

## Building American Highways For Safety

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The present is pre-eminently the age of individual transportation. There are to be found on our highways today more than twenty million motor vehicles, sufficient in number to supply one to each family in the United States. It is predicted that in seven years we will have one vehicle to every four persons, sufficient to furnish one to each individual that is old enough to reach the steering wheel.

We travel about unhampered by fixed schedules, at speeds that annihilate time and space, and are limited only by the physical condition of our roads.

Although we are improving our highways at a rate never dreamed of before, we cannot keep pace with the demands created by the enormous increase in vehicles. Last year alone, more than four and one-third million motor vehicles were produced, an increase over the preceding year of 20 per cent. During this period about 40,000 miles of highways were surfaced, an increase of but 11 per cent. It is then evident that we are producing and absorbing motor vehicles twice as fast as we are providing roads upon which they may conveniently travel. This condition has brought about a traffic congestion on our streets and roads so acute that we have come to realize that one of the major problems facing the country today is to provide sufficient road and street capacity to permit safe operation of our vehicles.

The enormous increase in traffic on our limited mileage of improved roads, coupled with the ever-increasing speed and weight of motor vehicles, has meant not only a great economic loss, but has resulted in a steady increase in highway accidents, taking a toll of human life and property damage so great as to arouse public opinion to a demand for more extensive highway improvements to keep abreast of motor vehicle registration. The demand is for roads so built and maintained as to permit quick and safe transportation at all times. Likewise, highway engineers now realize that safety is as important as engineering and economics in the design and operation of our highways.

Road builders are making every effort to build safety into the road rather than depend upon warning signs and devices alone to protect the motorist. Many state highway departments, as for instance, Maryland, Con-

necticut, and Pennsylvania, as well as a number of large cities, are making a careful study of the causes of accidents occurring on their highways, and are thereby enabled to remedy unsafe conditions. Accident records are kept by means of a highway map on which various colored pins are inserted at the spots on the map where accidents have occurred. An accumulation of pins shows in a graphic manner the location where a construction change is needed.

In the interest of safety, highway engineers are relocating the main roads to eliminate curves, to avoid railroad grade crossings, and to reduce steep grades. Incidentally, these relocations save distance, avoid costly bridges and mean large benefits to the motorist in the cost of vehicle operation. For instance, in Illinois a road 150 miles long was relocated almost entirely throughout its length, thereby saving 30 miles of unnecessary distance and eliminating 31 grade crossings. The saving in vehicle operation to the citizens of that state, as a result of this improvement, is estimated at one million dollars a year.

The frequency of highway accidents resulting from traffic congestion has demonstrated not only that we must construct our new highways of ample width, but also that we need to widen many of the roads and bridges now in use. This has led to the construction in the vicinity of large industrial centers and on main thoroughfares of what is known as the "super-highway" to insure the maximum road capacity, speed and safety. It is only by widening our congested roads and by providing alternate routes, that accidents can be reduced and traffic enabled to move smoothly, quickly, and with a maximum degree of safety. Foremost of the super-highways is the one out of Detroit. This road has a total width of 204 feet, with two separated roadways 44 feet wide, each carrying one way traffic. On each of the four-track roadways horse-drawn traffic keeps to the right hand curb; slow moving heavy trucks outside them, and automobiles in the two other lanes, thereby providing rapid, safe, and easy movement for all kinds of traffic. In addition, space is provided between the roadways for rapid transit trolley lines, and provision is made for motor parking, as well as for pedestrians. Other highways on which extensive widening programs are going on, or parallel routes are being extended, are

*(Just Turn the Page)*

## Study Baby Development

In all the thousands of years that fathers and mothers have watched their children they have never explained how a gurgling baby masters the sounds that make up human speech. They have never understood the mysterious process by which one baby blossoms out into a social sort of person liking everybody, while another becomes a shy child, that clings only to a few trusted relatives. They have studied and loved and worried over their children, but even in a flourishing family of twelve the parents could not tell you in what manner each child's development was being shaped by factors of heredity or environment.

A systematic attempt to supply some of the missing information about human development in a normal home is to be started by three specialists in child research here, it has just been announced. Dr. Mary Cover Jones, Miss Edith M. Burdick, a graduate nurse, and Dr. Harold E. Jones, assistant professor of psychology at Columbia University, are arranging to assume the care of a group of normal and superior children, under conditions as nearly ideal as possible. The children may in this way be observed both day and night, as in an ordinary household. A wide assortment of scientific records of the physical, mental, and emotional development of the children will be made.

The number of babies to be observed will be small, in order that conditions may be kept like those in a real home, rather than an institution. The group is to consist of about six, two of them the young children of Dr. and Mrs. Jones.

A home for the babies has been purchased in New York, and financial arrangements for the project have been made, so that the experiment may be continued for at least the next three years.

The three specific aims of the project are "the study of human development in a controlled superior environment; the determination of the best methods of handling children of nursery age; and the educational ends to be achieved in the interest of the children themselves."

Science News-Letter, November 6, 1926

The density of a star is often only one-thousandth that of the air in a soap bubble.

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