

## MEDICINE

# Hope for Attack on Viruses

Search for chemical of penicillin-streptomycin type, effective against influenza and other virus-caused diseases, gets new hope.

► HOPE FOR a chemical of the penicillin-streptomycin type that would be effective against influenza and other virus-caused diseases appears in the announcement of two new anti-virus substances.

Called "antivirotics" instead of antibiotics which is the general name for the penicillin kind of remedies, these two new ones are viscosin and ehrlichin. They were discovered by streptomycin's discoverer, Dr. Selman A. Waksman, and his associates at Rutgers University, and reported to the Society of American Bacteriologists meeting in Chicago.

Viscosin comes from a bacterium, *Pseudomonas viscosa*, which was isolated by Dr. Mutsuyuki Kochi from a soil in Japan. It is effective in the treatment of experimental tuberculosis in animals, Dr. Kochi and Drs. David Weiss, Leonora Pugh and Vincent Groupe reported. However, it is much less effective against tuberculosis than streptomycin and offers little practical

promise in that direction. It does have slight but definite activity against the viruses of influenza and infectious bronchitis of chickens. No experiments in higher animals have been carried out yet.

Ehrlichin was reported by Drs. Groupe, Jack Frankel, Mary P. Lechevalier and Dr. Waksman. It is produced by a culture of *Streptomyces lavendulae* which was isolated from soil on the grounds of the New Jersey Agricultural Experiment Station.

Crude preparations of ehrlichin exert a suppressive effect on experimental influenza virus infections in chick embryos and in mice. Daily doses injected under the skin of mice infected with the Lee influenza virus, or influenza B, reduced the degree of lung consolidation seen when the mice were sacrificed and examined four days after the infection.

No further large scale experiments with ehrlichin have been made yet. Speaking for his entire staff, Dr. Waksman stressed

the point that these new antibiotics, or antivirotics, do not seem to have any immediate potential or practical value in the treatment of diseases caused by viruses, but are rather forward steps along a long road. They point to the possibility of isolating antibiotics which are effective against true viruses.

Science News Letter, June 9, 1951

## BACTERIOLOGY

## Meat Spoils in Spite Of Antibiotic Treatment

► HOPE OF preserving foods with subtilin, one of the so-called antibiotic remedies like streptomycin, was dimmed by a report to the Society of American Bacteriologists meeting in Chicago.

Chopped beef with spores of a putrefying germ in it spoiled even when as much as one thousand parts per million of subtilin was used as preservative, Drs. A. T. Adams, John C. Ayres and R. G. Tischer of Iowa State College, Ames, Ia., found.

Smaller amounts of subtilin failed to stop spoilage. Larger amounts extended the time before the meat spoiled, but even the one thousand parts per million concentration of subtilin "did not necessarily prevent eventual spoilage," the Iowa scientists reported.

The failure of subtilin, the product of a common bacterium, hailed a year ago as a potential food preservative, may be due to one of two reasons, further tests suggested: 1. Subtilin itself may break down during storage; 2. subtilin's effect may be to stop germination of spores but not to destroy them.

Science News Letter, June 9, 1951

## MEDICINE

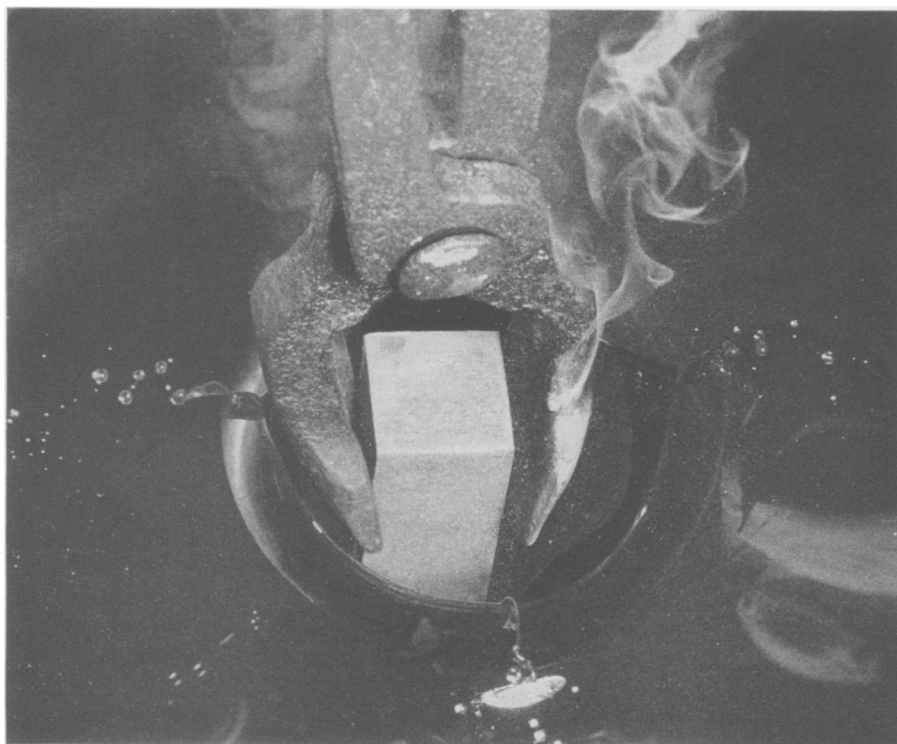
## Polio Virus Found Most Dangerous When Moist

► THE VIRUS of infantile paralysis is most dangerous and is spread most readily while it is in the moist state.

Drs. Harold K. Faber, Luther Dong and Rosalie J. Silverberg of Stanford University department of pediatrics give the following examples of this most dangerous and readily spread state of the virus: inhalation at close quarters of large, wet droplets; direct physical contact such as the hands and lips; taking contaminated food and drink; and use of contaminated eating and drinking utensils before they are dry.

Their conclusions come from a study of the effects of drying on the polio virus. About 40 years ago, they point out, it was suggested that the virus might be spread in house dust. Since then there has been one report of the virus being found in sweepings from the sickroom of a patient.

Dr. Faber and his associates collected dust from 118 homes in San Francisco and in other cities in the bay area in which acute polio cases had occurred within two months



**OIL QUENCH**—A hot bar of steel is quenched in oil. What happens is action-stopped in this picture taken with an exposure of one ten-thousandth of a second.