MEDICINE

Improve Cancer Therapy

X-rays of 3,000,000-volt energy used for treatment of malignancies. Much greater depth dose permitted than by using radium. Results reported encouraging.

➤ THE EXPERIMENTAL treatment of cancer with X-rays generated by 3,000,000 volts of energy is described by two Boston scientists. Dr. Richard Dresser told members of the American Roentgen Ray Society meeting in Chicago, that the high intensity of the ray created by the experimental machine permits a depth dose much greater than has been obtained even with great amounts of radium.

Prof. John Trump of the Massachusetts Institute of Technology described the physical characteristics of the extremely short ray. Operating on the electrostatic principle, by which static electricity is produced by friction, the apparatus is insulated by air under pressure.

A small number of selected patients have been treated by Boston doctors with rays created by the new machine. Results so far have been encouraging.

Dr. Dresser told the medical specialists in radiology, that the 3,000,000 volt X-rays have essentially the same physical properties as gamma rays of radium. The penetrating effect of these rays of such extremely short wave length is such that the maximum therapeutic (treatment) effect occurs not on the patient's skin, but some distances below in the subcutaneous tissue.

Thus the new machine may make possible larger doses of radiation directed at deep-seated malignancies (cancers) with proportionately less effect upon the skin and adjacent normal tissue.

"These preliminary clinical findings substantiate the observation that as the wave length of an X-ray beam is decreased, the skin tolerance and depth dose are increased," declared Dr. Dresser.

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RESOURCES

Houses Needed After War

➤ ABOUT A MILLION new homes per year could be used by Americans during the decade following the war, if they are built in the right places at the right prices, it is estimated in a report issued by the National Resources Planning Board.

Besides this there will still be a need for a large volume of repair during the same period.

This potential boom in home building has developed because only three new dwellings have been built for every five additional families which have been formed during the last decade, and because of the drastic curtailment of house-building during the war years.

Wartime housing will take care of only acute needs, it is warned by Miles L. Colean, author of the pamphlet released by the Board. It is also likely, he says, that many war dwellings will not be in the areas where they will be needed after the war. Meanwhile, out dated and worn out houses throughout the country continue to deteriorate.

"If we had better means for providing attractive, low-priced houses," the report says, "a huge demand would exist for the replacement of these deteriorated and outmoded dwellings amounting perhaps to as much as one-fifth of the total stock of around 37,000,000 dwellings, or something over 7,000,000 units ripe for replacement."

About 2,000,000 of these are needed on farms alone, the U. S. Department of Agriculture reports.

Continued research in materials and techniques is recommended as one of the long range methods of solving this housing problem.

This statement recalls plans by some authorities for standard models of houses. They believe this would be a big help, just as standard auto models have made new cars available to most families in the past. These houses would roll off assembly lines in mass production to be assembled in sections with a minimum of expensive "custom tailoring" at the building site.

New building materials are also likely. Some foresee the use of plastic-and-plywood walls with a stainless steel roof. Such a house would be strong yet so light that two men could lift the whole wall of a room as they put it up.

Application of scientific research should bring prices down to where the new homes would mushroom up all over the country by the hundred thousand, some economists believe.

Price has been the main drawback in the past, although it is being steadily reduced. In 1925, dwellings were built for around $4,800 per unit, while in 1940 the average price was down to $3,700.

Other steps outlined in the report as possible aids to accelerating the postwar building program included removal of legal restraints within the house-building industry; preparation of model building codes by the government based on ample engineering service and providing localities with facilities for consultation and testing; and improvement of present government aids for providing adequate housing for Americans.

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MEDICINE

Cancer Fighters in Uniforms Broaden Scope of Work

➤ NOW IT'S the WFAS who are donning uniforms and attending officers' training school as the Women's Field Army of the American Society for the Control of Cancer swings into action with a new war service program.

The fight against cancer is still the prime concern of this feminine army of 225,000 volunteer workers in every state in the Union. But with the war putting additional burdens on doctors, nurses and health educators in every community, the WFA, according to its National Commander, Mrs. Marjorie B. Illig, will broaden its service by organizing in each community a health education unit, a medical aide unit and a hospital unit.

Right now 80 women are attending the first National Training School for officers of the WFA at the Jackson Memorial Laboratory for Cancer Research. The course, under the direction of Dr. Clarence C. Little, managing director of the American Society for the Control of Cancer, covers such subjects important in the fight against cancer as normal and abnormal growth and aging, endocrine glands, and methods of cancer research.