

[54] **FINGER HOLE ARRANGEMENT FOR ARTICLE CARRIERS**

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 [51] Int. Cl. ....B65d 5/46  
 [58] Field of Search.....229/52 B, 52 BC; 206/65 E, 206/65 C; 220/102, 115

[56] **References Cited**

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**FOREIGN PATENTS OR APPLICATIONS**

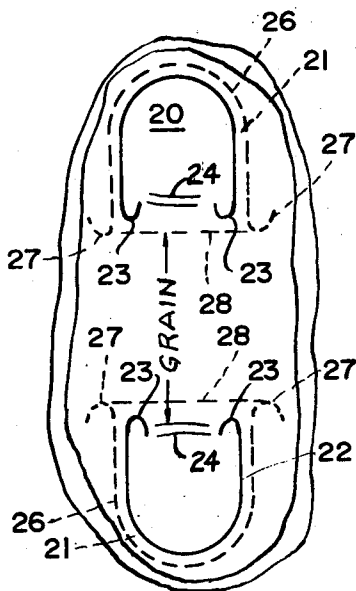
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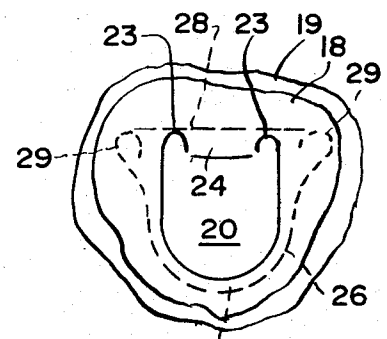
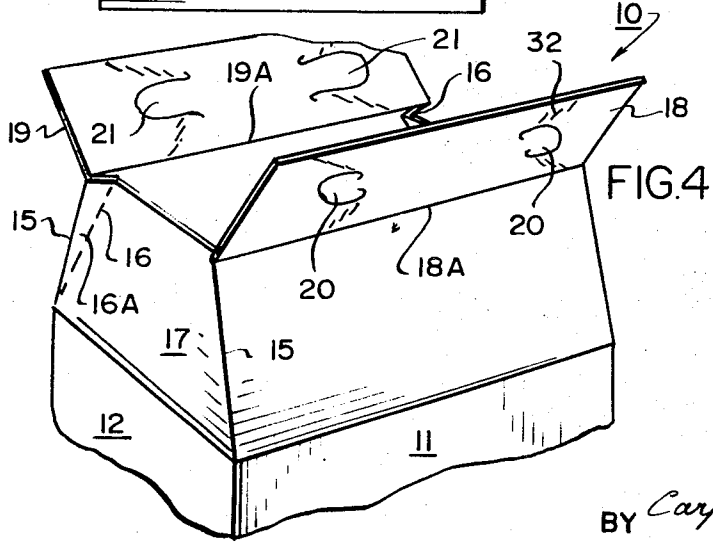
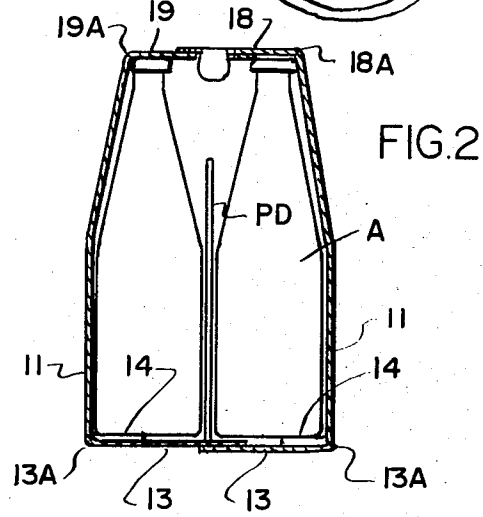
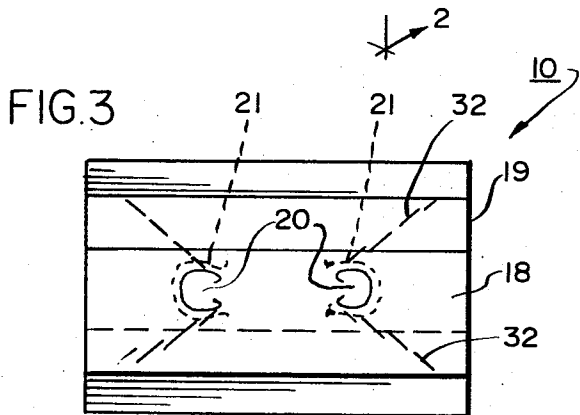
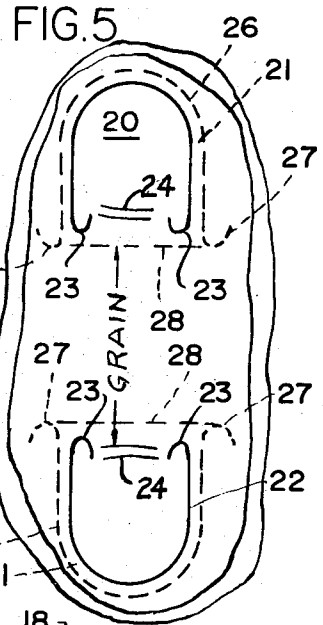
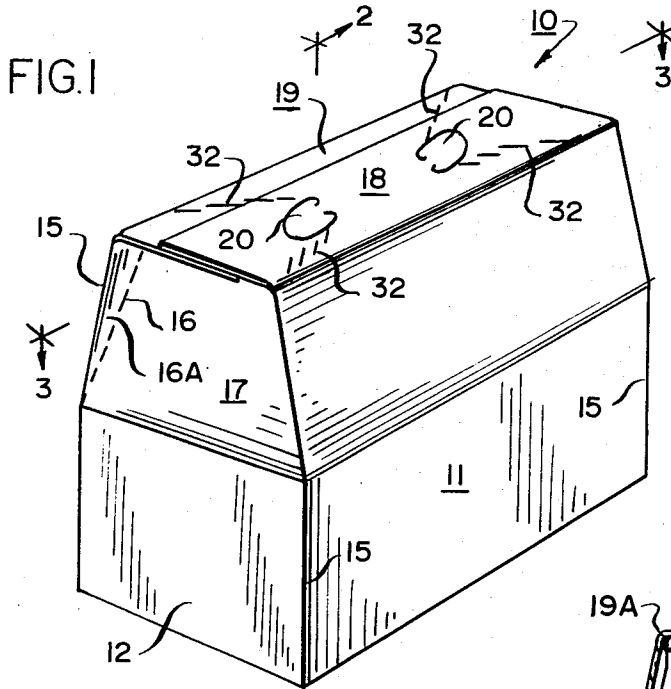
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[57] **ABSTRACT**

An article carrier having a pair of top closure flaps arranged in overlapping and underlapping relationship is provided with spaced fold down tabs defining apertures for lifting the loaded carrier. The fold down tabs are each defined by a continuous cut line, each end of which terminates in a curved cut line. Preferably the tabs are of different areas to offset areas prone to tear, so that the area of a closure flap is reenforced by the continuous board of the other closure flap. This is especially important when the grain of the paperboard of the carton runs from finger hole to finger hole.

**3 Claims, 6 Drawing Figures**





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# FINGER HOLE ARRANGEMENT FOR ARTICLE CARRIERS

## SUMMARY OF THE INVENTION

The invention herein is especially directed to the reinforcement of finger holes for article carriers. These are generally constructed with the grain of the paperboard running parallel to the holes, and the weight of the loaded carrier imposes a strain on the board making it especially susceptible to tearing at the finger holes. By reason of the construction herein resistance to such tearing is afforded.

## THE DRAWING

FIG. 1 is an isometric view of a carrier carton having the improvements according to the present invention embodied therein;

FIG. 2 is a vertical section taken substantially along line 2—2 of FIG. 1 looking in the direction of the arrows;

FIG. 3 is a top plan view thereof;

FIG. 4 is an isometric view showing the carrier top closure flaps prior to the closing thereof;

FIG. 5 is a detailed plan view of the finger hole arrangement according to the present invention; and

FIG. 6 is a detailed plan view of the finger hole arrangement showing an alternate embodiment.

The finger hole arrangement according to the present invention is shown in the environment of a closed article carrier 10 such as may be used for the packaging of beer or the like. The carrier shown is of the type which is substantially light tight and is of the kind as may be disclosed in Helms continuation-in-part-application Ser. No. 30,917, filed Apr. 2, 1970, now U.S. Pat. No. 3,627,193, Carriers Formed From Sleeves Having Gusset Folded Bottom Closure Panels. The carrier seen in FIG. 1 comprises opposed side panels 11, and opposed end panels 12 foldably connected along fold lines 15 to define a tube or sleeve. The side flaps 11 have lower closure flaps 13 extending therefrom which are folded along fold lines 13A into overlapping and underlapping relationship to define a bottom for carrier 10. End panels 12 and the lower closure flaps 13 are connected by gusset flaps 14 which are folded into position as seen in FIG. 2.

End panels 12 are provided with upper panel portions 17 which are folded slightly inwardly along gusset fold lines 16 to provide end gusset panels 16A. The tops of the gusset panels 16A underlie an overlapping top closure flap 18 extending from one of the side panels 11, and foldable with respect thereto along a fold line 18A, and underlie closure flap 19 extending from the other side panel 11 and foldable with respect thereto along a fold line 19. The two top closure flaps 18 and 19 are folded into position as seen in the several figures and are secured together by gluing or a similar operation, the top closure flaps 18 and 19 being in bearing contact with the tops of the gusset panels 16 and the tops of the end portions 17 of the end panels 12.

As seen in FIG. 2 the carrier 10 is adapted to enclose a plurality of articles A, each being arranged in a pair of side by side rows and separated by a partition divider PD, the articles of each row being also separated by dividers, not shown.

Each of the top closure panels 18 and 19 is provided with spaced fold down tabs 20 and 21, fold down tabs 20 being provided in the overlapping closure panel 18, and fold down tabs 21 being disposed in the underlapping closure panel 19, and being in register with fold down tabs 20.

Each of the fold down tabs 20 in the overlapping panel 18 is defined by a continuous cut line 22, each end of which terminates in a curved cut line 23, the cut lines 23 being turned toward each other, the inner ends thereof being provided with a connecting fold line 24.

Each of the tabs 21 formed in the underlapping closure flap 19 is defined by a continuous cut line 26, each end of which terminates in a curved cut line 27, these being turned in a direction opposite to the cut lines 23, and being connected by a fold line 28.

When the tabs 20 and 21 are folded down about their respective score lines 23 and 28 the tendency of the board to tear is prevented by the reinforcement provided by the continuous board of two closure flaps 18 and 19. As seen with respect to FIG. 2, the areas of the two fold down tabs 20 and 21 are not the same, fold down tabs 21 being larger in area so that the score line 28 thereof provides the additional reinforcement of the underlapping panel 19.

This construction is particularly important where the grain of the board forming the carrier 10, is in the direction of the arrow seen in FIG. 5, the curved lines 23 and 27 and their connecting respective score lines 24 and 28 preventing the tearing of the board.

Referring now to FIG. 6, there is shown an alternate form of construction for the fold down tabs 20 and 21, each being defined by the same continuous cut lines as seen in FIG. 5. This embodiment of the invention, however, has the cut lines 26 of the tab 21 terminating in curved cut lines 29 which are turned in the same direction as the curved lines 23 of the tab 20, being spaced laterally thereof, however. As with FIG. 2, the curved cut lines 23 are connected by a fold line 24, and the curved cut lines 29 of the fold down tabs 21 are connected by the fold line 28.

The carrier seen in FIG. 1 may be provided with converging lines of weakness 32 which extend from the corners of the upper closure flaps 18 and 19 in directions to the fold down tabs previously described. Those areas of the top closure panels 18 and 19 defined by the converging score lines 32 may be removed by tearing same along said lines of weakness. The lines of weakness 32 form no part of the present invention as they are shown and disclosed in the aforesaid Helms continuation-in-part application.

I claim:

1. A carrier carton for packaging a plurality of similar articles such as bottles or the like, said carton being formed from a blank of foldable paperboard or the like and comprising:
  - a. at least a pair of side walls having closure flaps extending from top edges thereof;
  - b. said closure flaps being folded into overlapping and underlapping secured relationship with respect to each other;
  - c. fold down tabs in each of said closure flaps, said fold down tabs being spaced from each other and being adapted to be moved to folded position to provide spaced apertures in said closure flaps for

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lifting said carton when loaded with said articles, said fold down tabs comprising;

- i. a pair of spaced upper tabs in said overlapping closure flap defined by a continuous cut line;
  - 1. the cut line having each end thereof terminating in a curved cut line; 5
- ii. a pair of spaced lower tabs in said underlapping closure flap defined by a continuous cut line;
  - 2. the continuous cut line having each end thereof terminating in a curved cut line to provide greater resistance to tearing from their respective flaps by reason of said curved 10

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cut lines in said flaps;

- d. the curved lines of one of said tabs being curved in one direction and the curved lines of the other tab being curved in an opposite direction whereby the load in said carrier is distributed readily into said closure flaps to each side of said fold down tabs.
- 2. A carrier carton according to claim 1 wherein said tabs are of different areas as defined by the cut lines of each.
- 3. A carrier carton according to claim 1 wherein the lower tab has a larger area than the upper tab.

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