United States Patent [19]

Wright

[11] **3,722,738**

[45] **Mar. 27, 1973**

[54] BEVERAGE BOTTLE CARRIER

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[22] Filed: **Mar. 4, 1971**

[21] Appl. No.: **121,035**

[52] **U.S. Cl.**.....**220/113,** 220/115

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

[58] **Field of Search**.....220/111, 113, 115, 112, 114; 229/52 BC

[56] **References Cited**

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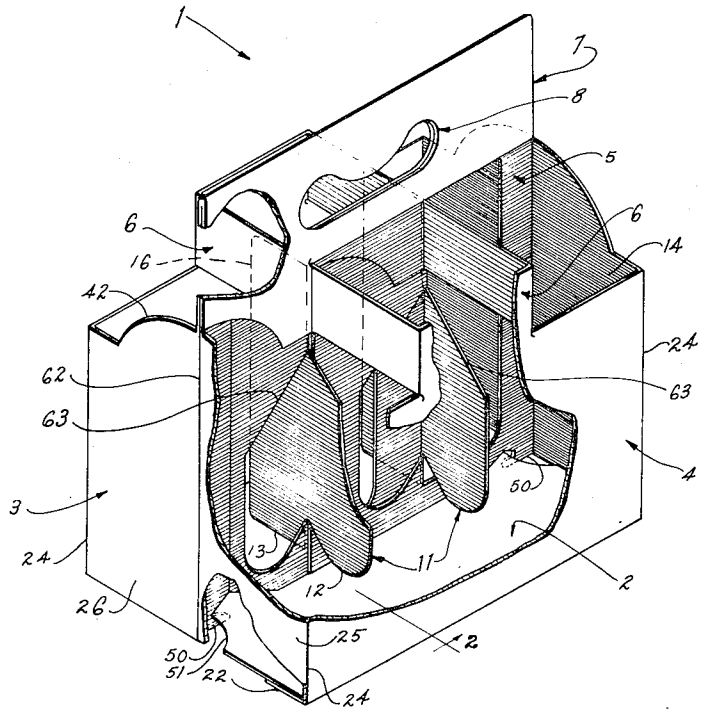
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Primary Examiner—Joseph R. LeClair
Assistant Examiner—Stephen P. Garbe
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[57] **ABSTRACT**

A one-piece bottle carrier formed of sheet material for confining and transporting returnable beverage bottles in group formation in which the individual bottles are isolated from one another in individual cells. The carrier comprises a container having a longitudinal, centralized partition or bottle separator including an upstanding hand grip portion. The longitudinal partition includes transverse separators which, in combination with the longitudinal partition, delineate the individual cells to prevent contact between the bottles. The carriers are furnished in flat condition and the transverse separators hingedly flip to their right angular positions relative to the longitudinal partition in an automatic manner as the assembled flat blank is erected from the flat, assembled condition to form the cells which prevent chipping or damage to the bottles.

12 Claims, 8 Drawing Figures



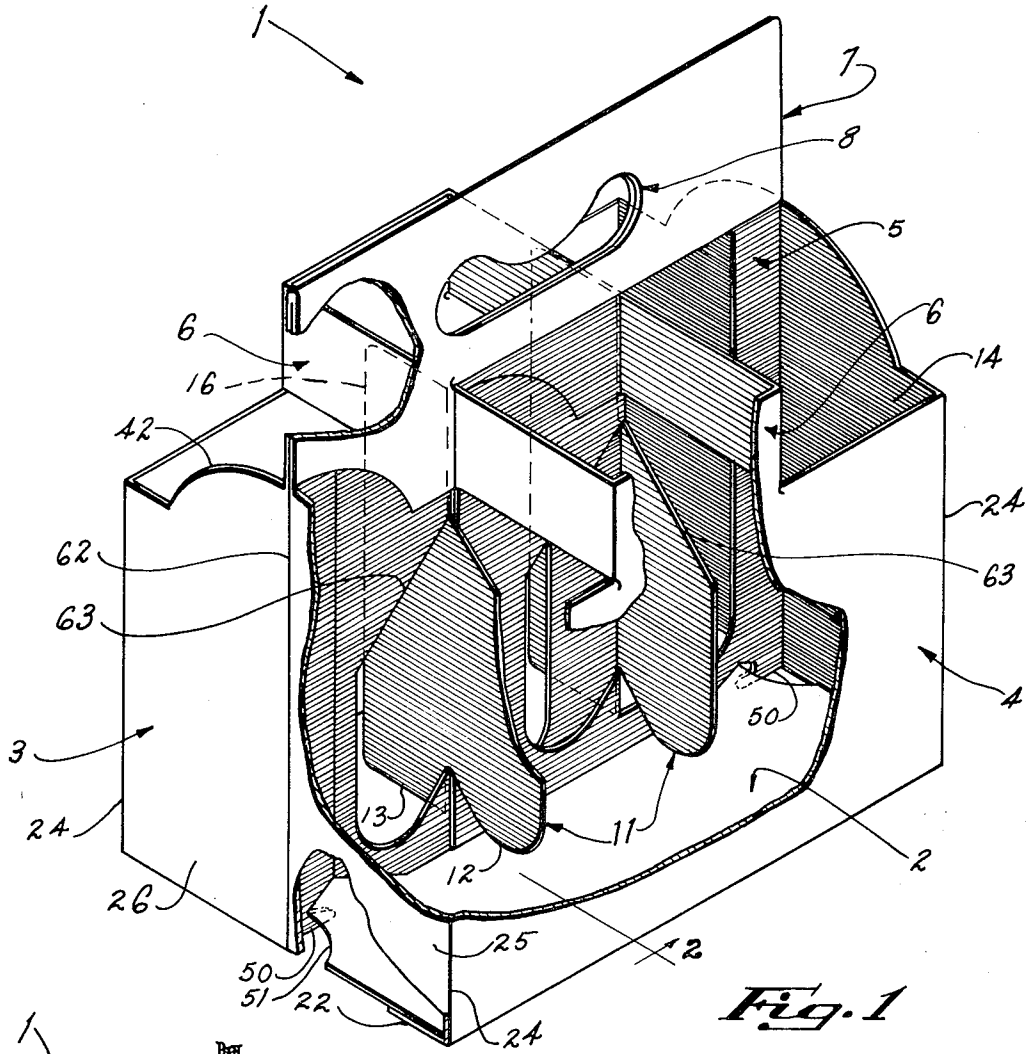


Fig. 1

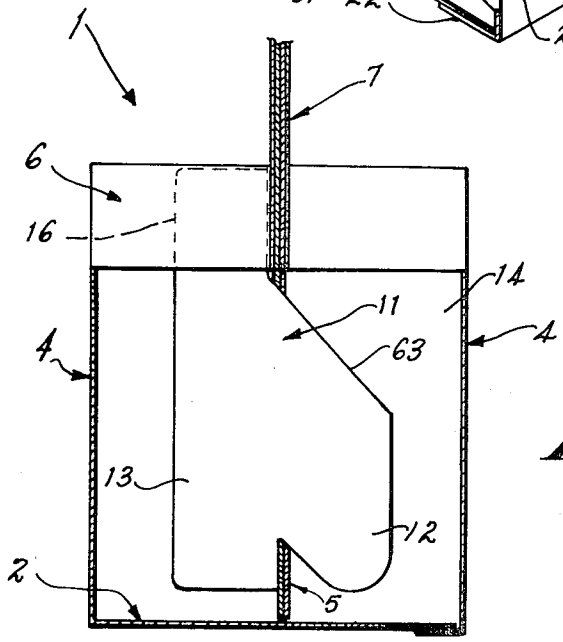


Fig. 2

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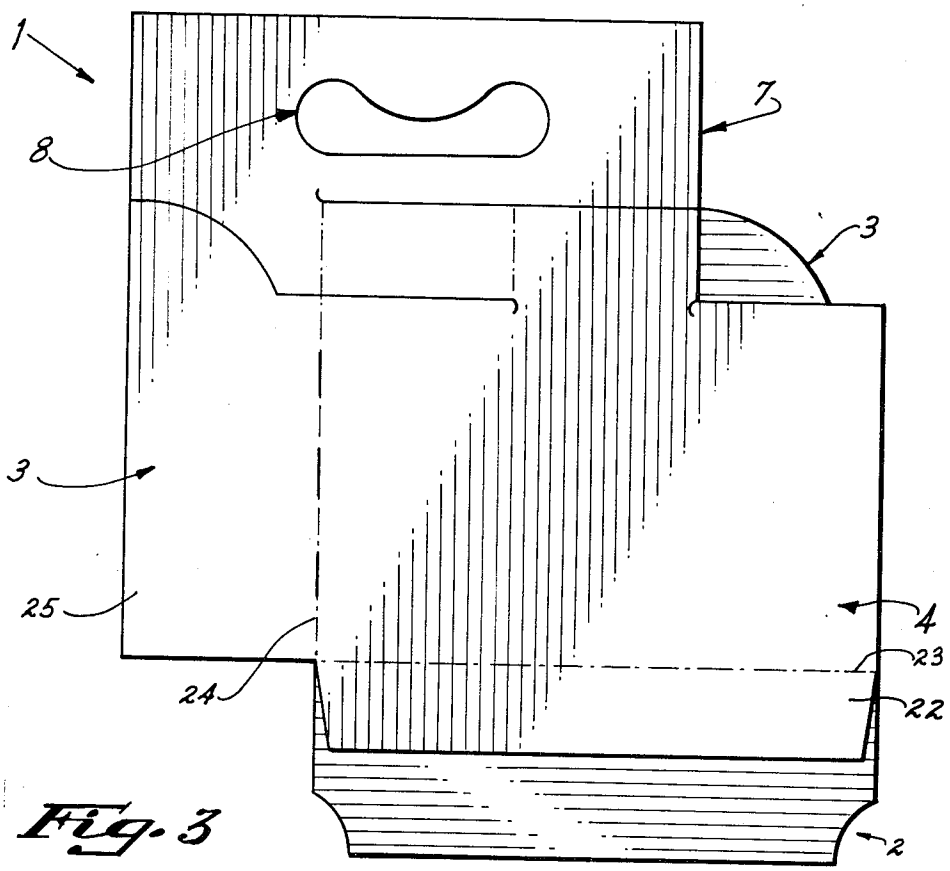


Fig. 3

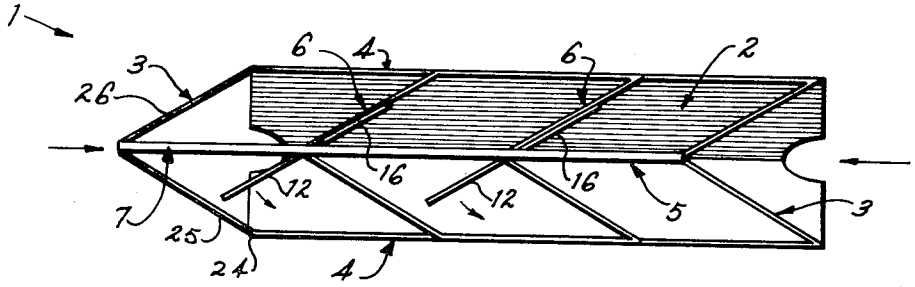


Fig. 4

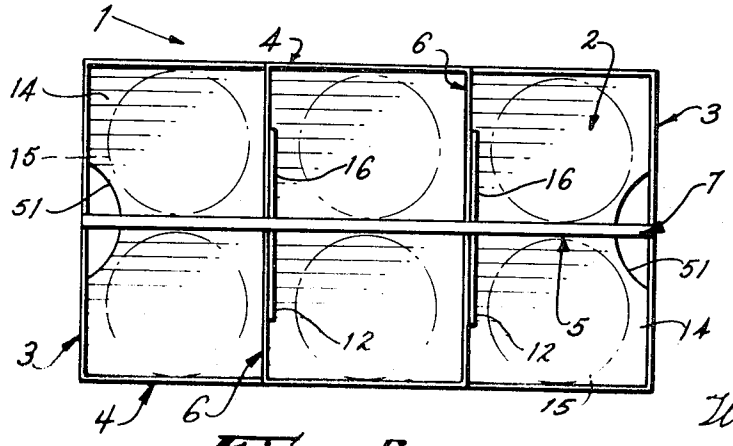


Fig. 5

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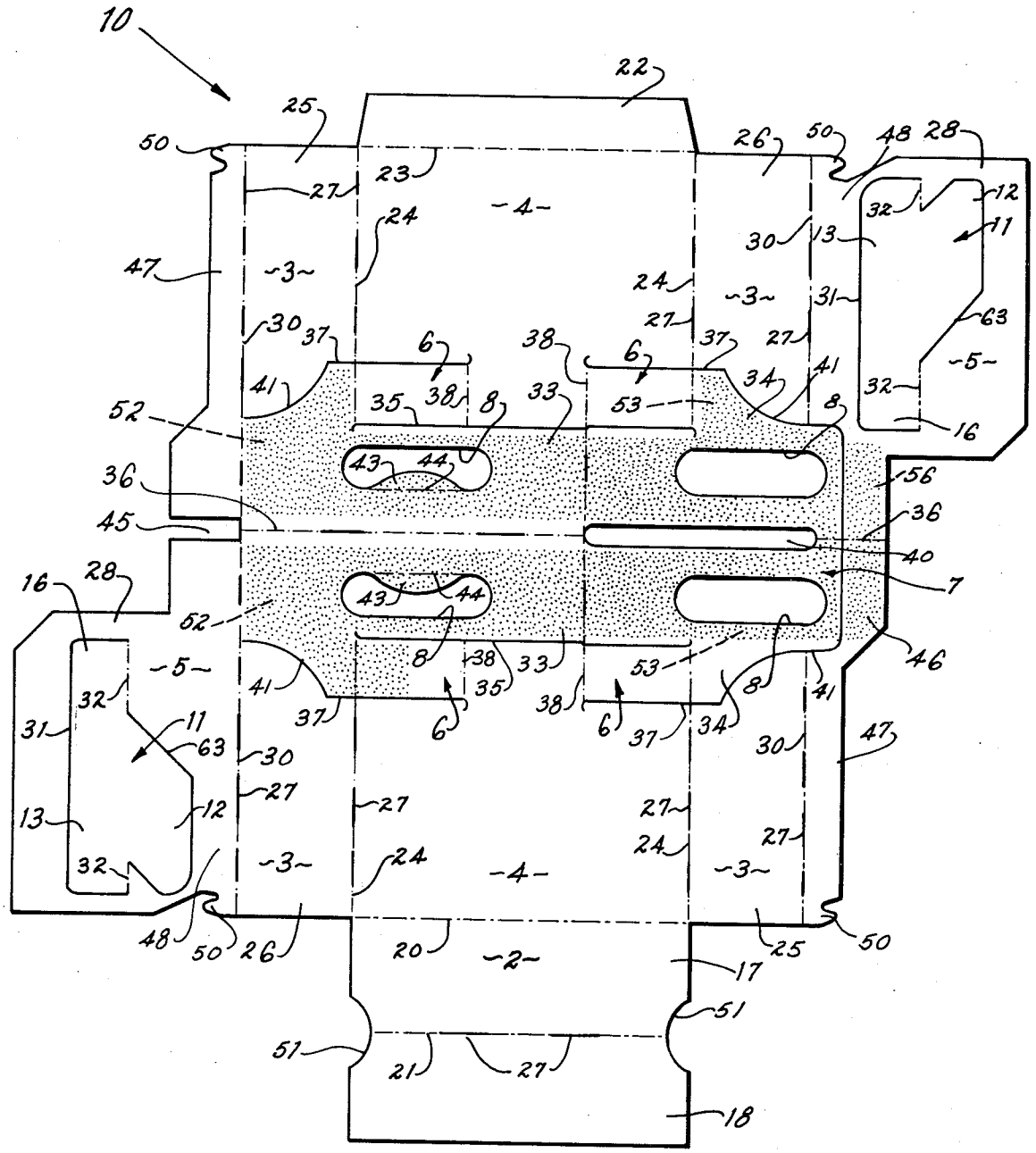


Fig. 6

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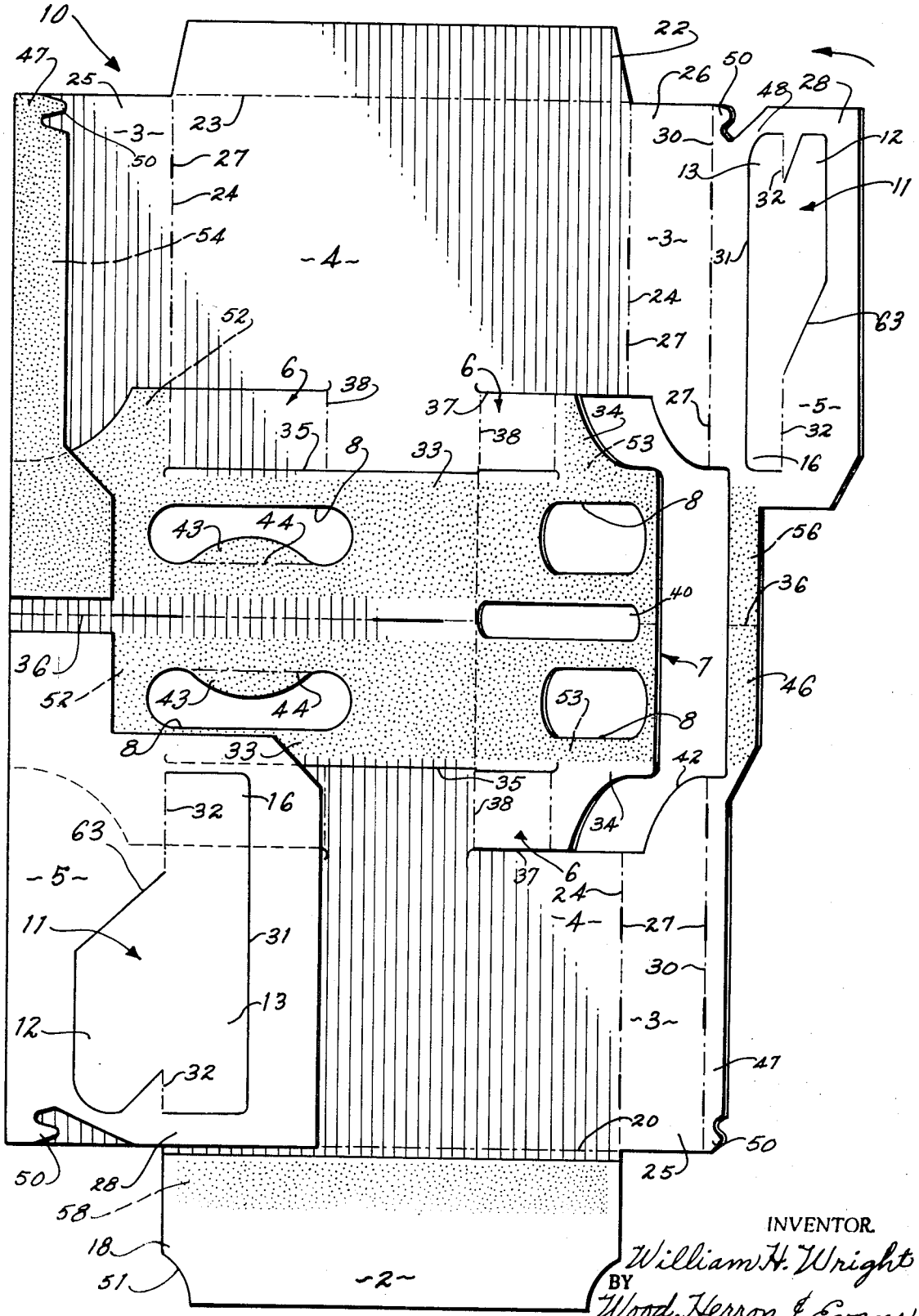


Fig. 7

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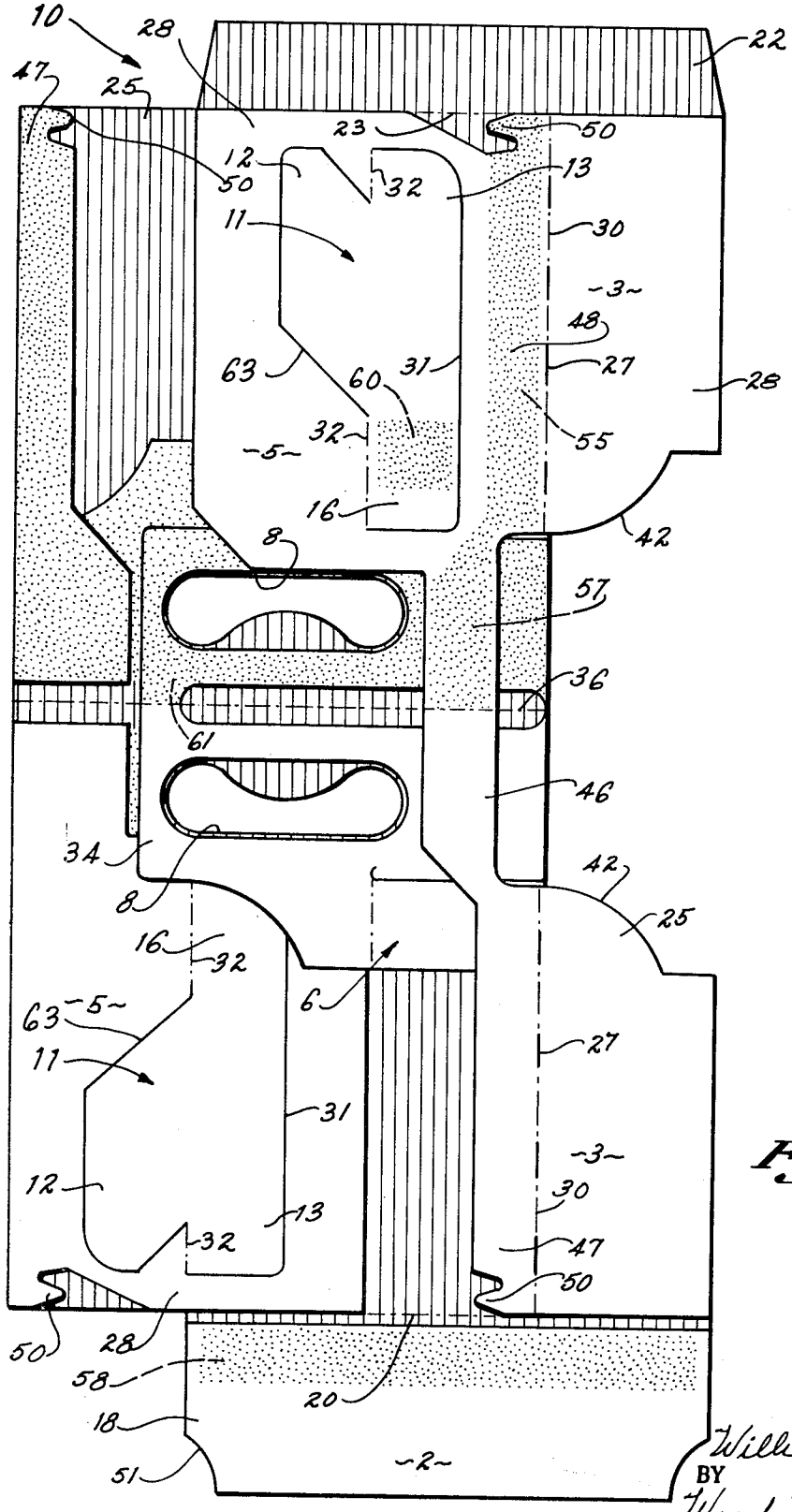


Fig. 8

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BEVERAGE BOTTLE CARRIER

BACKGROUND OF THE INVENTION

Bottle carriers of one-piece construction, having longitudinal and transverse separators to protect the individual bottles of a group (for example, of six or eight bottles, are known in the art as "six-packs" or "eight-packs"). The typical carrier comprises a container, a longitudinal partition or separator, with cross straps connecting the longitudinal partition to the side walls of the container. Carriers of this type include a handle portion rising upwardly from the central partition and having an opening to serve as a grip for hand transport.

While the longitudinal partition prevents contact and consequent marring of the rows of bottles in the compartments on opposite sides of the partition, the cross straps do not. In other words the cross straps extend across the top of the container not downwardly into the container, therefore ordinarily there is contact between the individual bottles confined in the compartments on each side of the longitudinal partition, with attendant marring or chipping of the returnable bottles after prolonged handling.

One-piece paper board carriers having transverse separators have been proposed in the past, one example being disclosed in the patent to E. L. Arneson U.S. Pat. No. 3,084,831, issued on Apr. 9, 1963 in which the transverse separators are adhesively secured to the cross straps on opposite sides of the longitudinal separator. Other carriers having transverse separators have also been proposed but differ structurally from the type here involved.

The present application is directed to a carrier having six compartments (six pack) for carrying a group of six segregated bottles. A carrier having eight bottle compartments (eight pack) is disclosed in a copending application of William H. Wright, Ser. No. 138050, filed on Apr. 28, 1971, to which attention is invited.

One of the primary objectives of the invention has been to provide a simplified six-pack bottle carrier formed from a one-piece sheet blank having a longitudinal separator or partition dividing the carrier into two longitudinal compartments, with a plurality of transverse separators forming a part of the longitudinal separators, whereby, after the one-piece blank has been folded and glued, the transverse separators hinge about their scorelines in an automatic manner and flip into the longitudinal compartment and extend outwardly in cantilever fashion from the longitudinal partitions thereby to delineate individual bottle cells within the container.

According to this concept, the one-piece blank, after having been folded and adhesively secured along the several score and severance lines, resides in a flat knock-down state for shipment. The carrier includes transverse straps connecting the side walls with the central partition or separator, the carrier being erected by applying pressure to the opposite ends of the flat carrier, thereby spreading the side walls outwardly in toggle fashion, and at the same time bringing the end walls and cross straps to a right angular position.

Each transverse separator delineated in the longitudinal partition, has a portion adhesively connected to one of the cross straps. Therefore, the transverse separators, which are formed by severance and scorelines in the central partition, also are forced to the

right angular position with the cross straps (by reason of their connection to the transverse separators, at one side, to the transverse straps). Therefore, the free half of the transverse separators hinge or flip to a position at right angles into one of the longitudinal compartments and extend transversely in cantilever fashion across the carrier, with no attachment to the longitudinal partition other than hinge lines. This construction therefore simplifies the gluing and assembly operations.

Moreover, the free cantilever portion of each separator includes an upwardly inclined outer edge which provides a camming action with respect to the bottom of the bottles to force the free portions to the correct right angular position in the event they are sprung during erection.

The folding and gluing of the one-piece sheet blank may be carried out by appropiate machinery and the completed blank thus formed is ready for shipment to the user in its flat state to be erected by application of endwise pressure to the carrier. appropriate

Another object has been to conserve sheet material by providing the sheet blank in which the cut-out and hinged transverse bottle separators of the invention are formed directly in the panel which constitutes the longitudinal separator, the arrangement being such that the cut-out hinged portions, delineating the transverse separators, have no substantial weakening effect with respect to the longitudinal partition.

The panels, which in part, form the longitudinal partition, are located on diagonally opposite sides of the sheet blank, and the score and severance lines for the transverse separators of the invention are also formed in the longitudinal separator panel. The transverse separators of the invention, therefore do not represent any waste material.

Since the flaps or panels which upon erection, form multiple ply longitudinal separators, are located at diagonally opposite sides of the sheet blank, waste of material is further reduced. In other words, the paper board material, from which the adjacent sheet blanks initially are cut, are generally symmetrically opposite with respect to one another, that is to say, the adjoining sheet blanks, upon being severed from a continuous length of sheet material, roughly interfit one another, with an attendant saving in material.

A further objective has been to provide a bottle carrier having transverse separators, in which the carrier is designed for ultimate simplicity in the application of adhesive and in folding the blank to its final position ready for erection, whereby the flat sheet blank may be erected by machine operations, if desired, to form the flat carrier ready for erection.

After gluing and folding, the carrier in its flat knockdown condition is ready for shipment and may be erected for use at the bottling plant either by machine operations or by hand.

Various other objectives and advantages of the invention will be more fully apparent to those skilled in the art from the following detailed description in conjunction with the drawings.

DRAWINGS

FIG. 1 is a perspective view of a six-pack carrier in erected condition, constructed according to the principles of the invention.

FIG. 2 is a cross section, taken along line 2—2 of FIG. 1, showing the internal construction of the carrier, particularly one of the transverse bottle separators which extend at right angles to the longitudinal partition.

FIG. 3 is a side view of a completed carrier formed from the blank, with the several panels adhesively assembled, but in a flat, knock-down condition prior to erection of the carrier as shown in FIG. 1.

FIG. 4 is a top plan view of the carrier in the flat, knock-down state as projected from FIG. 3, but in partially erected condition.

FIG. 5 is a top plan view of the completed carrier in its fully erected or squared position as taken from FIG. 4.

FIG. 6 is a plan view of the preformed blank, as viewed from the inside surface, showing the adhesive areas which are located on the surface of the blank.

FIG. 7 is a view generally similar to FIG. 6, showing the first step in the folding of the blank and also disclosing certain of the adhesive areas on the outer surface of the blank.

FIG. 8 is a view generally similar to FIG. 7, showing the second step in the folding and gluing of the blank, leading to the formation of the knock-down carrier shown in FIG. 3.

SIX COMPARTMENT CARRIER (SIX-PACK)

Described generally, the carrier constructed according to the principles of the invention, is indicated generally at 1 (FIGS. 1 - 5) and comprises a sectional bottom indicated generally at 2 in the views noted. Rising from the bottom, there is a pair of end walls 3—3, also of sectional construction rising from the bottom 2, with a pair of side walls 4—4 also rising from the bottom 2. The bottom 2, the end and side walls 3 and 4 and the other components of the carrier are delineated by score lines and lines of severance formed in the paper board sheet blank, as explained later with reference to FIG. 6.

The various score lines form lines of weakening impressed into the paper board blank and are also called "fold lines" in the specification. The lines of severance also noted in the specification, refer to cut-outs formed in the blank, severing portions of the panels and flaps and permitting these parts to be hinged about the fold lines.

The carrier, which has been selected to illustrate the principles of the invention, is arranged for confining a group of six bottles, the bottles being segregated from one another by a longitudinal partition or separator 5 and by transverse straps indicated generally at 6 which form a part of the transverse separators, as explained later. The longitudinal separator panels 5 and the transverse straps 6 divide the carrier body (in the present example) into six individual cells or bottle compartments arranged to keep the individual bottles from contacting one another with the consequent marring or chipping of the surfaces of the bottles where they would normally come in contact with one another during transport and handling. The separators, both longitudinal and transverse, as noted earlier, are delineated in the sheet blank 10 (FIG. 6) by score or fold lines and lines of severance and thus form an integral part of the blank.

Rising upwardly from the longitudinal separator panel is a handle of composite construction, indicated generally at 7 for transporting the carrier. The handle includes a hand grip opening 8 for convenience in carrying the container.

As noted earlier, the carrier may be fabricated from a paper board of fiber board material or in some cases, other materials such as plastic.

It will be noted at this point that the transverse straps 6, are integral with the longitudinal composite separator 5 and side walls 4 of the blank 10 (FIG. 6), as explained later. In general, each transverse strap 6 rises from the side walls 4 — 4 and joins the handle 7 on opposite sides of the longitudinal partition 5. The straps 6, loosely divide the carrier into the six compartments, normally leaving the lower portions of the bottles free to rattle and contact one another, causing the minute chipping and wearing effect on the bottles.

According to the present invention, the blank 10 includes transverse bottle separators 11 or partitions which extend downwardly to a plane closely adjacent the bottom 2 of the carrier so as to provide full protection of the bottles. As best shown in FIG. 2, each separator 11 extends transversely through the longitudinal separator 5 and constitutes two sections indicated at 12 and 13 so as to delineate the individual bottle compartments or cells 14. In the present instance, three cells 14 are provided on each side of the longitudinal separator 5 (FIG. 1). The segregated bottles are indicated in broken lines at 15 in the cells 14 (FIG. 5).

As noted earlier, in the present structure, the upper portion 16 of each separator 11 is attached adhesively to one of the transverse straps 6 at one side of longitudinal partition 5. The upper portion 16 forms a part of the separator section 13, as shown at the left in FIG. 2. The opposite separator section 12 simply projects freely into the carrier, being unattached to the strap 6 with which it is associated. In other words, the separator section 12 is severed from the blank, and upon erection of the carrier, springs or flips to its extended bottle-protecting position without requiring any gluing operations.

This construction represents a substantial saving in material; makes the carrier easier to erect from its blank condition; and also facilitates manufacture of the carrier by the elimination of certain gluing and folding operations, as explained later.

CARRIER BLANK (SIX-PACK)

Referring to FIG. 6, the bottom of the carrier, previously indicated at 2, comprises the two bottom panels 17 and 18 delineated by the scoreline 20 at the lower edge of the blank. The bottom panel sections 17 and 18 are subdivided by an intermediate score or fold line 21 for purposes of erection, as explained later.

An adhesive flap 22, delineated by the crease or scoreline 23 projects from the upper edge of the blank, as shown in FIG. 6. As explained later, the flap 22 is adhesively secured to an edge portion of bottom panel 18 to form the bottom of the carton during erection.

The side wall panels, previously indicated at 4 — 4, rise from the bottom 2 along the scorelines 20 and 23. The corners of the container delineated by the score or fold lines 24 — 24. The end walls 3 comprise pairs of end wall panels 25 and 26 and are diagonally located

counterparts hingedly joined to the side walls 4 along the scored fold lines 24 so that the end walls 3 are joined to the side walls 4. The scorelines 24 thus form the corners of the carrier.

It will be noted that the fold lines used throughout the blank each include a series of spaced severance lines indicated at 27 to improve the folding or hinging effect.

It will be noted in FIG. 6, that the composite longitudinal separator 5 comprises two panels 28 which are counterparts diagonally located with respect to the blank and joined to the end wall panels 26—26 along the scored fold lines 30—30, to complement one another in erection. The longitudinal partition panels 28 — 28 upon erection of the carton, are disposed in face-to-face relationship and are secured together adhesively (FIG. 1), as explained later.

Each partition panel section 28 (FIG. 6) includes severance lines 31 and scored fold lines 32 configurated to form the transverse separators, previously indicated at 11 (FIG. 1). Upon erection of the carton (with the components adhesively secured to one another), the separators 11 hinge about the fold lines 32 while the separator proper pulls loose from the panel 28. As noted with reference to FIG. 2, the portion 16 of each separator is adhesively secured to one of the cross straps 6 as part of the section 13 of the separator. Accordingly, the separator hinges about the scorelines 32 and flip automatically to their transverse position (FIGS. 4 and 5), the section 12 being unattached and extending in cantilever fashion across one side of the carrier as noted. The direction of movement of the parts is indicated by the arrows in FIG. 4.

The handle section, previously indicated at 7 is of multiple ply construction, comprising the two panels 33 — 33 and 34 — 34 (FIG. 6). The panels 33 and 34 are separated from the blank by the cuts or severance lines 35 — 35. The two panels 33 — 33, which combine to form the multi-ply handle include an intermediate scored fold line 36 about which the sections 33 — 33 hinge during erection.

The panels 34 — 34 are delineated by the severance lines 37 — 37 and by the right angular scoreline 38. The sections 34 are separated from one another by the longitudinal slot 40 coextensive with the fold line 36. It will be noted that the transverse straps 6 are also separated from the blank proper by the severance lines 37, portions of which are curved as at 41 to form the upwardly curved edge portions 42 of the end walls 3 (FIG. 1).

The hand grip openings 8 (FIG. 1) are formed in pairs in each of the handle-forming panels 33 and 34. The openings 8 are arranged to register with one another to form the single hand grip 8 upon folding and erecting the carton, as shown in FIG. 1. It will be noted in FIG. 6, that the openings 8 of the handle-forming panels 33 each include a flap 43 foldable relative to opening 8 along the scoreline 44 and serving to reinforce the handle 7.

As viewed at the left-hand side of FIG. 6, there is provided an open slot providing clearance for the several plys of the longitudinal separator 5 and handle 7 upon erection. The right side of the blank includes a strap 46 which, upon erection, is interposed between the sections of the composite handle to connect the end walls 3 to the handle 7.

The outer edges of the diagonally located end wall panels 25 each include a glue flap 47 — 47 outlined by the previously described scorelines 30 — 30. The opposite diagonal end wall panels 26 — 26 include a mating glue flap 48 — 48, similarly outlined by the scoreline 30 and forming a part in each case of the partition panel sections 28 — 28. The glue flaps 47 and 48 reside in facial engagement with one another upon erection of the carton.

Each of the glue flaps 47 and 48, at their outer edges, are notched out to form a spur 50. When erected, the spurs 50 reside in registry with one another at the lower edges of the end walls 3 — 3 (FIGS. 1 and 4) and provide a snap engagement with the semi-circular cut-out portions 51 formed in the central portion of the bottom 2. The snap engagement of the spurs 50 support the bottom 2 of the carrier and hold the carrier in erected position as shown in FIGS. 1, 4 and 5.

ADHESIVE AREAS

As shown in FIG. 6, the handle-forming panels 33 and 34, on the inner face of the blank are coated with an adhesive as indicated by the stippled areas 52 — 52 and 53 — 53. In addition, the glue flaps 47 and 48 on the exposed outer surface of the blank also are provided with adhesive areas 54 and 55, the partition panel sections 28 and glue flaps 47 being shown folded inwardly from the flat blank to expose to view the adhesive areas (FIG. 8). The connecting strap 46 extending between the right hand partition panel section 28 and end wall panel 3 also includes an adhesive area 56 on the inner surface (FIG. 6) and on area 57 on the outer surface (FIGS. 7 and 8).

In order to secure the bottom panel 18 to the bottom flap 22, an external portion of the bottom flap 18 is similarly provided with an adhesive area 58 on its outer surface (FIGS. 7 and 8). The upper end portion 16 of each bottle separator 11, which is adhesively secured to its cross strap 6 is similarly coated with adhesive 60 — 60 as indicated.

The blank shown in FIG. 7, which exposes, in part, some of the external adhesive coated surfaces, is shown in the position assumed during the first step in assembling the carrier, in which the glue flap 47 to the left-hand side is shown folded inwardly and over upon the handle-forming panel 33. The right-hand longitudinal partition panel 5 is shown in FIG. 7 being folded inwardly upon the inner face of the blank, as indicated by the arrow. The bottom panel 18 also is shown folded inwardly to disclose the adhesive area 58.

FIG. 8 discloses the second step in the formation of the carrier with the hinged portions all shown folded inwardly upon the inner surface of the blank for adhesively securing the parts together.

After the various flaps and panels of the blank are secured together, the blank is assembled but remains in knockdown condition as shown in FIGS. 3 and 4. At this stage the erection procedure is completed by pushing the end walls 3 in the direction indicated by the arrows in FIG. 4, thus spreading the side walls 4 outwardly and squaring up the carrier.

After being squared (FIG. 5) the spurs 50 engage the semi-circular notches 51 of the composite bottom to complete the erection. It will be understood that the blanks preferably are assembled and adhesively secured by automatic machinery, although the same operation may, of course, be carried out by hand.

After the components are secured, the blanks preferably are transported in the flat knock-down state (FIG. 3) and may be erected as shown in FIGS. 4 and 5 at the bottling plant.

ERECTION

After glue has been applied to the areas 52 – 61, as previously noted, the carrier is ready for erection. During erection from the blank form of FIG. 6, the glue flaps 47 and 48 and the longitudinal separator panels 5 are folded inwardly upon the blank (FIG. 7), thus exposing the adhesive area 55 which is applied to the outer surface of the glue flap 47. In FIG. 7, the longitudinal panel 5 and glue flap 47 on the left-hand side of the blank are shown completely folded over upon the inner side of the blank, while the corresponding parts on the right-hand side are shown in the act of being folded in, as indicated by the arrow.

As noted earlier, these parts are hinged along the scorelines 30, as previously described. As shown by the arrow in FIG. 7, the panel 34 which forms one ply of the handle, is also folded along its scoreline 38 to overlie its mating panel 33.

When the first folding operation is completed (FIG. 8), the adhesive areas 54, 55, 57 and 61, which are applied to the outer surface of the blank, are exposed outwardly in order to secure the mating components to one another.

It will be understood at this point that the strap 46, with its adhesive area 57, will be folded in between the panels 34 — 34 which make up the composite handle to be adhesively secured thereto. The strap 46 thus secures the end walls 3 to the composite handle along the right-hand side of the carrier as viewed in FIG. 8.

After the several panels have thus been folded along their respective scorelines to the position of FIG. 8, the two halves of the blank are folded over upon themselves along the scoreline 36 (FIG. 8), the glue flaps 47 and 48 on diagonally opposite sides of the blank (FIG. 6) now being in face-to-face registry, such that the spurs 50, forming a part of the diagonal end wall panels mate with the spurs 50 (two-ply at this stage) of the glue flaps along the vertical line 62 (FIG. 1) which forms the juncture between the end wall sections and also provides the connection with the longitudinal panel. As the blank is folded upon itself along the scoreline 36, the adhesive area 58 of panel 18 comes into face-to-face contact with the bottom flap 22, thus making up the bottom of the carrier.

As the partially folded blank is doubled upon itself from the position of FIG. 8 to the position of FIG. 3, the upstanding portions 16 of the transverse separators 11 are brought into facial engagement with the transverse straps 6 which connect the side walls 4 — 4 with the longitudinal separator 5, thus securing the fixed separators sections 13 to the straps 6, while the second section 12 of each separator is free. As noted earlier, the transverse separators 11 are free to hinge along the fold lines 32, the free portion 12 of the separator 11 being separated from the partition panel 28 along the lines of severance 31.

When folded and adhesively secured in this manner, the carton blank assumes the state shown in FIGS. 3 and 4 (shown partially expanded for clarity) with the composite end walls 3 — 3 bent angularly in the same direction and with the side walls 4 parallel with one another and parallel with the longitudinal separator 5.

In order to erect the assembled flat blank (FIGS. 3 and 4), pressure is applied from opposite ends, as shown in FIG. 4, whereby the angulated sections of the end walls 3 spread the side walls 4 outwardly in toggle fashion. During this action, the cross straps 6, which are parallel with the end walls, also pivot by toggle action from the flat position toward a right-angular position. During this motion of the cross straps, the upper portions 16 of the transverse separators 11, which are glued to the straps 6, hinge the separators 11, causing the free sections 12 of the bottle separators, which are severed from the longitudinal partition 5, to hinge about their fold lines 32, thus causing the free portions 12 to swing to a right-angular position as indicated by the arrows in FIG. 4.

In the fully erected position (FIG. 5), the end wall sections 3 and straps 6 are disposed at a right angular position, while the free edge portions 12 of the separators project outwardly in cantilever fashion to delineate the individual cells of the bottle carrier. It will be seen therefore that the transverse separators 11 are hingedly connected to the longitudinal separator panel 5 (scorelines 32) and are additionally secured by the adhesive connection of the upper portion 16 of the separator to the cross straps 6. The separators 11 thus are securely attached to the cross straps 6 and longitudinal separator 5 and their free edge portions project in cantilever fashion into the compartment at one side of the carrier to form cells for separating the bottles.

The toggle action of the bottom sections 17 and 18, now secured by the two-ply spurs 50, holds the carrier in its erect position ready for use. It will be understood at this point that the angular upper edge 63 of the separators 11 provide a camming action with respect to the bottles in the event the free cantilever portions 12 are not completely squared when the carrier is erected. In other words, as the bottles are inserted, their bottoms first contact the upper angular edge 63 then, in sliding downwardly along the angular edge 63, progressively force the separator 11 to the correct right angular position relative to the longitudinal partition 5.

Moreover, the angular line of separation, as defined by line 63, adds to the material connecting the composite handle 7 to the longitudinal separator or partition 5 since a minimum of material is removed. This arrangement preserves the strength of the composite handle which bears in tension the weight of the loaded carrier.

Having described my invention, I claim:

1. In a collapsible carrier of the type having cells for segregating bottles and similar articles from one another, the carrier having a bottom, a pair of side walls and a pair of end walls rising from the bottom, and a longitudinal partition rising from the bottom of the carrier and extending medially of the carrier between said end walls, the improvement comprising

at least one pair of foldable cross straps with one strap being connected between said longitudinal partition and one side wall and the other strap being connected between said longitudinal partition and the other side wall, said straps lying in a common plane and extending transversely from said longitudinal partition when the carrier is in the fully erected attitude, and

at least one one-piece transverse separator defined by fold and severance lines in said longitudinal

partition, said transverse separator having one section secured to one strap of said pair on one side of said longitudinal partition, and having another section which cooperates with and to swings free relative to the other strap of said pair on the other side of said longitudinal partition, the two sections of said separator lying in the plane of said longitudinal partition when the carrier is collapsed and lying in the plane of said pair of straps when the carrier is erected, and the two sections of said separator being non-foldable relative one to the other,

the interconnection of said separator's one section with said one strap causing said separator's other section to move between the plane of said longitudinal partition and the plane of said other strap as the carrier is moved between fully collapsed and fully erected attitudes so as to subdivide the carrier into individual bottle segregating cells on opposite sides of the longitudinal partition.

2. The improvement for a collapsible carrier as set forth in claim 1 wherein said separator's sections pivot about a fold line that is vertically oriented in said longitudinal partition relative to said bottom when the carrier is moved toward the fully erected attitude from the fully collapsed attitude.

3. The improvement for a collapsible carrier as set forth in claim 1 wherein the other section of said transverse separator includes an upper edge that angles downwardly toward its associated side wall from said longitudinal partition, said edge cooperating with the bottom portion of a bottle inserted into the erected carrier to cam that other section to a right angular position relative to said longitudinal partition if said other section has not been established in the plane of said other strap upon erection of the carrier.

4. The improvement in a collapsible carrier as set forth in claim 1 wherein said end walls comprise panels foldably joined to said side walls, said end wall panels having glue flaps foldably connected to the end wall panels adjacent the free edges thereof, and said glue flaps of the end wall panels secured to said longitudinal partition, and including

a handle portion rising above and connected with said longitudinal partition, said handle portion being of at least two-ply construction and embracing the opposite sides of said longitudinal partition, and said end wall glue flaps being disposed between the handle portion's plys and secured thereto, such allowing the carrier's weight load to be supported by the handle portion and transmitted thereto by said end wall panels' glue flaps so as to relieve said cross straps of the carrier's weight load.

5. The improvement in a collapsible carrier as set forth in claim 4 in which said cross straps are defined by severance lines and fold lines formed in the plys of said handle portion and side walls.

6. The improvement in a collapsible carrier as set forth in claim 4 wherein said improvement is embodied in a sheet blank from which the carrier is adapted to be constructed.

7. A one-piece sheet blank adapted to form a collapsible carrier of the type having cells for segregating bottles and similar articles from one another, said blank comprising

a bottom panel hingedly connected to the blank by fold lines,

a pair of side wall panels hingedly connected to the bottom panels by fold lines,

two pair of end wall panels hingedly connected to the vertical carrier corner edges of said side wall panels by fold lines, one of each pair being connected to each vertical carrier corner edge of said side wall panels,

a longitudinal partition panel hingedly connected by fold lines to an edge of each of two of said end wall panels, said two longitudinal partition panels being attached to those end wall panels that are diagonally opposite one from the other on the blank,

a plurality of cross straps hingedly connected at one end to said side wall panels by fold lines and adapted to be hingedly connected at the other end to said longitudinal partition panels by gluing, said straps being arranged so that when the blank is fully erected into carrier configuration said straps will be paired with one of each pair extending transversely from one side of said longitudinal partition panels and the other of each pair extending from the other side of said longitudinal partition panels in a common plane, and

at least one one-piece transverse separator defined within each longitudinal partition panel, each transverse separator being delineated by lines of cutting and folding and being hingedly connected to its longitudinal partition panel by said fold lines which are formed substantially medially of the transverse separator, and each transverse separator providing a first and second section located on opposite sides of and extended transversely relative to said longitudinal partition when the blank is fully erected into carrier configuration.

8. A sheet blank as set forth in claim 7 in which each separator's first section only is adapted for gluing to one cross strap of an associated pair, and each separator's second section is interconnected only with said longitudinal partition panels and is adapted for free swinging movement about said separator's fold line into a common plane with the other cross strap of that associated pair as the blank is erected into carrier configuration.

9. A sheet blank as set forth in claim 8 in which the second section of each transverse separator includes an inclined upper edge adapted to cooperate with the bottom portion of a bottle inserted into a fully erected carrier formed from the blank so as to force said second section to a right angular position relative to said longitudinal partition.

10. A sheet blank as set forth in claim 8 including

handle panels interconnected by fold lines with said longitudinal partition panels, said handle panels being adapted to embrace said longitudinal partition panels therebetween when the blank is glued into carrier configuration.

11. A sheet blank as set forth in claim 7 including two pair of said cross straps, thereby providing three cells on each side of said longitudinal partition when the sheet blank is erected into carrier configuration.

12. A sheet blank, as set forth in claim 7, folded and glued into carrier configuration.

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