

ASTRONOMY

Kitt Peak Telescope Now Near Completion

See Front Cover

► THE WORLD'S LARGEST solar telescope is now being completed at Kitt Peak National Observatory in Arizona. The telescope consists of a 500-foot building, seen on the front cover, which is inclined at 32 degrees to provide a long focal length for observing the sun. The building will house an 80-inch heliostat mirror when completed.

Approximately 74,000 pounds of one-piece solid copper sheets have been installed by Revere Copper and Brass Incorporated, New York, to cover the slanting windshield to insure maximum temperature stability for accurate solar research.

• Science News Letter, 81:191 March 24, 1962

ENTOMOLOGY

Flies Fly Mites; Mites Fight Flies

► FLY-FIGHTING mites flying mite-flying flies are biting the foot that feeds them.

A study of Macrochelid mites, found in manure, has revealed that five of the family feed on fly eggs. But fickle fate has not warned the flies, which transport the mites to their feast.

The lessening lesson for father house fly has not been learned. An expert on the fly-hopping mite proved that fly populations decreased at least half by the feasting.

The studies show these mighty mites are reducing the fly population naturally, but there are "other factors which deserve further investigation," Richard C. Axtell, entomologist at Cornell University, reports in *Farm Research*, 27:4, 1962.

• Science News Letter, 81:191 March 24, 1962

PHYSIOLOGY

Passageways Aid Spread Of Cancer Cells, Bacteria

► DIRECT PASSAGEWAYS exist between lymph glands and adjacent veins, providing possible routes by which cancer cells and bacteria may get into the blood stream.

This has been demonstrated by Dr. Joel Pressman and Mildred Burtz Simon of the University of California, Los Angeles, Medical School who found the passageways by tracing the movements of air bubbles.

The lymph glands, or nodes, are an important part of the body's defense system against infectious processes. They produce white blood cells, which combat invading germs and other foreign matter and act as a filter system for the blood.

The lymph glands' normal channel to the veins is through a relatively lengthy series of lymphatic ducts. White blood cells are conveyed through these to their sites of action.

Medical scientists have suspected for some time, however, that there were other routes of access from the lymph nodes to the blood vessels. These may be opened temporarily

when the lymphatic ducts are blocked or are subject to more than normal pressure. This is the first time such routes have actually been demonstrated.

It is suggested that bacteria and cancer cells, filtered from the blood and lodged in the lymph glands, may be squeezed back into the blood stream through these tiny passageways. Manipulation of the throat in lymph node areas may cause this to happen.

Further study of these passageways will lead to a better understanding of the spread of cancer and bacterial infection of the blood stream, sometimes referred to as blood poisoning, the investigators said.

• Science News Letter, 81:191 March 24, 1962

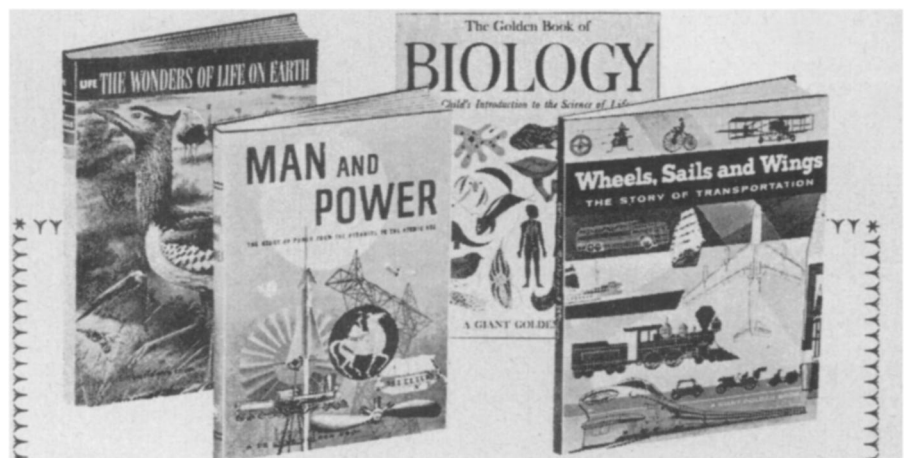
Questions

MEDICINE—When was hepatitis first recognized as a major health problem? p. 182.

METEOROLOGY—How many degrees below normal did Minnesota and Iowa average during the winter months? p. 178.

PUBLIC HEALTH—How much money does the tobacco industry pay in taxes each year? p. 181.

Photographs: Cover, Revere Copper and Brass Incorporated; p. 179, American Institute of Physics; p. 181, Tomas Moreno Arreola; p. 182, Bell Aerosystems Company; p. 183, Westinghouse Electric Corporation; p. 192, Kee Lox Manufacturing Co.



GOLDEN SCIENCE BOOKS

for all grades and for all science teaching programs

There are now more than 200 Golden Science Books. Covering the natural sciences, social sciences, and mathematics, they are designed to help students develop the concepts they need to understand our complex modern world. All available in Goldencraft Binding.

JUST PUBLISHED

MAN AND POWER
Story of power from ancient Egypt to Atomic Age. 8 x 11. Grades 5-H.S. \$4.99 net

THE GOLDEN BOOK OF BIOLOGY
Child's introduction to science of life. Many brilliant color pictures. 10 x 12 1/4. Grades 5-H.S. \$3.99 net

Life's THE WONDERS OF LIFE ON EARTH
Adventure in natural history. Hundreds of full-color paintings and photos. 8 x 11. Grades 5-H.S. \$4.99 net

WHEELS, SAILS AND WINGS
Every dramatic episode in history of motion and transportation. 10 x 12 1/4. Grades 5-H.S. \$3.99 net

PREVIOUSLY PUBLISHED

THE STORY OF GEOLOGY
Our changing earth through the ages. 350 color illustrations. \$4.99 net

THE GIANT GOLDEN BOOK OF ASTRONOMY
(Revised Edition) All about space and its wonders. \$3.99 net ... and over 200 more!

Yours free—

GOLDEN SCIENCE BOOKS: A Catalog of Concept Building Books, by Rose Wyler. An indispensable tool for strengthening your school and library science collections. Prepared as an aid in purchasing books under the National Defense Education Act, Title III.



GOLDEN PRESS, Educational Division, Dept. SNL-3242 1 W. 39th St., New York 18, N.Y.

Please send me my free copy of **GOLDEN SCIENCE BOOKS: A Catalog of Concept Building Books**, by Rose Wyler.

Name.....
School.....
Address.....
City.....Zone...State.....

