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2,371,312	3/1945	Potter.....	229/28(BC)X
2,671,584	3/1954	Taylor, Jr.	(229/28BC UX)
3,189,247	6/1965	Wischusen	229/28
3,366,305	1/1968	Cohen et al.....	229/28
3,400,875	9/1968	Coe	229/28
3,434,650	3/1969	Goings	239/28

FOREIGN PATENTS

1,504,754	10/1967	France	229/28(BC)
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[54] CUP CARRIER
8 Claims, 5 Drawing Figs.

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224/45.2; 229/52

[51] Int. Cl. B65d 5/48

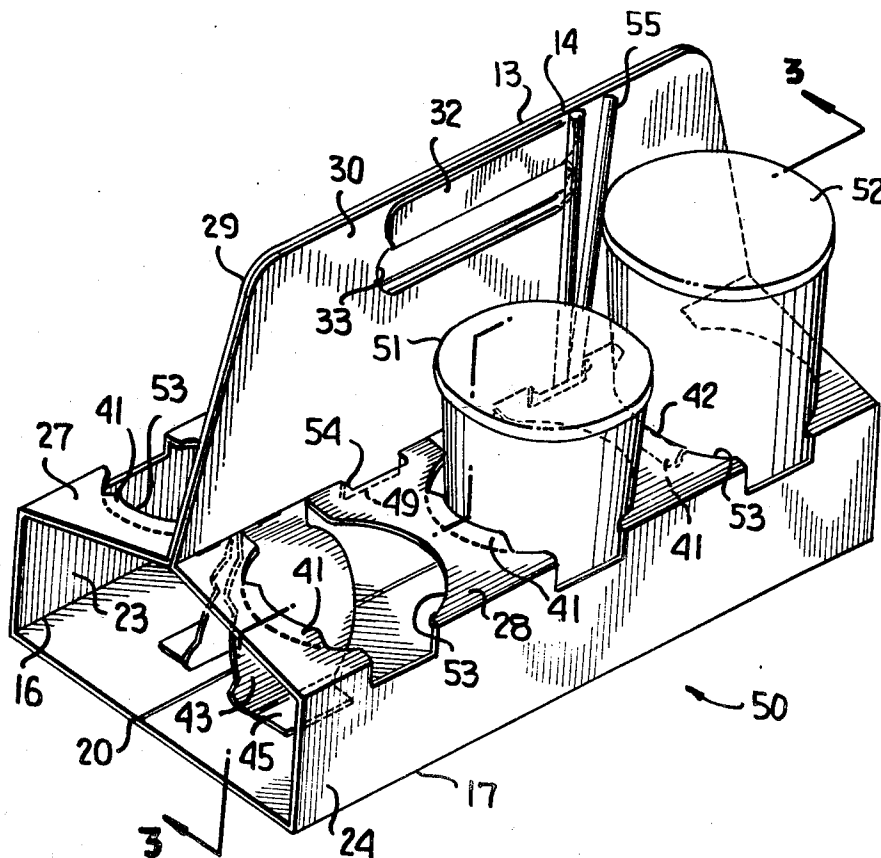
[50] **Field of Search**..... 229/28, 28
(BC); 224/45, 45.2, 45.25; 220/52 (BC)

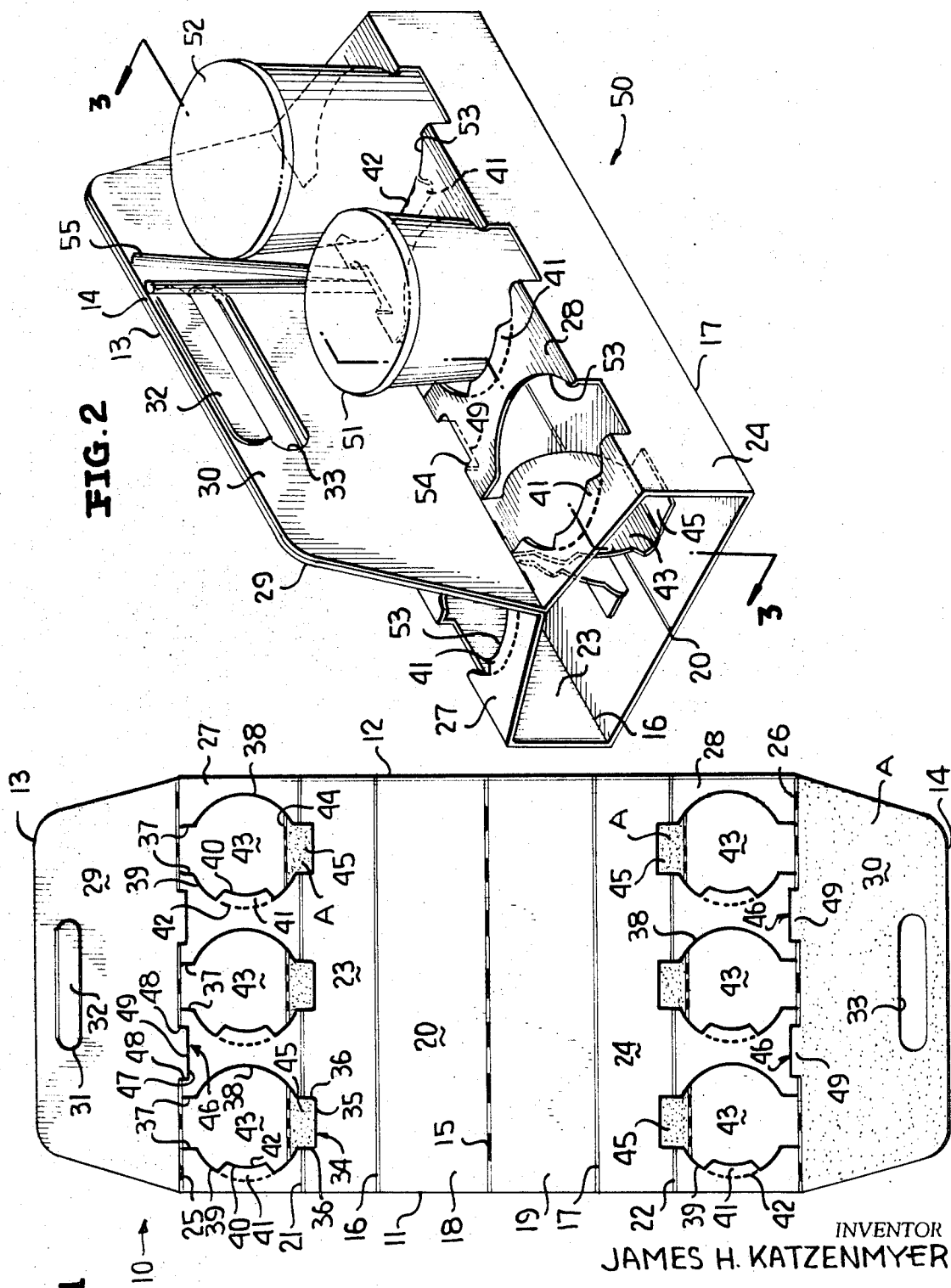
[56] **References Cited**

UNITED STATES PATENTS

2,206,728	7/1940	Nevins.....	(224/45.2UX)
2,284,290	5/1942	Marshall, Jr.....	(224/28BC UX)
2,296,937	9/1942	Lyons, Jr.....	(229/28BC UX)
2,336,857	12/1943	Gies et al.	224/45.2 X

ABSTRACT: This disclosure relates to a carrier having a plurality of openings formed in the top wall thereof for receiving a plurality of drinking cups therein. A tab extends into each of the openings and is adapted to engage a container of predetermined size positioned therein. Insertion of a container of a size greater than the predetermined size will cause the tab to pivot out of the plane of the opening thereby increasing the size of the opening in order to accommodate the larger container. The carrier also includes a plurality of narrow elongated openings formed in the top wall thereof for holding a plurality of drinking straws.





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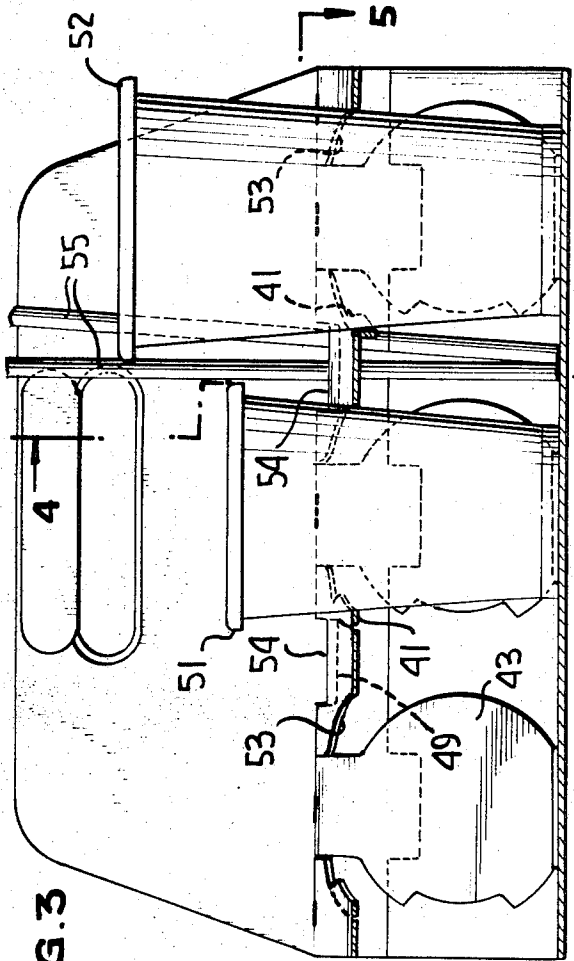


FIG. 3

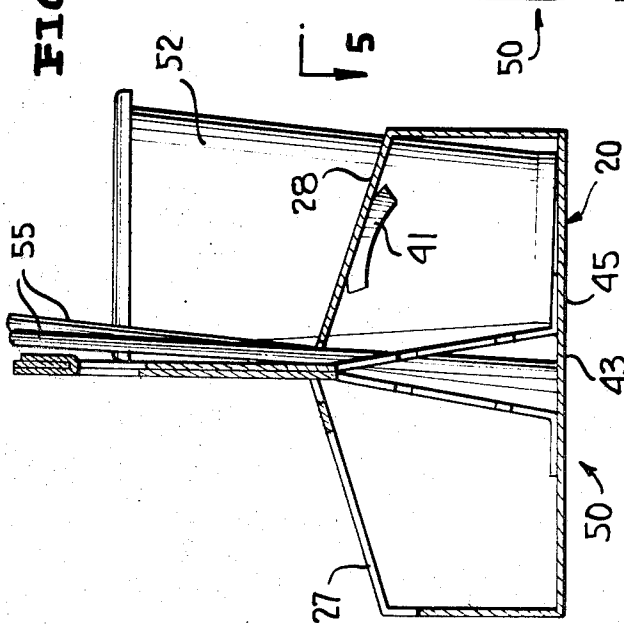


FIG. 4

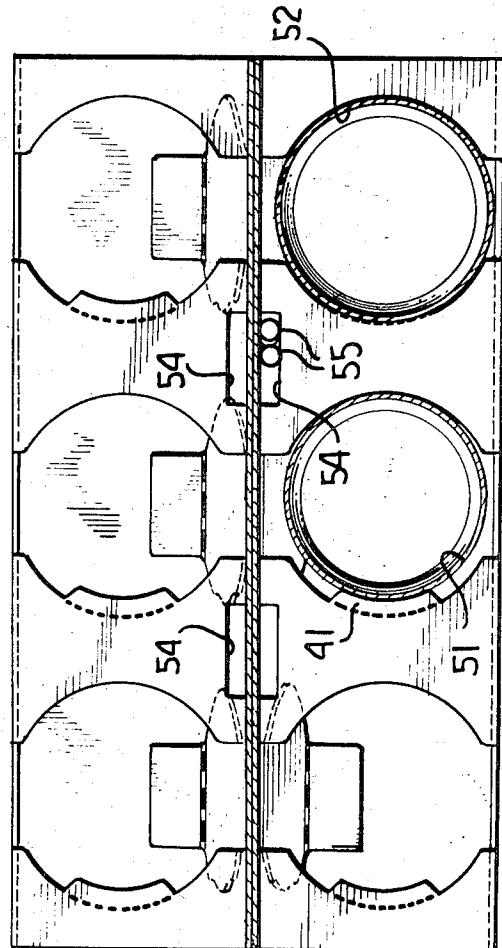


FIG. 5

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CUP CARRIER

This invention relates to carriers and, more particularly, to paperboard carriers for containers such as drinking cups.

Ready-to-eat food and beverages are often purchased by a consumer at one place and then carried a short distance to the place where they are consumed. This may take place in athletic stadiums where the food is purchased at a vending stand and then carried by the consumer to his seat, in a drive-in where the food is purchased at a counter and then carried by the consumer back to his car, at picnic grounds and in many other situations. The food and beverages are usually placed in a box or other carrier in order to facilitate the transport thereof back to the place of consumption. However, when cups of beverages are placed in a box they may readily tip over and spill. In order to overcome this problem, carriers have been developed with compartments or openings which receive and support containers therein. Such carriers have been reasonably successful in preventing containers from tipping over, but their success has been limited inasmuch as they are effective in supporting only a container of a predetermined size; i.e., those containers that will be relatively snugly received within the compartments or openings. Containers that are larger than the openings, of course, will not be received therein, and containers that are significantly smaller than the openings will not be securely supported thereby.

It is, therefore, an object of this invention to provide an improved container carrier that is effective in carrying containers of varying sizes.

More particularly, it is an object of this invention to provide a container carrier having a plurality of container-receiving openings formed therein, and wherein tabs extend into the openings for engaging a container of a predetermined size received therein, the tabs being pivotally connected to the carrier whereby insertion of a container of a size greater than the predetermined size into an opening will cause the tab to pivot out of the plane of the opening thereby increasing the size of the opening to engagingly receive the larger container.

Another object of this invention is to provide a carrier for containers wherein the carrier is provided with a plurality of narrow elongated openings formed in a top wall thereof for receiving and holding a plurality of drinking straws.

With the above and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claimed subject matter and the several views illustrated in the accompanying drawings.

IN THE DRAWINGS

FIG. 1 is a plan view of a blank from which the carrier of this invention may be constructed, and illustrates six generally circular flaps which may be folded out of the plane of the blank to define six container-receiving openings;

FIG. 2 is a perspective view of a carrier constructed from the blank of FIG. 1 and illustrates two containers snugly received within openings in the carrier, and two drinking straws carried within a narrow opening formed in a top wall of the carrier;

FIG. 3 is a vertical sectional view taken along line 3-3 of FIG. 2, and illustrates the manner in which a smaller container is engaged by a tab extending into the opening while a larger container is received in another opening with its respective tab being pushed downwardly out of the plane of the opening thereby increasing the size thereof to accommodate the larger container;

FIG. 4 is a vertical sectional view taken along line 4-4 of FIG. 3 and further illustrates the manner in which the tab has been pivoted downwardly to accommodate receipt of the larger container; and

FIG. 5 is a horizontal sectional view taken along line 5-5 of FIG. 3 and further illustrates the details of the carrier formed in accordance with this invention.

Referring now to the drawings in detail, there is illustrated in FIG. 1 a blank generally referred to by the numeral 10. The

blank 10 is generally rectangular in outline and includes two longitudinal edges 11 and 12, and two transverse edges 13 and 14. The blank 10 is divided in half by a fold line 15 extending transversely thereof. The fold line 15, in cooperation with fold lines 16 and 17 and portions of the longitudinal edges 11 and 12, sets off bottom forming panels 18 and 19, respectively, which together comprise a bottom forming wall 20.

The fold lines 16 and 17, in cooperation with fold lines 21 and 22 and portions of the longitudinal edges 11 and 12, respectively, set off side panels 23 and 24.

The fold lines 21 and 22, in cooperation with fold lines 25 and 26 and portions of the longitudinal edges 11 and 12, respectively, set off top panels 27 and 28. Handle-forming panels 29 and 30 extend from the fold lines 25 and 26, respectively, to the respective transverse edges 13 and 14. A cut line 31 is provided in the handle-forming panel 29 so as to define a hinged flap 32 which will cooperate, as will be hereinafter explained, with an opening 33 in the handle-forming panel 30 to form a finger-gripping means for a carrier that may be constructed from the blank 10.

Each of the fold lines 21 and 22 is interrupted by a plurality of generally U-shaped cut lines 34 opening toward the respective adjacent transverse edges 13 and 14. Each of the cut lines 34 includes a bight portion 35 disposed in the adjacent side panel 23 or 24 and extending parallel to the respective fold line 21 or 22, and a pair of legs 36 extending from each side of the bight portion 35 across the respective fold line 21 or 22 and into the adjacent top panel 27 or 28. Pairs of cut lines 37 extend from each of the fold lines 25 and 26 into each of the top panels 27, 28 and are aligned with each of the leg portions 36 of each of the cut lines 34. A generally arcuate cut line 38 extends from one of the cut lines 37 to the leg portion 36 of the cut line 34 with which it is aligned, and a generally W-shaped cut line 39 extends from the other cut line 37 to the remaining leg 36 of the U-shaped cut line 34 with which the pair of cut lines 37 are associated. The W-shaped cut line 39 includes a generally U-shaped central portion 40 which opens towards the adjacent longitudinal edge 11 and thus defines an inwardly projecting tab or flange 41 that may be folded out of the plane of the blank 10 along a fold line 42. It will be thus apparent that the U-shaped cut lines 34, the cut lines 37, the arcuate cut lines 38 and the generally W-shaped cut lines 39 define a plurality of flaps 43 that extend across the top panels 27, 28 and partially into the side panels 23 and 24 that may be folded along portions of the fold lines 25, 26 out of the plane of the blank 10.

A fold line 44 is provided in each of the flaps 43 and together with the cut line 34 and portions of the arcuate cut line 38 and the generally W-shaped cut line 39 set off securing tabs 45. An adhesive A may be applied to each of the securing tabs 45 as well as to the handle-forming panel 30 to be utilized in the construction of a carrier from the blank 10 in a manner to be hereinafter described.

Each of the fold lines 25 and 26 is interrupted by a plurality of shallow U-shaped cut lines 46 opening toward the respective transverse edges 13 and 14. Each of the cut lines 46 includes a bight portion 47 disposed in the adjacent top panels 27 and 28, and two legs 48 extending from the ends of the bight portion 47 and terminating at the respective fold lines 25 and 26. Each of the shallow U-shaped cut lines 46 thus form a tab 49 extending from the respective handle-forming panels 29, 30 into the adjacent top panels 27, 28 which are adapted to be folded out of the planes of the top panels 27, 28 upon folding of the handle-forming panels 29, 30 along the fold lines 25, 26 thereby leaving narrow elongated openings in the top panels 27, 28 for a purpose to be hereinafter explained.

Referring now to FIGS. 2 through 5, there is illustrated a carrier 50 which may be constructed from the blank 10 illustrated in FIG. 1. A small cup or container 51 and a larger cup or container 52 are illustrated as being received in and supported by the carrier 50.

The carrier 50 may be constructed by folding the blank 10 along the lines 15, 16 and 17 such that the handle-forming

panel 29 is brought into engagement with the adhesive applied surface A of the handle-forming panel 30 while the bottom-forming panels 18 and 19 are brought into face-to-face engagement with the panels 23 and 24, respectively. The adhesive-applied securing tabs 45 of the flaps 43 will then engage and adhere to their respective bottom-forming panels 18, 19. In this position the carrier 50 is folded flat to facilitate handling and shipping thereof but is completely assembled and may be readily opened to form the construction illustrated in FIG. 2.

As seen most clearly in FIG. 2, the carrier 50 in its erected position includes the bottom wall 20, upstanding sidewalls formed by folding the panels 23 and 24 upwardly along the fold lines 16, 17, respectively, top walls formed by the panels 27 and 28, and a handle formed by the handle-forming portions 29, 30 including finger-gripping means formed by folding the hinged flap 32 of the panel 29 through the opening 33 in the panel 30 and then upwardly toward the transverse edges 13, 14. Upon erection of the completed carrier 50, the flaps 43, by virtue of their securing tabs 45 being adhered to the bottom wall 20, are pulled down out of the planes of the top walls 27, 28 thereby leaving generally circular openings 53 formed therein. The openings 53 extend partially into the sidewall panels 23, 24. The arcuate flanges or tabs 41 extend into each of the openings 53. It should be noted that the U-shaped cut lines 34 extend less than halfway into the panels 23, 24 so that when the flaps 43 are folded out of the plane of the blank 10 upon construction of the carrier 50 the major portions of the sidewalls 23 and 24 remain in place beneath the openings 53 thereby facilitating a sturdy structure, with only notchlike portions of the walls 23, 24 removed conforming to the shape of the securing tabs 45.

As is readily apparent, the smaller container 51 is of such a size that it will be received in an opening 53 and snugly engaged by the respective arcuate tab or flange 41. On the other hand, the larger container 52 is of such a size that insertion thereof into an opening 53 will cause the respective tab 41 to be pivoted along its fold line 42 downwardly out of the plane of the opening 53. In this manner the size of the opening 53 is increased to accommodate the larger container 52. FIG. 4 clearly illustrates the manner in which a tab 41 is folded downwardly to accommodate receipt of a larger container 52 into an opening 53. FIG. 4 also clearly illustrates the manner in which a flap 43, after being folded out of the plane of its respective top wall 27 or 28 and then adhered to the bottom wall 20 by its securing tab 45, serves as a side support for the bottom of a cup received within the opening.

When the carrier 50 is erected as seen in FIGS. 2 through 5, the tabs 49 of the handle-forming panels 29 and 30 will be folded out of the planes of their respective top wall panels 27 and 28 thereby leaving narrow elongated openings 54 formed therein. The openings 54 are intended to be of a size that they will receive and hold a number of drinking straws 55.

From the foregoing, it should be readily apparent that there is provided in accordance with this invention a novel carrier for containers or the like that is adapted, by virtue of the hinged tabs or flanges 41, to securely carry, in each of its openings 53, either of two sizes of containers or other articles. The carrier 50 is further improved as compared with carriers presently available inasmuch as it is provided with the small openings 54 for conveniently carrying drinking straws or the like.

Although a preferred embodiment of the invention has been specifically illustrated and described herein, it is to be understood that minor variations may be made without departing from the spirit of the invention.

I claim:

1. A blank for a container carrier, said blank being generally rectangular in outline and being divided into two halves by a central fold line extending transversely thereof, each of said halves having cut lines forming a plurality of flap portions hingedly connected thereto, each of said halves including three fold lines parallel to said central fold line setting off a bottom panel, a side panel, a top panel and a handle-forming panel, said flap portions extending across said top panels and partially into said side panels, and said flap portions extend into said side panels less than one-half the depth thereof.

2. A blank for a container carrier, said blank being generally rectangular in outline and being divided into two halves by a central fold line extending transversely thereof, each of said halves having cut lines forming a plurality of flap portions hingedly connected thereto, each of said halves including three fold lines parallel to said central fold line setting off a bottom panel, a side panel, a top panel and a handle-forming panel, said flap portions extending across said top panels and partially into said side panels, at least one of said fold lines setting off one of said top panels from one of said handle-forming panels being interrupted by at least one cut line forming a tab extending from said handle-forming panel into said top panel and adapted to be folded out of the plane of said top panel thereby forming an opening for holding at least one drinking straw.

3. A carrier comprising a bottom wall, upstanding sidewalls and a top wall, at least one cut line extending from the longitudinal center line of said carrier across said top wall and then back to said center line thereby forming at least one flap hingedly connected to said top wall at the center line thereof and being adapted to be folded downwardly out of the plane of said top wall whereby at least one article-receiving opening is left in said top wall, and said at least one cut line extends into one of said sidewalls less than one-half the depth thereof.

4. A carrier comprising a bottom wall, upstanding sidewalls and a top wall, at least one cut line extending from the longitudinal center line of said carrier across said top wall and then back to said center line thereby forming at least one flap hingedly connected to said top wall at the center line thereof and being adapted to be folded downwardly out of the plane of said top wall whereby at least one article-receiving opening is left in said top wall, and at least one narrow elongated opening formed in said top wall adjacent the longitudinal center line thereof for holding at least one drinking straw.

5. The carrier as defined in claim 3 wherein a portion of said top wall extends into at least one opening and being adapted to engage an article of a predetermined size received therein, and said opening portion being removable from the plane of said opening whereby an article of a size greater than said predetermined size may be received therein.

6. The carrier as defined in claim 4 wherein a portion of said top wall extends into said at least one opening and being adapted to engage an article of a predetermined size received therein, and said portion being removable from the plane of said opening whereby an article of a size greater than said predetermined size may be received therein.

7. The carrier as defined in claim 4 wherein said at least one cut line extends into one of said sidewalls less than one-half the depth thereof.

8. The carrier as defined in claim 7 wherein a portion of said top wall extends into said at least one opening and being adapted to engage an article of a predetermined size received therein, and said portion being removable from the plane of said opening whereby an article of a size greater than said predetermined size may be received therein.