

# The Transportation Problem

OF THE

## United States.

Letter of Mr. James. J. Hill  
to  
Hon. John A. Johnson,  
Governor of Minnesota.  
January 14, 1907.

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Mr. James J. Hill

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HON. JOHN A. JOHNSON

Governor of Minnesota

JANUARY 14th, 1907

ST. PAUL, MINN., January 14, 1907

*Honorable John A. Johnson,*

*Governor, St. Paul, Minnesota.*

DEAR SIR,

The business of the United States is today so congested that from every portion of the country arises clamor for relief. The railroads everywhere are taxed beyond their power. The people of the United States, therefore, are face to face with the greatest business problem that has ever threatened the nation. During recent years the volume of business has increased and is increasing with extraordinary rapidity; while the necessary additional trackage and terminals have not been equal to the demands upon them. The resulting situation is a freight blockade of enormous proportions, especially at all terminal points. How to remedy this is a problem, financial, mechanical and physical. No time should be lost in applying such measures of remedy as may be possible. And the first step toward this is to reach a proper understanding of actually existing conditions. The following figures, compiled from the official reports of the Interstate Commerce Commission, and covering the growth of the railroad business for the last ten years, exhibit the significant facts:

	1895	1905	Inc. Per Ct.
Total single track mileage.....	180,657	218,101	21
Locomotives .....	35,699	48,357	35
Passenger cars.....	33,112	40,713	23
Freight cars .....	1,196,119	1,730,409	45
Passenger mileage.....	12,188,446,271	23,800,149,436	95
Freight ton mileage.....	85,227,515,891	186,463,109,510	118

These figures show the cause of delay in the national traffic movement which threatens to bring industry to a standstill. Within the last ten years the volume of railroad business in this country has increased over one hundred and ten per cent. Meanwhile, the railroads have endeavored to meet it. For, while the increase in locomotives has been thirty-five per cent in number, and, in freight cars of all classes, forty-five per cent, the substitution of larger cars for smaller, better methods of loading and increase in weight of locomotives, have greatly added to the carrying capacity of the railroads so far as rolling stock is concerned. Moreover, equipment is being increased as rapidly as capital and labor can do it. The car manufacturing establishments of the country have all the orders they can fill for a year ahead. The locomotive works are equally busy. There are and will be cars enough to carry the country's traffic if the cars can be moved, but engines and cars must have tracks upon which they may run.

A striking tale is told by the statistics of railroad building in the United States. Not only is it true, as stated above, that there has been in the ten years ending 1904, an increase of but twenty-one per cent in mileage, but the most impressive fact is that railroad building has, within a generation, fallen off just as the demand upon trackage has increased. At this moment, when that demand is greatest and the whole country is clamoring for relief, it is the smallest in years. These are the figures:

	Total Mileage	Inc.	Inc. Per Ct.	Inc. Per Ct. Per Annum
1870 .....	52,898	.....	.....	.....
1880 .....	93,671	40,773	77.	7.7
1890 .....	163,597	69,926	74.6	7.46
1904 .....	213,904	50,307	30.75	2.19
1906 Estimated .....	220,000	6,250	2.9	1.45

The limit of service of a common carrier has been reached, when it has moving at all times over its system as many cars as can be run upon its tracks with safety, and transferred and dispatched from its terminals and junction points without unreasonable delay. Beyond that point, increase of business cannot be handled by increasing cars and engines. The disparity between the growth of traffic and the additions to railroad mileage, and the extension of terminals,

shown by new mileage of less than one and one-half per cent a year since 1904, to take care of a traffic increase averaging<sup>1</sup> eleven per cent a year for ten years past, presents and explains the real problem. The best judgment of many conservative railroad men in the country is that an immediate addition of not less than five per cent per annum to the railroad trackage of the country for, say, five years, should be made to relieve the situation and put an end to unreasonable delays in the transaction of business.

Investigations recently made by public officials, and facts accessible before those investigations, disclose that the railroads of the country have been endeavoring to meet the growing demand upon them. In order to handle this enormous addition of one hundred and ten per cent in business with only twenty-one per cent more track, they have utilized as never before the carrying capacity of each mile. Not only were there thirty-five per cent more locomotives and forty-five per cent more cars in service in 1905 than in 1895, ^^^ each engine and car did much more work. The passenger miles traveled per locomotive increased from 1,218,967 to 2,043,553, or more than sixty-eight per cent, and the ton miles per freight locomotive from 4,258,821 to 6,690,700, or more than fifty-seven per cent. Trains run faster, ears are larger, locomotives are more powerful, and methods of handling the business have so improved as to increase the general efficiency. Only by these improvements has the disparity between trackage and business done been prevented thus far from creating widespread suffering and loss. Only thus" has the country been enabled to do a growing work with an almost stationary machine.

.But the trouble of business grows and deepens. It is not confined to any section of the country. And it is in the great centers that the inadequacy of terminal facilities makes the pressure most severe and prevents the free flow of traffic. The Great Northern Railway Company has thirty-four switch engines in use in the Twin Cities while it uses only twenty-eight engines in hauling freight into and out of the same.

No additions to equipment and no increased efficiency in operation can take the place of the imperatively required new trackage and terminal facilities. The country must have, as rapidly as it can be built, additional tracks and terminal facilities, of which it stands in such need today. Suppose

that only twenty-five per cent additional track with necessary terminals and equipment is to be built during the next five years; for with less the country cannot escape severe distress and business depression, cannot conduct promptly the volume of business even now in sight. Our total railroad mileage is about 220,000 miles. A twenty-five per cent increase would mean the building of 55,000 miles of new track, much of which would be additional tracks to existing lines, and if five years were allowed for the work it would be necessary to build 11,000 miles each year. But that is not all. One-third would have to be added to this amount for terminal and passing tracks. Add thirty-three per cent to 55,000 miles, and the total is 73,333 miles; or, say, before the end of five years, in round numbers, 75,000 miles of track as the requirement for the country to meet immediate needs. As most of this additional track would be built where traffic is heaviest, for double-tracking existing lines, it must be expensive work. Grades should be lowered, curvature reduced and highway and other bridges built and expensive terminals created.

No practical man would accept a contract for furnishing the facilities required, including additional equipment and terminal facilities, for less than \$75,000 per mile. The question of terminals alone is almost prohibitive. Terminals now in use were acquired when property was cheap and can be enlarged only by heavy outlay. In many cities it is not even a question of cost, since the area necessary to handle railroad business properly is not to be had at any price; does not exist within the business section where terminals must be located, unless the business itself were destroyed to make room. The new work, then, would amount to \$5,500,000,000 in round numbers, or a yearly average of \$1,100,000,000. That is the sum which should be spent before the commerce of the country can be moved properly. It is just twice the total amount of the bonded debt of the United States after the close of the Civil War. It is more than twice the entire currency in circulation in the country, and only a little less than twice the deposits in all the savings banks in the United States put together. That is the money that should be raised somehow, and that within the next five years if the business of the country is to escape prostration.

Almost all the complaints made today, either by shippers or by operating railroad men, of obstacles and dangers in

transportation service are due to deficient trackage. The defect can be corrected only by building more track. The movement of freight cars is more unsatisfactory to the railroads than it can be to their customers. The average, speed of a freight train is from twelve to fifteen miles per hour. The average distance traveled by each freight car is about twenty-five miles per day. That is, the entire freight equipment of the country is employed to the fair limit of its capacity but two hours out of the twenty-four. On single track lines freights must wait on sidings while passenger trains have the right of way; cars stand for days or weeks in yards, or at transfer points awaiting their turn.

It has come to pass also that the inadequacy of trackage takes heavy toll of life and limb. In 1895 the number of passenger miles traveled for every passenger killed or injured was 4,789,173; in 1905 it was 2,184,830. The ton mileage for each non-passenger killed or injured was 2,278,438 in 1895 and 2,201,011 in 1905. Yet during this time cars were being equipped everywhere with safety devices, and all the railroads were exhausting ingenuity in guarding against accident. The terrible increase of casualties in proportion to passenger and freight mileage is part of the price the public pays For crowding business so that it can be moved only at some sacrifice of safety. The situation appeals to all the traveling public as well as to every shipper and to every man connected with the operation of railroads in this country,

Our population is now increasing at the rate of more than 2,000,000 per annum, and the growth will soon be 2,500,000. The demand upon the transportation systems of the country grows accordingly. Almost everything that ministers to human necessity, except such products of the farm as are consumed on the farm, must be carried by the railroad for a longer or shorter distance. The total value of farm products themselves doubled in the thirty years after 1870, and is now estimated at almost twice the figures of five years ago. In the last ten years the output of petroleum has more than doubled, that of pig<sup>1</sup> iron increased 150 per cent, and the value of manufactured products of the country rose from \$9,372,437,283 in 1890 to \$13,039,279,566 in 1900. All the additions to our imports and exports, every activity in every department of industry, means just so much more work- for the carrier systems of the country. And they, as

to available trackage, are little better than at a standstill. For of the four or five thousand miles that are built in a year, the greater part consists of feeders for main lines and of roads pushed into new country for the purpose of opening it up. Neither will give relief to main thorough fares or lighten the pressure on terminals. Both, on the contrary, add to the seriousness of the situation by creating more business for the overcrowded lines to handle.

The pressure of traffic increases in a constant progression. It has reached its greatest severity just at the time when railroad construction is at the lowest ebb. Take the last five years, within which business has been flourishing everywhere. The rise of new industries and the expansion of old ones, the development of the country as measured by the increased business of the postal department, all indicate the volume of the burden placed upon the railroads. The following figures, compiled from Poor's Manual of Railroads, show the intense activity of the last five years as compared with the decline in railroad construction;

	1900	1905	Inc. Per Ct.
Miles of railroad operated.....	191,861	215,506	12.3
Passenger mileage.....	16,313,284,471	23,906,420,668	46.5
Freight mileage.....	141,162,109,413	187,375,621,537	32.7

The number of passenger miles traveled in this country for each mile of railroad in it, according to these figures, has increased thirty per cent in the five years and the number of ton miles for each mile of track has grown eighteen per cent. As these percentages are calculated on the actual number of miles of road existing at the beginning and the end of the period respectively, they measure the additional burden on every foot of track. It is no wonder that, with this extra work to do per mile, a work not equally distributed, but in some sections, rising to a far higher ratio, the limit of effective operation has been reached. The highest direction and the best economy is to have trackage, equipment and other facilities properly adjusted to the volume of business and then keep moving it in a harmonious and useful way. To any such system, by which alone present distress can be relieved and future disaster averted, more trackage is the first and most indispensable condition.

The problem and the necessity are enormous. At 140 tons to the mile, it would require 2,000,000 tons of steel rails

every year to furnish the 15,000 miles of track required. This is nearly two-thirds of the product of all the rolling mills in the United States. It would call for the labor of 200,000 men in grading, besides track layers, bridge builders and others. Labor even for such ordinary extensions and improvements as are now being made is not to be had in sufficient quantities on any terms. And it demands, as has been seen, the investment in permanent railroad plant of \$1,100,000,000 a year for five years to provide the railroads of the country with means to handle properly the business already in sight, not allowing' for future growth. This is the real railroad problem of the United States; and it is one which people have been singularly slow to perceive and reluctant to realize, although it is written on every page of industrial statistics and calls to the passer-by from every signal tower, every siding and every railroad yard from the Atlantic to the Pacific. To all appearances, the commerce of the country has touched a barrier which is almost insurmountable.

Two remedies must be found. The prohibitory expense now attached to enlargement of terminals at many points, and the absolute lack of available space at any price, may be met by a decentralization of traffic. There must be more points for export, more interior markets. A fifteen foot canal or channel from St. Louis to New Orleans would go further to relieve the entire Middle West and Southwest than any other work that could be undertaken. With such a depth of water, a single powerful tow-boat would carry from thirty to forty train-loads. Terminal troubles admit of a more general diffusion of business, permitting transfers to take place and forwarding' to be done where land can be secured in adequate quantities and at more reasonable prices. To this the traffic system of the country must be adjusted. The heavy transfers must be made away from the larger cities.

The construction account, however, is the first consideration. It is not by accident that railroad building has declined to its lowest within a generation, at the very time when all other forms of activity have been growing most rapidly. The investor declines to put his money into enterprises under ban of unpopularity, and even threatened by individuals and political parties with confiscation or transfer to the state. The withdrawal of capital from this field is one of the bottom causes of the great decline in railroad build-



ing at the very Lime when the growth of the country in other respects has been most marked. There has been no time since 1893 when there was more difficulty in raising money for railroad purposes than at present. This feeling must be removed and greater confidence be mutually established if any considerable portion of the vast sum necessary is to be available for the work.

First, there must be a realization by the country of the embargo upon, business and of the fact that the cause is insufficient railroad trackage. This fact has, strangely enough, come upon the public by surprise. I live now, and even among those who should be most alert and best informed, there is little apparent comprehension of the desperate need that business already feels and that is expressed in delayed freight, car shortages and all the discomforts and injuries voiced by the complaints of shippers. Then there must be a fair, intelligent and loyal co-operation on the part of the whole people in what is for them a vital movement to make traffic facilities equal to traffic demands. Nothing compares with this in magnitude or importance since the close of the War of the Rebellion. It will take time, patience and the expenditure of an enormous amount of money. The task of providing even modestly for the future is a colossal one. It not only involves gigantic physical and financial operations, but it is conditioned upon a rational, just and patriotic attitude upon the part of the whole people. It will require the best thought and the best effort of this generation to avert the evil that now casts its shadow upon farmer, manufacturer and merchant; to arrest the progress of the paralysis that is laying its grip upon the heart of commerce and to restore the wholesome circulation without which there cannot be life and growth in either individual or the commonwealth.

Very respectfully,  
JAS. J. HILL.