

pivot. If the instrument is dropped both will be equally injured, and this may affect the performance of the instrument but little. In a similar accident with a sapphire bearing the pivot takes the whole punishment. The point is mushroomed and the needle sticks.

But in any case, the lack of European sapphires will not hold up the production of such fine mechanisms as delicate measuring instruments for radio, radiolocators, and electronic control devices for the panel boards of airplanes.

Science News Letter, July 4, 1942

MEDICINE

Regression of Breast Cancer Follows Sex Gland Operation

REGRESSION of an inoperable breast cancer that had spread to the bones and relief of persistent, troublesome pain in the bones and healing of the cancerous areas in the bones followed a desexing operation (castration) in a 72-year-old man, Dr. Joseph H. Farrow and Dr. Frank E. Adair, of Memorial Hospital, New York City report (*Science*, June 26).

It is only four months since the operation and the case is not reported as a cure for cancer, but the doctors state:

"Control of disease as extensive as that observed in Case II is unusual. It may be unassociated with the operative procedure employed, although this appears improbable."

Case I, also a man with breast cancer that had spread to the bones, was given a different type of treatment, consisting of injections of male sex hormones. This

treatment not only failed to halt the progress of the cancer but seemed to speed the activity of the cancer both in this patient and in three women to whom the same treatment had been given.

The two types of treatment were tried because of evidence from earlier studies. These suggested that patients with breast cancer might have a defect in body chemistry which would change the sex hormones in the body into another chemical. This second chemical might be able to weaken the bones, making them ready prey to the spreading cancer, or might stimulate the growth of cancer that had spread to the bones. A systematic study is now in progress to learn the effect of upsetting the sex hormone balance on the course of inoperable, spreading breast cancer. From such studies, it is hoped, may come knowledge of how to control this kind of cancer.

Science News Letter, July 4, 1942

MEDICINE

First Commercial Production Of Spotted Fever Vaccine

A VACCINE to protect against dangerous Rocky Mountain spotted fever and a promising serum for treatment of people sick with the disease are now being produced by Lederle Laboratories, Inc.

The Lederle Laboratories is the first commercial organization to apply for and receive a license from the U. S. Public Health Service to make the vaccine. Hitherto it has been available only as produced at the federal health service's laboratory at Hamilton, Mont.

The Lederle vaccine is made from chick embryo by the yolk sac method

devised by Dr. Herald N. Cox, U. S. Public Health Service. This vaccine was used extensively by the federal health service during 1941 with results as good as those obtained with the earlier vaccine developed by the U. S. Public Health Service, which was made from infected ticks. The tick vaccine, according to earlier reports, protected all but 64 out of 15,000 vaccinated persons in Rocky Mountain spotted fever regions.

One other firm (Sharp and Dohme) is also making the serum for treatment of Rocky Mountain spotted fever. The National Institute of Health in Wash-

ington, D. C., has a limited quantity of serum for treatment of suitably selected cases from which to judge further the value of the serum. Evidence from laboratory studies and a limited number of human cases so far treated is good.

Rocky Mountain spotted fever, although first discovered in the Rocky Mountain states, has now been reported from all but the five New England states and two states in the north central region. About 75 cases each occur in Maryland and Virginia each year, with a 20% mortality.

A total of 147 cases for the entire nation have been reported to the U. S. Public Health Service in Washington so far this year, with the usual increase in numbers in late spring and early summer. For the week ending June 13, there were 26 cases, of which 16 were in the Rocky Mountain states and the rest were in Maryland, Virginia, North Carolina, New Jersey and Illinois. The disease is spread by ticks.

Science News Letter, July 4, 1942

NUTRITION

Food to Assure Reasonably Adequate Diet Through 1943

"THERE will certainly be enough food to assure everyone of a reasonably adequate diet through the rest of this year and 1943," Oris V. Wells, of the U. S. Bureau of Agricultural Economics, told members of the American Home Economics Association at their meeting in Boston.

This would be true, he said, in spite of the fact that American farmers are faced with the "difficult task" of producing enough food to "maintain domestic food consumption at about its average level in the United States as well as to supply the quantities of several foods that are needed for lend-lease shipment."

We here in the United States have been eating about the same total amount of food each year since 1909, Mr. Wells said, although we have made several significant shifts within the total amount.

We eat fewer potatoes and less of cereal products, especially flour and cornmeal. We have been eating more sugar, increasing our consumption of this chiefly between 1920 and 1925. We have been eating about the same amounts of eggs, butter and meat each year, but have been taking more condensed milk, ice cream and cheese, and following World War I we began to drink more fluid milk and cream.

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