

# The Automobile's Challenge to America's Transportation Policy

*Its Social and Economic Importance  
Requires Substantial Revision of Our  
Traditional Point of View*

Address delivered December 13, 1932, by  
MR. B. E. HUTCHINSON, Vice-President and  
Treasurer, Chrysler Corporation, in THE  
CYRUS FOGG BRACKETT LECTURESHIP in  
Applied Engineering and Technology, The  
School of Engineering, Princeton University.

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**T**HERE are so many avenues of approach to a discussion of a subject with such profound economic and social implications as the automobile, that the problem of selection and treatment confronting one upon whom the distinguished honor of addressing you has been conferred is indeed a formidable one. It might not be so to an engineer. On the other hand, coming to you as a layman, I may be permitted to include in the range of my subject some aspects of the automobile industry which are not engineering in a purely technical sense but which, nevertheless, present problems requiring for their sound solution engineering brains of statesmanship calibre.

Any comprehensive study of automotive transportation would require more time than is now at my disposal, and would need to cover such items as the colorful personalities who had the vision and courage to do the industry's pioneering; the remarkable engineering advancement which has transformed the automobile from a crude, hand-made, sputtering contraption, that was largely a plaything, into an instrument of pleasure and utility, that is safe, economical and almost foolproof in its operation; the impressive array of statistical facts which, concerning as they do the country's ranking manufacturing industry in value and volume of its products, shed a highly interesting and significant light on the changing conditions and habits of the people; the industry's production machinery, its methods and processes, which represent a development of perhaps the highest degree of manufacturing efficiency continually requiring production engineering of an unusual order; the industry's engineering research such as that upon

which Chrysler Corporation is constantly engaged and out of which such fundamental improvements as floating power engine mountings and four-wheel hydraulic brakes have been developed; finally, the financial and merchandising aspects of the industry which involve some 50,000 independent distributors and dealers throughout the world and the credit facilities of more than 400 financing companies.

### **Transportation Service of the Motor Car**

These and many other aspects of an industry, which, at its high point in 1929, produced more than five and one-half million cars valued at more than three and one-half billion dollars and furnished employment, directly and indirectly, to more than five million persons, naturally offer stimulating suggestions for a discussion of this kind. Yet it occurred to me that from the standpoint of significant as well as fundamental interest to this group and to the wider circle reached by the Brackett Lectures, there is an important phase of my subject which is especially timely right now. It is related to the broad question of what is the place of the motor vehicle in the transportation system of the country. This involves primarily a consideration of the automobile industry in terms of the services of its products as agencies of transportation.

With more than twenty million passenger cars and nearly three and one-half million trucks operating in the United States, and about one-quarter of the country's three million miles of state, county and local roads, outside of the cities, hard-surfaced for motor vehicle operation, it would almost appear that the place of the motor car in American transportation was fairly well established. So far as the individual passenger car owner is concerned, I believe it is. The automobile today is not only a means of promoting health, sociability and pleasure, but is regarded as an actual transportation necessity by more than half the families in the country. Moreover, the commercial vehicle is assuming an increasingly substantial role in the transportation of goods. Indeed, it is the very importance of the motor vehicle, passenger

car as well as the bus and truck, that gives rise to the seemingly paradoxical question which I have suggested for discussion.

As we survey the history of nations, we find that for thousands of years the fastest mode of transportation for human beings was upon the back of a horse. George Washington was unable to travel through space any faster than Julius Caesar or one of the Pharaohs of Egypt. For thousands and thousands of years goods and persons were transported over trails or highways by domesticated animals or on boats propelled by oars or by the wind. More changes have taken place in transportation in the last 150 years than in the previous hundreds of thousands of years covered by the life of man on this planet. And as each newer form of transportation has developed, its position has been challenged and its effect upon the social and economic conditions upon which it impinged has required substantial readjustment in our point of view toward the new as well as the older form.

### **Changes Call for New Point of View**

That was true of the stage coach. When it first began to supplant the horse in England, the saddle-makers and tailors complained that their business would be ruined. The early toll road and canal companies protested bitterly against the encroachments of the railroads as a blow to the prosperity of enterprises dependent upon their operation. A provision was inserted in the charter of the Pennsylvania Railroad requiring it, in the interest of the state works, then mainly canal, to pay a tax on each ton of freight carried between March and December of each year. Even the canal advocates had to recognize that when the waterway froze, the railroad was a necessity and not a competitor. The Baltimore and Ohio Railroad was prevented by legislation and Court decrees from building a bridge across the Chesapeake and Ohio Canal.

But public attitude and public policy gradually changed. The railroads, proving to be the most economical and rapid means of transportation as compared with the older forms, eventually

assumed their proper place and became the greatest transportation agency the world had as yet seen.

Now we are in another period of transportation readjustment which, in the public interest, requires a constructive, cooperative and enlightened point of view not only on the part of those who are responsible for the respective interests involved, but also—and perhaps more particularly—on the part of those who are charged with the determination of public policy as it affects the country's transportation development.

Consider for a moment the physical plant of American land transportation. American initiative and ingenuity, together with vast sums of capital, have produced in this country during the last hundred years the most highly developed system of railroad transportation in the world, comprising about two-fifths of all the world's railroads. It has cost about twenty-six billion dollars, and its growth, generally speaking, has corresponded to the industrial, agricultural and commercial growth of the country. It is fully capable of handling about twice the present volume of traffic now moving by all means of available transportation.

It is a wholesale, mass transportation machine, the continuing usefulness of which to the country no one doubts.

### **Rapid Growth of Highway Transportation**

Within approximately the last twenty-five years American initiative and ingenuity and vast sums of American capital have also produced, in the form of highways and highway motor vehicles, another system of transportation which, in its nationwide and local ramifications, connects even more completely than do the railroads, every city, village and hamlet of the country. This highway transportation system represents a sum at least equivalent to what has been spent on the railroads.

This, as contrasted with the mass transportation system of the railroads, is essentially an individual transportation system, and it is equally inconceivable that the country should get along without it.

In 1901 there were only 15,000 automobiles in the United States; by 1908 there were ten times as many. From 1908 to 1914 the number of automobiles again increased tenfold. Between 1915 and 1932 another tenfold increase has taken place. At the end of 1931 there were 25,814,000 automobiles registered in this country. Within the lifetime of most of those here today the automobile industry has grown with surprising swiftness from insignificant size to gigantic proportions.

There is nearly one automobile for every five people in the United States; that is practically one automobile for each family. There are more automobiles in this country than telephones. A writer for one of the country's leading publications pointed out not long ago that we—the most bathroomed nation—have more automobiles than bathrooms; that every day more of us use a car than use a toothbrush, and that the automobile above everything else is the American standard of the American standard of living.

The enormous growth of the automobile industry would not have occurred had the automobile been merely an instrument for pleasure. Its wide use in this country and its growing use abroad testify to its value as essentially an instrument of utility. The pleasure car of twenty years ago is now called a passenger car, and this change in nomenclature is expressive of the change in function which has taken place.

In its principal service function today—the transportation of persons—the automobile has enormously increased the mobility of people, widened their normal horizon and broadened their outlook. It is conceivable, too, that the influence of the automobile has contributed to the noticeably lessened social tension incident to the times of stress through which this country has recently passed, as compared with what has occurred in other like periods. Due to its flexibility, safety, convenience and economy more than 90 per cent of the passenger miles by all means of transport is by automobile. It travels over a network of highways twelve times as extensive as the railway tracks in the United States; it carries four or five people at practically the cost of carrying one, and

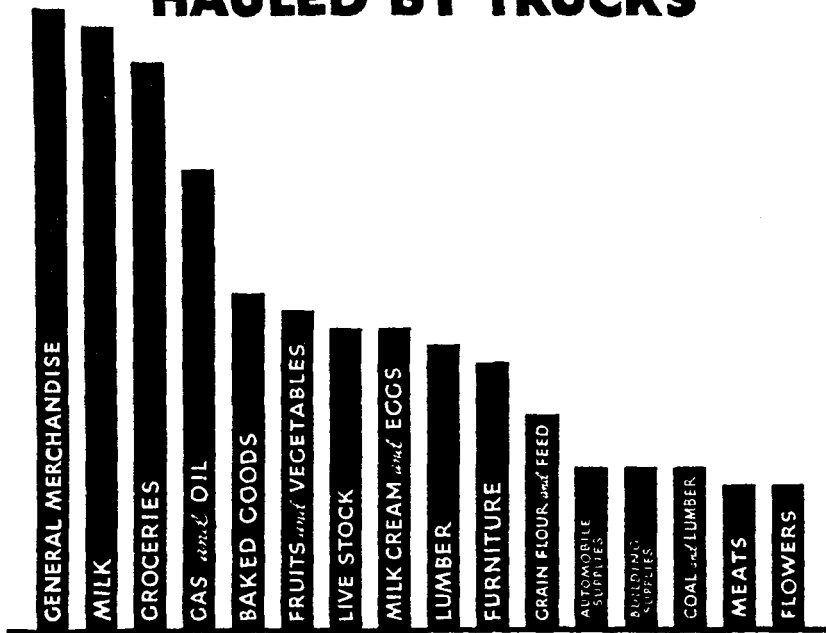
enables the passenger to start and stop when and where he chooses. The school bus is today rapidly eliminating the little red school house of yesterday's fame, and it is logical to assume that in making our people less provincial, the automobile may even change the course of community development, eliminating many of our smaller villages and building up the larger trading centers.

Estimates of the volume of freight transported by truck vary widely. The Interstate Commerce Commission estimates that in 1929 about 6 per cent of the ton-miles of freight carried by all transportation agencies in the United States was hauled by trucks. The percentage is somewhat larger now, ranging perhaps between 10 and 15 per cent of the total. The fact is, however, that the actual transportation service of the truck, its potentialities for service, and, as will be developed later, the value which the public places on truck transportation, are very much greater than these figures indicate. (Note: It is interesting to note the variety of goods hauled by trucks today as shown in Chart 1.) The Interstate Commerce Commission in its report last year on "Coordination of Motor Transportation" points out that since the war this country had entered upon an era of changing methods of distribution, merchandising and business practices, and goes on to say:

"The motor truck has been one of the greatest contributing factors to these changes. There is now large distribution of products by manufacturers direct to retailers and jobbers. Merchants now hold inventories at a minimum as stocks can be quickly replenished by motor truck—in many instances over night. The rapid expansion of chain store systems has been made possible to a large extent by the motor truck. Small towns, even though provided with rail facilities, now obtain a considerable portion of goods for retail distribution by motor truck service from jobbing centers. Retail dealers are able to operate with smaller stocks of goods. The amount of capital invested is less and consumers are provided with fresher goods. In the past two or three years trucks have made decided inroads into railroad carload traffic."



# PRINCIPAL KINDS OF GOODS HAULED BY TRUCKS



Based on replies from 373 owners of Dodge Trucks

Chart 1

## Need for Sound Public Policy

It is quite natural that a transportation factor as great and as rapid in its growth as the motor vehicle should raise many problems of adjustment. One of the most serious of these—competition between our two essential agencies of transportation, the railroad and the automobile—has become an issue of major economic importance. If it is approached on the basis of sound economic policy, the ultimate solution of this problem will not materially interfere with the continuing usefulness of either one of these transportation agencies. Yet it is very apparent that to arrive at such a solution we must discard some of the archaic theories which have been applied to transportation up to now and

which are seriously advocated as beneficial under present conditions.

It was inevitable that competition should arise between these two agencies of transportation. Growing substantially in the decade immediately following the war, this competition has become much keener during the years of depression in the struggle for a steadily dwindling volume of business. It was inevitable also that competition of this character should stimulate on behalf of the older form of transportation a movement to impose upon the new restrictions which, however justified they may have been in years gone by, are, in large part, neither necessary nor desirable for either form of transportation today.

One of the failures of democracy seems to be the reliance of the people upon the fancied ability of government to work some magical solution of their difficulties. It is from this order of intelligence that has arisen the plea for indiscriminate and unsound regulation of highway transportation. I do not, of course, refer to such regulation as is really necessary in the public interest—regulation, however, which should be essentially social in its import and not in any sense economic. There are, perhaps, evils in some forms of highway transportation that not only may be harmful to industry and annoying to individual highway users, but also may retard the sound development of the motor vehicle as a passenger and commercial carrier. But these conditions scarcely justify the imposition upon motor vehicle transportation of the kind of restrictive regulation which for so many decades has fastened itself so completely and so disastrously upon the railroad industry.

The origin of this agitation is simple to understand, but its implications are dangerous in the extreme. It arises, in the main,

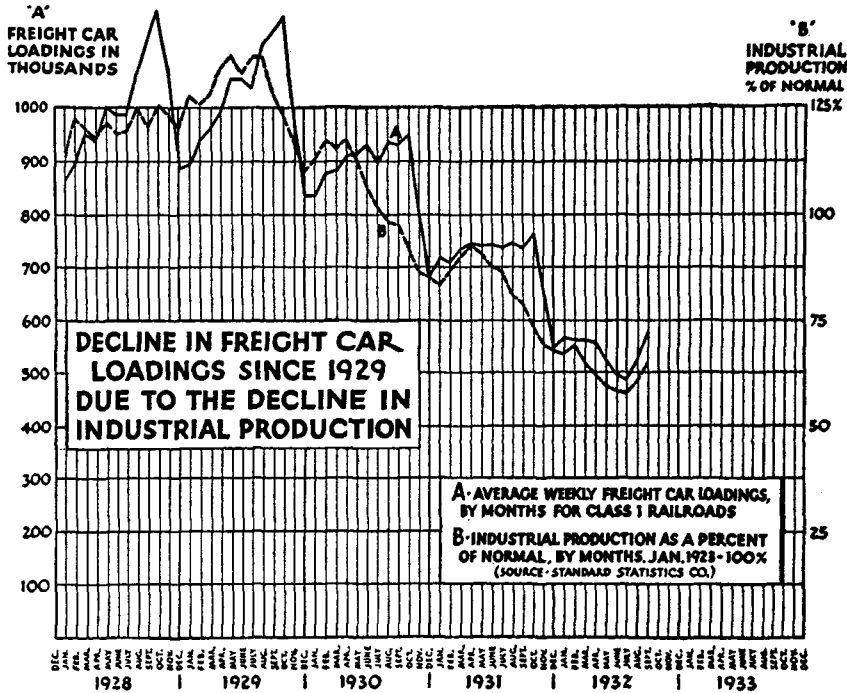


Chart 2

from the fact that the railroad industry has experienced a loss in traffic to the highway vehicle as well as a loss in traffic due to the depressed state of general business; that it is having difficulty meeting its fixed charges, let alone earning a satisfactory return on its invested capital; and that it is unable to meet highway competition effectively, partly because of restrictive regulation and partly because, at least to some extent, it is outmoded.

(Note: An examination of Chart 2 will show that carloadings have declined in an almost direct ratio with the percent of industrial production as compared with normal times. This means that railroad traffic has decreased largely because business conditions have been depressed.

## THE BUSINESS DEPRESSION HAS ADVERSELY AFFECTED *ALL* TRANSPORTATION AGENCIES

### VALUE OF AUTOMOBILES IN USE

DEC. 31, 1929	\$7,039,000,000
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DEC. 31, 1932	\$4,300,000,000
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### VALUE OF NEW AUTOMOBILES PRODUCED U.S. and CANADA

1929	\$3,570,000,000
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1932	\$800,000,000
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### TON MILES OF FREIGHT CARRIED BY TRUCKS

1929	50,000,000,000
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1932	34,000,000,000
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*Chart 3*

(How the trucks have also lost traffic since 1929 is shown in Chart 3. The figures for 1932 are estimated. With reference to the value of the automobiles produced in 1929 as compared with estimate for 1932, the difference is startling. The value of automobiles in use today, as shown by the first figures on this chart, further indicate how all transportation agencies have been affected by the business depression.

(Chart 4 shows how the trend of average wholesale automobile prices, the price of gasoline, commodity prices, freight revenue per ton mile, and railroad passenger revenue per passenger mile have risen and fallen in almost the same ratio since 1923. It further shows that railroad passenger revenue per passenger mile and freight revenue per ton mile are higher than before the war, despite the development of the automobile and the truck.)

# AVERAGE ANNUAL PRICES OF AUTOMOBILES, GASOLINE, ALL COMMODITIES AND RAILWAY RATES

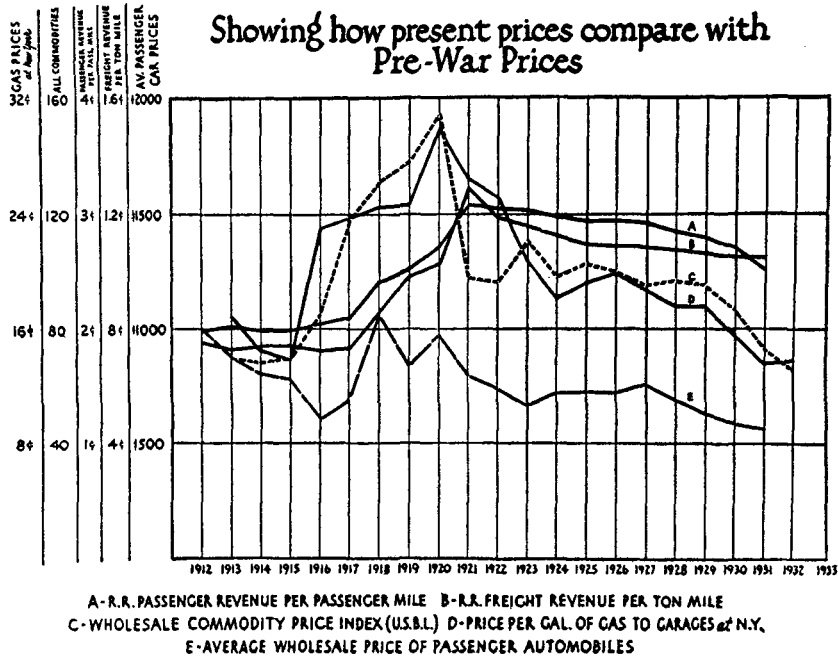


Chart 4

## Dangers in Restrictive Regulation

The net result of the agitation for regulation to which I have referred is a situation that seriously involves the future of both highway and railroad transportation. How intelligently shall we approach the solution of that situation? Certainly the remedy does not lie in imposing upon the automobile industry a kind of regulation devised nearly fifty years ago for a transportation monopoly that no longer exists. Nor does it lie in a system of burdensome taxation and purely restrictive limitations as to weight, size and speed which can only have the effect of making it difficult and expensive for the public to use a transportation agency more adapted in certain respects to modern requirements than the agency it has heretofore used and must continue to use for a substantial part of its needs.

The problem is both engineering and economic. It requires a breadth of vision and respect for facts which might well command the best engineering brains available to those who attempt its solution. The question is how the commerce of the country can be moved most efficiently and economically with assurance of dependable service. In this respect the Interstate Commerce Commission very properly states:

“The public is entitled to the best transportation service. No carrier by rail, water, motor vehicle or air has a vested right in the transportation of a single passenger or a pound of freight. The transportation situation must be considered with vision, intelligence and courage. No legislative regulation or taxation of motor vehicles operating for hire in interstate commerce should be imposed as an artificial barrier to hold traffic to the rails. Nor should the railroads be forced to engage in competition with any other transportation agency for traffic upon terms that are unfair or inequitable.”

This in substance is also the attitude of forward-looking railroad executives who see in the automobile industry a transportation opportunity and not a menace. They hold no illusions about the place of the motor vehicle in American transportation, and frankly expect that its development will mean the abandonment of thousands of miles of now useless railroad. Mr. M. W. Clement, Vice-President in charge of Operation of the Pennsylvania Railroad, discussing future trends in American transportation, states the economic view as follows:

“If these two forms of transportation should continue to develop separately, each independent and regardless of the other, they will be an impediment rather than a help to America’s industrial growth. If they grow supplementary to each other, the progress of America for the next few decades will be steadily forward. Moreover, by supplementing each other they can benefit each other as well as benefit themselves.

“The accomplishment of this end needs no restrictive regulation—to the embarrassment of either the railway or the motor. What it requires is the cooperation of the public with both industries so that they may be able jointly to effect a coordinated system which will be of vast public benefit.”

Notwithstanding the wisdom of such a position on the part of enlightened railroad men, what is the actual situation that we find? What are the facts as to the fairness of automobile competition? As to the present status of regulation of highway transportation? As to the automobile's contribution to the cost of highway construction and maintenance? And as to the transportation service rendered by the motor vehicle?

### **Factual Approach Suggested**

There is evidently a great lack of public knowledge and understanding of these matters. Otherwise it would be difficult to account for the stupidity of extremist legislative measures already enacted or seriously considered in many states of the Union, as for example a law recently passed by one of our largest and most important states in the Union providing that trucks transporting merchandise in competition with railroads must charge rates at least as high as the railroad rates and must not transport over 7,000 lbs., although if the merchandise is transported to a railroad 14,000 lbs. may be carried.

Even the report of the Interstate Commerce Commission's exhaustive investigation into railway and highway competition does not establish, for example, whether what the motor vehicle already pays for the use of the highways is commensurate with its use of them. The report emphasizes the importance of ascertaining the facts in respect of this matter in the belief that the settlement of this question will be a large factor in fixing the place of the motor vehicle in the economy of transportation and in the adjustment and coordination of rail and motor transportation.

It would be unfortunate for the public, as well as for both the automobile and the railway, if this large economic question, which calls for careful analysis of the facts, clear thinking and sound judgment, should be influenced in its solution by such partisan contentions as have brought about the mass of misconceptions prevalent on the subject at the moment.

No useful purpose will be served by contentious discussion of a subject so entirely economic. What I would prefer to attempt is to clarify some of the more serious of these misconceptions that are likely to obstruct a common-sense, factual point of view.

Is it not time, for example, to challenge the soundness of the traditional theory, now unfortunately a widely accepted part of our public policy, that government regulation, per se, is the panacea for what transportation ills there may be?

### **Theory of Rail Regulation is Obsolete**

Now regulation in and of itself is an evil. It involves hiring a police force; it involves litigation in the courts; it involves multitudinous reports on forms prescribed by some commission; it involves constant interference of Government in the conduct of business, where it does not belong. When we talk glibly about *regulation* and set up the cry that the automobile is "unregulated," what is this system we would bring down upon us? Would it not be well to inquire about the symptoms which called for the application of this cure-all in the past, about its efficacy in the intervening years of the patient's life, and whether it still belongs in a more modern pharmacopoeia?

Certain fundamental factors should not be overlooked in considering this matter. Regulation of transportation as we know it today was undertaken when the railroads had a practical monopoly of transportation service. It was designed primarily to protect persons and localities from unreasonable and discriminatory charges, from rebates and other practices which aroused public clamor at the time and which were possible only because railroad transportation was a monopoly in fact. This situation no longer exists, and has not existed for many years. Neither railroads nor automobiles have any monopoly whatsoever. In other words, the



very cornerstone of transportation regulation in this country has been eliminated. The structure stands on false masonry. Certainly a new foundation cannot be justified by any fancied motor car monopoly of transportation. For it is of the very essence of truck and passenger transportation that it does not lend itself to transportation monopoly.

When regulation is proposed for the automobile—and I am speaking now of economic regulation, not regulation that is necessary to make us good citizens—would it not be worth while to study some of the effects of regulation on the railroads to help us determine whether similar regulation of the automobile would really be in the public interest? Aside from the fact that the railroad industry, unlike other industries in the same condition, is forced to operate an over-expanded plant to the extent of perhaps 40- or 50,000 miles, the chief evil of regulation is that it deprives the owners of the business of the freedom to make two decisions that are vital in any business: the price of the product and the quantity to produce, and thereby deprives the public of those standards of service and value which are only fully developed under keenly competitive conditions.

If an automobile manufacturer had to go to Washington to find out the price for which he could sell an automobile; if he had to go there to get permission to remove obsolete machinery and install more modern equipment; if he had to go there to find out how much he should pay his employees—the vitality, initiative and resourcefulness characteristic of the automobile industry would never have been developed, nor would the public today enjoy the values, economic and social, which the phenomenal progress of the automobile industry has brought them. It is a remarkable tribute to the railway managers of the country that

they have done as well as they have, restricted as they have been by the enervating hand of bureaucratic governmental regulation.

And it is quite within the bounds of common sense to question whether the conditions which brought about the present system of regulation might not have been dealt with a great deal more effectively by the free play of competitive forces than they have been by commissions, state and federal, whose authority has exceeded their responsibilities and under whose influence the railroads have become a source of concern to their owners, their employees and to the public at large. After all, what price is comparable to the value of preserving in the public interest the principles of individual initiative and freedom of action which have been the cardinal tenets of industrial growth in the United States?

Since more stringent regulation of automotive transportation is now being advocated, allegedly in the public interest, it is pertinent to pursue briefly an inquiry into the effects of regulation previously applied to our railroad transportation system.

### **Unsound Effects of Existing Regulation**

It is not practicable in this paper to discuss all of the shortcomings of Government regulation as applied to the railroads or any other industry. But if we are to judge a policy by its fruits, the conclusion is inescapable that Government regulation, as we know it today, and as we are asked to consider it in terms of the automobile, is largely unwarranted and mostly harmful in its effects. And if the operation of an automobile must be wound around with the red tape of Government regulation of its traditional character, it will both add to the cost of living of the people and be of no particular benefit to the railroads, the automobile, or the public.

One of the difficulties about regulation is that once entered upon it is almost impossible to halt. First we start out to prevent

discrimination. Then we have to establish rates. Then we have to know what the property is worth and what rate to establish to satisfy the investor. Then we have to forbid someone from entering the business because that would disrupt the system already established. And so on, until an unnecessary, unwieldy bureaucracy has been built up, sending out its tentacles in every direction.

It is such a system which has given birth to several doctrines of extremely questionable soundness at the present time. For example, that relating to valuation. Should not consideration be given to the proposition that properties are worth just what their service is worth to the country and not what it cost to build them or reproduce them regardless of the existence of other means of providing similar services? And in the matter of investment: Have we arrived at the stage in our economic development where railway investments must be protected at all cost, and given preferred consideration regardless of the repercussions of such a policy upon other lines of business and upon the development of improved transportation facilities of other kinds offering service to the American people? There is grave question as to the wisdom of an exaggerated calamity appeal on account of the investment of our insurance companies and other fiduciary institutions in railway securities.

It is doubtful that the facts will justify the implication of that appeal. In 1906 about 36 per cent of the reserves held by life insurance companies were in railway bonds, but the percentage has been declining steadily and is now only about 16 per cent. It can be readily figured out, of course, that if the wholly inconceivable happened and all the railway bonds in the country were in default, the paper loss to the average policy holder would be about \$48.

# RESOURCES OF SAVINGS BANKS, LOAN AND TRUST COMPANIES AND LIFE INSURANCE COMPANIES

**SAVINGS BANKS \$12,513,189,000.**

R.R. <i>and</i> OTHER PUBLIC SERVICE BONDS	A	OTHER BONDS, NOTES WARRANTS ETC.	<b>LOANS ON REAL ESTATE</b>	<b>MISC.</b>
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"A"- STATE, COUNTY AND MUNICIPAL BONDS  
"B"- U.S. GOVERNMENT SECURITIES

*Less than  
TEN PER CENT  
OF THE  
ASSETS OF  
FIDUCIARY  
INSTITUTIONS  
are in Railroad  
Securities*

**LOAN AND TRUST COMPANIES \$16,860,990,000.**

R.R. <i>and</i> OTHER PUBLIC SERVICE BONDS	B	U.S. GOV'T SECURITIES	LOANS ON REAL ESTATE	<b>LOANS TO BANKS</b>	<b>OTHER LOANS</b>	<b>MISCELLANEOUS</b>
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"A"- RAILROAD AND OTHER PUBLIC SERVICE BONDS  
"B"- STATE, COUNTY AND MUNICIPAL BONDS

**INSURANCE COMPANIES \$20,200,000,000.**

<b>R.R. STOCKS <i>and</i> BONDS</b>	PUBLIC UTILITY BONDS	"A"	"B"	OTHER BONDS	<b>FARM AND OTHER MORTGAGES</b>	<b>MISCELLANEOUS</b>
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"A"- STATE, COUNTY AND MUNICIPAL BONDS  
"B"- U.S. GOVERNMENT BONDS

*Chart 5*

(Note: Chart 5 shows the percentage of the resources of savings banks, loan and trust companies and insurance companies represented by railroad stocks and bonds. On this chart where other public service bonds are included, it is because it was impossible to obtain complete breakdown figures. Few people realize that less than 10 per cent of the assets of fiduciary institutions in this country are in railroad securities.)

I do not believe that such doctrines should have any material weight in determining the country's transportation development and our public policy toward transportation agencies themselves.

It is advocated in some quarters that the rates charged by truckers be regulated by law. On account of the individual nature of truck haulage this rate regulation would be difficult. But let us look at the railway rate structure and consider if it is desirable

to risk the imposition upon the truckers of such an unscientific, complicated and confusing thing as regulation has developed in the case of the railways. One of the maxims upon which railroad rate making has been based under this system is "to charge what the traffic will bear". This means carrying some freight for less than the total cost of transportation.

### **Unscientific Character of Rate Regulation**

The argument is that if an existing volume of traffic yields an income to cover all fixed charges, then additional traffic may be secured if it covers out of pocket expense. Rates are established which are below the total cost of transportation to meet boat competition, to meet competition from a rival railroad or to enable a commodity to be sold in a distant market. Of course where some merchandise is hauled at rates below the true cost, other merchandise must carry an excessive rate if the whole operation is to be profitable. So the trucker sometimes comes along and takes what the railroads claim is the cream of the traffic.

Then again regulatory commissions have approved certain rates in order to put certain cities, jobbers, or industries on alleged equality with their competitors. Of course this kind of rate regulation deprives certain cities and firms of economic advantages due to nearness to markets or raw materials. This kind of rate regulation, which seeks to keep everybody in business, is essentially uneconomic. It causes goods to be hauled by rail when they could be moved more cheaply by boat; it causes goods to be hauled over circuitous routes when direct routes are available; it enables a distant producer of raw materials to outsell a producer nearby; in general, it induces a maximum amount of traffic, while the interests of society require that traffic be kept to a minimum.

Two men drive up to a railway depot with boxes of exactly the same weight, each loaded with material which is non-perishable and which can do no damage to the carrier. Why is the railway charge for carrying these boxes determined by inquiring into their contents? What real difference does it make whether the

boxes are filled with cotton cloth, shears or sawdust? The motor truck operator, on the other hand, concedes it to be his function to transport a box of merchandise having a certain cubical content and a certain weight from one point to another, irrespective of the contents of the box.

But regulation, as applied to the rates for railway transportation, seeks to arbitrate human affairs in a commercial way; seeks to put one manufacturer on an alleged equality with another; to set up one industry on an equality with some other industry; to establish one city or town in a condition of equality with some other. The lowly trucker does not follow this complicated reasoning. He thinks his job is to transport goods and he has no interest in the commercial rivalry of jobbers, manufacturers and cities.

Instead of seeking to regulate rates charged by truckers, might it not be better to modify the existing rate structure of the railways? The inherent economics of truck transportation must eventually develop truck rates based primarily on the cost of the services rendered. If truck competition is disturbing to the existing railway rate structure because the railways have failed to give adequate consideration to the weight of the goods, or the distance hauled—because railways in the days when they largely monopolized the transportation service rendered in this country developed their rate structure under the theory that certain goods need not bear their full share of all charges—because rates charged various communities have been arbitrarily equalized regardless of the cost of the respective transportation service performed—should an inherently unsound railway rate structure be perpetuated at the expense of the public by extending its principles to the regulation of truck rates?

Is it not pertinent to inquire if the interest shown by railroads in the regulation of truck rates may not be primarily with a view to keeping them high?

If such is the case and if it is only by arbitrarily increasing the cost of highway transport that traffic can be again diverted to the rails, is it in the public interest?

## No Monopoly Possible in Motor Transportation

Altogether aside from the question of the practicability of regulating the automobile, it is not necessary to regulate it either as a monopoly or because of the rates which it charges. If you wish to ship goods by automobile and you think the trucker asks too much, you can readily get another trucker. No one has a vested right to serve your transportation needs. The conditions which gave birth to railway regulation do not apply at all to automobiles, and, as I have already stated, in large part their need as applied to railways has long since ceased to exist.

If the task of regulating railroads is difficult, the task of regulating automobiles is infinitely more so. What kind of police force would be required to police three and one-half million trucks owned by more than a million different people? We find truck owners divided into three classes; those who do trucking on contract, those who own and operate their own trucks in their own business and those who act as common carriers. Here is a farmer out in the country who owns a truck that he uses, say, to draw his milk to the station. He is a private operator. His neighbor comes to him one day and says: "Henry, I will pay you \$4 a week if you will haul my milk to the station along with yours." If the farmer accepts, he is now a contract carrier. Then several other neighbors seek to have him haul their milk to the station and he establishes a route and takes all the milk which is offered to him. Now he is a common carrier. Go one step further. If he crosses the stateline he becomes engaged in interstate commerce. These distinctions may mean a lot in the law but in economics they mean very little.

There are trucks carrying a few pounds and trucks carrying over ten tons. It is estimated that 86 per cent of the trucks operated in this country are privately owned and operated. All of these trucks would seem to be beyond the reach of regulation. Eight and seven-tenths per cent of the trucks are contract carriers. Shall we have the government step in to dictate the terms of the contract between the trucker and the shipper? That leaves the common

carrier trucks, which are only  $5\frac{1}{2}$  per cent of the total, the only remaining element which could with any semblance of legitimacy be regulated by governmental authority. Moreover, only about 1 per cent of all the common carrier trucks are engaged in interstate commerce. And no matter what regulations are imposed, only about 28 per cent of the ton-miles of freight carried by trucks—which in turn carry only 10 to 15 per cent of the country's total freight—would be diverted to the railways if there were no trucks at all.

### **Misconceptions About Highway Use**

It is a question whether the average citizen realizes the extent to which various commissions which regulate highway transport at the present time are attempting to monopolize the use of the highways and to say that this man may drive his vehicle over the highway for a certain purpose but that that man may not do the same thing. In fact, one of the dangers which confronts us is that the highways, which are built and owned by the public, shall be monopolized and "farmed out" to certain firms and individuals. To what extent the practice of issuing certificates of convenience and necessity may enable certificated companies to become in this way "legalized" monopolies requires a careful inquiry before the country commits itself to such a policy.

The simple fact is that there exists no need for regulation of trucks, except in regard to matters of safety and adequate taxation. As previously pointed out, whatever regulation is necessary should be altogether social in its character and not in any sense economic. Length of trucks on the highways should be limited so that a passenger car may pass the truck with safety. Trucks should be required to be equipped with safety appliances, lights, brakes, etc., and they should have such wheel equipment as not to damage the highways.

In respect of such matters as automobile damage to the highway, automobile taxation, and even the use which the automobile makes of the highway, there is evidently much confusion of



thought. The engineering facts are that a highway must be built of a certain thickness in order to withstand the effects of the elements, the warping and cracking due to the weather and seasonal changes. When the road has been made thick enough to stand all of this, it is equally able to transport anything up to and including a three-ton truck on pneumatic tires without any damage whatsoever to the road. The destructive factor is not weight or size but the pressure per square inch of tire surface in contact with the road. Thus a 10-ton truck equipped with six pneumatic tires might exert on a highway a much smaller pressure per square inch than a five-ton truck equipped with only four wheels and four tires.

Public policy for generations since the passage of the toll road has sanctioned the building and maintenance of highways out of public taxation, because of their community usefulness comparable in a measure to schools, court houses, fire departments, public markets, etc. Good roads also tend to enhance the value of adjacent property, and today undoubtedly enhance the value of both farm and city property in varying degrees. When the automobile appeared, it became necessary to build better and more desirable highways, and the general practice obtained of using the money from license fees and gasoline taxes to building and improving them. During the past few years, about one-half of the money required to build and maintain highways has been contributed by automobile owners in that form. The fact remains, however, that the highways, directly and indirectly, are necessary for the use of everybody, and at least part of their upkeep is not an inconsistent charge against public funds.

Perhaps the proportion of highway funds secured from general taxation and from levies on automobile users should be changed. I do not know. That is a question for factual determination. There would seem to be little, if any, justification for regarding highway transportation as subsidized when already the automobile owners of this country are paying in taxes more than one billion dollars a year.

# HIGHWAY USERS PAY TAXES SUFFICIENT TO MAINTAIN THE HIGHWAYS AND PAY 5% INTEREST ON THE INVESTMENT IN HIGHWAYS

ANNUAL TAX ON HIGHWAY USERS \$1,025,000,000

<b>LICENSE FEES</b> \$344,000,000	<b>GASOLINE TAXES</b> \$537,000,000	<b>PER. PROR. MUNICIPAL TAXES</b> \$145,000,000.
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ESTIMATED COST OF HIGHWAY MAINTENANCE *with* INTEREST \$1,125,000,000

<b>MAINTENANCE</b> \$500,000,000	<b>INTEREST ON 12½ BILLION DOLLARS AT 5%</b> \$625,000,000
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**GOVERNMENT SUBSIDIES FOR HIGHWAY TRANSPORT ARE NEGLIGIBLE**

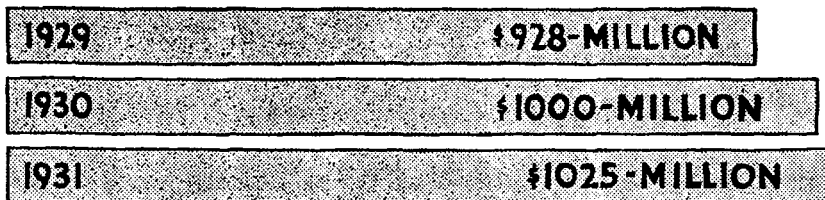
*Chart 6*

(Note: Chart 6 shows that the one billion dollars annual tax on highway users more than pays for the maintenance of the highways, and comes within one hundred millions of paying that, plus 5 per cent interest on the 12½ billion dollars in highway investment. Examination of such facts indicates that government subsidies for highway transportation are practically negligible.)

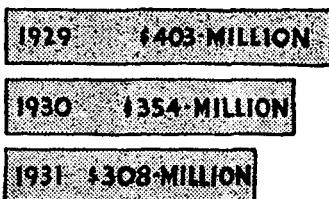
It is interesting to speculate in this connection upon the possibility that some of these automobile tax funds may have even found their way back to the railroads in the form of Reconstruction Finance Corporation loans. I do not make that suggestion in any critical vein. Some sort of relief in the present emergency may be justified, but I think it would have been far better if our regulatory policy had been such through the years that the railroads would have acquired such vitality and resistance as

# A COMPARISON OF TAXES PAID BY HIGHWAY USERS AND CLASS 1 STEAM RAILWAYS

## BY HIGHWAY USERS



## BY CLASS 1 STEAM RAILWAYS



**MOTOR VEHICLE TAXES  
ARE MORE THAN  
THREE TIMES  
THE TAXES PAID BY  
CLASS 1  
RAILROADS**

*Chart 7*

not to need such relief at all. If some part of the billions of dollars distributed as dividends during past years had been expended in the reduction of debt, and if depreciation charges which now appear more consistent with the facts had been charged against earnings, certainly the present emergency would be less acute.

The whole tendency of recent years has been to increase the taxes paid by the motor vehicle. (Note: Chart 7 shows how taxes on highway users has risen from \$928,000,000 in 1929 to \$1,025,000,000 in 1931, and that not only have the taxes on Class 1 steam railroads decreased in this time but also that today they amount to less than a third of those levied on the highway users.) In 1931 and 1932 registration fees for motor trucks increased in 17 states. A mileage or ton tax is imposed on trucks in 17 states. Increased gasoline taxes have been imposed in 15 states. The

revenue measure passed by the last session of Congress put a tax on rubber tires, a tax on parts, a Federal tax on gasoline, a tax on new automobiles and trucks, and a tax on motor oil.

In 34 states the highways are supported entirely by the taxation of motor vehicles, no tax whatsoever being laid upon property for highway construction and maintenance. In the State of Texas about 25 per cent of the taxes assessed against motor vehicles are diverted from highway construction and maintenance, and in this state, too, the unsoundness and biased nature of some of the proposed state automobile regulatory measures are particularly evident. The tax law requires, for instance, a contract trucker to get a permit from the State Railway Commission to charge rates as high as those charged by the railways and to limit his load to 7,000 pounds if he is carrying between points served by a railway; but between other points the load may be as high as 14,000 pounds. Since 1919, when Colorado, North Dakota, and Oregon had levied a one-cent tax on gasoline, every state in the Union has levied gasoline taxes in addition to the new Federal tax on gasoline.

Whatever may be determined as to the proportion of the taxation of automobiles used for the purpose of highway construction and maintenance, taxes directly and indirectly placed on automobiles should be used for highway purposes alone and not for other purposes except to the extent that all other industries and all transportation are also taxed for such general purposes.

### **Changing Character of American Life**

In determining the place of the automobile in American transportation some consideration, it would seem, should be given to the changing character and conditions of modern life. A number of factors are operating to change the nature and volume of our transportation requirements. The telephone makes it possible for a person to do business with someone in another city without actually going to see him. Instead of transporting coal over long

distances to be developed into power, we have projected power plants established at the mouth of the mine, the power to be transmitted over electric high tension wires. Railroads themselves have perfected locomotives that require less hauling of coal for their own operation. In many industries assembly plants and factories are being located at a distance from the parent factories in order to minimize transportation costs. Oil, gasoline and natural gas are being transported through pipes. As the population of the country becomes more stationary and as the rate of population growth inevitably slows down, it will be less necessary than formerly to transport in the same volume goods for expanding facilities, such as new factories, new houses, new pavements, new railways, etc. Traffic through the Panama Canal is increasing. River and coastwise traffic showed a considerable gain in the decade between 1920 and 1930. During the past decade, of course, there has been substantial increases in the transport of merchandise and persons by automobiles. Now, too, the airship is coming in to claim a portion of the passenger, mail and express business.

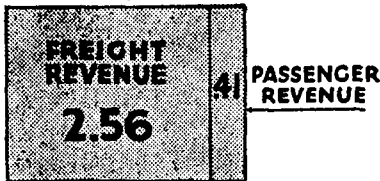
Thus railway transportation is likely to be continually affected both by a reduction in total transportation and by a diversion to trucks, passenger automobiles, pipe lines, boats, etc.

It is doubtful whether the American people have any adequate conception of how tremendously important the automobile has become as a transportation agency, first on its own account and second as a stimulus to improved methods of distribution and transportation generally. Available statistical data afford only a partial basis for estimating either the volume or the character of this service.

Dodge Brothers Corporation, in connection with its extensive truck and bus business, have been for years investigating various factors in connection with the transport of merchandise by trucks, and their studies have developed many interesting and important facts upon which certain specific conclusions have been based. One conclusion from these studies is that in 1932 the movement

# ESTIMATED PAYMENTS IN 1932 FOR TRANSPORTATION OF GOODS AND PERSONS ON STEAM RAILROADS AND ON HIGHWAYS IN BILLIONS OF DOLLARS

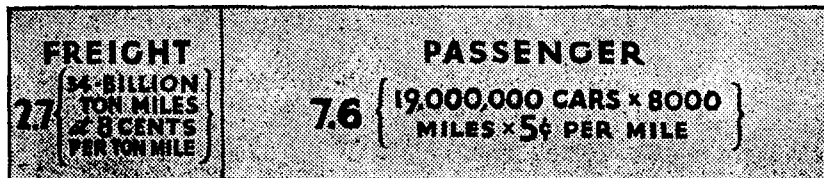
## ON RAILWAYS



**ABOUT \$3.47**  
*is spent for*  
**HIGHWAY TRANSPORT**  
*-for each dollar spent for*  
**RAILWAY TRANSPORT**

**TOTAL 2.97 BILLIONS**

## ON HIGHWAYS



**TOTAL 10.3 BILLIONS**

*Char 8*

of freight by trucks in the United States will amount to 34 billion ton-miles. This is approximately one-eighth of the total ton mileage of freight when railroad transport is included. Incidentally this represents a shrinkage in truck ton-miles of approximately 30 per cent from the peak of about 50 billion ton-miles hauled by trucks in 1929, a year of exceptional prosperity for the railroads.

### How People Value Motor Transportation

The comparative money valuation placed by the American people on truck and railroad transportation of merchandise is interesting. Truck transportation service in 1932 will aggregate approximately \$2,700,000,000.00 or slightly more than the estimated freight revenue of Class I railways of \$2,560,000,000.00.

# NUMBER OF EMPLOYEES IN AUTOMOTIVE AND IN STEAM RAILWAY TRANSPORTATION

SOURCE U.S. CENSUS OF 1930.

## AUTOMOTIVE TRANSPORT EMPLOYEES 2,500,248

<b>CHAUFFEURS, TRUCK AND TRACTOR DRIVERS</b> <b>972,418</b>	<b>MECHANICS</b> <b>394,188</b>	<b>FACTORY LABORERS and OPERATIVES</b> <b>285,674</b>	<b>LABORERS ROAD AND STREET</b> <b>307,027</b>	<b>CARAGE WORKERS</b> <b>143,310</b>	<b>RUBBER WORKERS</b> <b>102,954</b>	<b>GAS ENGINE REPAIR PARTS</b> <b>84,780</b>	<b>TRUCK, TRANSFER &amp; CAB CO'S.</b> <b>81,064</b> <b>AUTO R.R.S.</b> <b>64,507</b> <b>ROAD, STREET BUS, &amp; FERRYING</b> <b>31,815</b> <b>TEAM, SHOOPS</b> <b>22,705</b> <b>SEE CONDUCTORS</b> <b>1,002</b>
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**NOTE: DOES NOT INCLUDE SALESMEN OR ALL TRUCK DRIVERS**

## STEAM RAILWAY EMPLOYEES - 1,271,653

<b>LABORERS</b> <b>435,058</b>	<b>CONDUCTORS</b> <b>181,529</b>	<b>ENGINEERS</b> <b>10,000</b>	<b>TRAINERS</b> <b>10,000</b>	<b>STATIONERS</b> <b>10,000</b>	<b>CLERKS</b> <b>10,000</b>	<b>OTHERS</b> <b>10,000</b>
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**AUTOMOTIVE INDUSTRY EMPLOYS TWICE AS MANY AS THE STEAM RAILWAYS**

Chart 9

The average ton-mile revenue of trucks is higher than the railroad average by several times over, but it must be considered that the truck revenue is secured from relatively short hauls, and from what would be classified by railroads as L. C. L. freight, upon which freight tariffs are higher. The important thing to note, however, is that this revenue was earned by trucks upon service that was either not available at all from railroads, or that was awarded to trucks competitively upon the value of the service rendered. In either event it represents a sound basis of evaluating the trucks' service to society.

(Note: Charts 8 and 9 show that not only is more money spent for highway transportation each year than for railways but also more than twice as many people are employed in automotive transportation as on steam railways.)

A similar comparison of steam railway passenger revenue with an estimate of the expenditures on passenger car operations indicates an even greater preponderance of value awarded automobile passenger car transportation. Combining freight and passenger car figures, there is expended upon truck and automobile transportation, for freight and passengers, somewhere in the neighborhood of \$3.50 for each \$1.00 expended with steam railroads.

It would seem only natural that, if the American people spend this huge sum for the transportation services performed by the automobile they are vitally concerned in whatever affects a service which they appear to value so highly.

For a number of years Chrysler Corporation has kept a record of the occupations of the persons or firms buying its trucks. The occupational groups which have purchased over five per cent of its annual output of trucks are general truckers, grocers, department stores, miscellaneous retailers, dealers in milk and milk products, dry cleaners, dyers and laundrymen. The largest buyers are the general truckers, but they buy only one-eighth of the output. Groups that buy between 5 per cent and 3 per cent are wholesale bakers, contractors and retail bakers.

Those occupational groups that buy over two per cent of the output but less than three per cent, are public utilities, manufacturers, gas and oil dealers, meat market and fish dealers and city, county and state institutions. It is perhaps reasonable to ask, as you look over this list, whether the people who buy these trucks are really in need of rate or monopoly regulation.

### **Improved Methods Due to the Automobile**

The second point in the importance of the automobile as a transportation agency relates to its contribution to improved methods. Some idea of the changes and improvements which the automobile industry—considered in terms of the transportation service of its products—has brought about in our traditional



methods of moving passengers and freight may be gained from the few examples which follow:

Coordination of motor bus and rail service to replace local train service; to speed up train operation by use of buses for intermediate service between stations; to act as feeder lines and to supplement rail service.

Increasing use of motor trucks to haul agricultural products, automobiles, coal, cotton, livestock, newspapers, magazines and a score of other commodities in the movement of which not merely rates, but frequency and flexibility of service, more direct contact with the transportation agency and with the consumer have been determining influences.

A substitution by the railroads themselves of motor truck service for so called ferry car and peddler train service from industrial sidings.

Use by the railroads themselves of motor trucks for assembling freight delivered to receiving stations in large terminal areas.

Use by the railroads of motor trucks for pick-up and delivery service recently undertaken in an effort to provide for shippers and consignees a store-door-delivery and receipt of freight.

Improvement in container car service through the development of containers transferable as between freight cars and trucks.

Establishment of truck body service for the hauling of truck bodies delivered to and received from tractors operating in the terminal areas to and from the rail stations.

Coordination of motor-rail service through forwarding companies which provide a pick-up and delivery of less than carload freight and assemble it for carload movement.

Referring to these and other changes in transportation which have taken place in recent years and altogether apart from the benefits they have brought to transportation users, the Interstate Commerce Commission report, already mentioned, states:

“That there is a large field in which economies may be effected by the substitution of motor vehicle service for train service is indicated by the experience of those rail carriers which have experimented along this line.”

There will doubtless be a considerable expansion in the transportation of persons and goods by automobile. Doubtless, too, there will always exist the need for a very substantial part of our transportation service by rail. It is perhaps not to be expected that the adjustments which are necessary to the proper coordination of these two land transportation agencies—the automobile and the railway—will be accomplished overnight.

A long step forward was taken a few weeks ago in the formation of a Joint Railway Highway Conference Committee, similar to the Salter Commission in England, and representatives of railway and highway users in the United States. Embraced in the membership of the Committee are such varied interests as those of the motor car manufacturers, oil and gasoline companies, chain stores, motor bus operators, private motor car operators and agriculture, and the railway members have been chosen with a thought of having representation on the Committee from every section of the country. This is a very significant opportunity to bring about a constructive revision of the whole system of transportation regulation in the United States, having regard to changed and changing conditions.

### **Opportunity for Constructive Action**

Since a fundamental change has taken place in transportation itself, may not an equally fundamental change be required in our traditional policy? If the infirmities of the railways in meeting competition of the highways is due to regulation of the one as against lack of regulation of the other, would it not be the part of common sense to inquire whether the regulation of the one is justified in the first place? Such a query would seem to be particularly mandatory in view of the incontrovertible fact that the regulation of the one has been based on a monopoly conception that no longer holds true. If the railroads have been hamstrung for a generation by restrictive regulation, would it not be wise to consider unshackling the railroads instead of shackling their competitors?

In the end, of course, the most economical forms of transportation will survive, preserving to the people of the country the benefits which each form can contribute in the field in which it is best adapted to serve. This has been the course of transportation development in the past and it is likely to be the future course as well.

How rapidly we arrive at a sound solution of America's transportation problem depends in large part upon our willingness to let economic forces rather than artificial restrictions determine the extent to which each mode of transportation will prevail.

This is a challenge to American ingenuity and to the spirit of progress of our people. It calls for the most constructive, forward-looking leadership which the transportation industries, railroad and automobile, can produce.