

## NUTRITION

## Workers on Odd Shifts Do Not Get Proper Food

➤ HALF to three-fourths of the workers on swing or graveyard shifts fail to get proper food. This is the report of Mrs. Gladys Engel-Frisch to the National Research Council's Committee on Food Habits (*American Sociological Review*, August). And this "odd shift" worker, she says, is the typical worker of today.

The reason for the poor food habits of these two shifts, the 3 p.m. to 12 and the 12 to 6:30 a.m., is in the attempt of the workers to retain their familiar daily routine of living. Lack of proper facilities for food and recreation during these hours destroys this possibility.

Remedies suggested by Mrs. Engel-Frisch are: education in nutrition for boarding-house keepers and heads of families, adequate cafeteria service at all hours, sale of well-balanced lunches, extension of lunch periods from the usual 15 minutes to 30, housing of workers on odd shifts away from those on the day shift, and cooperation between agencies interested in recreation and food habits. The net result would be better health for the worker and increased production.

*Science News Letter, July 31, 1943*

## MEDICINE

## Tannic Acid Out for OCD Burn Treatment

➤ FIRST AIDERS take note: The Office of Civilian Defense has just issued important new recommendations for the first aid treatment of burns and wounds. The American Red Cross, it is understood, will probably issue similar new directions on burn treatment.

For burns, the advice is to use sterile boric acid ointment or petrolatum (sterile vaseline), instead of the previously recommended tannic acid jellies and ointments. This follows recommendations of the division of medical sciences of the National Research Council for the armed forces. The most serious objection to tannic acid is that it almost immediately forms a scab or hard coating over a deep burn. This seals in the germs, dirt and other contamination which usually get into serious burns. Infection may result.

For wounds, the new recommendations advise more cautious use of the sulfa drugs in civilian casualties. Civilian injured, it is pointed out, are likely to include persons of all ages and states of health, whereas the military wounded

are in a select group of healthy young men. The danger of poisonous effects from sulfa drug treatment is therefore greater among the civilian injured.

First aiders are further cautioned against the use of sulfa drugs for civilian wounded with the reminder that, unlike the war wounded, the civilians can usually be under treatment in a hospital within a short time. Once in the hospital, the sulfa drugs can be used under medical supervision with proper precautions.

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## PSYCHOLOGY

## "Tracer Cutback" Is Due To an Optical Illusion

➤ "TRACER CUTBACK," which plagues inexperienced gunners and may seriously reduce the accuracy of fire, is probably chiefly due to optical illusion of movement, Dr. C. H. Graham, of Brown University, reports to the Federation of American Societies for Experimental Biology.

"When an antiaircraft machine gunner fires at a moving airplane," Dr. Graham explains, "his tracer stream seems to bend more and more as it gets closer and closer to the plane. In effect, it develops a 'shoulder' away from the plane or a 'hook' toward the plane.

"There is some physical basis for this marked effect, since it can be shown that the apparent tracer stream lies along a slight curve. However, the curved appearance is greatly exaggerated and cannot be accounted for on a strictly physical basis. It is probable that movement effects provide the illusory accentuation of path curvature."

Dr. Graham gave examples of illusion of motion more familiar to most civilians, such as motion pictures and certain types of "animated" signs. If light from one bulb in the sign goes on and off rapidly and is followed within a short period of time by light in another, the observer sees movement from the first bulb to the second.

"We have no special sense for perceiving speed and distance," Dr. Graham stated. "Instead we must use our eyes and muscles in an appropriate way and learn to put together the messages which result from this behavior.

"This skill is unconsciously developed in different degrees by different individuals. It is so specific that a person who is good at following a moving target may be poor at estimating the speed of his own vehicle."

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# IN SCIEN

## BOTANY

## Look for Wild Flower in London's Bomb-Scarred Soil

➤ BOTANISTS in London are watching areas of bomb-scarred and fire scorched soil in the city, to see if perchance the famous London rocket, a two-foot plant with whitish, four-petaled flowers, may make its first appearance in something over 270 years. This wild plant sprang up abundantly in the ruins after the Great Fire of 1666, which devastated the city when it was much smaller than it is now. (*Britain*, July).

Expectations that it may reappear are based on the fact that already nearly 100 species of plants strange to the city have sprung up in bombed and burned areas, where the chemical properties of the soil have been changed in ways that permit them to grow.

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## RESOURCES

## Food Scarcity Problem May Be Solved By Dams

➤ MORE FOOD and cheaper products of electrochemistry would be the twin results of an expanded irrigation system, Dr. Colin G. Fink of Columbia University pointed out in predicting continued growth of the electrochemical industry after the war.

The industry has already increased tenfold during the past three years. A continued upward trend is foreseen through peacetime demand for many war-borne products and for the new products and processes to come.

Pointing out that thousands of acres in the Midwest are barren due to insufficient rain, Dr. Fink urged that they be rescued by irrigation to meet the increasingly urgent need for more grain and more livestock.

"More irrigation means more hydro-power and more hydropower means cheaper electrochemical products," Dr. Fink explained.

Huge dams built during recent years have put vast blocks of power on the market which have been completely absorbed by the electrochemical industry. Today there is a persistent clamor for more and more power.

*Science News Letter, July 31, 1943*

# CE FIELDS

## AGRICULTURE

### New Potato Variety Launched By Government

➤ A FINE new potato variety named Mohawk has just made its bow to the public under the auspices of the U. S. Department of Agriculture. Seed stock for professional growers will be available by next spring, and consumers should be able to find them in the market when the 1945 new-potato crop comes in.

The Mohawk is described as long and smooth, without deep eyes, and excellent for baking. From the grower's angle, it presents the advantages of having good resistance to a number of troublesome diseases, and of producing high yields of uniformly sized and shaped tubers.

The new variety was originated in Maine in 1935, as a cross between two already highly valued varieties, Green Mountain and Katahdin. For the past eight years it has remained under the near-anonymity of the designation "U.S. D.A. Seedling No. 46,000," while necessary test growings were being conducted.

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## GENERAL SCIENCE

### Deferred College Students Get 24 Months for Training

➤ COLLEGE STUDENTS, deferred for professional training, now have 24 months after they are called in the draft in which to complete training, under a new ruling of the Selective Service System.

In a telegram to all State Directors, Maj. Gen. Lewis B. Hershey announced this new two-year training period as a substitute for the specific date of July 1, 1945.

Pre-professional students affected by the ruling include those in the fields of medicine, dentistry, veterinary medicine, osteopathy and theology.

Students of forestry, pharmacy, optometry and agricultural science, formerly given only limited deferments, are now to be included in this 24-month policy. Institutions of this type are not to admit a freshman class of more than 150% of their average number of graduates for the years of 1939-40, 1940-41, 1941-42.

Agricultural engineering students are

a new group to be considered by draft boards for deferment, but there will no longer be deferments for heating, ventilating, refrigerating, air conditioning, safety and transportation engineers.

The American Council on Education emphasizes that there is a definite war need for students in these all-important fields but that professional institutions should make a special effort to obtain women or physically disqualified males.

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## OCEANOGRAPHY

### Nature Kind to Our Troops Landing on Sicilian Coast

➤ ALLIED TROOPS swarming ashore on Sicily's beaches had "Eisenhower luck" in not encountering a peculiar local sea-level disturbance that might have caused trouble. Although the Mediterranean is a virtually tideless sea, there is a curious up-and-down fluctuation, known as the "marrobia," that occurs along Sicily's south and west shores at irregular intervals. Without warning, the sea may rise or fall as much as three feet, within one or two minutes. This may stop with one occurrence, or it may keep it up every few minutes for a whole day. The cause is unknown.

Obviously, such a disturbance might have made trouble had it occurred while the first landings were taking place. Now that our forces have secured several good harbors, it makes less difference if the marrobia occurs.

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## ENTOMOLOGY

### Insect Foes Increase In Many U. S. Areas

➤ AN INCREASE in the number of insect pests and in damage done by them is revealed in reports from many states to the U. S. Department of Agriculture. No state is ever left untouched by these pests. But the reports show that central Kansas is hard hit by Hessian flies.

Bean leaf beetles have caused unusual damage in territories covering Maryland, south to Georgia and west to Missouri.

The bronzed birch borer is destroying from 10% to 60% of the mature yellow birch in northern and eastern Maine.

These reports are a reminder that world conflict shouldn't make us weaken defenses against these six-legged fifth columnists. As yet we have not discovered any completely successful means of controlling these adaptable pests, who destroy much of our needed food supply.

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## ASTRONOMY

### Amateur or Layman Eligible For New Astronomy Medal

➤ A MEDAL has just been established for an amateur astronomer or layman performing an outstanding service to the cause of astronomy. This award is believed to be the first of its kind established in this country by a purely amateur astronomical society.

The Amateur Astronomers Medal was established by the Amateur Astronomers Association of New York City, with headquarters at the Hayden Planetarium of the American Museum of Natural History. To be given from time to time to an amateur astronomer or layman anywhere in the world, it was established to help bridge the gap between the professional astronomer and the layman, and also to commemorate the quadricentennial of the death of Copernicus.

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## MEDICINE

### Twentieth Case Reported Of Milkman's Syndrome

➤ THE TWENTIETH case of a rare disease called Milkman's syndrome is reported by Dr. Louis Edeiken and Dr. Norman G. Schneeberg, of Philadelphia, (*Journal, American Medical Association, July 24*).

In spite of its name, the disease has nothing to do with dairies. Broken bones, not bottles, are the chief feature. The name comes from Dr. L. A. Milkman of Soranton, Pa., who first described it in 1930.

Patients with this strange ailment suffer pain and weakness of the legs, difficulty in getting up when they have been sitting or lying, and develop a peculiar waddling gait. Eventually they are unable to walk at all. X-ray pictures show many transparent bands or zones in the bones in various parts of the skeleton. Often these are symmetrically located. They are generally considered to be fractures of the bones.

No definite cause for the condition has been discovered as yet. In the case reported by the Philadelphia doctors, large daily doses of vitamin D and calcium lactate given for 25 weeks brought a weight gain of 19 pounds, banished the pain and enabled the patient to walk and earn her living, though she still has "her bizarre duck waddle gait." X-ray pictures showed excellent healing of all the apparent breaks in her bones and no signs of new breaks.

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