

planetariums where special projectors can reproduce the stars of the night skies at any time or season. These were originally intended to give the public a chance to study the stars. Now plans have been made to use them also to teach men in the armed services how to see at night and how to plot a course by the stars.

If you are a volunteer airplane spotter or night air raid warden and you live within easy traveling distance from one of these planetariums, you may be able to arrange to get this sort of training.

The planetarium is used in much the same way as the lookout training stage of the Navy. In the room lighted only

by the "stars" you learn to see and recognize ships or airplanes, or the water tanks and towers of a landscape with the "tail of your eye."

The Canadian Army has developed another method, using silhouettes projected on a screen.

Of course none of these training devices are as good as is the open, unlighted sky of night. But unfortunately (or fortunately) opportunities to practice seeing the enemy under perfectly natural conditions are limited. As the instructors tell the lookouts under training:

"You may never in your whole life see but one enemy submarine."

*Science News Letter, May 15, 1943*

#### PSYCHIATRY

## Defends Army Psychiatry

Feeling that they are not "at end of the road" helps patients to improve. Also contributing to their improvement is continued contact with world and duty.

► CRITICISMS of the Army disposition of soldier mental patients by getting them out of the service as quickly as possible are combatted by Lieut. Col. William C. Porter, Capt. John G. Novak and Lieut. Paul V. Lemkau, all of the U. S. Army Medical Corps (*Military Surgeon*, April).

Because it is frequently impossible ever to restore the mentally ill soldier to combat duty, it is the duty of the psychiatrist to rid the Army of the dead weight of the casualty and to do this as rapidly as possible, these Army physicians explain. Criticisms of this Army attitude, they say, are based on the assumption that the patient is habitually neglected during the three to six months usually required to dispose of a psychiatric casualty.

This assumption, the psychiatrists say is "equivalent to saying that a medical officer would allow a wounded soldier

to die because he had had a leg injured so severely that he would never again be able to march. The therapeutic interest of the psychiatrist is as great in most instances as it would be if he were trying to save the life of the hero of a battle who had unfortunately sustained an irreparable wound."

Actually, the feeling that they will not remain long in the Army psychiatric ward but will soon either be returned to duty or sent back to civilian life, is a factor contributing to the improvement of the patients, the Army physicians indicated. The patients realize that they are not at the end of the road. They know that permanent hospitalization in the Army is impossible.

Another beneficial aspect of the Army psychiatric treatment is the fact that the patient is not declared legally irresponsible. He is called upon regularly to sign the pay roll and to endorse his pay checks, though his money is held for him by responsible officers. This money cannot be spent without the patient's written consent in the form of his signature on a request that the check be drawn and then an endorsement on the check itself. He is allowed and encouraged to send reasonable amounts home to his dependents. This keeps him in active touch with real life.

He is also kept linked with the world of normal people by his Army uniform. This is not his regular duty uniform, but

it is a standard uniform worn by all patients whether they have been wounded in battle or are mentally or physically ill.

The mentally ill soldier is expected to follow the usual military courtesies that he has been trained to observe before his illness. This has proved helpful to the patients.

"It is a frequent observation that well trained soldiers, when they become psychotic," the report states, "are, in general, less disturbed than are recruits. Self-discipline takes the place of the restraining sheet in the military hospital and military discipline lends its aid to self-discipline in this relatively non-personal way."

The soldier patient has the benefit of early hospitalization, for any sort of bizarre or unusual behavior is immediately noticeable in Army life although it might escape notice or treatment for long periods in civilian life.

The medical officer in charge of soldier mental patients has double responsibility, the report explains. First, he is an officer in the Army and must discharge his duty to the military establishment and devote himself primarily to the needs of the combat arms. For this reason he must often prevent the soldier who has broken under the strain of combat from going back into full service—frequently a great blow to the patient. Secondly, he is the therapist, anxious to see his patients improve and recover.

But the patients generally grasp the significance of this dual role very clearly, the report states.

*Science News Letter, May 15, 1943*

#### ENGINEERING

## Low-Cost Method Speeds Discovery of Defects

► EXAMINING light alloy castings by fluoroscopy saves time and expense. X-rays throw an image on a fluorescent screen but no photograph is taken just as many shoe stores do to fit your foot correctly.

British experience with the method and development by the Robert Mitchell Co. was reported by the firm's metallurgist, A. E. Cartwright of Montreal, Canada, to the American Foundrymen's Association meeting in St. Louis.

Although the new method is not as sensitive as the usual X-ray photograph procedure, it is practical for speedy, low-cost examination of the increasing war volume of many low-stressed aircraft and industrial castings.

*Science News Letter, May 15, 1943*

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