

ADDRESS

delivered by

Mr. James J. Hill

before the

National Rivers and Harbors
Congress

Washington, D. C.

December 5,
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Existing conditions in the transportation business of the country compel attention to its waterways and the assistance they may render. The construction of canals and the improvement of rivers has been sometimes discredited in the past by the activity of local interests, anxious rather to secure expenditures in certain districts than to promote the relief and expansion of commerce. There can scarcely be said to have been a national plan or order in this field of national activity. The work will go forward to the benefit of the whole people only when it is regarded as a whole and taken up and carried forward with reference to the rank and order of its parts. We must prepare to utilize the waterway as a common carrier. The most important step in this work, the first step, is the construction of a channel or canal on the lower Mississippi, not less than fifteen feet deep, from St. Louis to the Gulf.

We must employ our greatest waterway as an important part of the transportation system of the country. The railways are now unequal to the demands upon them. The farmer, the merchant and the manufacturer are feeling loss from uncertainty and delay in their shipments. Unless commerce can have an adequate channel it must decline.

Last January I addressed to Governor Johnson, of Minnesota, a letter in which the facts as then apparent were set forth. In this it was shown that while, in the ten years from 1895 to 1905, the ton mileage of the railroads of the United States had increased 118 per cent., and the passenger mileage 95 per cent., the railway mileage over which this enormous additional burden must be carried had increased but 21 per cent. In the fourteen years following 1890, the average annual increase in railroad mileage was but 2.19 per cent. In the two years since 1904 the average increase has been less than 2.5 per cent. With traffic increasing at the rate of nearly 12 per cent. per annum the situation has become intolerable.

RAILROADS PREVENTED A BLOCKADE.

The railroads have prevented an actual blockade by increasing their equipment, by using more powerful engines and larger cars, and by such increased efficiency in operation as to raise the carrying

power of each mile of road. But this process has reached a practical limit. I showed then that the deficiency of our national transportation system could be corrected only by building more track. Merely to accommodate existing traffic I estimated that we would need to build 75,000 miles of new track, costing, with terminals, \$5,500,000,000; or an outlay of \$1,100,000,000 a year if the work were spread over five years. I pointed out the immensity of the physical problem in securing space for enlarged terminals, material and labor for such construction, and the financial problem involved in securing such advances in cash and credit. And my conclusion may be quoted here, bearing as it does directly upon the object and the labors of this body: "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 equipped with barges would carry from thirty to forty train loads".

More than ten months have passed since these words were written, and they have been more than confirmed by the events of that interval. The official report of the Interstate Commerce Commission for 1906 has appeared. Comparing its figures with those for 1896 the increase in railway mileage is found to be 22.7 per cent., while the tons of freight carried one mile increased 126.4 per cent. The business is two and a quarter times as great, while the machine for handling it has added little more than one-fifth to its size. With trackage increasing at an average rate of a little over 2 per cent, a year, reaching only 2.8 per cent, in 1906, when business was pressing most fiercely on the roads and traffic growing at the rate of over 12 per cent, per annum for the decade, amounting to 15.7 per cent, for the last year, the wonder is that the business of the country has not been actually paralyzed.

RESOURCES OF THE RAILROADS.

It has also developed during the current year that the railroads alone will not be able to handle the nation's commerce. Every condition referred to has grown more difficult to deal with. Production and business maintained their growth and volume. The railroads have nearly exhausted their resources for public service. The railroads of the United States are capitalized at from one-half to one-fifth the capitalization of European systems. They carry from 25 per cent, to more than 100 per cent, more freight to the mile of track. They pay twice the scale of wages. They charge rates for freight about one-half those of European countries on the average. They pay on the comparatively small investment per mile a lower rate of

profit than the average received by the investor in similar properties abrun.il. Our freight rates are continually declining, so that, for example, if the freight rates in force on the Great Northern system in 1881 had been maintained, the company would have collected since then a total of \$893,415,136 more than it has received, a sum more than twice as large as the total revenue that it has collected during this period.

In my letter to Governor Johnson at the opening of this year, I said: "It is not by mere accident that railroad building has declined to its lowest point 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 building at the very time 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".

How has the situation changed since then? Every one knows that the difficulties have greatly increased in the past year. The railroads did, indeed, raise about a billion dollars; but most of it was used for immediate needs in the purchase of equipment, the improvement of existing lines and the enlargement of terminals. Very little of it went into new construction. Then there fell upon the financial world the inevitable blow dealt by the shock to public confidence resulting from repeated and cumulative attacks upon property. Money disappeared. What was the problem of the railroads became the problem of every man in the country; of the government itself. To-day money and credit are only just being kept by the utmost exertion of our ingenuity and our strength sufficient for the needs of our daily trade and the prevention of widespread ruin. Where now can we turn for another billion dollars required for the coming year, to enable the railroads of the country to do the business of the people? Hopeless as such an undertaking appeared one year ago, no man would then have dared to predict the impossibility of it to-day.

Traffic men and large shippers arc face to face with conditions working a universal hardship which those who suffer most keenly do not understand. The farmer knows that the price of all his produce has recently dropped in our markets. How is he to analyze all the causes leading up to his loss? Hut we know how far it has been caused by the lack of money and the straining of confidence and the creation of distrust, curtailing the ability of the common carrier to bear its increasing burdens. All the terminals are congested.

There is no longer certainty of delivery on any large contract. It takes about forty days to carry the grain of this country from the prairies of the Northwest to Europe. Half of this time is usually consumed between the lake ports and the Atlantic seaboard. This delay unsettles markets; interferes with buying and selling, not only in the centres, but ;il the point of production; inflicts a money loss most of which falls eventually on the producers of the country.

In seeking ampler ways for traffic, the country turns to its waterways for relief. These are about to emerge into an era of restored usefulness and influence in the development of our resources. The age of pioneering relied upon them alone. The age of settlement sought speedier and more universal means of communication. The age of maturity must press all the available agencies of transportation into service. The enthusiasm that built the Erie Canal must be aroused in this generation for a systematic and scientific improvement of all our waterways. And a glance at the map or a look into any volume of commercial or railroad statistics will suggest that the first thing on the program should be the creation of a channel along the lower Mississippi, between St. Louis and New Orleans, on a scale commensurate with the needs that it must serve.

POINT OF SEVEREST PRESSURE.

The severest pressure upon transportation facilities and the greatest increase of demand upon them originate in what is called the Middle West. The great alluvial district between the Alleghanies and the Rocky Mountains produces a considerable part of the food supply of the world. The twelve states of Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, North Dakota, South Dakota, Iowa, Kansas, Nebraska and Missouri contain more than half the farm property, if measured by value, in the United States. They contain about one-fourth of the total area of the Union and one-third of its population. In agriculture they are as important as all the rest of the country combined. In 1906 these twelve states raised 498,874,113 bushels of wheat, or 68 per cent, of the total yield; 1,951,175,861 bushels of corn, or 67 per cent, of the entire crop; 753,141,271 bushels of oats, or 78 per cent, of the total crop; and 144,333,999 bushels of rye and barley, or 68 per cent, of the total crop. Their production of butter, cheese, potatoes, hay, etc., was about one-half that of the whole country. They raise practically all its flax, and the aggregate of their farm products is almost exactly half that of the United States. From these fertile lands comes the surplus agricultural product that constitutes the real wealth of this country, and, either directly or converted into meats and other foodstuffs, furnishes the body of our foreign exports. They are now only partially occupied and carelessly tilled. The time is coming when their product will be twice or fourfold what it is to-day. Even omitting their mineral wealth and their manufactured

product, the latter being about one-third that of the country, and not considering their domestic commerce, which alone would tax their transportation facilities, the problem of getting these food supplies out of the central basin and into their ultimate markets is the most vital to its economic welfare that the country has to consider. It has been shown already that the overtaxed railroads must be supplemented with any other means of transportation available; and that seacoast markets and ports of shipment must be increased for the sake of obtaining terminal facilities.

RIVER BUSINESS.

Not all the commerce of the interior seeks the lower Mississippi. Half of Ohio, much of Michigan, and parts of Wisconsin and the Northwest are more directly tributary to the Great Lakes. But this deficiency will be more than made good by river business originating in Arkansas, Oklahoma and parts of Kentucky, Tennessee, Mississippi, Louisiana and Texas. The cotton crop is to the South what the grain crop is to the North. St. Louis, north of the cotton belt, reported receipts or through shipments of more than half a million bales last year. The cotton crop of the year 1905-1906, as reported by the New Orleans Cotton Exchange for Arkansas, Louisiana, Mississippi, Tennessee and adjacent territory, Texas and Oklahoma, all partially tributary to the lower Mississippi, was 6,068,000 bales, worth nearly \$350,000,000. The wheat crop of Oklahoma in 1906 was more than 21,000,000 bushels. Nearly all this product is exported, and this traffic will add more tonnage in the lower basin than is diverted to the lakes in the upper.

Nature indicates that the commerce of the Middle West, with the rest of the world, should be carried in part by the Mississippi River. In the long run, transportation adopts the line of least resistance to gravity. The rivers mark the direction. Just as the entire drainage of the central West is gathered into the Mississippi and passes by it to the Gulf, so that portion of its commerce which consists of articles of large bulk and weight will move naturally in this direction when the choked outlet becomes an open passage. The burden which the railroads alone cannot carry will be shared by the waterways. The recent congestion from a steadily increasing volume of commerce will be relieved by turning a share of the business over to the towboat and the barge. Here lies the most practical exit from our national transportation dilemma.

A PROPOSED WATERWAY.

To avail itself of this, the nation should make a trunk line for commerce of the Mississippi River from St. Louis to the Gulf by the construction of a canal not less than fifteen feet deep for the entire distance. The lower Mississippi is one of the most unruly

forces upon this continent. Many millions have been spent in removing obstructions and in other expensive works. As far as navigation is concerned, the results are not commensurate with the cost, nor do they encourage large expenditure on the same lines in the future.

The total receipts of freight at St. Louis in 1906 were 27,292,617 tons by rail, and 327,670 tons by river. The total freight shipments from the city in the same year were 17,672,006 tons by rail and 89,185 tons by river. And of this absurdly small total of steamboat business only 106,670 tons of receipts and 34,905 tons of shipments are credited to the lower river. This vast stream, which might carry the whole commerce between the interior and the rest of the world, was used to the extent of only three or four maximum cargoes for a steamer with its tow of barges. The upper and the lower Mississippi and their tributaries together did less than one per cent, of the freight business of the largest center on the river. What is the reason? The report of the Merchants' Exchange of St. Louis shows that during four months of last year seven feet or less of water only was reported in the channel between St. Louis and Cairo, and that for a portion of this time the depth was as low as three and one-half feet. Between Cairo and New Orleans it fell as low as nine.

It is part of the stock in trade of those who live by feeding ignorance with falsehood to attribute the comparative disuse of our waterways to "railroad hostility". Just how a railroad can prevent capital from buying or building barges and steamers, or keep these from getting business by carrying it at a lower rate, has not been explained. The truth is that the railroads would welcome any agency which would relieve the strain upon them and help to do the country's business.

A ship canal is neither necessary nor desirable. It is part of the dream of enabling ocean vessels to come direct to interior ports and load there for the foreign trip. The ocean carrier must be built to withstand waves and storms. A large share of her big bulk is merely protective. Every ton so added is a tax upon motive power and subtracts just so much from the cargo that can be carried. It is an economic loss multiplying itself with every voyage. A vast traffic like that which will gravitate from the whole interior toward the Gulf, as soon as facilities are offered, needs the flotilla of barges. The embargo on commerce would be lifted. Not only would the products of the Middle West find an open door with a material lowering of the cost of reaching a market, but traffic all over the country would gain by this relief from pressure at critical points, giving to railroads and terminals such assistance as would enable them to carry the residue with the speed and certainty that business requires.

This relief would be greater than new railroad construction on

any scale now practicable could furnish. The steamer "Sprague" has a record of handling 70,000 tons of freight in a single tow of barges, which would make a train fifteen miles long if each car carried thirty tons. Let such an agency as this be set to carrying the heavy traffic of the interior basin and the relief will be like that which the road wagon of the farmer felt when the locomotive appeared.

ARGUMENTS FAVORING A CANAL.

Matters of engineering and estimates of cost need not be considered here. If we can dig a canal across the Isthmus of Panama, it will be easier to carry one down the lower Mississippi. If we can spend several hundred millions on the Panama Canal to benefit other commerce with our own, we can spend something to relieve and save our own. Suppose that such a canal or channel cost \$100,000,000. What is that in comparison with the billion dollars a year necessary to keep the railroads from falling behind in the work which they now have to do? Canada has spent as much on her canals. New York State is spending as much on the Erie Canal. A single river and harbor bill of modern size would go far towards the whole work. Is there any comparison between the value received from the appropriations that these usually carry and that of a St. Louis-New Orleans channel? The whole country would receive back the entire cost of the work in a few years in the ease and advantage with which markets could be reached and the lower cost of transportation.

The average freight charge per ton per mile on all the railroads of the United States is a trifle under seven and a half mills. The same charge on the Great Lakes is about one mill. The President of the Ohio River Improvement Association has stated that heavy freight is now carried on those rivers at a third of a mill per ton per mile, including the return of empty barges, with profit to the carriers. The advantage of the farmers of the Northwest in nearness to the lake route can be conferred upon those of the interior basin by utilizing the Mississippi. And while at the end of lake navigation at Buffalo there is a canal that gives some assistance, the other leads to the open sea where ships enough to transport the products of a world may come.

Both railroads and waterways have suffered from the artifices of demagogues who care nothing for either or for the welfare of the people dependent upon them. The one has been indiscriminately assailed. The other has been made a football of politics by appeals to local interests. It is time for a wiser policy, one worthier of a great industrial nation. The railroads have nothing to ask but justice and fair play. They desire no more and no less than permission to discharge their function in the commonwealth without being subject to constant vituperation, to confiscatory laws, to assaults that forbid their growth as their business expands by lessening

credit and checking investment in railroad enterprises. Let the law regulate them, but at the same time let it guard and protect them. If laws are broken or regulations disregarded punish the guilty. But do not break down the most important single industry in the country under the influence of a hue and cry that is largely meaningless except as directed by the worst political motives. Do not amputate a leg because of twinges from a bunion on the toe.

THE WAY TO HANDLE THE QUESTION.

Then let the question of waterway improvement be taken up as a whole and deal with it as business men deal with other business affairs. It will require a campaign of education, because works of internal improvement have come to be too much regarded as opportunities to draw money from the Federal treasury and too little considered on their own merits. You will find none in heartier sympathy or co-operation with you than the managements of railroads. It is part of the war of misrepresentation against them that they have been arraigned as hostile to waterway improvement. So far is this from true that they see in the proper care and utilization of our streams and harbors the only relief from the demands which they cannot meet. The railroad has had no more reason to fear or to oppose the steamboat than the trolley car. Such an attitude would be unintelligent. Both have their uses of co-operation and competition. Both are necessary to serve the increasing needs of our domestic and foreign commerce. There will again be business enough for the railroads at paying rates, no matter how much rivers are improved or how cheaply they can carry freight. This alleged jealousy, this asserted hostility, is a myth; part of the maze of yellow ideas invoked to involve the people of this country and turn them from the study of their own highest good.

The work of the pioneer in the development of the country is no novelty to the railways. More than twenty years ago our railway company took up and urged the work of drainage in the Northwest and bore a large part of the expense as well. It has been earnest in the same cause ever since and the people are only just beginning to appreciate its importance. Before any one else had grasped the idea of irrigation on a large scale, before a voice had been raised in Congress in its behalf, the railroad systems of the West had contributed \$25,000 a year as a fund for popular education on this subject. Their engineers were busy with reports, their agents were talking irrigation to the people, their money was going into actual irrigation projects as a demonstration of its national value. The whole irrigation system in operation to-day is the product of the educative work begun, continued and paid for by five railroad companies until the people had been taught its importance and their need.

The railroads stand in the same relation to waterway improvement. They may not grow wildly enthusiastic over digging ditches where no commerce exists or is ever likely to exist, but you will have their hearty and sincere co-operation in asking for such exercise of the national power and resources as will clear the choked channels of our commerce and enable the products that give us strength abroad and comfort and abundance at home to move freely to market from farm and factory. When Mississippi River improvement was first thoughtfully considered, the first step was the building of the jetties. Common sense saw that a channel would be of little value if delta deposits blocked the way of ships to the sea. Common sense should now apply the same policy to the channel itself. Construct the lower Mississippi canal, to be followed by an extension to the lakes at Chicago, if this can be done; and by other improvements to connect with the great trunk water line indicated as the basis and main outlet of the system. A deep waterways movement that shall set for itself this standard, leaving other projects to follow and to prosper or fail according to their merits and their relation to the whole scheme considered as a purely national undertaking, will command the support of the people because it will commend itself to their judgment. It will place its advocates among the statesmen and benefactors of their time.

CANADA'S REMARKABLE SHOWING.

Our neighbor on the north, young and comparatively weak in resources as she is, shames us. Canada has spent, in proportion to her population and wealth, dollars on her canal system where we have spent dimes. Because she has worked to an intelligent national plan she has more to show for a dime than we for a dollar. Six years ago there was already a fourteen-foot channel completed from the Great Lakes to the ocean, every foot of it within her own territory. We still pile up our commerce at Buffalo because we have no corresponding outlet from Lake Erie to the Atlantic. Nor is this the end. In a public address a month ago Honorable Robert F. Sutherland, Speaker of the Canadian House of Commons, referring to the St. Lawrence canal system, said: "People now alive may live to see the minimum depth made twenty-one feet; and when that does arrive, Montreal and Quebec, Halifax and St. John, and perhaps some quiet harbor that is as yet only dreamed of, will be the busiest ports of the North American Continent."

The East may look to Canada as a competitor for business following the parallels of latitude. But the traffic of the interior basin of this continent on the American side will flow as its waters do, downward to the Gulf. The possession of this outlet was the inspiration of the Louisiana Purchase that established our national greatness. It was the prize sought most eagerly in four years of

Civil War. It offers us now relief from an intolerable situation, produced by the insufficiency of traffic facilities and the impossibility of extending railroad construction to meet them. Wisely and rightly used, it will become what it has stood for in every intelligent mind, in every patriotic thought, from DeSoto to Jefferson and from Jefferson to our own time. It is our priceless heritage, which we have converted into a "problem", and now permit to How to the sea unused and undisturbed by the peaceful commerce that it invites. Those who shall be instrumental in restoring it to its place and value as the common carrier of some thirty millions of people, by constructing through its valley an adequate and controllable waterway for the public service, will be remembered in our history when the fact that there was once a "railroad problem" shall have been forgotten. This opportunity for the fulfilment of a high and generous idea, for the relief of national commerce, and for the furtherance of a development on lines commanded by Nature herself, is yours.