

DISPLAY CARTON

Field of the Invention

[0001] The present invention relates to a display carton with a tamper evident structure which upon opening the carton the contained product is clearly displayed. The present invention also relates to a carton blank for the production of the carton.

Background of the Invention

[0002] There is a constant need for cartons for the tamper evident packaging of products and for the full display of the products upon the carton being opened. The carton should have a tamper evident structure where all of the tamper evident structure remains with the carton and which has a grip means for the easy opening of the carton. Cartons in the prior art are of the display type and they also have tamper evident structures. U.S. Patent 3,378,188 discloses a display carton with a removable tamper evident tear strip. The tamper evident tear strip is gripped and removed from the carton and the carton then is opened. The removed tamper evident tear strip then is discarded. Similar structures are disclosed in U.S. Patent 3,206,102; U.S. Patent 3,368,738 and U.S. Patent 3,379,361. Each discloses a carton with one or more removable tear strips which then allows the carton to be opened. However this results in a debris tear strip that has to be discarded. Additionally, these tear strip can be difficult to grip to open the carton.

[0003] The present invention is directed to a display carton that easily opens by lifting an outer front panel and in turn a top panel to clearly show the product in the carton. The carton has an outer front panel which has an attachment strip that functions to seal the carton closed and to provide for tamper evidence. The outer front panel also has a grip tab adjacent to the attachment strip to assist in the easy opening of the carton by the severing of the weakened area between the attachment strip and the remainder of the outer front wall. No part of the carton is removed so there is no

material to be discarded, such as a tear strip. It solves the problem of easy opening and no package parts to be discarded after opening.

Brief Summary of the Invention

[0004] The invention comprises a carton having in an attached arrangement an outer front panel, a top panel, a rear panel, a bottom panel and an inner front panel, the outer front panel overlaying the inner front panel and having an attachment strip on a lower edge thereof for attachment to the inner front panel. The attachment strip has an outer front panel weakened area whereby upon the outer front panel being separated from the inner front panel this weakened area is severed leaving the attachment strip attached to the inner front panel. The remainder of the outer front panel is not attached to the inner front panel. The inner front panel, bottom panel, rear panel, and optionally the top panel, have a side flap on each longitudinal end thereof, with the outer front panel being devoid of side flaps. The top panel can be devoid of side flaps, but if it does have side flaps there preferably will be a weakened area between the top panel and each side flap to facilitate the opening of the carton.

[0005] The carton has a grip tab adjacent to, but separated from, the outer front panel weakened area of the attachment strip on the outer front panel. As noted above there also can be weakened areas between the top panel and the appended top panel flaps when the top panel has flaps. The side flaps are folded, one onto the other, to form the end panels of the carton.

[0006] The carton blank is in an attached arrangement of an outer front panel, a top panel, a rear panel, a bottom panel and an inner front panel. The outer front panel has an attachment strip at a lower edge thereof for attachment to the inner front panel in forming the carton. The attachment strip has a weakened area whereby upon the outer front panel being separated from the inner front panel the weakened area is severed leaving the attachment strip attached to the inner front panel. There is a grip tab on the outer front panel to assist in gripping the outer front panel and severing the weakened area near the attachment strip. Each of the panels has an appended flap on each longitudinal end except for the outer front panel and optionally the top panel.

Brief Description of the Drawings

[0007] Figure 1 is a perspective view of the carton.

[0008] Figure 2 is a perspective view of the carton opened.

[0009] Figure 3 is a plan view of the carton blank.

[0010] Figure 4 is an optional embodiment for the carton blank.

Detailed description of the Invention

[0011] The carton now will be described in its preferred embodiments with reference to the drawings. It is to be understood that the described embodiments can be modified but yet be within the described concept and be within the scope of the invention.

[0012] Figure 1 is a perspective view of the present display carton. When the carton is opened the product is fully and clearly displayed in the carton. The carton 10 has a top panel 18 and outer front panel 20. The outer flap 16(b) is on the left side of the carton. The outer front panel 20 has an attachment strip 22 with outer front panel weakened area 23. There also is a grip tab 24 for the opening of the carton. Upon the lifting of the grip tab 24 the outer front panel weakened area 23 is severed and the outer front panel 20 is raised. This then raises the top panel 18 to fully open the carton. The outer front panel weakened area can be a perforated area, slotted area, or a serrated area. The objective is to make the area sufficiently weak that the material will sever along the weakened area upon the application of a force resulting from the gripping of the grip tab 24 and raising this tab. However the outer front panel weakened area must have a structural integrity sufficient not to be affected by normal shipping and handling.

[0013] Figure 2 shows the carton in an opened form. There is shown the inner front panel 12 with the attachment strip 22 attached. The inner front panel was severed from the outer front panel 20 along the weakened area 23 of attachment strip 22. Also shown are rear wall 16, inner surface of top wall 18 with text area 26 and the inner surface of outer front wall 20 with text area 28. On the left side there is shown

rear wall flap 16(b) and on the right side inner front wall flap 12(a). The text areas 26 and 28 are available for additional information about the product. This can be precautionary information with regard to the use of the product or for regulatory information that must accompany the product.

[0014] Figure 3 shows an embodiment of the carton blank to make the carton of Figure 1. There is shown here inner front wall 12 with recess 13 and appended longitudinal flaps 12(a) and 12(b). Attached and contiguous with the inner front wall 12 is bottom wall 14 with appended longitudinal flaps 14(a) and 14(b). Attached and contiguous to bottom wall 14 is rear wall 16 with appended longitudinal flaps 16(a) and 16(b). In turn attached and contiguous to rear wall 16 is top wall 18 with longitudinal flaps 18(a) and 18(b). As an option these flaps can be attached to top wall 18 by weakened areas 15(a) and 15(b). In this embodiment the flaps 18(a) and 18(b) can be bonded, adhesively or other wise, to the flaps of the other panels to form the end panels. The weakened areas 15 (a) and 15(b) would preferably be slots for ease of severing and the opening of the top panel 18. The recess 13 aids in opening the carton. When the carton is partially open a finger can be inserted into the recess 13 so that a greater force can be applied to open the carton. It also is useful to reopen the carton when the outer front panel is tucked within the inner front panel. There are folding score lines between each of the panels and the panels and the flaps.

[0015] The carton blank of Figure 4 is the same as that of Figure 3 except that there are no longitudinal flaps on the top panel 18. The parts that are the same retain the same parts numbers. The carton formed from this blank 32 will be easier to open since there are no flaps 18(a) and 18(b) to be severed from top panel 18 nor otherwise removed by being maneuvered from the carton along with the top panel 18.

[0016] The carton blanks in one sequence can be formed into the cartons by folding front inner panel 12 upward with respect to bottom panel 14 at the score line. Rear panel 16 can then be folded upward from bottom panel 14 at the score line and top panel 18 folded over from rear panel 16 at the score line. Outer front panel 20 is then folded down over inner front panel 12 at the score line. The weakened areas 23, 15(a) and 15(b) usually are formed in the blanks at time of forming the blanks by cutting the blanks from a larger sheet of material. The carton blanks also can be

formed into the cartons by other folding sequences. After the folding sequence the carton can be filled from one of the ends and the flaps folded over at the score lines and sealed. The flaps will have adhesive strips or spots that can be activated to seal the cartons. As an option the flaps on one end of the carton can be folded over at the score lines and sealed, the product inserted, and the flaps on the other end folded then over at the score lines and sealed. Not all of the flaps need to have an adhesive. If all of the flaps have adhesive essentially any folding sequence can be used prior to sealing. However, if only flaps 16(a)/16(b) and 12(a)/12(b) have adhesive flaps 14(a)/14(b) and 18(a)/18(b) will be folded over first and then flaps 16(a)/16(b) and 12(a)/12(b) so that flaps 16(a)/16(b) and 12(a)/12(b) will be in contact and to be adhesively attached to the other. It is preferred to use hot melt adhesives that are commonly used to seal cartons. However, pressure sensitive and other adhesives can be used.

[0017] Essentially any product can be packaged in this carton. One advantage is that the purchaser will be able to fully see the product upon opening the carton. Further it provides additional space for text information. As noted this can be precautionary information with regard to the product or product promotional information. It has been found to useful for packaging over the counter pharmaceuticals and dentifrices.

[0018] The cartons can be made out of a paperboard that is conventionally used to make cartons. This can be a paperboard or a paperboard laminate with one or more plastic layers. The carton also can be a fully plastic carton. However, it is preferred that it be a paper board or a paperboard/plastic laminate carton material. The panels are separated one from the other by score lines with the carton material folding at the score lines. There also are score lines between the panels and their appended flaps. The score lines promote the folding at those areas. The score lines are of a conventional type and are formed using conventional techniques.

We claim:

1. A carton comprising in an attached arrangement an outer front panel, a top panel, a rear panel, a bottom panel and an inner front panel, the outer front panel overlaying the inner front panel and having an attachment strip at a lower edge thereof for attachment to the inner front panel, the attachment strip having an outer front wall weakened area whereby upon the outer front panel being separated from the inner front panel the weakened area is severed leaving the attachment strip attached to the inner front panel.
2. A carton as in claim 1 wherein the inner front panel, bottom panel, rear panel, and top panel have a side flap on each longitudinal end thereof.
3. A carton as in claim 2 wherein the outer front panel is devoid of side flaps on the longitudinal ends thereof.
4. A carton as in claim 2 wherein adjacent to the weakened area on the outer front panel there is a grip tab.
5. A carton as in claim 4 wherein the grip tab is separated from the outer front panel weakened area.
6. A carton as in claim 2 wherein the side flaps of the top panel are separated from the top panel by a top panel weakened area.
7. A carton as in claim 2 wherein the side flaps are folded one onto the other to form the end panels of the carton.
8. A carton as in claim 1 wherein adjacent to the outer front panel weakened area on the outer front panel there is a grip tab.
9. A carton as in claim 8 wherein the grip tab is separated from the outer front panel weakened area.

10. A carton as in claim 1 wherein the inner front panel, bottom panel and rear panel, have a side flap on each longitudinal end thereof.
11. A carton as in claim 10 wherein the outer front panel and top panel are devoid of side flaps on the longitudinal ends thereof.
12. A carton as in claim 11 wherein adjacent to the outer front panel weakened area there is a grip tab.
13. A carton as in claim 12 wherein the grip tab is separated from the outer front panel weakened area.
14. A carton as in claim 10 wherein the side flaps are folded one onto the other to form the end panels of the carton.
15. A carton blank comprising in an attached arrangement an outer front panel, a top panel, a rear panel, a bottom panel and an inner front panel, the outer front panel having an attachment strip at a lower edge thereof for attachment to the inner front panel in forming a carton, the attachment strip having an outer front panel weakened area whereby upon the outer front panel being separated from the inner front panel the outer front panel weakened area is severed leaving the attachment strip attached to the inner front panel.
16. A carton blank as in claim 15 wherein the inner front panel, bottom panel, rear panel, and top panel have a side flap on each longitudinal end thereof.
17. A carton blank as in claim 16 wherein the outer front panel is devoid of side flaps on each longitudinal end thereof.
18. A carton blank as in claim 16 wherein adjacent to the outer front panel weakened area there is a grip tab.
19. A carton blank as in claim 18 wherein the grip tab is separated from the weakened area.

20. A carton blank as in claim 16 wherein the side flaps of the top panel are separated from the top panel by a weakened area.