

new safety programs but to mobilize public support for those that already exist.

Last year, auto accidents not only claimed 38,000 lives, but also injured 1,400,000 and ran up a \$3,500,000,000 property-damage bill. By throwing your active support behind local, state and federal highway officials and their programs, you can help to reduce these figures.

Part of your "support" starts when you climb into your auto. Remember that some car you meet on the highway may have the man with the scythe riding in it. Drive so that you can give that car plenty of room when you meet. And above all, keep Death from getting behind your own steering wheel.

You can take an active role in helping to make your highways safer. Although much of the responsibility rests upon public administrators, you—the driver—hold the ultimate key to highway safety.

Many accidents are laid to speeding. Yet a State Police study on the Pennsylvania Turnpike showed that 75% of the Turnpike accidents occurred at speeds below 51 miles an hour. The U. S. Bureau of Public Roads reports that the average speed on the highways is still about 50.

But is speeding the actual cause? The

Pennsylvania State Police traced 85% of the Turnpike accidents to driver error. It has been found that many motorists, despite years behind the wheel, actually do not know how to drive. It has been estimated that it takes the average man seven years to learn by experience how to handle his car properly when formal training is omitted.

Driver training in 43% of the nation's high schools already has yielded tangible benefits. Even so, driver training in the high schools is expected to level off by 1960 with less than 60% of the potential enrollment signing up for the course unless something is done to stimulate interest.

Your efforts, coupled with those of your neighbors, could help bring adequate driving instruction to your son's or daughter's high school if such courses are not offered there now. Training of teen-agers is considered vastly important. This age group is involved in a large percentage of America's total death toll.

Studies at the Driving Research Laboratory at Iowa State College show that youthful male drivers can be greatly helped by such training. These courses are capable of reducing by 25% the number of accidents involving boys under 20 years of age.

Science News Letter, May 15, 1954

ASTRONOMY

Milky Way's Rotation

► THE TRUE rotation and mass of our galaxy, or local Milky Way universe, will be known about 1990, if not before.

Dr. C. D. Shane, director of the University of California's Lick Observatory, Mt. Hamilton, and C. A. Wirtanen, observer, have reported that the entire sky, as seen from the Northern Hemisphere, has been mapped.

The initial step in a long-range program, the map consists of some 1,246 plates, each 17 by 17 inches.

The study will not be completed until a new generation of astronomers exposes the last plate in a second sky map sometime around 1990.

Dr. W. H. Wright, retired director of the observatory, conceived the study in the 1930's because astronomers want to know our galaxy's rotation and mass accurately. To compute them, data are needed on the motions, at right angles to the line of

sight, of stars in the Milky Way. Such data are not now available.

Two sky maps, each taken years apart, were suggested by Dr. Wright. Both map sets will include in the background the extra-galactic nebulae, distant universes like our galaxy, that populate space. These nebulae are so far away that, in a period of half a century or so, it would be impossible to detect their movements. Their positions can thus be regarded as fixed.

The stars of our galaxy are comparatively close and, relative to the extra-galactic nebulae over a period of years, will make detectable movements in the line of sight.

Thus the extra-galactic nebulae act as a sort of fixed grid, across which local stars will move between the two star-mappings. Measuring such star movements will give the information needed to compute galactic rotation and mass accurately.

The first plates in the first sky map were taken in 1947. To gauge the accuracy obtainable, some test plates in the second map will be taken in the late 1950's. Measurement of the plates will be started by Dr. Stanislaus Vasilevskis, from the University of Riga, Latvia, now on the observatory staff.

After the preliminary tests, plates for the second map will be taken only as fast as they can be measured. Since the measurement is more time-consuming than the photography, the intervals between corresponding plates will become longer and longer, perhaps as much as 35 years.

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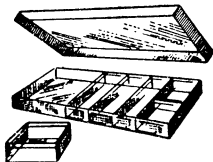
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