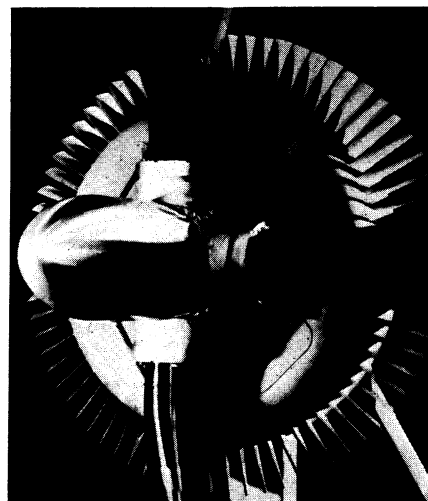


Apparatus for the test is portable and consists of a luminous dial made of radioactive material sandwiched between two disks of glass. The dial has a very faint glow and this illumination can be cut down still further by the use of filters. It is necessary for the man taking the test to distinguish a letter T, showing up very faintly in silhouette against the glowing dial. He must tell the position of the letter as it is rotated by the examiner. The test is taken after the men have gotten their eyes used to darkness by wearing the Navy's special dark-adaptation goggles for 25 minutes

and then staying in a dark room for another five minutes.

The new test has resulted from several years' investigation by scientists of the Navy's Bureau of Medicine and Surgery. The idea of using the luminous dial was largely the result of recommendations by Dr. Walter R. Miles, of Yale University. Assistance in the research was also given by the Research Section of the Navy School of Aviation Medicine at Pensacola, Fla., and by the Research Laboratory at the New London, Conn., Submarine Base.

Science News Letter, May 27, 1944



MAKES AIRPLANES FASTER— This many-bladed, engine-cooling fan shown here mounted on the propeller shaft of a Cyclone engine has been developed by the Wright Aeronautical Corp. to improve the rate of climb of a plane up to 20 per cent and add as much as 10,000 pounds pay load, as well as to improve the cruising speed and altitude performance.

PSYCHIATRY

Insulin Shock Doubles Mental Illness Recoveries

► RECOVERIES of patients suffering with the mental disease, schizophrenia, are almost twice as numerous since insulin shock treatment has been introduced; it appears from figures which Dr. John H. Taylor, Jr., of the New Jersey State Hospital at Trenton, reported at the Philadelphia meeting of the American Psychiatric Association.

Almost two-thirds, 316 of the 568 schizophrenics treated at this hospital over a period of five years have shown definite signs of improvement, the records show.

Of patients admitted to the hospital in 1935, before insulin shock treatment was instituted, 35% returned to the community, a survey after two years showed. In the group admitted since the treatment was instituted in 1939, 60% improvement is recorded.

The results of the treatment, in the opinion of Dr. Taylor and associates, are directly related to the depth of the coma, or unconsciousness, produced by insulin and the severity of the convulsion produced with metrazol or electric shock treatment.

Science News Letter, May 27, 1944

PSYCHIATRY

Drug for War Neurosis

"Battle reaction" type of emotional breakdowns has been treated successfully with special nerve medicine. Scientists suggest its use as a prophylactic.

► SUCCESS with a new medical treatment for emotional breakdowns in fighting men following overwhelming battle experience is reported by Dr. Robert G. Heath and Dr. Florence Powdermaker, of the U. S. Public Health Service. (*Journal, American Medical Association, May 13*).

Ergotamine tartrate, a drug acting on the autonomic nervous system and which has been used in treatment of migraine, was the medicine used. Its use as a preventive is also suggested. Merchant seamen at the Gladstone, N. J., Rest Center, were the patients.

These men suffered from what the doctors call "battle reaction." They believe this is a more correct name than war neurosis for the breakdowns in men who previously were apparently normal emotionally and mentally, who faced previous action with only normal transient anxiety, and did not break down until subjected to an overwhelming battle experience.

Battle reaction, the scientists point out, also differs from neurosis in being primarily a physiological reaction. It is an exaggerated expression of fear of a real situation, whereas in neurosis the fear is real but the situation may not be really dangerous.

In the battle reaction cases, the scientists believe, the original threat to life results in an increased production of adrenalin. This is the body's normal reaction to danger. The extra adrenalin in the body causes the physical symptoms

of which the men complain, such as jitteriness, trembling, pounding heart, thumping in the head, empty feeling in the stomach and so on. The symptoms themselves increase the fear that started the reaction, more adrenalin is produced, and a cycle results.

Believing the condition was fundamentally physiological, the doctors decided, instead of using sedatives, to try medicines that would act on the autonomic nervous system which influences the output of adrenalin in the body. Of several drugs tried, ergotamine tartrate proved the most effective.

In 20 men suffering from battle reaction relatively large doses of the drug every three hours for 10 days restored the men to health. They could see movies of battle scenes and talk over their own experiences without being upset. Some have already returned to sea duty. The drug was not effective when given to 20 psychoneurotic patients, many mildly colored by war experience.

No adverse effects of the drug have been noted, although it should not be given if the patient has signs of liver trouble, advanced hardening of the arteries or certain circulatory diseases. Because it did not interfere with mental coordination nor slow down mental processes, it might, the doctors suggest, be used as a prophylactic to lessen anxiety in combat.

They hope doctors working with similar types of patients will continue the trials of the drug.

Science News Letter, May 27, 1944