

MEDICINE

# Play That Heals

**Making belts, bowls, and vases helps the war wounded recover. Intensive course has been set up to train occupational therapists.**

By **MARTHA G. MORROW**

► **THESE MEN** were not long ago slinging bazooka shells at Heinies. They are now using saws instead of machetes and making pocketbooks for the girl friend instead of booby traps for the Japs.

But these soldiers and sailors are still fighting this war, don't you forget it. They are fighting their way back to normal living in Army and Navy hospitals. Each activity is done on doctor's orders, just as much as swallowing the pills that he sometimes prescribes.

Handkerchief tricks, games of balancing sticks, making loosely-jointed toys dance, and even stretching a thick rubber band all help the men exercise stiff muscles as well as keeping amused both the player and the buddy in the next bed.

Men in one hospital are weaving rugs or printing a hospital newspaper because the muscles of their back, shoulder or hand have become stiff from injury or lack of use. In other hospitals soldiers and sailors will be found making men's belts or printing record cards, not so much because of physical injuries, but because they cracked under the strain of war and need something to arouse their interest and ambition.

Occupational therapy is taking a prominent part in the great program of reconditioning and rehabilitation which the Army and Navy have undertaken so that wounded men can be returned to active duty or civilian life in the best possible condition. As in the best schools of education, so reeducation for servicemen is often fun.

## Learning To Do Without

Simple games, such as chess, and ping pong, when played with an understanding partner, teach a man to do things for himself now that a hook or artificial leg is pinch-hitting for his arm or leg lost in combat. Learning to tie a shoe string or type on a typewriter helps a blinded serviceman learn to adjust himself to a world without light.

Book-ends can be made from soft wood, billfolds from pliable leather, and vases molded from oozy clay—the men

can choose so long as the work fills the doctor's prescription. Your friend with the injured arm, for instance, can probably take his choice between the loom and the printing press.

But just in case it hurts him to raise his arm as high as he should and he plans to "cheat" a little, a board placed across the loom forces him to reach above it to complete the pattern he is weaving. A table elevated to shoulder level makes another patient exercise his back and shoulder while making that what-not for the breakfast nook back home.

A man who has had a shell fragment wound in his forearm, damaging the nerves, muscles and tendons controlling his hand, will often find after the wound has healed that the hand is stiff and almost useless. Directed exercise, gradually increasing in strenuousness, may restore its strength and mobility. The doctor therefore writes a prescription specifying the type of injury and muscles which should be treated.

The serviceman may find an interest in clay modeling, the soft material offering the light exertion good for his weakened fingers in the early stages of reconditioning. Or he may want to build a telegraph set of his own, later sending messages on his own machine. If knotting strong thread is more to his liking, belts and suspenders which he can wear or send as gifts will keep him mentally alert as well as exercise his weakened hand and wrist.

As his hands get stronger and he can begin to close them, woodworking and carpentry may attract the serviceman's attention. Tools equipped with built-up handles, large enough to fit the half-closed hand, are furnished him at first. As he works, he becomes able to close his hand more and more until he can use regular tools and finally recovers the power to grasp any object.

Early use is made of occupational therapy so that bed patients may regain the use of injured parts. Work tables have been devised so that men can carve book ends and fancy boxes while still in bed, and miniature looms permit them to weave almost as soon as they are able to sit up.



**GOOD EXERCISE**—The partially paralyzed nerves which innervate the muscles of this soldier's hand and wrist are used in weaving a man's belt. Photographs by Fremont Davis, Science Service staff photographer.

The bicycle jigsaw to restore motion to injured legs, and jobs requiring such heavy equipment as metal work and printing, must wait until the patient is able to be up and around.

Although the teaching of major skills to the patients is not a major objective, frequently the men discover through their work abilities and talents which they never dreamed they possessed. Many hobbies have been developed and new lines of work first begun in this way.

### Outgrowth of Last War

Occupational therapy is an outgrowth of the last war. From his post in France, General Pershing requested 200 "reconstruction aids" to keep the minds of the patients off their illnesses. After a short 12-week course in crafts and diversional type recreational work, these aids were assigned to Army hospitals.

Today more comprehensive courses are offered, accredited schools giving a three to five-year course to girls interested in doing things with their hands and having a real desire to help persons suffering from physical or mental illness.

In both the Army and Navy, occupational therapy is one phase of the reconditioning and rehabilitation program. Occupational therapists serve the Army as civilians; in the Navy they are commissioned in the WAVES. Because there is a shortage of trained personnel, accelerated programs have been instituted in both branches of the service.

Students from approved schools who have mastered the theory of occupational therapy may receive their clinical training as officers in Naval hospitals, reports Lt. (j. g.) Lois Brownell, occupational therapy adviser to the Medical Department. Enlisted men and women of the Navy Hospital Corps can qualify after a three-month hospital course in theory and practice as assistants to occupational therapy officers.

An intensive war emergency course has been authorized by the War Department under the Civil Service Commission, states Mrs. Winifred Kahmann, chief of the Occupational Therapy branch of the Army. The course offers college graduates with special qualifications four months of medical subjects and theory of occupational therapy, followed by eight months of clinical practice in an Army hospital, all at government expense.

Tact, initiative, interest in medical studies and an adaptable personality are all needed for a person to be successful in this line of work. With all the resources of the hospital at his disposal as well as



**ARM USEFUL AGAIN**—Printing signs and record cards on the printing press at Walter Reed General Hospital aids the soldier to regain the use of his arm and fingers, a bullet having shattered the bone from his left elbow to wrist.

a well-equipped therapy shop, it is up to the occupational therapist to devise ways of getting the patient to fill the

doctor's prescription while doing something that holds his interest.

*Science News Letter, April 7, 1945*

### RESEARCH

## Researches Summarized

➤ RESEARCHES on a hundred far-flung fronts, with quicker victory and pleasanter peacetime life as twin goals, are summarized in the annual report of the Mellon Institute, handed to his board of trustees by Director E. R. Weidlein. The Institute's hundred-fold scientific activity is no mere figure of speech: to be quite exact, 101 research tasks are on the schedule; 94 of them actively pursued during the fiscal year just closed, and seven that have had to be suspended for the duration.

Direct contributions to the war effort, in addition to the researches on shells and rockets, include some exciting new synthetic lubricants, on which some details have to be withheld for security reasons. One of them seems to be a member of the group known as the silicones, that, like oils, are organic compounds containing carbon, but differ in that silicon atoms are substituted for part of the carbon atoms. Other synthetic lubricants are

more conventional in their makeup, but are unusual in that they do not become too "thick" in high-altitude cold or too "thin" in tropic heat, so that they can be used in such critical mechanisms as aviation gauges and flyers' wrist watches.

Other new things, useful now for war and even more useful soon in peace, include magnesium alloys, a synthetic "sand" made of ethyl silicate for making molds for fine castings, an unusual plastic material known as vinyl-naphthalene, and new kinds of finely pulverized metal for use in powder metallurgy. The latter include manganese, steel and copper powders.

Research items of direct usefulness in the home include textiles with stress on the cost-of-living angle, other textiles with improved water-repellent properties, a new insecticide that may become a competitor for DDT in its deadliness to flies, and strained green soybeans for the baby.

*Science News Letter, April 7, 1945*