

## Encephalitis Treatment

*Medicine*

The treatment of encephalitis by the injection of glucose has awakened considerable interest among specialists at St. Elizabeth's Hospital for the Insane. Dr. Walter Freeman, who has made many researches on encephalitis, declared today "that even though the way in which it works is uncertain, this mode of treatment undoubtedly offers something of importance in the treatment of nervous diseases."

The improvement of acute cases of "sleepy sickness" by glucose injections was recently announced by Dr. Leland B. Alford of St. Louis, Mo. The action of the glucose is not well understood but it is believed that the compound exerts a protective action on the nervous system.

The first clue to the beneficial action of glucose, according to Dr. Alford, came from its administration as nourishment to an encephalitis patient who was delirious and refused food. This took place in November, 1926. To the surprise of everyone the patient began to improve. On Christmas day she recovered her senses and by New Year's Day returned home and has remained well ever since. Glucose seemed the most probable factor in this unprecedented recovery and so was given a trial in another acute case which likewise registered rapid improvement.

The method was followed up with good results in as many as forty acute cases. The injections have no harmful effects, it was stated. It has, however, brought about only slight improvement in chronic cases. The chronic form of encephalitis is particularly stubborn and to date few ways have been found of combating it.

It will be many years, Dr. Freeman pointed out, before the glucose treatment can be properly evaluated but, he added, any method that gives hope of relief in dealing with this unfortunate disease, is worthy of trial and further research.

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## Planes Fight Locusts

*Entomology*

Locusts, one of the causes of the famines that periodically threaten the great grain-raising plains of Russia, are being fought with the latest means of chemical warfare from the air. During 1927, Soviet agricultural officials report, nearly 77,000 acres of agricultural lands were sprayed with chemicals from airplanes, as compared with only 2,700 acres in 1925.

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## Reverser of the Love Philtre

*Biochemistry*



SOPHIA SATINA

Ancient alchemists used to vend to lovesick swains and yearning damsels vials of fluid guaranteed to rouse interest in an unresponsive party of the second part. With the passing of the Age of Romance the love philtre business has fallen off pretty badly; yet even in this Twentieth Century of cold science there is interest in amatory subjects for the alchemist's successor. We no longer try to promote courtship with chemistry, but the chemist can do something toward the understanding of its physiological background.

Miss Sophia Satina is the leading exponent on this continent of a method of studying the chemistry of sex first described by Manoilov. In her hands the technique has been developed to a delicacy not rivalled even by the Russian scientist himself. By means of this test it is possible not only to learn the sex of an animal or plant from an analysis of a small sample of its blood or sap, but also the sex of those humble beings so far down on the evolutionary ladder that they do not betray their gender by either form or activity. It all ties up with the fact that masculine metabolism is more active than feminine, resulting in a more rapid formation of acid in the masculine body fluid. "For the female of the species is sweeter than the male." The technique by which this reaction is studied is somewhat complicated and of almost unbelievable delicacy, and it is to be hoped that Miss Satina, mistress of this craft, may be able to continue her researches for a long time to come.

Sophia Satina was born in Russia, and received her scientific education in Moscow. She also taught in the university there for a number of years, ending her connection in 1921. Since 1923 she has been carrying on her work at the station for experimental evolution of the Carnegie Institution of Washington, at Cold Springs Harbor, L. I., N. Y.

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## "Perfect" Diet Gives Vitamin Clue

*Physiological Chemistry*

The day when we shall live on synthetic concentrated pills of food is yet far distant. Yet science's latest attempts to raise laboratory animals on an artificially devised diet of pure foods, have led to the discovery of the new vitamin F, recently announced by Dr. Herbert M. Evans of the University of California.

When a diet of purified food elements consisting of casein, recrystallized cane sugar, certain necessary salts and the five recognized vitamins, A, B, C, D and E, were fed to rats in the laboratories of the department of anatomy, the animals failed to reach more than half size. Theoretically this diet contained all the elements necessary for the health and happiness of rats, but actually something else was necessary. Growth stopped altogether and the animals remained sexually immature. Natural

food had to be resorted to, to supplement what might be called a chemically pure menu in order to reawaken their growth and convert them into healthy adult animals.

"Among the natural foods, lettuce and liver were the most potent," declared Dr. Evans, "and they, therefore, almost certainly contain a new sixth member of the vitamins, to which designation F will be given."

Lettuce when heated and dried failed to give the good results of the fresh product, the investigation showed.

Dr. Evans has to his credit also the discovery of vitamin E, at one time known as vitamin X, a lack of which brings about sterility. Oil from the germ of the wheat grain is thus far the most potent source of this necessary food factor.

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