

[54] **CARRIER FOR TUMBLERS, GOBLETS AND THE LIKE**

[75] Inventor: **Russell J. Hennessey**, St. Paul, Minn.

[73] Assignee: **Hoerner Waldorf Corporation**, St. Paul, Minn.

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[52] **U.S. Cl.**..... **206/426**, 229/29 B, 229/29 C, 229/37 E, 229/40

[51] **Int. Cl.**..... **B65d 5/04**

[58] **Field of Search** 229/40, 37 E, 39 B, 28 R, 229/28 BC, 29 R, 29 B, 29 C; 206/65 R, 46 FR, 45.14, 65 C, 65 E, 426; 294/87.2

[56] **References Cited**

UNITED STATES PATENTS

2,722,365	11/1955	Phipps.....	206/65 C X
3,156,404	11/1964	Wood.....	206/65 C X
3,322,383	5/1967	Weinberg.....	206/45.14 X
3,517,876	6/1970	Stout.....	229/40

3,598,302 8/1971 Nowak 229/28 R

Primary Examiner—George E. Lowrance

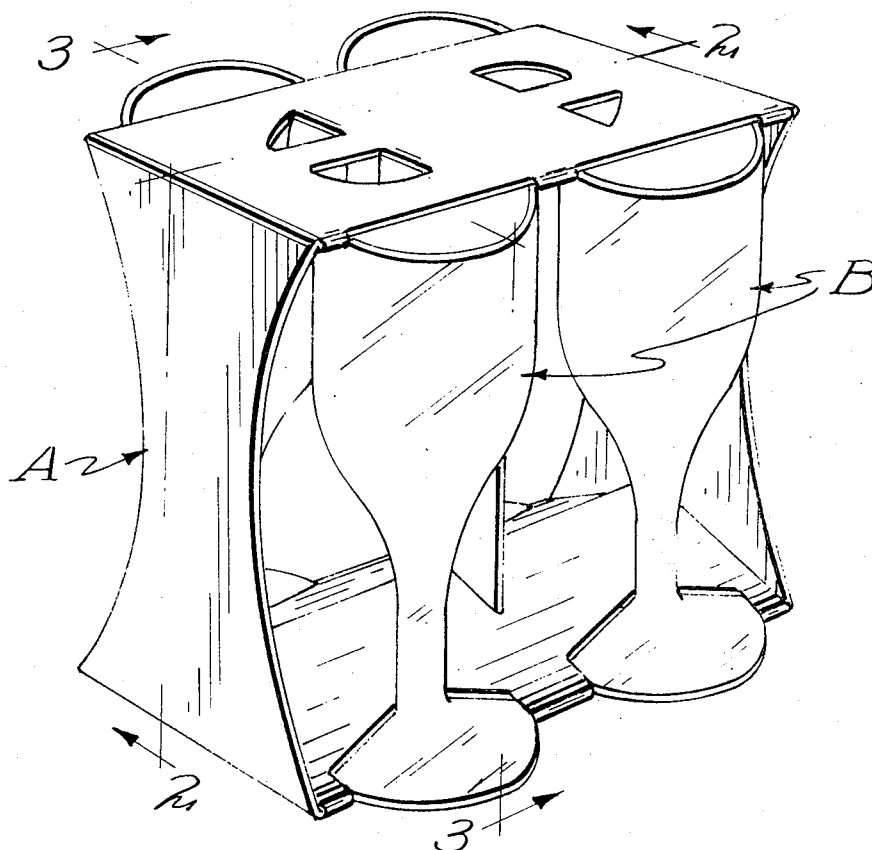
Assistant Examiner—Stephen P. Garbe

Attorney, Agent, or Firm—Robert M. Dunning; Jerry F. Best

[57] **ABSTRACT**

A carrier is provided for carrying at least a pair of objects such as tumblers, goblets and the like. The carrier comprises a sleeve having top and bottom panels and a central support panel. Reinforcing flanges are hingedly connected to an edge of the top panel and are folded into face contact with the under surface thereof. Flaps are hingedly connected to the inner edges of the reinforcing flanges, and extend angularly downwardly therefrom. These flaps are apertured to limit the inward movement of the objects away from said one edge. Separate locking tabs are hingedly connected to said panel swingable into the objects to prevent the outward movement of the article towards said one edge.

4 Claims, 8 Drawing Figures



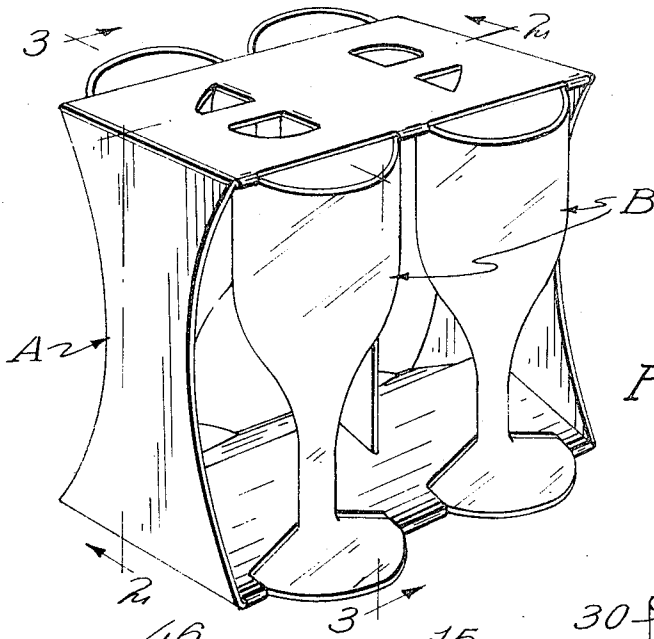


FIG. 1

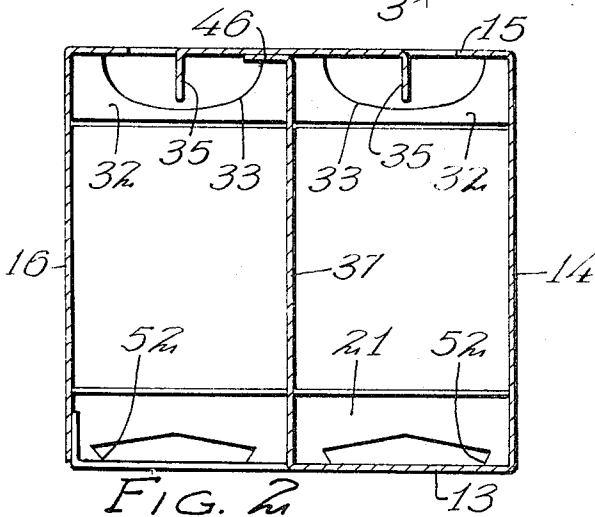


FIG. 2

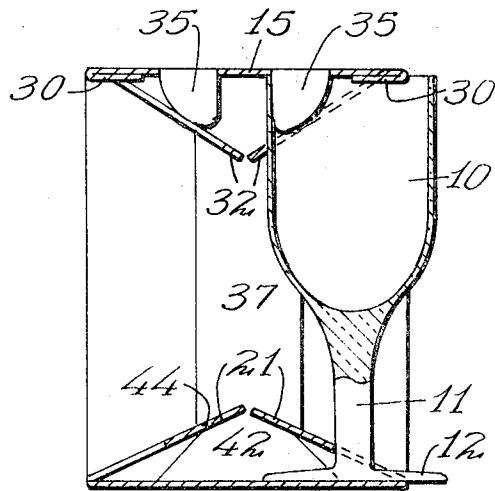


FIG. 3

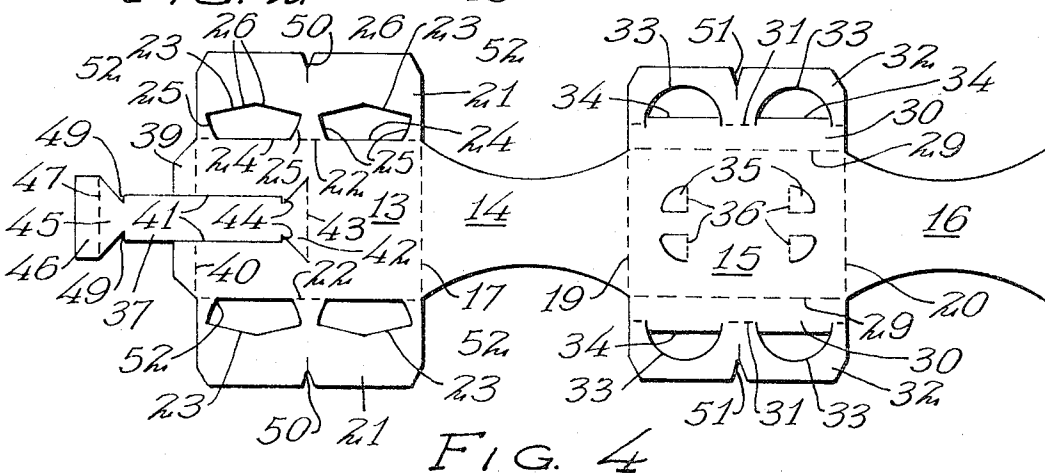
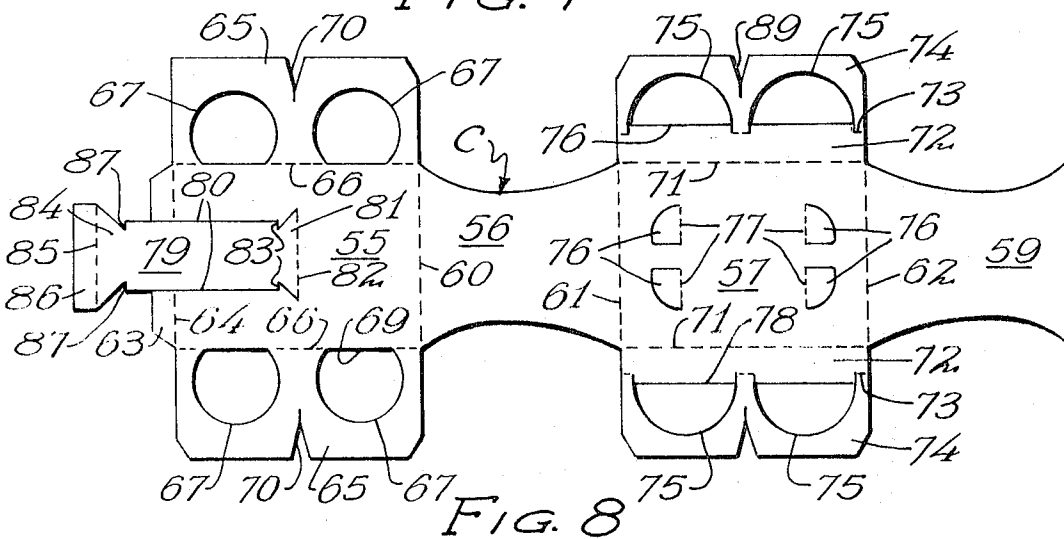
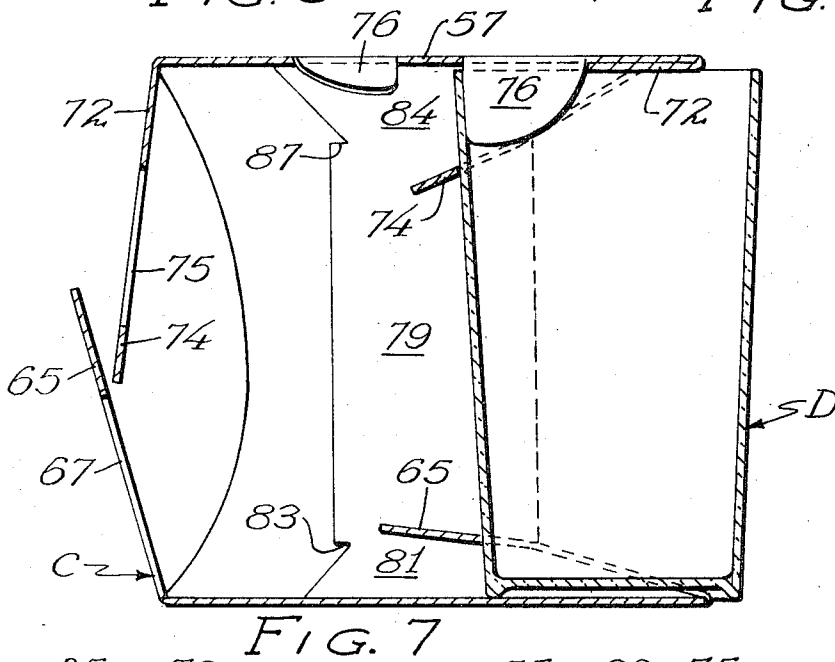
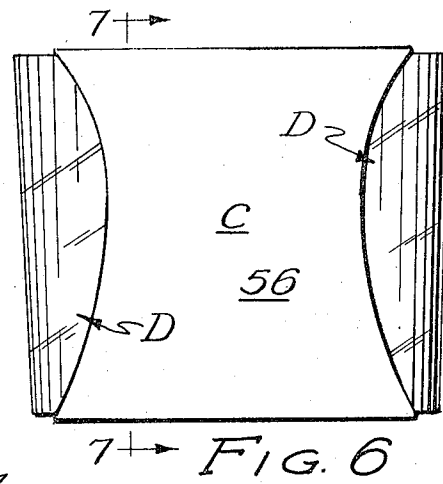
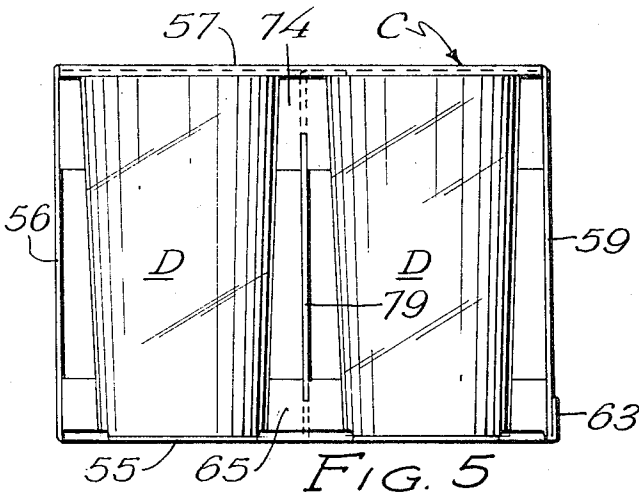


FIG. 4



CARRIER FOR TUMBLERS, GOBLETS AND THE LIKE

BACKGROUND OF THE INVENTION

Various types of carriers have been produced for carrying objects such as tumblers or the like, and in most cases these carriers are closed to better protect the product.

More recently, U.S. Pat. No. 3,598,302 to William W. Nowak issued Aug. 10, 1971 for a carrier for objects of this type which comprised an open ended sleeve designed to hold the product in position so that it could be displayed. The product was held in place by locking panels hinged to the top and bottom edges of the sleeve and folded inwardly toward the center of the sleeve. These locking flaps were provided with elliptical openings therein to snugly fit about the wall of the generally cylindrical objects. This provided a means of engaging the opposite ends of the objects to hold them contained within the sleeve. The locking flaps were held in place by a central strut which engaged the inclined flaps, and held them from unfolding.

SUMMARY OF THE INVENTION

I have found that certain advantages may be obtained by forming portions of the flaps into face contact with the panels to which they are hinged, thus forming double thickness reinforced edges along at least one of the carton walls. As a result, the openings need not be of elliptical form, but may be completely arcuate. These flaps serve to limit the inward movement of the glasses or tumblers being contained. Outward movement of the tumblers is prevented by a series of locking tabs, one of which is designed to extend into each of the tumblers or goblets to hold these members in place. As a result, even more of each tumbler is visible in view of the portions of the flanges which are in face contact with the end portions of the top and bottom walls to which they are hinged.

A further feature of the present invention resides in a modified form of carrier which is substantially identical to the first form insofar as the top panel of the carrier is concerned, but includes an irregularly shaped aperture at the juncture between the lower flaps and the bottom wall. These slots are designed to accommodate the generally circular bases of stemmed goblets. The slots taper inward so as to assist in holding the goblets in position.

These and other objects and novel features of the present invention will be more clearly and fully set forth in the following specification and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a carrier for stemmed goblets, showing the carrier in readiness for use.

FIG. 2 has a vertical sectional view through the carrier, the position of the section being indicated by the line 2—2 of FIG. 1.

FIG. 3 is a vertical sectional view at right angles to FIG. 2, the position of the section being indicated by the line 3—3 of FIG. 1.

FIG. 4 is a diagrammatic view of the blank from which the carrier is formed.

FIG. 5 is an end elevational view of a modified form of carrier.

FIG. 6 is a side elevational view of the carrier indicated in FIG. 5 of the drawings.

FIG. 7 is a sectional view vertically through the carrier substantially on the line 7—7 of FIG. 6, showing a tumbler in one side only of the carrier.

FIG. 8 is a diagrammatic view of the blank from which the carrier shown in FIG. 5 is formed.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The carrier A is shown, as indicated in FIG. 1 of the drawings, for goblets B. The goblets include an open ended bulbous outer portion 10, an axial supporting stem 11, and a generally circular base portion 12. In view of the fact that the goblets described have been produced for a great number of years, a more detailed description is believed unnecessary.

The carrier A is formed of the blank illustrated in FIG. 4 of the drawings. The blank includes a bottom panel 13, a side wall panel 14, a top panel 15, and second side wall panel 16 which are hingedly connected together along parallel fold lines 17, 19 and 20. Opposed flaps 21 are hingedly connected to opposite sides of the bottom panel 13 along fold lines 22 which are at right angles to the previously described lines of fold. The fold lines 22 are each interrupted by a pair of generally five sided apertures which are indicated in general by the numerals 23. As indicated in FIG. 4, the apertures 23 include a first side 24 which extends along the fold line 22, outwardly diverging side portions 25, and generally outwardly covering cut lines 26 forming the remaining two sides. The outer ends of the cut lines 25 terminate in spaced relation which are spaced apart a distance substantially equal to the diameter of the base portions 12 of the goblets B, while each cut line 24 is slightly less than the diameter of the goblet bases 12. The V-shaped cut lines 26 are designed to encircle the stem 11 of the corresponding goblet.

The top panel 15 is connected along opposite edges by fold lines 29 to reinforcing flanges 30. The flanges 30 are hingedly connected along parallel fold lines 31 to flaps 32. The fold lines 31 are interrupted by a pair of generally semi-circular cut lines 33, the ends of which terminate at the fold lines 31. Cut lines 34 parallel to fold lines 31 extend as chords between opposite sides of the arcuate cut lines 33 and form open segments in each flap 32. The radius of curvature of the cut lines 33 is similar to the radius of curvature of the outside surface of the goblets B so that these cut lines may engage against the wall of the goblets.

Four locking tabs 35 are cut from the top panel 15 and hingedly connected thereto along fold lines 36 which are at right angles to the fold lines 29, or parallel to the fold lines 19 and 20 at opposite ends of the top panel. These locking tabs 35 are so located as to engage the inner surface of the goblet wall at its innermost point when the goblets are in place. With this arrangement, the flaps 32 serve the purpose of preventing the goblets on opposite sides of the sleeve from contacting one another, while the locking tabs prevent them from passing through the open ends of the sleeve. While the radius of curvature of the arcuate cut lines 33 has been described as being similar to that of the outer surface of the tumbler, the cut lines 33 may be of greater radius if so desired.

A supporting strap 37 is formed partially within bottom panel 13 but projects beyond the glue flap 39

hingedly connected at 40 to the bottom panel 13. The supporting strap 37 includes a central portion defined by parallel cut lines 41 and a trapezoidal end portion 42 forms a continuation of the central portion and is arranged with the widest parallel side of the trapezoid hingedly connected at 43 to the bottom panel 13. The fold line 43 is midway between the fold lines 17 and 40. Notches 44 are provided at the juncture between the central portion of the strap and the trapezoidal portion 42. The outer or free end of the connecting strip 37 is also provided with a trapezoidal section 45 foldably connected to a glue flap 46 along a fold line 47 which is parallel to the fold line 43. Opposed notches 49 are provided between the shorter end of the trapezoidal section and the intermediate strip portion 37.

In folding the carton, the blank is first folded along the fold line 17, and the glue flap is adhered to the top panel 15, with the fold line 47 extending along the center line between the fold lines 19 and 20. The side wall 16 is then folded to overlie the glue flap 39 and is adhered thereto. As a result, the connecting strip lies midway between, and parallel to the side walls 16 and 14.

The flaps 21 are provided with notches 50 in the free edges thereof which are designed to accommodate portions of the connecting strap 37, the notches 50 engaging the notches 44 previously described. In a similar manner, the flaps 32 are notched as indicated at 51 to engage the notches 49 of the connecting strap.

The bases 12 of the goblets B are inserted through the wide portions of the five sided apertures which are indicated in general by the numeral 52 while the flaps 21 are in partially folded position. When the flaps are completely folded and engaged with the notches 44, the goblet bases 12 are held in place by the narrower edges of the slots 52, thus locking the bases of the tumblers in place. Before the tumblers are inserted, the reinforcing flanges 30 connected to the top panel 15 are folded to underlie the edges of the top panel 15, and the flaps 32 are folded into angularly extending relation to engage the notches 49. When the tumblers are in place, the locking tabs 35 are folded down into the upper ends of the tumblers as indicated in FIG. 3 of the drawings, these tabs holding the upper ends of the tumblers from disengagement with the sleeve.

In FIGS. 5 through 8 of the drawings I disclose a somewhat modified form of construction which are designed to support tumblers D. The carton C includes a bottom panel 55, a first side wall panel 56, a top wall panel 57 and a second side wall panel 59 hingedly connected by parallel fold lines 60, 61 and 62. A glue flap 63 is foldably connected to the bottom wall panel along a fold line 64. Locking flaps 65 are hingedly connected to the opposite sides of the bottom panel 55 along parallel fold lines 66. Each flap 65 is provided with a pair generally circular apertures 67, the apertures being cut along cut lines or chords 69 which are aligned with the fold line 66. The ends of the flaps 65 are notched as indicated at 70 in a manner similar to the notches 50 previously described.

The top panel structure is identical to that previously described in conjunction with the top panel 15. The top panel 57 is connected along opposite edges by fold lines 71 to reinforcing flanges 72. The flanges 72 are hingedly connected along fold lines 73 to flaps 74. The fold lines 73 are interrupted by a pair of generally semi-circular cut lines 75, the ends of which terminate at the

fold lines 73. Cut lines 78 parallel to the fold lines 73 extend as cords between opposite sides of the arcuate cut lines 75 and form open segments in each flap 74. The radius of curvature of the cut lines 75 is similar to the curvature of the outside surface of the tumblers D so that these cut lines may engage the wall of the tumblers.

Four locking tabs 76 are cut from the top panel 57 and hingedly connected thereto along fold lines 77 which are at right angles to the fold lines 71, or parallel to the fold lines 61 and 62 at opposite ends of the top panel. These locking tabs 76 are so located as to engage the inner surface of the tumbler wall at its innermost point when the tumblers are in place. With this arrangement, the flaps 74 serve the purpose of preventing the tumblers on opposite sides of the sleeve from contacting one another, while the locking tabs prevent them from passing through the open ends of the sleeve. While the radius of curvature of the arcuate cut lines 75 has been described as being similar to that of the outer surface of the tumbler, the cut lines 75 may be of greater radius if so desired.

A supporting strap 79 similar to the strap 37 is formed partially within bottom panel 55 but projects beyond the glue flap 63 hingedly connected at 64 to the bottom panel 55. The supporting strap 79 includes a central portion defined by parallel cut lines 80, and a trapezoidal end portion 81 forms a continuation of the central portion and is arranged with the widest parallel side of the trapezoid hingedly connected at 82 to the bottom panel 55. The fold line 82 is midway between the fold lines 60 and 64. Notches 83 are provided at the juncture between the central portion of the strap and the trapezoidal portion 81. The outer or free end of the connecting strip 79 is also provided with a trapezoidal section 84 foldably connected to a glue flap 85 along a fold line 86 which is parallel to the fold line 82. Opposed notches 87 are provided between which the shorter end of the trapezoidal section and the intermediate strip portion 37.

The structure functions in a manner to that previously described. The lower ends of the tumblers D are engaged in the apertures 67 in the flap 65. The outer surfaces of the upper ends of the tumblers D engage the arcuate portions 75 of the flaps 74. The locking tabs 76 are folded down to engage the inner surfaces of the tumblers to hold the tumblers from outward movement through the open side of the sleeve.

In accordance with the Patent Statutes, I have described the principles of construction and operation of my improvement in CARRIER FOR TUMBLERS, GOBLET AND THE LIKE; while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that obvious changes may be made within the scope of the following Claims without departing from the spirit of my invention.

I claim:

1. A carrier for at least a pair of objects, the upper ends of which are substantially hollow and cylindrical, the carrier being formed of paperboard, the carrier including:

horizontal top and bottom panels and vertical side wall panels hingedly connected to the top and bottom wall to form a carrier sleeve,

a reinforcing flange secured to one edge of said top panel and folded into face contact with the under surface thereof,

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a flap hingedly connected to the inner edge of said reinforcing flange and inclining inwardly and downwardly therefrom,
means connecting said top and bottom panels engaging said flap to hold the same in inclined position, 5
said flap having apertures therethrough defining edges adapted to engage said objects to limit movement thereof away from said one edge of said top panel,
locking tabs foldably connected to said top panel and foldable into the hollow upper ends of the objects to restrain them from movement thereof in an outward direction toward said one edge, and
means on said bottom panel adapted to engage with 15 the lower ends of said objects to hold them restrained.

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2. The structure of claim 1 and in which the locking tabs are foldably connected to the top panel along fold lines which are at right angles to the said edges of said top panel.

3. The structure of claim 1 and in which the edge of said top panel opposite said one edge is hingedly connected to a second reinforcing flange having a second flap connected thereto similar to that connected to said one edge, and including locking tabs in said top panel adapted to engage a second pair of objects similar to the first pair.

4. The structure of claim 1 and in which said connecting member and side flap include cooperable notches to hold said flap in angular relation to said reinforcing flange.

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