Ottawa, Ont., has been appointed General Freight Agent, Lines East of Port Arthur, Ont. Office, Montreal.

M. A. THOMSON, heretofore City Freight Agent, Ottawa, has been appointed District Freight Agent, with territory east of North Bay, Ont., to L'Orignal, Ont., inclusive, and south to Brockville, Ont., inclusive. Office, Ottawa, Ont.

D. CROMBIE has been appointed General Superintendent, Ontario Division, which position was held by A. J. Hills until recently. Office, Toronto. The position of Superintendent of Transportation, heretofore held by Mr. Crombie, is abolished.

E. CRAWFORD, heretofore chief clerk to Superintendent of Transportation, Eastern Lines, has been appointed Superintendent of Car Service, lines east of Port Arthur, reporting to General Manager. Office, Toronto. This is a new position.

W. M. JACKLIN, heretofore Supervisor of Roadway, Port Arthur, Ont., has been appointed Inspector of Maintenance of Way, lines east of Port Arthur, reporting to General Manager. Office, Toronto. This is a new position.

E. T. AGATE, Assistant Superintendent, Lake Superior District, Capreol, Ont., having resigned, the position has been abolished.

E. W. DELANO, heretofore in Engineering Department, Bangor & Aroostook Ry., has been appointed Division Engineer, Lake Superior District, C.N.R. Office, Capreol, Ont.

GEORGE STEPHEN, heretofore Assistant Freight Traffic Manager, has been appointed Freight Traffic Manager, lines west of and including Port Arthur, Ont.,

and Duluth, Minn. Office, Winnipeg.

A. M. DAFOE has been appointed Inspector of Transportation, Winnipeg, vice H. R. Arthur transferred.

J. C. O'DONNELL, heretofore Superintendent, District 3, Western Division, Edmonton, Alta., has been appointed Superintendent, Districts 2 and 3, Central Division, vice P. J. Flynn resigned to enter another company's services. Office, Winnipeg.

C. WATTERS, heretofore in Stores Department, Brandon, Man., has been appointed Storekeeper, Dauphin, Man., vice J. H. Morgan transferred.

C. D. GLASS, heretofore Assistant Yardmaster, Port Arthur, Ont., has been appointed Trainmaster, Radville, Man., vice G. A. Cunliffe promoted.

J. E. BERRY, heretofore Yardmaster, Regina, Sask., has been appointed Yardmaster, Saskatoon, Sask.

C. R. STOKES has been appointed Car Foreman, North Regina, Sask.



C. Forrester
Superintendent, London Division, Ontario Lines,
Grand Trunk Railway.

G. MORTIMER has been appointed Locomotive Foreman, Blue River, Sask.

J. H. CRAIG, heretofore air brake tester, Edmonton, Alta., has been appointed Car Foreman, Tollerton, Alta., vice G. S. Clarke transferred.

G. S. CLARKE, heretofore Car Foreman, Tollerton, Alta., has been appointed Car Foreman, Dauphin, Man.

J. H. MORGAN, heretofore Storekeeper, Dauphin, Man., has been appointed Storekeeper, Port Mann., B.C.

H. R. ARTHUR, heretofore Inspector of Transportation, Winnipeg, has been appointed Terminal Inspector, Vancouver, B.C.

Canadian Pacific Ry.—J. S. DENNIS, Assistant to President, in charge of Natural Resources Department, has moved his office from Calgary, Alta., to Montreal.

J. H. BOYLE, heretofore Superintendent, Farnham Division, Quebec District, Farnham, has been appointed General

Superintendent, Quebec District, vice Allan Purvis, temporarily transferred to the Ontario District. Office, Montreal.

W. H. NEAL, heretofore Assistant Superintendent, Montreal Terminals Division, Quebec District, Outremont, Que., has been appointed acting Superintendent Car Service, Eastern Lines, vice H. J. Humphrey transferred. Office, Montreal.

H. J. HUMPHREY, heretofore Superintendent of Car Service, Eastern Lines, Montreal, has been appointed Superintendent, Farnham Division, Quebec District, vice J. H. Boyle transferred. Office, Farnham.

L. J. SKELLEY, heretofore chief traffic supervisor, Montreal Terminals, has been appointed Assistant Superintendent, Montreal Terminals Division, Quebec District, vice W. M. Neal transferred. Office, Outremont, Que.

R. W. SCOTT, heretofore Assistant Superintendent, Sudbury Division, Algoma District, Sudbury, has been appointed Assistant Superintendent, Trenton Division, Ontario District, vice L. G. Rogers, temporarily acting as Superintendent of that division. Office, Trenton.

ALLAN PURVIS, heretofore General Superintendent, Quebec District, Montreal, has been appointed General Superintendent, Ontario District, replacing J. T. Arundel during his absence on account of illness. Office, Toronto.

D. O. WOOD, General Freight Agent for Ontario, Allan Line Steamship Co., is also taking over the duties of Assistant Export and Import Freight Agent, C.P.R., Toronto, vice W. C. Duncan, who is being transferred to Montreal. Mr. Wood is removing his office and staff from the Allan Line office, 95 King St. West, to the C.P.R. Building, King and Yonge Sts., Toronto.

K. D. JOSEPH, heretofore Trainmaster, District 1, Ontario Division, Havelock, has been appointed acting Assistant Superintendent, Bruce Division, Ontario District, vice W. E. McGill, transferred. Office, Toronto.

W. E. MCGILL, heretofore Assistant Superintendent, Bruce Division, Ontario District, Toronto, has been appointed Assistant Superintendent, Sudbury Division, Algoma District, vice R. W. Scott transferred. Office, Sudbury, Ont.

G. J. FOX, heretofore Trainmaster, Portage Division, Manitoba District, Winnipeg, has been appointed Superintendent, Schreiber Division, Algoma District, vice F. W. Cooper resigned. Office, Schreiber, Ont.

J. TOTTEN, heretofore electrician, North Transcona, Man., has been appointed Resident Electrician, Fort William, Ont., vice J. McLaughlin transferred.

R. G. HOLMES, heretofore Chief of Tariff Bureau, Winnipeg, has been appointed Assistant General Freight Agent, Western Lines. Office, Winnipeg.

W. E. ARNOLD has been appointed Chief of Tariff Bureau, Western Lines, vice R. G. Holmes promoted. Office, Winnipeg.

C. H. FOX, heretofore Assistant Division Engineer, Winnipeg, has been appointed Resident Engineer, Portage Division, Manitoba District, Winnipeg. His former position has been abolished.

G. YORK, heretofore Roadmaster, Souris Division, Manitoba District, Souris, has been appointed Roadmaster, Kenora Division, Manitoba District, Winnipeg.

J. McRAE, heretofore Roadmaster, Brandon Division, Manitoba District,

Brandon, has been appointed Roadmaster, Souris Division, Manitoba District, Souris, vice G. York transferred.

W. H. RUTHVEN, heretofore conductor, Kenora, Ont., has been appointed Trammaster, Minnedosa, Man., vice — Fryers, transferred.

C. T. STANGER, heretofore Travelling Freight Agent, Saskatoon, Sask., has been appointed acting District Freight Agent there, vice — Cushman, who enlisted for active service with the 6th University Company, P.P.C.L.I.

P. L. NAISMITH, Manager, Department of Natural Resources, Calgary, Alta., has been appointed to the direct management of the department there, owing to the removal of J. S. Dennis, Assistant to President, to Montreal.

ALBERT MAGUIRE, heretofore chief clerk to Superintendent, Revelstoke, B.C., has been appointed Paymaster, Calgary, Alta., vice G. H. Carter.

T. LEES, heretofore Assistant Division Engineer, Calgary, Alta., has been appointed Resident Engineer, Calgary, Alta., vice R. C. Harris transferred to Edmonton, Alta.

H. H. FITZSIMMONS, heretofore conductor, Frank, Alta., has been appointed Night Yardmaster, Lethbridge, Alta., vice J. D. Murray transferred.

C. G. WASHBON, heretofore Trainmaster, Brandon, Man., has been appointed Resident Engineer, Medicine Hat, Alta.

A. MASSEY has been appointed Bridge and Building Foreman, Edmonton, Alta., vice H. Marshall.

D. MURRAY, heretofore Night Yardmaster, Lethbridge, Alta., has been appointed Night Yardmaster, Revelstoke, B.C.

J. McLAUGHLIN, heretofore Resident Electrician, Fort William, Ont., has been appointed Resident Electrician, Vancouver, B.C., vice R. Chambers, resigned.

Dominion Steel Corporation.—J. R. McISAAC, heretofore Traffic Manager, Dominion Coal Co., has been appointed General Traffic and Transportation Manager, Dominion Steel Corporation, including Dominion Coal Co., and Dominion Iron & Steel Co. Office, Sydney, N.S.

Dominion Atlantic Ry.—F. L. COREY has been appointed Trainmaster and Chief Dispatcher, vice R. B. Brown, who has been granted extended leave of absence owing to ill health. Office, Kentville, N.S.

Grand Trunk Ry.—ROSS McLENNAN, heretofore Chief Dispatcher, London, Ont., has been appointed Trainmaster, Districts 20 and 21, Ontario Lines, vice R. H. Fish, promoted. Office, Brantford, Ont.

C. FORRESTER, heretofore Superintendent, Stratford Division, comprising Districts 15, 22 and 23, Ontario Lines, Stratford, has been appointed Superintendent, London Division, comprising Districts 17, 18, 20, 21 and 24, Ontario Lines, vice W. R. Davidson, transferred. Office, London, Ont.

R. H. FISH, heretofore Trainmaster, Districts 20 and 21, Ontario Lines, Brantford, has been appointed Superintendent, Stratford Division, comprising Districts 17, 18, 20, 21 and 24, Ontario Lines, vice C. Forrester, transferred. Office, Stratford, Ont.

A. S. SHARP, heretofore Chief Dispatcher, Brantford, Ont., has been appointed Chief Dispatcher, London, Ont., vice Ross McLennan, promoted.

J. R. BRENT, heretofore dispatcher, London, Ont., has been appointed night chief dispatcher, London, Ont., vice W. B. Doherty, promoted.

W. B. DOHERTY, heretofore night chief dispatcher, London, Ont., has been

appointed Chief Dispatcher, Stratford, Ont.

W. R. DAVIDSON, heretofore Superintendent, London Division, comprising Districts 17, 18, 20, 21 and 24, Ontario Lines, London, has been appointed Superintendent, Detroit Division, comprising Durand Terminals, Districts 27, 28 and 29, and Pontiac, Oxford & Northern Ry., vice J. Caldwell. Office, Detroit, Mich.

F. B. ZERCHER, formerly Master Car Builder, Eastern Lines, C.P.R., Montreal, has been appointed Master Car Builder, Western Lines, G.T.R., vice A. Copony, resigned. Office, Elsdon, Ill.

The following station agents have been appointed: Windsor Mills, Que., C. A. Beaubien; Cornwall, Jct., Ont., S. P. Whyte; Hoards, Ont., W. B. Emmons; Hespeler, Ont., J. M. Fairweather; Edgington, Ont., F. A. Hawkshaw.

Grand Trunk Pacific Ry.—The following station agents have been appointed:—Young, Sask., M. L. Myers; Unity, Sask., G. L. Berry; Lewvan, Sask., L. Connolly; Lawson, Sask., E. D. Card; Ryley, Alta.,



K. D. Joseph,
Acting Assistant Superintendent, Bruce Division,
Ontario District, Canadian Pacific Railway.

R. L. Peckenhaugh; New Norway, Alta., D. J. Harnett; Ferintosh, Alta., H. West; Trochu, Alta., C. L. Kusler; New Hazelton, B.C., B. Catterall.

Lehigh Valley Rd.—P. J. FLYNN, heretofore Superintendent, Districts 2 and 3, Central Division, Canadian Northern Ry., Winnipeg, has been appointed Superintendent, Buffalo Division, L.V.R., vice C. T. O'Neal, promoted. Office, South Bethlehem, Pa.

Prince Edward Island Ry.—T. B. GRADY, heretofore station agent and operator, Summerside, P.E.I., has been appointed Superintendent, vice H. McEwen, who has been granted extended leave of absence prior to his retirement after about 42 years of faithful service. Office, Charlottetown, P.E.I.

Toronto, Hamilton & Buffalo Navigation Co.—R. L. LATHAM, Chief Engineer, Toronto, Hamilton & Buffalo Ry., has also been appointed Vice President, T.H. & B.N.Co., in charge of maintenance. Office, Hamilton, Ont.

Reported Purchase of Spokane International Railway by C.P.R.

A Spokane, Wash., press dispatch of Nov. 14 said "The Spokane-International Ry. has been sold to the Canadian Pacific Ry. and the Minneapolis, St. Paul & Sault Ste. Marie Ry. D. C. Corbin, President and builder of the Spokane-International, upon his return from New York yesterday, announced that negotiations between himself and his associates and Baron Shaughnessy, President, C.P.R., had been completed. The price was not made public. Mr. Corbin will continue as President of the Spokane-International, being relieved from some of his duties."

Enquiry of the C.P.R. management has failed to elicit any information as to the reported purchase, one of the officials writing:—"There is nothing whatever to be said regarding the press report referred to, which, to say the least, is premature." Our experience is that when a report is spoken of as "premature," it may generally be considered as having pretty good foundation.

The Spokane-International Ry. extends from Spokane, Wash., 140.8 miles to the International Boundary Line at Eastport, Idaho, where it connects with the C.P.R. at Kingsgate, Alta. It also has two small branches, 22.9 and 11.6 miles respectively. A through passenger and freight service is run between St. Paul and Minneapolis, Minn., via the Minneapolis, St. Paul & Sault Ste. Marie Ry. to Portal, Sask., thence via C.P.R. by way of Moose Jaw, Dunmore Jct. and Curzon Jct., to Kingsgate, Alta., and thence via Spokane-International Ry. to Spokane. The Spokane-International Ry. has 14 locomotives, 9 passenger cars and 244 freight and miscellaneous cars.

Weekly Barging of a Locomotive.—E. J. Miller contributed the following to the Railway Magazine recently:—"The C.P.R.'s British Columbia District has on one of its lines a curious piece of working. Running down to the Kootenay Lake are several lines of railway, one of which has, at present, no physical connection with any other line of the company. This particular length of railway has a mixed train running on one day of the week only. To enable the train to be run a locomotive is put on a barge and taken to the lakeside terminus by steamboat from the nearest section of the C.P.R.—and after working the train is returned by the same means. The operation involves two hours' journey on Kootenay Lake, and to transport a locomotive on a lake for the express purpose of working a train service is perhaps unique in railway operation. It would be evidently unremunerative to let the locomotive be idle for the six days to save the transit on the lake., We may add that the Lardeau Subdivision is the one referred to.

British Columbia Institute of Civil Engineers.—A number of civil engineers in British Columbia have organized under the above title and propose to apply to the Legislature for charter giving the society legal status and making it exclusively a provincial organization to which civil engineers and land surveyors may belong. It is to be independent of the provincial branches of the Canadian Society of Civil Engineers. Following are the officers, etc.:—Chairman, E. N. Horsey; Secretary Treasurer, L. Macrae; Under Secretary, F. M. Preston; Committee, Messrs. Stokes, Devey, Noakes, Mitchell, Lambert and Todd. The headquarters are in Victoria.

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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 publication.

TORONTO, CANADA, DECEMBER, 1916.

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Application by Railways for Higher Import Freight Rates.

Sir Henry Drayton, Chief Railways Commissioner, gave the following judgment, Nov. 6, which was concurred in by the Assistant Chief Commissioner, D'Arcy Scott, and Commissioner McLean:—The companies desired to materially increase their import rates, which were on a relatively low basis, but which were all rates made by the companies themselves and not imposed by the board. Treated as individual rates, they undoubtedly are low. The proposed increases were suspended by order 24440. The case has been heard and has been standing some time for judgment.

Importers claim that with high ocean rates, the burden on their traffic is already unduly heavy. Undoubtedly ocean rates are very high; but, as a matter of principle, a high ocean rate affords of itself absolutely no reason why the railways companies should be compelled, for the purpose of reducing as much as possible the traffic disability engendered by the high ocean rate, to carry imports at a probably low and unremunerative basis. On the other hand, there is no question as to the fact of high ocean rates and grave resulting difficulties for the importer.

In the Eastern Rates Case, the general rate structure was dealt with, and the whole question of railway finances and requirements of the different lines was given most careful consideration by the board. Such increases as were reasonable were authorized,—these increases in some instances being substantial. The application now made deals with a general rate schedule, and the effect of it cannot properly be measured aside from the effect of the Eastern Rates Case. The full effect of the increases there authorized is not yet apparent. Some of the higher tariffs authorized have not, indeed, been yet put into effect. The condition of the railways, while certainly not all that might be desired, is, nevertheless, much better than it was 18 months ago; and, in view of the assistance already given, no hardship will be worked against the railways in determining that no action should be taken in this case until the effect of the Eastern Rates Case judgment can be clearly demonstrated. Theoretical demonstration really amounts to nothing. The actual traffic returns alone can show what, under the new conditions as developed, the railway situation will be. I am of the opinion that the board should at the present, therefore, take no action in this application.

Railway Mechanical Conventions.—The executive committees of the American Railway Master Mechanics' Association and the Master Car Builders' Association have decided to hold the annual conventions at Atlantic City, N.J., the first named from June 13 to 16, and the latter from June 18 to 21. Strong arguments were advanced in favor of Chicago, the Chamber of Commerce offering the exclusive use of the municipal pier for the occasion.

Passenger Rate Meetings.—Meetings will be held at the Chateau Frontenac, Quebec, as follows:—Niagara Frontier Summer Rate Committee, Jan. 9, 10 and 11; Great Lakes and St. Lawrence River Rate Committee, Jan. 11; International Water Lines Passenger Association, either Jan. 10 or 11, definite date not being yet announced.

Canadian Northern Railway Earnings, Etc.

Gross earnings, working expenses, net earnings, increases, compared with those of 1915-16, from July 1, 1916:

	Gross Earnings	Expenses	Net Earnings	Increase
July	\$3,834,200	\$2,636,800	\$1,197,400	\$ 711,000
Aug.	3,684,900	2,612,900	1,072,000	614,300
	\$7,519,100	\$5,249,700	\$2,269,400	\$1,325,300
Incr	\$3,573,800	\$2,248,500	\$1,325,300	.....

Approximate earnings for Sept., \$3,187,900; Oct., \$3,716,800; 3 weeks ended Nov. 21, \$2,563,100; against, \$2,757,000 for Sept., \$3,678,500 for Oct., and \$2,396,200 for 3 weeks ended Nov. 21, 1915.

Canadian Pacific Railway Earnings, Etc.

Gross earnings, working expenses, net earnings, increases, or decreases, compared with those of 1915-16, from July 1, 1916:

	Gross Earnings	Expenses	Net Earnings	Increase
July	\$12,247,440.39	\$8,230,348.66	\$4,017,091.73	\$1,216,688.61
Aug.	13,570,467.31	7,802,680.46	5,467,786.85	2,025,472.13
Sept.	12,134,159.96	7,004,400.80	5,129,759.16	384,458.52

\$37,652,067.66 \$23,037,429.92 \$14,614,637.74 \$3,626,719.26
Inc. \$10,682,075.22 \$7,055,456.96 \$3,626,610.26

Approximate earnings for Oct., \$13,132,000, against \$13,311,000 for Oct., 1915.

Grand Trunk Railway Earnings.

Following are the earnings and expenses for the G.T.R., including the Canada Atlantic Ry., the G.T.W.R. and D.H.G. & M.R., for September, compared with those for September, 1915:—

	1916.	1915.
Grand Trunk Railway.		
Earnings	\$4,617,000	\$3,667,800
Expenses	3,099,000	2,501,100
Net earnings	\$1,518,000	\$1,176,700
Grand Trunk Western Railway.		
Earnings	\$ 744,200	\$ 669,900
Expenses	615,300	445,200
Net earnings	\$ 128,900	\$ 224,700
Detroit, Grand Haven & Milwaukee Ry.		
Earnings	\$ 275,600	\$ 257,300
Expenses	296,600	192,150
Net earnings	\$ 21,000—	\$ 65,150

Approximate earnings for Oct., \$5,651,321, and for 3 weeks ended Nov. 21, \$3,731,151, against \$4,666,691 for Oct., and \$2,894,364 for 3 weeks ended Nov. 21, 1915.

TRAFFIC RECEIPTS OF THE SYSTEM.

	1916.	1915.	Increase.
G.T.R.	\$39,127,270	\$33,045,502	\$6,081,768
G.T.W.R.	7,781,671	6,241,222	1,540,449
D.G.H. & M.R.	2,761,787	2,272,021	489,766
	\$49,670,728	\$41,558,745	\$8,111,983

Grand Trunk Pacific Railway Earnings.

The approximate earnings for the Prairie Section, 916 miles, for Oct., were \$566,503, against \$973,581; and from July 1 to Oct. 31, \$1,643,008, against \$1,858,557 for same period 1915.

Rogers Pass Tunnel Suit.—Argument in Foley, Welch & Stewart's appeal against the assessment of damages at \$576,155.99 in the suit brought by McIlwee & Son was begun in the British Columbia Court of Appeal, Nov. 8. A condition of the granting of permission to appeal was that Foley, Welch & Stewart should deposit in the court \$600,000 to cover judgment and costs.

Attempt to Remedy Car Shortage.—The American Railway Association has adopted a per diem charge, ranging from 45c to \$1.25, for each freight car which any one road shall withhold from another, and imposes a penalty on any road which violates the association's rules relating to car shortage.

Cancellation of Joint Tariffs Forbidden by Board of Railway Commissioners.

The Chief Railways Commissioner issued the following memorandum, Nov. 11, which was concurred in by Commissioner McLean:—Mr. Hardwell, the board's Chief Traffic Officer, has had the question of joint rates up with the railway companies for some time past. He reports that both the Grand Trunk and Canadian Pacific Railways have filed a large number of new joint tariffs, many of which are free from objection; but, he also reports that both these railway companies in tariffs which they have filed are cancelling joint rates without substituting any new joint rates for the rates cancelled.

Under the act, the duty is thrown on companies of filing joint tariffs to cover transportation in cases where the movement over two or more companies is necessary in order to establish a continuous route and through billing. It is to be noticed that the companies are practically only cancelling joint tariffs without submitting new ones in so far as connections with the Canadian Northern System are concerned. Joint rates must be given by both the Grand Trunk and Canadian Pacific Railways to Canadian Northern points. In like manner, the Canadian Northern has cancelled joint tariffs applicable to points on the systems of the other two lines. The same duty, of course, rests on the Canadian Northern—it must maintain joint tariffs between its line and proper points on the other two systems.

An order will go disallowing all notices of cancellation of joint freight tariffs which have not been superseded by other joint freight tariffs duly filed with the board and applicable between the same points and to the same classes of traffic. This order should not be applicable to joint rates which may have been necessary under the former system of railway construction, but which have by reason of present construction become unnecessary. In other words, no joint rate, under the act, is required by the act for a movement covered by the rates of a single carrier by an existing reasonable and practicable route between the same points, and applicable to the same classes of traffic, or by the rates over a new joint route, which is also reasonable and practicable. For example, a shipment from Picton, Ont., to Cobalt, Ont., formerly moved over the Central Ontario to connection with the Grand Trunk or Canadian Pacific, and thence to North Bay, where connection was made with the Timiskaming & Northern Ontario, running into Cobalt, necessitating a joint rate in which at least three carriers participated and two transfers. Today, the Central Ontario, being part of the Canadian Northern System, the Canadian Northern itself can carry the traffic from Picton and make a direct connection with the Timiskaming & Northern Ontario. A joint tariff, in this instance, is only necessary as between the Canadian Northern and the Timiskaming & Northern Ontario Railways, and the action of the Canadian Northern in cancelling a tariff in which the intermediate haul is enjoyed by either the Grand Trunk or Canadian Pacific, is justified.

The cancellations are become effective on Dec. 1. No cancellation will be allowed unless a substituted tariff then takes effect, covering the same service, either by reason of a single haul or by a new reasonable joint traffic route. No formal

order need today go, and opportunity will be given the different companies to show which of the cancellations are in conformity with the principles above stated. The matter will be set down for hearing at Ottawa, Nov. 21, when any cancellation, the effect of which may be in doubt, can be discussed.

The Chief Commissioner gave the following judgment, Nov. 22, which was concurred in by the Assistant Chief Commissioner, D'Arcy Scott, and Commissioner McLean:—A memorandum was issued by the board on Nov. 00, taking cognizance of a large number of cancellations of joint freight rates filed by the Grand Trunk, Canadian Pacific and Canadian Northern Railways. The effect on traffic of the different cancellations was that the traffic henceforth would move at the sum of the locals, involving considerably higher rates. The board intimated that the action was objectionable and would not be allowed, and the question was set down for hearing at the sittings at Ottawa on Nov. 21, so that the different cancellations could be discussed and those ascertained which were objectionable.

A large number of cancellations were shown at the hearing to have been filed. Many movements are affected. As intimated at the hearing, joint rates and services must be maintained. While rates based on the sum of the locals would work a discrimination as against the traffic affected, yet the joint rates which supply in the future in like manner should be joint rates predicated upon the increases already authorized by the board in the Eastern Rates Case. No other increases should be allowed. The different companies, instead of being galled to do business on the sum of the locals, should be ordered to file with the board, not later than Nov. 27, to become effective Dec. 1, supplements to the joint class freight tariffs now in effect, providing rates which must not exceed those at

present in effect by more than the maximum of 2c per 100 lbs., in the 1st class. In so far as other classes are concerned, the rates must be proportioned to the 1st class rates as increased by such a maximum, in accordance with the standard maximum mileage tariff approved by the board for the use of the companies, with a result, for example, that the increases in so far as rates applicable to 5th class commodities are concerned, cannot be increased over a maximum of 1c per 100 lbs.

Order 25656, issued in connection with this matter, is given on another page under "Traffic Orders by the Board of Railway Commissioners."

Express Traffic Association of Canada.

At the Association's semi-annual meeting at Toronto, Nov. 21 and 22, John Pullen, President of the Canadian Express Co., Montreal, was elected Chairman, succeeding W. H. Burr, Traffic Manager, Dominion Express Co., whose resignation has been before the association for some months.

The articles of organization were amended and plans adopted for increasing the scope of the association's work, which will require the services of a secretary, who will devote his entire time to association matters. C. Ham, who has been chief clerk in the Dominion Express Co.'s Traffic Department for the past six years, has been appointed Secretary of the association. He was formerly connected in the Intercolonial Ry. Traffic Department and also in the Board of Railway Commissioners and the C.P.R. service at different times.

The Fort William Elevator Co. has been authorized to increase its capital stock from \$500,000 to \$1,000,000.

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

Week ending Nov. 11, 1916.	Wheat. Bushels.	Oats. Bushels.	Barley. Bushels.	Flax. Bushels.	Totals. Bushels.
Fort William—					
C.P.R.	1,219,516	478,136	106,950	85,484	1,804,602
Consolidated Elevator Co.	943,962	200,472	49,106	115,993	1,279,024
Empire Elevator Co.	664,465	288,428	58,272	115,993	1,127,158
Ogilvie Flour Mills Co.	911,875	209,955	63,470	1,185,300	1,185,300
Western Terminal Elevator Co.	1,073,195	244,046	31,086	96,651	1,444,978
G. T. Pacific	1,386,425	899,947	76,951	51,436	2,414,759
Grain Growers' Grain Co.	1,234,738	593,846	101,309	13,157	1,929,893
Fort William Elevator Co.	651,753	452,550	32,733	13,157	1,150,193
Eastern Terminal Elevator Co.	510,136	181,674	13,704	.....	705,514
Port Arthur—					
Port Arthur Elevator Co.	2,009,094	1,125,975	276,692	84,635	3,497,296
D. Horn & Co.	232,414	79,729	41,512	92,472	446,127
Dominion Government Elevator	781,380	305,565	72,756	73,047	1,232,748
Thunder Bay Elevator	666,625	289,150	69,850	32,257	1,057,882
Total terminal elevators	12,286,478	5,349,473	994,391	645,132	19,275,474
Calgary Dom. Govt. Elev.	148,163	32,640	2,621	86	183,510
Saskatoon Dom. Govt. Elev.	42,829	11,295	856	453	55,433
Moose Jaw Dom. Govt. Elev.	256,672	53,944	8,992	2,705	322,313
Total interior terminal elevators	447,664	97,879	12,469	3,244	561,256
Midland—					
Aberdeen Elevator Co.	307,679	1,341	.....	.....	309,020
Midland Elevator Co.	29,961	493,858	.....	.....	523,819
Tiffin, G.T.P.	1,085,514	317,744	127,175	.....	1,430,433
Port McNicol	1,643,991	736,216	40,973	.....	2,241,180
Goderich Elevator and Transit Co.	393,604	535,255	.....	7,628	936,847
Kingston—					
Commercial Elevator Co.	10,327	69,771	.....	.....	80,098
Port Colborne	549,312	941,448	.....	.....	1,490,760
Montreal—					
Harbor Commissioners no. 1	911,298	2,104,989	211,217	5,985	3,233,489
Harbor Commissioners no. 2	545,000	1,072,131	139,671	.....	1,756,802
Montreal Warehousing Co.	466,906	1,732,733	32,242	24,948	2,256,829
Quebec Harbor Commissioners	26,205	184,217	.....	*12,304	222,726
West St. John, N.B.	126,129	644,403	69,497	.....	843,029
Total public elevators	6,098,926	8,834,106	620,775	*12,304 38,561	15,604,672
Total quantity in store	18,833,068	14,281,458	1,627,635	*12,304 686,937	35,441,402

*Corn.

Traffic Orders by the Board of Railway Commissioners.

Stop-off Charges on Canned Goods.

25527. Oct. 13.—Re complaint of Dominion Cannery, Ltd., of Hamilton, Ont., against proposed increase in stop-off charges on canned goods, in carloads, from \$3 to \$5 a car. Upon hearing the complaint at Toronto, Ont., the complainants, the Canadian Manufacturers' Association, the Canadian Freight Association, the Grand Trunk and the Canadian Northern Railways, and the Wabash and the Michigan Central Railroads being represented, it is ordered that the said proposed increase in the charge for stopping cars containing part carloads of canned goods in transit for completion of loads be disallowed.

Great Northern Ry. Freight Tariffs.

25564 and 25565. Oct. 25. Granting applications of Great Northern Ry., under section 327 of the Railway Act, for approval of its Standard Freight Tariffs C.R.C. nos. 1244 and 1251, showing rates between stations on lines in British Columbia.

Transfer Track at Moose Jaw.

25569. Oct. 28. Re application of Canadian Northern Ry., under sections 227 and 237 of the Railway Act, for authority to construct a transfer track between its railway and the C.P.R. at Moose Jaw, Sask., as shown on plan dated Winnipeg, June 27, 1916. Upon hearing the application at Moose Jaw, July 12, 1916, the applicant company, the C.P.R., the City of Moose Jaw, the Village of Avonlea, and the Boards of Trade of Moose Jaw, Rosetown, Radville, and Forward being represented; and upon the report of an engineer of the Board, it is ordered that the Canadian Northern be authorized and directed to construct an interchange track with the C.P.R. at Moose Jaw, as shown on the said plan; the work to be completed by Dec. 15, 1916. That the Canadian Northern be authorized to cross the Moose Jaw Electric Ry. tracks on Tenth Ave., as shown on the plan; the crossing to be protected by a half-interlocking plant; derails to be placed on the electric railway and home signals on the Canadian Northern Ry.; and that the derails be interlocked with the signals; detail plans to be filed for the approval of an engineer of the Board, within two weeks from the date of this order. That the Canadian Northern be authorized to construct the said transfer track over Main St. and Tenth and Eleventh Aves., and along Home St., Moose Jaw, as shown on the plan; the crossing to be constructed in accordance with the Board's standard regulations affecting highway crossings, as amended May 4, 1910.

Interchange of Traffic at Brantford.

25570. Oct. 27. Re an application of Dominion Steel Products Co., Ltd., for an order directing the Toronto, Hamilton and Buffalo, the Grand Trunk, and the Lake Erie and Northern Railway Companies to afford proper facilities for receiving, forwarding and delivering of traffic belonging to the applicant company, and for exchange of traffic over the said railways; and that the railway companies provide due switching privileges over their respective lines and interchange of switching for the applicant company's purpose and the petition of certain manufacturers and shippers of Brantford pertaining to interswitching between the railways at Brantford, Ont. Upon hearing the application at Brantford, Sept. 28, 1916, the applicant com-

pany, the railway companies, and local manufacturers being represented, and upon the report of the Board's Chief Traffic Officer, the Lake Erie & Northern Ry. consenting: It is ordered that the L. E. & N. R. be authorized to construct an interchange track for receiving, forwarding, and delivering traffic between its railway and the Toronto, Hamilton & Buffalo and Grand Trunk Railways at Brantford, plans showing the proposed interchange tracks to be submitted for the approval of an engineer of the Board; and the cost of constructing the tracks to be borne and paid by the L. E. & N. R. That where the traffic is between Brantford and a shipping point or destination common to the G.T.R. and the L. E. & N. R., or to the Toronto, Hamilton & Buffalo Ry. and the L. E. & N. R., or to both the G.T.R. and the Toronto, Hamilton & Buffalo Ry., and the L. E. & N. R., where interswitching facilities are provided, the company upon whose line, including private sidings tributary thereto, the traffic is loaded, shall be entitled to the line haul and to the privileges of effecting the required delivery on the line of the other company by means of interswitching at destination; provided that the said company can afford facilities and privileges equal to those of the competing carrier at no greater charge.

Halifax & Southwestern Ry. Rates.

25585. Oct. 30. Re complaint of C. A. Bowlby and others, of Port Medway, N.S., alleging excessive freight rates charged by Halifax & Southwestern Ry. from Halifax to Medway station. Upon hearing the complaint at Port Medway, July 5, 1916, the complainants and the railway company being represented, it is ordered that the complaint be dismissed.

Charges for Heated Refrigerator Cars.

General Order 173. Oct. 26. Re (railway) companies tariffs showing charges for use of heated refrigerator cars; and orders 24680 and 24994, dated Jan. 27 and May 22, 1916, respectively, suspending the said tariffs; also order 25251, Aug. 5, 1916, rescinding order 24994 in so far as it affected tariffs for local movements between points west of Lake Superior, subject to the provisions therein contained. Upon hearing the matter at Ottawa, Toronto, Winnipeg, Saskatoon, Edmonton, Calgary, Regina, and Winnipeg on February 8 and 22, June 12, 14 and 15, July 10, 13 and 14, 1916, respectively, in the presence of representatives of the Boards of Trade of Montreal, Toronto, Hamilton, Winnipeg, and Saskatoon, the Calgary Brewing Co., the Canadian Manufacturers' Association, the Ontario Fruit Growers' Association, the Canadian Pacific, Canadian Northern, and Grand Trunk Pacific Railway Companies and the Michigan Central and New York Central Railroad Companies, and upon the report of the Chief Traffic Officer of the Board: It is ordered that order 24680, Jan. 27, 1916, in so far as it affects local movements between points east of and including Westfort, Ont., be rescinded, provided that the clause in the tariffs thereby suspended restricting the number of destinations of less-than-carload shipments be omitted, and that the clause requiring loading in cars in destination order by shippers be revised so as to apply to shipments handled through the carriers' freight warehouse also.

That orders 24680 and 24994, dated Jan. 27 and May 22, 1916, respectively, in so far as they affect through ship-

ments from and to points east of Port Arthur to and from points west of Westfort, be rescinded; provided that the following subdivision of the territory west of Westfort, and the following maximum tolls for heat in addition to the freight rates from or to the territory west of and including Montreal and Lachute, be substituted for those shown in the tariffs, thereby suspended, and that the differences over these maximum tolls do not exceed from or to the territory south and east of Montreal and Lachute the differences expressed in the said suspended tariffs.

Group 1.—West of Westfort to and including Kenora and Rainy River, \$10 a car.

Group 2.—West of group 1 to and including Winnipeg and Emerson, \$11 a car.

Group 3.—Remainder of Manitoba, \$13 a car.

Group 4.—West of group 3 to and including Viceroy, Moose Jaw, Saskatoon, and Prince Albert, \$15 a car.

Group 5.—Province of Saskatchewan west of group 4, \$16 a car.

Group 6.—West of group 5 to and including the C.P.R. Macleod-Calgary-Edmonton line, \$18 a car.

Group 7.—North of Edmonton and west of group 6 to Penticton, Kamloops, and Prince George, \$22 a car.

Group 8.—West of Group 7 to Vancouver and Prince Rupert, \$25 a car.

That general order 152, Nov. 2, 1915, authorizing certain tolls for the use of refrigerator cars for the carriage of vegetables in carloads, be rescinded.

Transfer Tracks at Prince Albert.

25603. Nov. 6. Re application of Grand Trunk Pacific Branch Lines Co., under sections 227 and 237 of the Railway Act, for authority to construct, maintain and operate a connection and transfer track between its Prince Albert Branch and the Canadian Northern Ry. in Prince Albert, Sask., upon the consent of the Canadian Northern Ry., and the report and recommendation of the Board's Chief Engineer, it is ordered that the application be granted.

25604. Nov. 6. Re application of Grand Trunk Pacific Branch Lines Co., under section 237 of the Railway Act, for authority to construct its Prince Albert Branch and the connection and transfer track between that branch and the Canadian Northern Ry., across Sixth Ave. East, in Prince Albert, Sask. Upon the report and recommendation of the Board's Chief Engineer, no objection having been offered by the City of Prince Albert to the granting of the application, it is ordered that the applicant company be authorized, at its own expense, to construct and maintain its Prince Albert Branch and connection and transfer track between that branch and the Canadian Northern Ry., across Sixth Ave. East, Prince Albert, as shown on said plan and profile on file with the Board, and in accordance with the Board's Standard Regulations Affecting Highway Crossings, as amended May 4, 1910.

Interchange Track at Aurora.

25615. Nov. 3. Joint order by Board of Railway Commissioners and Ontario Railway and Municipal Board. Re application of Town of Aurora, Ont., under subsec. 3 of sec. 228 of the Railway Act, for an order requiring that the lines and tracks of the Grand Trunk and the Toronto & York Radial Railways be connected so as to admit of the transfer of locomotives and trains from the lines or tracks of one such railway to those of another and the receiving, forwarding, delivering and interswitching of traffic between such railways. Upon hearing the application at Toronto, Oct. 6, in the presence of counsel for and representa-

tives of the applicant, the Grand Trunk and the Toronto & York Radial Railways, the Canadian Manufacturers' Association, the City of Toronto and Thos. Urquhart appearing in person, and upon the reports of the Chief Engineer and the Chief Operating Officer of the Dominion of Bard and an engineer of the Ontario Railway and Municipal Board, it is ordered that the applicant be authorized, at its own expense, to construct an interchange track between the Grand Trunk and the Toronto & York Radial Railways at Aurora, in the Grand Trunk yards, with a connecting track as shown on the line marked "Estimate no. 1," on the plan filed by the applicant.

Dominion Express Co.'s Fish Tariff.

25616. Re Supplement 3 to Dominion Express Co.'s Special Fresh and Frozen Fish Tariff, C.R.C. 4434, and the applications of Armstrong Trading Co., of Portage la Prairie, Man.; Canadian Fisheries Association, of Montreal, and W. J. Guest Fish Co., of Winnipeg, for an order disallowing the said tariff. Upon reading what is filed in support of the applications, and the reports of the Board's Chief Traffic Officer, and upon its appearing that the cancellation of the rates on fresh and frozen fish provided for in the said supplement was unlawful to the extent that the supplement was not published and filed at Selkirk, Man., 30 days previously to the date on which it was intended to take effect, as required by sec. 328 of the Railway, Act, as amended, it is ordered that the said notice of cancellation be disallowed.

Esquimalt & Nanaimo Railway Tariffs.

25641. Nov. 16. Re application of Esquimalt & Nanaimo Ry., under sec. 11 of the Acts 7-8 Edward VII., chap. 61, for the approval of a bylaw, passed Oct. 11, 1916, authorizing C. E. E. Ussher, Passenger Traffic Manager, and C. E. McPherson, Assistant Passenger Traffic Manager, to prepare and issue tariffs of tolls to be charged for the carriage of passenger traffic upon the railways owned or operated by the company, or any portion thereof. It is ordered that the said bylaw be approved; and that order 5856, Dec. 15, 1908, approving of the bylaw passed Dec. 4, 1908, appointing L. D. Chatham, District Passenger Agent of the company, and authorizing him to prepare and issue tariffs of the tolls to be charged, be rescinded.

Algoma Central & Hudson Bay Ry. Pulpwood Rates.

25644. Nov. 17. Re complaint of Lake Superior Paper Co., of Sault Ste. Marie, Ont., against the alleged excessive and unreasonable freight rates charged by Algoma Central & Hudson Bay Ry. on pulpwood, in carloads, for distances of 17 5/8 to 300 miles, as published in C.R.C. no. 343 and C.R.C. no. 345, it is ordered that the complaint be dismissed.

Chatham, Wallaceburg & Lake Erie Railway Passenger Rates.

25653. The application of Major G. T. McKeough for an order directing the Chatham, Wallaceburg & Lake Erie Ry. to put in force, between Chatham and Cedar Springs station, Ont., a passenger rate applicable to persons carrying on their business or practising their professions in Chatham, but residing in those portions of the Townships of Raleigh and Harwich served by the railway (the said rate to be available also for members of such person's families), which said rate shall not exceed 25c for one round trip ticket when such tickets are purchased in book form as commutation tickets, it is ordered that the application be dismissed.

Joint Class Freight Tariffs.

25656. Nov. 23. Re proposed withdrawal by railway companies, on Nov. 30, of joint class freight tariffs in Eastern Canada which have not already been lawfully superseded by new joint tariffs upon the same description of traffic between the same points. Upon hearing the matter at Ottawa, Nov. 21, 1916, and upon its appearing that the proposed withdrawal of joint class freight tariffs without the substitution of other joint class freight tariffs is in contravention of sec. 338 of the Railway Act, it is ordered that the Grand Trunk, the Canadian Pacific, and the Canadian Northern Railways, file with the board not later than Nov. 27, to become effective Dec. 1, 1916, supplements to the joint class freight tariffs now in effect, and which are not being superseded by new joint tariffs already published and filed, providing rates which shall not exceed those at present in effect by more than 2c per 100 lbs. in the 1st class, the remaining classes of the Canadian Freight Classification to be proportioned to the 1st class rates so increased in accordance with the Standard Maximum Mileage tariff approved by the board for the use of the said companies.

The judgments, etc., in this matter are given fully on another page under "Cancellation of Joint Tariffs Forbidden by Board of Railway Commissioners."

Telegraph, Telephone and Cable Matters.

Lloyd Cadle has been appointed assistant manager, Winnipeg office, Great North Western Telegraph Co., and W. A. Whyte has been appointed manager of the office at Brandon, Man.

A meeting of C.P.R. telegraph agents and managers in British Columbia was held at Vancouver, Nov. 13 and 14, for exchange of ideas and discussion as to the further efficiency of the telegraph service, R. N. Young, Superintendent of Telegraphs, British Columbia District, was chairman.

W. T. Robinson, agent, C.P.R. Telegraphs, Ottawa, Ont., died there of hemorrhage, Oct. 30, aged 56. He was born at Cornwall, Ont., and served with the Great North Western Telegraph Co. at Montreal, and the Western Union Telegraph Co. at Chicago, Ill., prior to 1886, when he entered C.P.R. Telegraphs service at Montreal, and was transferred to Ottawa in 1902.

The Great North Western Telegraph Co. has opened offices at Chandler, Margo, Ridpath and Sturgis, Sask., and Alliance, Alta., and has closed its offices at Valcartier Camp, Que.; Barriefield Camp, Bobcaygeon, Camp Borden, Clifton House, Niagara Falls, Coldwater, Helderleigh, Holland Landing, Kemptville, Paisley, Port Sandfield, Tobermory and Warkworth, Ont. The name of the office at Sellwood Jct., Ont., has been changed to Milnet.

Among the Express Companies.

K. Copeman has been appointed route agent, Dominion Ex. Co., Campbellton, N.B.

P. H. Findlay has been appointed cashier, Dominion Ex. Co., North Bay, Ont., vice R. Glover, promoted.

S. G. Easton has been appointed agent, Dominion Ex. Co., Red Deer, Alta., vice H. W. Kinzett, transferred.

The Canadian Northern Ex. Co. has opened offices at Carmel, Chandler, For-

gan, Hardy, Margo, Ridpath and Sturgis, Sask.

James McLay, heretofore agent, Dominion Ex. Co., Portage la Prairie, Man., has been appointed agent at Swift Current, Sask.

C. E. Ford, heretofore route agent, Dominion Ex. Co., has been appointed agent at Edmonton, Alta., vice A. W. Johnston, resigned.

R. Glover, heretofore cashier, Dominion Ex. Co., North Bay, Ont., has been appointed agent at Orangeville, Ont., vice A. Shain, resigned.

The Dominion Ex. Co. has opened offices at Port Dover, Ont.; Fleet, Alta., and West Summerland, B.C., and has closed its offices at Oxford Lake and Blue Sea, Que., and Poplar and Tappen, B.C.

The Board of Railway Commissioners has disallowed the Dominion Ex. Co.'s notice of cancellation of rates on fresh and frozen fish covered by supplement 3 to its tariff C.R.C. 4434, on complaints from fish shippers in Montreal, Winnipeg and Portage la Prairie.

It is announced from Edmonton, Alta., that the Alberta Government is taking a friendly action against the Dominion Ex. Co. to settle the question as to the amount of intoxicating liquor which an express company may handle under the recently enacted prohibitory laws. The Provincial act provides that one quart of spirits and two gallons of malt liquor may be imported for private use, and if more than this is found on any premises it is to be taken as prima facie evidence that it is being held for illegal use. It is claimed that express companies have no option in the matter, but that they must accept goods as offered for transportation, and the Government holds that the act which limits the quantity for private use, also limits the carrying rights of express companies. The action is being taken on a specific case against the Dominion Ex. Co. for delivering to a private citizen in Calgary a quantity of liquor in excess of the legal one quart of spirits and two gallons of malt liquor.

The St. Paul, Minn. Union Station buildings were condemned by the State Fire Marshal recently and ordered to be removed within six months. The order was issued on the ground that the buildings are dangerous to human life and surrounding property. Plans for the construction of a new station by the St. Paul Union Depot Co. have not yet been agreed to by all the roads concerned. The plans for a new station first prepared have been objected to by the President of the Chicago Great Western Rd. on the ground that the plan of operation of the track system would be prohibitively expensive.

Greater Winnipeg Water District Land Settlement.—In connection with the construction of the new water supply aqueduct for Winnipeg a railway was built from St. Boniface to Waugh, on the Shoal Lake inlet of Rainy Lake. The commissioners in charge, desiring to promote settlement along the line, an arrangement has been made with the Manitoba Government, under which three and a half townships have been acquired from the Dominion Government in the Birch River district, 72 miles from Winnipeg, and are being opened for immediate settlement. A land settlement office has been opened under the charge of E. W. Kopecki, and the government departments will co-operate in the work.

Electric Railway Department

Passenger Cars for London and Port Stanley Railway.

Some preliminary details of the three motor passenger cars which are being added to the London & Port Stanley Ry. equipment were given in Canadian Railway and Marine World for November. These cars will be, in most respects, duplicates of those already in service on the line, but in addition to being longer, there will be embodied a number of improvements, all making for increased convenience and efficiency. Following are the general dimensions of the car bodies:—

Length over all	71 ft. 7 ins.
Length over end vestibules	69 ft.
Length over end of car body	57 ft. 3 ins.
Width over all	9 ft. 10 ins.
Width over sheathing	9 ft. 6 ins.
Width over platform floor including trapdoors	9 ft. 6 ins.
Height from rail to top of roof (car light)	13 ft. 6 1/4 ins.
Height from under side of sills to top of roof	9 ft. 10 1/4 ins.
Height from top of rail to top of platform (car light)	4 ft. 3 1/4 ins.
Seating capacity of passengers	72

The weight of the car body, including heat equipment, seats, light foundations, brake, draft gear, including supports, ready for the installation of control equipment and air brakes, will be about 49,733 lb.; control equipment, 9,500 lb.; air brake equipment, 2,220 lb.; 4 motors complete, 16,000 lb.; 2 trucks, 7 ft. wheel base with 36 in. steel wheels and 6 in. axle with 5 x 9 in. journals, 25,006 lb., making the total approximate weight of the car complete, 102,459 lb.

The equipment, which will be supplied to the car builders by the Hydro Electric Power Commission of Ontario, which is handling the matter for the London Railway Commission, will, for each car, consist of:—4 G.E. 225B 1,500 volt motors, 1 type E, G.E. 1,500 volt control apparatus, 1 c.p. 29A. G.E. air compressor, including complete straight and automatic air equipment, double end, not including pipes and fittings; 2 G.E. pantographs complete, with main fuse in top of roof and insulation, not including brackets and suspensions; 2 headlights, 1 set of complete cables for motors and control, but not air equipment; 1 set of 1,500 volt electric heaters, but not including conduit cables and brackets; 2 trucks complete with wheels, axles and brake beams, to connect up with brake rod under car body furnished by the builders; 1 air signal system, not including piping; 36 seats, 24 finished in plush and 12 in fabrikooid; 1 complete storage battery.

The entire bottom frame of the car is to be made of structural steel shapes and plates, centre and side sills to be continuous, floor and side frames to include cross beams designed to transfer floor load to the side trusses. The floor framing will be braced diagonally between the cross beams, and the end and vestibule framing will have special provision against the effects of a collision. The corner and side posts will be of channel construction, and intermediate posts of T iron, side sheathing, including roof, of steel plate, braced and fastened to the bottom sills and side plates by rivets. The inside of the car will be of solid quarter sawed Mexican mahogany inlaid finish. The flooring of the main body and vestibule will be of yellow pine 3/4 by 3 1/2 in. double flooring for the whole car, and between each floor there will be two layers of waterproof felt paper. The lavatories will have rub-

ber tiling on the floors, white with blue lines, smooth finish. The platform will be on the same level as the car floor, and enclosed with stationary round vestibules sheathed outside with 1-16 in. sheet steel, and inside with wooden panels of ash. Each vestibule will have two drop windows and swinging end door with 26 in. opening, and two side swinging doors each with 29 in. opening. The step opening will be enclosed with single swing doors arranged to swing against the end of the car body, and the openings between the edge of the platform and vestibule doors will be fitted with trapdoors of metal with extension threshold. Triple steps of the steam railway car pattern, made of steel, fitted with anti-slip metal treads and brass finishing strips, after the Pullman design, will be supplied. The vestibule doors will be of mahogany, panelled in the lower portion and glazed in the upper. The roof will be of steel plate 1-16 in. thick, rivetted to the carlines, all joints to be welded or soldered to make a tight joint, and the whole roof will be smooth finish. Twenty automatic ventilators will be built in the roof, 10 on each side. Window fixtures will be finished in bronze, and each sash equipped with rubber weather strip all round, window frames of mahogany with 1/4 in. plate glass laid in rubber; the upper oval windows and the lavatory windows will be of opalescent cathedral glass, the latter being after the Pullman design. The cars will be provided at each end with one spring buffer complete, and with two air sanders. A steam locomotive pilot will be provided at each end of the cars, so arranged as not to interfere with the radial draft rigging. Each car will be equipped with two lavatories, complete with all up to date fittings.

In deciding on the specification details of these cars, the desire was to obtain as light a car as possible, consistent with absolute safety. The original approximate weight for the cars was 104,729 lb., but careful calculation and refinement of design, enabled the engineers to adjust the specifications and reduce the weight to 102,459 lb. The body weight of the car per foot length works out at 710.47, and the body and equipment weight per foot length is 1,463.7 lb. The average weight per car foot length for steam railway cars of similar length, complete with trucks, etc., is somewhere about 1,300 to 1,500 lb. The total dead load carried on the two side plates is 61,720 lb., and the live load 15,000, making a total of 76,720 lb. This load is divided as follows—on the centre span 55,000 lb., carried on the overhang 21,720 lb. The load carried on each beam at each end is 5,430 lb., the total load on each beam being 38,360 lb. The web is being stiffened against buckling, by the application of stiffeners at the ends and inner edges of bearing plates at all points of concentrated loads, and also at intermediate points, and not farther apart than the depth of the full web plate, with a minimum limit of 5 ft., the actual minimum distance between stiffeners being 2 ft. 10 in., and depth of web 3 ft. 0 1/2 in. The specifications adopted give maximum capacity of 3,671 moment of inertia, an excess on safe side of 1,509; 12,500 vertical shear, an excess of 11,100; stiffeners every 2 ft. 10 in.,

2 3/4 in. closer than required, and 0.00278 of span deflections, an excess over maximum demand of 0.00108 of span.

In construction generally, the details are the same as for the cars now in operation, all of which were fully described and illustrated in Canadian Railway and Marine World for Jan. 1915. The chief difference between those cars and the ones herein described, is in length, where an additional 10 ft. 7 in. is obtained. Among the improvements are, larger and more convenient lavatories, large water cooler with sanitary drinking cups, rubber tiling for flooring of lavatories, rubber matting over trapdoors, heavier fittings generally throughout the car, sliding doors leading from platform to main car body, spring buffers at each end of car, steps at both ends, larger doors of the sliding type over steps leading into the baggage compartment, two collapsible seats in the baggage compartment and trainman's locker, in addition to a few slight changes in design tending toward lower maintenance cost and general efficiency.

An order has been placed with the Jewett Car Co., Newark, Ohio, for two cars according to this specification, and the electrical equipment, which is practically the same as that supplied for the cars now in operation, has been ordered from the Canadian General Electric Co. Delivery of the cars is to be made by June 1.

The Ontario West Shore Railway Difficulty.

An engineer representing the Hydro Electric Power Commission of Ontario was reported, on Nov. 16, to be going over the old Ontario West Shore Ry. route from Goderich toward Kincardine, Ont. This is the railway partially built by a company, the controlling power in which was exercised by J. W. Moyes, Toronto, upon the proceeds of bonds guaranteed by the municipalities through which the line was to run. The municipalities are paying up on the bonds and have the uncompleted line as an asset. The object of the present survey is to ascertain the cost of completing the line and putting it in order for operation.

It is reported that the C.P.R. is interested in getting the line in operation and is prepared to offer a free right of way over the Maitland River bridge in return for freight shed privileges uptown. From the south bank of the Maitland River the route into Goderich would be along the river bank to the north end of Cambric Road.

Handling "Near Accidents."—In Buffalo, N.Y., conductors and motormen report license numbers of automobiles whose drivers are reckless, or who are responsible for "near accidents." The International Ry. safety committee communicates with the owner of such automobile, and if a second report is received against the same driver, the matter is taken up with the police department. It is expected that results mutually beneficial to both the railway company and auto owners will follow.

Three Rivers Traction Co's Lines and Equipment.

In the article under the above heading in Canadian Railway and Marine World for November there were three unfortunate errors. It was stated that with the opening of the Cap de la Madeleine extension the company would have in operation 42 miles of track. The omission of a decimal point between the 4 and 2, in the information supplied us, was responsible for the error. We have since been officially advised that the company's track mileages, incorporating extensions made from time to time since the original line was opened, are as follows: City belt line, 2.80 miles; Cap de la Madeleine subdivision, 3.85 miles; Wayagamack branch, 0.36 mile; total track mileage, 7.01. The Cap de la Madeleine subdivision and the Wayagamack branch, which starts from it, together make 4.21 miles.

The Cap de la Madeleine extension was spoken of as terminating near the Union Bay Co.'s large new paper and pulp plant. The Union Bag Co. is the owner of the plant referred to.

The additions to the company's rolling stock were spoken of as "rear-side" cars, instead of near-side.

London and Port Stanley Railway Operating Results.

A report prepared under the direction of the London, Ont., City Auditor gives the following figures for the first year of the L. & P. S. Ry's operation as an electric line by the London Railway Commission:—

Passenger earnings	\$112,173.49
Freight earnings	150,920.81
Miscellaneous earnings	11,964.02
Total gross earnings	\$281,058.32
Operating expenses	180,619.88
Net earnings	\$100,438.44
Taxes	\$ 6,962.64
Interest	40,786.29
Rental to city	20,000.00
Sinking fund	8,775.79
	76,524.72

\$23,913.72

The commissioners donated \$1,300 to the British Red Cross Society and paid off \$4,139.58 sinking fund charges which accrued during the reconstruction of the line.

Safety First Prize Sentences.

In order to interest the Victoria school children in the safety first campaign, the British Columbia Electric Ry. offered prizes for the best sentence of 11 words arranged as an acrostic of safety first. Two prizes were offered, but owing to the number of competitors, the company added five more. The awards were made for the following sentences:—

"Street accidents follow every thoughtless youngster foolishly impeding street trams."

"Sense and foresight ensure the young from injury, reducing street tragedies."

"Strict attention, for every time you forget, it represents sudden tragedy."

"Sound advice. Fathers educate the young fellows in respecting street traffic."

"Safety always first explains that your force invariably remembers schoolboy thoughtlessness."

"Serious accidents frequently ensue through young folks ignoring rules stipulated therein."

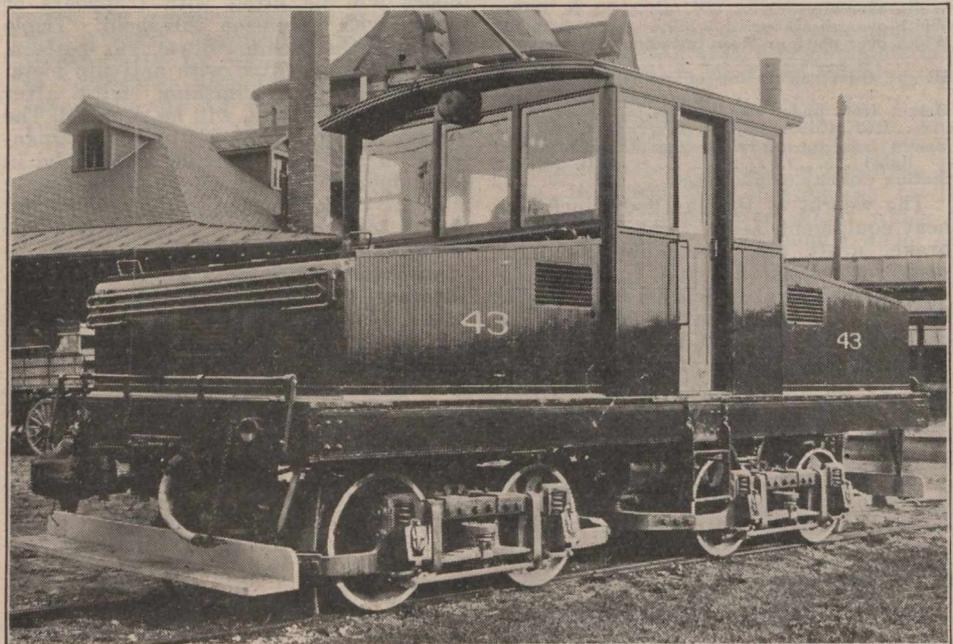
"Steer aisy, Flanigan! Else 'tis yer funeral I'm reporting sometime tomorrow."

Electric Locomotive for Oshawa Railway.

The Oshawa Ry., Oshawa, Ont., has added to its rolling stock a 25 ton switching locomotive, which is illustrated herewith. Its principal dimensions are:—

Length of body	23 ft.
Length over all, about	27 ft.
Truck centres	12 ft.
Wheel base of trucks	4 1/2 ft.
Width over all	9 ft.
Length of cab	7 ft.

The underframe is built entirely of steel; the sills are 10 in. channels at 20 lb., with heavy angle diagonal braces riveted to large gusset plates; the underframe is filled with concrete mixed with steel punchings, instead of stone, in which is imbedded old "T" rails, to give additional strength and traction weight. The cab is built of wood, as are also the



Oshawa Railway's Electric Locomotive.

sloping housings at the ends, which house the air compressor reservoirs at one end, and the rheostats at the other end.

The locomotive is equipped with a Westinghouse 101-B-2 quadruple motor equipment, with one L-4 controller arranged in either direction without the motorman changing his position. The air brake equipment consists of a Westinghouse No. 6-E-T double end equipment, with one independent and one automatic brake valve, placed near the controller, and all the small parts, such as governor, distributing valve, feed valve, reducing valve and equalizing reservoir placed in the cab, with all piping open and easy to get at. The two gauges are mounted on an iron bracket, which is bolted to the iron brake valve stand, which brings the gauges over the brake valves. The locomotive is mounted on 76-E trucks with 33 in. cast iron wheels; it is also equipped with Ohio Brass air sanders, poling sockets, also a special M-C-B coupler at each end, and one rotary gong mounted on one end of the cab. It was built by Ottawa Car Manufacturing Co., Ottawa, Ont.

The Three Rivers Traction Co. has received 2 single end and 1 double end single truck, one man p.a.y.e. cars from Ottawa Car Manufacturing Co.

The Hull Electric Co. will give a 15 minute service on the new loop line to be built in Hull, Que., immediately.

An Alien's Right to Sue as Tutor Questioned in Quebec.

The Court of Appeal, sitting in Montreal in October, heard the Montreal Tramway Co.'s appeal against a verdict in the Superior Court awarding \$2,000 to Peter McAllister as tutor of Francis McAllister, injured in a tramway accident. The latter was a student at Loyola College, and the accident occurred in front of the M.A.A.A. grounds at Westmount. Counsel for the company contended that the victim of the accident was born in Ithaca, N.Y., and still resided there at the time of the accident; that his tutor and father also was a United States subject, residing in Ithaca. The victim was a minor, under the Quebec law, being less than 21 years of age. Under the Quebec law, minors cannot sue before the courts

to recover damages resulting from personal injuries, and their proceedings must be entered in the name of a tutor appointed to them for that purpose. An alien, as in the present case, a United States subject, cannot be appointed a tutor under the Quebec laws, as this is considered a public function to which only British subjects can be appointed. The father of Francis McAllister having been appointed a tutor by a Quebec court, his appointment was totally illegal and could not be considered as having given him any status before the Quebec courts.

The respondent, through counsel, answered this by stating that the personal legal status of the victim of the accident was ruled by New York State laws, and even if the father of the victim had been illegally appointed tutor by a Quebec court, he had been appointed guardian and guardian ad litem by a New York court, and the Quebec Civil Code, acknowledged, at least, the latter status by article 6. Judgment was reserved.

The Montreal Board of Control, on Nov. 16, decided to consult with the city engineers upon the desirability of granting the Canadian Northern Ry.'s application for the stopping of street car traffic on Dorchester St. while a bridge is being built and the work done in connection with the building of the C.N.R. terminal station.

Sandwich, Windsor & Amherstburg Railway Employes Wages.

Canadian Railway and Marine World for November contained particulars of demands made by Sandwich, Windsor & Amherstburg Ry. employes, which were submitted to a board of investigation and conciliation under the Industrial Disputes Act, its members being the county judge of Essex as chairman, E. G. Henderson, of the Windsor Salt Co., representing the railway, and Magnus Sinclair, of Toronto, representing the men. As the result of the board's work, a new agreement was entered into between the company and the men, to be in force from Oct. 1, 1916, to Apr. 1, 1918. The following table shows the hourly wages paid up to Sept. 30, the wages asked by the men, and the wages agreed on by the arbitrators:

	Old.	Asked.	New.
First 6 months	25c	27½c	28c
Second 6 months	26c	32½c	29c
Second year	27c	35c	31c
After second year	28c	35c	32c

An additional allowance of 1c an hour, exclusive of overtime, is to be paid to all conductors and motormen in lieu of uniforms. Caps and badges will be supplied free by the company, and all men must be in suitable uniform, clean and tidy when on duty. The day's work for all conductors and motormen is from 9 to 10 hours, to be completed within 12 consecutive hours as far as possible. The runs are to be as nearly equally divided as possible between two crews, to be known as early and late runs, and when practical the present schedule shall be arranged to provide for this. Conductors and motormen will not be required to perform extra work in excess of the regular schedule of 10 hours work, except in cases of necessity, and for such extra work shall receive 4c an hour extra. Conductors and motormen training students shall be allowed 25c a day therefor while so engaged. Spare men must be at the barn for work at 5.45 a.m. and at 4 p.m. Those who fail to procure work shall be allowed one hour for such attendance, either morning or afternoon.

The other principal points in the agreement are summarized as follows: Should any difficulty arise out of the agreement or should any other matter arise which is not provided for in the agreement, the company's officers shall at all reasonable times here such representatives as the employes may nominate from their own number, regardless of the fact that they may be members of a committee or members of a division of the Amalgamated Association of Street Railway Employes of America. The company will not discriminate against any employe for being a member of the Amalgamated Association of Street & Electric Railway Employes of America, and any employes who are members of any committee of the employes, or are officers of any association of employes, or delegates to conventions of street railway men, shall be entitled to leave of absence to do committee work or attend conventions without losing any privilege. Any employe against whom charges may be received will be required to report when off duty to the Superintendent. His case will be considered by the proper officers and dealt with according to the company's rules, but any employe against whom a charge is made shall have the right to appeal to the General Manager or President, and may take with him any committee or delegation of his fellow employes and if upon investigation it is proved that there was not sufficient cause for his suspension or dis-

missal he shall be reinstated in his former position and paid at schedule rate for all time lost. All cars are to be cleaned, oiled, and equipped, and fires laid by barn men at Windsor barns prior to car men taking out cars for their runs. All cars are to be properly equipped with good brakes, fenders and modern sanders, as required by the Ontario Railway Act.

Magnus Sinclair, the men's representative, in signing the unanimous report of the board endorsing the agreement as entered into, reserved the right to make an additional report as to the question of recognition of the American Association of Street and Electric Railway Employes of America. In a lengthy report he said that on receipt of the men's demands as printed in Canadian Railway and Marine World for November, James Anderson, General Manager, stated that while the company would not recognize any organization of the employes, it had no objection to their belonging to any organization and that it would not discriminate against them therefor, but that it would not enter into an agreement that would compel the employes to join any union. He charged that two employes, L. Salive and F. Fields, had been dismissed by Mr. Anderson because they circulated a petition among their fellow employes asking for an increase in wages, but added that they were reinstated. Mr. Sinclair also contended that the Detroit United Ry., which owns and controls the Sandwich, Windsor & Amherstburg Ry., has agreements with the other four groups of its employes which are made with the local unions, and he protested that the Sandwich, Windsor & Amherstburg Ry. employes were being discriminated against.

The British Columbia Electric Railway and the Jitney Business.

The Vancouver City Council's application to the British Columbia Electric Ry. recently for a reduction in rates for domestic electric lighting in the city brought out some discussion on the jitney situation. The chairman of the special committee which had interviewed the company's management on the matter reported that the officials said it was impossible to give a lesser rate for power used for domestic lighting purposes as the company's annual interest on the bonded indebtedness, amounting to \$960,000, was compared with \$850,000 gross revenue received from June, 1915, to June, 1916, which showed a net loss of \$110,000. This General Manager Kidd assured them would be still further increased in the coming year in all likelihood, because the company's new agreement with its employes called for additional wages amounting to \$120,000.

Alderman Gale, supplementing the report, said the company's officers practically refused to reduce the rates unless the council would enact legislation regulating the jitney traffic along lines similar to that regulating corporations. The company was undoubtedly losing money every day in consequence of the jitney traffic.

Alderman Woodside said there was another aspect to the jitney traffic and that was the question of street maintenance. Jitneys were rapidly destroying the pavements especially at crossings.

Alderman Mahon said the jitney traffic was being operated at a loss of revenue to the city. The B.C.E. Ry. paid a percentage of its revenue to the city and, according to his calculations, if it had not been for the jitney traffic the percentage

receivable by the city would have increased from the 5% for 1915 to 6% in 1916. The loss of this 1% was a serious matter for the city.

As a result of the discussion a special committee, consisting of Aldermen Mahon, Gale, Kirk and McIntosh, was appointed to procure exhaustive data in respect to the jitney traffic, what benefits the city was actually deriving therefrom and any other matter which the investigation might bring forth. The subject matter of the report will be brought before the city council upon a motion, notice of which was given, to amend the jitney bylaw. The special committee met the jitney men, Nov. 9, to discuss the matter, officials of the B.C.E. Ry. being asked to be present.

The company's attitude on the jitney situation is expressed in a letter from G. Kidd, General manager, read to the city council recently, in connection with the second tracking of Hastings St. East. He said: "I regret to inform you that the attitude adopted by the municipal authorities in refusing to adequately control the jitney traffic in the same way as my company is controlled under acts passed by the Provincial Legislature and under its various agreements with the city and surrounding municipalities, has prejudiced our credit to such an extent that it is now altogether impossible for us to consider any question involving further expenditure on our street railway system.

"The attitude of my company in this connection is the same as that adopted by all street railway companies on the continent, and is fully recognized by public service commissions and other authorities which have inquired into the jitney traffic. In support of this statement I enclose a print of the decision of the Up-State Public Service Commissions of New York, which prohibited jitneys from operating along substantially the same routes as street cars in Rochester. The following extracts from the decision would apply in Vancouver as well as in Rochester:

"We are of opinion that the electric railway must for many years be regarded as the backbone of any dependable transportation system in such a city. To arrest the development of its electric railway would be to injure greatly the city's growth and future prospects. In our opinion no dependable form of transportation, good alike in winter and summer, has yet been devised to take the place of what this city would lose if further development of its electric railway was to be discouraged and interfered with by the state. Protection is being extended it (street railway system), now because we feel that on the whole the existing street railway system of this city, viewed not as a mere money-making machine, operated for the benefit of its stockholders, but as a public agency, is distinctly worth saving in the interests of the people."

"In other words, the commission referred to realizes that the public cannot have an adequate street car service and unregulated jitneys existing side by side. The public must choose which service they prefer and if they decide to favor the jitneys by releasing them from obligations which they impose on the tramway company, then they must sooner or later realize that all development work by the tramway company must cease."

The Hull, Que., city council, on Nov. 9, authorized the remission of the second business tax of \$1,000 imposed for the first time this year, on the Hull Electric Co.

Electric Railway Projects, Construction, Betterments, Etc.

Brantford and Hamilton Ry.—We are officially advised that the extension from Market St., the present terminus of the company's line in Brantford, to the Lake Erie & Northern Ry station is 1,500 ft. This extension is now being built upon the company's own right of way. E. P. Coleman, Hamilton, Ont., is General Manager. (Nov., pg. 460.)

Brantford Municipal Ry.—We are officially advised that the extension of the track on Morrall St., in the Holmedale district, Brantford, Ont., for 1,100 ft. is in progress. (Oct., pg. 425.)

British Columbia Electric Ry.—A letter from the company was read at a meeting of the Vancouver City Council, Oct. 24, declining to comply with the council's request of Oct. 7, to construct a second track on Hastings St. East, from Renfrew St. to the city boundary. Notwithstanding this the council's Railway and Bridges Committee decided, Nov. 2, to ask the city council to renew the request.

A good deal of track repair work has been done during the autumn on the Fraser Valley line. Road crossings have been repaired, and on long stretches of the track new ties have been put in and additional quantities of ballast spread. (Nov., pg. 460.)

Calgary Municipal Ry.—We are officially advised that half a mile of single track is being built to connect with the north section of the city over the new Centre St. bridge. The opening of this route will save a mile ride between the two outside sections of the city as compared with the present route via West Calgary. For this purpose the city has purchased 30 tons of 80 lb. rails from the City of Lethbridge. T. H. McCauley is General Superintendent, Calgary, Alta. (Oct., pg. 425.)

Edmonton Radial Ry. We are officially advised that there is no truth in a recent press report that the city council was about to expend \$75,000 upon extensions. All the extension work contemplated is an 1,800 ft. piece of track to Elm Park, the estimated cost being \$2,500, and for which most of the material is in stock. A. G. Harrison is City Commissioner. (Nov., pg. 460.)

Hull Electric Co.—We are officially advised that the improvements, second track work and extensions which it is proposed to carry out in Hull, Que., are as follows: A second track on Montcalm St. and Chelsea Road; a loop on Chelsea Road, Mountain Road, Second Ave. and Montcalm Ave. The length of second track to be laid is 8,660 ft., and of loop line, 4,800 ft. The city council, on May 9, authorized the signing of the contract covering these alterations. G. Gordon Gale is General Manager. (Oct., pg. 425.)

Halifax Electric Tramway Co.—In an address before the Halifax Commercial Club recently, H. R. Mallison, of Montreal, Secretary to the President, H.E.T. Co., stated that exclusive of the proposed hydro electric power development at Gaspereaux, N.S., the company was spending \$1,500,000 upon the improvement of the gas, electricity and tramway plants in the city. The steam plant for the production of electric power was being doubled, so that when the hydro electric power plant was in operation there would be ample reserve to prevent any interruption of Gaspereaux plant.

The company's tramway lines had been spread out in various parts of the city

wherever business was available and in some cases lines had been built over territory which, under ordinary circumstances, would be considered unprofitable. Certain improvements in the service had been inaugurated during the past year and others were in contemplation. The general conditions of service might be materially improved. Owing to changed conditions in the city the lines as originally laid out do not prove to be the most convenient and direct routes for serving the population. The conditions in the city were still changing, largely owing to the construction of the new ocean terminals for the Intercolonial Ry. As a preliminary step towards the general rearrangement of the lines application had been made to the city council for permission to remove the present single track curves on Hollis, George Granville and Buckingham Sts. This would cost a considerable amount, but was necessary in the general interests of the public. Other work in this direction was in contemplation, but as the plans had not yet been approved by the directors, he was not in a position to say anything about them. (April, pg. 156.)

Montreal Tramways Co.—The discussion of the proposed new franchise for the company is still being carried on by the Board of Control. Questions dealing with the service, such as the frequency and speed of cars on the several lines; the fares and conditions connected therewith; the number of passengers to be carried per car, and of extensions of lines have been discussed and certain preliminary understandings reached. The question of the extension of lines was under discussion Nov. 9. The board decided in favor of the following extensions which were among those recommended by G. R. MacLeod, the city's engineer in charge of railway matters:—Atwater Ave., across the G.T.R. tracks and the Lachine Canal to Centre St.; Charlevoix St., from Centre St. to Wellington St.; from Van Horne Ave. via Park Ave., Beaumont and Brenner Sts. to Abraham Ave.; Davidson St., from Ontario St. to Notre Dame St.; Dickson St., from Notre Dame St. to Boyce St. The company objected to the first named extension on the ground of its having to be constructed across four G.T.R. tracks, and it was suggested that the Board of Railway Commissioners would order the necessary safety devices to be installed or that an arrangement might be made to carry the street railway tracks across the steam railway by a bridge. The widening of Dickson St. to 66 ft. was suggested, the company to give the land through one of its controlled concerns which owns it. Other extensions were discussed but no decision reached in regard to them. It was resolved that the city and other public bodies should unite in approaching the Dominion Government to secure aid towards the construction of certain tunnels necessary in connection with the extension plans, which are estimated to cost \$2,300,000. These are to be located at Wellington St., estimated to cost \$1,300,000, and at Charlevoix on Atwater Ave., estimated cost, \$1,000,000. (Nov., pg. 460.)

It is reported that the company will erect an overhead bridge on Fortification Lane, Montreal. (Nov., pg. 464.)

Oshawa Ry.—We are officially advised that the contract for building the new heating chamber at the company's plant, Oshawa, Ont., has been let to R. Wallace

for \$1,400, and that the contract for the heating plant has been let to G. T. Lander, Oshawa, for \$1,600. H. W. Cooper is Manager, Ganaoque, Ont.

Ottawa Electric Ry.—Petitions are being extensively signed asking the municipalities interested to arrange with the company to extend its line to Notre Dame Cemetery. The matter came before the Eastview Town Council some time ago, when the company informed that body it would not extend the line until it had an extension of its franchise.

Port Arthur Civic Ry.—We are officially advised that it is contemplated to resurface the tracks on Cumberland St., from McVicar St. to Arthur St., and to replace the present rail joints with 100 lb. joints. M. M. Inglis is Manager, Port Arthur, Ont. (Aug., pg. 338.)

Saskatoon Municipal Ry.—The new bridge at Twenty-fifth St., Saskatoon, built by the Saskatchewan Government, the city paying one-third of the cost, was opened for traffic Oct. 31. A double track for electric railway operation is laid over the bridge, but it is not intended to put up the overhead wires for the running of cars until the spring.

Sudbury-Copper Cliff Suburban Electric Ry.—The Board of Railway Commissioners had before it at Ottawa, Nov. 7, the company's application for an order apportioning the cost of straightening the Nelson St. bridge, Sudbury, Ont., and authorizing the company to operate its electric railway over it. (Oct., pg. 425.)

Toronto Suburban Ry.—We are officially advised that construction on the extension from Lambton to Guelph, Ont., is practically finished, there remaining only two sidings and a Y at Guelph to put in. The material has been ordered for all of the overhead work, and the stringing of the wire was commenced at the Guelph end Nov. 3. It is the company's intention to take power from the Toronto & Niagara Power Co. at Islington, where a substation is to be built. This substation, for which the greater part of the material has been delivered, will be of galvanized iron with concrete floor. Some of the cars, which are being built at Preston, Ont., are expected to be delivered early in December. It is expected that everything will be ready so as to permit the operation of the line to Guelph early in Jan., 1917.

Transcona, Man.—At a meeting of the St. Boniface, Man., City Council, Nov. 14, it was stated that the Winnipeg Electric Ry. was negotiating with the Transcona Town Council in regard to building an electric railway to serve that town.

Work is Reported to Have Been Started at Calabogie, Ont., upon the development of an electric power plant at the foot of Lake Calabogie, an expansion of the Madawaska River. It is expected to develop 5,000 h.p., and to transmit the power either wholly or partly to Renfrew, a distance of 20 miles. Mr. J. O'Brien is the principal promoter of the new plant.

Toronto Civic Ry. Wages.—On Oct. 1 the wages were advanced as follows:—Conductors and motormen increased from 27½c to 30c for week days and from 31¾c to 34c for Sundays. Car repairers and shedmen increased from 27¼ to 30c for week days and from 30¾c to 32½c for Sundays. No difference in pay is made on account of length of service.

Moose Jaw Electric Railway Employs Wages.

On application by the Moose Jaw Electric Ry. conductors and motormen, members of the Amalgamated Association of Street & Electric Railway Employees of America, Division 614, a board of investigation and conciliation under the Industrial Disputes Act was appointed by the Minister of Labor recently. The men's complaints were in regard to wages, hours of labor, working conditions and nonrecognition of the union. The wages paid up to Dec. 16, 1914, were as follows per hour: 1st 6 months 27½c, 2nd 6 months 30c, 2nd year 32½c, 3rd year and after 35c. From that date the company reduced the wages 10%, stating that the reduction was due altogether to conditions which were prevalent throughout the country and that as soon as times changed for the better the reduction would be removed. In February, 1915, a further reduction of 5% was made, making a total reduction of 15%. The company contended that conditions had not improved sufficiently to warrant it in fully restoring the rates paid prior to Dec. 16, 1914, but on July 21, 1916, issued a bulletin stating that the rates from July 16 would be: 1st 6 months 26c, 2nd 6 months 26½c, 2nd year 27½c, 3rd year 30c. The men not being satisfied, the company on Aug. 31 offered the following rates: 1st 6 months 26c, 2nd 6 months 26½c, 2nd year 28½c, 3rd year 31c. The men refused this offer and applied for a board of investigation, etc., at one of the meetings of which the men's representative suggested the following rates as a compromise: 1st 6 months 26c, 2nd 6 months 27c, 2nd year 29c, 3rd year 32c. The company, through its Superintendent, expressed its willingness to pay 5c an hour extra on legal holidays. The matter was then submitted to the men at a meeting, when they repudiated their representative's offer of a compromise and decided to leave the matter to the board. The board being unable to agree, the chairman, J. H. Wellington, and the men's representative, Jas. Somerville, presented a majority report embracing a draft agreement fixing the wages up to August, 1917, as follows: 1st 6 months 26c, 2nd 6 months 27c, 2nd year 29c, 3rd year 32c.

The agreement embodied in the board's report was drafted to be made between the company and the Amalgamated Association of Street and Electric Railway Employees of America, as representing the men affected by it. It also provided that 9 hours should constitute a day's work and should be observed as far as operating conditions would permit. Five cents an hour to be paid for statutory holidays. Conductors and motormen to be allowed 15 minutes for reporting time prior to taking cars out and 15 minutes additional time for pulling away cars taken out of the service. Seats to be supplied by the company on all cars for conductors' and motormen's use when on duty, except in restricted areas. Conductors to be advanced \$30 for purchase of tickets and for change, and to have badges entitling them to transportation at all times over all lines. Other provisions were that the company had no objection to an employe being a member of the Amalgamated Association of Street and Electric Railway Employees of America, and would not discriminate against him therefor. The company to recognize a committee of the men in discussing any grievances of employes. Any employe suspended or dismissed to be reinstated if on investigation it be shown that he was not guilty

of the cause alleged.

The third member of the board, Jas. Thomson, representing the company, presented a minority report, in which, after stating that all the company's receipts were being paid out for operation, and that no dividends had been paid for two years, he contended that the company's offer of 26c, 26½c, 28½c and 31c, according to length of service, was exceedingly fair, and that he could not agree to recommend any higher rate. The conductors and motormen agreed to accept the board's majority report, but the company stated that the same was unacceptable in many respects.

Regina Municipal Railway Earnings.

Earnings, expenses, etc., for September and October, and for 10 months ended Oct. 31:—

	Sept.	Oct.	Jan. 1 to Oct. 31, '16.
Gross earnings	\$14,742.46	\$17,890.99	\$169,728.96
Expenses	13,737.96	13,232.98	156,575.50
Net earnings	1,004.50	2,658.01	13,153.46
Capital charges	8,022.96	8,022.95	80,229.60
Deficit	6,977.15	5,364.94	68,159.48
Exp. per car mile without power.	13c	14.03c	15.31c
Exp. per car mile with power	18.04c	19.49c	20.48c
Power per k.w.h.	1.41c	1.41c	1.73c
Power per k.w.h. per car mile	5.03c	5.47c	5.18c
Platform wages per car hour	70.59c	71.27c	72.16c
Exp. percentage without capital charges			85.14%
Exp. percentage with capital charges			129.98%

The Relationship of Public Utilities to the Public.

In an address before the Halifax Commercial Club, Oct. 26, H. R. Mallison, of Montreal, Secretary to the President, Halifax Electric Tramway Co., said among other things:—

"The relations between a public utility and the general public, particularly when that public utility operates both tramway, electric light and gas services, is one that is full of complications of all sorts. There is no doubt that the relations between the public utility and the general public are never very pleasant or favorable ones, for the reason that the public utility makes too generous an effort to please all its clients; while on the other hand, the general public seems to think that the public utility simply takes away their money, pays no wages or other expenses, and gives the public nothing in return.

"Under present day practice, the owners of public utilities have really very little to say with regard to the conduct of their business, and the general public has a great deal to say as to how the utility shall conduct itself: what it shall do and how much it shall charge for its services rendered. This situation arises through the operation of the public utilities commissions, and the every action of the public utility, whether it be the class and amount of service rendered, the price it shall charge for the services rendered, what revenue, if any, the owners of the property shall receive on their investment, how much capital they shall issue upon their properties, and how they shall expend that capital, is all subject to the will of the people of the community, through the rules and regulations laid down by the public utilities commissions.

"Considering these conditions it should be seen that the general public,

instead of continually obstructing the progress of the public utility in any city, should, for their own best interests, aid the utility to conduct its business as economically and as satisfactorily as possible."

Mainly About Electric Railway People.

Lieutenant Governor McKeen, of Nova Scotia, who died at Halifax, Nov. 13, was formerly President, Halifax Electric Tramway Co.

W. D. Reid, Traffic Manager, and F. Phillips, Master Mechanic, Port Arthur Civic Ry., have been appointed examiners of motormen.

W. N. Myles, who was Manager of the Hamilton & Dundas Ry. some years ago, died in St. Joseph's Hospital, Hamilton, Ont., Nov. 2, aged 69, after an illness of several weeks.

Lt. Col. G. C. Royce, General Manager, Toronto Suburban Ry., is to command another battalion of the Queen's Own Rifles, Toronto, which is to be organized for overseas service.

Thomas Ahearn, President, Ottawa Electric Ry., is said to hold the record for the fastest run by motor between Ottawa and New York, viz.: 458 miles in 13 hrs. 20 min.

W. T. Woodrooffe, formerly Superintendent, Edmonton Municipal Ry., and prior to that in the British Columbia Electric Ry. Co.'s service, whose death was reported in our last issue, enlisted in the 51st Battalion at Edmonton, Alta., as a private in the autumn of 1915. The battalion was broken up in England and the men drafted into various other battalions on active service, during which Mr. Woodrooffe received two stripes. It is believed that he was in the 29th Battalion of Edmonton when he fell.

J. P. McKenzie, Assistant Superintendent and Electrical Engineer, Saskatoon Municipal Ry., left Saskatoon, Sask., Nov. 8, 1916, for St. Johns, Que., having been appointed a lieutenant in the Canadian Engineers, C.E.F. He was appointed Master Mechanic when the Saskatoon Municipal Ry. started operating in Dec., 1912, and was promoted to Assistant Superintendent and Electrical Engineer in Jan., 1916. H. Swail has been appointed Assistant Superintendent (Transportation), and A. Gardiner, Secretary. A. M. Murray, heretofore Foreman of Barn, has been appointed Master Mechanic and Engineer in charge of Overhead.

Safety Equipment, Windsor, Essex & Lake Shore Rapid Ry.—The Board of Railway Commissioners issued order 25613, Nov. 3, directing the Windsor, Essex & Lake Shore Rapid Ry. to equip its 6,600 volt motor cars and locomotives with pneumatic or other suitable pantagraph controlling devices, so that employes may, from within the interiors of the cars and locomotives, lower and release, or raise the pantagraphs. These devices are to be installed within six months, and beginning with Apr. 15, 1917, the remainder of the motor cars and locomotives are to be equipped with the device, a period not exceeding two months being allowed in each case for the equipment of each car and each locomotive.

The Sandwich, Windsor & Amherstburg Ry. has ordered 2 single end, double truck cars, equipped with air brakes, to be built in Cleveland, Ohio.

Electric Railway Finance, Meetings, Etc.

British Columbia Electric Ry., and allied companies:—

	Sept.'16	Sept.'15	July 31 to Sept.30,'16	July 31 to Sept.30,'15
Gross	\$540,440	\$517,022	\$1,629,026	\$1,534,871
Expenses	477,389	477,206	1,428,641	1,448,479
Net	63,051	39,816	200,385	86,392

During October, 2,194,594 passengers were carried on the Vancouver city and suburban lines, a decrease of 55,956, as compared with Oct., 1915. The percentage paid to the city for traffic on the city lines was \$3,816.25, making an aggregate paid the city for 10 months ended Oct. 31, of \$29,878.60. The mileage run on the Vancouver system for October was 565,610, compared with 562,969 for Oct., 1915.

Cape Breton Electric Co.:—

	Sept. 1916	Sept. 1915	12 mths. to Sept.30, 1916	12 mths. to Sept.30, 1915
Gross	\$33,804.16	\$33,639.17	\$385,443.87	\$344,372.41
Exp's	18,189.45	18,183.93	225,937.48	207,269.74
Net	15,614.71	15,455.24	159,506.39	137,102.67

Hamilton St. Ry.—Total earnings for nine months ended Sept. 30, \$522,922, against \$410,963 for same period, 1915. City percentage for 1916 period, \$41,833, against \$32,877 for 1915 period.

Lake Erie & Northern Ry.—At a meeting of the Brantford, Ont., City Council, Oct. 30, it was reported that the \$30,000 agreed to be paid by the company for the part of the right of way of the old Grand Valley Ry. from Paris to Galt, would be paid over to the City Treasurer at an early date.

London St. Ry.:—

	Sept. 1916	Sept. 1915
Gross earnings	\$39,925.54	\$38,791.55
Expenses	23,287.02	23,192.87
Net earnings	16,638.52	15,598.68

Port Arthur Electric Ry.—Passenger traffic statistics for nine months ended Sept. 30:—

	Three months ended Mar. 30	Three months ended June 30	Three months ended Sept. 30
Passengers	465,219	549,034	744,828
Transfers	49,916	59,558	146,530
Workmen's t'kts	89,377	123,891	173,068
School children	5,228	5,587	6,072

Sherbrooke Railway & Power Co.:—

	Aug. 1916	Aug. 1915	July 1 to Aug. 31, 1916	July 1 to Aug. 31, 1915
Gross	\$14,910.47	\$10,720.68	\$29,021.26	\$23,279.75
Expenses	7,010.41	5,860.43	13,320.89	11,543.19
Net	7,900.06	4,860.25	15,700.37	11,736.56

Toronto Railway:—

	1916		1915	
	City	percentage	City	percentage
Jan.	\$473,784	\$68,847	\$471,226	\$70,486
Feb.	470,704	70,614	440,313	66,047
Mar.	518,555	97,237	488,468	93,141
Apr.	496,172	99,234	467,701	93,540
May	500,516	100,103	468,953	93,790
June	467,086	93,417	450,582	90,116
July	469,845	93,969	449,108	89,821
August	474,824	94,964	447,968	89,593
Sept.	506,621	40,530	489,574	39,166
Oct.	487,954	39,036	461,682	36,934
	\$4,866,061	\$797,951	\$4,635,575	\$762,634

Toronto Ry., Toronto & York Radial Ry., and allied companies:—

	Sept.'16	Sept.'15	Jan. 31 to Sept.30,'16	Jan. 31 to Sept.30,'15
Gross	\$913,535	\$804,902	\$8,005,764	\$7,150,605
Expenses	452,979	354,995	4,087,653	3,635,042
Net	460,556	449,907	3,918,111	3,515,563

It is announced that W. A. Reid & Co., New York, have purchased and resold \$1,250,000 gold notes bearing interest at 6%, \$500,000 maturing Dec. 1, 1917, and the balance Dec. 1, 1918.

Toronto & York Radial Ry.—The Mayor of Toronto stated to the Board of Control recently that he had had a conference with Sir Adam Beck regarding the proposed purchase of the Toronto & York Radial Ry., Metropolitan Division, by the Hydro Electric Power Commission

of Ontario, in accordance with the council's resolution of Dec., 1915, and was informed that negotiations are proceeding and are still pending, and are part of the general hydro radial programme which has been more or less delayed because of the war and the financial situation, but that satisfactory progress is being made.

Winnipeg Electric Ry.:—

	Sept.'16	Sept.'15	Jan. 31 to Sept.30,'16	Jan. 31 to Sept.30,'15
Gross	\$267,497	\$261,982	\$2,461,454	\$2,513,449
Expenses	179,644	185,256	1,582,571	1,666,849
Net	87,853	76,726	878,883	846,600

Electric Railway Notes.

The Vancouver Trades and Labor Council has asked the Vancouver City Council to compel the British Columbia Electric Ry. to place heaters in all new street cars.

The assessment placed upon the Montreal Tramway Co.'s plant, etc., for city taxation during the past year was \$5,519,455, made up of land, \$2,361,160; buildings and plant, \$1,955,025; plant on streets, \$1,203,270.

The military authorities are discussing with the Regina, Sask., City Council an arrangement whereby soldiers in uniform quartered in the city during the winter will be carried at reduced fares on the Regina Municipal Ry.

The Quebec Ry., Light & Power Co. is building in its shops at Ste. Anne de Beaupre, 2 double truck cars of the p.a.y.e. type, 40 ft. long over all, for city service. They will be numbered 654 and 655, and will be equipped with S.W.B. double trucks and T.M.C. steel tired wheels, Westinghouse 101-B-2 quadruple motor equipment and Westinghouse S.M.E. air brakes.

The Lake Erie & Northern Ry. obtained an order in an Ontario court, Nov. 13, appointing arbitrators to fix the compensation to be paid by the City of Brantford for lands taken on Jubilee Terrace. The Parks Board of the city council asks \$15,000, and the company offers \$1. Judge Hardy will act as arbitrator for the city; A. E. Watts, K.C., for the company, and Judge Snider, Hamilton, will be Chairman.

In order to relieve congestion of traffic at the corner of Hastings and Main Sts., Vancouver, the British Columbia Electric Ry. has placed an extra conductor there between 4.30 and 6.30 p.m. on week days and between 12.30 and 1.30 p.m. on Saturdays, to collect fares and see people at the front end of the cars while the regular conductor does the same at the rear end. This gets the cars filled more quickly and dispatched faster.

The Board of Railway Commissioners has dismissed an application by Major G. T. McKeough for an order directing the Chatham, Wallaceburg & Lake Erie Ry. to give to persons carrying on business or professions in Chatham, Ont., but living in portions of Raleigh and Harwich Tps., served by the railway, and also to their families, a rate not to exceed 25c for a round trip ticket when such tickets are bought in book form as commutation tickets.

In connection with the 13 double truck, double end operation cars which are under construction for the Toronto Civic Ry. by the Preston Car & Coach Co., all the contracts for equipment were placed at the same time as that for the bodies, except those for gears and pinions and air brake equipment. These have since been placed, for the gears and pinions, with

Allen General Supplies, Ltd., at \$121.60 a car set; and for the air brake equipment, with Canadian Westinghouse Co., at \$365.60 a car set. In quoting the average price per car, at the time of placing the contracts, at \$8,620.50, the gears and pinions were estimated at \$108.98 a car set, and the air brake equipment at \$350 a car set.

Calgary Municipal Ry. Earnings.

Following are the earnings, expenses, etc., for September, compared with those for Sept., 1915, and aggregate for 9 months ended Sept. 30, 1916 and 1915:—

	1916.	1915.
Total revenue	\$48,486.32	\$41,972.30
Operating expenses	29,246.43	29,779.18
Net earnings	19,239.89	12,193.12
Fixed charges	16,910.26	16,187.94
Surplus	2,329.63	5,994.82
Deficit		209,265
Mileage	220,772	990,875
Passengers carried	1,116,575	20,056c.
Revenue per car mile	21.962c.	13.44c.
Expenses per car mile	13.44c.	\$1.52
Expenses per car hour	\$1.32	3.474c.
Power per car mile	3.364c.	4.093c.
Average fare	4.278c.	
Operating expenses to revenue	67.4%	70.8%
	9 months to Sept. 30, 1916.	9 months to Sept. 30, 1915.
Total revenue	\$446,325.96	\$409,723.85
Operating expenses	266,652.91	272,324.13
Fixed charges	163,367.37	146,351.13
Surplus	16,305.68	
Deficit		8,951.41

The Jitney Situation in Vancouver.—

The Vancouver Social Service Council has been taking up the question of the jitney service recently and has begun an active crusade for more effective regulation upon moral grounds. It asks particularly for the prevention of overcrowding and for the internal lighting of all cars. The public authorities in every place where jitneys are being operated are being invited to join in taking action to prevent the extension of immorality through the jitney traffic. The Vancouver police have been instructed to enforce the existing regulations more rigidly than in the past, and the whole question of the regulation of the traffic is under consideration by a subcommittee. The British Columbia Electric Ry. is objecting to the jitney traffic on the ground that it is an unfair competition. The Jitney League and the Jitney Protective Association, the two organizations of jitney men, decided, Oct. 28, to amalgamate their forces for the better protection of their interests.

Buffalo Night Service.—The International Ry. Co., of Buffalo, N.Y., started an innovation recently, as far as owl car service is concerned, which will be a great benefit to patrons. On main lines a 30 min. service is maintained, and hourly service on other lines. In order that patrons may know when to expect a car at a certain point, arrangements have been made whereby a person may call up the dispatcher, who has before him the various schedules and arriving times at the transfer points. He is thus able to estimate the arriving time at any given point on any line.

Postmen's Transportation on Regina Municipal Ry.—Commencing Nov. 1, the Regina Municipal Ry. ceased to carry postmen except upon payment of regular fare. Under the former contract they were carried for \$25 a man per year, which the management found was giving the railway only a trifle over 1c a ride. The City Commissioner therefore asked \$50 a year, which the Post Office Department refused to give, offering \$35 instead.

Marine Department

Government Vessel Building at Sorel.

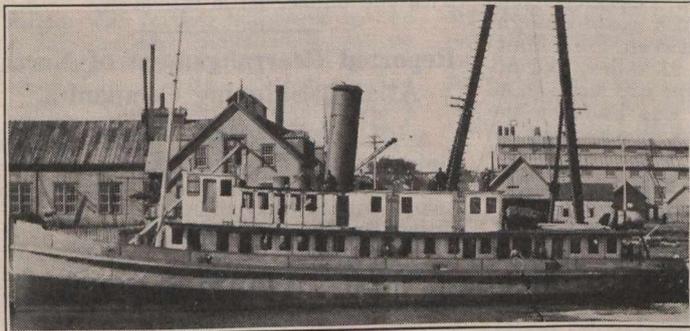
Following are particulars of vessels which have been built this year, or are being built at the Dominion Government's shipbuilding yard at Sorel, Que., of which W. S. Jackson is Superintendent:—

Coal Barge No. 6 has the following general dimensions:—Length between perpendiculars 165 ft.; length over all 172 ft.; breadth moulded 32 ft.; depth

perpendiculars 77 ft.; length over all 85 ft.; breadth moulded 18 ft.; depth moulded 7 ft.; deadweight 21 tons; speed 9½ miles. She is composite built, having steel framework, with planking of rock elm below waterline and B.C. fir above, with keel, stem and sternpost of white oak, and is to be used by the Naval Service Department for inspection of the oyster fisheries, with headquarters at

in. Steam steering engine and steam windlass are fitted and electric light is fitted throughout. One mast, with derrick to lift 3,000 lb. is fitted. Good accommodation for staff, captain, officers and crew are provided. The deckhouse on main and upper decks are of steel. She was launched in August and will be completed and tried before the winter

The **Argenteuil** has the following gen-



C.G.S. Berthier

moulded 13 ft.; deadweight 750 tons; speed 11½ miles.

The barge is of steel throughout, with 5 watertight bulkheads. There is a double bottom under engines and a large forepeak tank for trimming purposes.

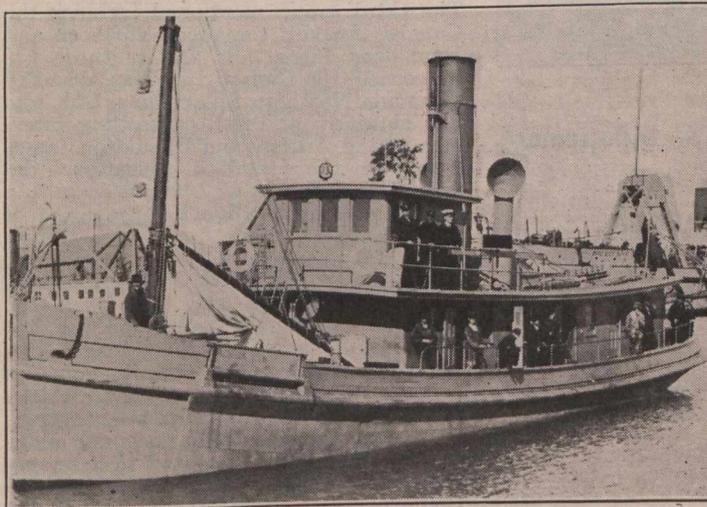
The barge will be used for coaling the St. Lawrence Ship Channel dredges which work below Quebec. She is fitted with a Brownhoist steam crane and clam of 54 cu. ft. capacity, the crane being also arranged with blocks to lift up to 6 tons,

Charlottetown, P.E.I. The machinery consists of a set of compound surface condensing engines, having cylinders 10 and 20x12 in., supplied with steam from a Scotch boiler 8½ ft. diam. by 8¼ ft. long, with a working pressure of 120 lb. per sq. in. There is also a steam steering gear, and a 2 barrel steam winch of 1 ton capacity, for handling the oyster trawls tins, is placed below deck but is controlled from the wheelhouse. This vessel is already in service.

eral dimensions:—Length between perpendiculars 94 ft.; length over all 101 ft. 5 in.; breadth moulded 21 ft.; depth moulded 8 ft.; deadweight 40 tons; speed (estimated) 9 miles. She is built of steel throughout with bottom and bilge plating protected by B.C. fir sheathing, as she will work in shallow and rocky waters. There are three watertight bulkheads and a forepeak tank for trimming purposes. She is for the use of the Marine Department for buoy service on Lake St.



Coal Barge No. 6



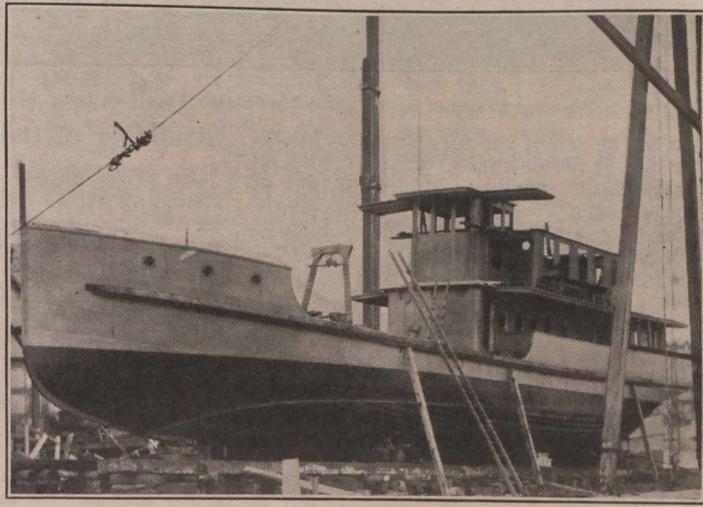
C.G.S. Ostrea

so that the barge can be used in the buoy service in the spring and autumn.

The barge has been built fully up to Lloyd's highest class to enable her to go to sea, if necessary, and is fitted with compound surface condensing engines having cylinders 20 and 42x24 in. stroke, supplied with steam from a Scotch boiler 15 ft. diam. by 11 ft. long, working pressure 130 lb. Steam steering gear and steam windlass are fitted. This barge was completed and put in service in the early summer.

The **Ostrea** has the following general dimensions:—Length between perpen-

The **Berthier** has the following general dimensions:—Length between perpendiculars 120 ft.; length over all 128 ft.; breadth moulded 24 ft.; depth moulded 12½ ft.; coal capacity 45 tons; speed (estimated) 12 miles. She is of steel throughout, with 5 watertight bulkheads, and is for the staff engineers of the St. Lawrence Ship Channel below Quebec. She is propelled by twin screws, having 2 sets of compound surface condensing engines, having cylinders 14 and 28x18 in. stroke, supplied with steam from a Scotch boiler 15 ft. diam. by 11 ft. long, at a working pressure of 130 lb. per sq.



C.G.S. Argenteuil

Louis, Ottawa River, etc., and replaces the **Maisonneuve** and derrick scow. The machinery consists of single screw jet condensing engines having cylinders 10 and 20 x 16 in. stroke, supplied with steam from a Scotch boiler 9½ in. diam. x 10 ft. long, at a working pressure of 130 lb. per sq. in. Steam steering gear, steam windlass and electric light are fitted, also a steam winch with mast and derrick capable of handling buoys up to 4 tons weight. There is good accommodation for staff, captain, officers and crew. She was launched in October and will be ready for service in the spring.

Toronto, Hamilton and Buffalo Navigation Co's Car Ferry Maitland No. 1.

As announced in our last issue, the Toronto, Hamilton & Buffalo Navigation Co., a subsidiary of the Toronto, Hamilton & Buffalo Ry., has commenced a car ferry service between Port Maitland, Ont., and Ashtabula, Ohio, thus forming a connection between the T.H. & B.R., C.P.R. and other Canadian lines, and the New York Central and other lines in the U.S.

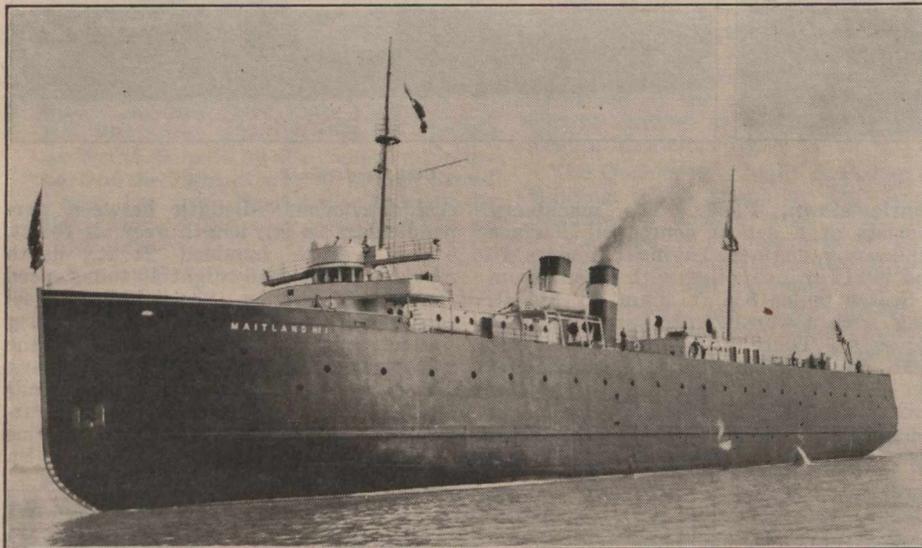
The dimensions of the car ferry Maitland No. 1, are: Length over all 350 ft.; length on keel 338 ft.; breadth moulded 56 ft.; depth at side to main deck 20½ ft.; height between main deck and shelter deck 17 ft. 7 in.; gross tonnage, 2,757.

She is of steel throughout, of the shelter deck type, with 4 tracks on the main deck for cars. The shelter deck has steel deck houses for the accommodation of the officers and crew. The pilot houses are located fore and aft, and the bridge on the top of the forward deck house and

complete with valves and pipes; 1 double funnel for each pair of boilers, and 2 ash guns in boiler room.

The propelling machinery consists of 2 vertical triple expansion engines with cylinders 19½, 31 and 52 in. diam. x 36 in. stroke, arranged with the h.p. cylinder in the centre, supplied with steam by 4 single ended Scotch boilers, each 13 ft. 2 in. x 11½ ft., at 175 lb. working pressure.

There is accommodation on the vessel for 30 cars arranged on 4 tracks on the main deck, and the working speed is 12 statute miles an hour. Capacity, 2,000 net tons dead weight on a mean draught of 14 ft. The run between Port Maitland and Ashtabula is 91 miles, and ordinarily three round trips are made in 48 hours. The car ferry was built by the Great Lakes Engineering Works, Detroit, Mich.



Toronto, Hamilton and Buffalo Navigation Co's Car Ferry Maitland No. 1.

also on the top of the forward pilot house. The hull is divided into compartments by 7 watertight transverse bulkheads, one in way of each coal bunker. Four single ended Scotch boilers are placed amidships with one 'thwartship fire hold and a wing coal bunker on each side in way of boiler room. The triple expansion engines are in a compartment next abaft the boiler room.

The following items are included in the general equipment of the vessel:—1 steam fire pump in engine room connected to a 2 in. pipe extending the whole length of the vessel on each side; 1 steam sanitary pump in engine room; 1 two-cylinder hand deck pump in engine room; a complete electric light installation, consisting of two 15 kw. direct connected generating sets; complete wireless telegraph installation; a refrigerator in the after deck house, fitted with drinking water coil set; 2 sets of engine room telegraphs for each engine; steering telegraph from top of pilot house to after end of shelter deck; 2 sectional propellers 12 ft. diam.; 1 air pump 30 x 18 in., simplex type; 1 cold water pump, independent duplex, 6 x 4 x 6 in., standard marine type; 1 bilge pump, independent duplex, 7 and 10 x 10 in.; 2 boiler feed pumps, independent simplex, 12 and 7 x 12 in.; 1 fire pump, outside centre packed positive valve type, 12 and 8 x 12 in.; 4 purifiers

Stranding of the s.s. Indutiomare.

An investigation into the causes of the stranding of the Belgian s.s. Indutiomare on White Horse rock, Magdalen Islands, Aug. 19, was held at Halifax, N.S., Oct. 13, by Capt. L. A. Demers, Dominion Wreck Commissioner, assisted by Capt. A. J. Morrison and Lieut.-Commander C. Adam, R.N.R., as nautical assessors. The court found that through over confidence in the action of his compass, the master, Henry Matthews, decided to proceed under hazy weather at full speed, which was not considered immoderate in this instance, and after running a certain distance and seeing land on his starboard bow, which he expected to find on his port bow, instead of stopping his vessel or retracing the distance he had come, in order to take the course originally intended, he proceeded after taking some cross bearings which proved either to be hastily or negligently done, as they did not coincide. It was of opinion that the errors of the compass were incorrectly deducted from the observations, and found that his deviation is marked west when it should have been east, which may account for the application being wrongly made. The court expressed the opinion that in attempting to pass a couple of miles from Deadman's Island and steering a course for North Cape,

P.E.I., and making Deadman's Island as a point of departure afterwards to steer for Cape North, Cape Breton, the master was making rather close sailing for a stranger in these waters, and a peculiar method of choosing a point of departure in selecting such a place as Deadman's Island. If he had studied the sailing directions he would have found an irregularity of tides and lack of anchoring grounds, and he should have avoided that part of the land to a greater extent than he did. It therefore found that he did not exercise the judgment which is looked for in a master. As the court has no jurisdiction over a foreign certificate, a copy of the court's finding, with the evidence, has been transmitted to the Belgian Government so that it may deal with the matter as it thinks fit.

Reported Rearrangement of North Atlantic Shipping Companies.

A Glasgow, Scotland, press dispatch states that important negotiations are taking place with a view to a large development in the shipping service between Great Britain and Canada. It is stated that there will be a regrouping of the companies, affecting the Canadian Pacific, Allan, Canadian Northern and Cunard Lines. The information contained in the dispatch is somewhat belated, as some of the movements in the so-called regrouping have already been made. The C.P.R. has had control of the Allan Line for a considerable period, and the two lines are being managed by Canadian Pacific Ocean Services, Ltd., until the trend of international events makes it advisable, in the directors' opinion, to make other arrangements. The White Star and Dominion Lines, which, according to the dispatch, are to form a group in the rumored rearrangements, have been operating to Canada as one concern for several years as the White Star-Dominion Line. The third group mentioned includes the Cunard, Anchor, Canadian Northern and Donaldson Lines. So far as these are concerned, the Cunard Line has absorbed Canadian Northern Steamships, Ltd., and has obtained, at least, controlling interests in the Anchor and Donaldson Lines. Therefore the promised sensational developments may as well be put down to a news agency's intelligent anticipation of past events.

Vancouver Dry Dock.—The Amalgamated Engineering and Dry Dock Co., which was organized before the war, but which was prevented by the financial situation from proceeding with its plans, is reported to have announced that within a few weeks it will commence the construction of its proposed dry dock and ship-building plant. It is stated that financing has been arranged in the East, and that work will be proceeded with on the site near the Wallace Shipyards, North Vancouver, B.C., almost immediately. In 1914 the company applied to the Dominion Government for aid under the act granting aid to dry dock building and an order in council was passed indicating the Governments willingness, provided the undertaking was financed, to subsidize a dock of the following dimensions:—Length from caisson stop to head wall, 1,150 ft.; width of entrance, 110 ft.; depth over sill at extreme high water spring tides, 41 ft.; depth over sill at low water spring tides, 24.25 ft. The estimated cost of the dock is \$5,458,418.37, and the subsidy mentioned in the order in council is 4% per annum for 35 years.

Customs Drawback for Shipbuilding in Canada.

A Welcome Test.

For some years past it has been evident that the Canadian shipbuilders of the Dominion have been placed at a disadvantage in competing with shipbuilders in other parts of the world, and efforts have been made from time to time to induce various governments to encourage the building of vessels within the Dominion, by the payment of a subsidy on a tonnage basis, or in some other manner, but without success. Canadian purchasers generally preferred to place their orders for new vessels in Great Britain, where the cost of production was considerably lower, and better financing arrangements could be made. Apart from the higher cost of labor in local yards, the builder was further hampered by the heavy duty he was compelled to pay on the materials which he imported, and it was mainly to this item that he looked for relief. Numerous deputations have been received by the present Government and its predecessor, and recently it was intimated that the Government intended taking steps to enquire into the situation. This was rendered imperative by the conditions created by the war. It is a practical impossibility to obtain deliveries of vessels from British shipyards, as when they are not already engaged on Admiralty work, they are heavily booked with other orders. The wastage of vessels in war service, in which a number of Canadian vessels are engaged, has made it necessary that a considerable number of new ones be built without delay, and this applies to other countries, which, although neutral, have suffered heavy losses through the illegal sinking of their vessels by the enemy. Of late, Norway has been, perhaps, the heaviest loser in this respect, and British shipbuilders being practically closed so far as new orders are concerned, orders have to be placed elsewhere, and numerous offers have been made to Canadian builders, and some orders placed. There is a restriction on the exportation of Canadian, or Canadian built vessels to foreign countries, but under the circumstances existing the necessary permission has been granted.

An order in council has been passed providing for the granting of a drawback of customs duty on articles used in the construction of vessels built in Canada, dating from Nov. 1, as follows: A drawback not exceeding 99% of the customs duty paid, may be granted and paid by the Minister of Customs on materials used in the original construction of ships and vessels measuring over 500 tons gross tonnage, built in Canada, when such ships or vessels are authorized by order in council to be exported for registry outside of Canada, or are British registered in Canada and are constructed so as to obtain a class in Lloyd's, Bureau Veritas, British Corporation, or other recognized classification satisfactory to the Minister of Customs; provided that the drawback payable under this section shall be in lieu of any drawback based on a specific rate per registered ton. The claimant for drawback must be the builder of the ship or vessel. Drawback shall be paid only on ships or vessels which have within themselves the power of independent navigation, either by means of sails, steam or other motive power. The payment of the drawback shall be subject to the following conditions: The quantity of materials used and the amount of duty paid thereon shall be ascertained; the claimant for drawback shall be required to make a declaration to the effect that he

is the builder and the claimant for drawback, that the vessel was built in Canada and is an entirely new vessel, and giving details of classification; there shall be furnished by the claimant a certificate from the Registrar of Shipping, certifying the main details of construction; the claim for drawback shall be verified under oath before a collector of customs or justice of the peace, to the satisfaction of the Minister of Customs, in such form as he shall prescribe, and the Minister may also require in any case the production of such further evidence, in addition to the usual averments, as he deems necessary to establish the bona fides of the claim; all applications for payment of drawback shall be placed before the Customs Department, with evidence as above mentioned complete, within six months from the date of registration or launching of the ship or vessel upon which the claim is made, otherwise the same shall be rejected. It has also been arranged that vessels which are being built under this order in council, may, upon application of the builders, be built under the supervision of a customs officer, who will carry the responsibility connected with the imported material used in the construction, and under these circumstances it will not be necessary to pay the duty over, as was formerly done.

A study of the terms of the order in council, taken in conjunction with drawbacks previously allowed on material imported for re-export, and of the drawback based on the specific rate of \$1.12 per registered ton, brings out the fact that the benefit under the new order is not so apparent as at first sight. There has always been allowed a drawback of 99% on all materials imported and re-exported, and this applied to vessels of any tonnage, while in the new order the drawback is confined to vessels of over 500 tons gross. Again the drawback is only payable on ships or vessels which have within themselves the power of independent navigation. This eliminates dredges from the vessels on which drawback is payable. Therefore the only actual benefit to be derived from the new order is that drawback will be paid on vessels of over 500 gross tons, having within themselves the power of independent navigation and built for British registration in Canada, and that vessels may be built for registry outside Canada. No drawback will be payable on vessels of less than 500 gross tons, nor on vessels without the independent power of navigation, such as dredges, and the drawback on vessels built for British registry in Canada, based on the specific rate of \$1.12 a registered ton, is eliminated.

The Western Dry Dock and Shipbuilding Co.'s plant at Port Arthur, Ont., which has, since its inception, been practically under U.S. control, has passed into the hands of James Whalen, Port Arthur, who has been President since its organization, and John Burnham, Chicago, Ill., and will in future be under the former's direct management. It is announced that plans for additional berths for increasing the company's output are under consideration, and it is hoped that shortly it will be possible to undertake the construction of four vessels at a time. Mr. Whalen is reported to have stated that it is intended to maintain a permanent organization, and should contracts at any time not be sufficient, it is the intention to build on company's account.

The Interstate Commerce Commission has included the C.P.R. and the Grand Trunk Pacific Coast Steamship Co. in the probe instituted by Delegate James Wickershaw, of Alaska, for political effect. The probe covers Alaska rates by water and rail and in itself is hardly worth detailing as the contention is so well known. The U.S. lines, parties to the suit, are amenable to the Interstate Commerce Commission, but the great test, and one that is most warmly welcomed, is the effort of the Commission to include the Canadian steamships in the process of strangulation which the Commission is supposed to conduct under its unlimited powers. From a purely legal and diplomatic viewpoint, the two Canadian steamship companies can, and they certainly should, ignore the Commission's summons. Every law governing maritime commerce is distinctly at variance with an attempt by a U.S. railway regulating body, created and operated upon political lines, to interfere with a foreign steamship. Without any assumption or suggestion that the Canadian lines are guilty or not guilty of error or irregularity, the question resolves itself into one whereby a foreign steamship company, operating between Canadian and U.S. ports, is or is not subject to the heckling laws of a Commission created for the purpose of regulating interior railroad rates within one nation. That the Interstate Commerce Commission has no authority to regulate U.S. steamships in the coastwise trade will undoubtedly be finally passed upon. The point at issue is that the Commission has made the Canadian steamship lines parties to this probe and these Canadian steamship lines have it in their power not only to refuse to obey the summons but can laugh at the Commission and thus administer a well deserved rebuff to this meddlesome body. All they have to do is to file their reply with the British Ambassador at Washington, D.C. Every transportation man is delighted at the turn of affairs, for it is a well known fact that the Canadian lines control a large portion of the South-eastern Alaska business owing to the superior class of vessels operated, and it is a foregone conclusion that they are going to continue such operations without fear of interference from the notoriously inefficient and politically governed Interstate Commerce Commission.—*Railway and Marine News, Seattle, Wash.*

Nationality of Radiotelegraph Operators.—The following has been added to the Dominion Radiotelegraph Regulations:—88. (a) No person shall be permitted to attend examination for any class of certificate of proficiency in radiotelegraph (1) who is not a British subject; (2) who has at any time been of enemy nationality; (3) whose parents were not of British nationality at the time of his birth; (4) whose parents have at any time been of enemy nationality; (b) Candidates for examination for first class certificates of proficiency must be not less than 18 years of age; (c) This regulation shall take effect Oct. 15, 1916, and shall remain in force until the cessation of hostilities, unless sooner repealed.

Vancouver Dry Docks, Ltd., has been incorporated under the British Columbia Companies Act, with \$100,000 authorized capital, and office at Vancouver, to own and operate docks, wharves, warehouses, elevators, steam and other vessels, dry docks, etc.

British Columbia Legislation to Encourage Shipbuilding.

In addition to the aid to shipbuilding by customs drawback, provided by the Dominion Government, the British Columbia Government has, by the British Columbia Shipping Act, described as an act respecting shipping and to make provision for aid to the shipbuilding industry in British Columbia, granted aid in regard to ships and vessels built within the province for service within and to and from ports in the province and outside ports. This bill constitutes a Shipping Credit Commission, consisting of a superintendent and two other directors, with the power of an incorporated company, which may own and operate vessels of all kinds, as well as build and deal in them generally. The superintendent and one director are nominated by the Lieutenant Governor in Council, and the third director is the Deputy Minister of Finance. The Commission is empowered to make loans subject to the provisions of the act and to deal with the necessary collateral securities, and must keep a register of loans. The loans made shall be on vessels built and registered in the province, and made on the written application of the borrower in prescribed form setting forth clearly the purpose for which the loan is required. No loan shall be granted for an amount exceeding 55% of the ascertained value of the vessel, or of the shares offered as security, and the loan may be made in instalments. A commissioner may not deal with any application for a loan by any person with whom he is within the third degree of consanguinity, or who is a partner, or a debtor under a mortgage to any association of which the commissioner may be a director or member.

The following provisions shall be carried out in respect to vessels built under the aforementioned loans:— the plan and specification of the ship shall be approved by the commission, and the ship shall be so built as to obtain a class in Lloyd's or Bureau Veritas, white labor only shall be employed in the construction, and in the subsequent operation and maintenance; such rates of wages as the commission may decide to be a fair wage rate shall be paid; the Superintendent of the commission or such other person as may be approved by the commission shall be the managing owner of the ship until the loan is fully repaid; the ship shall not be sold or transferred except with the commission's consent for five years from the date of the loan and its cargo carrying capacity shall be utilized to the full extent on each voyage outward, and shall be operated continuously to the commission's satisfaction; every charter shall be subject to the commission's approval during the currency of the loan, and the rates of freight on British Columbia shipments shall never exceed the actual rates paid on similar shipments at even dates in the States of Washington and California, and the commission shall have power to ascertain and certify such rates; all insurance and risks during construction shall be made loss payable to the commission as its interest may appear and exist, and such insurance shall be carried in any amount which the commission may deem necessary; the contract with the commission shall contain a provision whereby 1% of the gross earnings of the ship during the currency of the loan shall be paid to a reserve fund of the commission as a payment from the shipping industry ben-

efitted by this act towards governmental risk, cost and expense of passing this act and carrying it into effect. Each loan made by the commission is to bear 6% interest, payable half yearly, and the principal is repayable in five equal annual instalments; provided that should 50% of the net earnings of the ship for any year exceed the annual instalment of principal and interest, then the borrower shall repay a further sum so that the amount paid each year in reduction of the loan shall never be less than 50% of the net earnings of the ship, and never less than 20% of the original amount of the loan, without reference to earnings. In case of default by the borrower, or if the commission considers that the loan or any portion of it shall have been used for any other purpose than that for which it was made, the commission may refuse to pay any unpaid portion of the loan, and one month after demand by registered letter for the repayment of the loan made, may take possession of the whole or any part of the security, and dispose of same by public or private sale, applying the proceeds in payment in the first instance of money advanced under the loan agreement. Any loss which may arise from such sale to be debited to the reserve fund before mentioned.

In aid of the shipbuilding industry, the Government will pay to the owner of each ship, up to a number not exceeding 20, built and launched in the province after the passing of the act, a subsidy in 10 annual instalments, each so computed as to bring the net earnings of the ship up to 15% of the actual cost as certified by the commission in respect of the year whereof payment is made, but so that the subsidy paid in any one year shall never exceed an amount equal to \$5 a ton dead-weight capacity, with provision for a safe freeboard. The first of such instalments shall be paid in respect of the first year after the declaration of peace in the present war, and annually thereafter until the full subsidy is paid. The bona fide user of the ship in the British Columbia trade for outward borne cargoes shall return to some B.C. port for reloading, with liberty to carry return cargo to any port along the generally practicable line of such return. The subsidy shall only be payable to the owner who actually paid for the construction of the ship, or to his assigns who actually operate the ship, and not to any middleman or promoter; it shall not be liable or subject to assignment, attachment, garnishment or any process of execution; and in the event of there being conflicting claims to payment of the subsidy, the decision of the commission shall be absolutely final and binding without appeal.

The act also provides that the commission may, with the sanction of the Lieutenant Governor in Council, enter into contracts for the establishment of shipbuilding, repairing and docking plants in the province on the condition that in respect of such plants securities may be issued not exceeding 55% of the actual cost as certified by the commission, and the due payment of such securities both as to principal and interest not exceeding 6% per annum shall in the first instance be undertaken by the person or company establishing the plant, and shall be unconditionally guaranteed by the Provincial Government, the securities guaranteed constituting a first charge on the

plant and lands.

Advantage has already been taken of this act, chiefly by the Canada West Coast Navigation Co., which has placed orders for the construction of 8 auxiliary powered schooner type vessels for the lumber trade. Six of these vessels are under construction at North Vancouver and 2 at Victoria. Details of these have already been given in Canadian Railway and Marine World.

Dominion Government Dredge for the St. Lawrence Ship Channel.

A large dredge for service in the St. Lawrence ship channel below Quebec was launched at Maisonneuve, Montreal, Nov. 19, and was christened Dredge No. 16 by Mrs. Hazen, wife of the Minister of Marine and Fisheries. The vessel is the largest of its kind in Canada, and will be capable of dredging and discharging into steam hopper barges on either side, or into its own hopper, 1,500 tons of material an hour when working at a depth of 57 ft. The principal dimensions are as follows:

Length between perpendiculars	284 ft.
Length over all	292 ft.
Depth moulded	20½ ft.
Mean draught with hoppers full	16½ ft.
Dredging depth	57 ft.
Angle of bucket ladder	45 degrees
Angle of discharge chutes	25 degrees
Capacity of hoppers	30,000 cub. ft.
Dredging capacity per hour	1,500 tons

The completion of the dredge was delayed somewhat on account of war requirements, but everything will be in readiness for its operation in the ship channel in the coming spring. It was built by Canadian Vickers, Ltd. A full description of the dredge and its equipment was given in Canadian Railway and Marine World for September.

Lock Gate Accidents on the Welland Canal.

The s.s. J. H. Shrigley, with a cargo of coal from Erie, Pa., for Toronto, carried away both foot gates of lock 7 on the Welland Canal, Nov. 5, and caused considerable damage to the surrounding country. It is stated that the vessel entered the lock at excessive speed, and that there was a confusion of signals between the bridge and the engine room. The head gates were saved by the lock tenders, who made them fast with cables. The damage was estimated at \$7,000, and the vessel was detained at Port Dalhousie pending an arrangement for settlement. The break was repaired and navigation resumed Nov. 6.

A second accident occurred Nov. 21, when the s.s. Lehigh, upbound, light, was entering lock 1 at Port Dalhousie. It is stated that her engine centred before the speed could be checked, and she rammed the head gates, both of which were carried away. The damage, which is estimated at \$4,000, was repaired by 10 a.m. Nov. 22 and locking was resumed.

Kendall Bros., Ltd., has been incorporated under the Dominion Companies Act, with \$50,000 authorized capital and office at Montreal, to own and operate facilities of every kind, for the transportation of merchandise, etc., by land, air or water.

The Norwegian s.s. Thorjerd, built by the Western Dry Dock & Shipbuilding Co., Port Arthur, passed through the canals, Nov. 21, on her way to the seaboard via the St. Lawrence. She is to be operated between New York and the West Indies.

The Minister of Marine on Canadian Shipbuilding.

Hon. J. D. Hazen, Minister of Marine, in speaking at Montreal, Nov. 19, after the launching of Dominion Government Dredge No. 16, said that some of the guests present would remember the time when the securing of a 14 ft. channel between Montreal and the sea was regarded as an impossible task, but that had been secured. The Marine Department was working on the task of making a 35 ft. channel from Montreal to the sea, and was not only accomplishing that task, with great success, but was widening and straightening the channel as well. He referred with gratification to the manner in which navigation was being maintained between Quebec and Montreal with hardly an accident, the vessel plying the channel as safely as in any part of the world, due partly to the excellent pilots and partly to the fact that the Dominion Parliament had never begrudged money to make it the most perfectly buoyed and lighted waterway in the world. The new dredge was ordered and built to remove the only obstacle below Quebec to having as safe a waterway to the Atlantic as was possible, and he would be both surprised and disappointed if it did not bring about a reduction in the insurance rates now charged on vessels employed on this route, and their cargoes.

He referred to the ice-breaker built for the Dominion Government recently, but sold to the Russian Government to keep the port of Archangel open as long as possible. The Earl Grey and the Minto had also been sent by the Canadian Government as a contribution towards helping Russia in the war. He told of the dire prophecies of ruin indulged in when the Canadian Vickers plant was first established, and gave a short resume of the great aid given not only to Canadian shipping, but to the British Government by the company.

He gave some important statements regarding the establishment during the war of shipbuilding in Canada on a permanent and profitable basis. In addition to the plants, splendidly equipped for the construction of steel ships, in New Glasgow, Montreal, Kingston, Toronto,

Collingwood, Port Arthur and Vancouver, there are several points, but more particularly in Nova Scotia, a considerable number of yards where the building of wooden vessels was being successfully and extensively carried on. In the Maritime Provinces this is a revival of an ancient industry, but it has also been undertaken in a practical manner at Vancouver, where many auxiliary schooners of a large size are being built for the timber trade between that province and Australia and the Orient. The Wallace Shipyards and J. Coughlan & Son, of Vancouver, have also recently concluded contracts for building several large steel freighters. A number of contracts for Norwegian interests have also been undertaken by Canadian companies, with the assistance of the Government, to supply the wastage by submarines and mines.

He reminded his hearers how the Canadian Government had been obliged, on account of the war, to prohibit the export of Canadian ships without the Government's consent. In order to provide for a large employment now and pave the way for permanent shipbuilding after the war, permission had been granted for the export of ships to be constructed as follows: J. Coughlan & Sons, Vancouver, 3 large steel freighters, with carrying capacity of more than 8,000 tons, at \$1,200,000 each; the Wallace Shipyards, of Vancouver, 4 large steel freighters; the Western Dry Dock Co., of Port Arthur, 3 full canal size steel freighters; Thor Iron Works, Toronto, 2 full canal size steel freighters; Polson Iron Works, Toronto, 2 steel freighters, 3,000 tons capacity, and 2 more of 4,250 tons; Canadian Vickers, Ltd., of Montreal, 2 steel freighters of 7,000 tons, and the Nova Scotia Steel Co., of New Glasgow, N.S., 3 freighters. One of the conditions on which permits were given to construct these vessels was that during the war they should not engage in any enemy trade, and another was that no demand should be made on Great Britain for materials, machinery or labor to build them.

"The immediate effect of the construction of these ships," said the Minister,

"will be the distribution of a large amount of money among the people, but the better and more enduring effect will come to us after the war is concluded, in the shape of a great industry established on a firm and permanent basis. If in this connection I have any note in the way of regret to sound, it is that our own people do not appear to engage in the profitable enterprise of building, owning and operating ships to as great an extent as in my judgment they should do."

He pointed out the immense amount of ocean shipping which will be needed after the war, when all the nations will engage in the race for world trade. The nation with the largest amount of available shipping will have a distinct advantage. That explains the anxiety of the Norwegians to get as many ships as possible, and it explains as well why there were built in United States yards in the first 10 months of the year vessels aggregating a tonnage of 405,894 tons. However, Great Britain had at the end of September 469 steel merchant ships, of a tonnage aggregating 1,789,054 tons, under construction and well advanced towards completion. Germany has done next to nothing since the commencement of the war, and Great Britain's supremacy is therefore, in no way menaced. That does not absolve Canadians, however, from doing their best to add to the mercantile marine of Canada to the fullest extent.

Mainly About Marine People.

Capt. Charles Babb, a well-known lake navigator, died at Goderich, Ont., Nov. 7.

Charles Smith, K.C., has been appointed Secretary, Quebec Harbor Commission.

W. G. Ross, Chairman, Montreal Harbor Commissioners, spent a short holiday at Pinehurst, North Carolina, during November.

Hiram Calvin, of the Calvin Co., Ltd., forwarders, etc., Kingston, Ont., and Mrs. and Miss Hilda Calvin, expect to leave for England shortly.

J. W. Norcross, Vice President and Managing Director, Canada Steamship Lines, Ltd., Montreal, has been elected a director of the Sterling Bank of Canada.

Capt. H. N. McMaster, heretofore Assistant to Marine Superintendent, Montreal Transportation Co., Kingston, Ont., has been appointed Marine Superintendent there, vice Capt. R. Fraser, retired.

Capt. Robert Fraser, Marine Superintendent, Montreal Transportation Co., Kingston, Ont., has resigned on account of ill health, and has gone to Long Beach, Cal., where he intends residing in the future.

R. L. Latham, Chief Engineer, Toronto, Hamilton & Buffalo Ry., has also been appointed Vice President, Toronto, Hamilton & Buffalo Navigation Co., in charge of maintenance. Office at Hamilton, Ont.

J. W. Norcross, Vice President and Managing Director, F. S. Isard, Comptroller, and C. A. Barnard, Director, Canada Steamship Lines, Ltd., returned to Canada about the middle of November, after a business trip to Europe.

Lt. Col. George Carruthers, son of James Carruthers, President, Canada Steamship Lines, Ltd., returned to Montreal recently from the front, where he was on service with the 5th Artillery Brigade. He is now raising a divisional ammunition column, with headquarters at Montreal.

Sault Ste. Marie Canals Traffic.

The following commerce passed through the Sault Ste. Marie Canals during October, 1916.

ARTICLES	CANADIAN CANAL	U. S. CANAL	TOTAL
Eastbound			
Copper.....	Short tons	17,846	17,846
Grain.....	Bushels	3,294,414	3,566,538
Building stone.....	Short tons		
Flour.....	Barrels	570,710	1,097,540
Iron ore.....	Short tons	1,289,267	7,629,311
Pig iron.....			5,136
Lumber.....	M. ft. b.m.	1,387	49,787
Wheat.....	Bushels	9,475,885	8,968,948
General merchandise.....	Short tons	2,541	56,468
Passengers.....	Number	479	40
Westbound			
Coal, hard.....	Short tons	7,000	272,350
Coal, soft.....		74,250	1,383,467
Flour.....	Barrels		91
Grain.....	Bushels		1,985
Manufactured iron.....	Short tons	2,626	14,659
Iron ore.....	Short tons		
Salt.....	Barrels	3,500	107,128
General merchandise.....	Short tons	50,854	143,533
Passengers.....	Number	311	13
SUMMARY			
Vessel passages.....	Number	774	2,479
Registered tonnage.....	Net	1,480,741	7,915,223
Freight			
Freight—Eastbound.....	Short tons	1,698,004	8,255,660
—Westbound.....		135,230	1,830,118
Total freight.....		1,833,234	10,085,778
			9,953,664
			1,965,348
			11,919,012

Canadian Shipping Statistics.

The Deputy Minister of Marine, in his annual report for the financial year ended Mar. 31, states that the total number of vessels on the Canadian register at that date was 8,631, measuring 1,215,021 gross tons. In former years it was the custom to value the shipping at \$30 a net ton, and this figure, although an arbitrary one, having regard to averages, fairly represented approximate real values. At present values are abnormal and actual sales are common at prices ranging from \$75 a ton deadweight capacity, to \$100. The large number of British vessels withdrawn from commercial trade since the war commenced accounts almost altogether for the abnormal increase in freight rates and the consequent value of ships.

Throughout the year there has been much discussion in the press and by various public bodies as to the expediency of taking such steps as would ensure the early development of a purely Canadian mercantile marine, not only for the inland and coasting trade, but for foreign trade as well. In the development of any scheme that may be adopted for this purpose, it is to be hoped that, so far at least as foreign trade is concerned, it will be taken for granted that the day of the small carrier has gone by. It will be generally admitted that, conditions being normal, the construction of vessels for the foreign trade, of a gross tonnage of less than 3,000, should be discouraged, and it will be conceded that the most economical and therefore the most efficient vessel is one with a carrying capacity ranging from 7,000 to 10,000 tons.

The total tonnage transferred from the Canadian register during the period under review was 25,834, covering 42 vessels, divided as follows:

	Number.	Gross Tons.
United Kingdom	2	8,069
Newfoundland	12	4,338
Barbadoes	9	2,845
New Zealand	1	1,496
Shanghai	1	4,216
United States	14	4,780
Russia	1	

The number and tonnage of vessels according to provinces on the Canadian register for the year ended Dec. 31, 1915, was as follows:—

	Sailing vessels		Net tons	Steamships		Net tons
	Number	Gross tons		Number	Gross tons	
Ontario	609	114,209	107,090	1,502	331,087	205,881
Quebec	1,902	159,646	146,524	588	196,659	121,373
British Columbia	424	66,850	64,814	1,219	131,388	80,021
Nova Scotia	1,634	110,595	101,515	453	43,066	24,452
New Brunswick	811	36,021	34,896	257	33,283	21,323
Prince Edward Island	130	8,471	8,023	28	7,571	3,495
Manitoba	13	2,696	2,696	71	7,316	4,784
Yukon	1	556	556	10	2,715	1,739
Saskatchewan	1	145	145	4	660	385
Totals	4,625	491,428	465,859	4,132	753,745	463,453

Ports of registry are distributed as follows:—Ontario 38, Nova Scotia 21, New Brunswick 7, Quebec 6, British Columbia 4, Prince Edward Island, Manitoba, Saskatchewan and Yukon, 1 each.

New vessels built during the year, according to provinces:—

	Number.	Net Tons.
Quebec	49	7,790
Ontario	38	4,709
Nova Scotia	51	2,982
British Columbia	79	2,057
New Brunswick	22	1,114
Manitoba	5	156
Prince Edward Island	2	24
Totals	246	18,832

Of the 341 vessels removed from the register during the year, 14 were sold to foreigners (U.S.), 14 were wrecked, 21

stranded, 14 were lost, 215 broken up, reported out of existence, condemned, dismantled and abandoned, 1 abandoned at sea, 2 lost in collision, 7 foundered, 24 were burnt, 9 were transferred to Newfoundland, 6 to Barbadoes, 3 to Great Britain, 1 to New Zealand, and 1 to Turk's Island, 1 is posted as missing, 2 reported as registry no longer required, and 6 were sunk by Germans.

Stranding of the s.s. Kalibia.

An enquiry into the cause of the stranding of the Clyde Shipping Co.'s s.s. Kalibia, of Glasgow, Scotland, near Fox River, Gaspe County, on the south shore of the Gulf of St. Lawrence, Sept. 24, was held at Montreal, Oct. 5, before Capt. L. A. Demers, Dominion Wreck Commissioner, assisted by Capt. C. Lapierre and F. Nash as nautical assessors. The court found that the master, John Stewart, was to a great extent misled through the disposition of two churches which were visible to him. Apparently there are three churches between Cape Rosier and the point where the vessel grounded, but the chart, which is an edition of 1890, gives the location of two churches only. This caused him to take cross bearing inaccurately. The vessel was running at full speed, which was maintained during fog, until the grounding, although the master had a doubt as to the accuracy of his bearings. He estimated the vessel to be about eight miles off land, and as his second observation did not coincide with his first, he went to the chart room to verify his position, leaving the vessel proceeding at full speed. The logs and records of observations were examined, and the court found that a method was observed throughout in conducting navigational functions and duties with regard to theory, and it stated with pleasure that it is seldom that observations and records are kept in such a methodical manner. Nevertheless, while credit is given the master for many things, that he has been in command for many years without an accident, serving only two firms, the court could not overlook the fact that the moment an element of doubt penetrated his mind, the only practical and careful way for him to have acted,

they were not criticized, but were advised to become more interested in their duties, and instead of being on the bridge merely to obey orders, to recognize the fact that they can make themselves very useful to the master, if they study for themselves the existing conditions and assure themselves of the position of the vessel, referring to the chart, or taking observations if necessary, especially when banks of fog are seen in the distance, or more so when navigating in strange waters.

It was also pointed out that the vessel was navigated on a chart published in 1890, but as the master stated that he made enquiries from the authorities at Sydney for a chart of the St. Lawrence, and this was the only one obtainable, the court found no fault with him in that respect.

Atlantic and Pacific Ocean Marine.

We are officially advised that the name of the s.s. Hackness, which, as announced in our last issue, the C.P.R. has purchased from Pyman Bros., Wales, has been changed to Miniota.

The C.P.R. s.s. Lake Manitoba arrived in Montreal at the end of October, from Liverpool, for the first time since the outbreak of war, having been engaged in Admiralty work in the interval.

The s.s. Turret Cape, outward bound from Montreal for Manchester and Havre, with a cargo of steel, put in at St. John's, Nfld., Nov. 1, for slight engine repairs. She was detained a few days while they were carried out.

The British s.s. Seatonia, which sailed from Montreal about the middle of October, and St. John's, Nfld., Oct. 20, is reported to have been sunk by the enemy. She was owned by the Seatonia Steamship Co., West Hartlepool, Eng.

The Australian Government is stated to be operating about 35 cargo steamships, some of which have already been loaded at Montreal for Australian ports. In addition to these, five sailing vessels are being operated under Government control.

The s.s. Rappahannock, owned by Furness, Withy & Co., is reported to have been lost while en route from Halifax, N.S., to London, Eng., with a cargo of fruit and Red Cross supplies.

A number of Canadian survivors of the torpedoed s.s. Cabotia arrived at Quebec, Nov. 13, by the Allan Line s.s. Ionian. The Cabotia left Quebec, Oct. 10, with horses, and was torpedoed by a German submarine off the coast of Ireland, Oct. 20. Thirty out of a crew of 70 were saved.

The last sailings of ocean passenger vessels by the St. Lawrence route were announced to take place as follows: C.P.R. s.s. Metagama, Nov. 27; Allan Line s.s. Grampian, Nov. 25; Cunard Line s.s. Ausonia, Nov. 23; Anchor-Donaldson Line s.s. Athenia, Nov. 21; White Star-Dominion Line s.s. Northland, Nov. 19. Some cargo vessels will sail at later dates, as aids to navigation will not be removed until well into December, unless absolutely necessary.

All vessels are warned that they must not approach His Majesty's ships in Halifax harbor during the hours of darkness, within a distance of 200 yards, unless engaged on official business, when they must answer the challenge of the ship they are passing or proceeding to, otherwise they will lay themselves open to be fired upon. The Dartmouth Ferry Commission ferry boats are considered exempt from this order.

Maritime Provinces and Newfoundland.

A press dispatch states that the Nova Scotia Steel & Coal Co. has decided to build another steel steamship at its works at New Glasgow, N.S., about 25 per cent. larger than the one now under construction.

Mariners are warned that it may be necessary to extinguish certain lights and to discontinue or remove any aids to navigation on the east coast of Canada and on the coasts of Newfoundland without notice.

A Newfoundland press dispatch states that the French Government is negotiating with the Newfoundland Government, through the British Admiralty, for the release of the steamships Portia and Prospero from their local service, for use by the French Admiralty for war purposes.

Eastern Transport, Ltd., has been incorporated under the Nova Scotia Companies Act, with office at New Glasgow, N.S., to own and operate ferries between New Glasgow, Abercrombie, Pictou, Lyons Brook, Pictou Landing and Pictou Island. F. Fraser, S. M. Reltes and C. Ross, New Glasgow, are the incorporators.

Nova Scotia Shipping Co., Ltd., has been incorporated under the Nova Scotia Companies Act, with \$20,000 capital, and office at Halifax, to acquire the schooner William Thomas Moore, of Bridgetown, Barbados, and to own and operate steam and other vessels. W. J. Logan, H. C. DeWolf and B. H. Dunfield, Halifax, are the incorporators.

Publicover Shipping Co., Ltd., has been incorporated under the Nova Scotia Companies Act, with \$10,000 capital, and office at Liverpool, N.S., to acquire the schooner James L. Publicover, to own and operate steam and other vessels and to carry on a general fishing business. W. L. Hay, E. S. Marshall and S. M. Tartling, Liverpool, N.S., are the incorporators.

The Marine Department has issued a notice to mariners that Sambro lightship 15 has not been removed from her station at the Sambro outer bank near the Halifax harbor entrance, as erroneously stated in a previous notice. The sounding of the submarine bell from that lightship has been discontinued until further notice. The buoys which marked the war channel in the approach to Halifax, from Neverfail shoal to seaward, have been removed and discontinued.

Mariners are warned that the ports of Halifax, N.S., and St. John's, Nfld., are closed to all vessels from sunset to sunrise, until further notice. The narrows in the approach to St. John's are closed by a boom for the same period and a guard boat is in attendance. The following lights have been extinguished until further notice:—Cape St. Francis, Cape Spear, Bull Head, Ferryland, Bearcove Point, Fort Amherst and St. John's range lights, all in the neighborhood of St. John's harbor.

A New York press dispatch of Nov. 20, stated that the Canada Atlantic and Plant Line Steamship Co., which for many years has maintained a regular service between Halifax, Hawkesbury and Charlottetown, will discontinue its winter service at the end of the year, and may not resume sailings in the spring. It is also stated that officials admit that the steamships Evangeline and Halifax are for sale, a reserve price of \$600,000 being placed on the for-

mer. The s.s. Halifax, which was the only vessel on the route during the current year, will, it is said, undergo extensive repairs, unless sold.

The Department of Public Works received tenders to Dec. 1 for stone filling under the shed proposed to be built at pier 1, berth 16, West St. John, N.B.

The shipping companies operating at St. John, N.B., have increased the wages of the longshoremen to 37½c. an hour; as against the previous 35c., and a demand of the men for 40c. The new scale is effective at once and will continue in force until Dec. 1, 1919. The coal handlers demanded 55c. an hour and 65c. overtime, but have been granted an increase of 15c. an hour over the former rate, making the new rate 50c., and will work 10 hours a day instead of 9 as hitherto.

Province of Quebec Marine.

The Quebec Harbor Commissioners have purchased the s.s. Juanita in the United States, and have changed her name to Courcelette.

The Montreal, Valleyfield & Soulanges Navigation Co.'s s.s. Hebron was considerably damaged by fire at her moorings in the Lachine Canal, Montreal, Nov. 4. She is a small vessel and plied between Montreal and Cornwall.

Ontario and the Great Lakes.

The Farrar Transportation Co.'s s.s. Collingwood, which sustained some bottom damage when she grounded at Whitefish Point some time ago was repaired at Collingwood and resumed service Nov. 17.

Canada Steamship Lines' s.s. Sir Trevor Dawson, launched at Superior, Wis., recently, commenced her maiden trip, Nov. 20, when she loaded 11,000 tons of ore at the Missabe dock, and sailed for South Chicago.

The Imperial Oil Co.'s steamships Iocolite, Royalite and Sarnolite have been transferred from the Great Lakes to the Atlantic coast trade for the winter.

A pontoon lock gate lifter, built by M. Beatty & Sons, Ltd., Welland, passed from Lake Ontario by way of the Trent Valley Canal to Peterborough, Nov. 2. A description of this vessel was given in Canadian Railway and Marine World for Oct., 1914.

The Quebec & Levis Ferry Co.'s s.s. John S. Thom, which went aground near Waddington, above Cornwall, recently, and which was abandoned to the underwriters, is to remain there until the spring, on the recommendation of the local wrecking company.

The wreck of the barge Rob Roy, which was sunk some time ago in the Erie harbor approach, Lake Erie, is now no longer a menace to navigation. The upper works have been destroyed by storms, the mast and boom having been removed, and there is a least depth of 30 ft. over the wreck.

A resurvey of Penetanguishene harbor establishes the fact that the 300 ft. channel is in parts less than 20 ft. deep. During the past summer a channel with a least width of 100 ft. was completed with a least depth of 20 ft. In front of the esplanade a basin 500 ft. square with a tapered approach has the same depth.

The United States Lake Survey reports the levels of the Great Lakes in feet above mean sea level for October as follows:—Lake Superior, 603.72; Michigan

and Huron, 580.56; Erie, 571.90, and Ontario, 246.06. Compared with the average October levels for the past ten years. Superior was 1.12 ft. above, Michigan and Huron, 0.13 ft. above, Erie, 0.20 ft. below, and Ontario, 0.32 ft. above.

The Imperial Oil Co.'s s.s. Imperial, which was in collision with Canada Steamship Lines s.s. Midland Prince, Nov. 5, on Lake Superior, was taken into Sault Ste. Marie, whence she was taken in tow to Collingwood for overhaul and repairs.

The Rideau Canal has been closed for the winter and was emptied of water, Nov. 30. The tonnage passing through the canal this year was not so great as in 1915. Up to Oct. 31, there was a decrease in the vessel tonnage of 13,690 tons, as compared with the same period, 1915.

The s.s. A. D. Davidson, one of the steamships sold to the French Government recently by the Great Lakes & St. Lawrence Transportation Co., about which there was some litigation, is reported to have been lost at sea. She was considerably overdue, and one of her lifeboats has been washed ashore on the Cornish coast. She sailed from Montreal, Oct. 4, for Havre, France.

The steam tug Thomas Freeland, owned by J. Battle, Thorold, Ont., was destroyed by fire at the dock near lock 21, Welland Canal, Nov. 14. This tug, which was sunk in the Detroit River some time ago, was raised recently and repaired at Sarnia. She was built at Detroit, Mich., in 1888, and was formerly named Fannie L. Baker. Her dimensions were,—length 65 ft., breadth 16.5 ft., depth 6 ft.; tonnage, 54 gross, 33 register. She was equipped with engine of 10 n.h.p. driving a screw.

The Public Works Department has dredged the entrance to Port Hope harbor to a depth of 16 ft. below the zero of the gauge, which is 245 ft. above mean sea level. Beginning 200 ft. outside the breakwaters with a width of 175 ft., the dredging extends northward the full width between the breakwater piers to where the harbor widens and thence follows the east breakwater with a least width of 170 ft. to the channel between the east and central piers including the full width of that channel to a point 150 ft. inside the warehouse on the east pier.

The name of the s.s. Caledonia, which has been purchased from the Great Lakes Engineering Works, Detroit, Mich., by J. R. Smith, Fort William, has been changed to Gale Staples. She was built at Marine City, Mich., in 1888, and is of oak with diagonal strapping on the frames, with wooden boiler house, and was first named W. B. Morley. She is equipped with fore and aft compound engines with cylinders 24 and 44 in. diam. x 42 in. stroke, supplied with steam by two Scotch boilers, each 10 x 11 ft., at 130 lbs. under induced draught. The engines were made in 1883, and were removed from the s.s. Kitty Forbes. Her dimensions are,—length 227 ft., breadth 42 ft., depth 21 ft.; tonnage, 2,197 gross, 1,509 register.

The Reid Wrecking Co., Sarnia, is reported to have purchased the s.s. Kongo from the U.S. owners, and it is stated that she will be transferred to the Canadian register. She was built at West Bay City, Mich., in 1881, and is of oak, of the well deck type, with diagonal strapping on the frames, steel arches, wooden boiler house, and was formerly named Meriden. She was overhauled and large repairs undertaken in 1911. The propelling machinery consists of compound engines with cylinders 20 and 36 in. diam. by 30 in.

stroke, 450 i.h.p. at 100 r.p.m. and supplied with steam by a Scotch boiler 11 ft. 2 in. by 11 ft. 3 in., at 125 lbs. Her dimensions are,—length 215 ft., breadth 31 ft., depth 10 ft. 2 in.; tonnage, 672 gross, 482 register.

The steamship Algonquin and the motor ship Fordonia, are reported to have been sold to United States interests. The s.s. Algonquin was originally built for Thos. Marks & Co., Port Arthur, Ont., and then sold to the St. Lawrence & Chicago Steam Navigation Co., and was about three years ago sold to the Port Colborne and St. Lawrence Navigation Co., a subsidiary of the Maple Leaf Milling Co. She was again sold last year to A. B. McKay, who had her overhauled and then sold her to the Wasiss Steamship Co., a subsidiary of the Nova Scotia Steel & Coal Co. The motor ship Fordonian was originally built for the Merchants Mutual Line Ltd., and later passed to Canada Steamship Lines Ltd. During the summer season she was operated under charter by the Quebec Steamship Co., a subsidiary of Canada Steamship Lines Ltd.

Manitoba, Saskatchewan and Alberta.

Navigation on the Athabasca River has been closed for the winter on account of ice conditions. One vessel ran about 16 miles up the river from Athabasca, Nov. 7, but had to return. The Athabasca ferry has been laid up for the winter.

Supplementary letters patent have been issued under the Dominion Companies Act, changing the name of the Winnipeg Steamship Co., Ltd., to Woodward & Co., Ltd., and cancelling the powers granted to the original company and substituting others. The new company has power to own and operate grain elevators, but has no power to own and operate steam or other vessels, as was granted in the original charter.

British Columbia and Pacific Coast.

The C.P.R. s.s. Princess Charlotte, which has been operating on the triangular service during the summer, has been withdrawn from service and laid up for the winter at Victoria. This service is being maintained by the s.s. Princess Adelaide and Princess Victoria.

The C.P.R. s.s. Princess Alice arrived at Vancouver, Nov. 6, after completing her last round trip to Alaska for the season. She is to be operated in the Gulf service for the winter. The s.s. Princess Sophia will be the only C.P.R. vessel running to Alaska during the winter on a fortnightly service to Skagway.

The Canadian Northern Ry. is operating its first car ferry barge between Port Mann and Gulf points. A second barge will be placed in service between Port Mann and Patricia Bay as soon as the dock at Patricia Bay is completed. Each of these barges has capacity for 9 cars. It is stated that a third barge is being built with capacity for 12 cars.

The Pacific Steamship Co., formed recently to take over the Pacific Coast Steamship Co. and the Pacific Alaska Navigation Co., has decided to maintain the steamships Governor and President on the service to Victoria and Vancouver, instead of replacing them with the steamships Queen and Umatilla, smaller and slower vessels.

The David Evans Shipping Co., Ltd. has been incorporated under the Dominion Companies Act, with \$25,000 authorized capital, and office at Vancouver, B.C.,

to own, manage and operate steam and other vessels, etc., and to carry on a general transportation and navigation business. T. W. B. London, M. H. Thorburn, W. B. Johnson, J. H. Lawson and R. W. Ginn, Vancouver, are the incorporators.

A company is reported to be in process of organization in Prince Rupert to build fishing vessels, three of which are to be taken in hand almost immediately. One of these will be 54 ft. long, equipped with engine of 50 h.p., one will be 44 ft. long, equipped with engine of 30 h.p., and the third will be a seine vessel. C. E. Bainter, an insurance broker, is stated to be actively interested in the scheme.

Transfer of Canadian Vessels Restricted.

The Dominion Government has issued the following regulations respecting the transfer of Canadian vessels to a foreign register:—The regulations enacted by order in council, Mar. 9, 1915, are extended to apply to mortgages of ships, including transfer of mortgages made after Aug. 10, 1916, as they apply to the transfer of ships, and shall apply to mortgages, including to transfers of mortgages, and transfers of ships to foreign controlled companies, made after Aug. 10, 1916, as it applies to transfers of ships to persons not qualified to own a British ship.

The expression "foreign controlled company" means any corporation where the majority of directors or persons occupying the positions of directors, by whatever name called, are not British subjects; where the majority of the voting power is in the hands of persons who are not British subjects, or who exercise their voting powers directly or indirectly on behalf of persons who are not British subjects; where the control is by any other means whatever in the hands of persons who are not British subjects; or where the executive is a foreign controlled company, or where the majority of the executive are appointed by a foreign controlled company.

A corporation shall not be deemed a British subject for the purposes of this section unless it is established in and subject to the laws of some part of His Majesty's Dominions, or of some British Protectorate, and has its principal place of business therein.

The Minister of Marine may require any person who is the owner or mortgagee of a British ship, or who applies to be registered as such, to furnish him with such particulars as may appear necessary to him for the purpose of ascertaining whether or not that person is, or is a trustee for, or otherwise represents a foreigner, or foreign controlled company, and in case of a corporation may require the secretary, or any other officer performing the duties of secretary, to furnish those particulars, and if any person fails to supply such particulars as it is in his power to give when required, or furnishes particulars which are false in any material particular, he shall be guilty of a misdemeanor.

After the passing of these regulations, where any person who is the owner or mortgagee of a British ship ceases to be a British subject, or becomes a foreign controlled company, that ship, or in case of a mortgagee of a ship, the interest of the mortgage, shall be subject to forfeiture, and the provisions of the Merchant Shipping Act relating to the forfeiture of ships shall apply thereto.

These regulations are declared to be in

force for the duration of the war and for three years thereafter.

Rumors About Government Shipping.

A press report from Montreal states that a well founded rumor in shipping circles has it that the initial step towards a Dominion owned mercantile fleet has been taken by the Government, which, according to the rumor, has granted aid to a recently formed shipbuilding company to build nine big freight carriers at a total cost of \$4,000,000. It is stated that these vessels are to be built for shipping Canadian lumber from the Pacific Coast, that plans and specifications of a U.S. vessel have been adopted, and that the Government has subsidized the Brown Auxiliary Lumber Vessel Co., which has a capital of \$5,000,000, to build nine vessels of this type. So far as can be ascertained, there is no truth in the statements as quoted, or at best it is a garbled version of information already published by Canadian Railway and Marine World. Canada West Coast Navigation Co., Ltd., has been incorporated in British Columbia, by a number of men associated with shipping in the east, and chiefly connected with Canada Steamship Lines, Ltd., together with H. W. Brown, who is General Manager of the company, and who was formerly connected with the Pittsburg Steamship Co. This new company has placed contracts for the construction of eight vessels of the bald headed schooner type, equipped with semi Diesel engines, designed by J. H. Price, St. Helens, Ore., who designed the ship City of Portland, specially mentioned in the rumor above quoted. These vessels are being built as a direct result of the British Columbia Shipping Act, which provides for the granting of aid under certain conditions, and there is no suggestion of any Dominion subsidy, except any allowances or customs drawback, which may come under the recently passed order in council, details of which are given on another page in this issue.

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.

The Dominion Wire Rope Co., Ltd., Montreal, has opened an office at 108 Mail Building, Toronto.

F. H. Hopkins & Co., railway and contractors' supplies, Montreal, have opened an office at 108 Mail Building, Toronto.

Dominion Iron & Steel Co.—J. P. McNaughton, General Sales Manager, has removed his headquarters from Sydney, N.S., to 112 St. James St., Montreal.

Foundry Products, Ltd., has been established in Calgary, Alta., to do a jobbing business in railway, general contractors, mine, heating and plumbing supplies, etc.

Dougall Varnish Co., Ltd.—W. R. Notman, Western Representative at Winnipeg, who was a lieutenant in charge of a machine gun section in one of the Winnipeg battalions, C.E.F., was killed in action, Oct. 25.