

MEDICINE

# New Treatment Aids Hopeless Cancer Patients; Not Cure

British Physician Reports Very Favorable Results With Combination of Sulfur Selenium Colloids, Radium, X-Rays

A NEW treatment for cancer devised by a British physician has given relief to some cancer patients whose cases were called "hopeless." It cannot be called a cure, since it has not been used long enough for physicians to know what the ultimate results will be.

The new treatment reduces pain and discomfort and often enables patients who entered the hospital complete and hopeless invalids to return, for a time at least, to their normal life. It was devised by Dr. A. T. Todd, physician to the Bristol Royal Infirmary, who reported results with it in the current issue of the *British Journal of Surgery*.

Dr. Todd uses a new medicine known as a sulfur-selenium colloid and another colloid of selenium which is combined with radium substances so that it is slightly radioactive. The first medicine is called SSe for short, and the second is abbreviated as R. A. S.

## Alive After Years

In a large number of instances the patients treated by this method have become apparently well and are still alive more than a year after the beginning of the treatment, which was little used before 1931. Two cases are alive after 2½ and 4 years respectively.

Dr. Todd first ascertains that all other types of treatment (surgery, X-rays and radium) have failed, that the diagnosis of cancer is certain and that the patient is willing to cooperate by having regular treatment for a period of years if necessary. He then starts by injecting into a vein 4 cubic centimeters or about 1 teaspoon of SSe. After 48 hours powerful X-rays are trained on the growth.

The doses of SSe followed after 48 hours by X-radiations are given weekly for 8 to 14 weeks. When the position of the cancer is such as to make the patient highly sensitive to treatment the dose is cut in half. By spreading the dosage of X-rays over a longer period than the normal 8 weeks, when neces-

sary, care is taken to avoid too marked a reaction.

After this preliminary course, in which the selenium is gradually ionized, that is, changed in its electrical properties by the X-rays, the regular treatment is begun. For the first three weeks doses of R. A. S. are given at weekly intervals; thenceforward the doses of R. A. S. are given alternately with SSe, each every two weeks. The R. A. S. is believed to act in the same way as the X-rays, though on a much smaller scale, in ionizing the selenium colloid.

## Believes Cancer Infectious

Dr. Todd believes this ionization to be an important part of the treatment, which is considered to act as a stimulant to the body's defensive mechanism against cancer, and not to have any direct effect on the growth. He has developed an ingenious theory as to the nature of this mechanism, and considers that cancer is an infectious disease.

If the patient's condition appears to improve, the alternate injections of the two colloids are continued regularly and are stopped only when the cancer

symptoms have disappeared. But when the treatment is unsuccessful the "preliminary" combination of SSe with X-rays is repeated after a three-month interval.

Insufficient time has elapsed to show whether this new method may sometime provide a complete cure for cancers otherwise incurable.

*Science News Letter, May 26, 1934*

PHARMACOLOGY

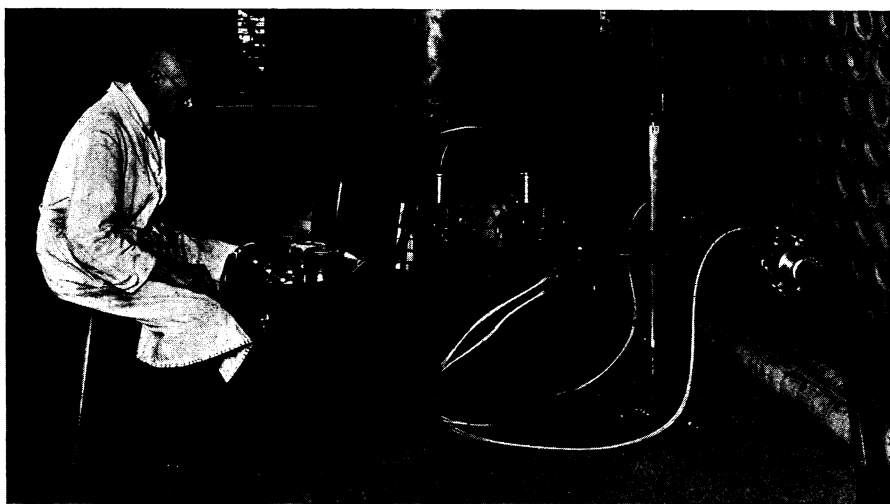
## Simple New Test For Sleeping Powders

MODERN sleeping powders and pain-relieving drugs of the barbiturate group, such as veronal and amytal, may be more reliable in their action and danger of accidental overdosage may be eliminated in the future. A simple test for determining the strength of these preparations has been developed by James M. Dille of Georgetown University School of Medicine.

This means that for the first time manufacturers have a convenient means of standardizing their preparations of such medicines, Mr. Dille explained in reporting his test to the American Pharmaceutical Association. At present the strength of these drugs varies considerably and one dose may contain much more or much less of the active pain-relieving or soothing substance than the physician intended his patient to have.

*Science News Letter, May 26, 1934*

The Thurberia weevil, a new pest of western cotton, is said to be able to stand both heat and cold, so that it can thrive in a climate fatal to boll weevils.



TESTING STEEL

This small and portable X-ray apparatus was devised in Germany for the convenient testing for flaws of plates of steel. It has a potential of 200,000 volts and an output of eight milliamperes. Cables and all other parts are thoroughly insulated for safety.