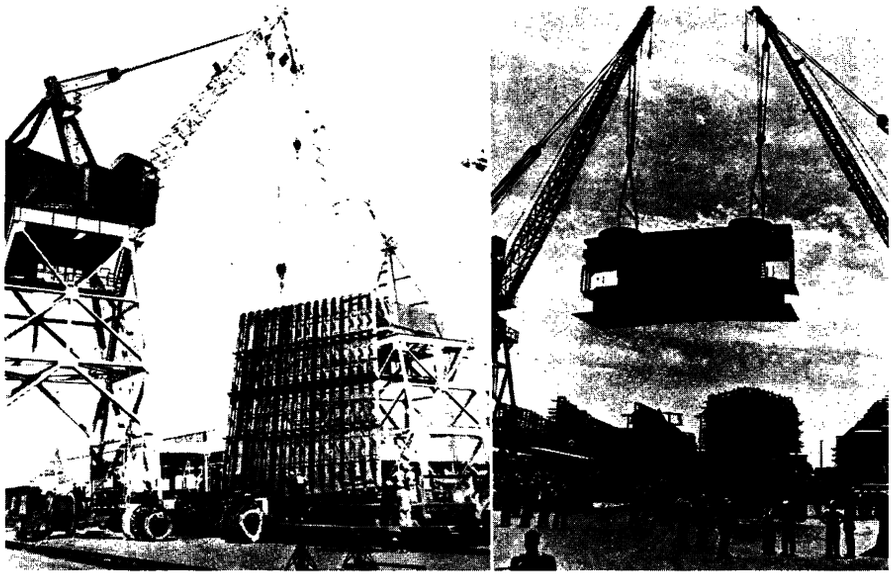

PREFABRICATION—A deckhouse is here being lowered into place on a ship being built in record time for war use. The huge section on the left is a part of the hull. The photographs and the one on the facing page, showing modern prefabrication methods of ship construction, are official photographs of the U. S. Maritime Commission.

in excess of 300 ways," he declared, "constructing various types of vessels for the Maritime Commission."

Over 6,000,000 tons of shipping had been contracted for this year up to October 1, despite the diversion of a considerable part of merchant shipbuilding capacity to the construction of special types of ships for the armed forces, Admiral Land reported. And the Maritime Commission not only expects to meet the goal of 8,000,000 tons for this year, but also the President's demand for 16,000,000 tons of ocean-going vessels for 1943.

Science News Letter, November 28, 1942

NUTRITION

Foods Keep Vitamins

Fruits dehydrated by new processes retain more vitamins than when sundried. Several dehydrated vegetables better than canned.

➤ MANY VITAMINS are found in dehydrated foods if they are properly treated, Dr. Agnes Fay Morgan, head of the Home Economics Department of the University of California, told the representatives of the dehydration industry at the Western Regional Laboratory in Albany, Calif., summing up results on vitamin retention brought out by the past several years of research at the Berkeley university.

Fruits dehydrated under the new factory processes retain more vitamins than those preserved by sundrying. While prunes, peaches, and apricots are good sources of vitamin C, only those treated with sulfur dioxide retain this vitamin. On the other hand, the sulfur treatment destroys two thirds of the vitamin B_1, as the thiamin molecule is split by sulfur dioxide. Since peaches and apricots are not rich in B_1, sulfuring is probably desirable in their dehydration. Vitamin A is stable and is retained in both dehydrated and sundried fruits, but riboflavin is quickly destroyed by light so that sundried fruit has lost most of its vitamin B_2, while dehydrated fruit shielded from light, retains it.

In the past two or three years, Dr. Morgan and her staff have been interested in the retention of vitamins in dehydrated vegetables.

Several of the dehydrated vegetables have better vitamin retention than the same ones canned. Spinach, for instance, lost 75% of its B_1 when canned, as compared to the fresh spinach, but in dehydrated spinach the B_1 was preserved almost 100%; canned peas lost 73% of B_1 as compared to a loss of 10 to 20% in the dehydrated. Concentrated tomato juice, tomato paste, and dehydrated broccoli are good sources of vitamin C, Dr. Morgan pointed out.

In summing up the value of the dehydrated vegetables, she stated that the vitamin C loss was from 20% for broccoli to 80% for string beans. For B_1, the loss in several vegetables ran from 14% to 33%; B_2 25% to 50%, with an exception in dehydrated carrots which had a loss of only 12%. In all the vegetables tested the carotene destruction was small, while 1/3 to ½ of the nicotinic acid was lost, probably due to leaching.

Studies on meat showed that there was less loss of vitamins B_1, B_2, and nicotinic acid in dehydrated than in canned meat. The cooked dehydrated meat compared favorably with the cooked fresh meat, since there is always some loss in preparation for the table.

Dr. Morgan warned research workers against the short methods of vitamin determination.

Vitamin assays up to three to four years ago were solely a matter of feeding animals. These take at least two months and are only reproducible within 15 to 20%. Chemists have attempted to shorten the process by the use of chemical and micro-biological methods.

"There is no consistency between the various tests," Dr. Morgan stated.

Science News Letter, November 28, 1942

CHEMISTRY

Resins Improve Method Of Softening Water

➤ NEW RESINS are replacing old zeolite minerals and greensands for special uses requiring softened water of excellent quality, such as in breweries, canneries and beverage manufacturers.

Extended application of the resins to prevent spoilage of medicinal enzyme preparations, to purify drugs, and to recover vitally needed metals from industrial wastes, was predicted by Dr. Robert J. Meyers of the Resinous Products and Chemical Company Laboratories of Philadelphia, speaking at a meeting of the Western New York Section of the American Chemical Society at Buffalo.

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