

PSYCHOLOGY-HIGHWAY SAFETY

# Majority of Accidents Happen to a Few Susceptibles

**But Report Before Highway Research Board Shows That Instruction Will Correct Nearly all Accident-Prone Drivers**

**S**OME people have more than their share of accidents because they are especially susceptible. The causes of many of these accidents can be found, and by instruction in safety the accident-prone drivers can often be made even better than the average risk.

Thus is summarized a portion of the annual report of the Committee on Highway Traffic of the National Research Council's Highway Research Board presented in Washington last week at the annual meeting of the Board. It represents a review of the conclusion of recent accident studies carried out in different parts of the country and was prepared by Sidney J. Williams, director of the public safety division of the National Safety Council.

Inadvertency, or the lack of sufficient will or desire to prevent the accident, was said by Mr. Williams to be the most important of the causes which result from human failure. By inadvertency is meant recklessness, intoxication, pre-occupation, excitability and temporary distraction. Other causes were said to be ignorance, meaning lack of knowledge or skill, and physical and mental deficiencies.

To prevent accidents among the general public the report suggested that special study be made of drivers whom records reveal as accident-prone. Licenses would not be revoked until it is clearly shown that instruction in safety is of no value and that the party is one of "a certain percentage of the population, probably extremely small, that cannot possibly be made into safe drivers."

## Measures Highway Capacity

How many automobiles can travel on a highway without congestion?

Dr. A. N. Johnson, dean of engineering of the University of Maryland and member of the Highway Traffic Committee, has answered this question. In his report he said:

"The two-lane road is practically free from congestion up to 1,000 vehicles per hour. The three-lane road is practically free up to 1,600 vehicles and is

congested not to exceed one-fifth of the time up to 1,900.

"With further increases in the number of vehicles per hour, congestion increases at a more rapid rate on a two-lane than on a three-lane road. When four-fifths or more of the traffic is in one direction, the two-lane road is practically free from congestion up to 1,300 vehicles and the three-lane road up to 2,300."

Observations were also made on a four-lane road but there was not enough traffic to cause congestion, the greatest rate of passing being 3,228 vehicles per hour. In making the observations congestion was said to occur, Dr. Johnson explained, when a reduction of speed was noticed and the drivers began to crowd each other.

He insisted that the results are not conclusive because of the few observations made, but that they "do disclose a general indication that must be close to the facts."

## Raising a Road By Boot Straps

Slabs of concrete which settle and sink below the road level in Iowa are

being "raised by their boot straps." This new method is proving more effective and more economical for leveling the sunken parts of concrete highways than processes previously used by engineers. It was invented and patented by John Poulter, a mechanic of the Iowa Highway Commission. Its applications were described by W. H. Root, an engineer of the Commission.

By Poulter's process a mixture of mud and cement is pumped beneath the concrete through holes drilled in its surface. This mud mixture spreads out between the concrete and the ground, forcing the concrete up to make room for itself. It later hardens in place. More than 50 settled portions of road in Iowa have been raised by this method, in some places as high as 13 inches.

The chief advantage of this method, Mr. Root pointed out, is that it is cheap and it cures the settlement at the source of trouble by filling the voids underneath the pavement.

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CONSERVATION

## Reasonable Tree Cutting Urged for Christmas

**T**HE Christmas tree, center of the Yuletide celebration ever since our half-barbaric forefathers feasted in the forests of Germany, threatened as the result of present-day need for conservation of timber, has received a new lease of life.

Within reason, says the U. S. Forest Service, Christmas trees may be used



**CONCRETE ROAD "RAISED BY ITS BOOT STRAPS"**

*A mixture of mud and cement is being pumped beneath the concrete through holes driven in its surface in order to raise sunken slabs. This new method was reported to the Highway Research Board of the National Research Council*