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In speaking to a group who are engaged in the administration of the motor vehicle laws of our States and whose interest lies in the intelligent and successful application of statutory control of such an important element in our national life as motor traffic, it is certainly appropriate to assume that their interest is not limited merely to the routine duties of applying day by day the legal regulations, but that it extends far beyond this to the larger problems of securing better laws, providing better methods of administration and to securing for the traveling public the fullest possible freedom of movement in the use of our road system that is compatible with safety and the common rights of all concerned. I make this assumption in speaking to you today, and I purpose to point out certain aspects of the problems in which you are interested which seem to me to be of increasing importance, especially in view of the differing opinions which have recently been embodied in various State laws and which I feel very sure will lead to undesirable confusion in the more routine responsibilities of your work, to unnecessary and undesirable restrictions on the use of the highways.

and, if continued, may result in the condition of more or less chaotic un-uniformity, against which the National Conference on Street and Highway Safety and its numerous member organizations have been working for several years past.

Like all important problems, the question of motor vehicle control and regulation has wide ramifications, being involved in the police powers of all of the forty-eight States. Although motor transport of both passengers and goods is no longer looked upon as new, we find, nevertheless, few guiding precedents to assist us in establishing a satisfactory control, and the fact that this method of transportation is just old enough, apparently, to have settled into its stride makes it, nevertheless, imperative that we grapple seriously with details of the matter which are vitally concerned with the public welfare.

Nothing I shall say should be assumed as deprecating in the slightest degree the efforts which have culminated in the Uniform Motor Vehicle Code or the favorable reception which that Code has received at the hands of a large group of States. What I shall say is not in any way in conflict with the spirit or purpose of that valuable undertaking, but is supplementary to it. It has reference to the strengthening of some details of that Code, and to placing emphasis on some phases of its application which appear to me to be of the utmost importance.

There operate in our country today more than 22,000,000 passenger automobiles, and almost 3,500,000 trucks. They are subject to the laws and regulations of our forty-eight States and the District of Columbia, and these laws are of the most diverse nature. Our problem, then, is this: Can we so rationalize and make uniform our various regulatory laws as to afford the fullest possible freedom of movement to these vehicles and thus obtain for the nation all of the material and imponderable benefits which follow in their train?

Resume of Recent Developments

Before attacking this problem directly, let us consider briefly a few of the striking developments which have occurred in recent years or even months. You are already familiar with the many changes in State legislation enacted during the last year or two, changes which doubtless affect owners of motor vehicles either directly or indirectly in all the commonwealths here represented. I need only mention that new and important laws have been enacted since 1930 in New York, Virginia, Indiana, Ohio, Michigan, South Carolina, Texas, Minnesota, Kansas, Iowa, Oregon and Wisconsin, among others, to indicate the scope of the present trend toward increasing complexity of regulatory legislation.

It is hardly surprising that this situation has given rise to a counter-movement towards uniformity, and it is a tribute to your organization that its members in the Central States have been leaders in this movement. During 1931, conferences were held in Indiana and in Michigan at the call of secretaries of State, to which thirteen States sent representatives, following which a special committee drew up formal recommendations primarily aimed at securing fuller reciprocity among the various States. Another committee representing State highway officials and the motor industry has given special consideration to the question of uniformity in sizes and weights, and the basic principles of taxation on motor vehicles. Federal legislation, as embodied in bills now pending in both houses of Congress, and designed to bring "for hire" motor carriers of both persons and goods under national control, is being considered. Within the month, the Interstate Commerce Commission has issued a final report on its nation-wide investigation of motor transport, and for its part has also recommended Federal legislation. Meanwhile, the National Conference on Street and Highway Safety and the organizations participating in its work have been vigorously promoting the adoption of the Uniform Vehicle Code, the fundamental principles of which are assuming increasing value as time goes on.

Thus we see on one hand a growing volume of complex regulations growing up in the various States, and on the other a series of efforts to combat this tendency in the interest of the general public welfare. I conceive this conflict as a most important problem, worthy of our best efforts in finding a solution.

Approach to the Whole Problem of

Uniform Regulations

Viewed directly, what are the elements in this problem of motor vehicle regulation? First, of course, there is the question of definitions, which must be agreed upon in order to give our regulations a common and clearly understandable base. Second, there is the question as to the form which public regulation shall take, whether through the exercise of the police powers, through taxation, or through the regulation of rates and services. Third and last, there is the question of reciprocity in the movement of vehicles across State lines.

These elements of the problem apply for the most part to all motor vehicles, and if perfect uniformity in legislation were to be sought, they would have to be considered in terms of all kinds of vehicles, from the private passenger car to the largest truck or bus. For the purposes of this discussion, however, we may assume that general reciprocity now exists as regards private

passenger cars, whose freedom of movement throughout the country is already an object lesson in the benefits to be derived from liberal laws. What I shall say from now on will be directed toward the problem of the larger and heavier vehicles, the trucks and busses.

Someone has said that if full agreement could be reached on definitions, there would never be any arguments. I doubt that this is true of the complex problem we are now considering, but certainly we should take a long step forward if clear understanding could be reached of exactly what we mean when we say "truck" or "bus;" tractor, or trailer, or semi-trailer; single unit, or combination of vehicles. Similarly, we need exact definitions of the terms "privately owned and operated," "common carrier," "leased truck" and "contract carrier." Likewise, of "interstate operation" and "intrastate operation," of "resident" and "non-resident." Legal decisions will help us here, and the Uniform Code offers an invaluable guide on many of these points. But my point is that there is no real agreement today on many of these commonly-used terms.

Recommendations on Physical Characteristics

of Vehicles

Now I come to a subject to which the Bureau of Public Roads has given especial thought - that of the physical characteristics

and equipment of the larger vehicles, and their speed, which are a part of the "police powers" which I have mentioned. We have a large body of evidence to draw upon in arriving at a decision here. We know the existing laws of the many States which have legislated on this subject and the recommendations of the Uniform Code; we know the opinion of the manufacturers and operators of vehicles themselves, some of it notably liberal and broad-minded; we know, in a measure at least, the attitude of the public as reflected in the press, in letters, and through the touring associations; and we have real facts to judge by, secured from actual tests made by the Bureau engineers. I believe we are now in a position, therefore, to suggest some definite standards which will contribute perhaps as much as any other single item to the uniformity of our motor rules and regulations.

The following recommendations are offered as a standard, what we might call a "minimum maximum." They represent the limits of allowance or tolerance below which no State should go in fixing the sizes and weights of vehicles using its highways. If, in some instances, a higher limit might be deemed permissible because of favorable conditions existing in some particular State or States, there could be no objection to such limits being fixed for the benefit of operators therein, but the standard under which all vehicles could operate everywhere would be universally recognized.

So we begin with the first of these physical characteristics - width. There is general agreement on a maximum overall width of vehicle, loaded or unloaded, of 96 inches. Thirty-nine States already fix the width limit at this figure, which indicates that we shall have little dispute on this point. In addition, however, it seems desirable to grant some form of special permission to cover a change-over from solid tires to pneumatics, or from single wheels to dual wheels, which would necessitate an allowance possibly of not more than 102 inches when measured from outside to outside of dual pneumatic tires.

The next question is that of height. Our "minimum maximum" here should be 12 feet, made necessary by the clearance limits of many of our bridges and underpasses, and other overhead structures. This is the limit recommended in the Uniform Code, and it has been adopted in eight States.

When we come to our next point, length, we find, frankly, some ground for argument. Here we must listen to the voice of the general public, that public whose private passenger cars represent probably 90 per cent of the total traffic on our highways. This voice, as it sounds in the press, and in every conference held on this subject, and in the halls of our legislative assemblies, and in the words of the man on the street, utters an unmistakable "No!" against excessive lengths of vehicles. When a

truck or bus gets so long as to make passing difficult, or to create a hazard on curves, or in other ways to interfere with the flow of passenger-car traffic, we may expect opposition from the public. That this opposition has in some cases gone to the other extreme and forced excessive restrictions on the length of vehicles, is hardly surprising. It is for us to arrive at a rational figure which will afford protection to the motoring public and yet not limit to an absurd extent the capacity of trucks and busses upon which economical transport of an increasing volume of goods and persons depends.

I believe that the length of a single vehicle should not exceed 35 feet. The limit fixed by the Uniform Code is 33 feet. There are certain advantages to the motor industry in the additional 2 feet, and it is my judgment that highway officials will not object to the 35-foot standard.

The length recommended by the Joint Highway Transport Committee for a combination of vehicles is 65 feet, and this adjustment was apparently arrived at with the expectation that a trailer would appear in the combination. The Uniform Code recommends 85 feet, and many States have reduced the length to a variety of figures running as low as 40 feet, indicating a diversity of opinion.

An adjustment of an important definition may help us to a decision regarding this question. If a tractor with semi-trailer is to be considered as a single unit and trailers are to be permitted, 65 feet is undoubtedly the necessary length for an economical combination of vehicles. If, however, a tractor with semi-trailer is itself to be considered a combination of vehicles, 65 feet is then an excessive and probably dangerous length to permit, and we should be justified in reducing the length in a combination of vehicles to 50 feet. This would permit the use of a tractor and semi-trailer or of a truck and trailer.

Further, if this latter definition were adopted for a tractor and semi-trailer, it would be possible in all probability without hampering the industry in its present state to exclude entirely the use of trailers. The fixing of this definition and a decision regarding the use of the trailers, affecting as they do the total permissible length of a combination of vehicles, are matters which should receive immediate and careful consideration.

With respect to the maximum weights which shall be permissible under all conditions of interstate traffic, there is a reasonably close agreement by those who consider well-established facts in arriving at their opinions, and variation has for the most part been the result of yielding to influences beyond the scope of either highway transport or the safe and economic requirements of highway design. If we hereafter limit truck and bus

traffic to the use of high-pressure pneumatic tires, an axle load of 16,000 pounds is satisfactory both to the motor vehicle industry and to the highway builder. If balloon tires are used, 18,000 pounds per axle may be allowed.

The use of the pneumatic tire must, however, be emphasized in this connection, and I feel from the very definite results of tests made by Bureau engineers that regulating authorities would be fully justified if solid tires were entirely ruled off the public highways except only under special permit to meet a few strictly localized conditions as, for instance, in municipalities, that would in no wise have a general effect on motor transport operations.

Incident to safe operation, especially of combinations of vehicles, there are details regarding brakes, lights, and connections, which should be specified. The United States Bureau of Standards will within a few weeks be prepared, I understand, with definite recommendations regarding brake equipment resulting from experiments now in hand. Where detachable vehicles are used, the equipment should provide air brakes or some other braking device operated from a central control.

Satisfactory lighting equipment still presents some difficulties which have not been satisfactorily met, and will probably be subject to improvement for some time, but we have progressed far enough to prepare specifications for at least adequately lighting

either a single vehicle or combination. In this connection, rear lights and reflectors are of particular importance. Act IV of the Uniform Code here offers valuable help.

If trailers are to be permitted, the draw bars and attachments should be so devised as to prevent any undue swaying or lashing of the trailer, and to insure the closest possible and continuous tracking of all units.

The matter of safety glass, at least in windshields, also needs appropriate action. A large proportion of the toll of fatalities and injuries on the highways each year is due to the shattering of glass and this hazard should be minimized by regulations regarding the use of safety glass equipment.

It is proper, I believe, to include in our laws some provision for special permits to cover those unusual hauling operations which may be legitimately necessary from time to time, and which by reason of excessive size or weight of cargo would be rendered impossible under the standard regulations.

There should not be neglected, moreover, the necessity for protection of the public through liability insurance or indemnity bond, particularly in the operation of busses and "for hire" trucks. This question also merits our serious consideration in the effort to provide adequate protection to the public and yet not lay undue burdens upon commercial highway transportation. All of these

measures are, of course, predicated upon adequate operators' and chauffeurs' license laws such as embodied in the Uniform Code.

Having now outlined what appears to be reasonable and effective practice under the so-called "police powers," we must think for a moment of the question of what agency of government is to exercise these powers - whether they are to remain as at present within the exclusive province of the several States, or whether the Federal Government is to adopt legislation which will require the States to fix certain uniform regulations on at least the interstate portion of highway traffic. To speak frankly, we have long awaited favorable action by the States themselves in the rationalizing and making uniform of their laws affecting the increasing volume of highway traffic crossing their borders. If the States can effect this desired objective, we shall have cause for congratulation, since many of the matters we have been discussing can perhaps best be kept within the authority of the several States, provided they are able to reconcile their present conflicting legislation. I might state that I have recommended, in hearings before the Senate Interstate Commerce Committee recently, that Federal legislation is now needed to establish the specifications for the physical characteristics of motor vehicles used in interstate commerce so as to insure mutual adaptability

of the highways and the motor vehicles, and the economic development of motor transport. What decision may be made by Congress upon this recommendation appears somewhat uncertain, and there is still opportunity for favorable action by some such organization as your own, broadened in its scope to include all our States. I shall refer again to this matter before I conclude.

Suggestions on Other Phases

of the Problem

The second point in our consideration of possible forms of public regulation is that of taxation. While this topic lies outside the immediate scope of duties of the members of this conference, as I understand it, it is a subject on which your recommendations should carry much weight, and therefore is worthy of your study. This is a field in which the rights of the States are pre-eminent, and our efforts must perhaps be confined to a statement of policy which would be little more than a guide to our State legislators. I need only indicate here the three kinds of direct taxes which bear upon motor vehicles: Annual license fees; taxes based on the use of the road, such as the gasoline tax and taxes upon ton-mileage or revenue; and taxes based on character of service, sometimes called privilege taxes. It might be wise to effect a greater measure of uniformity than now exists in taxation based on the use of the road, and taxation based on character of service,

and to leave the annual license fees to be a variable factor whose importance might well depend upon conditions encountered in the individual State.

The third point under public regulation is that of the regulation of rates, services, etc., which applies primarily to common carrier trucks and busses. I only mention it here as one of the elements in our problem, but an element which is of less importance in our present discussion than those we have previously touched upon.

Finally, we have to consider the important matter of reciprocity as affecting vehicular traffic among the States. I am very strongly of the opinion that the fullest possible degree of reciprocity should be obtained that is possible through State regulation. We have already gone far in this direction, inasmuch as there is today practically complete reciprocity for passenger vehicles, but there still remain some adjustments which may be difficult, affecting trucks and busses which operate "for hire."

I am not in sympathy with arbitrary restrictions even when traffic crosses State lines, and I believe that no limitations should be placed except upon clearly defined common carriers, such as busses or trucks operating on a fixed route. In such case, I think it is entirely feasible to levy a tax on a vehicle-mile, ton-mile or revenue basis which shall be payable pro rata to each

of the States concerned. They may be required to file the customary application for Certificate of Convenience and Necessity with a minor charge attached in each of the States where the vehicles operate.

I believe there are sound practical reasons for this opinion. In the first place, reciprocity is already fairly complete for passenger vehicles and practically so for the operation of trucks which are privately owned and are used by the owners for hauling their own goods. Truck and bus traffic, therefore, which is operated "for hire" becomes a relatively small part of the total traffic on the highways operating either within the States or between the States. Further, if we adopt the recommended rule requiring pneumatic tires, the unusual wear of the highways by miscellaneous truck operations, whether "for hire" or otherwise, we must concede to be relatively slight; and in such cases, the interchange of traffic of this type between States will tend to balance.

And, finally, unless we confine our restrictions to those vehicles which under common carrier laws are required to be registered as such, there is no easy and direct administrative method of determining the amount of travel performed in the different States. On the other hand, where Certificates of Convenience and Necessity are granted, the route is prescribed, the respective mileage in each State can easily be determined, and taxes on a vehicle-mile or ton-mile basis can be collected without serious difficulty.

In this connection, it is important that we arrive at clear-cut definitions distinguishing the common carrier from the contract carrier and remove all those uncertainties as to the legal status of carriers operating "for hire" which now exist in the application of some State laws.

I believe that such an attitude as I have outlined, if properly embodied in motor vehicle laws or regulations, will provide an equitable reciprocity little objectionable to the several States and as complete as can be reasonably expected. Anything less than this will impose unnecessary restrictions on interstate traffic and interfere unduly with the free use of the highways.

And so we have seen the whole problem of uniform motor vehicle regulations, and viewed its many complex elements. I have offered some definite suggestions on one set of these elements on which the Bureau of Public Roads is especially qualified to speak. I have enumerated the other elements which merit careful investigation and sound action if the whole problem is to be solved.

To sum up, I have suggested that the "minimum maximum" standards for sizes and weights of busses and trucks be as follows: Width, 96 inches, with special permission for widths up to 102 inches when measured from outside to outside of the

tires, incident to a change in tire or wheel equipment; height, 12 feet; length of single vehicle, 35 feet; length of combination of vehicles, 65 feet; axle load on high-pressure pneumatic tires, 16,000 pounds; and axle load on balloon tires, 18,000 pounds. I have also recommended elimination of solid tires, except under special localized conditions; the possible elimination of full trailers; and that new consideration be given the requirements regarding brake and lighting equipment, attachments between articulated vehicles, safety glass, and liability insurance or indemnity bond.

Opportunity for Leadership in
Nation-Wide Efforts

I respectfully submit it as my belief that in matters of this kind your conference has an opportunity for leadership from which great benefits may flow. There seems to me to be a real need for organizations similar to your own in other regions of our country - perhaps even a national association in which the regional groups could maintain their identity and yet work together on questions which are of truly nation-wide scope. You in the Eastern Conference have pioneered the way, and shown the success which can attend intelligent cooperation. More than any other existing group, you hold in your hands the power to promote an invaluable association of all the State officials concerned with

the vital problems of vehicle regulation, and to institute a program of study and work which may well mark the beginning of a new epoch of mutual understanding among all our motor vehicle administrators and bring resultant benefit to all those who use our highways.