

THE NATIONAL CONFERENCE on Street and Highway Safety was organized in 1924 under the chairmanship of Secretary of Commerce Hoover. General sessions of the Conference were held in December, 1924, and March, 1926, at which a comprehensive program for traffic improvement was adopted, including a Uniform Vehicle Code of proposed state laws. The Conference has also prepared a Model Municipal Traffic Ordinance for use of cities and towns.

These reports, as well as other material bearing on the traffic problem, are obtainable from the National Conference on Street and Highway Safety, 1615 H Street, N W, Washington, D C, or directly from any of the following associations cooperating in the organization and financing of the Conference:

- American Automobile Association
- American Electric Railway Association
- American Mutual Alliance
- American Railway Association
- Chamber of Commerce of the United States
- Motor and Equipment Association
- National Association of Taxicab Owners
- National Automobile Chamber of Commerce
- National Bureau of Casualty and Surety Underwriters
- National Safety Council

ADDRESS of A B BARBER, *Director, National Conference on Street and Highway Safety, before the Annual Dinner, Grand Rapids Safety Council, Grand Rapids, Mich., October 19, 1928*

SOMETIMES the question is raised as to whether the difficulties arising out of the complexity of our modern life do not more than offset the advantages which we enjoy. This is a question which would surely engage the most profound efforts of our philosophers if the answer were to be sought. I think there are few of us, however, who feel that it is a practical question. There are few who would favor the extreme measures adopted by the people depicted in the satirical English novel, "Erewhon," written in 1870, who, fearing the mastery of machines over men, enacted a law under which all mechanisms resulting from the inventions of the last 300 years were destroyed and their further use forever prohibited.

The real answer to our question is that we find ourselves surrounded by the products of a mechanical age and we must learn to accommodate ourselves to these conditions. I for one am not hopeless of our being able to do this. On the contrary, I feel there are very definite evidences of progress.

The answer to our problem lies largely in organized cooperation. To meet needs of increasing complexity we find a multiplication of organizations and associations of many different types. I esteem it a special privilege to be present at the annual meeting of one of those associations which is animated by the noble purpose of saving human life—the Safety Council of Grand Rapids—and I am glad to know that your Council is affiliated with another body which has the equally lofty purpose of furthering the welfare of your city and your region—the Grand Rapids Association of Commerce. We not only want life, but we want it to be worth living.

If a high degree of organization is necessary to meet modern conditions, I believe an examination of the facts

will show great net gains which are reflected to the benefit of the masses of our people. Take a single example in the organized campaign that has been going on for the elimination of waste and the standardization of industrial products. Take the ordinary electric light bulb. Not more than three or four years ago we paid for these bulbs in the neighborhood of 50c a piece. Today, due to improvement in the processes of manufacture and distribution, a better lamp can be purchased at the corner drug store for 20c. So it runs through the various lines.

Perhaps the most striking instance of an improved product at lower cost resulting from the application of modern methods is found in that pioneer in mass production—the automobile. It is one of the few articles which today, despite the great increases in costs of materials and labor, can be purchased for actually less money than before the war. This is largely the result of enlightened cooperation among the automobile manufacturers.

But splendid as are these accomplishments in automobile production we find a vastly different situation when we turn to the matter of traffic facilities and provision for training and control of the fifty million people who drive motor vehicles on our streets and highways. It is these problems to which I wish to draw your attention this evening.

Comparative Accident Records

Traffic fatalities were increasing annually at an appalling rate at the time the National Conference on Street and Highway Safety was organized in 1924, and while there are reasons for real encouragement in the fact that the annual increase in fatalities now is less both in percentage and in actual numbers than five years ago, certainly these changes do not warrant any lessening of effort. They do indicate, however, that the absolute number of fatalities and injuries can be greatly reduced when all of the things we know should be done have been accomplished. We now have figures which support this view.

Three groups of states illustrate strikingly the value of modern vehicle legislation and administration. The North Atlantic states, from Maine to Maryland, show an increase of 64% in automobile fatalities from 1920 to 1926. The Middle Western states, from Ohio to Nebraska, omitting one or two for which statistics are not available, show an increase of 100% during the same period. The Southern states, from Virginia to Louisiana, again omitting three states for which the figures are not available, show the appalling increase of 230%. The smaller accident increase in the Northeastern states is in the face of a 158% increase in motor vehicle registration, as compared with only 126% in the Middle Western states. In the South the situation is even worse than in the Middle West, the accident increase of 230% exceeding the registration increase, which was 194%.

Now, what are the respective conditions in these groups of states? The Northeastern states, having had to grapple with the problem longest, have gone farthest in motor vehicle legislation. While their laws still lack uniformity in important respects, they generally embrace a large part of what has been deemed essential and incorporated in the Uniform Vehicle Code proposed by the National Conference on Street and Highway Safety as the basis of state legislation. All but one or two of the Northeastern states have thoroughly organized motor vehicle departments and all but one or two have mandatory examinations of applicants as a condition to the granting of drivers' licenses.

The Middle Western group, also having numerous large cities and rapidly growing traffic, have made some progress in vehicle legislation. A number of them have not yet seen the value of fully organized administration of the motor vehicle law and none of them have thus far established a drivers' licensing system with examination as a mandatory requirement. In general, this group of states may be said to be intermediate between the Northeastern and the Southern group in the development of motor vehicle control and intermediate in regard to accident records.

The Southern group, having generally fewer large cities, fewer good roads and less severe traffic conditions, has made less progress in motor vehicle regulation than either of the other groups. The result shows in the comparative accident records.

Further substantiation of this view that modern vehicle legislation and improvement in the accident record go hand in hand is found in a discussion of "Automobile Hazard in Cities and Its Reduction," presented by William J. Cox, in 1927, before the American Society of Civil Engineers. Mr. Cox developed a mathematical formula showing the automobile hazard or the probability of each motorist becoming involved in an accident, taking into account population, street mileage, etc. He then tested his formula against actual accident records as shown by the claims settlements of the casualty insurance companies and found it to be closely correct. But his work also developed another striking fact. The cities in states having modern motor vehicle laws showed a general average of automobile hazards fully 25% less than those in cities without such modern laws and administration.

Money Value of Sound Motor Laws

Here we have a direct economic argument for sound vehicle legislation. Translated into dollars and cents, Mr. Cox found, for example, that the annual automobile accident loss in the state of Massachusetts was \$16,000,000 less than would be expected from general experience throughout the country, this amount comparing with about \$1,000,000 for the annual cost of administering the motor vehicle law. These figures are from Massachusetts' record prior to the beginning of its present experiment with compulsory automobile insurance. In other words, it seemed to be worth \$15,000,000 a year to the state of Massachusetts, purely as a cold-blooded proposition without regard to the humane aspects, to have modern motor laws.

Now, what do we mean by modern motor laws? The foundation is obviously provision for an adequate organization whose sole business is vehicle administration. The

Uniform Vehicle Code recognizes that, whereas a well-to-do state with a large number of motor vehicles and operators may need an independent motor vehicle department, a less populous state with fewer vehicles and operators may be able to get along with a motor vehicle bureau or division in one of the existing state departments. The Uniform Code provides for these alternatives. The essential thing is that, whether it be a department, bureau or division, it have sufficient personnel devoted exclusively to this work to carry on all of the necessary work, including maintenance of complete and up-to-date records of the motor vehicles of residents of the state, transfers of vehicles, certificates of title, thefts of vehicles, records and analyses of accidents and periodical publication of the results; and the necessary facilities for examining operators and maintaining records of them. If any of this work is delegated to county or other local officials it is essential that it be carried out on a uniform basis under the strict supervision of the motor vehicle department or division. It is doubtful whether even such delegation will be generally successful.

Licensing Operators After Examination

One of the chief factors determining the character and scope of a state motor vehicle department seems to be whether or not the state has a full-fledged drivers' licensing system, with mandatory examination and powers of suspension or revocation. If the department has such powers it seems to call for an active administration in close touch with many phases of the traffic problem, including the education of drivers in traffic safety. If the system does not include mandatory examination and power of suspension the department's work is all too often conducted in a routine manner as a tax licensing function and the benefits of the modern conception of state motor vehicle administration are largely lost. Thus far practically only the North Atlantic states have such systems.

There is a strange division of sentiment regarding the licensing of drivers as between the Northeastern and Middle Western states. I do not include the Southern or South-

western states, because I doubt whether they have as yet given the subject much thought. In the Northeast, however, I doubt whether there could be found any sentiment whatever for elimination of the requirements that operators be examined. On the contrary, it is frequently urged that the examinations be made more rigid. In the Middle West, on the other hand, there has either been resistance to the entire licensing principle or advocacy of merely a routine registration of operators, with suspensions of the licenses to eliminate bad actors. You in Michigan have, however, made some advance in authorizing the Vehicle Commissioner at his discretion to examine candidates who are physically defective.

It is not claimed by the proponents of the examination system that examinations will eliminate all unsafe drivers. It is fully recognized that some of the most competent drivers are dangerous, using their skill to trifle with the rights and safety of others. This does not alter the fact, however, as the records of some of the Eastern motor vehicle commissioners show, that 20 to 25% of the candidates for licenses fail to pass upon the first examination and that on subsequent examinations all but 2 or 3% of these meet the requirements. This indicates clearly that many candidates first come up for examination when they are incompetent either because of inexperience or lack of knowledge of the traffic regulations, and would therefore be unsafe on the highways at that time. Subsequently they practice driving and learn the regulations in order to qualify. The fact that every new driver is required to learn the rules and demonstrate that he knows the fundamentals of safe driving is a great protection to the public.

We also should not overlook the 2 or 3% who take the examinations and never qualify or the incompetents who are kept off the highways through the knowledge that they would fail in the examination. The elimination of these alone is sufficient justification for the examination system. To register such individuals and suspend their licenses after they have caused an accident is to lock the barn after the horse is stolen.

I have already given statistics to show the better trend of accident records in the Northeastern states than in the Middle Western and Southern states. The former include the states with full-fledged drivers' licensing systems. I was interested to learn recently the results of a detailed study by the National Safety Council of the accident records of these states before and after the adoption of the drivers' license law and also those of the non-licensing states. Summarizing this study Mr Sidney Williams, Director of the Public Safety Division of the Council, states:

"The automobile fatality rates in the seven states having drivers' license laws with examination of new drivers, enforced by a centralized state department, are from 4 to 31 per cent lower, since the passage of such laws, than would have been anticipated on the basis of the prior experience of the same states and the experience of the non-license law states over the same period. This study is based on Census Bureau figures covering the years 1916 to 1926 inclusive, and covering all the 32 states for which such figures are available. The seven states showing this favorable record are California, Connecticut, Maryland, Massachusetts, New Jersey, New York and Pennsylvania."

Uniform Rules of the Road

We come now to what is conceded to be one of the most important objectives of this entire safety campaign—namely, uniformity in the laws and regulations controlling the actual driving practices of motor vehicle operators. In this I am happy to say you have done much in Michigan. Your Legislature is one of those which has adopted the fourth or Operation of Vehicles Act of the Uniform Vehicle Code, although with some alteration. You have been pioneers in the development of a uniform ordinance for cities and towns. That ordinance, together with a uniform ordinance developed in California and the existing ordinances in some one hundred leading cities, furnished the starting point for the Committee of the National Conference on Street and Highway Safety which prepared the Model Municipal Traffic Ordinance completed in July of this year.

With your usual progressiveness you have already incorporated in your ordinance many provisions of the Model Ordinance, but I note also that in several important particulars you have deviated from it. In some cases I assume you were virtually forced to do so because your state law adopted last year correspondingly deviated from the Uniform Vehicle Code. However that may be, I cannot but believe that these changes partly defeat the purpose of uniformity.

Your ordinance permits street cars to turn right on the red light, and vehicles to do so after coming to a full stop. The Model Ordinance prohibits any turn against a red light except where a special signal, preferably a green arrow, authorizes the turn. Our observation is that where your rule prevails pedestrians are in greater danger and uncertainty. The Ordinance Committee also points out that it violates the standard significance of the red lights.

Again, you have brought into your ordinance the provisions of your state law under which driving through an unoccupied safety zone is permissible. This is contrary to the Uniform Code and the Model Ordinance. The Ordinance Committee, while urging zones raised or otherwise so protected that they cannot be driven through readily, says that driving through unoccupied painted zones is fraught with danger to pedestrians about to enter the zone, and that it is unsafe to leave the matter to the discretion of the motorist. In this connection I was interested in a recent report of a vote taken in Colorado Springs as to whether motorists should be prohibited by ordinance from driving through unoccupied safety zones. The vote was 8,491 in favor of such an ordinance to 223 opposed.

Other provisions of your ordinance differing from the Model Ordinance are that giving traffic on through streets an absolute right of way, that attempting to define the meaning of traffic control signals and those relating to stopping, standing for loading, and parking.

These strike me as the principal though not the only differences between your ordinance and the Model Ordinance.

I do not imply that the provisions of the latter are infallibly superior. They do, however, represent the consensus of the best experience and judgment which it was possible to bring to bear on them and they were agreed to unanimously. And, if you should differ from the Model Ordinance on four or five points, and Toledo on four or five others, and Milwaukee on still others, what would become of uniformity?

In view of the universal desire for uniform traffic laws and regulations, a brief review of the developments of the past three years throughout the country may be of interest, both as to state legislation and as to municipal ordinances and regulations.

Progress in State Uniformity

Beginning with Virginia in 1926, some fifteen states have adopted up-to-date rules of the road based on the fourth act of the Uniform Code, or revised their laws in conformity therewith. States acting in 1927 were: Pennsylvania, North Carolina, North Dakota, Idaho, Michigan, Minnesota, Arkansas, Arizona, Washington, New Hampshire, California and Oregon. Of these states, Pennsylvania repealed its various laws and adopted practically the complete Code; North Carolina, North Dakota and Idaho adopted all but the licensing act; while the action of New Hampshire, California and Oregon was in the nature of revision of existing laws. In 1928, when only a few legislatures met, Louisiana and New Jersey took action, that of New Jersey being directed to uniformity of municipal ordinances as well as of state law.

Reports of activities in the various states looking to legislation in 1929, when some 44 legislatures meet, give promise of further substantial progress toward uniformity or adoption of the licensing provisions of the Code. Preliminary consideration of such measures is reported from Connecticut, Colorado, Delaware, Georgia, Illinois, Iowa, Kansas, Michigan, Mississippi, Nebraska, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, West Virginia, Wisconsin and Wyoming. These

reports are probably not complete, but they show the nationwide interest in the subject

Reports also show that, while the Model Municipal Traffic Ordinance has only been out a few months, besides the state action in New Jersey already referred to, several cities have already adopted the ordinance and many others have such action pending, among the latter notably Boston and New Orleans. It should be noted that a number of other large cities, Los Angeles, San Francisco and Chicago, already have ordinances closely paralleling the Model Ordinance

My remarks have been confined largely to the subject of motor vehicle laws and regulations. An equal amount of time could be devoted to any one of a number of branches of the street and highway traffic problem—safety education, enforcement, organization for traffic planning, etc. The National Conference on Street and Highway Safety surveyed these fields and the report of the Second National Conference summarized a constructive program for dealing with them. I am glad to say that through such bodies as your own and other organized groups throughout the country considerable progress is being made

In conclusion, I should like to emphasize the principal points which I have mentioned this evening. *First*, the value of the drivers' license law with mandatory examination and the importance of a well organized state department to administer this and the other motor vehicle laws, and *second*, the opportunity now existing for the first time to secure uniformity in driving regulations and practices through the Uniform Vehicle Code and the Model Municipal Traffic Ordinance. To this should be added the new standardized code for city traffic signs, signals and pavement markings prepared by the American Engineering Council for the National Conference on Street and Highway Safety

I am confident that with the support which you and other organizations throughout your state are lending to all measures for traffic betterment more and more definite results will be attained, traffic disorders and congestion will

be eliminated and the appalling accident record will not only cease to mount, but will be reduced to a fraction of its present amount

REMARKS of A B BARBER *Before Kiwanis Club, Grand Rapids, Mich, October 19, 1928*

ONE of the biggest bargains on the counter before the American people today is that offered by the adoption of up-to-date methods for dealing with the street and highway traffic problem. Translated into dollars and cents and leaving aside the human factors, the efforts which have been made in a number of states and cities in recent years have proven their worth many fold.

A recent survey of traffic delays in downtown Boston estimated them to cost the community \$24,500,000 a year besides losses resulting from accidents amounting to over \$2,000,000 a year. Chicago's cost of traffic congestion has been estimated in excess of \$600,000 a day, and that in New York much more than \$1,000,000 a day. The nationwide bill was conservatively figured by a Committee of the National Conference on Street and Highway Safety at \$2,000,000,000 a year.

It is difficult to arrive at figures of savings which result from the adoption of modern traffic methods, but enough data is available to give some idea of what can be accomplished. The San Francisco Traffic Survey Committee, consisting of a group of leading business men and traffic experts, after a number of months' experience with the new traffic code in that city, stated: "Reduction in accidents since the code went into effect range from 30 to 40% in the records of three companies operating 50, 100 and 400 motor vehicles, respectively. The Market Street Railway Company reports a reduction of 24.7% in pedestrian accidents, and coroner's records show no fatal accidents in the central traffic district since the ordinance went into effect. A saving of \$2,000,000 a year in the cost of automobile accidents is being made for vehicle owners of San Francisco by

reason of the new traffic regulations " Incidentally the San Francisco ordinance is in the closest harmony with the Model Municipal Traffic Ordinance which has now been completed and issued as an aid to cities and towns contemplating revision of their traffic regulations

It has been reported that in the City of Los Angeles after the adoption of similar traffic measures there was an increase of about 30% in the movement of traffic on the streets

A number of other cities have been equally active in dealing with their traffic problem Chicago has been one of the pioneers in this work Mr William R Dawes, President of the Chicago Association of Commerce, in addressing the Midyear Councillors' meeting of the United States Chamber of Commerce at Hot Springs, Ark, a few days ago, explained the active traffic survey work conducted by the business men of Chicago during the past three years at an expense from their own funds of more than \$50,000 Everyone who has been in Chicago recently knows the great improvement of traffic conditions in the loop district Mr Dawes stated that interviews of more than 96,000 separate and distinct individual patrons and customers of the principal business establishments in the city on a typical business day showed an average of no more than 1 57% of the total number of customers who were users of curb parking facilities At the same time he quoted figures showing that a single large store in the loop district had reported an increase of 15% of business in February, 1928, over the business of the same establishment for February, 1927, prior to the adoption of the new regulations They have made an actual count, comparing the number of vehicles entering the loop and the number of passengers entering the loop by all forms of transportation in 1928 as compared with 1926, but the figures have not yet been made public Apart from the parking restrictions, however, it is clear to any observer of Chicago conditions that the new regulations, taken together with the new progressive traffic signal system and the rerouting of street cars with the elimination of left turns, has enormously improved conditions on Chicago's streets and cut a large part of the \$600,000 a day

loss which was occurring before these traffic control improvements were undertaken

There is further evidence of the saving that results not only from city traffic control measures, but from a modern system of motor vehicle administration set up under the authority of the states. A thorough study of the loss records as shown by the claims settled by the casualty insurance companies reveals that in cities in states which have such up-to-date systems of motor vehicle administration, including examination and licensing of drivers, the losses average under corresponding conditions 25% less than in states without such modern laws and control of drivers. These conclusions are also borne out by the motor fatality records of the United States Census Bureau, which show much less increase in fatal accidents in the Northeastern states than in the Middle West and the South, where motor laws are less advanced. The states requiring drivers' licenses issued after examination and supervised by a central state motor vehicle administration show from 4% to 32% fewer accidents after than before adoption of the drivers' license law as compared with the average record from the whole country.

To sum up, the essential features of the system of traffic regulation which have now been worked out and made available on a uniform basis are as follows:

- 1 The Uniform Vehicle Code proposed for state legislation, including the rules of the road act, in harmony with the Model Ordinance, an anti-theft act, a registration act and drivers' license act based on the best experience

- 2 The Model Municipal Traffic Ordinance completed in July, 1928, in harmony with the Uniform Code and designed to bring driving rules and practices to a real basis of uniformity

- 3 The standard system of street traffic signs, signals and pavement markings just completed by a Committee of the American Engineering Council, designed to offer a means to secure uniformity in harmony with the standard system of rural highway signs already adopted by the American Association of State Highway Officials and the U S Bureau of Public Roads