

MEDICINE

Drug for Valley Fever

The anti-fungus chemical, ethyl vanillate, found to give good results against Valley Fever, for which there has previously been no satisfactory treatment.

➤ ONE OF a group of anti-fungus chemicals useful for preserving foods has turned out to be helpful for some patients with coccidioidomycosis. Valley Fever is the common name for the disease in California because of its prevalence in the San Joaquin Valley.

The chemical is ethyl vanillate.

Good results in six out of 12 patients treated with it are announced by Drs. Marshall J. Fiese, Jerome Radding, Stephen Cheu and Owen K. Steinbach of the Veterans Administration Hospital, Fresno, Calif., in a preliminary report to the Journal of the California Medical Association, *California Medicine* (May).

Three of the six are "cured," the doctors report. The other three are "doing well," and apparently the disease has been arrested in them.

One patient was dying when first seen by the doctors, and a short period of treatment did not help him. The other failures were also due to the fact that the patients could not be given enough of the drug.

This is apparently the chief drawback to the chemical. It must be given by mouth and to get enough of it to do much good, the patient must take well over an ounce a day. This means swallowing 22 large capsules every six hours. A healthy person might not have any trouble with this but, unfortunately, the very Valley Fever patients who most need the new drug are hardly able to keep any food down, or may be too sick to realize the necessity for taking so many big capsules, or too weak to do so. The drug itself is irritating to the stomach, which further adds to the difficulty.

Heretofore, however, there has been no satisfactory treatment for Valley Fever. The disease is caused by the fungus, *Coccidioides immitis*, which first gets into the lungs. For the lung disease, rest in bed is enough to bring recovery to most patients. But when the disease spreads to other parts of the body it has been "all but inaccessible to help," the VA doctors point out. Abscesses and ulcers and meningitis may develop in these later stages.

Discovery that ethyl vanillate would kill the Valley Fever fungus in the test tube and that it helped patients with another disseminated fungus disease, histoplasmosis, led the VA doctors to try it for Valley Fever patients. At first the chemical was being made only on a laboratory scale, so they could not treat many patients and could not give those enough of it. Now it is being marketed by E. R. Squibb and Sons and there is enough of it.

In spite of its being useful only in cer-

tain types of Valley Fever, the VA doctors think it shows that the disease is not necessarily incurable and may point the way to a better medicine.

Science News Letter, June 5, 1954

MEDICINE

Cancer Cells Good for Growing Polio Viruses

➤ HUMAN CANCER cells removed from the body make good material for growing and breeding human polio viruses in the laboratory. In the course of their growth, the polio viruses completely destroy the cancer cells.

These findings are from studies by Drs. George O. Gey and F. B. Bang, Mrs. Margaret Gey and Max Stohler of the Johns Hopkins University, Baltimore, and Dr. William F. Scherer and Jerome T. Syverton of the University of Minnesota. The studies are reported by the American Cancer Society which, with the National Foundation for Infantile Paralysis and the U. S. National Cancer Institute, helped finance the cancer research.

Science News Letter, June 5, 1954

DENTISTRY

Thyroid Gland Linked With Decay of Teeth

➤ DISCOVERY THAT the activity of the thyroid gland in the neck has considerable influence on whether or not teeth decay has been reported by Drs. Joseph C. Muhler and William G. Shafer of Indiana University. If the gland is not active enough, susceptibility to tooth decay increases.

In rats, at least, dried thyroid material was as effective as sodium fluoride in reducing tooth decay, these scientists found. And when dried thyroid was given with fluoride, decay was reduced about 55% more than when dried thyroid or fluoride was given alone.

Cutting down the activity of the thyroid gland by giving the anti-thyroid chemical, thiouracil, decidedly increased the amount of tooth decay in the rats. In fact, when this chemical was given, fluoride in concentrations otherwise enough to cut tooth decay 20% had no effect.

The thyroid presumably exerts its anti-carries effect by stepping up body metabolism so that saliva flow is increased. This, according to one theory, cuts down tooth decay because the saliva promptly neutralizes the tooth-enamel-attacking acid.

Science News Letter, June 5, 1954



RADAR "EYES"—To knock down enemy interceptors at night or in bad weather, Stratojet bombers now carry tail cannon, shown here being given a final inspection.

AERONAUTICS

Jet Bomber's Tail Gets 20-MM Cannon "Stinger"

➤ A "STINGER" has been added to the tail of the Air Force's B-47E to discourage enemy interceptors from attacking the jet bomber from the rear.

The stinger is a remote controlled tail turret system aimed by radar and fired by an electronic "brain." The system works at night and in fog, as well as on sunny days.

Developed by General Electric Company's aeronautics and ordnance systems division, Johnson City, N. Y., the radar tracks a plane approaching from the rear as the bomber zips along at 600 miles an hour. It feeds tracking information to the computer, which decides when to fire the twin 20-mm tail cannon at the enemy interceptor.

Science News Letter, June 5, 1954

AGRICULTURE

Foresee Improvement in World Coffee Situation

➤ THE WORLD coffee situation should improve in the next two years, the Department of Agriculture has predicted.

Coffee production prospects for 1954-55 appear "more promising" than present world buying might indicate, Agriculture experts declared in a special circular issued by the Foreign Agricultural Service. The expected drop in Brazil's coffee production again may be almost offset by larger crops in other parts of the world.

Additional trees planted during the past five years, now coming into production in several countries, also make the outlook for 1955-56 brighter.

Science News Letter, June 5, 1954