TIED UP—Soldiers who become sailors and stevedores at the Army's Port Battalion Training School at Charleston, S. C., learn to tie knots by risking their limbs on ropes they lash together on 20-foot towers. The men belong to units of the Army Transportation Corps, which mans invasion barges and cargo carrying boats, and loads and unloads the Army's supplies and men at ports in theaters of operations. Official U. S. Signal Corps photograph.

though also necessary, do not in themselves make good the lack. To carbohydrates, fats, vitamins and minerals must be added proteins—and high-grade proteins at that.

The reason is, the speaker explained, that proteins are not only muscle-building foods, as they are often described; they are necessary for the formation of blood cells both red and white, of the vital gland secretions, of digestive enzymes, and particularly of the protective substances in the blood that neutralize the effects of bacterial attacks. Failure of the body to produce these necessary substances because of protein starvation helps to explain why pestilence follows so closely on the heels of famine and war.

Nor will just "any old protein" do for meeting war-nutrition emergencies, Prof. Cannon continued. Proteins are exceedingly complex compounds, each made up of a number of distinct molecular groups known as amino acids. Of the score or so of known amino acids, eight are considered essential; and relatively few common proteins can supply all of these. Of vegetable proteins, soybeans are probably the best for making good the lack of the three chief animal protein foods (meat, eggs, cheese), with skim milk powder, peanut and cottonseed flours and corn germ also highly useful. Addition of these to flour, soup mixes and "pasti" will go far toward sustaining the health of liberated populations until they can get on their own feet again.

Science News Letter, April 1, 1944

U. S. "Shortages"

➤ AMERICANS who exercise their natural right to grumble don't know anything about real food shortages, Lee Marshall, Director of Food Distribution, suggested in his address. If we haven't enough of one thing, we can turn to something else. In most of Europe, there simply isn't enough of anything at all.

"I am sure that if we talked to some of the conquered people of Europe about our shortages," he said, "they would look at us in amazement. They probably would ask, 'What shortages?'"

But even on the basis of what we ourselves are used to, we are still above par, nutritionally, the speaker insisted: "American civilians today are enjoying greater per-capita supplies of food than they did during the 1935-39 period—the so-called surplus years. With a large part of the population employed, and with a rationing system in effect, the food supply is probably better distributed than ever before."

Of total food supplies in sight, the allocations for the current year, according to Mr. Marshall, are: 75% to the civilian population, 13% to the American armed forces, 8% in lend-lease, chiefly to Britain and Russia, 3% for emergency requirements in liberated areas and other special purposes, 1% to United States territories and to other uses.

Science News Letter, April 1, 1944

ENGINEERING

High-Frequency Current Used for Dehydration

➤ A FEW years ago, it was noted in laboratory experiments on insects that exposure to intense fields of high-frequency waves not only killed them but dried them out. This principle is now put to practical use in an invention on which Alfred Vang of Newark, N. J., has been granted patent 2,344,754.

Peas, diced vegetables, or other food materials to be dehydrated are placed in a closed container, with mechanical means for keeping them well stirred. High-voltage, high-frequency current is generated on the outside of the container. The eddy currents induced within the tissues rapidly dehydrate them to the desired point.

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