

MEDICINE

# Teaching War Deaf and Blind

Special centers are in operation to give soldiers training, together with treatment, which will aid them in getting along successfully despite their handicap.

By MARJORIE VAN DE WATER

► RETURNING soldiers who have been blinded by the flames and steel of war or deafened by its terrible din are going to school to learn how to be useful and happy despite their wounds.

The Army is operating several special centers located strategically over the country to provide the best possible medical and surgical care, combined with this instruction, for these specially wounded men. Plans are under way for research into the problems of deafness so as to provide for even better treatment.

This is how the system, already in smooth operation, works. When returning wounded men reach this country they go to a receiving hospital. There they are sorted out, according to the types of wounds. If a man has been wholly or partly deafened, regardless of

whether he has received other kinds of wounds or not, he is eligible to go to one of the three centers maintained for the deafened. He is usually sent to the one located nearest to his home and family.

The three centers for the deaf are at the Deshon General Hospital, Butler, Pa., Borden General Hospital, Chickasha, Okla., and Hoff General Hospital, Santa Barbara, Calif. Each one is equipped with sound-proof rooms and apparatus for recording speech and for the elaborate testing of hearing difficulties. Each has in attendance experts in hearing difficulties. At these centers, also, there is full provision for all the necessary medical and surgical care for restoring the soldier to complete health, aside from his hearing difficulties.

First, the soldier is tested. The experts learn not only the extent of his hearing deficiency, but also what sort

of deficiency it is—whether in one ear or both, what sound pitches are not heard, and so on. This is much more thorough than would be possible in an ordinary hospital. It is done with recordings of actual speech, as well as the usual audiometer tests. Next various hearing aids are tried. One after another is used and tested, until the experts are sure they have found just the one that will be of maximum assistance to that particular individual. Then the soldier is trained in the use of that hearing aid.

## Goes to School

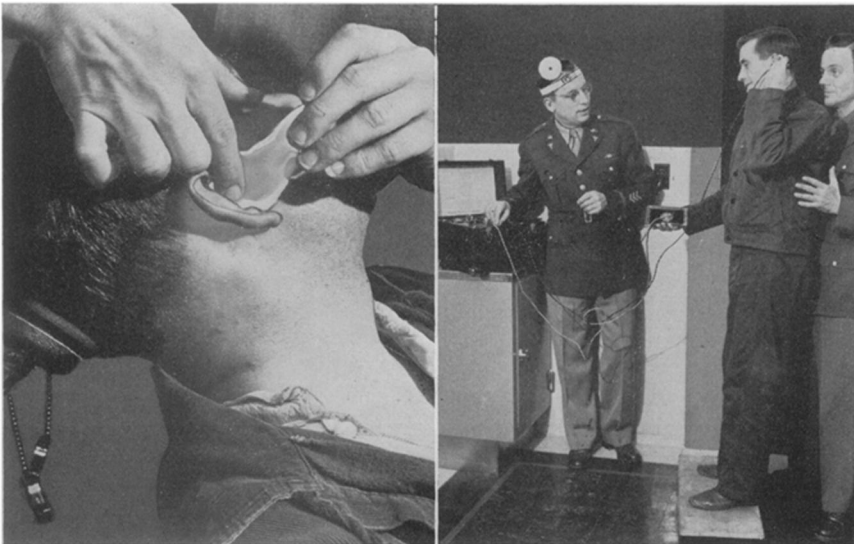
But in the meantime, the soldier goes to school. There he learns lip reading to help him get the most out of what hearing he has, to enable him to carry on conversation even though he may be totally deaf. Speech correction teachers also give him lessons so that he need never develop that flat or unmusical way of speaking so often characteristic of people who cannot hear themselves talk. He is given vocational guidance and training, if necessary, to help him find and fit himself for the kind of job in which his deafness will not be a handicap.

For the blinded, comparable facilities are set up. It is recognized that a blinded soldier is likely to be terribly depressed. He faces a personal tragedy rare among civilians. There are many blind persons among civilians, of course, but most of them either were blind from childhood and long accustomed to getting along without vision, or else lose their vision gradually in old age when it does not so completely and suddenly disrupt their lives.

## Begin Training Early

Because the emotional strain of loss of sight is so serious, Army physicians are particularly anxious to begin the special training of the blinded as soon as possible. Even before they reach the two centers set up for the blind, a representative of the center visits them in the receiving hospital. This representative is peculiarly qualified to advise and encourage the men. He is an officer who was himself blinded in combat and is a "graduate" of the Army special training.

The centers for the blind are at Val-



**FOR DEAF SOLDIERS**—The soldier on the left is having a cast of his ear made so that the hearing aid he is to use will fit exactly. Col. M. R. Mobley, chief of the Service for the Rehabilitation of the Deafened and Hard of Hearing at Deshon is shown on the right, using one of the testing machines. The soldier smiles because he knows deafness has not hurt his sense of balance. This was shown by the fact that he fell and was caught by the soldier standing ready. Had his balance mechanism been damaged, the electric test would have had no effect.

ley Forge General Hospital, Phoenixville, Pa., and Letterman General Hospital, San Francisco, Calif. At these centers, like those for the deafened, an expert staff is available for treating ordinary wounds as well as any sort of condition causing partial or total blindness. There are also teachers, some of whom are blind and some seeing persons.

Each blind soldier is provided with a Braille watch and cards so that he can play games. The blind teachers instruct him in how to do things for himself—how to part his own hair, how to find his way around, how to tie his necktie. They teach him how to use a cane, not by tapping it along like an old cripple, but as a swagger stick, and how to use it as a personal locator to locate obstacles by listening for the echoes. The teachers who see can offer critical suggestions—notice whether the soldier has gravy on his lapel and whether his tie is in the middle. They show him how to keep his carriage erect and soldierly, how to avoid the slouch that sometimes affects the man who never sees himself in a mirror.

Teachers in the Army Schools for the blind are enthusiastic about their work. It is heartening to see how the



**DEAF TEACH THE DEAF**—Besides instructing deafened soldiers at Deshon Hospital, Butler, Pa., to read lips, this instructor boosts their morale, for her own experience shows that deafness need not interfere with work.

men change in the few weeks they are there. They come in depressed, discouraged, feeling that life is all over for

them. They go out different men—are ready to face life. They have found out how to take care (Turn to next page)

# Every Tissue

in every organ requires proteins to maintain the integrity of its structure and its functions. Unless the RIGHT KIND of proteins is supplied in the daily diet, the organism draws upon its own substance, literally consumes itself.\* The proteins of meat are of the right kind, of highest biologic value, adequate for every requirement.

\*Samson Wright states "... it is impossible to maintain nitrogen equilibrium on diets which are deficient in the essential amino acids, no matter how much protein is consumed ..." (Applied Physiology, Seventh Edition, page 691; Oxford Univ. Press, New York 1941) ... According to Macleod the body, in the absence of an adequate amount of exogenous essential amino acids, may be compelled to break down a large quantity of tissue protein to obtain therefrom the contained small amount of a vitally needed amino acid (Macleod's Physiology in Modern Medicine, Ninth Edition, page 791; C. V. Mosby Co., St. Louis 1941).



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## Do You Know?

All of the well-known British fighting *planes* contain North American wood.

United States *railroads* rolled up about 85,000,000,000 passenger-miles in 1943.

The dried toothed *tongue* of the upper Amazon paiche, a large fish, is used as a grater in preparing foods.

California in 1942 had its largest *mineral* production since 1929; in value petroleum ranked first, cement second, gold third.

*Cattail floss* has many of the qualities of kapok and is useful in life belts and floats, heat and sound insulators, and as filling for cushions.

A pastry *flour* now used in Switzerland contains 50% dried fruit, the rest being wheat flour, fruit and other sugars, nuts and skim milk.

*Nail-making* in colonial days was largely a home industry; farmers and families hammered out nails as a profitable way to spend long winter evenings.

Iron and copper, which build up the hemoglobin content of the *blood* and prevent or remedy nutritional anemia, are easily obtained from eating most fish.

Common *milkweed* plants, long regarded as a farm weed pest, are now furnishing floss for lifebelts, marine mattresses, and for heat and sound insulation.

The President of Brazil recently presented the United States armed forces with 400,000 bags of *coffee* valued at \$5,000,000 as a gift from the people of Brazil, a token of good-will.

*Coal* supplies 55% of all United States mechanical energy, powers 95% of railroad locomotives, generates 55% of the electricity, heats four out of every seven homes, and is essential in the making of all steel.

The *artificial drying* of grass by electricity, instead of by usual hay curing methods, is said to be a growing practice; the grass is cut earlier than when cut for hay because then the proteins and other nutritive values are higher.

## From Page 107

of themselves, how to make a living, how to write letters by using touch type-writing, how to sign their names to checks and letters.

Fortunately a number of the soldiers coming to the vision center for training want to work on a farm when they leave the Army. It is easy, officials have found, to train sightless men to take care of a farm. And chicken raising is the easiest job to teach a blind man to do. They are not taught the traditional jobs for the blind such as chair caning. They learn to make their way in the regular workaday world.

Any deaf or blind soldier may go to one of these special centers. Those becoming deaf or blind in the United States may be sent by any of the general hospitals to one of the centers.

Any soldier who is deafened or blinded may request physicians at his hos-

pital to send him to the special center. He doesn't have to wait for his other wounds to heal; those can receive expert care at the center, too. If he needs a hearing aid, the physicians at the hospital are required to comply with such a request. Or the soldier may write to the Surgeon General's office in Washington, D. C., and officials there will help him to get to the center for treatment and training.

So far, officials do not know how great the proportion of hearing and vision injuries will be. It is undoubtedly true that block buster bombs, dive bombers and all the other noise makers of this war are increasing the number of hearing injuries. Blindness cases are also increasing. But how this number compares with all the other types of injury encountered in combat is not yet known. The ratio does not seem to be at all alarming, but it is large enough to warrant this special care.

*Science News Letter, February 12, 1944*

### MEDICINE

## Penicillin Saves Life

**Little girl dying from gas gangrene, which persisted even after broken arm was amputated, has remarkable recovery after mold-chemical treatment.**

► THE MIRACULOUS recovery, thanks to penicillin, of a seven-year-old girl who was dying of gas gangrene is reported by Dr. W. B. McKnight, Dr. Richard D. Loewenberg and Dr. Virginia L. Wright, of Portola, Calif. (*Journal, American Medical Association*, Feb. 5)

Far from the battle fronts, where gas gangrene is an expected if dreaded complication of wounds, on the porch of her home in the High Sierra region of California, this little American girl was found lying with a broken left forearm. How the accident occurred is not known. She was taken immediately to a hospital where, in spite of treatment with sulfathiazole and injections of tetanus antitoxin, gas gangrene developed and her arm had to be amputated. Even then the gangrene continued to threaten her life.

"As a last resort penicillin was given after all hope had been abandoned for a recovery, which came like a miracle," her physicians report.

The penicillin in sufficient quantities to treat the patient successfully was obtained from Dr. Chester Keefer, in charge

of penicillin investigations for the National Research Council and the Office of Scientific Research and Development, who recommended that it be provided from a supply assigned to be used in clinical investigation.

At the time the little girl was treated, no trials of penicillin in human cases of gas gangrene had been reported, though laboratory tests had shown it extremely potent against this infection. Recent reports via England of experiences on the North African and Sicilian fronts indicated that it was successfully used on wounded men with gas gangrene.

The condition is comparatively rare in civilian life. Only one other case, a fatal railroad injury, has occurred in the High Sierra region in the last 10 years.

*Science News Letter, February 12, 1944*

### INVENTION

## Infra-Red Rays Bake Bread Better and Faster

► BETTER loaves in less time is the claim advanced on behalf of a novel bread-baking machine that uses infra-