United States Patent

[11] 3,593,849

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[21] Appl. No. **857,285**
[22] Filed **Aug. 28, 1969**
[45] Patented **July 20, 1971**
[73] Assignee **Container Corporation of America**
Chicago, Ill.
Continuation-in-part of application Ser. No. 781,005, Dec. 4, 1968, now abandoned.

[54] **WRAPAROUND CARRIER**
5 Claims, 11 Drawing Figs.

[52] **U.S. Cl.** **206/65,** 220/112
[51] **Int. Cl.** **B65d 75/00**
[50] **Field of Search** ..... 220/112; 206/65 E; 229/40; 224/45.2, 45.25; 294/87.2, 87

[56] **References Cited**
UNITED STATES PATENTS

3,278,075	10/1966	Weiss	220/112
3,337,095	8/1967	Morgese	206/65 E

Primary Examiner—Joseph R. Leclair
Assistant Examiner—John M. Caskie
Attorney—Carpenter, Ostis and Lindberg

ABSTRACT: A wraparound carrier formed from a unitary paperboard blank and particularly adapted for the transport of large glass bottles, the carrier consisting of a bottom panel and side panels extending upward therefrom and inclined toward each other to conform generally to the neck portions of the bottles, the side panels being joined by a narrow panel overlying the tops of said bottles, the narrow panel being scored and slit between the ends thereof to provide a pair of finger holes on each side of an intermediate of such necked bottles and to provide confronting gusset folds to reinforce the carrier in the area of said finger holes and to stabilize said intermediate bottles. Desirably, the ends of the narrow and side panels may be scored to define end gusset folds extending toward the endmost of the bottles to hold them against endwise displacement.

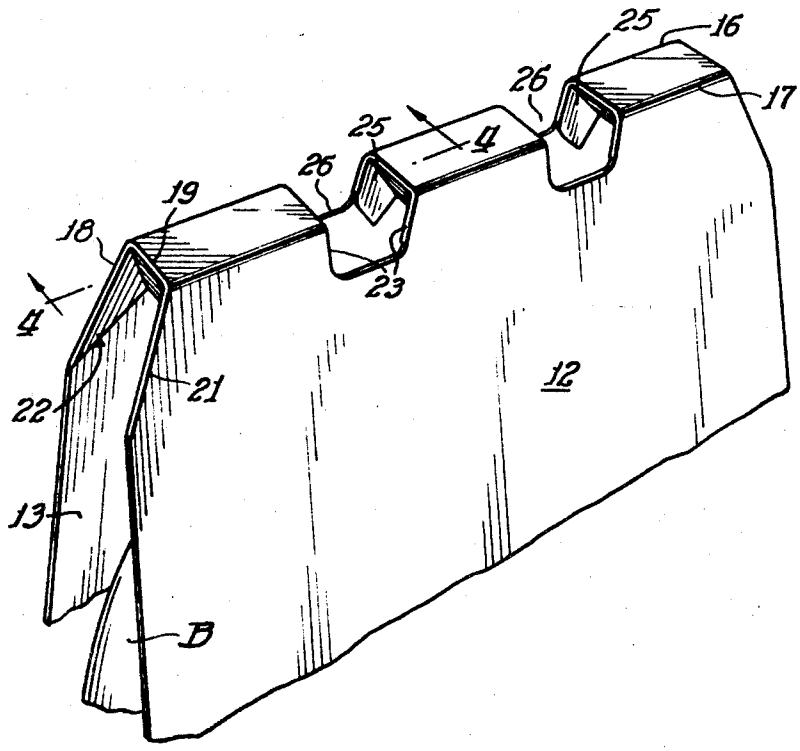


Fig. 1

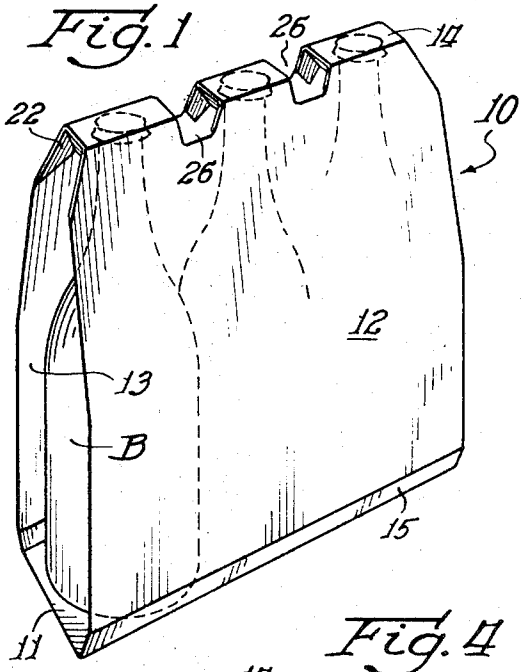


Fig. 2

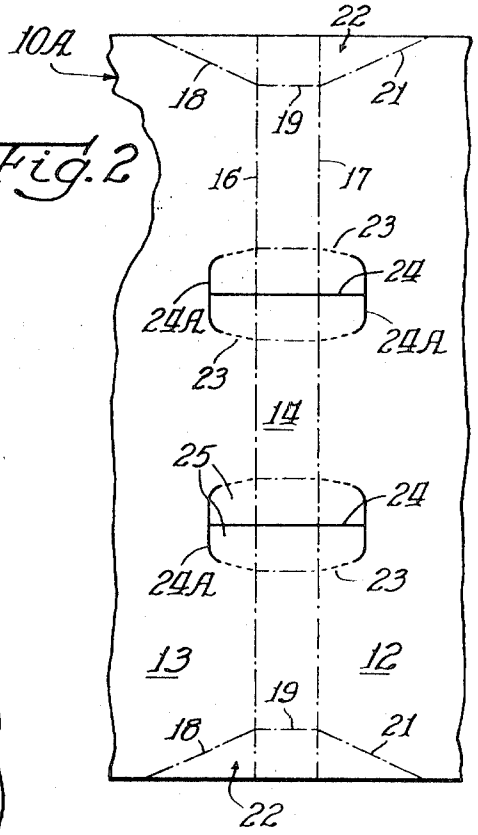


Fig. 4

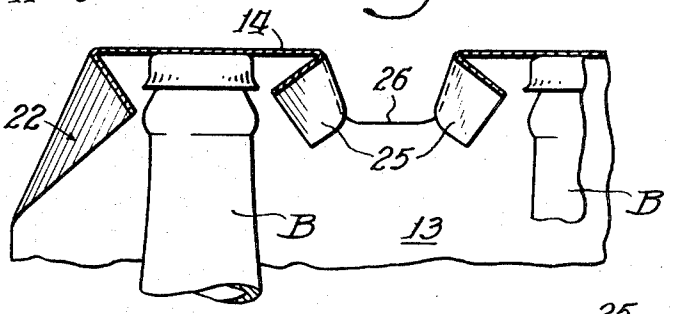
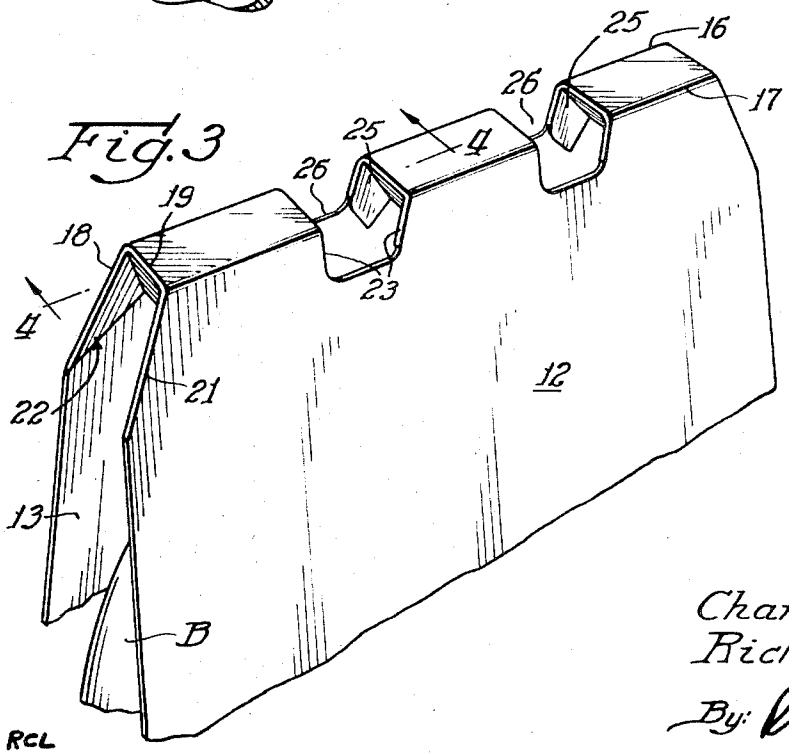


Fig. 3



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Fig. 5

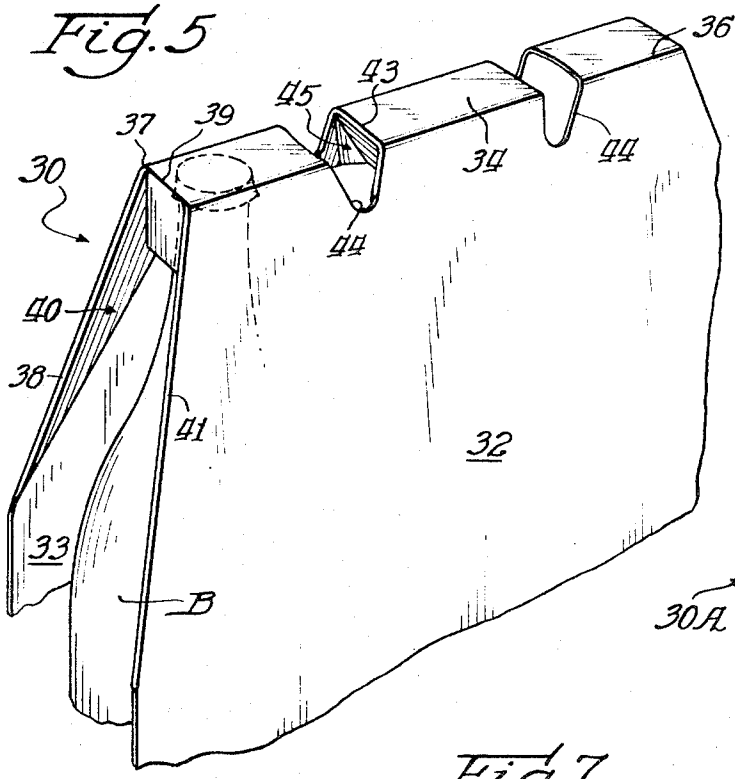


Fig. 6

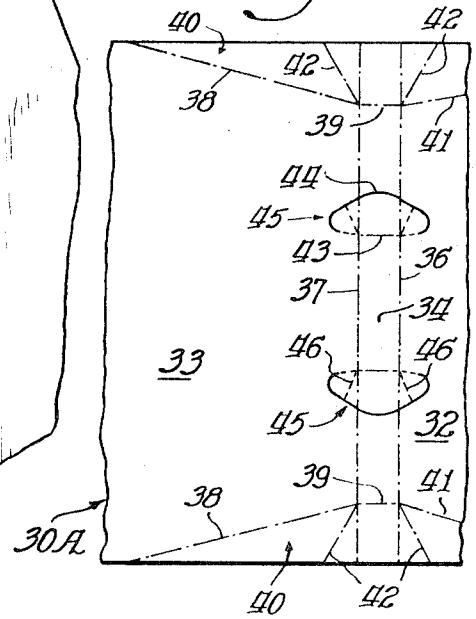


Fig. 7

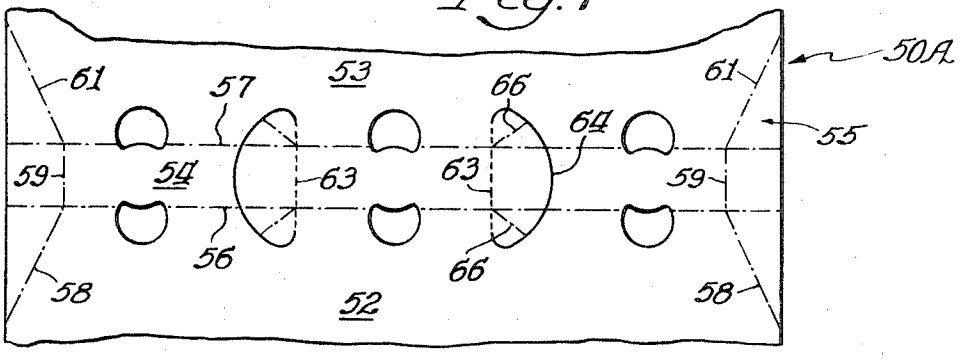


Fig. 8

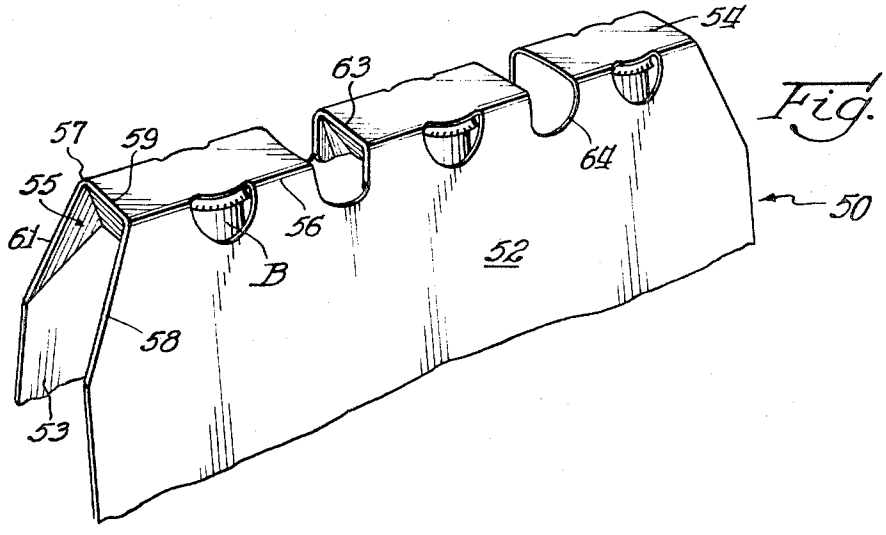
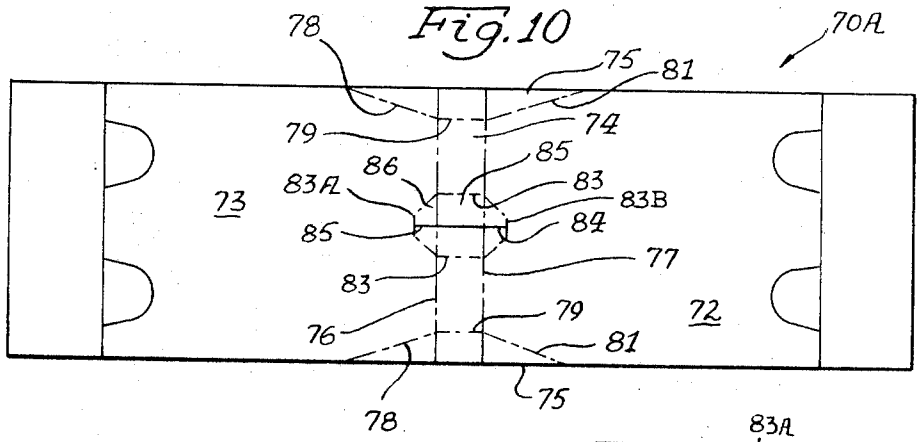


Fig. 10



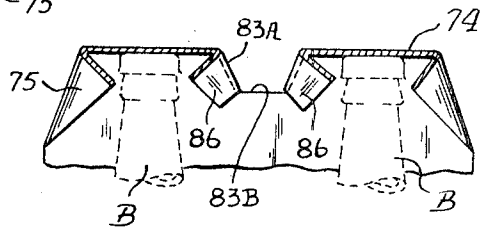


Fig. 11

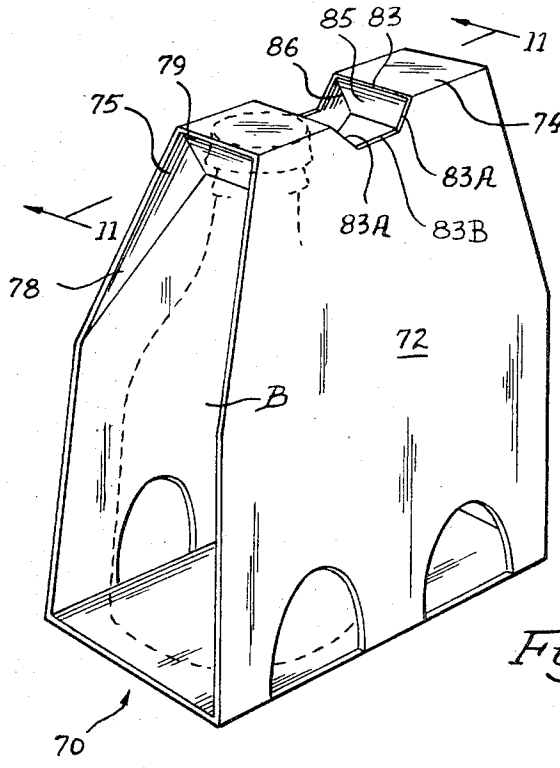


Fig. 9

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WRAPAROUND CARRIER

This application is a continuation-in-part of our application, Ser. No. 781,005, filed Dec. 4, 1968, and now abandoned.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates generally to that class of wraparound carrier particularly adapted to transport a number of large bottles of approximately quart size, for example.

2. The Prior Art

Weiss U.S. Pat. No. 3,278,075; Chidsey, Jr. et al. 3,157,309 and Forrer 3,128,010 show examples of wraparound carriers having top panels provided with finger holes for transport. Wolowicz U.S. Pat. No. 3,168,963 shows examples of such carriers with sloping side panels conforming generally to the neck portions of the bottles with a narrow top panel, the latter, however, not having finger holes for transport.

SUMMARY OF THE INVENTION

The structure according to the present invention comprehends a wraparound carrier for large bottles, the carrier having finger holes in the top panel thereof for transport. The structure according to the invention makes it possible to prevent movement of the bottles in the carrier at the same time providing reinforcing at the finger holes.

DRAWINGS

FIG. 1 is a perspective view of a wraparound carrier embodying the features of the invention according to one embodiment thereof;

FIG. 2 is a plan view of a portion of the blank for forming the carrier seen in FIG. 1;

FIG. 3 is a perspective view of the upper part of the container seen in FIG. 1;

FIG. 4 is a section taken along the line 4–4 of FIG. 3 looking in the direction of the arrows;

FIG. 5 is a perspective view of a portion of a carrier embodying another form of the invention;

FIG. 6 is a plan view of a portion of the blank used in forming the container of FIG. 5;

FIG. 7 is a plan view of a blank somewhat similar to the blank seen in FIG. 6 and embodying another form of the invention;

FIG. 8 is a perspective view showing the form of the invention in FIG. 7;

FIG. 9 is a perspective view showing another form of the invention;

FIG. 10 is a plan view of a cut and scored blank for forming the carrier of FIG. 9; and

FIG. 11 is a section taken along the line 11–11 of FIG. 9 looking in the direction of the arrows.

Referring to FIGS. 1 to 4, there is shown a wraparound carrier according to one embodiment of the invention and denoted by the reference numeral 10. The carrier 10 is adapted to transport a number of bottles B arranged in a row as shown. These are arranged to be enclosed within a folded and scored blank 10A seen in FIG. 2 and between side panels 12 and 13 hingedly connected to and extending upward from a bottom panel 11, the latter being glued at a glue flap 15 to side panel 12. The two side panels 12 and 13 are inclined toward each other in the distal portions thereof to conform generally to the neck portions of bottles B.

A narrow panel 14 overlies the tops of the bottles B and is hingedly joined to the side panels 12 and 13, and is disposed therebetween.

Each end of the narrow panel 14 and the side panels 12 and 13 is scored along score lines 18 and 21 extending laterally of score lines 16 and 17 between panels 12 and 13 and narrow panel 14. Score lines 18 and 21 are inclined to their respective score lines 16 and 17, as seen in FIG. 2, and extend from a score line 19 normal to score lines 16 and 17 to the end margins of panels 12 and 13.

In the forming of carrier 10 around the bottles B, the ends of carrier 10 are folded in along the score lines 18, 19 and 21 to provide end gusset folds 22 inclined toward the end bottles B thereby providing for the stabilization of same.

Structure is provided in the carrier 10 for transporting the same and to give stiffness to the narrow panel 14 which is provided with finger holes for such transport. To this end the side panels 12 and 13 and the narrow panel 14 are slit transversely of score lines 16 and 17 as at 24. Transverse slit 24 extends across narrow panel 14 and into side panels 12 and 13, as seen in FIG. 2, and the ends of slits 24 intersect slits 24A parallel to score lines 16 and 17 spaced therefrom. The slits 24A mark opposite ends of curved score lines 23 extending across narrow panel 14 and into panels 12 and 13.

Confronting gusset folds 25 are thus defined by the slits 24 and 24A and the score lines 23, and when the folds 25 are deformed as seen in FIGS. 1 and 4, a plurality of finger holes 26 are formed in the top of carrier 10. As seen in FIG. 4, the gusset folds 25 are disposed one on each side of the intermediate of such bottles B to stabilize such intermediate bottle B against movement.

By reason of the score lines 23, which are continuous across narrow panel 14, and which extend into side panels 12 and 13, the narrow panel 14 is strengthened as a handle since the vertical shear is taken by the score lines 23 in panels 12 and 13.

By reason of the structure thus far described the end bottles B are stabilized by the end gusset folds 22 and one of the gusset folds 25, while the intermediate of such bottles B is stabilized by paired gusset folds 25.

Referring now to FIGS. 5 and 6, there is shown another embodiment of a carrier according to the present invention. It is denoted by the reference numeral 30 and is formed from a blank 30A to define side panels 32 and 33 joined along score lines 36 and 37 and defining a narrow panel 34 therebetween, it overlying the tops of the bottles B.

Each end of the panels 32 and 33 and narrow panel 34 is scored along score lines 38, 39, 41 and 42, and along score lines 42 extending from the edges of panels 32 and 33 to the intersection of score lines 38 and 41 with narrow panel score line 39. The aforesaid score lines provide end gusset folds 40 when the blank 30A is formed about the bottles B seen in FIG. 5. End gusset folds 40 provide for stabilization of the endmost bottles B.

As with the embodiment seen in FIGS. 1 to 4, structure is provided in carrier 30 and blank 30A to give stiffness to narrow panel 34 when it is provided with finger holes for transport. Side panels 32 and 33 and narrow panel 34 are scored at 43 transversely of narrow panel 34, score line 43 being connected at its ends to a generally curved slit 44 extending across narrow panel 34 and into side panels 32 and 33. Curved slit 44 and score line 43 define a gusset fold 45.

In order to provide proper folding of gusset folds 45 formed in panels 32, 33 and 34 additional score lines 46 are provided. These extend from the intersection of score line 43 with score lines 36 and 37 in diverging directions from score lines 36 and 37 toward the generally curved slit 44.

As with the embodiment seen in FIGS. 1 to 4, by reason of the score line 43 extending across narrow panel 34 and into panels 32 and 33, narrow panel 34 is strengthened as a handle since vertical shear can be taken by score line 43 in panels 32 and 33.

Referring now to FIGS. 7 and 8, there is shown another embodiment of the wraparound carrier according to the present invention. It is referred to by reference numeral 50 and is formed from a blank 50A.

As with the previous embodiments, end gusset folds 55 are formed in side panels 52 and 53 and narrow panel 54 by score lines 58, 59 and 61 at the ends thereof.

Structure is also provided in carrier 50 and blank 50A to give stiffness to narrow panel 54 when it is provided with finger holes for transport. Side panels 52 and 53 and narrow panel 54 are scored transversely of panel 54 along a transverse score line 63. A generally curved slit 64 extends transversely of narrow panel 54 and is joined at its ends to the ends of the score line 63.

To provide proper folding of a gusset fold defined by the curved slit **64** and transverse score line **63**, additional score lines **66** are provided. These extend from the intersection of score line **63** with score lines **56** and **57** in diverging directions to the generally curved slit **64**.

As with the previous embodiment, score line **63** extending across narrow panel **54** and into panels **52** and **53** provide stiffening of panel **54** to improve its function as a handle, since vertical shear is taken by score line **63**.

Referring now to FIGS. **9** to **11**, there is shown another embodiment of the invention adapted to the transport of two side-by-side large bottles. It is denoted generally by one reference numeral **70** and is formed from a cut and scored blank **70A**.

As with the previous embodiments, end gusset folds **75** are formed in side panels **72** and **73** and narrow panel **74** by score lines **78, 79** and **81** at the ends thereof.

Structure is also provided in carrier **70** and blank **70A** to give stiffness to narrow panel **74** when it is provided with a finger hole for transport. Side panels **72** and **73** and narrow panel **74** are scored transversely of panel **74** along a transverse score line **83** and convergent score lines **83A** extending from each end of score line **83** to a cut line **83B** extending parallel to score line **76** and spaced therefrom. A slit **84** extends transversely of narrow panel **74** and is joined at its ends to the convergent ends of the score lines **83A**.

To provide proper folding of a gusset fold **85** defined by the slit **84** and transverse score line **83**, fold lines **86** are provided. These are coterminous with score lines **76** and **77**.

As with the previous embodiment, score line **83** extending across narrow panel **74** and into panels **72** and **73** provide stiffening of panel **74** to improve its function as a handle, since vertical shear is taken by score lines **83A**.

We claim:

1. In a carrier for packaging a plurality of necked bottles arranged in a row:

a. a pair of opposed side panels inclined toward each other in the distal portions thereof to conform generally to the neck portions of the bottles;

b. a narrow panel overlying the tops of said necked bottles and joined to said side panels and disposed therebetween;

c. said narrow panel being scored and slit intermediate the ends thereof to provide at least one finger hole disposed between two adjacent of such necked bottles for transport and to provide a pair of confronting gusset folds disposed one on each side of said finger hole and opposing portions of said two adjacent of such necked bottles to reinforce the carrier in the area of said finger hole and to stabilize said necked bottles against displacement;

d. said confronting gusset folds being defined by a score line continuing across said narrow panel and extending into said side panels.

2. In a carrier according to claim **1**, wherein said narrow panel is scored and slit to provide a pair of gusset folds disposed in juxtaposition to the outer ones of said necked containers.

3. In a carrier according to claim **1**, wherein said narrow panel is slit along a generally curved line and a straight score line connects the ends of said slit.

4. In a carrier according to claim **3**, wherein said score lines are proximate to each other.

5. In a carrier according to claim **3**, wherein said gusset folds are defined by score lines extending from said straight score line to said generally curved slit.