

ENGINEERING

Speed of Average Driver on Highway Found to Be 35 m.p.h.

Ordinary Traffic Moves Best Without Lights or Policemen; Alcohol Held Part Cause of One-Third of Fatal Accidents

A "SPEED detector" spying on motorists driving along the roads of Maryland revealed that the average speed of the 41,000 vehicles observed was 35.5 miles an hour, members of the Highway Research Board meeting in Washington learned from a report by Prof. A. N. Johnson of the University of Maryland.

The speed detector consists mainly of a square box containing a mirror. When you drive by it a reflection is flashed to an observer stationed a measured distance down the road. He then times you until you cover the distance to him.

Eight per cent. of the vehicles were going only 15 to 25 miles an hour, Prof. Johnson said. Only 1 per cent. traveled over 55 miles an hour; 12 per cent. between 45 and 55; 43 per cent. between 35 and 45; and 36 per cent. between 25 and 35 miles per hour.

Ordinary traffic, not including that of rush hours, gets along with least delay when there are no lights or policemen at the intersection, it was revealed by tests reported by E. H. Holmes, of the U. S. Bureau of Public Roads.

Of the various means for controlling traffic, the policeman caused the least delay, but the lights, when changed rapidly, and when operated by the traffic itself, were nearly as efficient.

Drinking of alcoholic beverages interferes with driving ability in four different ways, Dr. Walter R. Miles, of the Institute of Human Relations, Yale University, told the Board.

"A man may keep his car right side up and on the road when he is too intoxicated to walk, but this fact is not reassuring to others on the highway," Dr. Miles said.

Although alcohol is generally thought of as a stimulant, and gives the feeling of stimulation to the person drinking it, its real effect is depressing on most of the functions of the body, he pointed out. The driver who has been drinking gives a poorer grade of attention to what is going on around him, including other traffic and traffic

signals. His eyes, hands, and feet are slower to respond. His muscular responses are less dependable, more variable. But he has an increased self-assurance which prompts him to assume the right of way and be willing to take a chance.

"Although alcohol is directly mentioned in only 7 to 10 per cent. of fatal highway traffic accidents, it is the belief of informed traffic officials that one-third of such accidents are at least partly chargeable to use of alcohol by the driver," Dr. Miles said.

Two pounds of calcium chloride treated sand or cinders to each square yard of pavement, is the recipe recommended for icy highways, by the Committee on Maintenance of the Highway Research Board. For city streets, two pounds of that salt alone should be used per square yard, and the resulting slush removed as soon as practicable.

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ARCHAEOLOGY

Speedy Action Rescues Relics Of "Lost City"

ARCHAEOLOGICAL treasures of the so-called Lost City of Nevada, doomed to be lost indeed beneath the water impounded by Boulder Dam, are to be rescued for posterity, at least in part, through the combined forces of the National Park Service, the Southwest Museum of Los Angeles and the Civilian Conservation Corps.

The arrangements were made through efforts of Congressman J. G. Scrugham of Nevada, who, when Governor of his State, was responsible for the discovery of this important group of Early Pueblo ruins. The present project is in charge of M. R. Harrington, of the Southwest Museum, who led the first expedition to work on the site in 1924-26, at Governor Scrugham's invitation. Work began November 15, and is slated to continue until about May 1.

The old city, occupied some fifteen

hundred years ago, was unusually large, for its ruins can be traced along the Muddy River near Overton for a distance of nearly five miles. The houses were built mostly of adobe, or of alternate layers of adobe and stone, and were only one story high. One, however, contained more than fifty rooms. In exposed situations the walls had weathered down to the foundations, but where protected by sand-dunes standing walls four or more feet high were found.

The first expedition uncovered many skeletons of the ancient people, and collected many fine specimens of artistically decorated pottery.

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PHYSICS

Pound of "Heavy Water" Being Manufactured

IN A FEW WEEKS, there will be at Columbia University a supply of about 400 grams (approximately a pound) of heavy water, similar to familiar ordinary water but with practi-



YIELDS HEAVY WATER

The U. S. Bureau of Standards has found that razorite (native borax tetrahydrate) from Southern California, a crystal of which is shown above, contains chemically bound water heavier than normal by seven parts per million. Razorite was probably deposited from the last mother liquors remaining after the complete evaporation of an ancient sea. With special laboratory evaporating equipment, heavy water with a density difference of forty parts per million has been quickly obtained