

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.

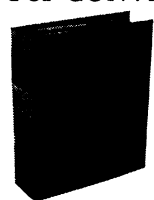
The garment is called a "quechquemilt." It is similar to a short cape or poncho and is slipped over the head to cover shoulders, back and chest. Made of cloth rectangles, as worn it looks more like a triangle with one point hanging down in front. The garment is described in the journal of the Southwest 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 quechquemilt, 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 quechquemilt is called a "sweater poncho" by the world of fashion.

Science News Letter, August 24, 1957

For CONVENIENT Reference

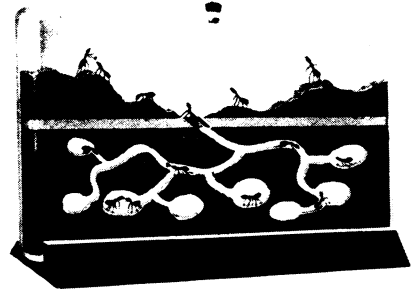


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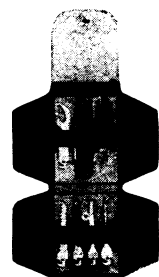
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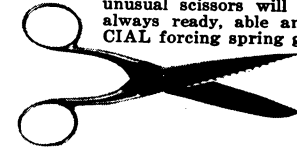
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