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SHIPPING AND DISPENSING CARTON

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This invention relates to an improved carton for shipping and dispensing articles, and more particularly to a case or carton of fiberboard or similar stock having novel dispensing flap means whereby articles such as cans may be readily dispensed singly as desired from the carton.

Articles such as canned goods are commonly shipped in fully enclosed cartons containing a single tier of twelve or twenty-four cans. Especially with canned beverages, it is frequently desirable to have some convenient means of withdrawing cans singly from the carton for consumption or refrigeration. With conventional carton constructions, however, the several closure flaps thereof are tightly sealed and require the use of an opening instrument or a relatively difficult manual tearing of the relatively stiff carton board to gain access to the carton contents.

While efforts have been made to provide cartons of the instant character having flap openings through which single articles may be removed, such cartons have been found unacceptable in providing an insufficient access opening to the containers to be removed, or once opened, the dispensing aperture provided permits the cans to roll or fall therefrom by gravity, which is manifestly undesirable.

It is therefore an object of this invention to provide a shipping and dispensing carton wherein individual cans may be readily removed therefrom as desired.

It is a further object of the present invention to provide a dispensing flap arrangement in a carton containing a single tier of articles such as canned goods which provides easy access to the contents, yet which positively prevents inadvertent discharge or spilling of cans from the carton.

It is a further object of my invention to provide a carton of the instant character which is exceedingly simple in construction and requires no alteration of conventional carton fabrication techniques other than to provide additional means for effecting a desired score-and-slit pattern defining an especially configured dispensing flap on adjacent carton panel portions.

Other objects and advantages will be apparent from the following detailed description taken in connection with the accompanying drawings in which:

FIGURE 1 is a perspective elevation of a sealed carton of the invention.

FIGURE 2 is a perspective elevation with the dispensing flap thereof open for access and removal of the contents.

FIGURE 3 is a fragmentary sectional elevation through the sealed carton of FIGURE 1.

FIGURE 4 is a fragmentary sectional elevation of a carton as shown in FIGURE 2, the displaced outline of a can during removal being shown in dotted lines.

FIGURE 5 is a fragmentary front elevation of the carton with the dispensing flap opened.

FIGURE 6 is a plan view of a carton blank embodying the instant invention.

FIGURE 7 is a fragment of a blank showing the appearance of the flap therein in open condition.

Referring to the drawings, there is shown in FIGURE 1 a sealed fiberboard shipping carton 10 shaped from the blank of FIGURE 6, conventionally including side panels 12, end walls 14, and suitably lapped and secured glue flaps 16 forming composite top and bottom panels. One end panel 14 is similarly formed by lapped and secured panels 14a, 14b as seen in FIGURE 6, which may have provided therein suitable hand-forming score patterns 18 to facilitate carrying of the filled carton.

The forward end panel 14 as seen in the drawings is integrally connected with side panels 12 along fold lines 20 and which along with panel 12 are of uniform single stock thickness.

The carton 10 is in overall general respects similar to other dispensing cartons on the order of those shown in U.S. patents to Painter 2,868,431, Johnson 3,066,843 and Gauld 3,002,651. The instant invention, however, incorporates specific novel features rendering the same more practical and efficient in actual use than the broadly comparable carton structures of these prior art constructions.

With more particularity, end wall 14 is provided with a dispensing flap 22 defined by a potential line of separation 24 of substantially an inverted "U" configuration, and by the bottom crease line 38. The separation line 24 extends the full width of panel 14 and also embraces a portion of the respective adjacent side panels 12, 12 as clearly seen in the drawings, to define substantially triangular ear portions 26, 26 on the dispensing flap 22. More particularly, the separation line 24 includes an acute slit 28 on the end wall 14 midway thereof from the side creases 20, 20. On either side of slit 28 extend horizontally a line of perforations 30. The perforation line 30 extends past the side crease lines 20 of the end panel 14, at which locates the carton stock is fully slit, and thence downwardly and rearwardly on side panels 12 as best seen in FIGURE 6 to connect with shallow U-shaped slits 32. The lowermost ends of the slits 32 merge into a further line of perforations 34 extending downwardly and forwardly which are also fully slit in rerouting the corners 20 of the fold lines, the perforations 34 thence merging into short downwardly turned fully severed slits 36 which terminate adjacent the bottom edge crease line 38 of the carton.

The line of separation 24 as set forth thereby defines retaining tab portions 40 at the opposite corner edges of end panel 14 and beneath flap 22, which contribute materially to the ease in handling and dispensing of containers such as cans C from the carton 10. The tab portions 40, as will be noted, remain integral with the carton at the side creases 20 and bottom crease 38.

The vertical height of the dispensing flap 22 between the top edges of tab portions 40 and slit 28 is preferably slightly in excess of the width or diameter of an article such as a can or bottle packed in the carton 10.

Thus, when it is desired to gain access to the carton contents, it is only necessary to initially press inwardly upon the panel portion 14 at 28 within the arcuate cut 28 and thereby grasp the top edge of the flap portion 22. Thereafter a forward pulling movement exerted on the flap 22 will rupture the perforation lines 30, pass easily about the side creases 20 of the carton by virtue of the short slits therearound, further easily tear along the downwardly directed extensions of line 30 on panels 12 until intersecting the fully-cut slits 32 defining the lateral limits of the flap, after which further pulling action will then readily rupture the perforated portions 34, thereby separating the flap 22 entirely from the carton body along U-shaped line 24, except for integral juncture therewith along bottom crease line 38. Flap 22 is then downfolded to the position illustrated in FIGURES 2 and 4, whereby ready access may be had to the cans C.

In this connection it will be noted that ear portions 26 of the flap 22 torn from side panels 12 permit the thumb and forefinger to be readily placed about the ends of the cans C whereby the same may be easily grasped and pulled.
from the carter of bags, forming the side panels, including portions thereof on said end panels adjacent to said side panels, the said end panels extending downwardly from said side panels and also outwardly from said side panels. 16. The invention described comprises a combination of an article and a method of making said article, said article being a container constructed and arranged as described, and said method being a method of making said article in the manner described.

The improvement includes a method of making a container, comprising: first, providing a container having a top wall and a bottom wall, said top wall being formed by a plurality of vertical panels, said bottom wall being formed by a plurality of horizontal panels, each of said panels being formed from a plurality of vertically oriented sections of a material, said material being a plastic material; second, forming said container by the method described, whereby said container is formed from said material in the manner described.

The combination includes a container, comprising: a top wall, a bottom wall, and a plurality of side walls, said top wall being formed from a plurality of vertically oriented sections of a material, said bottom wall being formed from a plurality of horizontally oriented sections of a material, and said side walls being formed from a plurality of horizontally oriented sections of a material, said container being formed from said material in the manner described.

The method of making a container includes the steps of: first, providing a container having a top wall and a bottom wall, said top wall being formed by a plurality of vertical panels, said bottom wall being formed by a plurality of horizontal panels, each of said panels being formed from a plurality of vertically oriented sections of a material, said material being a plastic material; second, forming said container by the method described, whereby said container is formed from said material in the manner described.
from each of said side panels to terminate in a pair of laterally spaced intersections with the lower edge of said end panel adjacent said bottom panel, said intersections being disposed respectively inwardly on said end panel from said side panels, thereby to define a separable dispensing flap on said end and side panels, and article-retaining tab portions on said end panel outwardly of said intersections.

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