June 3, 1952 D. C. MURPHY 2,598,710

CONTAINER CARRIER

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Fig. 1.

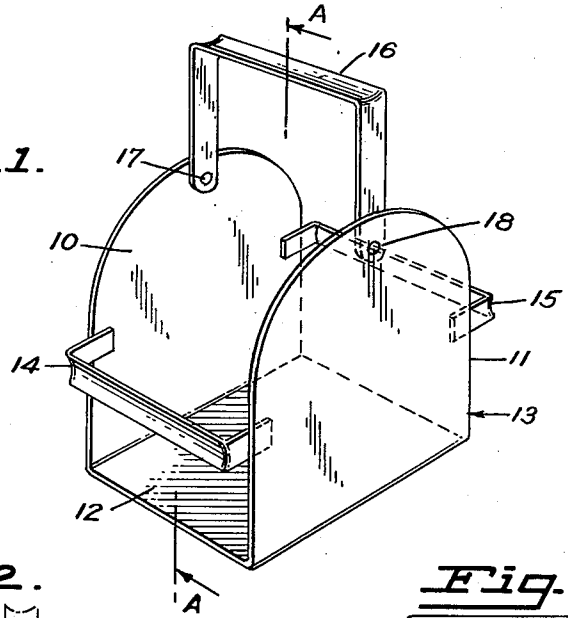


Fig. 2.

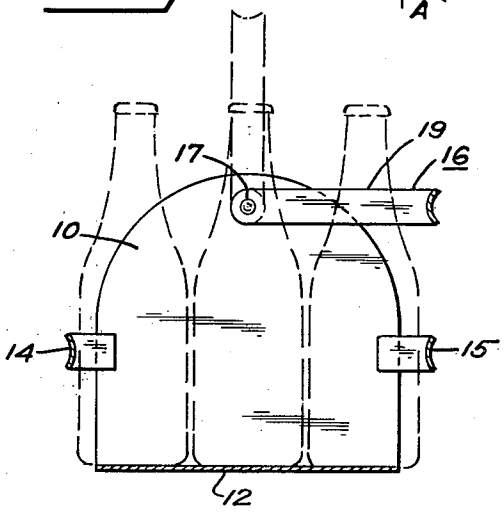
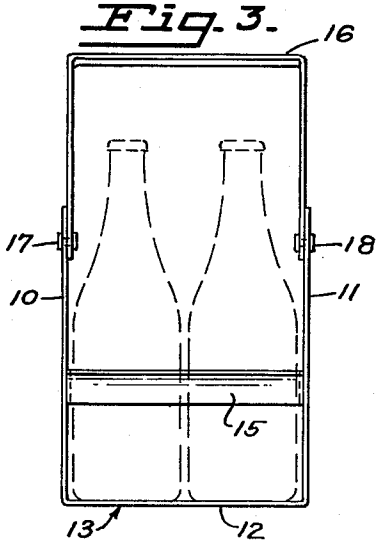


Fig. 3.



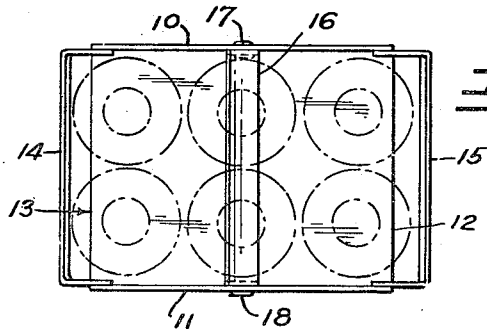


Fig. 4.

INVENTOR.
DANIEL C. MURPHY
BY
James E. Toomey
agt.

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CONTAINER-CARRIER

Daniel C. Murphy, Palo Alto, Calif., assignor to Kaiser Aluminum & Chemical Corporation, a corporation of Delaware

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2 Claims. (Cl. 224—48)

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This invention relates to a bottle carrier and, more particularly, to a bottle carrier composed of sheet metal.

The sale of bottled goods to retail customers across the counter presents a serious safety problem where the sale of several bottles is involved. The heavy bottles cannot be safely or conveniently carried in paper bags, especially when the temperature of the bottles is sufficiently below that of the atmosphere to cause dew formation and wetting of the paper bag, or during rainy weather. Wetted paper bags rapidly lose their strength and the heavy bottles, after pushing their way through the weakened bag, often break after falling upon a hard floor or side walk. Serious cuts are frequently obtained by customers because of carrying bottled liquids in paper bags.

In addition to the safety problem there is a shipping problem to be solved. There is great need for a carrier which can be used conveniently first as a shipping container and later as a retail customer's carrier. A suitable shipping container must be strong enough to protect the contained bottles from breakage and be of proper design to permit vertical and horizontal packing in a minimum of cubical space.

Since very large numbers of container-carriers must be used in the handling of the immense volume of bottled goods the cost of the carriers must be kept down to a minimum. This can only be done when the carrier is of a simple design and is ingeniously adapted to being efficiently produced by mass-production methods.

Bearing in mind the problems to be solved, it is an object of this invention to provide a strong bottle carrier which will retain its strength during all atmospheric conditions.

Another object of this invention is to provide a safe and rigid bottle carrier which will protect the bottles from breakage and which can be used conveniently both for shipping and for carrying bottles.

A more specific object of this invention is to produce a safe and relatively inexpensive bottle carrier of simple design from sheet metal.

The foregoing objects and others ancillary thereto are accomplished in the bottle carrier of the present invention. A preferred embodiment of the invention is given in the accompanying drawings, in which Figure 1 is an isometric view of the bottle carrier; Figure 2 is a sectional side view of the carrier taken through the center line A—A in Figure 1, and parallel to the side walls 10 and 11; Figure 3 is an end view of the carrier;

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and Figure 4 is a plan view. Dashed lines indicate the positions of the bottles in the fully loaded carrier.

Referring to the embodiment shown in the drawings, the side walls 10 and 11 and the bottom 12 of the bottle carrier of the invention are constructed from a properly precut length of sheet metal 13, preferably by stamping and bending a single length of sheet. The end strips 14 and 15 are attached to opposite pairs of edges of the side walls 10 and 11 at points spaced above bottom 12, but below the top portions of side walls 10 and 11, as shown; the attachment being either pivotal or rigid and secured by rivets, spot-welds, lock-seams, etc. (not shown). The handle 16 is pivotally fastened to the tops of side walls 10 and 11 by rivets 17 and 18 loosely driven (or by bolts) so that the handle can be folded down for loading and unloading the carrier, for stacking loaded carriers for shipment, or for nestling empty carriers to save space. To reduce construction costs and simplify the design of the carrier the handle 16 is preferably made on the same die as the end strips 14 and 15. The handle, or the tops of the walls 10 and 11, may be provided with latching lugs (not shown) to temporarily hold the handle in either a vertical or horizontal position.

The various parts of the carrier are preferably shaped in a manner to stiffen and strengthen the carrier. The side walls may be suitably embossed with an ornamental design, trade-mark, trade name, etc., for advertising purposes and for the purpose of producing a strong, rigid carrier.

The sheet-metal used in constructing the bottle carrier may be made from any commonly available metal, but it is preferable to make the carrier from a strong, light metal such as aluminum or magnesium. The terms aluminum and magnesium as used herein are intended to include alloys of each metal.

The carrier may be painted in plain or ornamental design, including trade-marks and trade names of various manufacturers of bottled goods. The surface finish may be the untreated metal, etched or polished metal, organic finish, anodized finish, etc., or combinations of various such finishes. In the case of such metals as aluminum or magnesium the carrier may be finished in an anodized oxide coating which may be dyed or painted by methods well known in the art.

The various dimensions of the bottle carrier of the invention are chosen to accommodate a convenient number of bottles, such as two, four, six, etc. The embodiment shown in the drawings is designed for six bottles. In any case, the height

and thickness of the bottles to be carried must be taken into consideration in setting the various dimensions of the carrier. The height of the side walls 10 and 11 is chosen so that the tops of the bottles rise slightly higher than the tops of the side walls, as shown in Figure 2. The height of handle 16 is chosen to be such that it will permit ample and safe hand and finger room for picking up and carrying the loaded carrier. In addition the dimensions and design of the handle are preferably such that, when the handle is set in the horizontal position, its upper edge 19, as shown in Figure 2, will come below the tops of the bottles in the loaded carrier, and the grip portion of the handle will be positioned directly above either end strip 14 or 15. By designing the handle and the side walls in this manner the loaded carriers can be conveniently stacked vertically, and the empty carriers are admirably adapted for mechanical loading.

The design and construction of the sheet metal bottle carrier of the invention may be varied by making the side walls and bottom of the carrier out of separate sections of sheet metal fastened together by rivets, for example, and two or more end strips instead of one may be used on each end of the carrier. The end strips and the handle may be shaped for strength and comfort as shown in the drawings. The bottom and side wall may be similarly shaped or corrugated to impart strength thereto, or, if sufficiently heavy gauge sheet metal is used, sections of the metal may be punched out to lower the weight to the carrier and save metal.

Among additional advantages of the bottle carrier of the invention is its adaptability to automatic loading by mechanical loading machines. This is by virtue of the pivotal handle which can be set in a horizontal position during loading. Furthermore, when the handle is in the horizontal position, the overall width of the carrier is not increased, and the empty carrier can be packed and shipped in side-by-side arrangement.

What is claimed is:

1. A rigid container for carrying a plurality of bottles, comprising a bottom portion and two upright walls shaped from a single piece of sheet metal thereby forming a structure closed at the bottom and at two opposing sides, and open at the top and the other two sides, a rigid sheet metal U-shaped strip bridging each open side portion and connected to said metal side portions at points located slightly within the container intermediate the tops and bottoms thereof, the major portions of each of said strips being in a vertical plane located a substantial distance outwardly from the outer marginal edges of said side portions, a rigid sheet metal strip bridging the open top of said container and pivotally connected to the metal side portions above their respective centers adjacent the necks of the contained bottles and on the inside walls of the container so as to be adjustable to a horizontal position adjacent the outermost row of contained bottles, directly above one of said first-mentioned strips and slightly below the tops of said bottles, each of said bridging strips being of a uniform width whereby they may be cut from a single piece of metal and portions of said strips being arcuate in cross-section.

2. A container of the type described in claim 1, wherein the tops of the upright side walls are of arcuate shape.

DANIEL C. MURPHY.

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