

Do You Know?

Paper napkins and handkerchiefs are now unobtainable in England.

Insects cause an annual loss of about 10% of all food and fiber crops.

Victory Gardeners should order seed early, the Department of Agriculture advises.

One successful Army *tank engine* is composed of five automobile motors linked to a central crankshaft.

In three years of war, more than 5,000 merchant *ships* and 4,000 naval ships have been repaired and put back in service by Canadian shipyards.

Nearly one-quarter of *China*, land which once grew crops and great forests, is now a desert of bare hills without enough soil to support the growth of the toughest weeds.

In 1940 and 1941 approximately 15,000,000 *rubber* trees were planted in Latin America; the Army furnished bombers to carry rubber tree seeds from Liberia and Brazil to various distribution points.

Tin is used in every war machine on land or sea or in the air; a battleship has 76 tons of it; bomb sights, gas masks and radio equipment contain tin; it is used almost exclusively in combination with other metals.

The cost of *rearing a child* from birth to 18 years of age is approximately \$7,500 in American families with an average income of \$2,500 a year; deducting cost of being born, the expenditure is about \$400 a year.

Rock bursts in mines, which cause injuries and death to many miners, may be predicted by a new electrical instrument sunk 30 feet in the rock; noises inaudible to the human ear that precede breaking are recorded.

Known reserves of domestic *bauxite* of all grades have been increased by several million tons, and those of alumina-bearing clays by more than 100,000,000 tons, through the intensive exploratory program of the United States government.

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kind of machine-made netting used by shrimp fishermen. It is cheap, light, very tough and durable, and can be taken down and used repeatedly.

The materials fastened to the net, whether native foliage or "issue stuff," are all collectively known as "garnish" by workers in the camouflage business. During World War I days, camouflage nets were usually garnished with strips of dyed burlap woven into them or with bunches of raffia tied onto the wires. Both these materials are scarce in the present war, so that other things are being tried out, for use when native materials are unobtainable or for some reason inadvisable.

Substituting for burlap is the coarse cotton fabric known as Osnaburg. This stuff got its name from the Swiss monastery where it was first woven. Little did the peaceful monks imagine where their rough, unluxurious but strong and durable cloth would wind up! Osnaburg does make very good garnish, it is reported.

Of course, camouflage is not utterly impenetrable. Little mistakes may be made, edged shadows permitted to fall, fresh cuts left visible on tree stumps—any one of a thousand clues that an alert enemy might read. So the camoufleurs, when they have time, build extra camouflage installations, which they expect the enemy to see and perhaps to attack. The more bombs and bullets he spends on these ghost positions, the fewer he'll have for the real ones.

Science News Letter, February 5, 1944

PSYCHOLOGY

Psychologists To Unite

► IN TUNE with modern trends of rationing and restrictions, a movement is now on foot to combine the nine leading national psychological associations and groups of psychologists into just one large national association.

Details of the merger are being worked out by a committee appointed by representatives of all the present organizations.

Final action ratifying the new constitution is expected on the part of the two largest organizations, the American Psychological Association and the American Association for Applied Psychology, in September. Difficulties may arise due to the fact that the annual business meet-



SPIDER HOLE—If you were a soldier in the peaceful field shown in the top picture and saw no sign of the enemy, you might be very close indeed to death. Look at the bottom picture to see where a sniper might be hidden.

ings of these organizations were canceled last year due to war-caused transportation difficulties. It is not now known whether a meeting will be held for this purpose, whether action will be taken by the administrative councils of the organizations, or whether members will be asked to vote by mail.

The new organization, which will also be called the American Psychological Association, will have, it is planned, a number of divisions, each with its own chairman, secretary and other officers. The divisions will sponsor programs, the annual meetings and may also publish journals. Any member may belong to one or more divisions.

Government of the new association will be by a Council of Representatives to be elected by the various divisions and regions and by certain unorganized groups. The Council will meet annually and elect a Board of Directors and several other boards and committees to do the work of the association.

It is anticipated that 4,000 psychologists will be members of the new association. Organizations who appointed representatives to plan the merger in-

clude: American Psychological Association, American Association for Applied Psychology, Society of Experimental Psychologists, Society for the Psychological Study of Social Issues, Psychometric Society, National Institute of Psychology, National Council of Women Psychologists, Department of Psychology, American Teachers Association, and Section I, American Association for the Advancement of Science.

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PHOTOGRAPHY

War Photo-Mapping

Aerial photography contributes materially to the success of military and naval operations. Many glaring errors in maps found by photogrammetry.

➤ AERIAL photography is contributing materially to the success of U. S. military and naval operations. But in photo-mapping there is always a feeling of pressure, as no map is ever completed as early as might be desired, Lt. Col. E. E. Pollock, U.S.M.C., told members of the American Society of Photogrammetry meeting in Washington.

On one occasion U. S. ships were to enter a little-known body of water, he related. Aircraft were sent to photograph the water area between two large islands. After the film had been developed and the pictures fitted together, these prints revealed the existence and location of submerged reefs. That same night a naval battle was fought in this very body of water, he said.

Practically all mapping done in the South Pacific theater since we entered the war, Colonel Pollock pointed out, has been in order to bring up to date charts based on surveys made in the 1870's and 1880's. Many glaring errors were found and corrected in these charts.

"At one point the map measurement

of the width of the island was 14.2 miles, whereas a check by photogrammetric methods revealed the width to be 21.1 miles," he stated, referring to Santa Isabel Island.

Mapping crews are frequently attacked by Japanese aircraft or are the object of enemy fire, Colonel Pollock stated, as well as confronted by navigation problems over jungle-covered islands where each hill or shoreline looks alarmingly like the next.

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Pilots Expected to Run

➤ "THE JOB of the mapping and photographic pilot is a tough one," Col. James G. Hall, U.S.A.A.F., told members of the society. "They are the only individualists left in aerial warfare, and they are the only pilots for whom it is both a duty and an honor to run from the enemy."

The success or failure of a task force operation or an entire campaign may depend on photographic reconnaissance, Colonel Hall stated. At one stage in the battle of Tunisia, the artillery preferred to fire from interpreted photographs rather than from maps.

The accuracy of fire from these photographs was so great that in many cases the enemy guns received a direct hit and some thought a new kind of secret weapon was being used. German and Italian prisoners said no one could understand how their positions were discovered since they had been moved only a few days before the attack.

Science News Letter, February 5, 1944

ASTRONOMY

Sunspot's Appearance Ends 28-Day No-Spot Period

➤ THE APPEARANCE of a small sunspot on Saturday, Jan. 22, marked the end of the longest period without a sunspot of appreciable size since the early 1930's.

The sun's surface had been unmarred by any identified spots since Dec. 25. A few faint markings were discovered on plates made at the Mount Wilson Observatory Jan. 19 and 20, but were not found on plates made at the U.S. Naval Observatory. Thus 28 days had elapsed since the last sizable sunspot was visible.

Science News Letter, February 5, 1944

GEOLOGY

Award Given for Work On Aerial Mapping System

➤ THE TRI-METROGON system of aerial photography being used to make our fighting forces' war maps got a new citation when Lt. Col. Gerald Fitzgerald, chief of the aeronautical chart division of the Army Air Forces, received, at the Washington meeting of the American

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