

# Increasing Freight Capacity

Necessity for Organization—Accomplishments in U.S.A.—The Situation in Canada

The car shortage problem has, during the last few years, been one of the most difficult that has faced the railways and the producers of Western Canada. In 1915 it was accentuated by the enormous crop produced, in 1916 it was still difficult owing to the big demand for cars to carry war supplies and on account of the increasing shortage of labor which the railways had to suffer under, particularly a serious depletion through enlistment of skilled employees. It takes considerable time to train a railway employee to his duties properly and when these men left the railways in such large numbers to join the army, the difficulties created thereby were such as could be appreciated by few outside of those actively in touch with the work.

It can scarcely be said that the railways have fallen down in any particular in the matter of their service during these strenuous times. The question of transportation has been one of the most difficult ones in all the nations at war. It is largely responsible for Russia's internal troubles and resulted in the sending of railway experts from both the United States and Canada to reorganize the railroads of that country. The railroads of Great Britain immediately the war broke out were put under a central organization so that as little duplication of effort as possible would be necessitated. In United States a Railroads War Board was created which immediately took over the transportation problems of that country and has handled them in a most efficient manner indeed.

Five days after Congress declared war, the chief executives of the leading railroads met in Washington to consult with the Council of National Defense and "pledge themselves with the government of the United States, with the governments of the several states and with one another, that during the present war they will co-ordinate their operations in a continental railway system, merging during such period all their merely individual and competitive activities in the effort to produce a maximum national transportation efficiency."

The executive committee of five then selected now directs the operations of all the railroads as a single system. In doing this the railroads acted voluntarily and no law has been enacted to enforce co-ordination. They have received no guarantee of compensation such as the British government gave to the English railways which are assured of the same net returns that they earned before the war began.

Such organization has not yet been perfected in Canada though I believe some such organization is now in process of formation and it will be a good thing in meeting the difficulties that we must face during the coming winter season. In addition to this, however, it is up to every shipper not only to expect service from the railroads but to lend every effort in co-operating with the roads.

### What Has Been Accomplished in U.S.A.

The stress of traffic on the railroads of United States last year was fully one-third greater than ever before in the history of that country. Delays were numerous, congestion was very bad and the whole system faced the most tremendous difficulties ever known in the history of railroading, but the work was carried on and through the co-operation of all the problems of transportation were solved. A great help

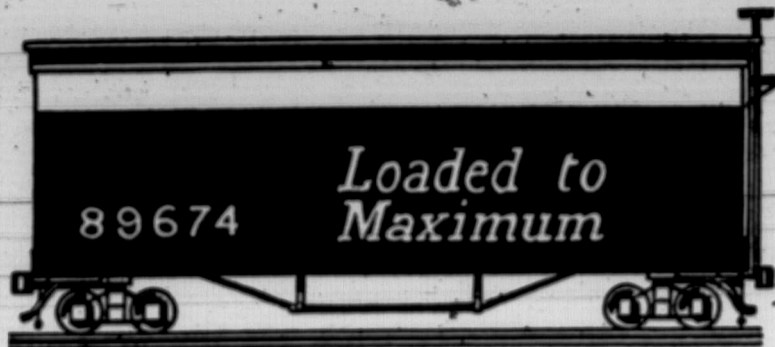
in the solution of this problem was the co-operation of the shippers in loading their cars nearer to capacity and in delaying them a shorter time in loading and unloading. Checking of cars from Florida and Georgia, loaded with potatoes show that cars are now carrying 200 barrels this year against 125 barrels last year. Cement cars moving out of Chicago are now carrying 77,000 pounds as against 70,000 pounds last year. Cars loaded with tin plate moving out of Pittsburgh that carried 92 per cent. of their marked capacity last June are now loaded to carry almost 99 per cent. In Minnesota the average carload of flour in 1916 amounted to 46,250 pounds, this year the average carload is 61,923 pounds. In New Orleans sugar cars that were loaded to carry only 40,000 pounds three months ago, now carry an average load of 80,000 pounds. In other parts of the country sugar refineries have voluntarily increased their minimum capacity 25 per cent. or from 40,000 to 50,000 pounds. The checking of 540 cars of coal on the Maryland railways recently showed only seven cars loaded below marked capacity. The average loading of the 540 cars was 111 per cent of marked capacity. A summary of coal mine operations in United States for the month of July showed that the total of 132 railroads handling coal transported 31 1/2 per cent. more loaded cars in the one month than they did last year.

### How They Saved Cars

The co-operation of the different railroads has resulted in the prompt movement of empty cars from one railroad to another irrespective of ownership. By adopting this policy which previously was unknown in American railroads, the Railroads War Board of that country moved 113,420 empty cars into districts where they have been most needed. Through the pooling of lake coal and lake ore a saving of 52,000 cars in those commodities alone was made. A further saving of 133,000 cars was made by pooling the shipment of tide water coal. By regulating the movement of grain for export the number of cars ordinarily required for this service has been reduced in spite of an abnormal export increase this year. From May 1 to July 14, 76,000,000 bushels of wheat, corn, barley and oats were shipped to the Allies and this business was handled so there were no delays or no blocking of facilities at either the grain elevators or the seaport.

The reports of this same War Board show that on September 1, the excess of unfilled orders for cars in some parts of the country over surplus of cars in other places was reduced by 14 per cent. as compared with August 1, one month previously. Whereas the shortage of cars on September 1 was 31,591, at the time the Railroads War Board began to co-operate with the government last April there was an excess of unfilled car requisitions over surpluses of 148,600 cars. The result of co-operation on the part of the railroads, producers and various regulative bodies has been that with practically no increase in facilities, the railroads of United States have handled the greatest amount of freight in their history in the past four months, the improvement in number of unfilled car orders in that time amounting to 78 per cent.

Since May 1, American railroads with the co-operation of the public, have been able to reduce their passenger service by approximately 25,000,000 miles. This has relieved thousands of train



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crews and locomotives for use in freight service, and cleared thousands of miles of track thereby facilitating the movement of coal, food products and supplies needed by the government. There has also been a saving of close to half a million freight cars through the same co-operation. This saving of freight cars has enabled the railroads to move approximately 25 per cent. more freight since war was declared than during the same period last year. Since August 1, they have moved 502,000 soldiers to training camps without a hitch.

### Problems Of Canadian Railroads

It has been difficult for the railroads to increase their rolling stock and trackage facilities during the war yet they have been called upon to handle a traffic greatly in excess of anything they had known up to this time. A railroad is only efficient insofar as it is able to keep its equipment moving steadily and at maximum capacity. The problems of Canadian railroads have been greater even than those of American railroads. United States has only been in the war six months whereas we have been in it considerably over three years. Our population is much more sparse, our railroad mileage much greater in proportion. Nevertheless, by the co-operation of shippers and the railroads much has been done along the same line. The Canadian Pacific Railway was especially progressive in encouraging this movement. In a series

of 13 1/2 per cent. increase in man power employed in train and yard service. Authoritative figures show that if only one ton were added to the load of each railway car above its minimum capacity there would be released for use in Canada 10,960 more cars. That means that 700,000,000 pounds of carrying capacity are being hauled empty over the country and going to waste when it should be carrying supplies. If every shipper put an extra two loads of grain into his car, it would make a saving of one car in every ten which is loaded with wheat. In other words, nine cars loaded to maximum capacity is equal to ten cars loaded only to minimum.

There has been a gratifying response on the part of shippers generally to the campaign being carried on for increased car efficiency. This is as it should be but a good deal more can yet be done and every farmer who has grain to ship cannot afford as a matter of duty to load any cars shipped to less than maximum capacity. All freight cars can be loaded ten per cent. over their marked capacity with the exception of C.P.R. 80,000 pound box cars which can be loaded up to 92,000 pounds. Farmers have the solution of the car shortage to a considerable extent in their own hands. Grain companies and railroads are co-operating in this work in an admirable manner. It is up to the farmer to do the same. The railroads of Canada will face an equally difficult problem this winter with that ever



A typical 1915 freight train and the proposed 1917 freight train on Canadian railroads. Twenty cars on this train will carry 45 tons more than 23 cars carried in 1915, i.e. if shippers co-operate

of bulletins issued some time ago the Canadian Freight Association showed that while in the eight years from 1907 to 1915 inclusive the freight carried on the railroads of Canada had increased 51 per cent, the number of freight cars had increased 91 per cent. In other words the average capacity of the average Canadian freight car had grown 5.8 tons while the average weight of its contents had grown but three tons. The difficulties of securing steel for repairs of roads and creating yard trackage and of securing cars and locomotives, the serious shortage of labor along with other things led the Canadian railroads to endeavor to develop a typical grain train for this fall's work. The idea was to make twenty cars do more work than that previously done by twenty-three at the end of the 1915 season. The average load of the car in the 1915 train was 18.4 tons. The railroads are endeavoring this fall to make the average load at least five tons greater, which will mean that twenty cars this year will carry a load of 468 tons as against 423 tons in twenty-three cars during 1915. Forty-five tons are thereby gained and three cars saved. Such a performance repeated over the whole of Canada will have a tremendous influence in increasing the railroad efficiency of this country.

### What Might Have Been and May Be

Had the average load per car in 1915 been 23.4 tons instead of 18.4 tons, the same traffic would have been handled with 6,947,588 less trains hauled one mile, or with 1,568,765 less car trips. By increasing now the average load by five tons per car, the public of Canada would improve the efficiency of the equipment facilities and man power of the railways to an extent equal to 34,800 additional freight cars, 482 additional freight and yard engines, 415 additional miles of yard trackage and

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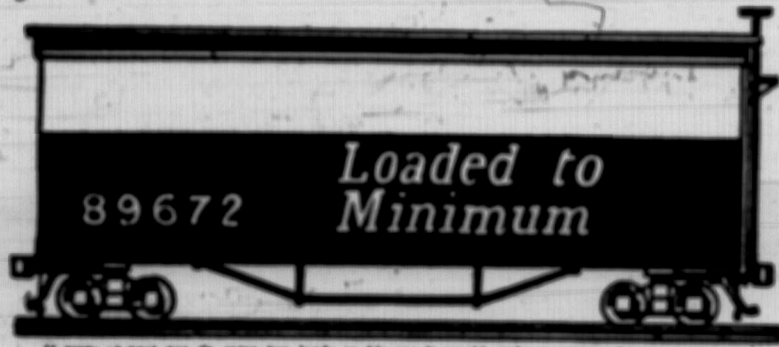
The following is some information regarding the maximum capacity of various cars on the different lines of railroads in Western Canada which shippers will find useful.

The G.T.P. have 60,000 and 80,000 pound cars. The G.T.P. maximum is 66,000 pounds on 60,000 pound cars, and 88,000 pounds on 80,000 pound cars. The G.T.P. 80,000 pound cars are numbered C.G.R. 80,001 to 81,610, and 250,000 to 250,999.

The C.N.R. have both 60,000 pound and 80,000 pound cars; the 80,000 pound cars are known as D.W.P. and start from numbers 30,000. On the C.N.R. cars the maximum is 66,000 pounds for the 60,000 pound cars, and 88,000 pounds on the 80,000 pound cars.

The C.P.R. have three different sizes, 40,000, 60,000 and 80,000 pounds. There are only a very few 40,000 pound cars. The 60,000 pound cars can be loaded to 66,000; the 80,000 pound cars can be loaded to 94,000 pounds, on the series running from numbers 100,000 to 139,998; 200,000 to 213,998; 140,000 to 149,994; 150,000 to 153,238. Other series can only be loaded up to 88,000 pounds.

The secretary of the Board of Railway Commissioners for Canada said on September 19: "Don't forget that if all shippers load to full capacity, or better to 110 per cent. when practicable, the car shortage will largely disappear. The weather conditions of winter last year increased the congestion and the coming winter may repeat it. Additional freight cars can be obtained only with great difficulty. Prompt deliveries of new rolling stock do not exist. Shippers and receivers are interested in getting cars. Their co-operation in efficient car handling will help everyone. A freight car saved is a freight car gained.—E. A. Weir.



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