Nov. 14, 1967 E. J. GRASER 3,352,452

BOTTLE CARRIER

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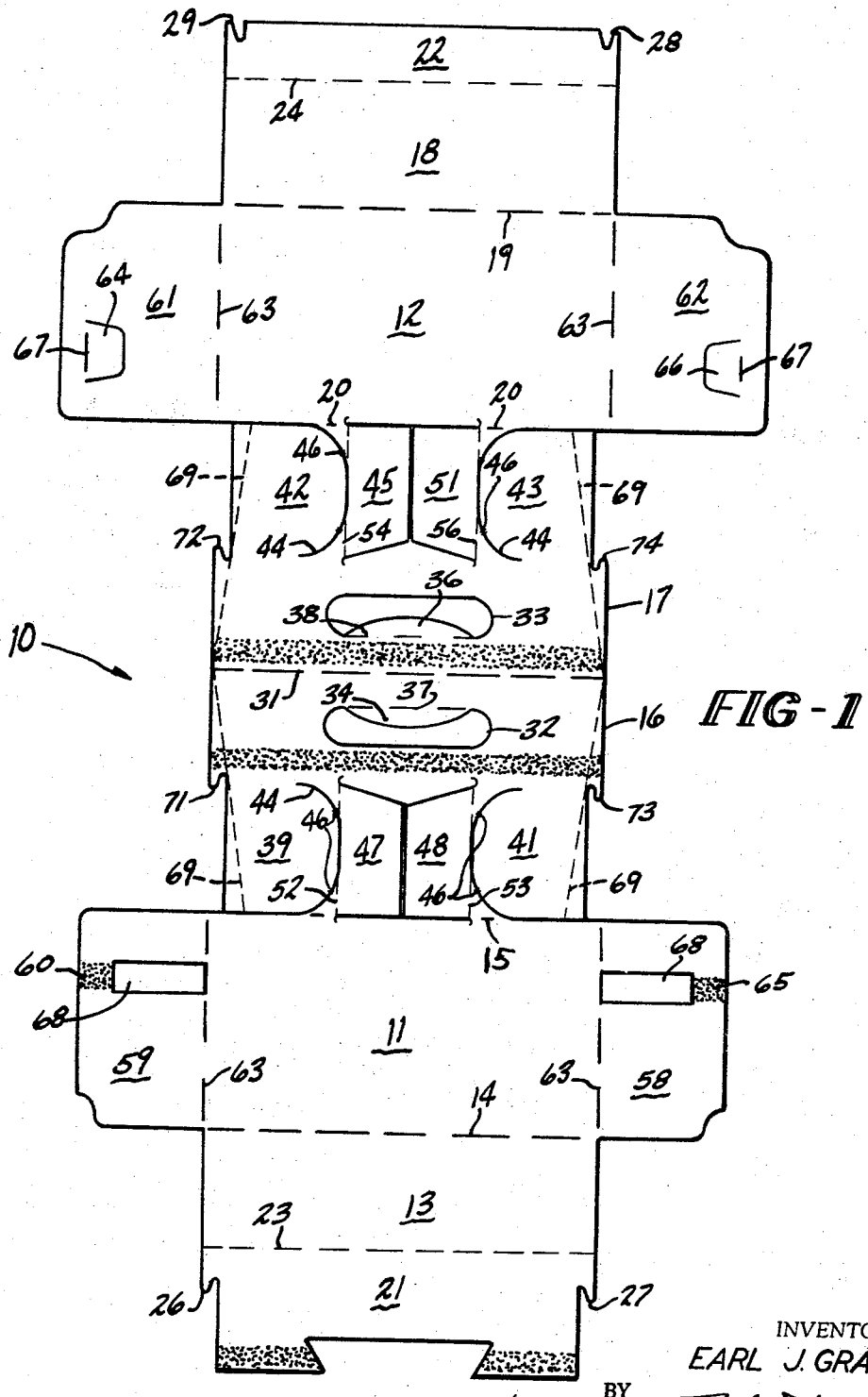


FIG - 1

INVENTOR.
EARL J. GRASER
BY R. J. Stiller
ATTORNEY

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BOTTLE CARRIER

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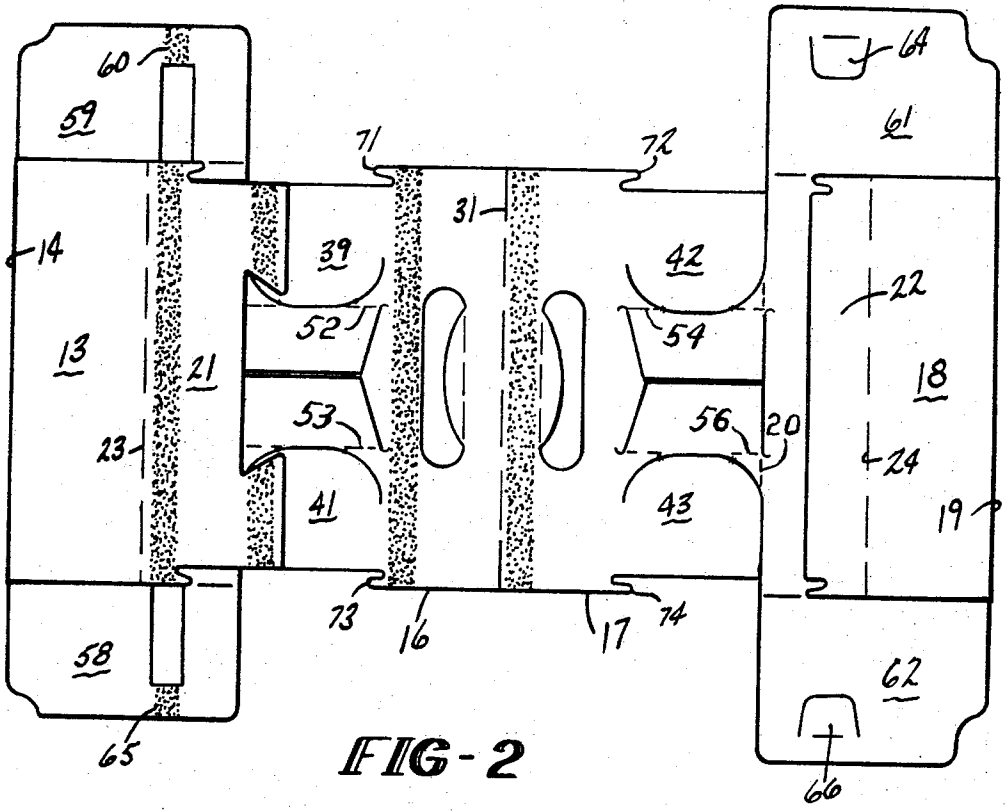


FIG-2

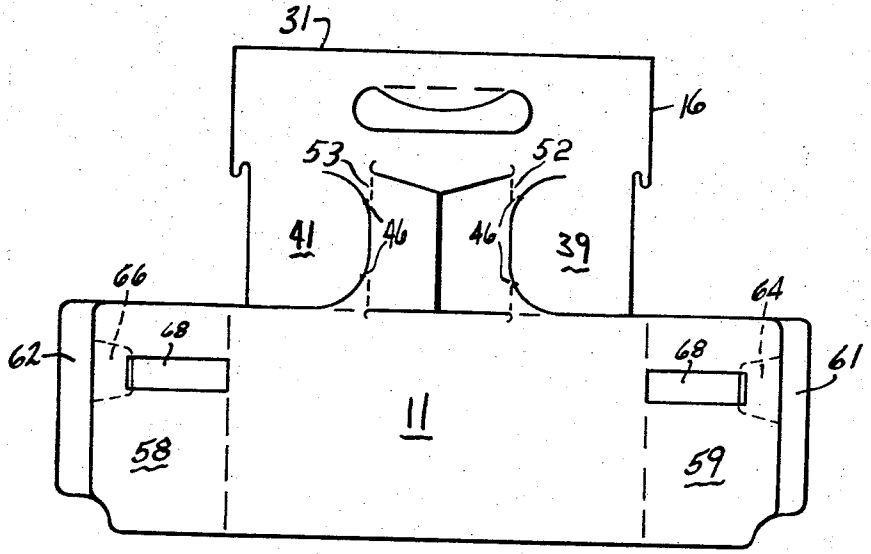


FIG-3

INVENTOR.
EARL J. GRASER
BY R.J. Hinkle
ATTORNEY

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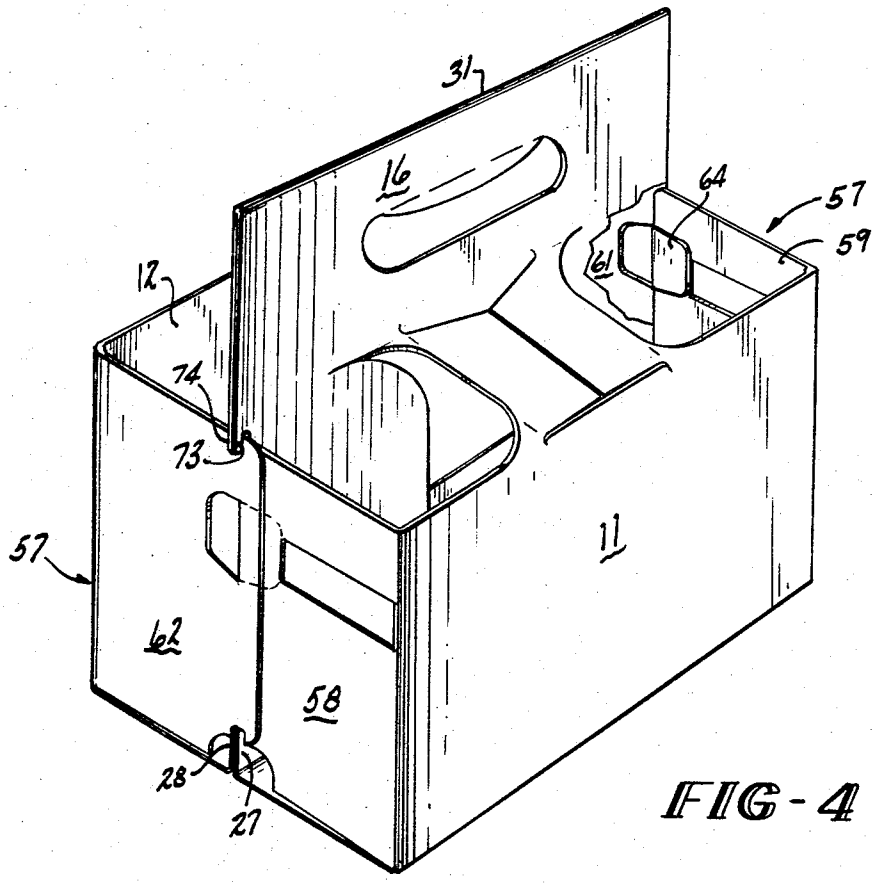


FIG-4

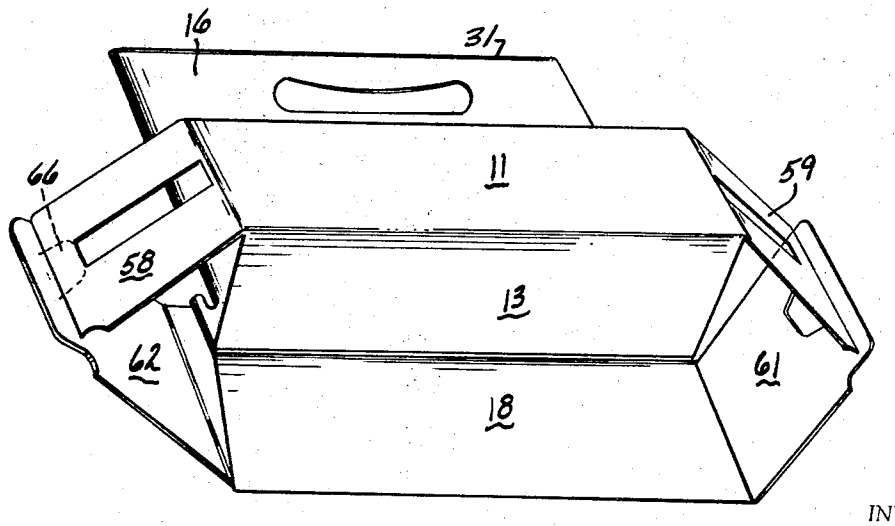


FIG-4A

INVENTOR.
EARL J. GRASER
BY R. J. Shuttleworth
ATTORNEY

Nov. 14, 1967 E. J. GRASER 3,352,452

BOTTLE CARRIER

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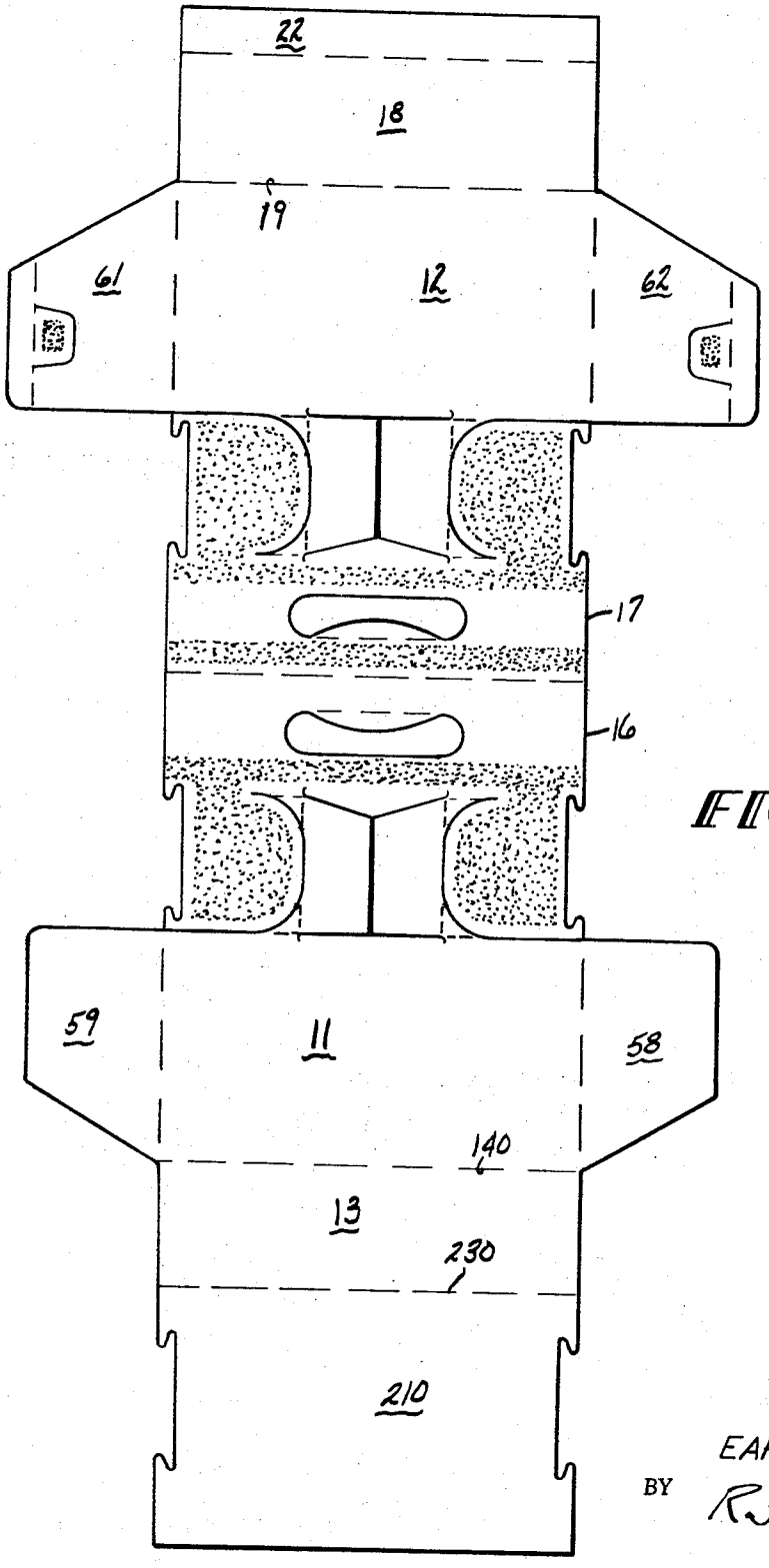


FIG-5

INVENTOR.
EARL J. GRASER
BY R. S. Thiele
ATTORNEY

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BOTTLE CARRIER

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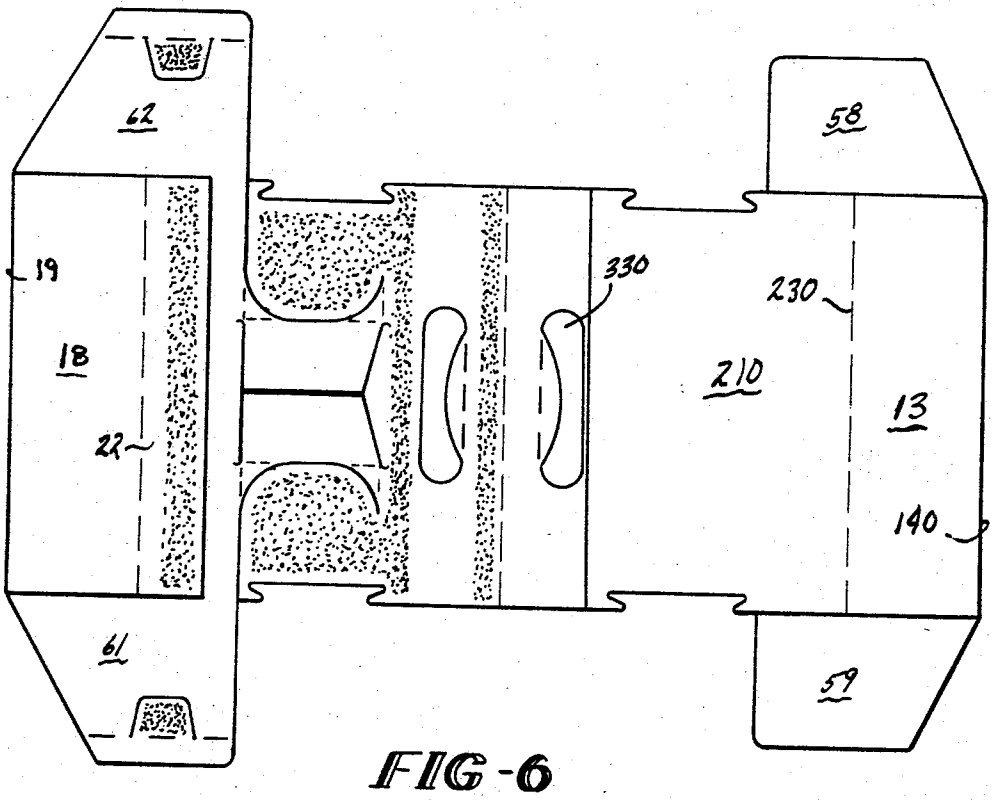


FIG-6

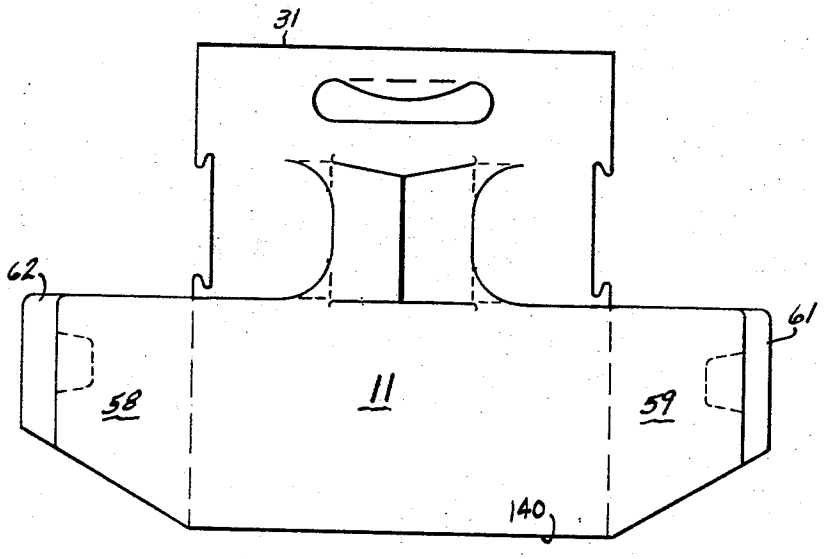


FIG-7

INVENTOR.
EARL J. GRASER
BY R. J. Stickler
ATTORNEY

Nov. 14, 1967

E. J. GRASER

BOTTLE CARRIER

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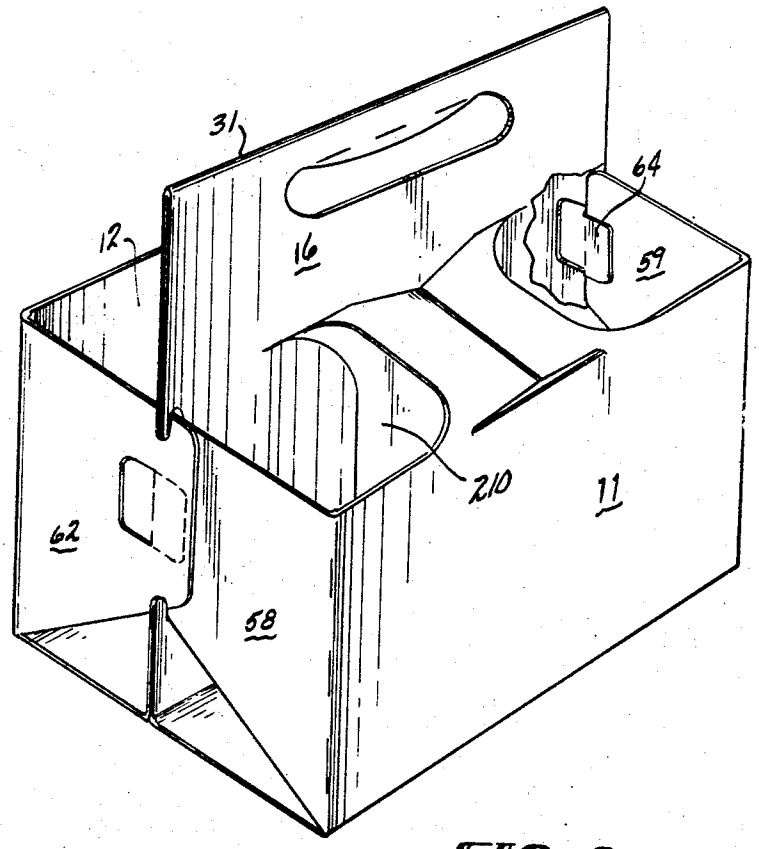


FIG-8

INVENTOR.
EARL J. GRASER

BY R. J. Shuttleworth

ATTORNEY

United States Patent Office 3,352,452 Patented Nov. 14, 1967

3,352,452

BOTTLE CARRIER

Earl J. Graser, Monroe, La., assignor, by mesne assignments, to Olinkraft, Inc., West Monroe, La., a corporation of Delaware

Filed July 6, 1965, Ser. No. 469,597
2 Claims. (Cl. 220—111)

ABSTRACT OF THE DISCLOSURE

A basket-style bottle carrier fabricated from a single blank of board material having, in the erect condition, overlapping end walls, said blank being susceptible of gluing while the blank is moving in a straight-line path.

The present invention relates to an article carrier and, in particular, to a basket-style article carrier fabricated from a single blank of packaging material.

A particular feature of the present invention is the provision of a basket-style article carrier of the above class which, in the course of fabrication, is susceptible of "straight-line" gluing.

The language, "straight-line" gluing, is intended to denote a folding and gluing operation, which is conducted while the blank is moving along a straight-line path.

An additional feature of the present invention is the provision of an article carrier blank which, in the course of the fabrication, requires a minimum number of operations.

It is a further feature of the invention to provide an article carrier having an end wall structure which, in the erect condtion, is detachably connected to a longitudinal partition structure.

It is a further feature of the present invention to provide a basket-style article carrier having a novel end wall structure.

A basket-style article carrier fabricated from a single blank of packaging material which is susceptible of straight-line gluing, embracing certain principles of the present invention, may comprise a pair of side panels, a pair of hinged handle panels, one edge of each side panel being hinged to a mating handle panel, a pair of bottom panels, a second edge of each side panel being hinged to a bottom panel, a longitudinal partition joined to both bottom panels and fixed to the handle panels and means for detachably securing the end panels to the longitudinal partition.

Other features and advantages of the present invention will become more apparent with an examination of the succeeding specification, when read in conjunction with the appended drawings, in which:

FIG. 1 is a plan view of an article carrier blank, embracing the principles of the invention.

FIG. 2 shows the blank of FIG. 1 after two folding steps.

FIG. 3 shows the blank following the third and final folding step representing the collapsed condition.

FIG. 4 is a perspective view of the blank of FIG. 3 in the erect condition.

FIG. 4A shows the blank of FIG. 3 partially erected.

FIG. 5 is a plan view of a blank illustrating a modified form of the invention.

FIG. 6 is a representation of the blank of FIG. 5 after gluing and after two folding steps.

FIG. 7 is a plan view of the completed blank of FIG. 5 in the collapsed condition.

FIG. 8 is a perspective view of the carrier of FIG. 7 in the erect condition.

Referring now to the drawings, and in particular, to FIGS. 1 through 4, a one piece blank, indicated generally

by the reference numeral **10**, includes side wall panels **11** and **12**.

The left edge of panel **11** is hinged to bottom panel **13** at score line **14**. The right edge of panel **11** is hinged to handle panel **16** by score line **15**.

Correspondingly, side wall panel **12** is hinged at its right edge to bottom panel **18** at score line **19** and at its left edge to handle panel **17** by score line **20**. Panels **21** and **22**, hinged to panels **13** and **18** at score lines **23** and **24**, respectively, define a longitudinal partition, as will become more apparent hereinafter.

The reference numerals **26**, **27**, **28** and **29** in panels **21** and **22** define lower locking tabs.

Handle panel **16** is hinged to a mating handle panel **17** by score line **31**. Each handle panel **16** and **17** includes a finger access opening **32** and **33**, including opening tabs **34** and **36** hinged to their respective panels by score lines **37** and **38**.

Anchor tabs **39**, **41**, **42** and **43** are partially cut from the panels **16** and **17** as indicated by the solid line labelled **44**. The line **44** is interrupted by a number of necks or bridges **46—46**, defining uncut material, to render the anchor tabs **39**, **41**, **42** and **43** releasable from side panels **11** and **12** and handle panels **16** and **17** during fabrication of the carrier, as will become more apparent as the specification proceeds.

Partition tabs **47**, **48**, **45** and **51**, hinged to their respective handle panels **16** and **17** by score lines **52**, **53**, **54** and **56** and hinged to side wall panels **11** and **12** by score lines **15** and **20** define transverse partition elements.

End walls indicated, generally by the reference numeral **57** in FIG. 4, comprise end wall panels **58**, **59**, **61** and **62**, hinged to their respective side wall panels **11** and **12** by score lines referenced **63**.

End wall panels **61** and **62** are formed with a cut out portion, defining locking flaps **64** and **66**, hinged to their respective end wall panels by score line **67**.

End wall panels **58** and **59** are formed with an elongated opening indicated by the reference numeral **68**.

The hatching shown in FIGS. 1 and 2 represents gluing areas in customary fashion.

The reference numerals **71** through **74** in the handle panels **16** and **17** define upper locking tabs as an optional feature.

The blank of FIG. 1 may be modified in the region of the handle panels **16** and **17** by shaping these panels in accordance with the dotted skew lines referenced **69**. If this modification is adopted, obviously, the upper locking tabs **71** through **74** are eliminated.

The blank of FIG. 1 is fabricated in the following fashion:

First, glue is applied in accordance with the hatching pattern indicated in FIG. 1; thereafter, bottom panel **13**, including its longitudinal partition panel **21**, is rotated about score line **14** to the position shown in FIG. 2.

Bottom panel **18**, including its adjacent longitudinal partition panel **22**, is rotated about score line **19** to the position shown in FIG. 2.

Glue is applied to the longitudinal partition panel **21** in accordance with the hatching shown in FIG. 2.

Next, the left side of the blank of FIG. 2 is rotated about score line **31** into face-to-face contact with the right side of the blank to develop the finished blank represented in collapsed condition in FIG. 3.

Note that locking flaps **64** and **66** register with glue spots **60** and **65** so that upon conversion of the collapsed blank of FIG. 3 to the erect blank of FIG. 4, flaps **64** and **66** are rotated through 180 degrees. For example, flap **64** is rotated out of the plane of end panel **61** and assumes a position overlaying the interior surface of panel **59**, as is apparent in the cut out of FIG. 4.

For further convenience in showing the conversion of collapsed blank of FIG. 3 to the erect blank of FIG. 4, attention is directed to FIG. 4A, which shows the relative disposition of end wall panels and bottom panels during the transition from the collapsed blank of FIG. 3 to the erect blank of FIG. 4.

To retain the carton in the erect position the overlapping end wall panels, such as the panels **58** and **62** of FIG. 4, are snapped over mating lower locking tabs **27** and **28**.

If the upper locking tabs are utilized, the upper ends of panels **58** and **62** are snapped under upper locking tabs **73** and **74**.

Alternatively, locking tabs **73** and **74** may also be inverted as shown in FIG. 4 so that they engage and hook around the upper edge of the opening in panel **62**.

In the erect condition, handle panels **16** and **17** are glued in face-to-face relationship and are also fixed to the longitudinal partition defined by panels **21** and **22**. The panels **21** and **22** are glued together and panel **21** is glued to anchor tabs **39–41** on one side and anchor tabs **42** and **43** on the other.

Stated otherwise, the terminal edge of panel **21** (the end containing the glue) is sandwiched between the anchor tabs **39** and **41**, one one side and anchor tabs **42** and **43** on the other.

During the course of top loading the erect blank of FIG. 4, transverse partition elements **45**, **47**, **48** and **51** are cammed downwardly about their respective score lines by the articles being loaded.

Referring now to FIGS. 5 through 7, a modification of the blank of FIG. 1 is illustrated.

The primary difference being that bottom panel **13** is shown hinged at score line **230** to an elongated longitudinal partition panel **210**.

Compare panel **21** of FIG. 1 to panel **210** of FIG. 5.

By elongating the longitudinal partition panel to the size shown in FIG. 5, it is possible to extend the partition structure vertically (observe the carton in the erect position) to a point just below the finger access opening of the handle panel.

For example, FIG. 6 shows the blank of FIG. 5 partly fabricated wherein bottom panel **13** and its adjacent partition panel **210** have been rotated about score line **230** so that panel **210** terminates just short of finger access opening **330**.

Thus, when the blank of FIG. 5 is further fabricated to the condition of FIGS. 7 and 8, it is apparent that the longitudinal partition afforded by panel **210** completely separates the articles on one side of the handle panel blank from those on the other side.

It is anticipated that a wide variety of modifications and design changes may be devised in the present invention without departing from its spirit and scope.

What is claimed is:

1. A basket-style article carrier fabricated from a single blank of packaging material which is susceptible of straightline gluing and operative in the erect condition to receive a plurality of articles comprising opposed side walls joined to opposed end walls, a centrally disposed handle member, a bottom wall, a longitudinal partition hinged to the bottom wall and fixed to said handle member, each said end wall defining a pair of overlapping panels connected by a locking flap, and lock means for detachably connecting said opposed end walls to the handle member when the carton is in the erect condition.

2. A basket-style article carrier fabricated from a single blank of packaging material which is susceptible of straight-line gluing and operative in the erect condition to receive a plurality of articles comprising opposed side walls joined to opposed end walls, a centrally disposed handle member, a bottom wall, a longitudinal partition hinged to the bottom wall and fixed to said handle member and lock means for detachably connecting said opposed end walls to the handle member when the carton is in the erect condition, said end walls each defining a pair of overlapping panels fixed together and hinged by a flap cut on of one panel.

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JOSEPH R. LECLAIR, *Primary Examiner.*

DONALD F. NORTON, *Examiner.*