

values set by persons unfamiliar with the foundations of science and technology.

"Science must become much more forthright in accepting its social responsibilities and especially the responsibility

for understanding basic human needs and for releasing the unused energies of men," said Dr. Lindeman. "Education must become more scientific, both with respect to its methods and purposes."

*Science News Letter, January 22, 1938*

## PSYCHOLOGY

## Youth at the Wheel Found Skilful But a Great Hazard

### Drivers Between 16 and 20 Kill Twice as Many as Equal Number of Average Motorists; Recklessness Blamed

**T**HE FLAMING younger generation stands condemned as the greatest group of mass murderers in America. The weapon is the automobile.

Although including more highly skilled automobile drivers than any other age-group, 100,000 drivers between 16 and 20 years of age kill nearly twice as many on the road as the average 100,000 drivers.

Accident rates for those below 25 years of age are so high that bringing down that age group's accident rate to the general level would save nearly 8,000 of the nearly 40,000 killed each year on the American highway and street.

These challenging figures were presented to the American Association for the Advancement of Science by Dr. Harry M. Johnson, research associate for the Highway Research Board, Washington. Young men between 19 and 21 years of age are apparently the worst menaces on the highway, Dr. Johnson declared, pointing to a chart which indicated plainly that young men just approaching their majority are responsible for many more accidents per 100,000 drivers than any other group.

Middle-aged men between 46 and 55 may be a bit slow as compared with

their younger traveling mates, but they are involved in relatively far fewer accidents, he continued.

Knowledge of their own skill and consequent willingness to take chances beyond their own capacity to meet were tentatively blamed by the speaker as the factor chiefly responsible for the great proportion of accidents among youthful drivers.

"Some skilful drivers, relying on their agility and alertness, may enter hazardous situations that are a little beyond their ability, whereas less skilful drivers, being aware of their weaknesses may stay out of them," he concluded.

Nearly 30,000 drivers registered for the six years from 1931 to 1936 inclusive in the state of Connecticut were the experimental raw material, study of which led Dr. Johnson to the conclusions he revealed. Fatal accident figures were compiled from a study of 2,165,241 drivers over a period of five years. His work is being carried out as a joint project of the Highway Research Board and the U. S. Bureau of Public Roads.

Nearly two-fifths of all accidents, Dr. Johnson pointed out, are caused by a small number, less than four per cent. of the drivers, indicating that a driver who has one accident is likely to have others. Accident-repeaters, as he termed them, are a serious highway menace who do much to increase death and destruction out of proportion to their numbers.

*Science News Letter, January 22, 1938*

Judging by recent tests, it is harder to see letters than numbers on automobile license plates.

Egg white foam, once a waste by-product of the egg-drying industry, can now be saved as dried egg white, by means of a new process.

## PHOTOGRAPHY—PHYSICS

## Lightning Strokes Caught By a Rotating Camera

See Front Cover

**L**IGHTNING does strike twice and more than twice in the same place, it is demonstrated by the photograph appearing on the front cover of this week's SCIENCE NEWS LETTER. Eleven separate strokes make up what appears to the eye as a single lightning flash.

The strokes, which come so fast that the human eye cannot distinguish them, were photographed by General Electric Co. scientists. The Empire State building in New York City is the target.

The flash as the human eye sees it (main flash in center) was caught by one camera lens, while another one, rapidly rotating, caught the eleven separate strokes. The first one is the streak at the right, the last one is at left. The flash took .36 seconds altogether.

*Science News Letter, January 22, 1938*

## RADIO

January 27, 4:00 p. m., E.S.T.

WHAT'S NEW IN CHEMISTRY—Dr. Harrison E. Howe, editor of *Industrial and Engineering Chemistry*.

February 3, 4:00 p. m., E.S.T.

THE USEFUL SOYBEAN—Dr. Henry J. Knight, Chief of the U. S. Bureau of Chemistry and Soils.

In the Science Service series of radio discussions led by Wadson Davis, Director, over the Columbia Broadcasting System.

## PAVLOV AND HIS SCHOOL

The Theory of Conditioned Reflexes

By Y. P. FROLOV

This fascinating and important book provides much biographical information concerning the great Russian founder of the School of Conditioned Reflexes, together with a clear and concise account of the theory of conditioned reflexes. There is also an account of Pavlov's predecessors and of the circumstances which led to the evolution of his method of investigating nervous activity. The author, who was one of Pavlov's own pupils, describes actual experiments and glimpses of the life of the workers in the laboratory. \$4.00.

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