

[54] **ARTICLE CARRIER**

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[51] Int. Cl. **B65d 75/00**

[58] Field of Search **220/110-115;**
229/28 BC, 52 BC

[56] **References Cited**
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Primary Examiner—Samuel B. Rothberg

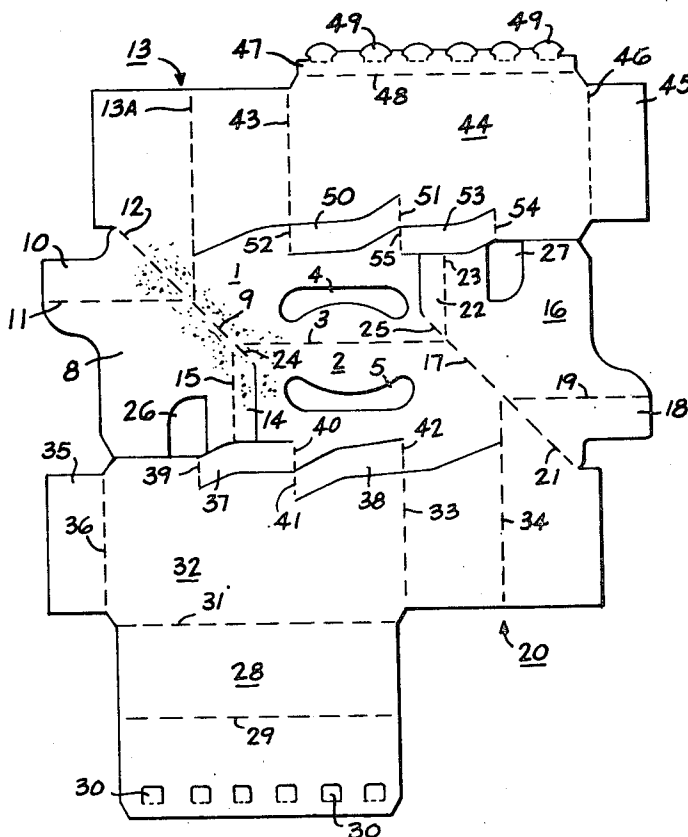
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[57] **ABSTRACT**

An article carrier of the basket style comprises a bot-

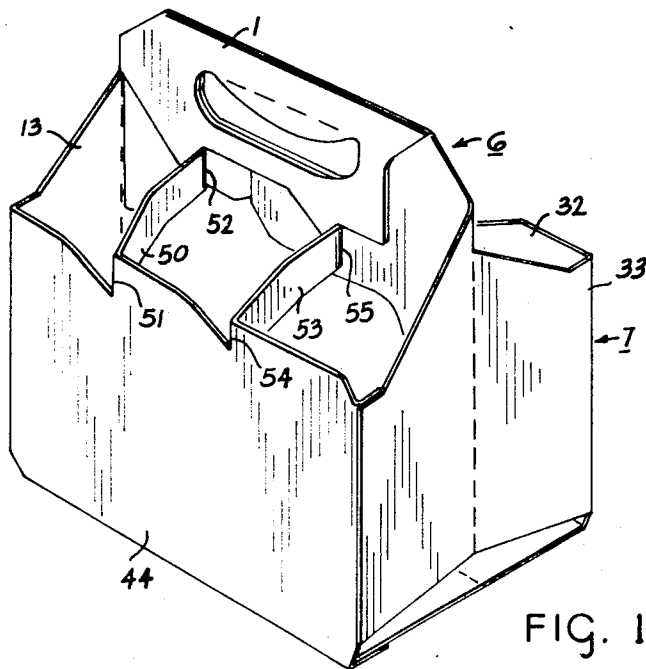
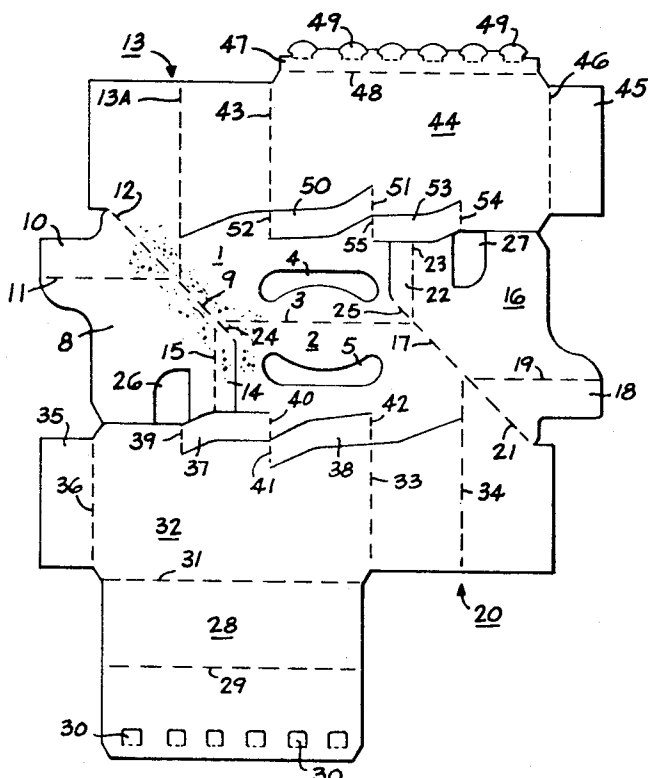
tom wall, a pair of side walls foldably joined respectively to opposite side edges of the bottom wall, a pair of end walls foldably joined at each end edge thereof to corresponding end edges of different side walls, a pair of anchoring panels affixed in face contacting relation to the end walls respectively and each anchoring panel having one vertical edge disposed medially of the associated end wall and constituting means for securing to the associated end wall a riser panel which is foldably joined to the vertical edge of each anchoring panel and which extends upwardly above the top edges of the end walls to form a means for connecting the handle to the carrier, the handle comprising a pair of handle panels secured in face contacting relation to each other and disposed about the upper portions of the riser panels. A handle reinforcing panel may be foldably joined to the top edge of each riser panel and disposed between the riser panel and one of the handle panels to provide a four ply handle at each end of the carrier.

8 Claims, 5 Drawing Figures


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2 Sheets-Sheet 1



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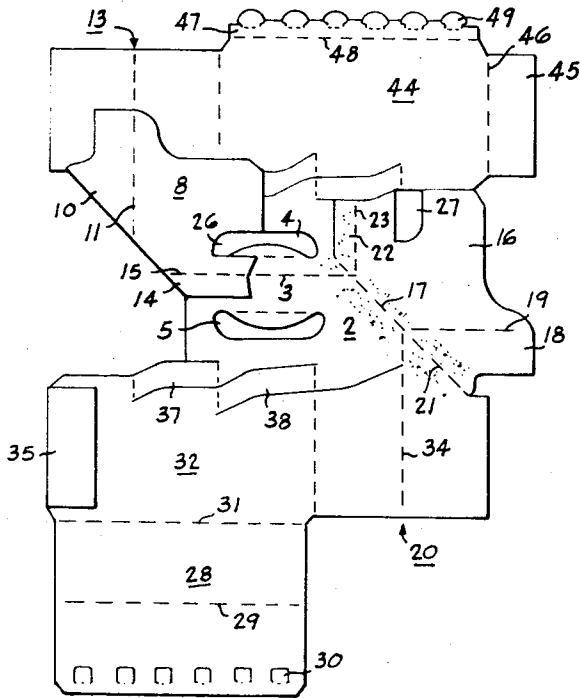


FIG. 3

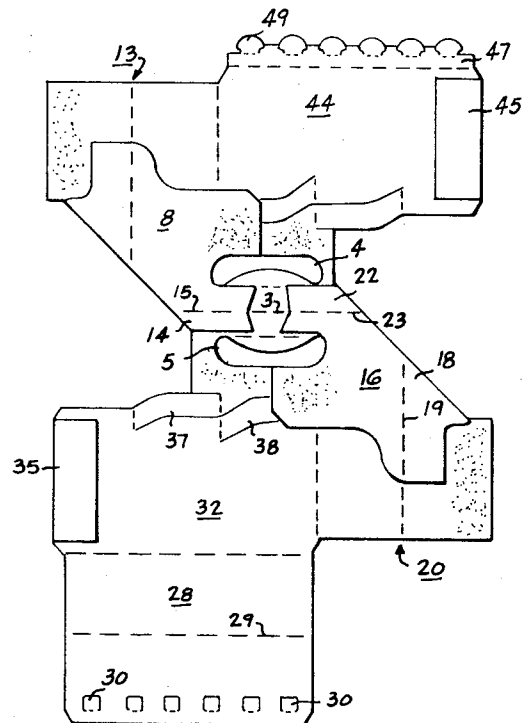


FIG. 4

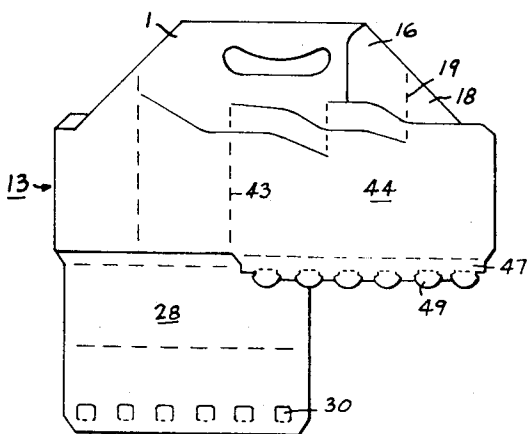


FIG. 5

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ARTICLE CARRIER

Conventional basket style article carriers ordinarily are provided with a composite handle having a straight top edge extending the full length of the carrier and incorporate composite end walls made up of a pair of end wall panels to the inner edges of which riser panels are foldably joined and secured together in face contacting relationship. These riser panels constitute sturdy and convenient means for securing the ends of the handle panel to the carrier.

According to this invention an article carrier of the basket style is provided wherein the end edges of a composite handle structure are tapered downwardly due to the fact that material which in conventional carriers forms a part of handle is folded downwardly so as to provide reinforcing panels secured to the end walls of the carrier together with riser panels foldably joined to the reinforcing panels and to the handle. By this means the junction between each end of the handle and each end wall of the carrier is strengthened and such result is accomplished using a minimum of material whereby substantial economies are effected. While not so limited, the invention is well adapted for use in conjunction with carriers of the type which are completely formed in the carton manufacturer's plant except for the final securing of the bottom panel and which are especially adapted for disposition above a group of tapered bottles and for lowering downwardly into enveloping relationship therewith following which the bottom panel is secured underneath the bottles disposed within the cells of the carrier.

For a better understanding of the invention, reference may be had to the following detailed description taken in conjunction with the accompanying drawings in which

FIG. 1 is a perspective view of a finished and set up carrier formed according to one form of the invention;

FIG. 2 is a plan view of the blank from which the carrier of FIG. 1 is formed; and in which

FIGS. 3, 4 and 5 represent folding and gluing operations through which the blank of FIG. 2 is manipulated to form the collapsed carrier as completed by the manufacturer and as shown in FIG. 5.

In FIGS. 1-5, the numerals 1 and 2 designate handle panels which are foldably joined together along their top edges at the fold line 3. Hand gripping apertures 4 and 5 of conventional construction are formed in the handle panels 1 and 2 respectively.

For the purpose of providing a secure yet economical interconnection between the ends of the composite handle which is generally designated by the numeral 6 and the basket portion of the carrier which is generally designated by the numeral 7, a riser panel 8 is foldably joined to handle panel 1 along a diagonal fold line 9 and an anchoring panel 10 is foldably joined along fold line 11 to riser panel 8. Anchoring panel 10 is foldably joined along diagonal fold line 12 to end wall 13 and a medial fold line 13A is formed in end wall 13. Fold line 12 is a straight line continuation of fold line 9 as is apparent in FIG. 2. Handle reinforcing panel 14 is foldably joined along fold line 15 to riser panel 8.

Similar structure is provided at the other end of the carrier and comprises a riser panel 16 foldably joined along diagonal fold line 17 to the end edge of handle panel 2 together with anchoring panel 18 which is foldably joined to riser panel 16 along fold line 19 and to end wall 20 along diagonal fold line 21. Fold line 21 is

a straight line continuation of fold line 17. Handle reinforcing panel 22 is foldably joined to riser panel 16 along fold line 23. Handle reinforcing panel 14 is foldably joined to handle panel 2 along fold line 24 while reinforcing panel 22 is foldably joined to handle panel 1 along fold line 25.

Hand gripping slot 26 is formed in riser panel 8 and a similar hand gripping slot 27 is formed in riser panel 16.

The basket portion of the carrier is of more or less conventional construction and comprises a bottom wall 28 having a medial fold line 29 formed therein together with a plurality of retaining tabs designated by the numeral 30. Bottom wall 28 is foldably joined along fold line 31 to side wall 32. End wall 20 is foldably joined to side wall 32 at the end edge 33 of the side wall and a medial fold line 34 is formed in end wall 20. Glue flap 35 is foldably joined along fold line 36 to an end edge of side wall 32.

For the purpose of defining individual article receiving cells, a plurality of straps 37 and 38 are interconnected between the side wall 32 and the handle panel 2. More specifically strap 37 is foldably joined along fold line 39 to side wall 2 and to handle panel 2 along fold line 40. Similarly strap 38 is foldably joined to side wall 32 along fold line 41 and to handle panel 2 along fold line 42.

On the other side of the carrier end wall 13 is foldably joined along fold line 43 to side wall 44 and glue flap 45 is foldably joined along fold line 46 to the opposite end edge of side wall 44. Flap 47 is foldably joined along fold line 48 to the bottom edge of side wall 44 and a plurality of locking tabs 49 are formed in flap 47.

For the purpose of providing individual article receiving cells between the side wall 44 and the handle, a partitioning strap 50 is foldably joined to side wall 44 along fold line 51 and to handle panel 1 along a fold line 52. Similarly, partition strap 53 is foldably joined to side wall 44 along a fold line 54 and to handle panel 1 along fold line 55.

In order to manipulate the blank as depicted in FIG. 2 into the form shown in FIG. 3, glue is applied as indicated by stippling in FIG. 2 and the riser panel 8 is elevated and folded upwardly and toward the right along the fold line 9 while the anchoring panel 10 is similarly folded along the fold line 12. This operation causes the handle reinforcing panel 14 to move in unison with panels 8 and 10 into the position shown in FIG. 3 with the fold line 15 disposed in general coincidence with the fold line 3. Anchoring panel 10 is affixed to the end wall 13 and serves to reinforce this end wall and riser panel 8 is secured to handle panel 1 while reinforcing panel 14 becomes affixed to handle panel 2. Handle slot 26 envelopes the left hand end of hand gripping aperture 4. Simultaneously glue flap 35 is folded upwardly and toward the right along the fold line 36 and the blank then appears as shown in FIG. 3.

In order to manipulate the blank as shown in FIG. 3 into the condition depicted in FIG. 4, an application of glue is made as indicated by stippling in FIG. 3 and riser panel 16 is elevated and folded downwardly and toward the left along fold line 17 while anchoring panel 18 is similarly folded along fold line 21. This operation causes handle reinforcing panel 22 to swing simultaneously with riser panel 16 and anchoring panel 18 into the position shown in FIG. 4 wherein the fold line 23 is disposed immediately adjacent and in general align-

ment with the fold line 3. In this manner anchoring panel 18 is secured to and reinforces end wall 20 and riser panel 16 becomes affixed to handle panel 2 while reinforcing panel 22 is secured to handle panel 1. Furthermore slot 27 is then disposed in coincidence with the right hand end of hand gripping aperture 5. Glue flap 45 is elevated and folded toward the left along fold line 46 and the blank then appears as depicted in FIG. 4.

Thereafter an application of glue is made to the blank as shown by stippling in FIG. 4 following which application of glue the side wall 44 and parts associated therewith and disposed above the fold lines 3, 15 and 23 are elevated and folded forwardly until the parts occupy the positions depicted in FIG. 5. This operation secures the portions of the handle and riser panels which are stippled in face contacting relationship and also secures the glue flap 35 to an end edge of end wall 13 and simultaneously secures the glue flap 45 to the end edge of end wall 20.

With the carton completed by the carton manufacturer as shown in FIG. 5, the structure as shown in FIG. 5 is shipped to the bottler. In order to complete the loading of the carrier, side wall 44 is swung upwardly and bodily toward the left while side wall 32 is held stationary. Thereafter the structure is lowered over a group of bottles such as 6 bottles arranged in two rows of three each. This downward movement of the carrier effects loading of the carrier following which the bottom panel 28 is folded underneath the bottles and flap 47 is secured to the bottom panel 28 by simply driving the locking tabs 49 through the apertures defined by retaining tabs 30.

From the above description it is apparent particularly from FIGS. 3 and 4 that the riser panels 8 and 16 as well as the anchoring panels 10 and 18 and handle reinforcing panels 14 and 22 are taken from portions of the blank which in conventional carriers constitute the end portions of the handle panels such as 1 and 2. Furthermore the blank is constructed so that it may be reversed and cut from a web with a minimum of waste. Thus bottom panel 28 of one blank may be disposed alongside the bottom panel 28 of another blank which is reversed. Since the overall structure of the blanks is generally rectangular as shown in FIG. 2 except for the bottom wall 28, substantial economies of material are effected according to the invention.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. An article carrier blank comprising a pair of handle panels joined to each other along a first fold line at their top edges, a pair of riser panels foldably joined along diagonal fold lines to end edges of different handle panels respectively and at opposite ends of the blank, and a pair of handle reinforcing panels foldably joined to the top edges respectively of said riser panels along second and third fold lines which intersect the ends of said first fold line to allow said second and third fold lines to overlie said first fold line when said riser panels are folded about said diagonal fold lines.

2. An article carrier comprising a bottom wall, a pair of side walls foldably joined respectively to opposite side edges of said bottom wall, a pair of end walls foldably joined at each end edge thereof to corresponding end edges of different side walls, a pair of anchoring panels affixed in face contacting relation to said end

walls respectively and each anchoring panel having one vertical edge disposed medially of the associated end wall, a pair of riser panels integral with and foldably joined respectively to said vertical edges of said anchoring panels and extending upwardly above the top edges of said end walls and medially inward of the carrier for a portion only of the length thereof, a pair of handle panels secured to each other in face contacting relation and to the upper portions of said riser panels with said upper portions of said riser panels interposed therebetween, and a pair of handle reinforcing panels foldably joined to the top edges of said riser panels respectively and each of said handle reinforcing panels being folded downwardly and interposed between the associated riser panel and one of said handle panels.

3. A carrier according to claim 2 wherein said handle reinforcing panels are foldably joined respectively to a handle panel other than the handle panel to which the associated riser panel is foldably joined.

4. An article carrier comprising a bottom wall, a pair of side walls foldably joined respectively to opposite side edges of said bottom wall, a pair of end walls foldably joined at each end edge thereof to corresponding end edges of different side walls, at least one end wall comprising a unitary panel an anchoring panel affixed in face contacting relation to each of said end walls, each of said end walls having only one anchoring panel attached thereto and each anchoring panel having one vertical edge disposed medially inward the associated end wall, a pair of riser panels integral with and foldably joined respectively to said vertical edges of said anchoring panels and extending upwardly above the top edges of said end walls and medially inwardly of the carrier for a portion only of the length thereof, and a pair of handle panels secured to each other in face contacting relation and to the upper portions of said riser panels with said upper portions of said riser panels interposed therebetween, said riser panels being foldably joined to different handle panels at opposite ends of the carrier and said handle panels being foldably joined to each other along their top edges.

5. An article carrier blank comprising a pair of handle panels foldably joined to each other along their top edges, a pair of riser panels foldably joined along diagonal fold lines to end edges of different handle panels respectively and at opposite ends of the blank, and a pair of handle reinforcing panels foldably joined to the top edges respectively of said riser panels, said handle reinforcing panels being foldably joined to end edges of said handle panels respectively and each handle reinforcing panel being foldably joined to a handle panel other than the handle panel to which the associated riser panel is foldably joined.

6. A carrier blank according to claim 5 wherein the fold line between each riser panel and the associated handle panel is a straight line continuation of the fold line between the associated handle reinforcing panel and its associated handle panel.

7. An article carrier blank comprising a pair of handle panels foldably joined to each other along their top edges, a pair of riser panels foldably joined along diagonal fold lines to end edges of different handle panels respectively and at opposite ends of the blank, a pair of handle reinforcing panels foldably joined to the top edges respectively of said riser panels, an anchoring panel foldably joined to an edge of each of said riser panels, and an end panel foldably joined to each of said

5

anchoring panels along a fold line which is a straight line continuation of the fold line between the associated riser and handle panels.

8. An article carrier comprising a bottom wall, a pair of side walls foldably joined respectively to opposite side edges of said bottom wall, a pair of end walls foldably joined at each end edge thereof to corresponding end edges of different side walls, at least one end wall comprising a unitary panel, a pair of anchoring panels affixed in face contacting relation to said end walls respectively and each anchoring panel having one verti-

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cal edge disposed medially of the associated end wall, a pair of riser panels integral with and foldably joined respectively to said vertical edges of said anchoring panels and extending upwardly above the top edges of said end walls and medially inward of the carrier for a portion only of the length thereof, a pair of handle panels secured to each other in face contacting relation and to the upper portions of said riser panels with said upper portions of said riser panels interposed therebetween.

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