WRAP-AROUND CARTON WITH DISPENSING FEATURE

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ABSTRACT

A wrap-around article carrier has a plurality of tuck-in flaps and gussets to restrain the articles the carrier is designed to carry from falling out of the carrier. The carrier further comprises a dispensing feature, which once removed allows the articles in the carrier to be dispensed in a controlled manner.
WRAP-AROUND CARTON WITH DISPENSING FEATURE

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of U.S. Provisional Application No. 60/657,133, filed Feb. 28, 2005, and U.S. Provisional Application No. 60/683,612, filed May 23, 2005, both of which are entirely incorporated herein by reference.

BACKGROUND

Generally described, a wrap-around carrier is conventionally formed by wrapping a carrier blank around a set of containers, and connecting opposite ends of the blank to one another with adhesive material or mechanical locks. A conventional wrap-around carrier is typically separated at the connected blank ends, or portions of the carrier are torn at the ends of the carrier, to allow removal of the containers held within the carrier. Such conventional wrap-around carriers typically do not have a dispensing feature that is defined where containers contained in the carrier can be dispensed in a controlled manner. As a result, conventional wrap-around carriers suffer from the disadvantage that once open, they can no longer hold containers or the overall integrity of the carrier is compromised.

There is therefore a need for wrap-around carriers that have dispensing features. More generally described, there is a need for wrap-around carriers that provide a new balance of properties.

SUMMARY

In accordance with one aspect, the present invention generally relates to a wrap-around article carrier with tuck-in flaps, gussets and a dispensing feature. The carrier generally is held together by a locking system and accommodates a plurality of containers to form a carrier package. The tuck-in flaps and gussets are proximate on the open ends of the wrap-around article carrier to retain the articles securely inside the carrier package and to allow information printed on the articles such as product information, brand information, logos, and other information to be viewed by potential customers. In addition, the carrier package may occupy less area than conventional carrier packages. In accordance with one example, when dispensing is desired, the carrier package is placed on its side panel and the dispensing feature is removed from the carrier package to form an opening from which articles are dispensed. The integrity of the carrier is substantially preserved after the dispensing feature is removed. Further, the remaining tuck-in flaps and gussets can help to retain the articles inside the carrier package so the articles can be dispensed in a controlled fashion after the removal of the dispensing feature.

In one embodiment of the present invention, the wrap-around carrier package is constructed by engaging primary or secondary locks. In another embodiment of the present invention, the wrap-around carrier package is constructed by engaging primary or secondary locks with a divider guard feature to further restrain the articles within the carrier from falling out of the carrier.

In one aspect of the present invention, the wrap-around carrier in addition has push-in tabs on its rear end to further restrain the articles within the carrier from falling out of the carrier. In another aspect of the present invention, the wrap-around carrier further comprises a drop down gusset on its rear end to further restrain the articles within the carrier from falling out of the carrier. The drop down gusset provides an additional area for printed information or the like.

Those skilled in the art will appreciate the above stated advantages and other advantages and benefits of various additional aspects reading the following detailed description of the embodiments with reference to the below-listed drawing figures.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of a blank used to form a wrap-around carrier package having a dispensing feature according to a first embodiment of the present invention.

FIGS. 2-3 are perspective views of loading and partial erection of the first carrier package embodiment.

FIG. 4 is a bottom view of the erected first carrier package embodiment.

FIG. 5 is a front view of the first carrier package embodiment.

FIG. 6 is a rear view of the first carrier package embodiment.

FIG. 7 is a front perspective view of the first carrier package embodiment.

FIG. 8 is a bottom perspective view of the first carrier package embodiment.

FIG. 9 is a perspective view of the first carrier package embodiment.

FIG. 10 illustrates a user opening the dispensing feature of the first carrier package embodiment.

FIG. 11 illustrates a user further opening the dispensing feature of the first carrier package embodiment.

FIG. 12 illustrates the first carrier package embodiment with its dispensing feature removed.

FIG. 13 is a plan view of a blank used to form a wrap-around carrier package having a dispensing feature according to a second embodiment of the present invention.

FIG. 14 is a plan view of a blank used to form a wrap-around carrier package having a dispensing feature according to a third embodiment of the present invention.

FIG. 15 is a bottom view of the third carrier package embodiment.

FIG. 16 is a front view of the third carrier package embodiment.

FIG. 17 is a rear view of the third carrier package embodiment.
FIG. 18 illustrates the third carrier package embodiment with its dispensing feature removed.

FIG. 19 is a plan view of a blank used to form a wrap-around carrier package having a dispensing feature according to a fourth embodiment of the present invention.

FIG. 20 is a rear view of the fourth carrier package embodiment.

FIG. 21 is a perspective view of the fourth carrier package embodiment.

FIG. 22 is a bottom perspective view of the fourth carrier package embodiment.

FIG. 23 illustrates the fourth carrier package embodiment with its dispensing feature removed.

FIG. 24 is a plan view of a blank used to form a wrap-around carrier package having a dispensing feature according to a fifth embodiment of the present invention.

FIG. 25 is a rear view of the fifth carrier package embodiment.

FIG. 26 is a perspective view of the fifth carrier package embodiment.

FIG. 27 illustrates the fifth carrier package embodiment with its dispensing feature removed.

DETAILED DESCRIPTION

FIG. 1 is a plan view of a blank 8 used to form a carrier package 150 (illustrated in FIGS. 4-12) according to a first embodiment of the present invention. The blank 8 comprises a first or inner bottom panel 30 foldably connected to a first side panel 50 at a fold line 33, a top panel 20 foldably connected to the first side panel 50 at a fold line 25, a second side panel 60 foldably connected to the top panel 20 at a fold line 29, and a second or outer bottom panel 40 foldably connected to the second side panel 60 at a fold line 45. Overall, the blank 8 is generally rectangular in shape. The exterior or print side of the blank 8 is illustrated in FIG. 1, whereas the interior side of the blank is partially shown in FIGS. 2-3.

The top panel 20 has a generally rectangular shape with truncated corners and curved cut outs 21a, 21b. The curved cut outs 21a, 21b can be shaped and sized so that the top panel 20 generally conforms to shapes of the containers C held within the finished carrier package 150 (FIG. 7).

The inner bottom panel 30 includes cuts outs forming primary female locking edges 38a, 38b, 38c that are adapted to respectively engage primary male locking tabs 48a, 48b, 48c of the outer bottom panel 40. The inner bottom panel 30 also includes slits 32a, 32b, 32c adapted to respectively receive secondary male locking flaps 42a, 42b, 42c extending from the outer bottom panel 40. The outer bottom panel 40 includes a fold line 47 which is interrupted by the slits that define the primary male locking tabs 48a, 48b, 48c. The secondary male locking flaps 42a, 42b, 42c are connected along the interrupted fold line 47 and each flap includes an intermediate fold line 43a-c. Although the locking elements are illustrated to demonstrate a typical bottom panel locking arrangement suitable for use with the carrier package of the present invention, it should be understood that any desired form of bottom panel locking means may be employed. For example, glue or other adhesive material, or other suitable fastening means, may be used to secure the bottom panels 30, 40 together. For example, a description of an alternative locking system is discussed below with reference to FIG. 14.

A first front tuck-in panel 52a is foldably connected to the front end of the first side panel 50 at a fold line 51a. A first rear tuck-in panel 52b is foldably connected to the rear end of the first side panel 50 at a fold line 51b. A second front tuck-in panel 62a is foldably connected to the front end of the second side panel 60 at a fold line 61a. A second rear tuck-in panel 62b is foldably connected to the rear end of the second side panel 60 at a fold line 61b.

A first front retaining panel 56a is foldably connected to a right front truncated corner of the inner bottom panel 30 at a fold line 53a, and to the first front tuck-in panel 52a at a fold line 55a. A first rear retaining panel 56b is foldably connected to a right rear truncated corner of the inner bottom panel 30 at a fold line 53b, and to the first rear tuck-in panel 52b at a fold line 55b. A second front retaining panel 54a is foldably connected to the first front tuck-in panel 52a at a fold line 57a, and to a left front truncated corner of the top panel 20 at a fold line 59a. A second rear retaining panel 54b is foldably connected to the first rear tuck-in panel 52b at a fold line 57b, and to a left rear truncated corner of the top panel 20 at a fold line 59b.

A third front retaining panel 64a is foldably connected to a right front truncated corner of the top panel 20 at a fold line 63a, and to the second front tuck-in panel 62a at a fold line 65a. A third rear retaining panel 64b is foldably connected to a right rear truncated corner of the top panel 20 at a fold line 63b, and to the second rear tuck-in panel 62b at a fold line 65b. A fourth front retaining panel 66a is foldably connected to the second front tuck-in panel 62a at a fold line 67a, and to a left front truncated corner of the outer bottom panel 40 at a fold line 69a. A fourth rear retaining panel 66b is foldably connected to the second rear tuck-in panel 62b at a fold line 67b and to a left rear truncated corner of the outer bottom panel 40 at a fold line 69b.

One or more of the fold lines 55a, 57a, 55b, 57b, 65a, 67a, 65b, 67b may include, for example, one or more slits. The slits may extend to the respective edges of the blank 8 to facilitate folding of the tuck-in panels.

According to one exemplary aspect of the invention, a dispenser pattern 100 is defined in the blank 8. The dispenser pattern 100 may be defined by tear lines 71 and 75. The illustrated dispenser pattern 100 extends across a portion of each of the top panel 20, the second side panel 60 and the outer bottom panel 40 proximate the front end of the blank 8. The dispenser pattern 100 defines a dispensing feature 70. The illustrated dispenser pattern 100 also includes a fold line 73, a curved fold line 77, and slits 78 respectively extending from the two ends of the curved fold line 77 to the tear line 75. The lines 73, 77 define a pulling tab 74 in the dispensing feature 70. The portion of the dispensing feature 70 that is surrounded by cut lines 71 and the fold line 73 forms an extension pulling tab 72 that is an extension of the pulling tab 74.

Cut outs 84a-g are respectively formed between each retaining panel and associated side panel. Compressing
cut outs 82a-f are respectively formed in the inner bottom panel 30 and the outer bottom panel 40 along fold lines 33 and 45. The compressing cut outs 82a-f can receive the heels of the containers C retained in the erected carrier 150. A viewing aperture 80 can be formed in the blank 8 by removing a portion of the outer bottom panel 40. Apertures 80a, 80b can also be formed in the top panel 20 (shown in FIG. 13) or in the first side panel 50 (not shown).

An exemplary method of erecting the carrier 150 will now be discussed with reference to FIGS. 2-4. FIG. 2 illustrates an initial step in erection of the carrier package 150, in which containers C are placed top side down on the interior side of the top panel 20 of the blank 8. Referring to FIG. 3, the side panels 50, 60 are then folded upwardly toward the containers C. As the side panels 50, 60 are folded upwardly, the tuck-in panels 52a, 52b, 62a, 62b are tucked inwardly about the fold lines 51a, 51b, 61a, 61b respectively. At the same time and as a result, the retaining panels 54a, 54b, 56a, 56b, 64a, 64b, 66a, 66b are drawn inwardly so as to respectively partially wrap around portions of the containers C and to form gussets. After the outer bottom panel 40 is secured to the inner bottom panel 30 as discussed below, the tuck-in panels 52a, 52b, 62a, 62b and retaining panels 54a, 54b, 56a, 56b, 64a, 64b, 66a, 66b are held in place by virtue of the tuck-in panels 52a, 52b, 62a, 62b being respectively sandwiched between the cans C and the side panels 50, 60.

Referring to FIG. 4, the outer bottom panel 40 is secured to the inner bottom panel 30 by first respectively engaging primary male locking tabs 48a, 48b, 48c with primary female locking edges 38a, 38b, 38c. The male locking flaps 42a, 42b, 42c are respectively inserted through, and cooperatively interact with, the slits 32a, 32b, 32c to further secure the outer bottom panel 40 to the inner bottom panel 30. The secured together inner bottom panel 30 and outer bottom panel 40 form a bottom panel 125. The heels of containers C are respectively associated with the compressing cut outs 82a-f to allow tighter wrapping of the carrier package 150 around containers C.

FIG. 5 is a front view of the erected carrier package 150. As shown in FIG. 5, when the tuck-in panel 52a is folded inwardly about the fold line 51a, the retaining panels 54a, 54b respectively abut the containers C adjacent thereto and form a pair of gussets 54a, 54b. When the tuck-in panel 62a is folded inwardly about the fold line 61a, the retaining panels 64a, 64b respectively abut the adjacent containers C and form a pair of gussets 64a, 64b. The gussets 54a, 64a secure the top portion of the containers C from the front end. The gussets 54b, 64b secure the bottom portion of the containers C from the front end. FIG. 6 is a rear view of the erected carrier package 150. As shown in FIG. 6, when the tuck-in panel 52b is folded inwardly about the fold line 51b, the retaining panels 54b, 56b respectively abut the adjacent containers C and form a pair of gussets 54b, 56b. When the tuck-in panel 62b is folded inwardly about the fold line 61b, the retaining panels 64b, 66b respectively abut the adjacent containers C and form a pair of gussets 64b, 66b. The upper gussets 54b, 64b secure the top portion of the containers C from the rear end. The lower gussets 56b, 66b secure the bottom portion of the containers C from the rear end.

FIGS. 7-9 are perspective views of the erected carrier package 150. In FIG. 7, the carrier package 150 rests on its bottom panel 125. In FIG. 8, the carrier package 150 rests on its first side panel 50 with the dispensing feature 70 facing upwardly. The dispensing panel 70 is defined by the dispenser pattern 100. The containers C are retained by gussets 64a, 66a, 54a, 56a from the front end, and by gussets 64b, 66b, 54b, 56b from the rear end.

An exemplary method of opening of the dispensing feature 70 will now be discussed with reference to FIGS. 10-12. In FIG. 10, the carrier package 150 rests on the first side panel 50. A user starts to open the dispensing feature 70 by pulling the pulling tab 74 and the extension pulling tab 72 outwardly. FIG. 11 illustrates the dispensing feature 70 being further pulled away from the carrier 150. FIG. 12 illustrates the dispensing feature 70 being completely removed with the containers C retained within the carrier package 150.

According to one aspect of the present invention, the carrier package 150 can be opened to allow dispensing of individual containers in a controlled manner. In addition, because the carrier is wrapped very tightly around the containers, the package allows for efficient use of shipping, storage, and display space.

FIG. 13 is a plan view of a blank 208 used to form a carrier package according to a second embodiment of the present invention. The second embodiment of the present invention is like the first embodiment of the present invention, except for variations noted and variations that will be apparent to those of ordinary skill in the art in view of this disclosure. The dispensing panel of the second embodiment of the present invention is different from the dispensing panel in the first embodiment of the present invention. As shown in FIG. 13, the dispensing panel 270 has the pulling tab 274 but does not include the extension pulling tab 72 (FIG. 1). The pulling tab 274 is defined by a portion of the cut line 275 and the curved fold line 277. Referring to FIG. 13, in addition to aperture 80, there are two additional apertures 80a, 80b. The apertures 80a, 80b are each shown to be removable obstructed by a flap, but the apertures as well as the flaps covering them are optional.

FIG. 14 is a plan view of a blank 408 used to form a wrap-around carrier package 550 (illustrated in FIGS. 15-18) according to a third embodiment of the present invention. The blank 408 of the third embodiment is identical to the blank 8 of the first embodiment, which is illustrated in FIG. 1, except for variations noted and variations that will be apparent to those of ordinary skill in the art in view of this disclosure. Some of the features of the third embodiment that have some general similarity to, or are identical to, features of the first embodiment are respectively identified with the same reference numbers except that four hundred has been added to the subject reference numbers of the third embodiment.

The locking system of the third embodiment of the present invention is different from the locking system in the first embodiment of the present invention. On a related note and for example, the carrier 550 formed from the blank 408 includes divider guards 128a, 128b (FIGS. 16 and 17) that serve to further retain containers C within the carrier 550.

As shown in FIG. 14, the blank 408 comprises a first or inner bottom panel 430 foldably connected to a first side panel 50 at a fold line 33, a top panel 20 foldably
connected to the first side panel 50 at a fold line 25, a second side panel 60 foldably connected to the top panel 20 at a fold line 29, and a second or outer bottom panel 440 foldably connected to the second side panel 60 at a fold line 45.

[0054] The inner bottom panel 430 includes cutouts forming primary female locking edges 438a, 438b, 438c that are adapted to engage primary male locking tabs 448a, 448b, 448c respectively on the outer bottom panel 440. The inner bottom panel 430 also includes slits 432a, 432b, 432c adapted to respectively receive secondary male locking flaps 442a, 442b, 442c extending from the outer bottom panel 440. The outer bottom panel 440 includes a fold line 447 which is interrupted by the slits that define the primary male locking tabs 448a, 448b, 448c. The secondary male locking flaps 442a, 442b, 442c are connected along the interrupted fold line 447 and each flap includes an intermediate fold line 443a-c.

[0055] Primary female locking edges 438a proximate the front end of the blank 408 and primary locking edge 438b proximate the rear end of the blank 408 respectively have flaps 120a and 120b associated therewith. The flaps 120a and 120b are separated from the inner bottom panel 430 by cut lines 127a and 127b respectively and are foldably connected to the inner bottom panel 430 at fold lines 121a and 121b, respectively. On flap 120a, two additional fold lines 123a and 125a converge at a slit 113a, generally forming a triangle with the fold line 121a. On flap 120b, two additional fold lines 123b and 125b converge at a slit 113b, generally forming a triangle with the fold line 121b. The male locking flap 442a has two asymmetrical edges 112a and 114a. The male locking flap 442b has two asymmetrical edges 112b and 114b.

[0056] When the carrier 550 is erected, the flaps 120a, 120b are folded inwardly so that they each engage a respective outer pair of the containers C, and at least the male locking flaps 442a, 442b are folded about ninety degrees about their fold lines 443a, 443b so that the locking laps 442a, 442b respectively extend between adjacent containers C. Each of the flaps 120a, 120b will respectively engage lower portions of two adjacent cans, as illustrated in at least FIGS. 16 and 17. Typically, the male locking flap 442a is also folded about ninety degrees about its fold line 443a so that the locking flap 442a extends between the interior pair of adjacent containers C. The erected carrier 550 is held closed, in part, by the edge 114b of the male locking flap 442b engaging the inner bottom panel 430 proximate a curved end portion of the slit 432b, the edges 115c, 115d of the male locking flap 442c respectively engaging the inner bottom panel 430 proximate the opposite curved end portions of the slit 432a, and the edge 114c of the male locking flap 442a engaging the inner bottom panel 430 proximate an end portion of the slit 432. The edges 112a and 112b respectively of the male locking flaps 442a, 442b respectively engage with the slits 113a and 113b of the flaps 120a, 120b to secure the flaps in their erected positions and thereby form divider guards 128a and 128b (shown in FIG. 17) respectively. The edges 112a and 112b of the male locking flaps 442a, 442b can be at least somewhat hook-shaped to enhance their respective holding of the flaps 120a, 120b in their erected positions to thereby form the divider guards 128a, 128b.

[0057] FIG. 15 is a bottom plan view of the carrier package 550 erected from the blank 408. The outer bottom panel 440 engages the inner bottom panel 430 to form a bottom panel 525. Erecting the divider guards 128a and 128b leaves apertures 88a and 88b respectively in the bottom panel 525. The fold lines 443a, 443b, 443c are in line with slits 432a, 432b, 432c, to facilitate the male locking flaps 442a, 442b, 442c being erected to be upright or substantially perpendicular to the bottom panel 525.

[0058] FIGS. 16 and 17 illustrate opposite ends of the carrier package 550 showing the divider guards 128a and 128b respectively. The divider guards 128a and 128b in the carrier package 550 further restrain the containers C so the containers C can be dispensed in a controlled manner.

[0059] FIG. 18 illustrates the carrier package 550 in its dispensing configuration. As shown in FIG. 18, the edge 112a of erected male locking flap 442a extends into the slit 113a to engage and secure the flap 120a to thereby form the divider guard 128a. This arrangement illustrated in FIG. 18 is representative of the manner in which the edge 112b of the erected male locking flap 442b engages with respect to the slit 113b in the flap 120b to form the divider guard 128b.

[0060] FIG. 19 is a plan view of a blank 608 used to form a wrap-around carrier package 750 according to the fourth embodiment of the present invention. The fourth embodiment of the present invention is like the first embodiment of the present invention, except for variations noted and variations that will be apparent to those of ordinary skill in the art in view of this disclosure. Some of the features of the fourth embodiment that have some general similarity to, or are identical to, features of the first embodiment are respectively identified with the same reference numbers except that six hundred has been added to selected reference numbers of the fourth embodiment.

[0061] The fourth embodiment of the present invention has cut lines 23 and 43 respectively in the top panel 20 and bottom panel 40 of the blank 608, to define push-in tabs 24 and 44. The carrier 750 formed from the blank 608 includes the push-in tabs 24 and 44 because they further retain containers C within the carrier 750.

[0062] In accordance with the fourth embodiment of the present invention, the cut lines 23 and 43 do not extend all the way to the rear edge of the blank 608. That is, the opposite ends of each of the cut lines 23 and 43 terminate proximate, yet distant from, the rear edge of the blank 608. In accordance with the fourth embodiment of the present invention, fold lines 131 and 133 respectively extend from the opposite ends of the cut line 23 to the rear edge of the blank 608, and fold lines 135 and 137 respectively extend from the opposite ends of the cut line 43 to the rear edge of the blank 608. The push-in tab 24 is foldably connected to the top panel 20 at fold lines 131 and 133. The push-in tab 24 is foldably connected to the outer bottom panel 40 at fold lines 135 and 137.

[0063] FIG. 20 illustrates the two push-in tabs 24 and 44 respectively restraining the top and bottom portions of containers C. FIG. 21 is a rear view of the erected carrier package 750 showing the two push-in tabs 24 and 44. FIG. 22 illustrates carrier package 750 resting on its first side panel 50, so that the push-in tab 44 on the bottom panel 40 is seen. FIG. 23 illustrates the carrier package 750 after the dispensing feature 70 (FIGS. 19, 21 and 22) has been removed.
FIG. 24 is a plan view of a blank 808 used to form a wrap-around carrier package 950 according to a fifth embodiment of the present invention. The fifth embodiment of the present invention is like the first embodiment of the present invention, except for variations noted and variations that will be apparent to those of ordinary skill in the art in view of this disclosure. Some of the features of the fifth embodiment that have some general similarity to, or are identical to, features of the first embodiment are respectively identified with the same reference numbers except that eight hundred has been added to selected reference numbers of the fifth embodiment.

The fifth embodiment of the present invention includes a drop down gusset 90. More specifically, the carrier 950 formed from the blank 808 includes the drop down gusset 90 to further retain containers C within the carrier 950.

The blank 808 comprises a first or inner bottom panel 30 foldably connected to a first side panel 50 at a fold line 33, a top panel 820 foldably connected to the first side panel 50 at a fold line 25, a second side panel 60 foldably connected to the top panel 820 at a fold line 29, and a second or outer bottom panel 40 foldably connected to the second side panel 60 at a fold line 45. The top panel 820 has truncated corners defined by fold lines 59a, 63a, 859b and 863b respectively. A portion of the top panel 820 defined by the area between the fold lines 859b and 863b is separated from the top panel 820 by a cut line 27 and forms the drop down gusset 90. In accordance with the fifth embodiment of the present invention, the cut line 27 is a slit in the top panel 820 that extends continuously between the fold lines 25, 29 by way of which the top panel 820 is respectively foldably connected to the side panels 50, 60.

A first rear tuck-in panel 852b is foldably connected to the rear end of the first side panel 50 at a fold line 551b. A second rear tuck-in panel 862b is foldably connected to the rear end of the second side panel 60 at a fold line 661b.

The area between the first rear tuck-in panel 852b and the drop down gusset 90 is divided into two foldably connected portions 92 and 94 along a fold line 91. The portion 92 is foldably connected to the first rear tuck-in panel 852b at a fold line 857b. The portion 94 is foldably connected to the drop down gusset 90 at the fold line 859b. Similarly, the area between the drop down gusset 90 and the second rear tuck-in panel 862b is divided into two foldably connected portions 96 and 98 along a fold line 97. The portion 96 is foldably connected to the drop down gusset 90 at the fold line 863b. The portion 98 is foldably connected to the second rear tuck-in panel 862b at a fold line 865b.

Cut out 884d is formed at an area that is generally between the first rear tuck-in panel 852b, the panels 92, 94 and the first side panel 50. Cut out 884e is formed at an area that is generally between the second rear tuck-in panel 862b, the panels 96, 98 and the second side panel 60. In addition, cut outs 84a-c, e, g, h are respectively formed between each retaining panel and associated side panel.

As part of erecting the carrier package 950 from the blank 808, the tuck-in panels 852b, 862b are respectively tucked inwardly about the fold lines 551b, 661b. As part of this process, folding respectively occurs along fold lines 857b, 91, 859b, 863b, 97, 865b so that the drop down gusset 90 and portions 92, 94, 96, 98 become arranged as illustrated in FIGS. 25-27.

FIG. 25 is a rear view of a carrier package 950 erected from the blank 808 showing the drop down gusset 90. FIG. 26 is a rear perspective view of the carrier package 950 showing the drop down gusset 90. The drop down gusset 90 runs across the top of containers C and thus further restricts the containers C. In addition, the drop down gusset 90 as a unique design feature can be utilized to display information. FIG. 27 is a top view of the erected carrier package 950 resting on its first side panel, and this view illustrates that the drop down gusset 90 function to at least partially retain containers C (e.g., FIG. 27) in the carrier package 950 after the removal of the dispensing feature 70 (e.g., FIGS. 24 and 27). Referring to FIG. 26, the drop down gusset 90 can also be folded inwardly so that the outwardly facing side of the gusset 90 shown in FIG. 26 abuts the containers C.

In summary and generally described, FIGS. 1-12 illustrate a first aspect of the present invention that relates to the dispensing feature 70. FIG. 13 illustrates a second aspect of the present invention, wherein the pulling tab of the dispensing feature does not have an extension pulling tab. FIGS. 14-18 illustrate a third aspect of the present invention, wherein an alternative type of locks are used to additionally form divider guards. FIGS. 19-23 illustrate a fourth aspect of the present invention wherein push-in tabs as a portion of the rear ends of the top panel and the outer bottom panel are used to further secure the containers inside the carrier package. FIGS. 24-27 illustrate a fifth aspect of the present invention wherein a drop down gusset is used to further secure the containers inside the carrier package and as a site to display information. Although specific examples of aspect of the present invention are identified in the foregoing, it is to be understood that there are other aspects of the present invention. In addition, these and other aspects of the present invention can be combined in various combinations to create other blanks and packages that are within the scope of the present invention. For example, a blank utilizing locks disclosed in the blank 408 (FIG. 14) can be combined with the dispensing feature from the blank 208 (FIG. 13) and can also have the drop down gusset feature from the blank 808 (FIG. 24), with the rest of the features being the same as in the blank 8 (FIG. 1). As another example, a blank utilizing the drop down gusset feature from the blank 808 (FIG. 24) can be combined with a push-in tab on the outer bottom panel as in the blank 608 (FIG. 19), with the rest of the features being the same as in the blank 8.

It is also understood that although only exemplary types of locking systems are discussed in the specification, the inner bottom panel and the outer bottom panel can be locked together using other known locking systems. Although pluralities of cut outs, panels, gussets, fold lines, flaps, slits, cuts, or openings may appear identical in size in the accompanying drawings, it is to be understood that the sizes of the cut outs, panels, gussets, fold lines, flaps, slits, cuts, or openings can vary.

In the above embodiments, the carrier packages are shown as accommodating beverage containers. Other types of containers, however, can be accommodated within a carrier package according to the present invention. The dimensions of the blank 8 may also be altered, for example, to accommodate various container forms. In addition, various numbers of containers C can be accommodated in a carrier package according to principles of the present invention, for example, by adjusting the size of the blank 8. For example, the top panel 20 and the first and second bottom panel 50, 60 can be enlarged or reduced in order to accom-
modulate additional or less containers. In one such embodiment, a carrier may be constructed to accommodate four containers arranged in two columns and two rows (2x2). In another embodiment, a carrier may be constructed that accommodates eight containers arranged in two columns and four rows (2x4). In a preferred embodiment, a carrier may be constructed that accommodates six containers arranged in two columns and three rows (2x3).

[0075] The blanks according to the present invention can be, for example, formed from coated paperboard and similar materials. For example, the interior and/or exterior sides of the blanks can be coated with a clay coating. The clay coating may then be printed over with product, advertising, price coding, and other information or images. The blanks may then be coated with a varnish to protect any information printed on the blanks. The blanks may also be coated with, for example, a moisture barrier layer, on either or both sides of the blanks.

[0076] In accordance with the exemplary embodiments, the blanks may be constructed of paperboard of a caliper such that it is heavier and more rigid than ordinary paper. The blanks can also be constructed of other materials, such as cardboard, hard paper, or any other material having properties suitable for enabling the carrier package to function at least generally as described above. The blanks can also be laminated to or coated with one or more sheet-like materials at selected panels or panel sections. Also according to the first embodiment, the carrier can be constructed from a blank that occupies less area than conventional carriers, and the blank may be stagger nested with similar blanks during production.

[0077] In accordance with the exemplary embodiments of the present invention, a fold line can be any at least somewhat line-like arranged, although not necessarily straight, form of weakening that facilitates folding thereafter; and a tear line can be any at least somewhat line-like arranged, although not necessarily straight, form of weakening that facilitates tearing thereafter. More specifically, but not for the purpose of narrowing the scope of the present invention, conventional fold lines include: a crease, such as formed by folding a score line, such as formed with a blunt scoring knife, or the like, which creates a crumpled portion in the material along the desired line of weakness; a slit that extends partially into the material along the desired line of weakness; and/or a series of spaced apart slits that extend partially into and/or completely through the material along the desired line of weakness; or various combinations of these features. More specifically, but not for the purpose of narrowing the scope of the present invention, conventional tear lines include: a slit that extends partially into the material along the desired line of weakness, and/or a series of spaced apart slits that extend partially into and/or completely through the material along the desired line of weakness, or various combinations of these features.

[0078] As a more specific example, one type of conventional tear line is in the form of a series of spaced apart slits that extend completely through the material, with adjacent slits being spaced apart slightly so that a nick (e.g., a small somewhat bridging-like piece of the material) is defined between the adjacent slits for typically temporarily connecting the material across the tear line. The nicks are broken during tearing along the tear line. The nicks typically are a relatively small percentage of the tear line, and alternatively the nicks can be omitted from or torn in a tear line such that the tear line is a continuous cut line. That is, it is within the scope of the present invention for each of the tear lines to be replaced with a continuous slit, or the like.

[0079] It will be understood by those skilled in the art that while the present invention has been discussed above with reference to exemplary embodiments, various additions, modifications and changes can be made thereto without departing from the spirit and scope of the invention as set forth in the following claims.

What is claimed is:
1. A carrier package, comprising:
   a carrier, comprising
   a top panel,
   a first side panel adjacent to the top panel,
   a second side panel adjacent to the top panel and disposed on a side of the carrier package opposite to the first side panel,
   a bottom panel adjacent to each of the first and second side panels and opposite from the top panel,
   a first upper gusset at least partially closing an upper part of a first end of the carrier,
   a first lower gusset at least partially closing a lower part of the first end of the carrier,
   a second upper gusset at least partially closing an upper part of a second end of the carrier,
   a second lower gusset at least partially closing a lower part of the second end of the carrier, and
   a dispenser pattern extending at least partially across at least one panel selected from the group consisting of the side panels and the top panel, with the dispenser pattern defining a dispenser flap that is at least partially removable from a remainder of the carrier so that a dispenser opening is defined by the remainder of the carrier in response to the dispenser flap having been at least partially removed from the remainder of the carrier; and
   a plurality of containers located within the carrier, wherein the dispenser flap is configured so that when the dispenser flap is at least partially removed so that the dispenser opening is defined by the remainder of the carrier, the containers can be dispensed through a dispenser opening in the carrier.
2. The carrier package according to claim 1, wherein the dispenser pattern comprises at least one tear line extending at least partially across the at least one panel.
3. The carrier package according to claim 1, wherein the dispenser pattern extends at least partially across each of the side panels and the top panel.
4. The carrier package according to claim 1, further comprising a retention panel, wherein the carrier includes opposite first and second ends that are each open, the retention panel extends completely across the first end, and the dispenser flap is adjacent the second end.
5. The carrier package according to claim 1, further comprising a retention flap that is not in contact with either of the first and second side panels and extends downwardly from the top panel to partially obstruct an open end of the carrier.
6. The carrier package according to claim 1, further comprising a retention flap that is not in contact with either
of the first and second side panels and extends upwardly from the bottom panel to partially obstruct an open end of
the carrier.

7. A blank for erecting into a wrap-around carrier, the blank comprising:

- a top panel;
- a first side panel foldably connected to the top panel;
- a second side panel that is opposite from the first side panel and is foldably connected to the top panel;
- a first bottom panel foldably connected to the first side panel; and
- a second bottom panel foldably connected to the second side panel,

wherein the first bottom panel and the second bottom panel are for being secured together when the blank is
erected into the wrap-around carrier, and

wherein a dispenser pattern extends at least partially across at least two panels selected from the group
consisting of the side panels and the top panel, with the dispenser pattern defining a dispenser flap for being at
least partially removable from a remainder of the blank.

8. The blank according to claim 7, wherein the dispenser pattern comprises at least one tear line extending at least
partially across the at least two panels.

9. The blank according to claim 7, wherein the dispenser pattern extends at least partially across each of the side
panels and the top panel.

10. The blank according to claim 7, wherein the first bottom panel includes securing features for operatively
interacting with securing features of the second bottom panel to secure the first and second bottom panels together
when the blank is erected into the wrap-around carrier.

11. The blank according to claim 10, wherein:

- the securing features of the first bottom panel includes at least one locking flap, and
- the securing features of the second bottom panel include at least one opening for at least partially holding the
locking flap.

12. The blank according to claim 11, further comprising at least one retaining flap in the second bottom panel,
wherein the retaining flap is for being held in an erected configuration by the locking flap when the carrier is erected
from the blank.

13. The blank according to claim 7, further comprising a push-in tab defined by at least one cut in a rear end of the top
panel.

14. The blank according to claim 7, further comprising a push-in tab defined by at least one cut in a rear end of the top
panel.

15. The blank according to claim 7, further comprising:

- a first front tuck-in panel connected to a front end of the first side panel;
- a first rear tuck-in panel connected to a rear end of the first side panel;
- a second front tuck-in panel connected to a front end of the second side panel;
- a second rear tuck-in panel connected to a rear end of the second side panel;
- a first front retaining panel foldably connected between the first front tuck-in panel and a right front truncated
corner of the first bottom panel;
- a first rear retaining panel foldably connected between the first rear tuck-in panel and a right rear truncated
corner of the first bottom panel;
- a second front retaining panel foldably connected between the first front tuck-in panel and a left front truncated
corner of the top panel;
- a second rear retaining panel foldably connected between the first rear tuck-in panel and a left rear truncated
corner of the top panel;
- a third front retaining panel foldably connected between the second front tuck-in panel and a right front truncated
corner of the top panel;
- a third rear retaining panel foldably connected between the second rear tuck-in panel and a right rear truncated
corner of the top panel;
- a forth front retaining panel foldably connected between the second front tuck-in panel and a left front truncated
corner of the second bottom panel; and
- a forth rear retaining panel foldably connected between the second rear tuck-in panel and a left rear truncated
corner of the second bottom panel.

16. The blank according to claim 15, further comprising a dividing fold line that divides the second rear retaining
panel into two foldably connected portions along the dividing fold line.

17. The blank according to claim 15, further comprising a dividing fold line that divides the third rear retaining panel
into two foldably connected portions along the dividing fold line.

18. The blank according to claim 15, further comprising a cut line separating a portion of the top panel defined by the
area between the second rear retaining panel and the third rear retaining panel from the top panel to form a drop down
gusset.

19. A carrier package, comprising:

- a carrier, comprising
  - a top panel,
  - a first side panel adjacent to the top panel,
  - a second side panel adjacent to the top panel and disposed on a side of the carrier package opposite to the
first side panel,
  - a bottom panel adjacent to each of the first and second side panels and opposite from the top panel, the
bottom panel comprising a first bottom panel joined to a second bottom panel by at least primary male and
primary female locking elements,
  - at least one first gusset at least partially closing a first end of the carrier,
  - at least one second gusset at least partially closing a second end of the carrier, and
a dispenser pattern extending at least partially across at least one of the side panels and the top panel, with the dispenser pattern defining a dispenser flap that is at least partially removable from a remainder of the carrier so that a dispenser opening is defined by the remainder of the carrier in response to the dispenser flap having been at least partially removed from the remainder of the carrier; and

a plurality of containers located within the carrier,

wherein the dispenser flap is configured so that when the dispenser flap is at least partially removed, the containers can be dispensed through the dispenser opening.

20. The carrier package according to claim 19, wherein the first and second bottom panels are further secured by secondary male and secondary female locking elements.

21. The carrier package according to claim 19, wherein the dispenser pattern comprises at least one tear line extending at least partially across the at least one panel.

22. The carrier package according to claim 19, wherein the dispenser pattern extends at least partially across each of the side panels and the top panel.

23. The carrier package according to claim 19, further comprising a retention panel, wherein the carrier includes opposite first and second ends that are each open, the retention panel extends completely across the first end, and the dispenser flap is adjacent the second end.

24. The carrier package according to claim 19, further comprising a retention flap that is not in contact with either of the first and second side panels and extends downwardly from the top panel to partially obstruct an open end of the carrier.

25. The carrier package according to claim 19, further comprising a retention flap that is not in contact with either of the first and second side panels and extends upwardly from the bottom panel to partially obstruct an open end of the carrier.

26. A carrier package, comprising:

a carrier, comprising

a top panel,

a first side panel adjacent to the top panel,

a second side panel adjacent to the top panel and disposed on a side of the carrier package opposite to the first side panel,

a bottom panel adjacent to each of the first and second side panels and opposite from the top panel, the bottom panel comprising a first bottom panel joined to a second bottom panel by at least primary male and primary female locking elements,

at least one first gusset at least partially closing a first end of the carrier,

at least one second gusset at least partially closing a second end of the carrier, and

a retention panel, wherein the carrier includes opposite first and second ends that are each open, and the retention panel extends completely across the first end; and

a plurality of containers located within the carrier.

27. The carrier package according to claim 26, wherein the first and second bottom panels are further secured by secondary male and secondary female locking elements.

28. A carrier package, comprising:

a carrier, comprising

a top panel,

a first side panel adjacent to the top panel,

a second side panel adjacent to the top panel and disposed on a side of the carrier package opposite to the first side panel,

a bottom panel adjacent to each of the first and second side panels and opposite from the top panel, the bottom panel comprising a first bottom panel joined to a second bottom panel by at least primary male and primary female locking elements,

at least one first gusset at least partially closing a first end of the carrier,

at least one second gusset at least partially closing a second end of the carrier, and

a retention flap that is not in contact with either of the first and second side panels and extends downwardly from the top panel to partially obstruct an open end of the carrier; and

a plurality of containers located within the carrier.

29. The carrier package according to claim 28, wherein the first and second bottom panels are further secured by secondary male and secondary female locking elements.

30. A carrier package, comprising:

a carrier, comprising

a top panel,

a first side panel adjacent to the top panel,

a second side panel adjacent to the top panel and disposed on a side of the carrier package opposite to the first side panel,

a bottom panel adjacent to each of the first and second side panels and opposite from the top panel, the bottom panel comprising a first bottom panel joined to a second bottom panel by at least primary male and primary female locking elements,

at least one first gusset at least partially closing a first end of the carrier,

at least one second gusset at least partially closing a second end of the carrier, and

a retention flap that is not in contact with either of the first and second side panels and extends upwardly from the bottom panel to partially obstruct an open end of the carrier; and

a plurality of containers located within the carrier.

31. The carrier package according to claim 30, wherein the first and second bottom panels are further secured by secondary male and secondary female locking elements.