Nov. 13, 1962 K. A. SMITH ETAL 3,063,595

PLASTIC CARTON

Filed Feb. 20, 1961 2 Sheets-Sheet 1

Fig. 1

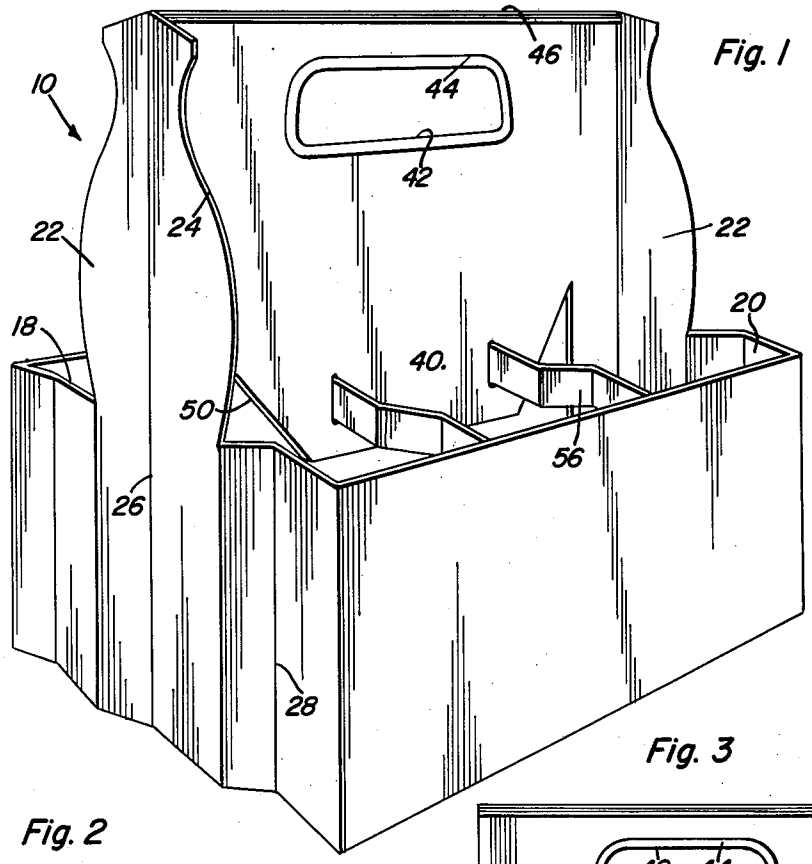


Fig. 2

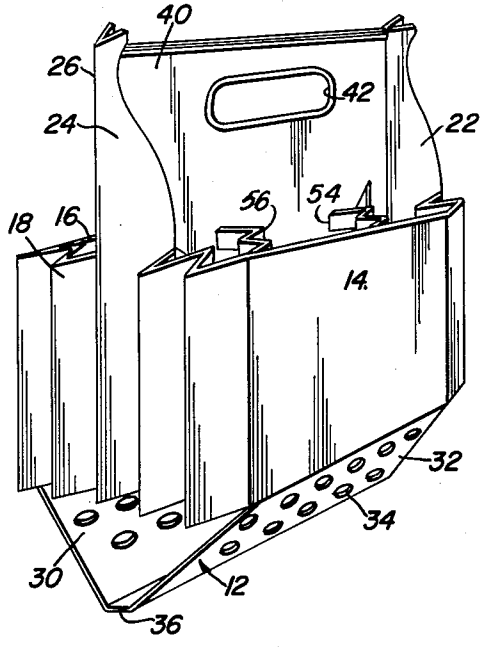
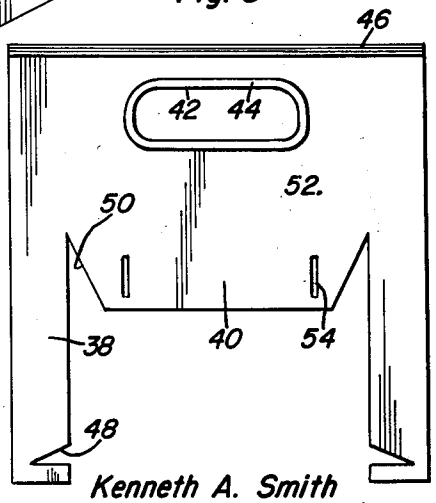


Fig. 3



Kenneth A. Smith
Thomas M. Jones, Jr.
Elmer T. Williams, Jr.
INVENTORS

BY Clarence A. O'Brien and Harvey B. Jacobson
Attorneys

Nov. 13, 1962 K. A. SMITH ETAL 3,063,595

PLASTIC CARTON

Filed Feb. 20, 1961 2 Sheets-Sheet 2

Fig. 4

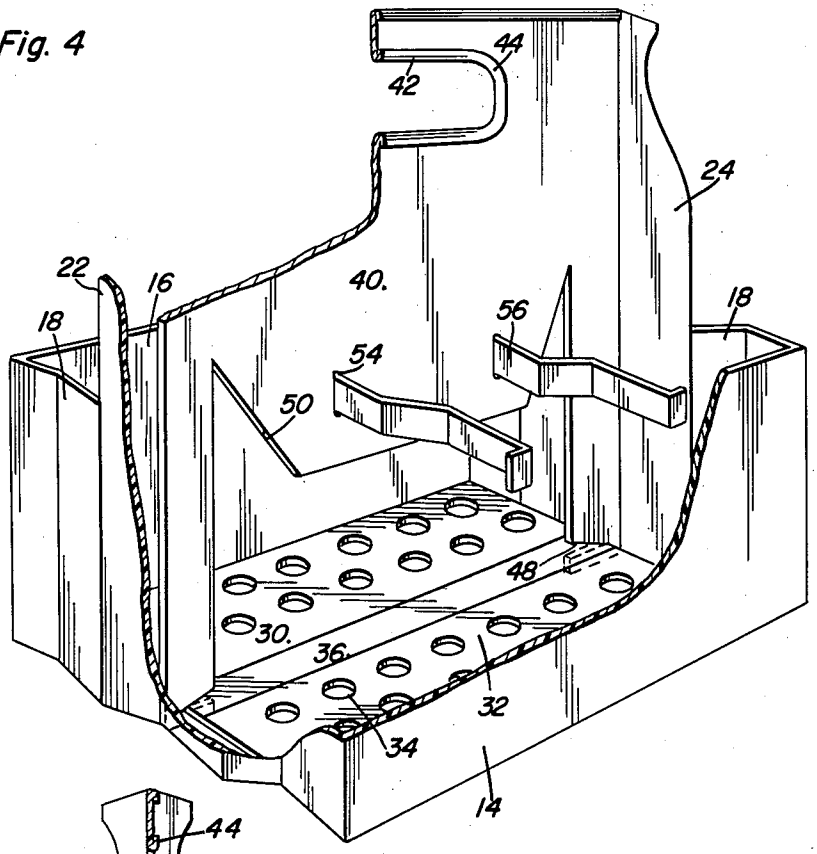
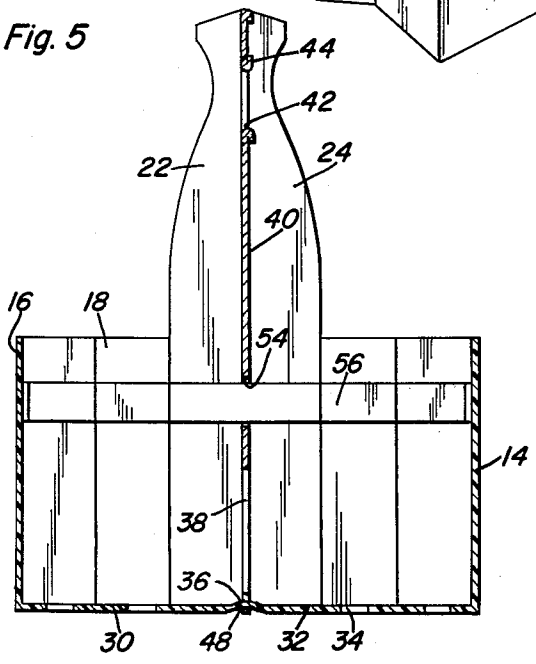


Fig. 5



Kenneth A. Smith
Thomas M. Jones, Jr.
Elmer T. Williams, Jr.
INVENTORS

BY Clarence A. O'Brien and Harvey B. Jacobson
Attorneys

United States Patent Office 3,063,595 Patented Nov. 13, 1962

3,063,595

PLASTIC CARTON

Kenneth A. Smith, 227 S. Franklin St., Wilkes-Barre, Pa.; Thomas M. Jones, Jr., 171 E. Luzerne Ave., Larksville, Pa.; and Elmer T. Williams, Jr., 10 Machell Ave., Dallas, Pa.

Filed Feb. 20, 1961, Ser. No. 90,389
3 Claims. (Cl. 220—113)

The present invention generally relates to a carton or carrier for a plurality of receptacles such as bottles or cans normally employed for use in packaging consumable liquids such as carbonated beverages, beer, ale and the like.

In present day merchandising, it is quite common for carbonated beverages and the like to be made available in a carrier which conveniently supports a group of the bottles and provides a convenient means for carrying the bottles. Such devices take various forms and are normally constructed of cardboard that is subject to deterioration upon contact with water thereby requiring that such carriers be retained in a dry condition in order for them to operate properly. Cardboard carriers of the type for supporting a plurality of bottles, cans or the like have a very short life and are rather unsanitary since they absorb liquids and retain such liquids in a moist or wet condition thus attracting various insects, vermin or the like and creating a very unsanitary condition.

Therefore, it is the primary object of the present invention to provide a carrier for bottles, cans or the like constructed completely of plastic material impervious to water and capable of being reused for an extended period of time.

Another object of the present invention is to provide a carrier of the character described that is foldable into a substantially flat collapsed condition and which includes a novel means for retaining the foldable bottom of the carrier in place.

A further object of the present invention is to provide a carrier of the character described having a novel plastic structure in which the end walls are accordion folded and the bottom wall formed into two foldable sections whereby the carrier may be folded into substantially flat condition, the carrier also being provided with a central dividing member for retaining the bottom in horizontal condition.

Still another feature of the present invention is to provide a plastic carton or carrier having the bottom thereof provided with a plurality of apertures for draining liquids therefrom.

Another important feature of the present invention is to provide a plastic bottle carrier or the like which is simple in construction, impervious to moisture, easy to clean, reusable, generally flexible in construction and inexpensive to manufacture.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of the bottle carrier of the present invention;

FIGURE 2 is a perspective view of the bottle carrier in partially folded condition;

FIGURE 3 is a side elevation of the central partition and handle forming part of the bottle carrier;

FIGURE 4 is a perspective view of the bottle carrier with major portions thereof broken away illustrating the structural arrangement and details thereof; and

FIGURE 5 is a transverse, sectional view taken generally along the center of the plastic carton or carrier illustrating the structure thereof.

Referring now specifically to the drawings, the numeral

10 generally designates the bottle carton or carrier of the present invention which is adapted to receive a plurality of bottles, cans or the like. The entire bottle carrier is constructed of plastic material which is impervious to moisture and attack by many chemicals thereby rendering the device long lasting.

The bottle carrier 10 includes a bottom wall generally designated by the numerals 12, side walls 14 and 16 oriented in parallel relation to each other and end walls 18 and 20 disposed in parallel relation to each other but in perpendicular relation to the side walls 14 and 16. The central part of the end walls 18 and 20 each is provided with an upward extension 22 having curved marginal edges 24 thereon. The extension 22 is provided with a central fold line 26 and each of the end walls 18 and 20 is provided with a plurality of fold lines 28 whereby the entire structure may be accordion-folded as illustrated in FIGURE 2.

The bottom 12 includes a pair of duplicate rectangular side sections or panels 30 and 32 having their lengthwise marginal edges hingedly connected to the lower lengthwise edges of the side walls 16 and 14. The transverse marginal edges of the bottom wall are free of connection with the adjacent cooperating bottom edges of the end walls 18 and 20 as shown in FIG. 2. Both of the panels 30 and 32 are provided with a plurality of apertures 34 which serve to drain any liquid that may be deposited into the carrier. The panels 30 and 32 are interconnected by an intervening longitudinal web or panel 36 for the purpose of receiving the lower ends of a pair of legs 38 on a longitudinal divider or partition wall 40. The partition wall or divider 40 is provided with a handle 42 in the form of a hand-hold opening having a rounded upper edge 44 adjacent the rounded edge 46 of the top edge of the divider 40. The legs 38 depend from the partition in parallel relation to each other and terminate in inwardly opening notches 48 which are adapted to removably but retentively receive the ends of the panel or web 36 when the legs 38 are engaged therewith.

The area of the divider inwardly of the legs 38 is provided with V-shaped notches 50 therein and the lower edge of this portion 52 of the divider is provided with a pair of slots 54 therein which receive transverse tie straps 56 which are flexible and foldable along with the carrier.

The end walls 18 along with the extensions 22 and 24 fold in the manner of an accordion or in a zigzag manner so that the side walls 14 and 16 may be disposed in adjacent relation to the central partition 40. When this folding operation is conducted, the tie straps 56 will also fold in an accordion manner and the bottom 12 must first be disconnected from the notches 48 and then the central portion 36 thereof moves downwardly (FIG. 2) as the side portions 30 and 32 move towards each other and are disposed in side-by-side folded relation. In this condition, the central portion 36 will be spaced remotely from the lower edge of the partition 40 and remote from the notches 48 and generally defines the thickness of the overall carrier when in its folded or collapsed condition.

When it is desired to set-up the carrier for use, the side walls 14 and 16 are moved away from the central partition 40 which will cause the bottom 12 to assume substantially a horizontal position. The end edges of the central portion 36 of the bottom 12 will then be engaged with the notches 48 by pulling the lower ends of the legs 38 outwardly for registering the notch 48 with the end edges of the central portion 36 thereby forming a support for the bottom 12. Bottles or other containers may then be inserted in the compartments formed by the separation and tie strips 56 for carrying in the usual manner.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those

skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A folding carrier for bottles, cans and the like comprising a collapsible receiver embodying a pair of spaced parallel coplanar side walls having end portions thereof connected together by spaced parallel intervening end walls, the central upper edge portions of said end walls having integral vertical upstanding extensions opposed to each other, said extensions being of a width less than the length of said end walls, the side walls being flat and the end walls and also said extensions being provided with cooperating fold lines, a bottom wall underlying the side and end end walls and having spaced parallel lengthwise edges hingedly joined to the bottom edges of the side walls, having transverse ends free of positive physical connection with the bottom edges of the end walls, said bottom wall having apertured side panels with adjacent lengthwise portions joined by folding creases to an interventing relatively narrow connecting web, and a central partition parallel with the side walls and disposed centrally between the side walls, vertical marginal ends of said central partition being permanently connected to median portions of the respective end walls and also said extensions, the upper central portion of said partition being provided with a hand-grip, and means detachably and operatively connecting the end portions of the web to the end walls.

2. The structure defined in claim 1 and wherein said means detachably connecting the web of the bottom wall with said container comprises a pair of coplanar depending legs extending downwardly into said receiver and having lower ends terminating in a plane substantially flush with the bottom edges of the end walls and said lower ends being provided with inwardly opening keeper notches, the coacting ends of said web being releasably seatable in their respective notches.

3. The structure defined in claim 2 and wherein the respective lower portions of said partition are provided with downwardly opening V-shaped notches, said notches being located at upper end portions of said legs.

References Cited in the file of this patent

UNITED STATES PATENTS

2,510,591	Listman	June 6, 1950
2,695,116	Vines	Nov. 23, 1954
2,727,653	Pasjack	Dec. 20, 1955
2,804,234	Lachance	Aug. 27, 1957
2,887,245	Levkoff	May 19, 1959