

MEDICINE

Vaccine Protects Soldiers Against Cootie-Borne Typhus

Harvard Research Valuable in Fighting Wars;
Can Be Made Rapidly on Large Scale When Needed

PRACTICAL large-scale production of a vaccine that will protect against typhus fever of the European type, lice-borne disease that menaces armies, is the accomplishment of a research group at Harvard Medical School headed by Dr. Hans Zinsser, author of "Rats, Lice and History."

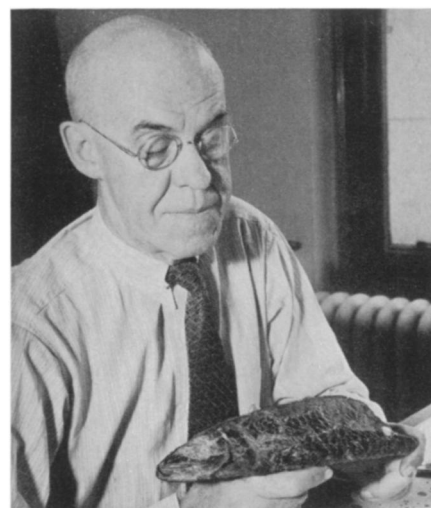
Since cooties and the ill they spread may kill or disable more soldiers than bullets, the typhus vaccine is probably more important than the invention of a new anti-aircraft gun or a new kind of pill-box defense. No immunization against typhus was available during the World War. Dr. Zinsser first demonstrated the possibility in 1930.

One bacteriologist and two technicians in a week can produce over a quart of the vaccine sufficient for 300 complete immunizations. Production can be expanded by increasing equipment and personnel, whenever the need arises.

Little embryo chicks in partially hatched eggs and a germ food made from seaweeds, agar, are used for growing the Rickettsiae, the germs that cause typhus fever, which are used in making the vaccine.

In Dr. Zinsser's team working on this problem are Dr. John F. Enders and Dr. Harry Plotz, a guest worker from the Pasteur Institute, Paris.

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UNUSUAL

Eighty million years old, looking a good deal like a herring, this well-preserved fossil fish, here being inspected by Charles W. Gilmore of the U. S. National Museum, was found near Oacoma, S. D., by a rancher. The fish still retains its original shape quite perfectly. Most fossil fish are crushed by the rock layers in which they are found buried.

PSYCHIATRY

Electricity Through Head Is New Shock Treatment

Treatment Developed in Rome Is Easier on Patients
Than Metrazol or Insulin; Said To Be Without Danger

USE of electric shock treatment for mentally sick patients is announced to the medical world by Dr. Lothar Kalinowsky, of Rome, through a report to the medical journal, *Lancet*, (Dec. 9)

The treatment is like the now widely-used insulin and metrazol shock treatments. Instead of injecting either of these shock-inducing drugs, an electric current is passed through the patient's head to induce the fits, or convulsions, which restore the patient to sanity, for a time at least.

The electric shock treatment is said to be much easier on the patient, and also on the nurses and attendants, than the metrazol or cardiazol shock treatments. Nor is there any danger from the amount of current used to induce the fits.

"Several thousand fits have been produced on some hundred patients, partly treated in the Rome clinic and partly reported from other institutions, without

any accident whatever," Dr. Kalinowsky states in his report of the electric convulsion method.

The number of patients treated is still too small and the time since treatment is too short to allow definite conclusions as to the curative value of this method, he says.

"According to information given by several institutions it can only be said," Dr. Kalinowsky reports, "that the number of recovered and improved cases of schizophrenia corresponds at least to that of the remissions of cases which, in the same clinics, were treated with cardiazol (metrazol)."

All the disagreeable sensations patients complain of with metrazol treatment are said to be missing with the electric shock method. The patient always loses consciousness and awakens slowly, with no memory of the experience. No fractures, dislocations or ruptured muscles have ever been seen,

though Dr. Kalinowsky admits that they could occur.

Electrodes are put on both sides of the patient's forehead, animal studies having shown that the temples are the best place for the treatment. Currents of 70 to 110 volts and 300 to 600 milliamperes are generally needed to produce fits. The shock is given for one-tenth of a second.

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Find New Weapon Against Influenzal Meningitis

A POWERFUL serum for fighting dangerous influenzal meningitis is in prospect as a result of studies by Drs. Hattie E. Alexander and Michael B. Heidelberger of the College of Physicians and Surgeons, Columbia University, and Presbyterian Hospital in New York City. (*Journal of Experimental Medicine*, Jan. 1)

Influenzal meningitis is not due to the virus that causes influenza, but to another kind of germ, called Haemophilus influenzae, type B. The disease attacks small children chiefly. It is rare in adults or even in children over eight years old. It is highly fatal. The mortality rate was 99%, but within recent years use