MEDICINE

Cancer Hospital Opens

Ewing Hospital in New York will be devoted to the research task of better treatment of cancer. Patients will be treated, and the search for a cure will continue.

➤ THERE is new promise that there will be fewer incurable, hopeless so-called "terminal" cases of cancer in the years to come.

A $6,000,000-pile of bricks, concrete, tile and stainless steel, paid for by the people of New York City, was dedicated in New York to the research task of better treatment of the disease that takes the lives of one out of every five New Yorkers. This new 275-bed hospital is named for Dr. James Ewing, a pioneer in cancer research at the famous Memorial Center in which the new Ewing Hospital is integrated.

Although the new Ewing Hospital is owned and operated by the city, it will function as a part of the group of research hospitals and institutions which include the Memorial Hospital, Sloan-Kettering Institute, Cornell Medical College and the New York Hospital.

Suffering will be eased within these bright new walls. But more important, the great fight to learn more about malignant diseases and their treatment will be advanced.

Dr. C. P. Rhoads, director of the new hospital and of Memorial Center, is confident that many of the cancer patients now called hopeless will be checked by new techniques and even "cured" in the sense of staying alive for five years or more.

In the past three years techniques have been developed at Memorial Hospital that promise 15% to 20% such "cures" in pelvic cancer that previously would have been labeled incurable. One of the tasks of Memorial Center, including the new Ewing Hospital, is to give scores of physicians experience in new methods so that they may treat cancer in general hospitals and private practice throughout the world.

The more extensive peaceful use of atomic energy, Dr. Rhoads said at the dedication, is to destroy cancer. Suitable patients are being sent regularly for certain forms of atomic treatment from the Memorial group of hospitals to Brookhaven National Laboratories, where a new atomic reactor has just been put into operation.

Even some of the poisons developed for chemical warfare are now employed in the control of cancer. The improvement and extension of methods of warfare are related to cancer research.

"The training of disease-producing viruses to pursue and to destroy cancer," said Dr. Rhoads, "is in principle and method their training to destroy our enemy, his animals or his food crop. To develop for peaceful purposes these weapons of war, and the protection against them, is the function of our Memorial Cancer Center."

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CANCER CENTER—A view of the new James Ewing Hospital, First Avenue and 68th Street, dedicated and opened by Mayor O'Dwyer on August 23, 1950. The hospital represents a cooperative undertaking between the Department of Hospitals, City of New York, and Memorial Center for Cancer and Allied Diseases.

CHEMISTRY

Electrical Fields Distort Atoms in Catalytic Action

➤ SOME of the mystery of catalytic action has been solved by Dr. W. A. Weyl of the department of mineral technology of Pennsylvania State College.

Catalysts speed up chemical processes by their mere presence, without taking any part in the reaction, and are widely used in oil refining and other industries.

Electrical fields inside the atoms, which pull and distort the shape of atoms near the surface, and so make them act in an unusual way, are responsible for the catalytic effect, according to Dr. Weyl's interpretation. Some of the unusual colors of crystals and certain trade secret processes can be explained by the same action of warping and crowding of surface atoms.

One such is the process of swabbing the glass in mirror manufacture with a solution of tin salt, which is thoroughly washed off before the silver is applied. According to Dr. Weyl's theory, enough deformed tin atoms cling to the surface of the glass to present on their free side a metallic film to which the silver will become attached.

The new theory also accounts for the so-called poisoning of catalysts by certain types of compounds. Poor materials can be improved and good ones made better for catalytic purposes as the theory of their action becomes better known. Dr. Weyl presented his theory at a recent meeting of the New York Academy of Sciences. His work is sponsored by the Material Branch of the Office of Naval Research.

Science News Letter, September 2, 1950

AERONAUTICS

Plane's Detachable Cargo Compartment Is Versatile

➤ THE detachable box-car-size cargo compartment of the new Fairchild military plane, which has now made its maiden flight, is suitable for many uses.

It might be fitted out as a surgical operating room to be landed all ready for use in advanced combat areas. Air Force medical men consider this feasible but say it would be costly because all the equipment and instruments would have to be specially designed and made. Although some light weight equipment is now on