

WELL WRAPPED—The food and equipment sent our troops must withstand all kinds of treatment. These provisions for Allied forces are shown being landed on the drab shores of the western Aleutians, in this U. S. Navy photograph.

which the Quartermaster has specified because it guarantees that the meal will be in good condition whether the soldier opens it in a steaming South Pacific jungle, in the baking heat of North Africa, or in the sub-zero cold of Arctic regions.

Wax paper replaces the aluminum foil around chewing gum and cigarets, thus releasing the metal for more direct use in war industries.

Open-Mesh Bags

When the supply of boxes and crates runs out, fruit and vegetable shippers use an open-mesh bag, made from strips of tough paper spun into yarn and woven into open-mesh cloth. They are made in various colors to contrast or harmonize with the contents. Because of their low cost, space and weight saving, and ease in filling and closing, they are likely to persist after the war as improvements instead of substitutes.

One of the biggest problems has been to design a method of packaging that would withstand sudden extremes of temperature. A plane, for example, is loaded in a tropical jungle. It flies at high altitudes where the temperature is frequently 60 degrees below zero; it lands on another steaming jungle airstrip. To lick this air transport problem, Army Ordnance provides a type of container

that expands and contracts without breaking the outer protective seal and covering.

The problem of breakage is solved by balanced rather than rigid packing. Heavy equipment is suspended by supports in specially constructed boxes. Like yolk in eggs, it remains balanced even when tossed around.

Today, gelatine capsules provide the gay colored camouflage for vitamin pills. Tomorrow, with stiff necks and screw tops, they will package a day's supply of shaving cream or perfume. Flavoring extract, and cigaret lighter fluid in individual containers will be the peacetime versions of the gelatine capsules now substituting for metal and plastic tubes in the soldiers' kits.

Automatic filling, uniform dosage, low-cost, high-speed production, long-term protection and sanitation are the obvious advantages of capsule packaging. We may look forward to having these gay capsules, containing just enough toothpaste or cold cream for our weekend visit, become a standard part of our peacetime traveling equipment.

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The Oranje mountains in New Guinea have many snow-capped peaks, although they are very close to the equator; they are over 15,000 feet high.

CHEMISTRY

Unusual Body Chemical Acts as Storage Depot

➤ AN UNUSUAL body chemical with the specific job of acting as storage depot for iron for the blood was announced by Dr. Leonor Michaelis and Dr. S. Granick, of the Rockefeller Institute for Medical Research, at the meeting of the American Chemical Society in New York.

The chemical is a protein called apoferritin. When it contains iron, it is called ferritin. Neither ferritin nor apoferritin is found in the blood, but ferritin is found in many organs of the body. The ferritin of one animal species is not quite identical with that of another, but within one animal species, it is the same whether derived from liver, spleen, bone marrow or blood.

Apoferritin is a novel type of protein, differing from all other protein compounds of the organism. The iron it stores is rather special, too, in that its magnetic property or susceptibility is of a magnitude not found in any other of the normally occurring iron compounds of the living organism and extremely rarely in iron compounds in general.

The role of apoferritin, the scientists reported, is to store the iron from food or from blood cells used up by age and decay and to make the iron available for manufacture of fresh hemoglobin. Hemoglobin is the red coloring matter of the blood which has the vital role of carrying oxygen throughout the body.

"Why a particular, specific protein is needed to accumulate iron for storage remains a puzzling problem," the scientists stated. "In any case the iron of ferritin accounts nearly quantitatively for all of the iron of the organism which is not a blood pigment or a derivative of such."

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