

division, Office of Aviation Safety of the Civil Aeronautics Administration, reported to the Highway Research Board.

In two-fifths of the cases, vision was interfered with by objects on the car. The dangling baby shoes or fox's tail carried for luck may turn into bad luck if they keep a driver from seeing an obstacle in the road ahead or a car approaching rapidly on a side road.

Visibility and Safe Driving

In rain or snow, windshield wiper design controls to a large extent the limits of what can be seen. Only a small portion of the transparent area is cleared by the windshield wiper; it may be less than 30% of the total transparent area. And even the area cleared by the wipers may nevertheless be seen through only dimly because of fogging.

The hood and the roof also put a limit on visibility. Insect shields or radiator ornaments may cut down visibility even more.

It is wise to limit windshield stickers to inspection or other stickers required by law and to place these where they will obstruct vision the least.

The driver's stature may limit his view of the road ahead.

The short driver who has no cushion on which to sit may be annoyed by having to play peek-a-boo through the steering wheel to get a view of the road ahead. In addition to this inconvenience which may give him (or her) a kink in the neck, a serious hazard exists. A car on the road ahead may be completely hidden by the upper part of the steering wheel.

In about a third of the cases where faulty vision caused accidents, it was a stationary object such as a tree or a building that interfered with seeing. In a few cases the interference was in the form of glare.

To these cases of obstructed vision must be added an undetermined number where the dangerous object failed to register in the driver's consciousness because of his inattention, distraction or other causes.

Distraction Is Good and Bad

Distraction is a hazard to the driver.

Accidents have been caused when the driver momentarily turned his head to look at or speak to a passenger. A baby's sudden desire to plant a kiss on Daddy's cheek may cause the car to go into the ditch. Incidentally, the front seat beside the driver is the most dangerous place in the car for a young child. This is not only because of the danger of distracting the driver but also because, should a crash occur, a child is most likely to be seriously injured in this place.

Distraction, however, is not necessarily always prejudicial to safety. An occasional glance in the rear vision mirror or at the distant horizon may prevent a too great preoccupation with the highway. Preoccupation with the road may have a kind of hypnotic effect on the driver on a long trip, especially at night or on a monotonous, straight stretch of highway.

An attempt has been made by Dr. Leon Brody, director of research at the Center for

Safety Education, New York University, to find significant differences in the personal characteristics of chronic law violators and accident repeaters and those of a control group of drivers with good driving records.

He tested simple reaction time, but no significant difference was found.

On complex reaction time, no significant difference was found between the good drivers and the chronic violators.

On glare recovery time, mixed results were obtained.

On depth perception, no significant difference was found.

On field of vision, the good drivers were better than chronic violators in one or the other eye, but they did not differ from accident repeaters.

Visual acuity was one characteristic in which a significant difference was found. Chronic violators have significantly better vision than the good drivers!

Personality and Good Driving

Other research studies have shown, however, that chronic violators are likely to be aggressive and intolerant of others. They tend to resent authority. They are inclined to have an exaggerated opinion of their importance and their abilities. And they are likely to be lacking in responsibility and tend to act impulsively and suddenly.

Any sudden action—changing lanes, pulling out from the curb, turning without previous signal, stopping, backing, passing or even starting up from a stop light—may put the driver and others on the road in serious danger.

Science News Letter, August 10, 1957

MEDICINE

One Million a Day Hospitalized Last Year

➤ MORE THAN a million people were in the nation's hospitals every day last year, and there will probably be even more this year, according to the annual report on hospital statistics published in *Hospital*, journal of the American Medical Association.

The data were gathered from 6,966 hospitals listed by the Association's annual directory and showed continuously increasing costs to both hospital and patient.

There were 22,089,719 hospital admissions last year, nearly a five percent rise from 1955. About 15,000,000 of these were in voluntary nonprofit hospitals.

Of all the admissions, less than two percent were to psychiatric hospitals in 1956, although over half of all patients in hospitals on any given day were in psychiatric institutions.

The number of babies born in hospitals rose only slightly from 1955 and totaled almost 3,500,000.

Hospitals had to pay out more than \$6,000,000,000 to care for their patients, an increase of 207% since 1946 and nearly an eight percent jump from 1955 expenditures.

Each patient cost the nonprofit short-term hospitals \$24.99 per day in 1956 and payroll expenses of these hospitals amounted to almost \$2,000,000,000.

Science News Letter, August 10, 1957

ORNITHOLOGY

Climate Does Not Keep Flamingo From Hatching

➤ THE FIRST BABY flamingo north of San Antonio, Texas, and Miami, Fla., has been hatched at the Philadelphia Zoological Garden.

The proud parents are American, or Ruddy, flamingos, one of six pairs that laid eggs this year.

The successful hatching may be the result of a little prodding on the part of John A. Griswold, the Zoo's curator of birds. A small island was built in the middle of the flamingos' pool and on it he fashioned three sample nests—just to give the birds some idea of what was expected. They caught on, but rebuilt the nests and added others.

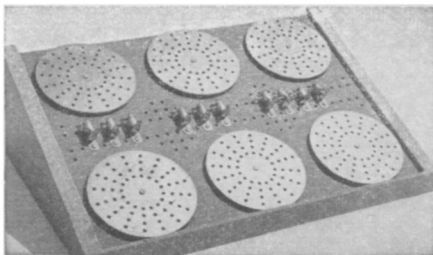
A flamingo nest is a simple affair, a column of dried mud 18 to 20 inches high and a foot across. Normally one egg is laid.

Science News Letter, August 10, 1957

... SOLVE THE PROBLEM ...

• Of PERSONAL RECORD-KEEPING. Send for •
• a LEDGER OF PERSONAL RECORDS. Con- •
• tains 140 pages of systematic forms for recording •
• complete history of insurance, employment, edu- •
• cation, income, expenses, property, medical, auto, •
• stocks, bonds, etc.—20 categories in all. Provides •
• permanent reference for income tax forms, loan, •
• credit and employment applications, etc. •
• Send \$2.00, postage paid to: •
• • LEDGER, Box 745, Glendora, Calif. • •

Can you think faster than this Machine?



Control Panel of GENIAC set up to do a problem in check valve research.

Be careful before you answer. GENIAC, the first electrical brain construction kit, is equipped to play tic-tac-toe, cipher and encipher codes, convert from binary to decimal, reason in syllogisms, as well as add, subtract, multiply and divide. Specific problems in a variety of fields—actuarial, policy claim settlement, physics, etc., can be set up and solved with the components. Connections are solderless and are completely explained with templates in the manual. This covers 33 circuits and shows how new ones can be designed.

You will find building and using GENIAC a wonderful experience: one kit user wrote us: "this kit has opened up a new world of thinking to me." You actually see how computing, problem solving, and game play (Tic-tac-toe, nim, etc.) can be analyzed with Boolean Algebra and the algebraic solutions transformed directly into current diagrams. You create from over 400 specially designed and manufactured components a machine that solves problems faster than you can express them.

SEND for your GENIAC kit now. Only \$19.95 with over four hundred components and parts, fully illustrated manual and wiring diagrams. We guarantee that if you do not want to keep GENIAC after one week you can return it for full refund plus shipping costs.

-----MAIL THIS COUPON-----
SCIENCE KITS, Dept. SL 87-B, Oliver Garfield Co.
126 Lexington Ave., N. Y.

Please send me:

1 GENIAC Electric Brain Construction Kit and Manual.

\$19.95 (East of Mississippi)
\$20.95 (Elsewhere in United States)
\$21.95 (Outside the United States)