WRAPAROUND CARTON AND BLANK THEREFOR


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16 Claims. (Cl. 206—65)

This invention relates to a novel wraparound carton and blank, and in particular, to a novel wraparound carton having a top panel provided with a plurality of transversely and longitudinally spaced and aligned cutouts for receiving portions of articles packaged in the carton, and a tab associated with each cutout for protecting the article portions against damage during the storage and shipment of the packaged cartons.

An object of this invention is to provide a novel carton of the type having a top panel and a pair of side panels, the top panel including a central panel portion and a pair of side panel portions joining the central panel portion to the side panels, a plurality of cutouts formed in each of the side panel portions for interlockingly receiving and retaining shoulder portions of containers packaged in the carton to prevent the inadvertent or accidental removal of the containers from the carton, and a tab portion associated with each of the cutouts forming an integral extension of the side panels for protecting the shoulder portions of the containers projecting through the cutouts against damage.

A further object of this invention is to provide a novel carton of the type described in which each of the cutouts is of a generally C-shaped configuration opening away from the central panel portion of the top panel, and the tabs forming integral extensions of the side panels are formed from material of the side panel portions.

A further object of this invention is to provide a novel carton of the type immediately set out above, and in addition, to provide a container neck-receiving opening in the central panel portion of the top panel between transversely opposed ones of the cutouts in the side panel portions for receiving the necks of containers packaged in the carton.

Another object of this invention is to provide a novel wraparound carrier or carrier blank including a plurality of transverse weakening lines separating the blank into at least an integral top panel and a pair of side panels, the top panel being formed of a central panel portion and opposite side panel portions joining the central panel portion to adjacent side panels, a plurality of longitudinally aligned cutouts formed at least partially in each of the side panel portions, the cutouts being generally of a C-shaped configuration, transversely aligned ones of the cutouts being oppositely directed from a longitudinal centerline of the top panel, each of the cutouts being partially defined by an edge of a tab in each side panel portion directed toward the central panel portion, and the central panel portion having a plurality of container neck-receiving openings disposed in transversely spaced relationship along the center line of the top panel.

With the above and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claims and the several views illustrated in the accompanying drawings.

FIGURE 1 is a top perspective view of a wraparound carton or carrier constructed in accordance with this invention, and illustrates cutouts in a top panel retaining shoulder portions of a container packaged in the carrier and a tab associated with each cutout for protecting the exposed shoulder portions.

FIGURE 2 is an enlarged fragmentary top plan view of the wraparound carrier of FIGURE 1, and more clearly illustrates the relationship between the container shoulder portions, the cutouts and the tabs.

FIGURE 3 is a fragmentary longitudinal sectional view taken along line 3—3 of FIGURE 2, and illustrates adjacent containers retained in the carrier in longitudinally spaced relationship.

FIGURE 4 is a transverse sectional view taken along line 4—4 of FIGURE 3, and illustrates a pair of the carriers packaged in a shipping container with the tabs preventing contact between the shoulder portions of adjacent containers and between the containers and the shipping carton.

FIGURE 5 is a top plan view of the exterior of a substantially rectangular blank from which the wraparound carrier of FIGURE 1 is constructed, and illustrates the relationship of the shoulder portion receiving cutouts, the tabs and the container neck-receiving openings of the top panel.

A novel wrap-around carrier or carrier blank constructed in accordance with this invention is best illustrated in FIGURES 1 through 3 of the drawings, and is generally designated by the reference numeral 10. The carrier or carton 10 is constructed from a blank 11 of FIGURE 5. The carrier blank 11 of FIGURE 5 to which attention is directed.

The wraparound carrier or carrier blank 11 of FIGURE 5 comprises a substantially rectangular blank of paperstock material defined by a pair of longitudinal edges 12, 13, a straight first transverse edge 14 and an irregular second transverse edge 15.

An inner or first closure panel 16 of the blank 11 is set off by the first transverse edge 14, a first transverse weakening line 17, and portions of the longitudinal edges 12 and 13. The weakening line 17 is formed of alternating fold lines 18 and partial score lines 20. A plurality of equally transversely spaced generally trapezoidal latch-receiving openings 21 are formed in the inner closure panel 16 for a purpose to be described more fully hereinafter. Three such latch-receiving openings 21 are formed in the inner closure panel 16 at each side of a cut line 22 formed along the longitudinal center line of the blank 11 between the transverse edge 14 and a centermost one of the fold lines 18 of the weakening line 17.

A first side panel 23 of the carrier blank 11 is set off between the first weakening line 17, a second weakening line 24, and portions of the longitudinal edges 12 and 13.

A top panel 25 of the carrier blank 11 is set off between the second weakening line 24, a third weakening line 26 and portions of the longitudinal edges 12, 13.

A second side panel 27 of the blank 11 is defined by portions of the pair of longitudinal edges 12, 13, the third transverse weakening line 26 and a fourth transverse weakening line 28.

A second or outer closure panel 30 of the blank 11 is defined by portions of the longitudinal fold lines 12, 13, the fourth transverse fold line 28, and the irregular transverse edge 15.

A plurality of transversely spaced latching members 31 form integral portions of the outer closure panel 30 of the blank 11, and each latching member 31 is in longitudinal alignment with an associated one of the latch-receiving openings 21 of the inner closure panel 16. The latching members 31 are identical and each includes a latching tongue 32 having a pair of oppositely directed, short, transverse slits 33, 34 and an oppositely directed locking tab 35. The locking tabs 35 are formed by generally shallow, inverted C-shaped slits 36 disposed in transverse spaced relationship along a transverse weaken-
ing line 37 which may, for example, be in the form of a plurality of short partially severed fold lines (individually unnumbered). Each locking tongue 32 and latch- \[\ldots\]

The outer closure panel 30 is provided with three locking members 31 to each side of a short longitudinal cut line 38 in alignment with the cut line 22 of the inner closure panel 16. The cut line 38 extends between the irregular transverse edge 15 and a centermost fold line 40 which, in addition to similar such fold lines and alternating score lines 41 define the fourth transverse weakening line 28.

A plurality of identical transversely spaced generally crescent-shaped openings 42 are formed in the side panels 23, 27. A projection 43 adjacent each of the severance lines 20 of the first transverse weakening line 17 partially defines an associated one of the crescent-shaped openings 42 and functions to provide a bottom supporting ledge for articles A packaged in the carton 10, as is clearly illustrated in FIGURES 1 and 4 of the drawings. A similar projection 44 partially defining the crescent shaped openings 42 of the closure panel 40 provides a similar supporting ledge for each of the articles A.

A transverse weakening line 45 in the form of a fold line tab 56 is the transverse weakening line 28 is interrupted along its length by a plurality of arcuate cut lines 46 adjacent each of the crescent-shaped openings 42 of the side panel 23. Each of the cut lines 46 set off an identical bottle-embracing tab 47. A similar fold line 50 in the second side panel 27 is spaced from and parallel to 16. The fourth transverse weakening line 28 and is interrupted by a plurality of arcuate cut lines 50. Each of the arcuate cut lines 50 define bottle-embracing tabs 51 (FIGURES 1 and 4).

The top panel 25 of the blank 11 is divided into three top panel portions 52-54 by a pair of transverse weakening lines 55, 56. The pair of transverse weakening lines 55, 56 are fold lines which are preferably partially severed as at 57, 58, respectively. The transverse weakening line 55 and the second transverse weakening line 24 define one side panel portion 54 joining the central panel portion of the top panel 25 to the side panel 23 while the transverse weakening line 56 and the third transverse weakening line 26 defined an opposite side panel portion joining the central portion 53 of the top panel 25 to the second side panel 27.

A second pair of transverse weakening lines in the form of folded cut lines 60, 61 are formed in the top panel 25. The weakening line 60 of the second pair of weakening lines 60, 61 is between and parallel to the weakening lines 24, 25 while the weakening line 61 of the second pair of weakening lines 60, 61 is between and parallel to the weakening lines 26 and 56.

A plurality of longitudinally and transversely spaced and aligned generally crescent or C-shaped cutouts 62 are formed in the side panel portions 52, 54 of the top panel 25. Each of the crescent-shaped cutouts 62 is defined by an arcuate edge 63 projecting slightly into the central portion 53 of the top panel 25 at 64. Each crescent-shaped cutout 62 is further defined by an arcuate edge 66 of an integral portion 65 of each of the side panel portions 52, 54 projecting toward the central portion 53 of the top panel 25. The crescent-shaped cutouts 62 define openings through which project shoulders S of the articles A (FIGURES 1 and 4) while the arcuate edges 65 retain and maintain the articles A in longitudinal spaced relationship. The projecting integral portions 65 partially overlie and protect the shoulders S of the articles A (FIGURES 1 and 4).

The central portion 53 of the top panel 25 is provided with a plurality of circular container neck-receiving openings 67. The openings 67 are disposed in longitudinal alignment with the crescent-shaped cutouts 62 of the blank 11, and are in longitudinal spaced relationship along the center line of the top panel 25. The openings 67 receive the necks N of the articles A packaged in the carton 10 as is clearly shown in FIGURES 1, 3 and 4 of the drawings.

The side panel 27 is further provided with a finger-receiving opening 68 whose axis lies on an imaginary line connecting the cut lines 22 and 38 of the respective closure panels 16 and 30. An identical tear strip 70 at each bottom 16. The finger-receiving opening 68 is formed in the side panel 27 by a pair of parallel partial lines of severance 71.

The wraparound carton or carrier 10 is formed by first aligning a single row of the articles A on a supporting surface, which may, for example, be a conveyor belt or similar article-transporting mechanism of a conventional wrapping mechanism (not shown). The articles A are liquid-containing glass bottles of a relatively fragile nature. Adjacent articles A in the row are spaced apart a distance equal to the distance between the axes of the plurality of openings 67 in the top panel 25 of the blank 11.

When the bottles are thus positioned, one of the plurality of carrier blanks supported above the row of articles A in a conventional manner is lowered until the necks N of the articles A project through the associated neck-receiving openings 17 and 28, as illustrated in FIGURES 1 and 3 of the drawings. As is evident from FIGURE 3 of the drawings. Because of the interrupted nature of the second pair of fold lines 60, 61 of the top panel 25, the tabs 65 do not fold to the generally angular relationship of the side panel portions 52, 54 relative to the central portion 53 of the top panel 25 and the side panels 23, 27. Rather, the tabs 65 remain substantially in the plane of the side panels 23, 27 (FIGURES 1, 2 and 3), and overlap major portions of the exposed shoulders S to protect the same against breakage, marring or other damage during storage and/or shipment.

The inner closure panel 16 and the outer closure panel 30 are then secured together by the interlocking of the latching members 31 with the latch-receiving openings 21. This interlocking or latching is clearly illustrated in FIGURES 1 and 4 of the drawings, and a further description thereof is considered unnecessary for a complete understanding of this invention.

Attention is now directed to FIGURE 4 of the drawings in which two of the packaged cartons 10 are shown housed in a shipping container generally referred to by the reference numeral 80. The shipping container 80 is of conventional construction and includes a bottom wall 81, a pair of upstanding parallel side walls 82, 83 opposed end walls 84 (only one of which is illustrated) and a top wall 85 formed of a plurality of overlapped and secured flaps (individually unnumbered). During the shipment of the packaged carton 10 in the shipping container 80 of FIGURE 4, the shoulders S of adjacent ones of the articles A are protected by the tabs 65 adjacent thereto. In this manner, each of the shoulders of the articles are protected from a shoulder of an adjacent article and from the exterior walls of the shipping container.

From the foregoing, it will be seen that novel and advantageous provision has been made for carrying out the desired end. However, attention is directed to the fact that other variations may be made in the example wraparound carrier and blank disclosed herein without de-
parting from the spirit and scope of this invention as defined in the appended claims.

I claim:

1. A carton blank comprising a pair of opposed longitudinal and transverse edges, a plurality of transverse weakening lines between said longitudinal edges separating said blank into a top panel, a pair of side panels, and first and second closure panels, said side panels being joined by associated ones of said weakening lines to said top panel, said associated weakening lines being interrupted by transversely spaced and longitudinally aligned cutouts, said cutouts being at least partially formed by material removed from said top panel, and integral portions of said side panels formed from the material of said top panel whereby upon the formation of said blank into a carton by folding along said weakening lines the integral portions of said side walls form transversely aligned longitudinally spaced shoulders serving to protect portions of articles projecting outwardly through openings in the top panel defined by said cut lines.

2. A carton blank comprising a pair of opposed longitudinal and transverse edges, a plurality of transverse weakening lines between said longitudinal edges separating said blank into a top panel, a pair of side panels, and first and second closure panels, said side panels being joined by associated ones of said weakening lines to said top panel, said associated weakening lines being interrupted by transversely spaced and longitudinally aligned cut lines, and said cut lines defining integral portions of said side walls formed from the material of said top panel whereby upon the formation of said blank into a carton by folding along said weakening lines the integral portions of said side walls form transversely aligned longitudinally spaced shoulders serving to protect portions of articles projecting outwardly through openings in the top panel defined by said cut lines.

3. A carton blank comprising a pair of opposed longitudinal and transverse edges, a plurality of transverse weakening lines between said longitudinal edges separating said blank into a top panel, a pair of side panels, and first and second closure panels, said side panels being joined by associated ones of said weakening lines to said top panel, said associated weakening lines being interrupted by transversely spaced and longitudinally aligned oppositely directed generally C-shaped cutouts, said cutouts being at least partially formed by material removed from said top panel, and integral portions of said side panels formed from the material of said top panel terminating at and partially defining said cutouts whereby upon the formation of said blank into a carton by folding along said weakening lines the integral portions of said side walls form transversely aligned longitudinally spaced shoulders serving to protect portions of articles projecting through said cutouts.

4. A carton blank comprising a pair of opposed longitudinal and transverse edges, a plurality of transverse weakening lines between said longitudinal edges separating said blank into a top panel, a pair of side panels, and first and second closure panels, said side panels being joined by associated ones of said weakening lines to said top panel, said associated weakening lines being interrupted by transversely spaced and longitudinally aligned cutouts, said cutouts being at least partially formed by material removed from said top panel, and integral portions of said side panels formed from the material of said top panel terminating at and partially defining said cutouts whereby upon the formation of said blank into a carton by folding along said weakening lines the integral portions of said side walls form transversely aligned longitudinally spaced shoulders serving to protect portions of articles projecting through said cutouts.

5. A carton blank comprising a pair of opposed longitudinal and transverse edges, a plurality of transverse weakening lines between said longitudinal edges separating said blank into a top panel, a pair of side panels, and first and second closure panels, said side panels being joined by associated ones of said weakening lines to said top panel, said associated weakening lines being interrupted by transversely spaced and longitudinally aligned cutouts, said cutouts being at least partially formed by material removed from said top panel, and integral portions of said side panels formed from the material of said top panel terminating at and partially defining said cutouts whereby upon the formation of said blank into a carton by folding along said weakening lines the integral portions of said side walls form transversely aligned longitudinally spaced shoulders serving to protect portions of articles projecting through said cutouts, and an opening between each of said cutouts along a center line of said top panel.

6. A carton blank comprising a pair of opposed longitudinal and transverse edges, a plurality of transverse weakening lines between said longitudinal edges separating said blank into at least a top panel and a pair of side panels, said top panel being formed of a central panel portion and side panel portions joining said central panel portion to said side panels, a plurality of longitudinally aligned cutouts formed at least partially in each of said side panel portions, and each of said cutouts being at least partially defined by an edge of a tab in said central panel portion directed toward said central panel portion, said cutouts being generally of a C-shaped configuration, and transversely aligned ones of said cutouts being oppositely directed.

7. The carton blank as defined in claim 6 wherein adjacent terminal portions of transversely adjacent cutouts are joined by a fold line.

8. The carton blank as defined in claim 7 wherein said central panel portion has a plurality of openings disposed in transversely spaced relationship along a center line of said central panel portion.

9. In a carton of the type having a top panel and a pair of side panels, a closure panel joined to each side panel, cooperative interlocking means carried by each of said closure panels for interlockingly securing said carton in a generally tubular configuration with said closure panels opposite said top panel, the top panel including a central panel portion and a pair of side panel portions and a tab portion of each side panel formed at least partially from the material of said side panel portions lying adjacent each cutout.

10. In a carton of the type having a top panel and a pair of side panels, a closure panel joined to each side panel, cooperative interlocking means carried by each of said closure panels for interlockingly securing said carton in a generally tubular configuration with said closure panels opposite said top panel, the top panel including a central panel portion and a pair of side panel portions joining the central panel portion to the side panels, and the side panel portions being each angularly related to an adjacent side panel, the improvement comprising a plurality of cutouts formed in each of said side panel portions and a tab portion of each side panel formed at least partially from the material of said side panel portions lying adjacent each cutout.

11. In a carton of the type having a top panel and a pair of side panels, a closure panel joined to each side panel, cooperative interlocking means carried by each of said closure panels for interlockingly securing said carton in a generally tubular configuration with said closure panels opposite said top panel, the top panel including a central panel portion and a pair of side panel portions.
joining the central panel portion to the side panels, and the side panel portions being each angularly related to an adjacent side panel, the improvement comprising a plurality of cutouts formed in each of said side panel portions, said cutouts being generally of a C-shaped configuration opening away from said central panel portion of the top panel, and a tab portion of each side panel formed at least partially from the material of said side panel portions lying adjacent each cutout, and said tab portions each being generally in coplanar relationship relative to its associated side panel.

12. The improvement in the carton as defined in claim 11 wherein one of said side panels is provided with means for severing said one side panel from a center portion thereof in opposite longitudinal directions.

13. The improvement in the carton as defined in claim 11 wherein a container neck-receiving opening is formed in said central panel portion between transversely opposed ones of said cutouts in said side panel portions.

14. The improvement in the carton as defined in claim 11 wherein the cutouts are defined by edges of the tabs, and each cutout projects slightly into the center panel portion of the top panel.

15. A package comprising a wraparound type carton and a plurality of containers disposed therein, each container including a bottom wall, a neck and a pair of diametrically opposite shoulders disposed between said bottom wall and said neck, said shoulders each having generally normal disposed top and side faces, said carton including a top panel and a pair of side panels, said top panel including a central panel portion and a pair of side panel portions joining the central panel portions to the side panels, said side panel portions diverging toward said side panels, a plurality of cutouts formed in each of said side panel portions, each cutout defining a tab portion formed at least partially from the material of said side panel portion lying adjacent each cutout, said containers being disposed in said carton with said shoulders projecting outwardly through associated ones of said cutouts, and each of said tab portions being generally in coplanar relationship relative to its associated side panel and in protective generally parallel overlying relationship to an associated side face of said shoulders.

16. The package as defined in claim 15 wherein said cutouts are of a generally C-shaped configuration and each of said cutouts opens away from said central panel portion of the top panel.

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