# **Questions**

ARCHAEOLOGY—What is the suspected origin of the Lydian tongue? p. 73.

CHEMISTRY—How do lipids affect baking?

GEOPHYSICS—What is the theory of "free nutation?" p. 67.

ORNITHOLOGY—How does the Emperor penguin feed its young? p. 73.

Photographs: Cover and p. 71, B. F. Goodrich; p. 67, Goodyear; p. 69, Westinghouse Electric Corporation; p. 74, Thiokol Chemical Corp.; p. 80, Eastman Chemical Products,Inc.

TECHNOLOGY

### Photo Flashbulb Has **Built-in Power Supply**

➤ PHOTOGRAPHIC FLASHBULBS that have their own built-in "batteries" have been developed at Battelle Memorial Institute, Columbus, Ohio.

The new flashbulbs, ranging from "midgets" up to standard number five size, carry within their metal bases small but simple primary cells, or batteries, made of magnesium foil, paper and silver-plated copper in alternating layers.

Dr. John McCallum, project leader of the group developing the device, said the tiny sandwich cells are activated by moistening with drops of water. This produces enough power to flash the bulb. The current lasts for about 20 minutes, and the bulb may be triggered anytime during that period.

Dr. McCallum said the bulbs are only the experimental end product of "research to determine how compact and simple a power cell we could build," and at present there are no plans to produce them commercially.

Science News Letter, August 2, 1958

# Do You Know?

The effect of high-pitched noise on aircraft components has become one of the most difficult problems facing missile and airplane designers.

Motor vehicles registered in 1957 in the U. S. numbered 67,100,000, nearly 80% more than in 1947.

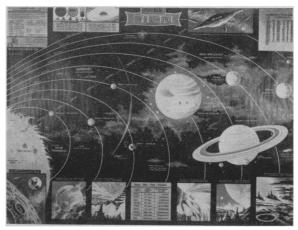
The average person blinks his eyes 25 times a minute and the blink lasts an average of one-fifth of a second.

The time given by the rotation of the earth, called mean solar time or Universal Time, is known to be non-uniform because of variation in the speed of rotation of the earth.

Conditioned reflexes take place in the "wakefulness" area, a small structure deep in the brain called the reticular formation.

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