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(54) Title: GUSSETED CARTON HAVING UPPER AND LOWER STORAGE COMPARTMENTS

(57) Abstract: Cartons, carton blanks, and methods for manufacturing cartons are described herein. In one implementation, a carton (190) formed from a carton blank (8) includes a lower storage compartment (175) having at least one panel. The carton (190) also includes a lid (150) connected to a first panel (60) of the lower storage compartment (175), where the lid (150) is configured to be pivotable with respect to the lower storage compartment (175). The carton (190) further includes an upper storage compartment (160) that is formed within the lid (150). The lid (150) can comprise, for example, a lower lid panel (10) that separates the lower storage compartment (175) from the upper storage compartment (160).

GUSSETED CARTON HAVING UPPER AND LOWER STORAGE COMPARTMENTS

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of U.S. Provisional Application No. 60/814,634, filed June 16, 2006, the entire disclosure of which is incorporated herein by reference.

BACKGROUND

Dispensing cartons are known. Conventional dispensing cartons may have a top panel with a dispensing feature formed therein. Such cartons may be used to contain articles such as beverage containers that are dispensable through the top panel or another panel when the carton is opened. Typically, the cartons must be refrigerated in order to keep the enclosed containers cool. When the cartons are no longer refrigerated, such as when the carton is removed from the refrigerator to dispense the containers, the containers may become undesirably warm. The containers must then be refrigerated again or otherwise cooled. Conventional dispensing cartons are also typically suited to store only one type of article, and therefore multiple vessels are required to carry various items, such as containers and dry snacks.

SUMMARY

In the present disclosure, cartons, carton blanks, and methods of manufacturing and using cartons are described. In one embodiment, among others, a carton, which is formed from a carton blank, comprises a lower storage compartment having at least one panel. The carton also includes a lid connected to a first panel of the lower storage compartment. The lid is configured to be pivotable with respect to the lower storage compartment. Also, the carton includes an upper

storage compartment formed within the lid. The lid comprises a lower lid panel that separates the lower storage compartment from the upper storage compartment.

The present disclosure also describes an embodiment of a carton blank cut from a single planar sheet. The carton blank comprises a plurality of adjoining panels connected together by a plurality of fold lines, wherein the plurality of adjoining panels are capable of being formed into a lower storage compartment of a carton. The carton blank also includes a lower lid panel having a first panel, a second panel, and an intermediate panel. The first panel is foldably connected to a first end of the intermediate panel, and the second panel is foldably connected to a second end of the intermediate panel. The carton blank also includes an upper lid panel having a pivot panel and a spacer panel. The pivot panel is positioned for overlapping the first panel of the lower lid in response to predetermined folding along at least a first fold line of the plurality of fold lines. The spacer panel includes a portion thereof positioned for overlapping the second panel of the lower lid in response to predetermined folding along at least a second fold line of the plurality of fold lines.

Furthermore, the present disclosure describes embodiments of method of manufacturing a carton. In one embodiment, among others, the method comprises cutting a carton blank from a sheet of material, wherein the carton blank comprises a plurality of adjoining panels, an upper lid panel, and a lower lid panel. The method also includes attaching the lower lid panel to the upper lid panel to at least partially form an upper storage compartment of the carton. Also, the method includes folding the plurality of adjoining panels along respective fold lines to form a lower storage compartment of the carton.

Other aspects, features, and details of the present disclosure can be more completely understood by reference to the following detailed description of a preferred embodiment, taken in conjunction with the drawings and from the appended claims.

BRIEF DESCRIPTION OF THE DRAWING FIGURES

According to common practice, the various features of the drawings discussed below are not necessarily drawn to scale. Dimensions of various features and elements in the drawings may be expanded or reduced to more clearly illustrate the embodiments of the present disclosure.

FIG. 1 is a plan view of a carton blank used to form a carton according to a first embodiment of the present disclosure.

FIG. 2 is a perspective view of an open end of the carton blank of FIG. 1 in a partially erected state.

FIG. 3 is a front perspective view a carton erected from the carton blank of FIG. 1 in accordance with a first embodiment.

FIG. 4 is a perspective view of the back of the carton.

FIG. 5 is a perspective view of the front of the carton with a lid of the carton opened.

FIG. 6 is a perspective view of an end of the carton with the lid opened.

FIG. 7 is a perspective view of the back of the carton with the lid opened.

FIG. 8 is a perspective view of the carton with the lid opened and containers accommodated within the carton.

DETAILED DESCRIPTION

The first embodiment of the present disclosure generally relates to a carton suitable for storing and dispensing articles such as, for example, beverage containers. The carton is also suitable for storing and dispensing articles of a second type, such as dry snacks, in a separate compartment. In accordance with the first embodiment, the carton includes a bottom receptacle suitable for accommodating, for example, liquids, ice, or other coolants in the carton bottom. In one exemplary embodiment, ice can be added to the opened carton to cool articles held within the

carton. As the ice melts, all or a part of the resultant runoff water may be at least temporarily held within the bottom receptacle.

Articles accommodated in a bottom portion of the carton can include containers such as, for example, petaloid bottle containers, beverage cans, glass or plastic bottles, or other containers such as, for example, those used in packaging foodstuffs. For the purposes of illustration and not for the purpose of limiting the scope of the present disclosure, the following detailed description describes beverage containers as disposed within the carton embodiments. In this specification, the terms "lower," "upper," "bottom," "front" and "back" indicate orientations determined in relation to fully erected, upright cartons.

FIG. 1 is a plan view of a blank **8** used to form the carton **190** (illustrated in **FIGS. 3 and 4**) according to the first embodiment of the present disclosure. The blank **8** can be cut from a single planar sheet having a material that is suitable for the construction of a carton. As shown in **FIG. 1**, the blank **8** may be symmetric or nearly symmetric about a longitudinal centerline C_L. Therefore, certain elements in the drawing figures may have identical or similar reference numerals in order to reflect partial or complete longitudinal symmetry in the blank.

The blank **8** comprises a lower lid panel **10** adjacent to a front panel **40**, a bottom panel **50** foldably connected to the front panel **40** at a transverse fold line **51**, a back panel **60** foldably connected to the bottom panel **50** at a transverse fold line **61**, an upper lid panel **70** foldably connected to the back panel **60** at a transverse fold line **76**, and a front adhesive panel **90**.

First gussets **45** are disposed at either end of the front panel **40**. The first gussets **45** comprise a pair of gusset panels **42, 46** foldably connected to one another at an oblique fold line **44**. Each gusset panel **42** is foldably connected to the front panel **40** at a longitudinal fold line **106**, and each gusset panel **46** is foldably connected to a bottom end panel **52** at the transverse fold line **51**. An adhesive flap **54** is foldably connected to each bottom end panel **52** at a longitudinal fold line **56**.

Second gussets **65** are disposed at either end of the back panel **60**. The second gussets **65** comprise a pair of gusset panels **62, 66** foldably connected at an oblique fold line **64**. Each gusset panel **62** is foldably connected to the back panel **60** at the longitudinal fold line **106**, and each gusset panel **66** is foldably connected to a bottom end panel **52** at the transverse fold line **61**.

The periphery of the lower lid panel **10** is defined at one end of the blank **8** by a separation pattern, which includes, for example, spaced longitudinal cuts **20**, oblique cuts **22**, and a transverse cut **24** connecting the oblique cuts **22**. More generally, as in one example, the periphery of the lower lid panel **10** is defined by one or more tear lines, slits, or any combination thereof. The lower lid panel **10** can be retained in place in the blank **8** by nicks around the periphery of the lower lid panel **10**. The nicks, for example, are "bridging" pieces of the blank **8** located between slits in the blank **8**. An adhesive panel **12** is in part defined at one end of the panel **10** by a transverse fold line **14**, and an adhesive panel **16** is in part defined at the other end of the lower lid panel **10** by a transverse fold line **18**. The middle section of the lower lid panel **10** is intermediate between adhesive panels **12** and **16**. Longitudinal panels **28** extend along each side of the lower lid panel **10** and are foldably connected to the front panel **40** at transverse fold lines **41**.

The periphery of the upper lid panel **70** is defined by a transverse fold line **74**, spaced longitudinal tear lines **80**, oblique tear lines **92**, and a tear line **94** connecting the oblique tear lines **92**. The tear lines **80, 92,** and **94** allow the upper lid panel **70** to remain in place with respect to the adjoining panels. However, the tear lines **80, 92,** and **94** can be torn by a user without special cutting tools to separate the upper lid panel from longitudinal panels **78** and the front adhesive panel **90**. After the tear lines are torn, the upper lid panel **70** can be pivoted as explained in more detail below. A pivot panel **72** is defined at one end of the upper lid panel **70** in part by a transverse fold line **76**. A spacer panel **84** is defined in the other end of the upper lid panel **70** in part by transverse fold lines **83, 86**. An adhesive panel **88** is foldably connected to the spacer panel **84** at the transverse fold line **86**. The longitudinal panels **78** extend along each side of the upper lid panel **70** and are foldably connected to the back panel **60** at transverse fold lines **63**. The front

adhesive panel **90** extends from the end of the blank **8** and is foldably connected to the longitudinal panels **78** at transverse fold lines **91**.

Inner handle panels **30** are foldably connected to the longitudinal panels **28** at the fold lines **106**. Apertures **34** can be formed along the fold lines **106** to facilitate folding of the handle panels **30**. Cut-out **32**, which in some embodiments form racetrack-shaped handles, are formed in the handle panels **30**. Outer handle panels **100** are foldably connected to the longitudinal panels **78** at the fold lines **106**. The outer handle panels **100** include handles **102** that are arranged to align with the cut-outs **32**, e.g., handles, in the erected carton **190**.

According to one exemplary aspect of the present disclosure, the gussets **45, 65**, the front panel **40**, the back panel **60**, the bottom end panels **52**, and bottom panel **50** form a wholly or partially liquid-tight bottom receptacle **175** (illustrated in **FIGS. 6** and **7**) in the erected carton **190**. The panels **30, 42, 46, 52, 62, 66, 100** generally extend both along a first marginal area (the upper region or area in **FIG. 1**) of the blank **8**, and also along a second marginal area (the lower region or area in **FIG. 1**) of the blank **8**. The longitudinal fold lines **106** can be, for example, straight or generally straight lines, or may be offset to account for blank thickness or for other factors.

An exemplary method of erection of the blank **8** into the carton **190** will now be discussed with reference to **FIGS. 1** and **2**. **FIG. 2** illustrates the blank **8** glued and folded into a generally tubular configuration with both ends of the tube open to form a partially erected carton. The lower lid panel **10** is folded at the transverse fold lines **14, 18** so that the adhesive panel **12** is brought into contact with the pivot panel **72** and is adhered thereto by adhesive material therebetween. Also, the adhesive panel **16** is brought into contact with the adhesive panel **88** of spacer panel **84** and adhered thereto by adhesive material therebetween. It should be noted that the adhesive material is typically not applied to the adhesive panels **12, 16, 88** and pivot panel **72** until the time of carton erection. The adhesive material, in this case, can be applied to portions of one or both of the respective adjoining adhesive panels. When the adhesive panels **12, 16** are adequately adhered to the pivot panel **72** and adhesive panel **88**, respectively, folding along fold lines can automatically strike, i.e.

separate, the lower lid panel **10** from the prior position of the lower lid panel **10** in the blank **8**.

The exterior sides of the longitudinal panels **28** are typically adhered to the interior or undersides of the longitudinal panels **78**, and the exterior sides of the handle panels **30** are typically adhered to the interior sides of the handle panels **100** so that the handles **32, 102** align. The interior side or underside of the front adhesive panel **90** is adhered to the exterior side of the front panel **40**. The ends of the partially erected carton may now be closed by the first and second gussets **45, 65** and the bottom end panels **52**. The discussion below describes closing of one end of the partially erected blank. The opposite end may be closed in a similar manner.

Still referring to **FIG. 2**, the overlapped inner and outer handle panels **30, 100** are initially folded inwardly about the longitudinal fold lines **106**, and the first and second gussets **45, 65** and the bottom end panels **52** are subsequently folded inwardly about the longitudinal fold lines **106**. As the gussets **45, 65** and the bottom end panels **52** are folded inwardly, the first gussets **45** fold inwardly about the oblique fold lines **44** and the second gussets **65** fold inwardly about the oblique fold lines **64**. The bottom end panels **52** may be folded over the inwardly folded gussets **45, 65** and may, for example, be adhered to the interior sides of the gusset panels **46, 66**. In other embodiments, the end panels **52** may be folded such that the interior sides of the gusset panels **42, 62** of gussets **45, 65** can be adhered to the interior sides of the front panel **40** and back panel **60**, respectively. The exterior surfaces of the gusset panels **42** may be adhered to exterior surfaces of the gusset panels **46**. The exterior surfaces of gusset panels **62, 66** may also be adhered together. The first and second gussets **45, 65** and the bottom end panels **52** are folded over the overlapped handle panels **30, 100** and the interior side of each adhesive panel **54** is adhered to the exterior side of a handle panel **100**. Alternatively, the handle panels **30, 100** may overlap the bottom end panels **52**. The erected carton **190** may be loaded with containers **C** and/or additional articles, for example, at any time before closing both ends of the carton. In accordance with an alternative embodiment, the gussets **45, 65** are omitted and the bottom end panels **52** are closed with connectional end flaps.

FIG. 3 illustrates the front of the erected carton **190**. To continue to erect the carton **190**, the front adhesive panel **90** is folded about the fold lines **91** and is adhered to a front surface of the front panel **40**. The adhesive panel **88** of the upper lid panel **70** is adhered to the adhesive panel **16** (shown in **FIG. 1**) of the lower lid panel **10**. The spacer panel **84** extends across the front face of the carton **190** and separates the upper and lower lid panels **10, 70**. The upper and lower lid panels **10, 70** define a lid **150** in the top portion of the carton **190**.

FIG. 4 illustrates the back of the carton **190**. The pivot panel **72** is foldably connected to the back panel **60** at the fold line **74**. When the lid **150** is in a closed position (as illustrated), the pivot panel **72** extends substantially flush across the back face of the carton **190**.

FIG. 5 illustrates the front of the carton **190** with the lid **150** in an opened position. Referring also to **FIG. 3**, the lid **150** may be opened by tearing along the tear lines **80, 92, 94** and pulling up on the lid **150**. As the lid **150** pivots upwardly, the connection of the adhesive panel **88** to the adhesive panel **16** causes the lower lid panel **10** to also move upwardly. Along with the adhesively connected panels **12, 72**, the spacer panel **84** provides a spacing between the upper and lower lid panels **70, 10**. The volume between the upper and lower lid panels **70, 10** comprises an upper storage compartment **160** in the lid **150**. The upper and lower lid panels 70, 10 and the upper storage compartment 160, in alternative embodiments, can be formed in a variety of different shapes. A lower storage compartment **170** is defined in the bottom portion of the carton **190**, and a bottom receptacle **175** is further defined in the lower storage compartment **170**. The upper storage compartment **160** in the lid **150** is at least partially isolated from the lower storage compartment **170** by the lower lid panel **10**. In the opened position, as illustrated in **FIG. 5**, items can be respectively stored within or removed from the upper storage compartment **160** and lower storage compartment **170**.

Referring also to **FIG. 6**, as the pivotable lid **150** is opened, the lower lid panel **10** pivots about the fold line **14**, with the adhesive panel **12** being adhesively secured to the pivot panel **72**. The carton **190** can be designed such that friction between the edges of the lower lid panel **10** of the lid **150** and the edges of the open

section of the carton **190** can help maintain the lid **150** in an open position. That is, the lower lid panel **10** may be the as or a little wider than, or a little offset with respect to, the upper lid panel **70**. **FIG. 7** illustrates the back of the opened carton **190**. As the lid **150** is pivoted open, the pivot panel **72** pivots away from the back panel **60** about the fold line **74**. **FIG. 8** illustrates the carton **190** with containers **C** accommodated within the carton **190**.

Referring again to **FIG. 6**, the bottom receptacle **175**, which is defined by portions of the first and second gussets **45, 65**, the bottom end panels **52**, and the panels **40, 50, 60**, may be at least partially liquid-tight. The top edge or border of the bottom receptacle **175** is indicated by the dashed perimeter line **177** in **FIGS. 3-5**. The top edge of the bottom receptacle **175** represents a portion of the bottom of the carton **190** below which typically no glued seals or seams are formed through which water or other liquid might leak from the carton **190**. That is, in accordance with the first embodiment, no adhesive seal or other joinder of material where liquid or particulate matter might escape the carton **190** is located in the carton at a position below the top perimeter line **177** of the bottom receptacle **175**. Referring also to **FIG. 1**, the bottom receptacle **175** may therefore be formed from a continuous section of folded material of the blank **8**. The height of the liquid-tight portion of the bottom receptacle **175** below which there are no glued seams is generally indicated as a height H_R in **FIG. 6**, which generally corresponds to the height at which the fold lines **56** are located. Referring to **FIG. 1**, the height H_R may generally coincide with an uppermost point **48** where the gusset panels **42, 46** of the first gussets **45** are foldably connected to one another, and the uppermost point **68** where the gusset panels **62, 66** of the second gussets **65** are connected.

According to another aspect of the present disclosure, the height H_R may be, for example, defined as a function of a height of the carton **190**. For example, referring to **FIG. 6**, the bottom receptacle **175** may define a liquid-tight portion having a height H_R that is at least about 10% of the height H_C of the carton **190**. Higher bottom receptacle heights, such as a height H_R that is at least 20% of carton height H_C, are also possible. In the illustrated embodiment, the height H_C is about 8 inches and the height H_R is about 3.9 inches, which is about 49% of the carton

height H_C. The height H_R may be increased, for example, to accommodate larger anticipated liquid volumes in the carton **190**.

According to one aspect of the present disclosure, the upper storage compartment **160** in the lid **150** may be used to store items separate from items accommodated in the lower storage compartment **170**. For example, the upper storage compartment **160** may be a "dry" compartment used to accommodate items such as packaged foods. The lower storage compartment **170** can be a "wet" compartment used to accommodate beverage containers **C**, and, if desired, ice or other coolant substances.

If desired, additional articles may be placed in the carton **190** after opening. For example, if the containers **C** are beverage containers, ice may be placed over the containers **C** and held within the lower storage compartment **170** to cool the containers **C**. As the ice melts, the bottom receptacle **175** of the carton **190** serves to retain all or a portion of the water runoff as the ice melts. The receptacle **175** may also serve, for example, to house fine particulate matter that might otherwise escape through a glued seam. If one or more containers **C** is damaged during shipping or storage of the carton **190**, the bottom receptacle **175** can serve to retain all or a portion of the contents of the broken container.

The blank **8** can, for example, be constructed of water resistant material to any degree desired so that liquid in the bottom of the carton **190** remains in the bottom receptacle **175** for a selected amount of time. The carton **190** can therefore be constructed so that liquid retained in the bottom receptacle **175** initially remains in the carton **190** at least until it reached the height H_R.

Cartons constructed according to the principles of the present disclosure may be formed from materials such as paperboard. Therefore, if exposed to water or other liquids for extended periods of time, the carton may allow for the passage of liquid through the wetted carton surfaces due to partial permeability of the carton material. In this specification, the term "liquid-tight" is generally used to define a section of a carton that is formed from a continuous section of material or of a section without any glued seams through which liquid or fine particulate matter

might leak, and the term "liquid-tight" therefore encompasses cartons that may become partially water permeable over time.

In order to reduce the permeability of cartons to liquid, blanks according to the present disclosure may be coated with, for example, a moisture barrier layer, on either or both sides of a blank. Blanks can also be laminated to or coated with one or more sheet-like materials at selected panels or panel sections. For example, the interior surfaces of the blank **8** may include a water-resistant or water-tight film such as, for example, polyethylene, polyester, or polypropylene films. Coatings of the same materials may also be applied to the blank **8**. Accordingly, the sheet from which the blank **8** is cut may have multiple plys.

In the above embodiments, the carton **190** is illustrated as accommodating eight containers **C** in a 2x4 configuration. Other arrangements of containers, packages, articles, and other items, however, can be accommodated within a carton according to the principles of the present disclosure. For example, a carton constructed according to the principles of the present disclosure would also work satisfactorily if the carton were sized and shaped to hold articles in other configurations, such as 3x4, 4x3, 3x6, 2x4, 2x5, etc. The dimensions of the blank **8** may also be altered, for example, to accommodate various container forms. For example, 16-ounce petaloid bottles may be accommodated within a carton constructed according to the principles of the present disclosure.

In the exemplary embodiments discussed above, the exemplary blank **8** may be formed from, for example, clay coated newsprint (CCN), solid unbleached sulfate board (SUS), and/or other materials. In general, the blank may be constructed from paperboard having a caliper of at least about 14, for example, so that it is heavier and more rigid than ordinary paper. The blank can also be constructed of other materials, such as cardboard, or any other material having properties suitable for enabling the carton to function at least generally as described above.

The blank can be coated with, for example, a clay coating. The clay coating may then be printed over with product advertising and/or other information or images. The blank may then be coated with a varnish to protect information printed on the blank.

In the present specification, a "panel" need not be flat or otherwise planar. A "panel" can, for example, comprise a plurality of interconnected generally flat or planar sections.

The above embodiments may be described as having one or more panels adhered together by glue. The term "glue" is intended to encompass all manner of adhesives commonly used to secure paperboard carton panels in place.

The term "line" as used herein includes not only straight lines, but also other types of lines such as curved, curvilinear or angularly displaced lines.

In accordance with the exemplary embodiments, a fold line can be any substantially linear, although not necessarily straight, form of weakening that facilitates folding therealong. More specifically, but not for the purpose of narrowing the scope of the present disclosure, fold lines include: a score line, such as lines formed with a blunt scoring knife, or the like, which creates a crushed or depressed portion in the material along the desired line of weakness; a cut that extends partially into a material along the desired line of weakness, and/or a series of cuts that extend partially into and/or completely through the material along the desired line of weakness; and various combinations of these features. In situations where cutting is used to create a fold line, typically the cutting will not be overly extensive in a manner that might cause a reasonable user to incorrectly consider the fold line to be a tear line.

In the illustrated embodiments, selected fold lines may be shown as including spaced cuts to facilitate folding along the lines. If the cuts are below or adjacent to the bottom receptacle **175** portion of the carton, less than 100% cuts, e.g., cuts that do not extend all the way through the blank, may be used to prevent leakage along the fold lines. Alternatively, cuts or scores may be omitted within or near the bottom receptacle **175**.

The term "tear line" as used herein can be any fold, cut, puncture, slice, slit, perforation, etc., or any combinations thereof, which allows the blank **8** to be folded along an intended line. When the tear lines contains slits, for example, the slits are typically aligned nearly end-to-end including bridges between them, wherein the

bridges can be ripped. The tear lines can also be formed using a kiss cut that cuts through one surface of the blank **8**, but does not extend all the way through it.

The foregoing description of the present disclosure illustrates and describes selected embodiments. However, it is to be understood that the present disclosure is not limited by the exemplary embodiments, but can include other modifications and changes within the spirit and scope of the descriptions expressed herein. Such modifications known to one of ordinary skill in the art are intended to be included within the present disclosure and limited only by the following claims.

WHAT IS CLAIMED IS:

1. A carton formed from a carton blank, the carton comprising:

a lower storage compartment having at least one panel;

a lid connected to a first panel of the lower storage compartment, the lid configured to be pivotable with respect to the lower storage compartment; and

an upper storage compartment.

2. The carton of claim 1, wherein the upper storage compartment is formed within the lid.

3. The carton of one of claims 1 or 2, wherein the lid comprises a lower lid panel that separates the lower storage compartment from the upper storage compartment.

4. The carton of one of claims 1-3, wherein the lower storage compartment comprises a substantially water-tight receptacle.

5. The carton of claim 4, wherein the water-tight receptacle allows the lower storage compartment to be substantially water tight up to a first height.

6. The carton of claim 5, wherein the first height is greater than about 20% of the height of the carton.

7. The carton of one of claims 1-6, wherein the lid is pivotable between a closed position and an opened position.

8. The carton of claim 7, wherein, in the closed position, items stored in the upper storage compartment are at least partially separated from items in the lower storage compartment by the lower lid panel.

9. The carton of claim 7, wherein, in the opened position, the upper storage compartment and lower storage compartment are accessible for storing or removing items.

10. The carton of one of claims 1-9, further comprising a first handle and a second handle, wherein the first handle and second handle are positioned at substantially opposite ends of the carton.

11. A carton blank comprising:

a plurality of adjoining panels connected together by a plurality of fold lines, the plurality of adjoining panels capable of being formed into a lower storage compartment of a carton;

a lower lid panel having a first panel, a second panel, and an intermediate panel, the first panel foldably connected to a first end of the intermediate panel, the second panel foldably connected to a second end of the intermediate panel; and

an upper lid panel having a pivot panel and a spacer panel.

12. The carton blank of claim 11, wherein the pivot panel is positioned for overlapping the first panel of the lower lid in response to predetermined folding along at least a first fold line of the plurality of fold lines.

13. The carton blank of one of claims 11 or 12, wherein the spacer panel includes a portion thereof positioned for overlapping the second panel of the lower lid in response to predetermined folding along at least a second fold line of the plurality of fold lines.

14. The carton blank of one of claims 11-13, wherein the plurality of adjoining panels comprises:

a bottom panel;

a front panel foldably connected to the bottom panel;

a back panel foldably connected to the bottom panel;

first and second end panels foldably connected to the bottom panel;

a first gusset foldably connected to the first end panel and the front panel;

a second gusset foldably connected to the front panel and the second end panel;

a third gusset foldably connected to the second end panel and the back panel; and

a fourth gusset foldably connected to the back panel and the first end panel.

15. The carton blank of claim 14, further comprising a fold line between the pivot panel and the back panel.

16. The carton blank of one of claims 14 or 15, further comprising:

first and second longitudinal panels foldably connected to the back panel in a longitudinal direction; and

third and fourth longitudinal panels foldably connected to the front panel in a longitudinal direction.

17. The carton blank of claim 16, further comprising:

first and second outer handle panels foldably connected to the first and second longitudinal panels, respectively; and

first and second inner handle panels foldably connected to the third and fourth longitudinal panels, respectively.

18. The carton blank of one of claims 11-17, wherein the lower lid panel is cut and removed from the single planar sheet with no fold lines connecting the lower lid panel to adjoining panels.

19. A method of manufacturing a carton, the method comprising:

cutting a carton blank from a sheet of material, the carton blank comprising a plurality of adjoining panels, an upper lid panel, and a lower lid panel;

attaching the lower lid panel to the upper lid panel to at least partially form an upper storage compartment of the carton; and

folding the plurality of adjoining panels along respective fold lines to form a lower storage compartment of the carton.

20. The method of claim 19, wherein the lower lid panel is at least partially struck from at least one of the plurality of panels and the upper storage compartment is at least partially further formed in response to the folding step.

21. The method of one of claims 19 or 20, wherein the carton blank further comprises outer handle panels and inner handle panels, the method further comprising:

adhering the inner handle panels to first portions of the outer handle panels.

22. The method of claim 21, wherein the plurality of adjoining panels includes end panels, the method further comprising:

adhering second portions of the outer handle panels to portions of the end panels.

23. The method of one of claims 19-22, further comprising:

forming a fold line along a first edge of the upper lid panel; and

forming tear lines along other edges of the upper lid panel.

24. The method of claim 23, further comprising:

tearing the tear lines along the other edges of the upper lid panel to thereby allow the upper lid panel to be pivoted along the fold line along the first edge.

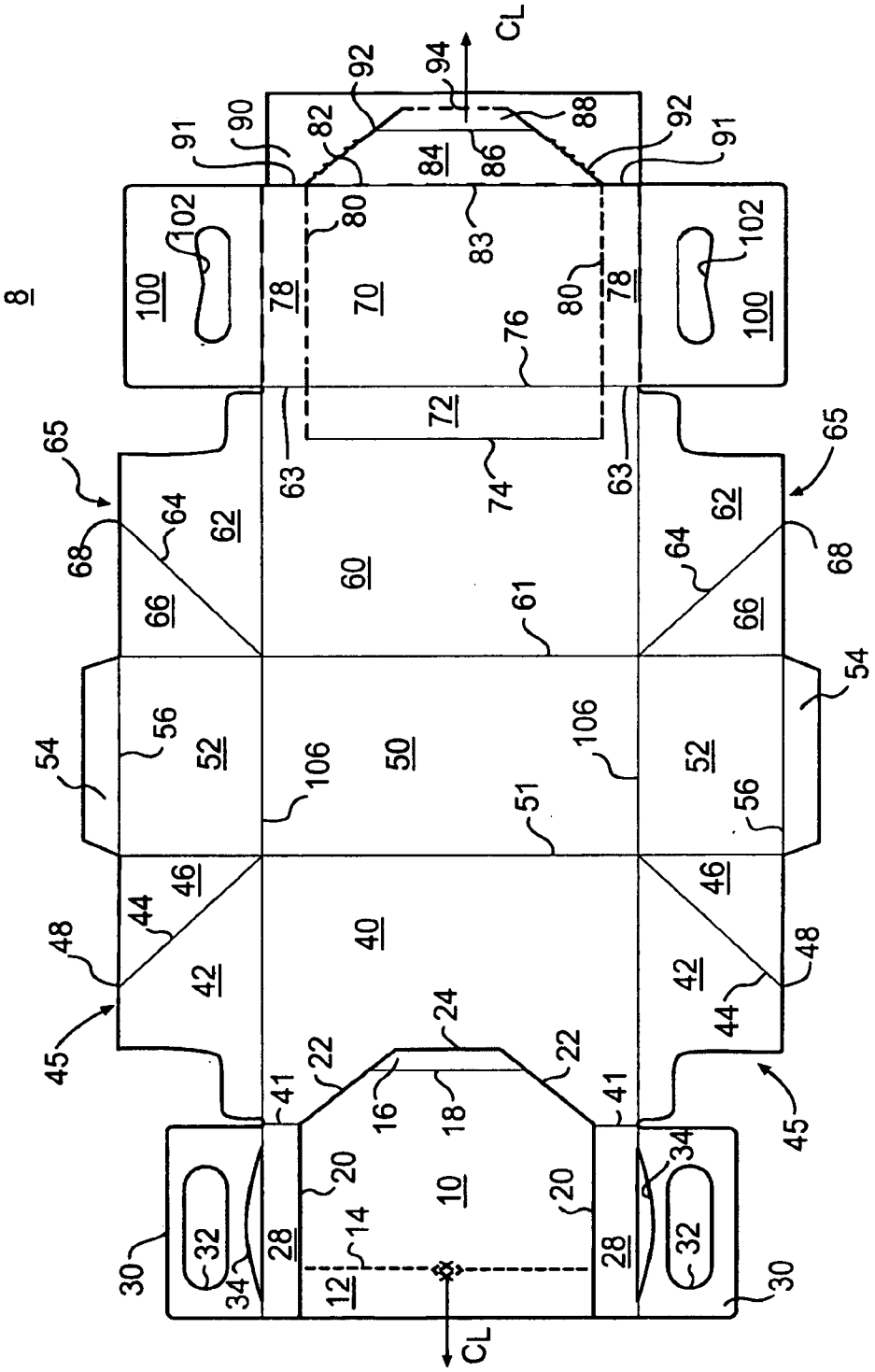

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FIG. 1

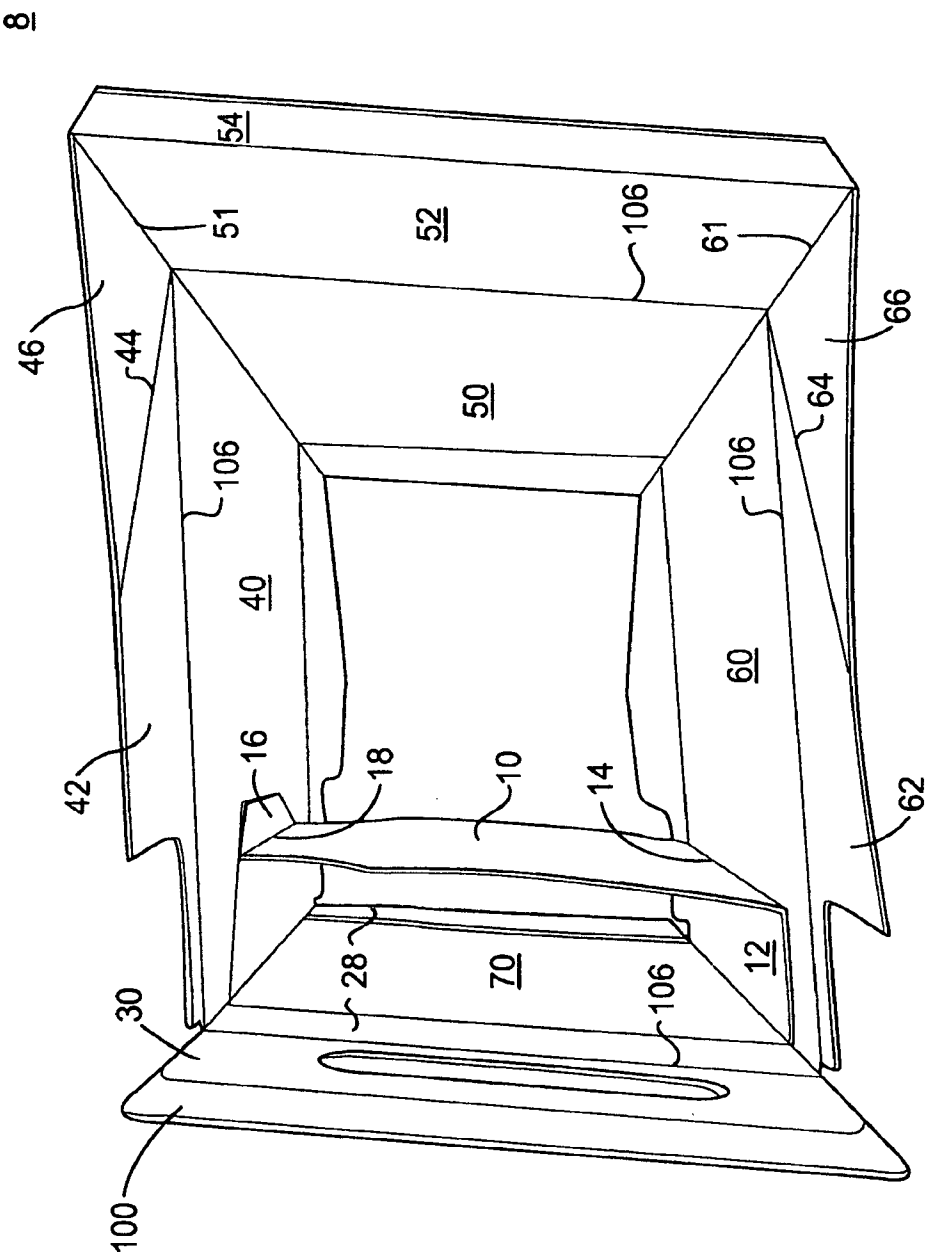

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FIG. 2

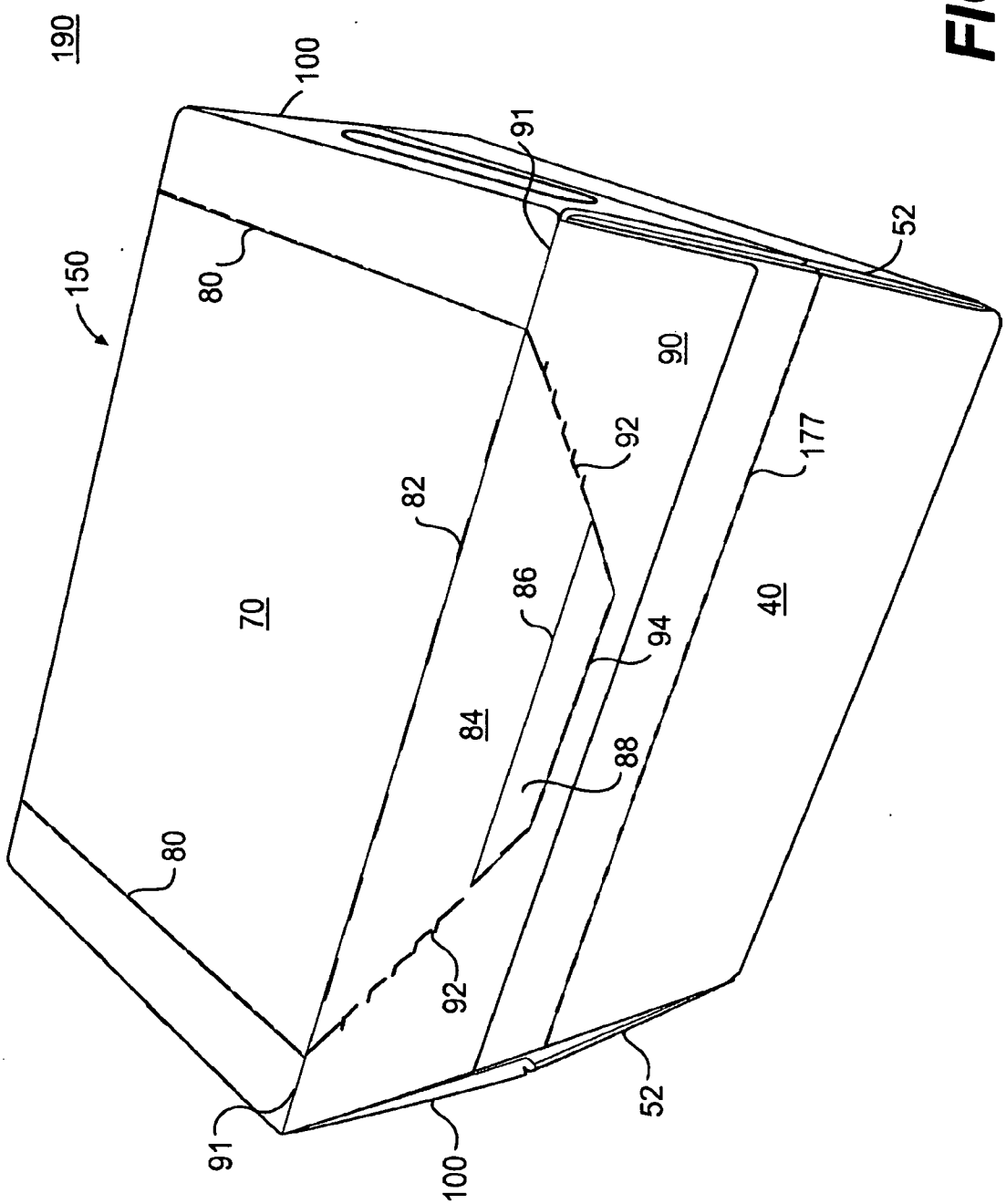


FIG. 3

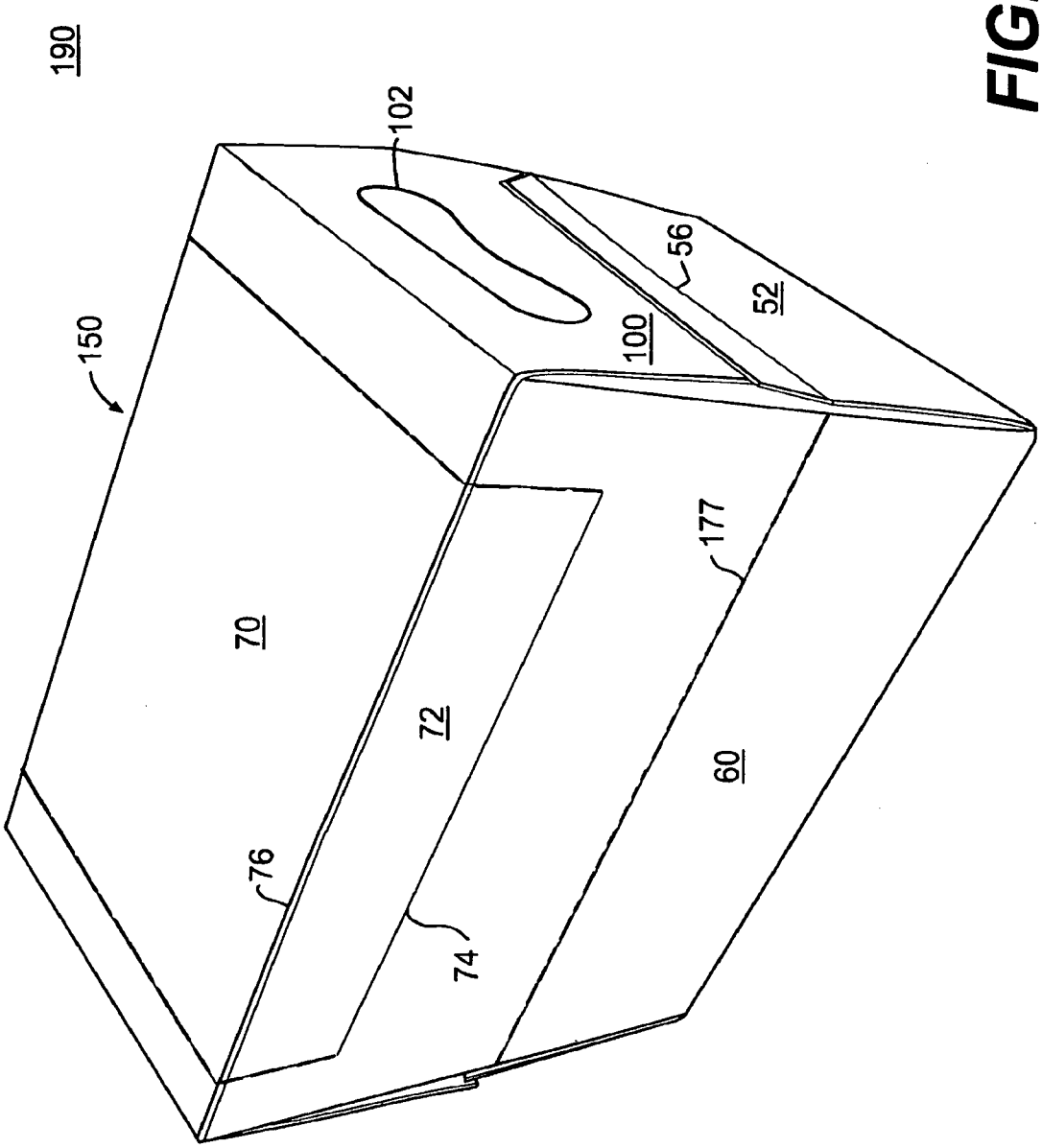


FIG. 4

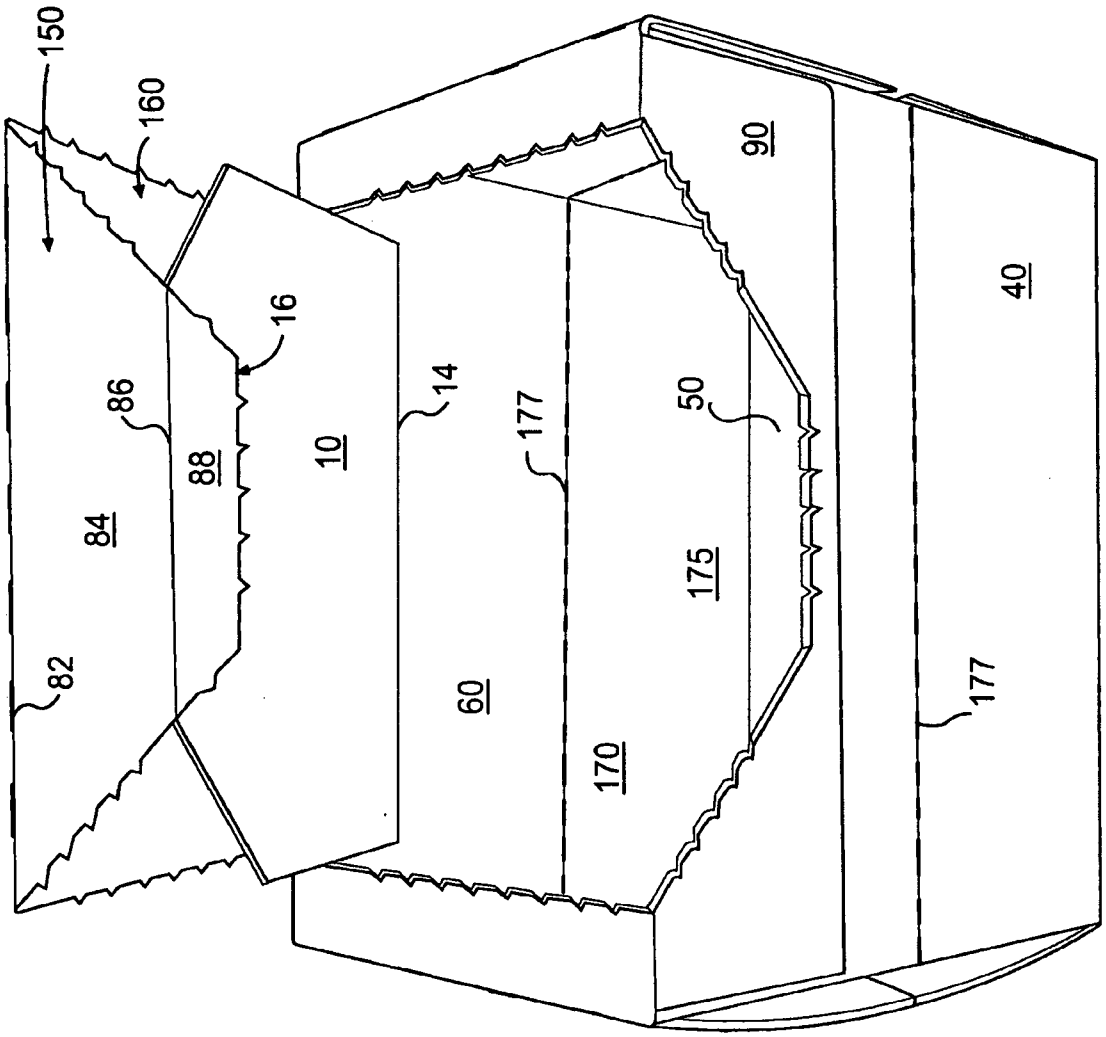


FIG. 5

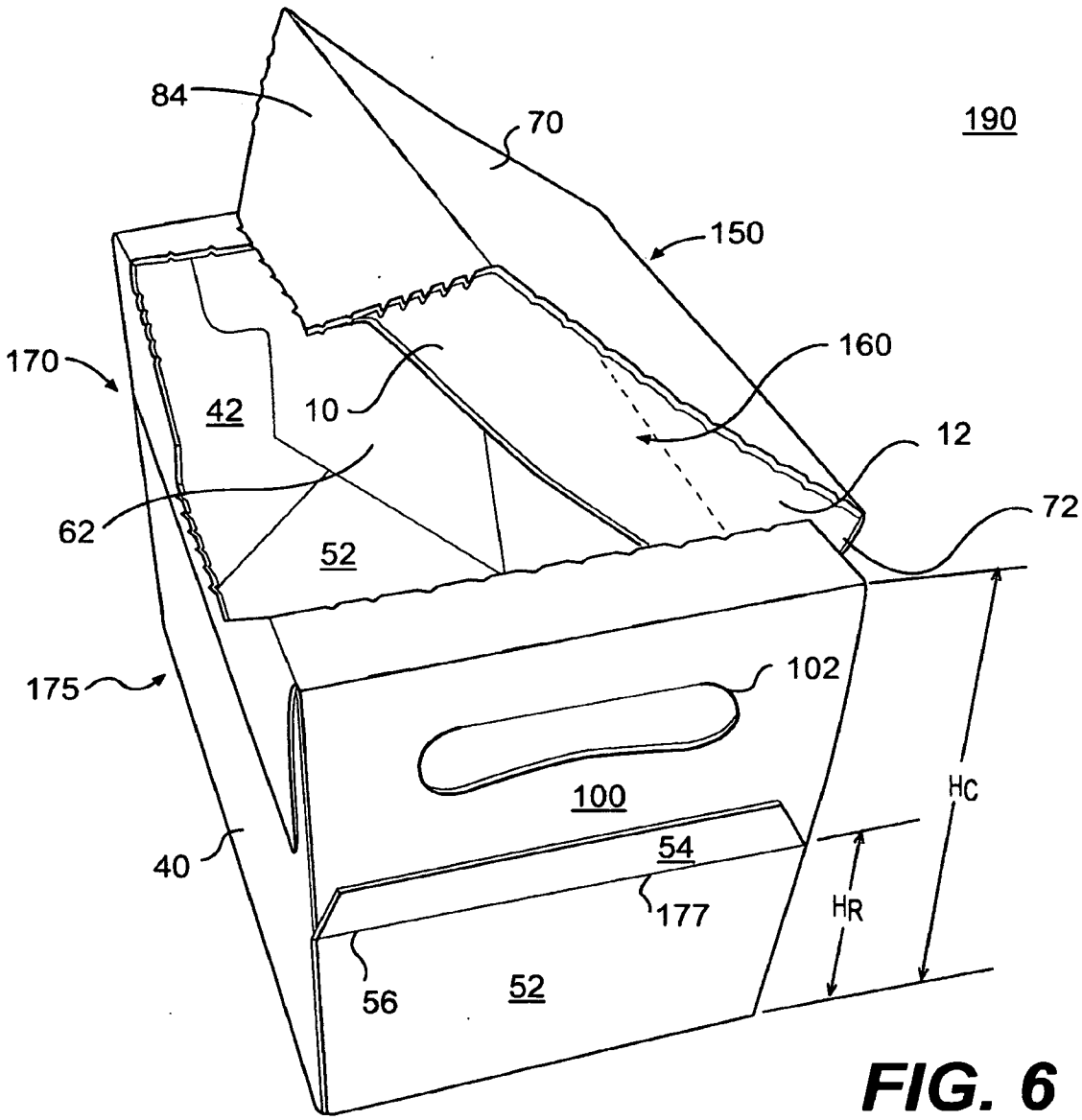
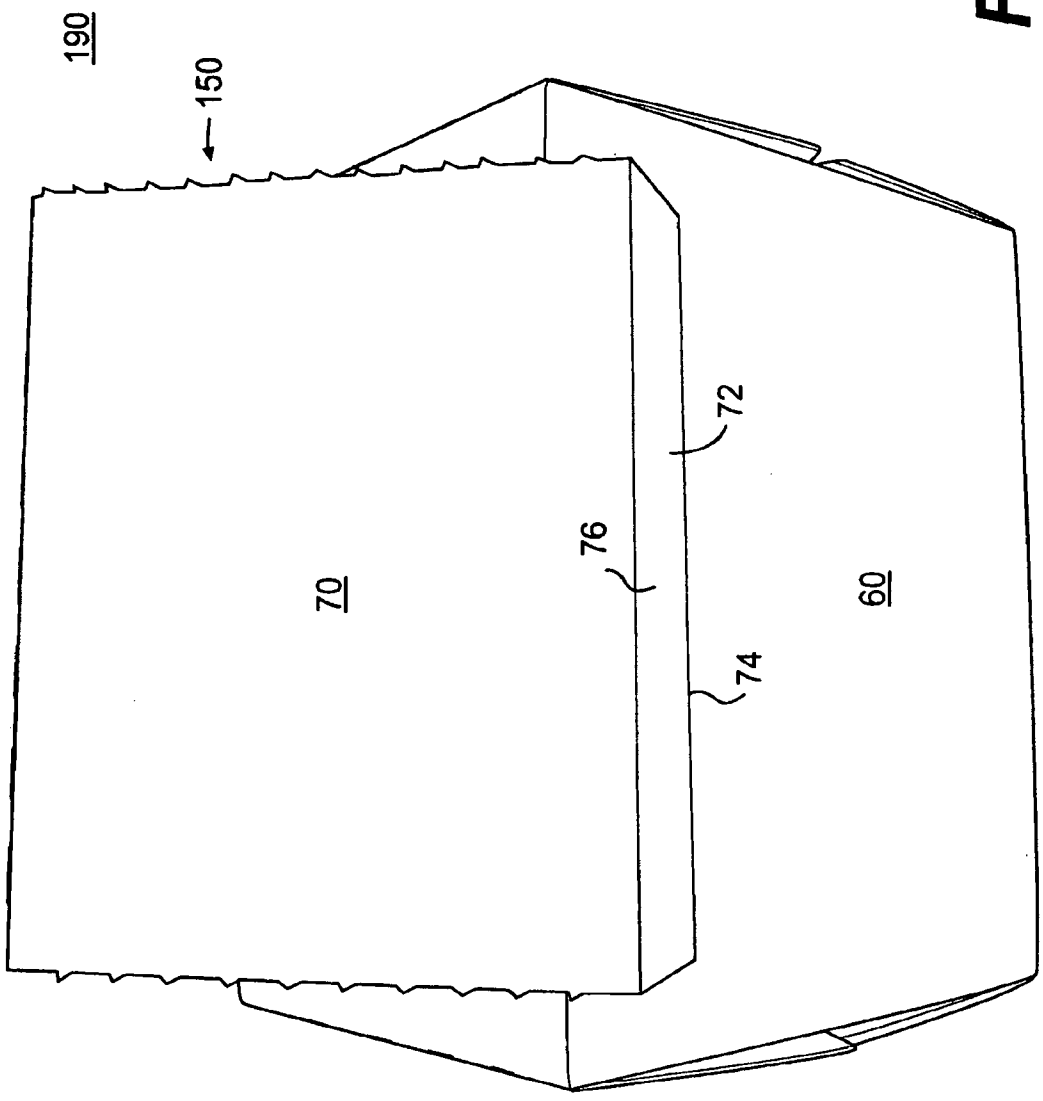

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FIG. 6

FIG. 7



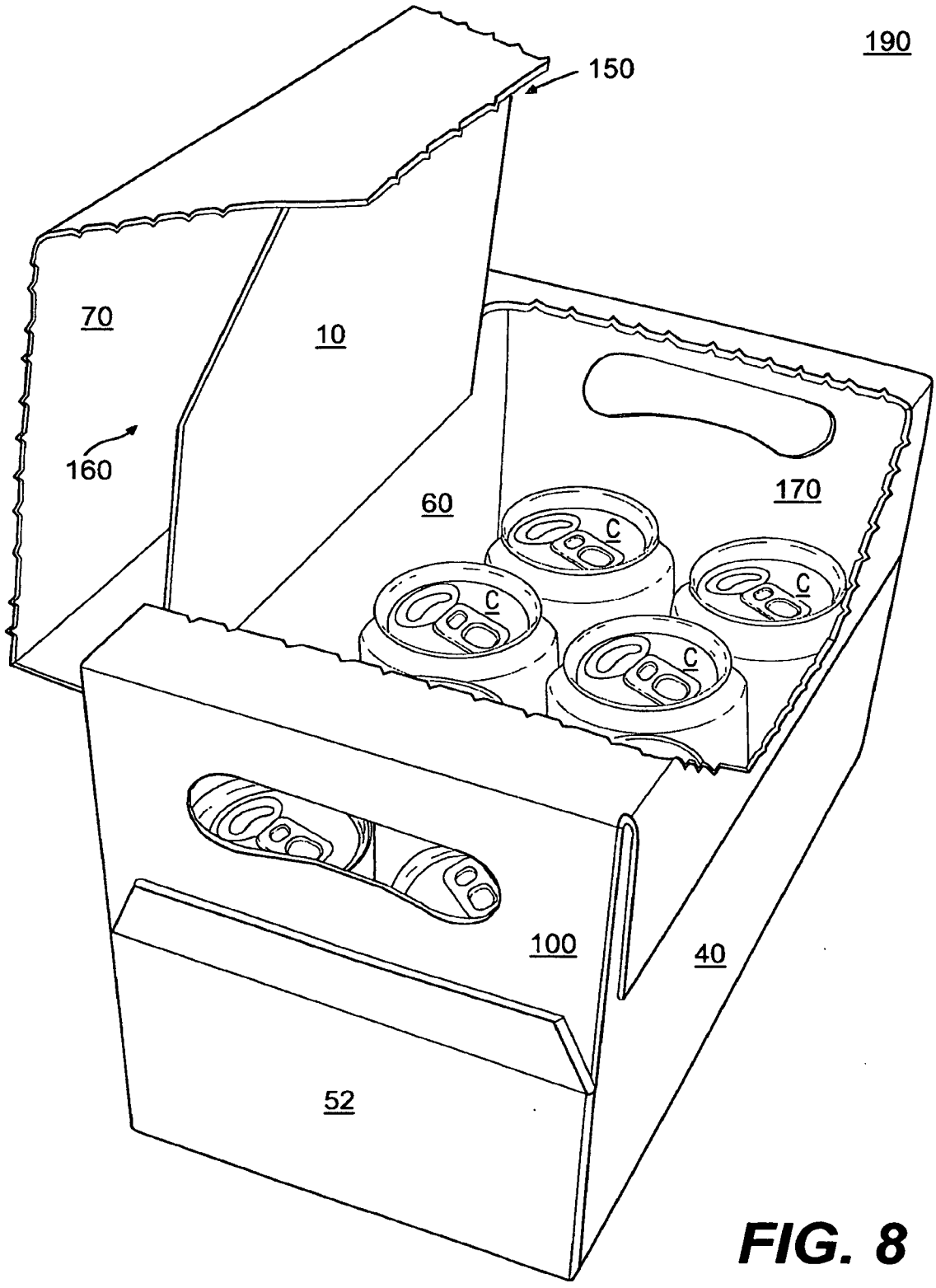


FIG. 8