After that, the sociologist can see one worse picture: war, famine, and disease racking both city and countryside, and the cities go down in ruin like Nineveh and Babylon.

Regional planning is seen by Mr. Mumford as promising relief for metropolitan conditions. Cities must be rebuilt from within. Man is at last in a position, he avers, to rise above machines and to create a new environment to offer a good life not to the strong and lucky alone, but to all who work together for this end.

Science News Letter, May 21, 1938

MEDICINE

Cancer Cannot be Bred Out of the Human Race

As An Old Age Disease, Cancer Does Not Strike Until Child-Bearing Period Is Over; May Strike Any

CANCER cannot be bred out of the human race, Dr. Madge Thurlow Macklin, of the University of Western Ontario Medical School, declared at the meeting of the American Association for Cancer Research in Atlantic City.

Dr. Macklin believes cancer is dependent on inherited factors. She cited human family records showing what she believes is evidence for the inheritance of cancer tendency. One kind of skin cancer seems to depend on a single recessive hereditary factor, for it tends to appear in one-fourth of the children although the parents are unaffected. Other kinds of cancers and tumors have other types of heredity, some of which have not yet been clearly worked out.

Even if the manner of inheritance could be learned for every kind of cancer, it would be impossible to breed it out of the human race, Dr. Macklin explained, because of the age at which cancer develops.

Too Late

"Since practically all children are born before their mothers are 40, and before their fathers are 50," Dr. Macklin said, "the race has been perpetuated before we know that the parents possess the cancer factor.

"Since women at least must reproduce while they are still young, before the age at which they will develop cancer, all women would have to stop having children in order to see if they themselves were cancerous until it was too late to have them. By the time they discovered they were supposedly cancer free, they would be dead, and even then had they lived a few years longer they might have developed a tumor."

Even if cancer could be bred out of the race, Dr. Macklin believes it would be inadvisable because it afflicts so large a percentage of mankind that breeding it out would mean depriving the race of many persons who can contribute much before succumbing to cancer.

"This does not preclude our justifiable attempts to cure cancer," she added, "or to hunt for something to prevent it."

Tandem Chemicals for Control

Cancer may be controlled in mice, at least, by the use of two chemicals, tandem fashion so that the action of one reinforces that of the other, Dr. Leonell C. Strong of Yale University School of Medicine reported on the basis of his more than eight years of research in this direction. His work does not in any sense involve a "cure" for human cancer, he pointed out. It is, however, the first time that "the mechanism or mechanisms controlling the origin and survival of a spontaneous tumor have, under experimental conditions, been significantly influenced."

From oil of wintergreen Dr. Strong has obtained two chemicals which cause liquefying and disappearance of spontaneous mouse cancers with consequent survival of the mice. One of these chemicals is heptyl aldehyde. The other is methyl salicylate. Heptyl aldehyde, fed or injected into the mice, will do the trick alone, but its action is reinforced by the use of the second chemical.

Mice with spontaneous breast cancers have recovered and lived as long as 163 days after treatment with heptyl aldehyde, with an average survival time of 72 days. Untreated cancerous mice of the same strain lived on the average only 55 days.

The chemistry involved in this treatment of cancer is not yet known, but Dr. Strong believes that further research along these lines will eventually "lead to the control of spontaneous tumors of the mammary gland (and other organs), at least, in mice."

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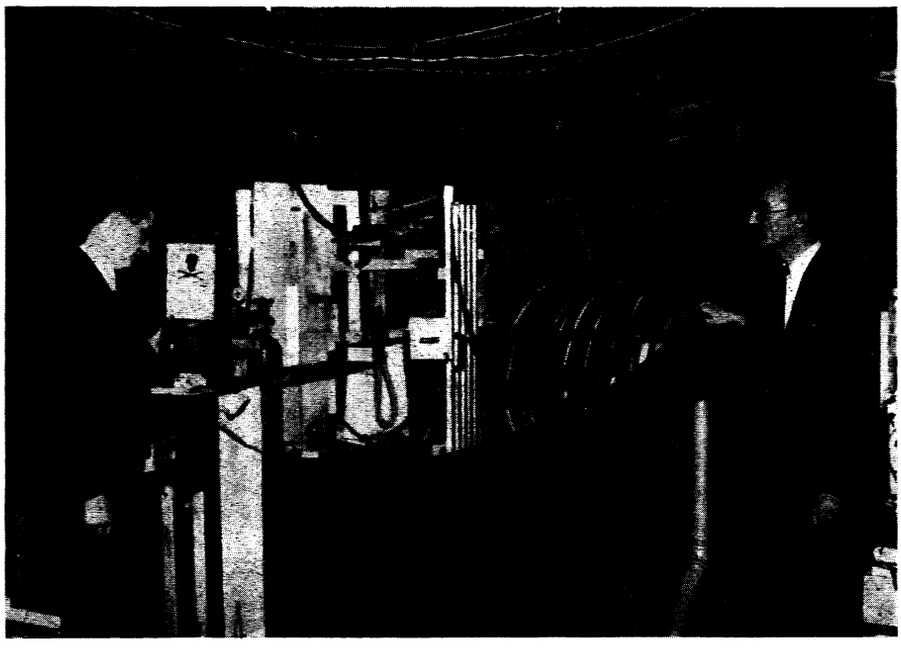

RECORDS COSMIC RAYS

Dr. Edward C. Stevenson, left, and Prof. Jabez C. Street of Harvard University, Cambridge, Mass., with their automatic cosmic ray recorder. The large circular metal piece is a giant magnet between whose poles is a cloud chamber.