United States Patent

[11] **3,570,706**

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[73] Assignee **Olinkraft, Inc.**

[54] **ONE WAY BASKET**
3 Claims, 7 Drawing Figs.

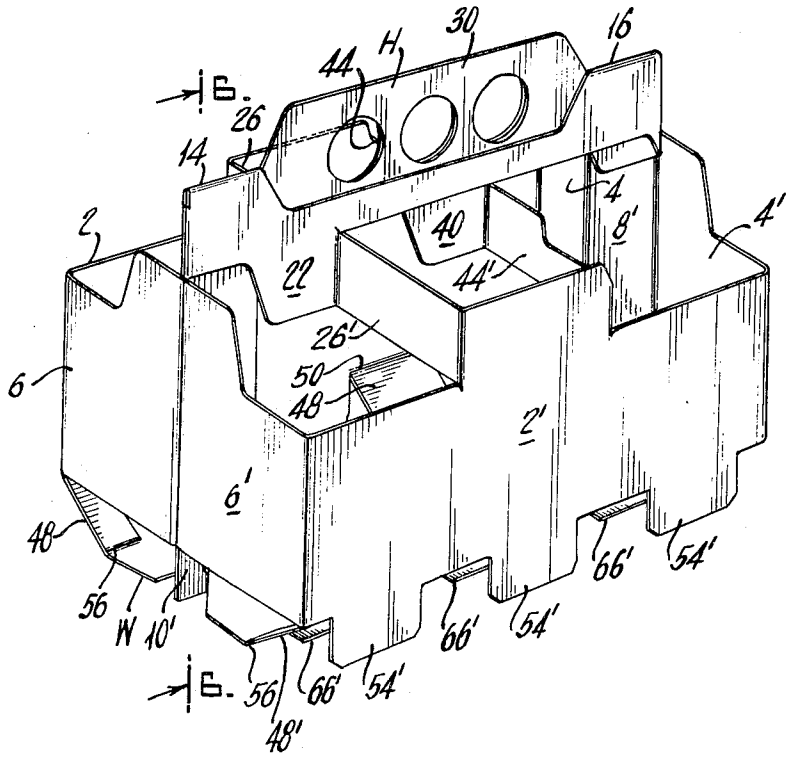
[52] **U.S. Cl.** **220/114,** 220/113, 229/52
[51] **Int. Cl.** **B65d 75/00,** B65d 5/48
[50] **Field of Search** ..... 220/114, 113, 111, 115; 229/52 (BC)

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ABSTRACT: A throwaway strap-style bottle carrier formed from a unitary blank of minimal area, the carrier having a bottom wall with marginal sloping panel portions, and the sloping panel portions being provided with bottle-receiving cutouts having overlying tabs to protect that portion of the bottles which is received in the cutouts.

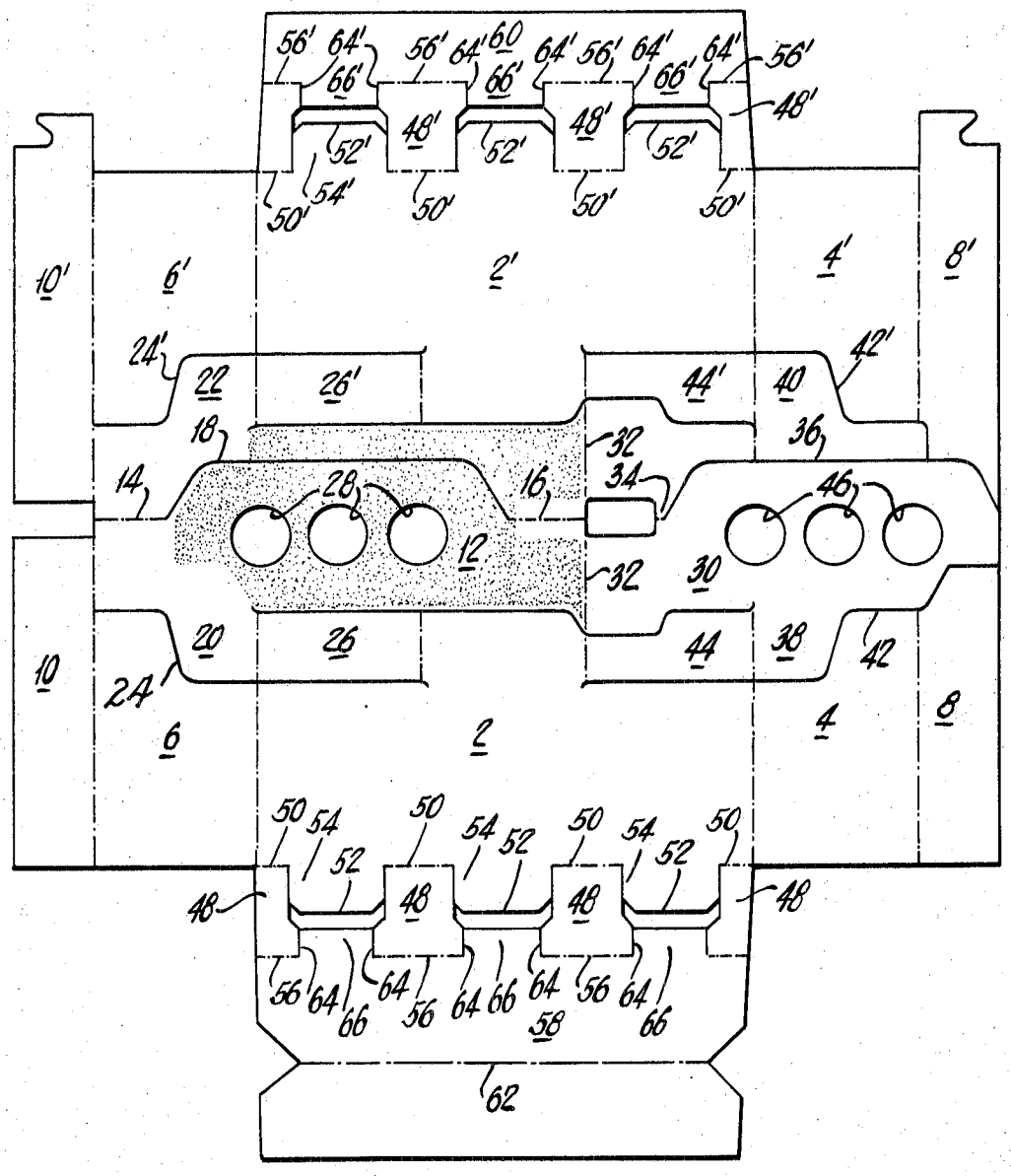


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SHEET 1 OF 3

Fig. 1.



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Fig. 2.

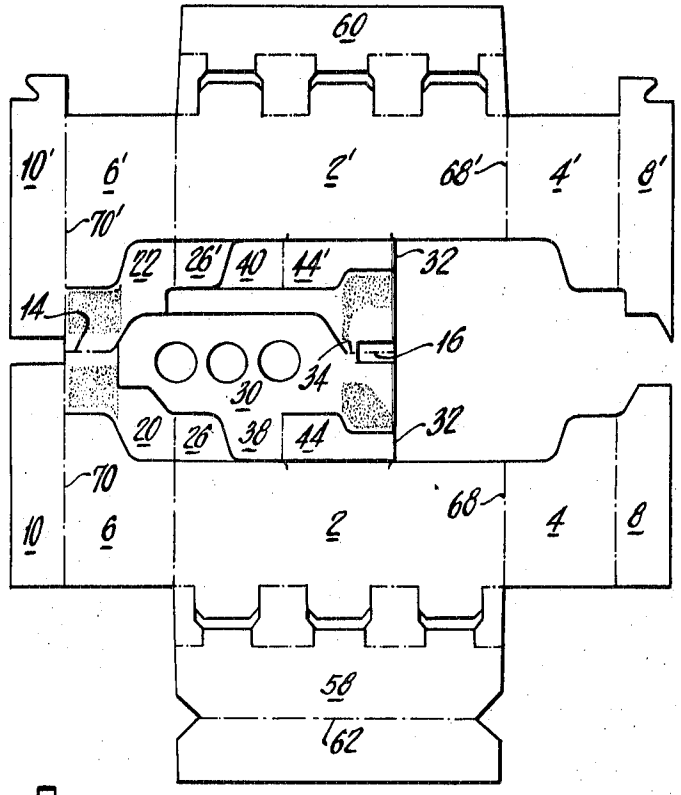


Fig. 3.

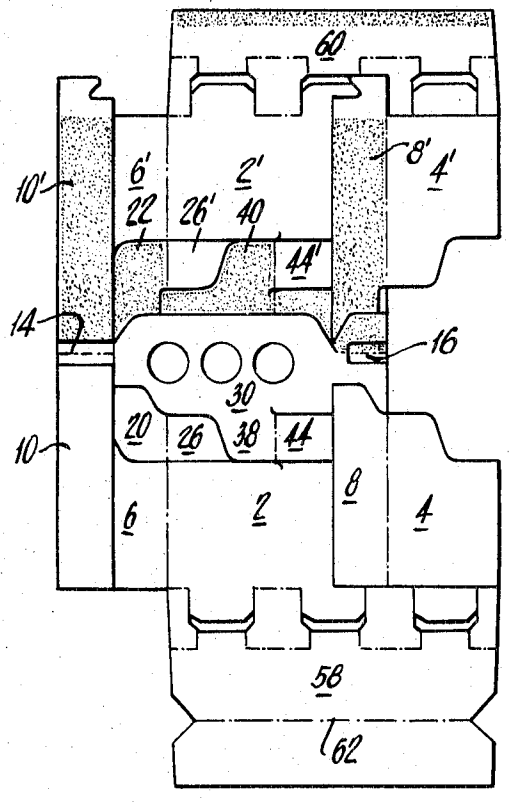
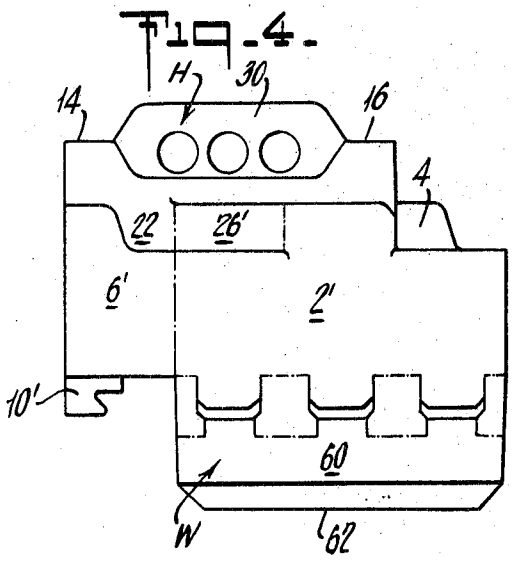


Fig. 4.



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Fig. 5.

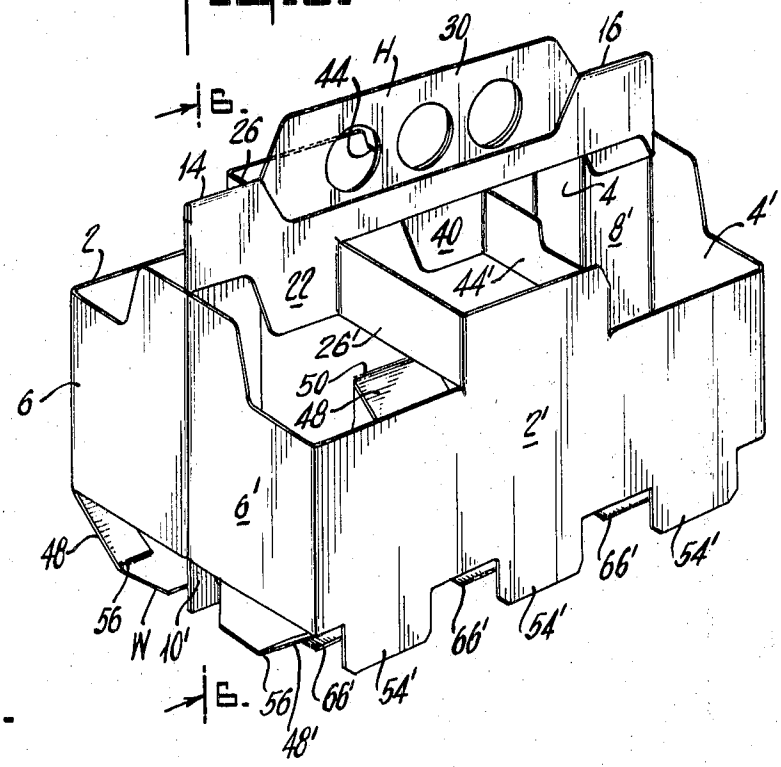


Fig. 6.

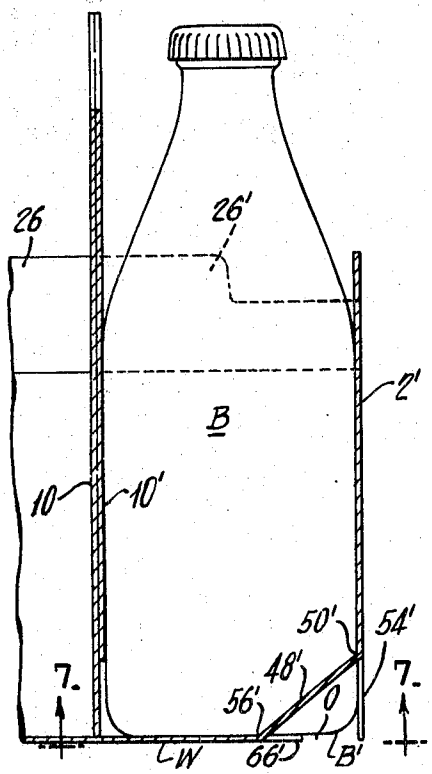
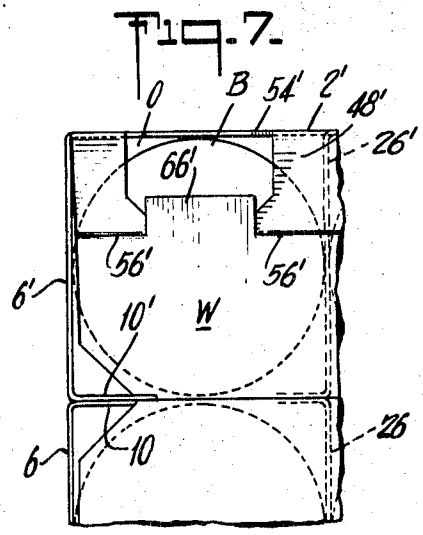


Fig. 7.



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ONE WAY BASKET

BACKGROUND

This invention relates to a bottle carrier of the strap-style basket variety which is constructed of a unitary blank of appropriately scored and cut fiber board, or the like. The blank is of minimal dimension while providing adequate strength and protection for the bottles disposed in the carrier.

A recent trend in the beverage bottling industry has placed heavy accent on the use of throwaway bottles. These bottles are used once by the consumer and then thrown away instead of being returned to the retailer for a deposit. The heavy use of throwaway bottles for beverages has also caused a changeover in the packaging industry to the use of wraparound packages for these bottles. The wraparound packages are used with throwaway bottles because the wraparounds require less paper to manufacture than the standard basket-style carriers. Since the bottles are intended to be discarded after one use, the carriers are also discarded after a single use instead of being returned to the retailer with the bottles, as was the custom when returnable bottles were widely used.

Wraparound packages are desirable for use with throwaway bottles because less paper is needed for their manufacture; however, wraparound packages also have disadvantages when compared to the basket-style carriers. Wraparounds provide little internal protection for adjacent bottles in a single package, and separate partition members must often be inserted into these packages for shipping purposes to conform to standards for shipping safety. Wraparound carriers also provide less space available for printed identification and advertising than do basket-style carriers. Wraparound carriers also require special machinery for packaging bottles, which machinery may be expensive and complex. Finally, differences in bottle dimensions between bottles of the same volume size often result in wraparound packages being formed too tightly or too loosely about the bottles, a difficulty which is not found in packaging dissimilarly dimensioned bottles in a basket-style carrier. Thus it is readily apparent that, but for the amount of material needed to form the respective carrier types, the basket-style carrier is preferable to the wraparound carrier for packaging bottles.

BRIEF DESCRIPTION OF THE INVENTION

Accordingly, it is an object of this invention to provide an improved basket-style carrier. Another object of this invention is to provide a basket-style carrier which can be erected from a single sheet of blank material. A further object of this invention is to provide a basket-style carrier which requires a reduced amount of material for its construction. Still another object of this invention is to provide a basket-style carrier suitable for use with throwaway bottles. Yet another object of this invention is to provide a basket-style carrier suitable for use with bottles of equal volume size but of otherwise dissimilar dimensions without the necessity of modification thereto to accommodate each style of article having such dissimilar dimensions. These and other objects and advantages will be apparent from the description hereinafter set forth and the accompanying drawings.

In accordance with the present invention, the foregoing and other objects, are accomplished with a carrier, of the basket variety, which is formed from a single blank of packaging material, which blank is cut, scored and glued to form said carrier. The carrier is formed from a blank having minimal area, and yet affording strength and protection for the packaged bottles. The carrier is of the high center cell variety and includes a two-ply handle formed from the central portion of the blank. In order to decrease the area of the blank, the bottom wall of the carrier includes a central portion having a medial fold line, the central portion being generally perpendicular to the sidewalls of the carrier, and the bottom wall also includes marginal panels hinged to the central portion and to the sidewalls. The marginal panels are disposed at an included obtuse angle with the central portion and the sidewalls, and

are thus sloped or inclined between the adjacent panels on the carrier. The marginal panels are formed with spaced cutouts which receive the bottom corner of each bottle in the carrier, the cutouts permitting the bottles to rest against the central portion of the bottom wall and the sidewalls. The edges of the cutouts circumscribe a portion of the bottom corner of the bottles to positively hold the bottles in place in the carrier. A pair of tabs are associated with each cutout, one tab extending from a sidewall to overlie the side of a bottle seated in the respective cutout, and one tab extending from the central portion of the bottom wall to underlie the bottom of a bottle seated in the respective cutout. Thus the tabs serve to provide the bottles with substantially the same protection as if the carrier were formed with sidewalls hinged at right angles to a bottom wall.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of a preferred embodiment of the blank from which the carrier of this invention is formed;

FIG. 2 is a plan view similar to FIG. 1, but showing the blank after the first folding operation is performed in the formation of the carrier;

FIG. 3 is a plan view showing the blank after the second and third folding operations are performed;

FIG. 4 is a plan view showing the carton in its collapsed condition after all of the folding and gluing operations have been performed;

FIG. 5 is a perspective view of an erected carton made from the blank of FIG. 1;

FIG. 6 is an end view of a portion of the carton of FIG. 5 taken partially in section and showing a bottle positioned within the carton; and

FIG. 7 is a bottom view of a portion of the carton taken along line 7–7 of FIG. 6.

DETAILED DESCRIPTION OF THE INVENTION (PREFERRED EMBODIMENT)

Referring now to FIGS. 1—3, the preferred blank for forming the carton of this invention is shown along with the manner in which the blank is initially folded to form the carton. The blank includes a pair of sidewall panels 2 and 2' hingedly connected to end wall panels 4 and 6, and 4' and 6' respectively. The end wall panels 4 and 6 are hingedly connected to riser panels 8 and 10 respectively, and the end wall panels 4' and 6' are hingedly connected to riser panels 8' and 10' respectively.

A handle panel 12 is hinged to the riser panels 10 and 10'. The handle panel 12 is divided by a pair of fold lines 14 and 16 which are separated by a U-shaped cut line 18. The handle panel 12 includes a pair of extensions 20 and 22 which are separated from the end panels 6 and 6' by cut lines 24 and 24' respectively. A pair of cross partition straps 26 and 26' are hingedly connected to the handle extensions 20 and 22 respectively at one end, and hingedly connected to extensions of the sidewalls 2 and 2' respectively at the other end. A plurality of finger-receiving apertures 28 are formed in the handle panel 12.

A handle-reinforcing panel 30 is hinged to the handle panel 12 along fold line 32, the handle reinforcing panel 30 being divided by a fold line 34 and a U-shaped cut line 36. The handle reinforcing panel 30 includes a pair of extensions 38 and 40 which are separated from the end wall panels 4 and 4' by cut lines 42 and 42' respectively. A pair of cross partition straps 44 and 44' are hingedly connected at one end to the extensions 38 and 40 respectively, and are hingedly connected at the other end to the extensions of the sidewall panels 2 and 2' respectively. A plurality of finger-receiving apertures 46 are formed in the handle reinforcing panel 30.

A plurality of cross straps 48 and 48' are connected to the sidewall panels 2 and 2' respectively along spaced-apart fold lines 50 and 50'. A portion of opposing sides of the cross straps 48 and 48' are defined by U-shaped cut lines 52 and 52' respectively, which also serve to define edges of tabs 54 and

54' which project from the sidewall panels 2 and 2' respectively. It is noted that the tabs 54 and 54' are interposed between the cross straps 48 and 48' respectively. The cross straps 48 and 48' are also connected along spaced-apart fold lines 56 and 56' to bottom wall panels 58 and 60 respectively. It is noted that the bottom wall panel 58 is divided by a fold line 62. The remainder of the opposing sides of the cross straps 48 and 48' are defined by offset cut lines 64 and 64' which intersect the U-shaped cut lines 52 and 52' respectively to further define therewith tabs 66 and 66'. The tabs 66 project from the bottom wall panel 58 and the tabs 66' project from the bottom wall panel 60.

To fold the blank to form the carton, the area of the handle panel 12 shown in FIG. 1 as stippled is coated with adhesive. The handle-reinforcing panel 30 is then folded on the fold line 32 to overlie the handle panel 12, as shown in FIG. 2. The handle-reinforcing panel 30 is thus joined to the handle panel 12. The portions of the handle-reinforcing panel 30 and the handle panel 12 shown in FIG. 2 as being stippled are coated with adhesive, the riser panels 10 and 10' are then folded along fold lines 70 and 70' respectively, and the end wall panels 4 and 4' are then folded along the fold lines 68 and 68' respectively. The riser panels 8 and 8' are thus brought into contact with the adhesive coated portions of the handle reinforcing panel 30 and joined thereto, and the riser panels 10 and 10' are thus brought into contact with the adhesive coated portions of the handle panel 12 and joined thereto, as shown in FIG. 3.

The portions of the blank shown in FIG. 3 as being stippled are then coated with adhesive and the bottom wall panel 58 is folded up along the fold line 62. The upper half of the blank is then folded downwardly along the aligned fold lines 14, 16 and 34 to bring the riser panels 10 and 10' into adhering contact, the handle panel extensions 20 and 22 into adhering contact, the handle reinforcing panel extensions 38 and 40 into adhering contact, the riser panels 8 and 8' into adhering contact, and the bottom wall panels 58 and 60 into adhering contact. The carton is thus formed in its collapsed configuration, as shown in FIG. 4. It is noted that the apertured portions of the handle panel and the handle reinforcing panel form a two-ply gripping member H which projects above the fold lines 14 and 16. It is also noted that the bottom wall panels 58 and 60 form a bottom wall W which is bisected by the fold line 62.

The flattened carton is erected in a known manner by moving the end wall panels 6 and 6' toward the end wall panels 4 and 4'. The erected carton is shown in perspective in FIG. 5. It is noted that the bottom wall W is of a lesser width than the combined widths of the end wall panels 4 and 4', and that the straps 48 and 48' are inclined so as to interconnect the bottom wall W and the said walls 2 and 2'. When the carton is erected, the tabs 54 and 54' extend downwardly from the sidewalls 2 and 2' respectively, and the tabs 66 and 66' extend outwardly from the side edges of the bottom wall W. It is readily apparent from FIG. 5 that the tabs 54, 54', 66 and 66' provide openings between the cross straps 48 and 48', there being one such opening for each bottle-receiving cell in the carrier.

Referring now to FIG. 6, a sectional view taken through one of the cells with a bottle disposed therein is shown. The bottle B is seated in the cell with a portion of the bottom corner B of the bottle extending into the opening O between the cross straps 48'. The tab 54' extends downwardly from the sidewall 2' to overlie the side portion of the bottle B which is within the opening O, and the tab 66' extends outwardly from the bottom wall W to underlie the portion of the bottom of the bottle B which is within the opening O.

FIG. 7 shows the positioning effect which the edges of the cross straps 48' exert on the bottle B disposed therebetween. The straps 48' engage that portion of the bottle B which extends into the opening O and act to retain the bottle in position within the cell.

It is readily apparent that the carton of this invention is made from a blank which is of minimal area, and which, at the same time, provides adequate protection for the bottles packaged in the carton. The area of the blank is reduced by providing a two-ply handle which is centered in the blank and which includes a portion that is defined by U-shaped cut lines terminating at fold lines. The area of the blank is also reduced by providing the inclined cross straps which interconnect the bottom wall and sidewalls. The straps permit the width of the bottom wall to be reduced, and also permit the vertical dimension of the sidewall to be reduced. The inclination of the straps permits openings to be disposed therebetween for receiving portions of bottles packaged in the carton, with the straps acting to hold the bottles in the openings. Furthermore, the formation of the openings by cutting tabs extending from the side and bottom walls provides protection for that portion of the bottles which lies within the openings. Although the present invention has been described and illustrated by reference to a particular (preferred) embodiment, it will be apparent to those skilled in the art that the present invention lends itself to many modifications and variations. Moreover, the carrier of this invention can be adapted for use with any number of articles, though for practical reasons, it will be most suitable for use with from six to 12 articles. In this regard, it should be noted that the six-cell carrier which has been described and illustrated in the foregoing disclosure can be converted to an eight-cell carrier by increasing the length of the carrier, as shown in FIG. 5, along its longitudinal axis and increasing the length of the raised portions of each sidewall, 2 and 2', so as to encompass the two center cells on each side of the carrier. It would, of course, also be necessary to provide an additional cross partition strap on each side of the carrier, as shown. For these reasons, reference should be made solely to the appended claims to determine the scope of the invention.

We claim:

1. In a collapsible article carrier formed from a unitary blank, said carrier comprising a pair of sidewall panels; pairs of end wall panels hingedly connected at their outer edges to corresponding end edges of said sidewall panels, pairs of riser panels hingedly connected to respective inner edges of said end wall panels, each pair of said riser panels being secured together in face-to-face relationship, and said riser panels extending upwardly above the top edge of said end wall panels; a multi-ply handle extending between said riser panels, said handle being secured to the upwardly extending portions of said riser panels, a plurality of cross partition straps hinged to said sidewall panels at their respective outer edges, and hinged to said multi-ply handle at their respective inner edges, said handle, said riser panels, and said cross partition straps delineating a plurality of article-receiving cells in said carrier, the improvement comprising:

a. a bottom wall panel bisected by a longitudinally extending fold line, said bottom wall panel having side edges inwardly offset from said sidewall panels; and

b. a plurality of inclined cross straps hingedly connected at their inner edges to the side edges of said bottom wall panel, and hingedly connected at their outer edges to the bottom edges of said sidewall panels, adjacent ones of said cross strap having spaced-apart side edges defining openings disposed one in each of said cells, said openings being operative to receive a portion of an article placed in the respective cell to positively locate said article in said cell.

2. The article carrier of claim 1, further comprising a plurality of tabs integral with said sidewall panels and extending downwardly from the bottom edges thereof in the area of said openings, said tabs being operative to overlie portions of said articles received by said openings.

3. The article carrier of claim 1, further comprising a plurality of tabs integral with said bottom wall panel and extending outwardly from the side edges thereof in the area of said openings, said tabs being operative to underlie portions of said articles received by said openings.