

Do You Know?

Cavitation damage, or the erosion caused by the formation and collapse of bubbles in liquids, is a major cause of breakdown in hydraulic machinery, from tiny pumps to gigantic ship propellers.

Harlow, a new town in a great British experiment in town planning, is a balanced and self-contained community where nobody needs to work more than ten minutes commuting distance from home.

When a **missile** travels at velocities above 5,000 miles per hour the heating of the air by compression and friction heats it to incandescence.

PHYSICS

Foucault Pendulum Proves Earth Rotates

See Front Cover

➤ A **FOUCAULT** pendulum has been installed at the Natural History Museum in Balboa Park, San Diego, Calif. The device, invented in 1851 by the French physicist, Jean Foucault, gives visual proof of the earth's rotation.

A bob swings back and forth over a dial, around which it appears to move clockwise. Actually the plane of swing remains the same and the dial and the earth are revolving counter-clockwise under the pendulum. The pendulum is not a perpetual motion machine. It requires energy to replace that lost because of friction.

What is needed is an activating mechanism that does not exert a directional pull on the pendulum. The pendulum shown on the cover of this week's **SCIENCE NEWS LETTER** has a magnet which encircles the suspending cable near its point of attachment. The magnet has electronic controls which trigger its pull just as the pendulum passes center, providing a slight tug to the cable on each swing.

The brass bob is 17 inches in diameter and weighs 185 pounds; the cable is 43 feet long, giving the pendulum a 6.56-second period of swing.

Science News Letter, August 24, 1957

Questions

ASTRONOMY—How do scientists explain the darkness of the carbon stars? p. 119.

CHEMISTRY—What determines if a ruby is red or green? p. 121.

MEDICINE—What affect do the citrus flavonoids have on blood vessels? p. 117.

PUBLIC HEALTH—What is the value of the whole body counter in measuring radiation in the body? p. 115.

Photographs: Cover, Natural History Museum, San Diego, Calif.; p. 115 and p. 118, General Electric Company; p. 117, Joseph B. Brignolo; p. 123, University of Michigan-F. D. Miller; p. 128, Bakelite Company.

SOCIOLOGY

Tourists Revive 1,500-Year-Old Style

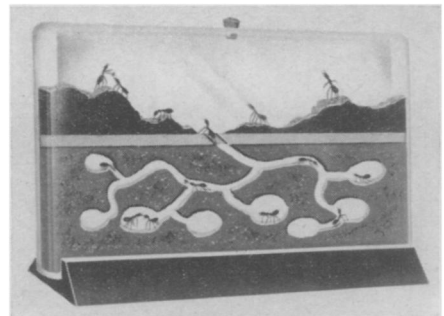
➤ **TOURISTS** and artists are given credit for causing the revival of a style of woman's dress that has been in use on and off in Mexico for 1,500 years or more. During that time it has persisted consistently in certain Indian areas.

The garment is called a "quechquemtl." It is similar to a short cape or poncho and is slipped over the head to cover shoulders, back and chest. Made of cloth rectangles, as worn it looks more like a triangle with one point hanging down in front. The garment is described in the journal of the Southwest Museum, *Masterkey* (March-April), in a report by Dr. John Dewar of the Museum staff.

It is worn by fashionable women in Mexico City today, but many centuries ago Aztec women wore the quechquemtl, as shown on ancient codices and pottery figurines. It is made of various materials from finely woven gauze to richly embroidered wool.

In the United States, the quechquemtl is called a "sweater poncho" by the world of fashion.

Science News Letter, August 24, 1957



FASCINATING ANT FARM

A house for ants? An ant house for children? Yes, and mother and father have fun too, watching the ants after they go underground, as well as above ground. See a busy army of worker ants digging tunnels . . . building rooms . . . carrying their loads to the top of the hill. Watch the feeder ants storing away supplies for the rest of the colony . . . the nursemaid ants caring for the ant babies . . . an education in work and patience, as an ant's entire world is revealed to you through the clear plastic walls of this fascinating house. Actually a "living TV screen" that keeps the kids interested for hours. Convenient "6x9" size, only \$2.98 including stand, soil, sandbar and colony of ants. Money back if not delighted. **ANT FARM, Dept. 101, 7015 Sunset Boulevard, Hollywood 28, California.**

IS YOUR CHILD GIFTED?

THEN YOU WILL WANT TO READ "THE GIFTED CHILD." For parents and teachers of gifted children, this bi-monthly magazine reviews research, new teaching methods, equipment, books, scholarship programs and outside of school activities in use throughout the country. Included are a complete reporting service on published research papers, an annual review of books, kits and games, articles for parents on selecting and getting into schools and colleges.

Annual subscription: \$5.00.
OLIVER GARFIELD CO, Inc., Dept. SL-G87D
126 Lexington Ave. New York 16, N. Y.

PROTECT YOUR ENGINE! Stretch Your Oil!

Our test Kit lets you get full use of crankcase oil in car, truck or boat with complete safety. Simple, dependable analysis. Kit has other scientific applications; Postpaid, \$4.95. Free Brochure.

REMACO, Box 6056-F, San Diego 9, Calif.

For CONVENIENT Reference



—a Permanent Binder for your weekly copies of Science News Letter.

Each issue snaps into the cover with an unbreakable metal strip. Binder opens flat for easy reference to all pages.

Holds full year's issues—52 copies. Sturdy, washable, buff-colored buckram. \$4.00 complete, postpaid. Order now, directly from

SCIENCE NEWS LETTER
1719 N St., N.W., Washington 6, D. C.

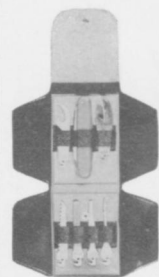
ELOSI POCKET TOOL KIT

Handsome interlocking Tool Set packed in folding flat simulated leather case. Each compact case (2x4) contains knife with a single blade and six useful tools.

- | | | | |
|---------------|-----------------|---------------|-----------------------|
| 1—File | 3—Drill Bit | 5—Can Opener | \$3.45
Ppd. |
| 2—Screwdriver | 4—Bottle Opener | 6—Fish Scaler | |

Each tool locks in to place in the knife handle ready for instant use. This is a replica of a regular \$12.50 set. Makes a thoughtful business gift. (Imprinting Free on orders of 100 or more at \$2.40 each)

FLASHLIGHT AND SCREWDRIVER COMBINATION FLASHDRIVER



Battery Operated. It gives you light where you need it. Get into those hard to work dark places with light right on the spot. A long needed tool. Stop accidents. DON'T WORK IN THE DARK. Flash Driver makes it easy. Needed if only for that once in a while job. Uses standard batteries.

7" Overall Length \$2.45 Ppd. \$36.00 per Dozen	11 1/2" Overall Length \$2.95 Ppd. \$42.00 Per Dozen
---	--

Batteries not included

Solingen "FOREVER SHARP" Hollow Ground SELF SHARPENING SCISSORS

Hollow grinding insures sharp edge at all times. This unusual scissors will delight because it is always ready, able and willing. Its SPECIAL forcing spring guarantees continuous SHARPNESS. Satisfaction guaranteed. **SPECIAL PRICE**



\$2.45
Postpaid
\$24.00 per dozen

John Surrey, Ltd., Dept. SN-17
11 West 32 Street, New York, N. Y.
Send me the following:
 Pocket Tool Kit at \$3.45
 Flash Driver at (\$2.45) (\$2.95)
 Solingen Scissors \$2.45

I enclose check or money order.

Name _____
Address _____
City _____ State _____
 Quote Quantity Prices.