

Do You Know?

In Brazil raw *silk* production has reached 500,000 pounds a year.

Korea's real source of strength lies in her *water power* resources.

The average load of *freight* per train in 1943 was 1,116 tons, the highest on record.

Accident frequency rate of women automobile drivers exceeds that for men, but accident severity is lighter among women.

The giant *sequoias* of the High Sierra do not ordinarily produce many seeds until they are several hundred years old.

Air pressure eight miles above the earth is but two pounds per square inch while at sea level it is 14.7 pounds per square inch.

The European *corn borer* caused a loss of over \$33,000,000 to the 1943 corn crop in northeastern United States alone.

Only the United States and the Soviet Union have more *coniferous trees*—pine, spruce, hemlock, balsam—than has Canada.

Despite a record slaughter of *meat animals* in 1943, the number of livestock on farms increased again during that year.

Scarcity of fishermen in Chesapeake Bay is permitting about twice as many *shad* as usual to escape fishermen's nets to spawn in the rivers and upper sections of the Bay.

Although milk and cheese, top providers of essential *calcium*, may be scarce, adequate quantities of this mineral may be derived from loose-leaved varieties of green cabbage and green lettuce, mustard and turnip greens, broccoli and kale.

The average production of the 26,000,000 American dairy cows is about 4,700 pounds of *milk* per cow a year; that of 800,000 cows under the Dairy Herd Improvement Association, 8,000 pounds; the world's record for one cow is 41,943 pounds.

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common battle casualty in the First World War. In this war, surprisingly, it is notable for its rarity.

Normal men very seldom if ever develop a true mental disease—a psychosis—during combat. But unstable persons, susceptible to mental illness, may have the illness brought on by the stress of battle. It happens. But it does not happen often. Men reaching combat are, in general, very sound, strong individuals. They are not likely to be victims of the mental diseases such as schizophrenia or manic-depressive psychosis which are the most common illnesses seen in mental hospitals.

Two other types of mental defect are not so much brought on, as brought to light, by combat. These are mental deficiency—subnormal intelligence—and the kind of personality defect known to medical men as psychopathic personality. The psychopathic personality is the kind of person who, in civilian life, is the typical four-flusher, the check-passer, the bluffer and sponger, the man who is simply constitutionally unable to be four-square. This sort of person cannot stand combat; his bluff is called there.

The fifth type of mental battle casualty is blast concussion. When a bomb bursts near a man, the force of the ex-

plosion may do severe damage to the tissues of his body. He may bleed inwardly, and may have hemorrhage of the brain. The mental effect is just about the same as though he were hit a terrific blow over the head. He is knocked out. He may be unconscious or dazed for a long time afterward.

Such blast concussion cases, all the psychoses and organic mental disease cases along with all severe cases of mental deficiency and psychopathic personality are immediately evacuated from the front-line area.

All but the most severe of the anxiety type psychoneurosis cases are kept and restored, if possible, without delay to active duty.

I have asked military physicians whether these men with mental battle injuries might be mistaken for malingerers—whether it is ever hard to be sure they are not “putting on” because they find combat too tough for them. The answer is no. No one who has seen these men coming from the front lines could fail to realize their suffering is real. The soldiers they fight with recognize their illness as genuine, and many a man has left his foxhole at grave risk of his own life to bring in a mentally wounded man who has become unable to seek cover without aid.

Science News Letter, June 17, 1944

GENERAL SCIENCE

Post-War Organization

Thorough cooperation between the sciences and professions of all nations urged as one of first considerations after victory.

Need for thorough cooperation between the sciences and professions of all nations after the war was voiced by Morris S. Rosenthal, vice-president of the National Council of Importers and former assistant director of the Board of Economic Warfare, at the National Wartime Conference in New York.

“There must be a basic international organization to deal with the broad political and economic problems essential to the maintenance of world peace. . . . Subsidiary to this parent international organization, organizations should be established to formulate collaborative programs in the fields of science,” Mr. Rosenthal declared.

An international educational program with a permanent working staff should be created, the speaker advocated. The

major function of this program would be to educate all countries of the world about the people of other countries. A secondary function would be to set up international exchanges of students and teachers, and arrange for high school and college students to take vacation trips in countries other than their own, accompanied by their teachers.

Mr. Rosenthal also proposed an international medical society for the rapid dissemination of information about new medical discoveries so that they may become quickly available to doctors in all parts of the world. This organization would also assist nations with poor medical organizations in building up their facilities for taking care of the sick.

In the field of patents, Mr. Rosenthal suggested an international patent organi-

zation, to distribute information about patents granted in all countries and facilitate the use of patents in all parts of the world. Patents granted in any one country would be subject to license and royalty in all countries wishing to use the patents industrially or commercially. Patents would be available to all producers in all countries of the world at

the same fee or royalty, without restriction as to markets or the fixing of prices, or quotas of production.

"This would assure all nations of the world the maximum use of new scientific discoveries and also maintain the system of free enterprise. Inventors would be rewarded through a fair license fee or royalty," Mr. Rosenthal concluded.

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PSYCHOLOGY

Advice for War Hostesses

Mrs. Roosevelt gives hints to government girls on how to meet and talk with men returning from the fighting in Europe.

► HINTS on how to meet and talk with soldiers who come back from the European invasion, wounded in mind or in body, were given by Mrs. Franklin D. Roosevelt, herself a mother of service men, to a group of Washington, D. C., Government employees, the PAW-ETS.

PAW-ETS means Petroleum Administration for War Entertainers to Service Men. The girls who belong to this group are giving parties at local hospitals for service men.

"If you are going to talk to the soldiers coming back, you should have at least a bowing acquaintance with the questions they are going to ask," Mrs. Roosevelt told the girls. "Suppose he asks you whether he is going to be able to drive a car or 'Can I ever fly again?'"

"You won't know, but you had better know about a lot of people who have done things with handicaps."

Stories of actual accomplishments of men who have lost a leg or an arm or who are otherwise handicapped may serve as encouragement to the wounded man who has yet to find out what he will be able to do.

This is especially important with enlisted men, Mrs. Roosevelt believes from her experience in talking to soldiers in hospitals, reconditioning centers and elsewhere around the world. Enlisted men seem to find it much harder than do officers to get started doing things. They are more apathetic.

A feeling of bitterness and doubt that their sacrifices are worthwhile is something you may encounter in returning service men, Mrs. Roosevelt said, although she explained that you will see almost as many different attitudes as there are men returning.

Mrs. Roosevelt's address followed a

session in which the modern mind-healing technique of psychodrama is being adapted for the training of these girls for the job of hostess to the service men. In psychodrama, the actors and actresses go onto a stage and with absolutely no previous rehearsal act out a situation prescribed by the director. The situations are all real life scenes and so, in this case, it is the drama which is the rehearsal for what may follow in life.

Sailors, guests of the PAW-ETS, played the part of wounded veterans as one of the girls would go up on the stage to try to cheer him up or listen attentively to his gloomings or gripings.

After each scene, both hostesses and service men joined in criticism of the way in which the particular situation

was handled by the girls in training.

Director of the psychodramatic training sessions is Dr. Bruno Solby, medical officer of the U. S. Public Health Service.

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ENGINEERING

Glass Fiber Sheets Used For Insulating Aircraft

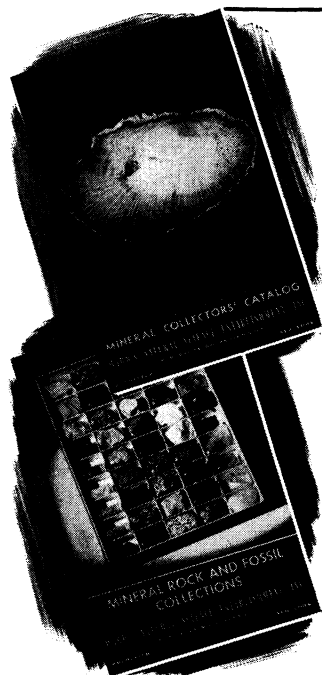
► SHEETS of glass fibers, the lightest inorganic material commercially available for sound-proofing and insulating aircraft, are being used in the flight decks and cabin walls of many types of U. S. Army planes to provide protection against the extreme cold of stratosphere flying, and to deaden fatigue-causing sound. They gain less than 1% of their own weight from moisture in the air. Organic material, frequently used, may pick up 40% of its own weight in moisture.

The glass fiber sheets, weighing only one-twentieth of a pound per square foot, are made up of millions of tiny glass fibers, bound with a thermosetting resin and formed into sheets one-half inch thick.

With planes operating at altitudes where temperatures of 60 degrees below zero Fahrenheit are commonly encountered, insulation is necessary to reduce the burden on heating equipment.

These fibrous glass sheets are being manufactured for war uses only, by the Owens-Corning Fiberglas Corporation.

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