

RESOURCES

Packages Don War Garb

Glass Jars Replace War-Needed Tin Cans at Grocery; New Ways to Wrap Everything From Fish to Plane Parts

By WATSON DAVIS

THE PACKAGES that you buy in grocery, drug and other stores are going into wartime garb for the duration.

Tin, transparent plastic sheetings, metallic foils, and rubber have enlisted in the service of supply of our armed forces and little of these precious materials will be used for packaging the things that civilians can buy.

Glass is taking the place of tin cans, which actually are cans of sheet steel coated lightly with tin.

Waxed paper is replacing aluminum or tin alloy foils in candy and cigaret wrappings.

Wood, china and clay products are coming into vogue again as containers for many things on grocery and drug store shelves.

Cellophane, pliofilm, and other plastic wrappings that have found such wide use in packages in recent years are becoming unavailable except for a few products.

When tin became critically scarce due to the capture of the Malayan sources by the Japs, there was the hope on the part of some that we might go on having our food and other products in cans due to the successful development of plastic coatings for iron cans. Beer in cans was made possible by such plastic coatings, because beer and tin do not get along very well together. But the plastics used in these coatings have been in large demand for war uses and the plastics production facilities and the raw materials used have been strained to the utmost by the war demands.

Even paper, most plentiful of packaging materials in this war, has not been available in as large quantity as desired and the packaging industry has constantly searched for more economical methods of its use.

The packaging industry, one of the largest in America, has met the new conditions with the ingenuity and resourcefulness that it developed in creating the thousands of new containers that have been produced in more peaceful years.

This year's packaging exposition being

held this month in New York emphasizes the quest for material substitutes and more efficient methods. The 11th annual package competition sponsored by Modern Packaging magazine shows that even during the defense era there were many novel packages created to reduce costs, increase sales and deliver goods in better shape to the housewife or other consumer.

Wartime America will not revert to selling things in bulk, as was done in the days of the cracker barrel in the warm radiance of the country store's stove, but there will be a trend toward the sale of things to eat in large quantities, such as larger cans, larger bottles, and larger cartons.

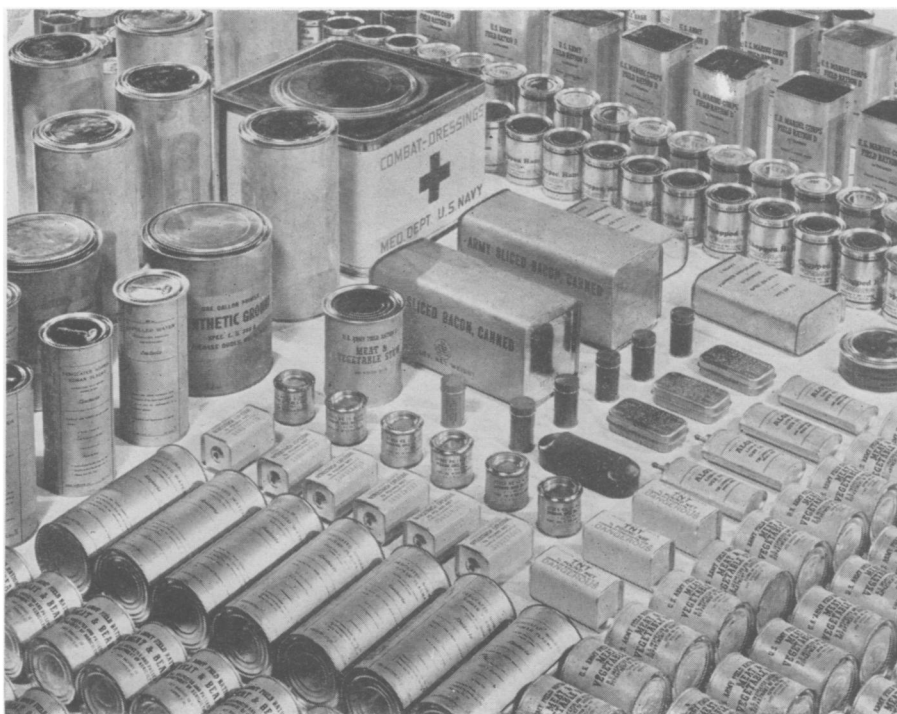
There are money-saving reasons for this. A half-gallon container of milk, for instance, weighs only 32 ounces,

which is just half the weight of the glass needed to deliver the same milk in half-pint bottles.

The smaller tin can sizes are "out" for the duration and apartment dwellers used to getting dinner out of cans built for two servings will have to plan differently. A considerable number of products, such as pork and beans, tobacco, beer, apple butter, mushrooms and dog food, are not being allowed to use tin cans at all.

Glass jars, bottles, glasses and cups that must take over the civilian canning job will be simplified and shorn of unnecessary material and decoration. This is true also of many other sorts of containers, from paper boxes to bags. The openings of glass containers are to be made smaller so as to reduce so far as possible the amount of material needed for closures, which may be rubber, plastic or some other material that is short.

Corks, of course, due to the fact that most of this tree bark is produced



ENLISTED

Precious tin cans have gone into war service. This photograph by the American Can Company shows a display of canned articles for the armed forces—rugged containers that can withstand rough usage.



CARRYING ON AT HOME

Taking over duty on the home front are these glass jars which will soon fill the shelves of the corner grocery. The photograph is from the Owens Illinois Glass Company.

around the Mediterranean area, are largely unavailable. Plastic closures or little wads of plastic-treated paper under caps allow us to get along without cork very well.

Many of the wartime packages are being so planned that the purchaser will be willing to carry them home without wrapping, thus saving paper. The free advertising that the unwrapped

packages give the product will not displease the producers.

One of the top winners in this year's package contest consists of an outfit for dispensing human blood plasma such as is used for transfusions in war or in everyday accidents. Special bottles and apparatus for intravenous injection are included. (*Turn to page 250*).

WILDLIFE

War Changes the Problems Of Wildlife Management

Ban on Production of Hunting Firearms and Ammunition And Limitation on Auto Travel Will Decrease Hunting

WAR has made radical changes in the problems and possibilities of wildlife management, the Seventh North American Wildlife Conference, meeting in Toronto, was told by Albert M. Day, assistant to the director of the U. S. Fish and Wildlife Service.

"We have long talked about 'conservation for use,'" said Mr. Day. "While carefully watching to see that the definite conservation gains of the past are not sacrificed, isn't it possible by better management to increase the surpluses of this renewable resource and then encourage

a wider use?" he asked his colleagues.

The speaker called attention to the decreased intensity of hunting likely to result from the ban on production of new hunting firearms and ammunition, and the decrease in auto travel that will take place as cars and tires are worn out. He suggested a planned and managed program of hunting, not primarily for recreation, but to realize upon the nation's food and fur resources represented by the removable wildlife surpluses.

Science News Letter, April 18, 1942

Canada's Fur Resources

CANADA'S Deputy Minister of Mines and Resources, Dr. Charles Camsell, C.M.G., re-emphasized the sentiments of his American fellow-conservationists in a review of Canadian natural resources. Furs, both trapped in the wild and raised on fur farms, figure importantly in Canada's economy, he stated. Muskrat marshes, once regarded as a mere wasteland, are now recognized as valuable sources of wealth and are managed accordingly.

Food as well as fur can be realized from Canada's vast stretches of forest and plain, lake and swamp, uncultivated but nevertheless richly productive.

Science News Letter, April 18, 1942

"Wildlife-Land"

THIRTY-MILLION acres of American land, unsuited for crops, range or timber, await a new classification, Verne E. Davison of the U. S. Soil Conservation Service pointed out. He called for a new, "wildlife-land." Much of this is on farms, intermingled with cropland and pasture, but not used for either purpose. Natural wildlife-lands, Mr. Davison said, include such areas as steeply sloping stream banks, rock outcrops, ill-drained bottom lands, thick brush and scrub, and swamp or marshlands. If such areas are frankly recognized as best suited for the production of wildlife and not forced into categories where they will only waste labor and money in mis-development, farmers and the nation generally will be the gainers.

Science News Letter, April 18, 1942

Pheasant and Quail

PHEASANT and quail raising by states and provinces is now a solidly established business in the United States and Canada, with production on a million-bird basis in pheasants and about a third that big in quail, Ralph B. Nestler of the U. S. Fish and Wildlife Service, reported. The 1,042,000 pheasants raised or purchased by the states in 1940 represent almost a doubling of the figure for the previous year. The number of farms raising pheasants now amounts to about a thousand, with the quail farms approximately one-third as numerous.

Science News Letter, April 18, 1942

There is no evidence that healthy persons need more *vitamins* than can be obtained in a good diet.

From Page 247

A paper bag for shipping 50 pounds of potatoes was another prize winner. This replaces wooden crates and burlap bags previously used. Lower freight rates and less weight loss due to shrinkage are among the advantages.

A corrugated box for shipping airplane rudders, formerly packaged in crates or wooden boxes, won recognition as an aid to keeping essential light airplanes in operation.

An airtight transparent bag for transporting frozen fish fillets won a prize. Grocers are able to keep this fish package next to other foods without danger of contaminating them with fish odors.

A new bacon package allows the housewife to slit it open quickly and remove a few slices when needed, while the grocer does not need to wrap the package when it is sold.

A new cheese package makes it practical to sell high-grade cheese in a ten-cent retail size. The package consists of a pliofilm cup formed when hot cheese is flowed into the mold.

Another prize-winning new idea in food packaging is a bread package that consists of two half-loaves separately wrapped. In one combination half a loaf of white bread is twinned in the new package with half a loaf of wheat bread.

A new macaroni package uses a new method of closing the package when only part of the amount is used at one time. Lifting one tab opens the hexagonal carton, which is simply closed by pressing the end back in place.

Even ink is dispensed in new dress. The bottle is shaped so that the small hand of a school child can grasp it safely while pouring, and the bottle never "gurgles" and spurts out its content.

Pies can now be made with a very crisp, crunchy crust, thanks to a new pie package that protects the pie even when stacked on the counter.

A new medicine bottle, thanks to a new design recognized in the competition, saves 44% of the space on the shelf occupied by the standard, round bottle, although it is only slightly taller.

Merchants actually ask to have their windows "broken" when they see a soft drink display which looks as though a pretty girl had just stepped through the window glass. The illusion is accomplished by lithographing "cracks" as well as the girl on a transparent sheet and putting the sheet over the real glass of the window.

Science News Letter, April 18, 1942



NEW DEMAND

The war has brought with it the need for new sorts of packages. Here are packages for dried human blood plasma and the apparatus for restoring it to liquid form.

AERONAUTICS

Underground Quarries Shelter British Aircraft Factories

Modern Lighting Was Installed and Walls Painted To Bind Dust But It Was Unnecessary To Widen Space

UNDERGROUND stone quarries begun 2,000 years ago in Roman times now are giving sanctuary to British aircraft and war industry factories under constant threat of Nazi air raids.

The story of how two of these factories were set up underground is told in a recent issue of the British journal, *The Aeroplane*, (March 6) just received here.

In the first site surveyors, guided by quarrymen who alone knew the planless cities of darkness, made their blueprints for a factory to be artificially heated, ventilated and lighted. One surveyor who strayed from his party was lost for two days. When the quarry was mapped, workmen and electricians swarmed through the cool, dark corridors and the ancient stone, once chipped by hand, now yielded to swift pneumatic drills.

Except for adding another million

cubic yards of space and strengthening supports, engineers made their factory comply to the quarry. It was unnecessary to widen or straighten the streets and avenues. Walls and roofs were painted yellow to bind the fine dust which could damage precision machinery.

Elevators and escalators were built for factory workers and machinery, fluorescent lights installed, ventilators built and canteens and lavatories provided for.

This site is now nearly complete. Six hostels, each quartering 1,000 men or women, are planned, and married quarters for another thousand. The latter will be little bungalows, built in pairs. There will be front and back gardens, even lawns.

The second underground factory is now complete. It is entirely air-conditioned, and the temperature kept from