

BIOLOGICAL PSYCHIATRY

Chemical Aids Mental Ill

Schizophrenics rescued from catatonic trance by injection of cholinesterase and other compounds into their brains. Amount of improvement varies.

► A FEW patients have now been rescued, temporarily, from the death-like catatonic trance of the mental disease, schizophrenia, by injections of a chemical into their brains, a group of doctors and research scientists from London, England, and Chicago and Manteno, Ill., reported at the meeting of the Society of Biological Psychiatry in Atlantic City, N. J.

From a rigid, mute and helpless state, patients begin to move, talk and lose their gray pallor. One even could work, go to parties and dance.

The scientists reporting the work on patients and research on cats in catatonic trances from brain injury are: Dr. Stephen L. Sherwood of the Middlesex Hospital, London; Drs. Warren S. McCulloch and P. M. Cooke and Miss Ellen Ridley of the University of Illinois College of Medicine, Chicago; and Drs. W. H. Mosberg, T. N. Tausig and A. P. Bay of the Illinois State Hospital for Mental Diseases, Manteno, Ill.

In some of the patients given this new chemical treatment, improvement lasted only half or three-quarters of an hour. In others the improvement has lasted for eight or nine months. All were patients who for years had been lying helpless in their trance-like state, needing to be fed and cared for in every way like a baby, and who had not been helped by any other form of treatment.

Some patients relapsed soon after treatment and then began to improve again spontaneously without further treatment.

The trial of this new treatment is still too new for doctors to make any guess as to the future. At Manteno it is considered at least promising enough so that plans have been made to so treat more patients.

Some patients who relapse partially or completely can be restored to a more nearly normal state by a second treatment. Whether the injections into the brain can be repeated indefinitely, and how long the periods of improvement will be, are questions that cannot be answered yet.

The chemical used at Manteno is cholinesterase. This is a body chemical which normally destroys the acetylcholine set free when nerve endings in voluntary muscles are stimulated to contract the muscles. The cholinesterase prevents too much acetylcholine from accumulating at nerve endings.

A number of chemicals counteract cholinesterase. Among these is di-isofluorophosphate. In large doses this chemical produces symptoms resembling some mental diseases and aggravates the signs and symptoms of schizophrenia. These findings, by

other scientists, gave Dr. Sherwood the idea that cholinesterase and similar drugs counteracting acetylcholine might reduce symptoms of schizophrenia. First report of his early work and of the Chicago group's study of cats was made in February of this year (See SNL, Feb. 16, p. 99.)

In his work with patients at Severalls Hospital, Colchester, England, Dr. Sherwood tried flaxedil and pentamethonium iodide as well as cholinesterase. The effect was most marked with cholinesterase in the first patient and with the iodide chemical in three cases, he reported in the English journal, *BRAIN*.

The doctors at Manteno have been using cholinesterase specially prepared for them.

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PUBLIC HEALTH

Legally Standard Bread Required by Aug. 13

► **STARTING NEXT** Aug. 13, our bread, unless we bake it at home, will be standardized legally for the first time in

our nation's history. After that date all white bread, enriched bread, milk bread, raisin bread and whole wheat bread which is shipped across state lines for sale must be produced in conformity with the standards issued under the Federal Food, Drug and Cosmetic Act.

If you buy a loaf of whole wheat bread after that date, it must be made from 100% whole wheat flour. Otherwise it cannot be sold as whole wheat bread and must have on its label a list of its ingredients.

Raisin bread, after that date, must contain not less than 50 parts by weight of raisins to each 100 parts of flour.

Milk bread must be made with whole milk as the sole moistening ingredient or with an equivalent amount of other milk products. For each 100 parts of flour there must be at least 8.2% by weight of milk solids.

Rye, pumpernickel, cracked wheat and other varieties of bread for which standards have not been set must have a complete list of ingredients on the label.

Polyoxyethylene compounds, so-called softeners, are not permitted under the standards because their use could deceive consumers as to the age of the bread and their safety as bread ingredients has not been adequately tested, in the opinion of Federal Security Administrator Oscar Ewing.

Mono- and diglycerides, from natural fats and oils, are permitted in shortening on the grounds of safety and non-deception.

Provisions on both these classes of chemicals may be changed if further evidence shows they should be.

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"LOVE" ON A LION—This ancient figure imitates lost Hellenistic Greek models. It was found by Dr. W. F. Albright while digging near Qataban in Arabia. The inscription on the bottom is in South Arabic. (See SNL, May 10, p. 296).