MEDICINE

Penicillin for Gonorrhea

New disease remedy from common mold found to bring rapid recovery after sulfa drugs failed. Because available only in limited amounts, should be last resort.

➤ RAPID RECOVERY from gonorrhea in three patients who had not been helped by sulfa drug treatment was achieved by the new disease remedy, penicillin, Dr. Wallace E. Herrell, Dr. Edward N. Cook and Dr. Luther Thompson, of the Mayo Clinic, reported in the *Journal of the American Medical Association* (May 29).

Penicillin, which is obtained from common mold similar to that which grows on bread, is available only in limited amounts. It should, therefore, the Mayo Clinic doctors advise, be reserved as a drug of last resort in treating gonorrhea.

Some strains of gonococci are so resistant to sulfa drugs that the patients fail to recover even with large doses and several courses of treatment. Laboratory tests showed that such sulfa-drug-resistant strains would yield to fairly small amounts of penicillin. The patients treated at the Mayo Clinic had been sick with gonorrhea for from five weeks to 11 months and all had had what would be considered adequate sulfa drug treatment.

They began to get better within a few hours, in one case within five hours, after the penicillin solution started dripping into their veins, and in from two to four days were able to leave the hospital completely free of the infection. Laboratory tests showed the germs had been banished in from 17 to 48 hours.

The penicillin was given by continuous drip into the veins. No toxic effects or discomfort to the patient resulted from the treatment.

Science News Letter, June 12, 1943

CHEMISTRY

Smoke Marks U. S. Tanks

Smoke in rainbow colors used in Tunisian campaign to distinguish tanks from those of the enemy. Research development prevents mistaken identification by our own bombers.

➤ "WATCH MY SMOKE!" becomes more than a slangy railroader's boast, in present-day cooperation between air and ground forces. With the Tunisian campaign safely over, a now-it-can-be-told story of rainbow-colored identifying smokes was sent back to the *Infantry Journal* (June) by Brig. Gen. Alden H. Waitt, who is with troops in North Africa.

Need for simple but sure means of identification by planes of tanks on the ground was made evident in the African fighting, when delighted British soldiers saw a lot of Stukas deliver a heavy attack on German tanks, which they had mistaken for British. Painting insignia on tank roofs, as they are painted on airplane wings, was thought of but quickly discarded because it defeated the whole system of camouflage, and in any case would be too easy for the enemy to imitate. Some quick-signalling code, that could be changed from day to day, was the thing really wanted.

Grenades giving off colored smoke were considered close to the ideal. The Chemical Warfare Service, after a number of months of research, developed suitable chemicals to produce six types of smoke, in literally all the colors of the rainbow: red, orange, yellow, green, blue and violet, together with two no-color smokes: black and white. Loaded in grenades, these can be set off in pre-arranged color-code pairs — say, yellow-blue for one day, green-red the next. Or one tank division or other body of troops might identify itself to supporting planes by a streamer of violet smoke, while its neighbor signalled in orange or white. Possibilities are seen as practically endless; the uses in the Tunisian campaign were only a beginning of smoke identification technique.

Tests have shown that colors can be distinguished from airplanes up to at least 10,000 feet. The signal has the further advantage of being visible only as long as it is needed: the grenade starts to give off its smoke in three or four seconds and continues for about three minutes.

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MEDICINE

Half Undulant Fever Cases Are Caused by Raw Milk

➤ YOU MAY BE HEARING a lot of talk about undulant fever since the death from it of Edsel Ford and you probably want to know more about it. The disease has several other names. One is Malta fever, because much-bombed Malta was its early home. Another is brucellosis, because it is caused by a germ named brucella after the British medical officer, David Bruce, who made the first intelligent study of the disease.

The most important thing to know about undulant fever, however, is that the way to escape it is to avoid raw milk, raw cream, and ice cream made from raw milk and cream. Pasteurization kills the germs. So does boiling.

About half the cases of undulant fever come from drinking raw milk from infected cows or goats. The other principal way of getting the disease is from intimate contact with diseased animals or their carcasses. Hogs as well as cows and goats may be infected, a fact which farmers, veterinarians, slaughter-house employees and butchers should know for their protection.

Chief symptom of undulant fever is weakness. The patient gets up in the morning feeling full of pep but by midmorning he is ready for bed again. He doesn't have much appetite, his digestion is poor. Intense and almost constant headaches, backache, pain in the joints like rheumatism, loss of weight and nervousness are other symptoms. Another unpleasant feature of the disease is its tendency to come in repeated attacks. These repeat attacks may go on indefinitely, with periods between when the patient may think he is well and over it.

The disease causes considerable disability, suffering and economic loss, but fortunately is not often fatal. One authority reports deaths at the rate of three per 100 cases in those he studied. When caused by the hog variety of brucella germs, the infection is more severe and the outlook less favorable.

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