

MEDICINE

Doctors Are Reading—

Drug Helps Cancer Victims

➤ EIGHT CHILDREN were given rest from advanced acute leukemia for 3 to 15 months after being treated with cyclophosphamide, or Cytosan, a study reported in the *Journal of the American Medical Association*, 182:30, 1962, has shown.

Additional partial remissions were seen in a number of other children among 44 who were treated, although some side effects such as nausea and dizziness were reported.

Because Cytosan has been helpful in advanced cases, investigation is now under way to find out how effective it may be in an earlier stage of this incurable disease. Drs. Donald J. Fernbach and Wataru W. Sutow of Houston, Texas, with Drs. William G. Thurman of Atlanta, Ga., and Theresa J. Vietti of St. Louis, Mo., reported the study.

Surgery for Obesity

➤ A 237-POUND woman whose dieting attempts had been unsuccessful lost 92 pounds, and another weighing 226 pounds lost about 92 pounds after operations that "short-circuited" an area of the small intestine and thus decreased fat absorption. Drs. Lena A. Lewis, Rupert B. Turnbull Jr. and Irvine H. Page, all of the Cleveland Clinic Foundation, reported the study in the *Journal of the American Medical Association* (p. 77).

Mississippi Disease

➤ A RARE DISEASE transmitted by animals through small tapeworms that may cause infections of the bone has been reported in Mississippi.

Called echinococcus disease, it has been found in seven humans and nine-tenths per cent of swine examined from 21 Mississippi areas. Occasionally cattle, sheep and dogs have been infected.

Three cases of the human form of the disease have been found in Chicago among persons who had either lived in or visited the infected areas in the southern state.

Drs. William F. Hutchison, William B. Thompson and Paul S. Derian of the University of Mississippi Medical Center, Jackson, reported a new case of a woman who had never traveled outside Mississippi.

Their study was reported in the *Journal of the American Medical Association* (p. 81).

Powder Factory Death

➤ WITHDRAWAL from nitroglycerin influence may have caused the death of a healthy powder factory worker who died after a two-day absence from work, a Washington doctor was told in the Questions and Answers Section of the *Journal of the American Medical Association* (p. 101).

After working in an industry where there is prolonged exposure to powerful vein

dilators such as nitroglycerin and ethylene glycol dinitrate, an occasional person may undergo a poorly understood vascular reaction known as a "withdrawal phenomenon," the answer explained. The illness appears suddenly and characteristically 48 to 60 hours after exposure to the vasodilator stops.

• *Science News Letter*, 82:252 October 20, 1962

CHEMISTRY

"Impossible" Compound Made With Inert Gas

See Front Cover

➤ A CHEMICAL reaction previously thought impossible has been achieved by scientists at Argonne National Laboratory, Argonne, Ill.

Xenon, an inert gas, has been combined with a single element, fluorine, to form a stable compound, xenon tetrafluoride. Crystals of this new compound are shown on this week's front cover. The discovery was made in relation to atomic energy programs with fluorine.

Dr. Winston M. Manning, director of the chemistry division at Argonne, said the new compound opens up a "whole new area for the study of chemical bonding."

Drs. John G. Malm and Henry H. Selig of the Argonne Laboratory with consultant, Dr. Howard H. Claassen, were responsible for the achievement.

The preparation of a more complex compound, xenon-platinum hexafluoride, was reported in *Proceedings of the Chemical Society* in June 1962 by Neil Bartlett, Prof. of chemistry at the University of British Columbia, Vancouver.

Xenon-platinum hexafluoride was the first compound of xenon to be reported. This was a significant achievement, but because of the complexity of this compound, chemists believed that other xenon compounds would be rare.

• *Science News Letter*, 82:252 October 20, 1962

Do You Know?

Peppers put almost all of their roots in the upper one foot of soil.

In the next decade, it is estimated that *enrollments* in higher education institutions will increase from 3,500,000 to 6,500,000.

Typhoid fever cases average less than one per 100,000 in the United States, while in South America the average is more than 40 per 100,000 inhabitants.

The eye of the *frog* does not respond to backgrounds, moving or still, but gives its full attention to objects moving against the background.

Before the use of plastic tubing, collection of *maple sap* accounted for 40% of the labor of syrup making.

• *Science News Letter*, 82:252 October 20, 1962

Questions

ASTROPHYSICS—In which constellation is the source of the newly discovered X-rays? p. 257.

CHEMISTRY—What was the first compound of xenon to be reported? p. 252.

MEDICINE—What new device is being used to detect the early spread of cancer in the bones? p. 251.

METEOROLOGY—What is the estimated force of a typical hurricane during its lifetime? p. 258.

NAVIGATION—When was the first hydrofoil built? p. 254.

SPACE—How was the loop-the-loop accomplished by Schirra? p. 255.

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