

Dec. 6, 1960

H. N. HOVLAND
DISPENSING CONTAINER

2,963,209

Filed Jan. 15, 1960

2 Sheets-Sheet 1

Fig. 1

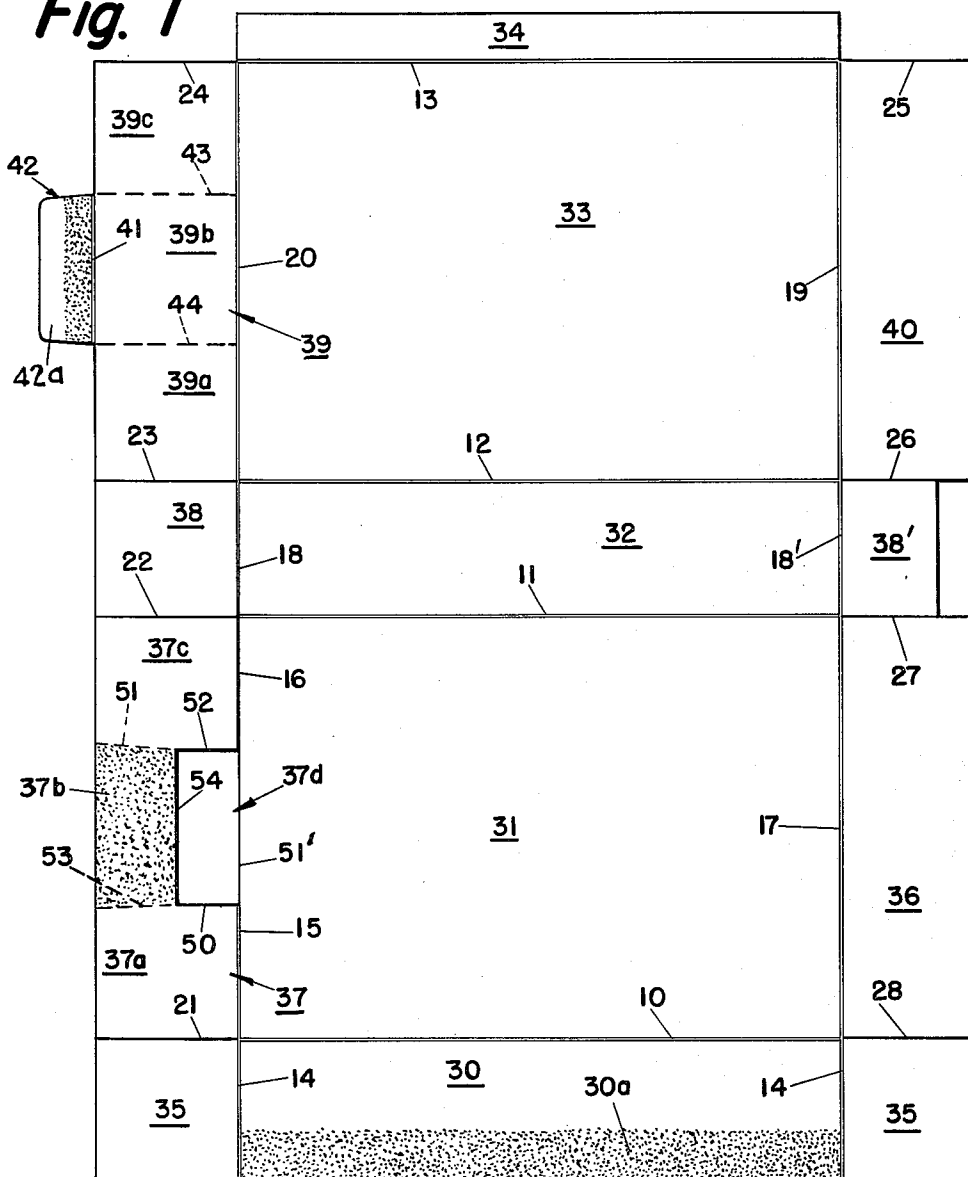
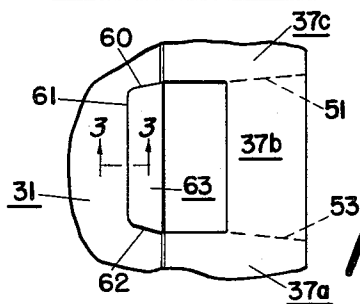


Fig. 2

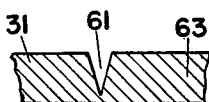


Fig. 3

1

2,963,209

DISPENSING CONTAINER

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Filed Jan. 15, 1960, Ser. No. 2,622

5 Claims. (Cl. 229—17)

This invention relates to a dispensing container made from a single blank of flexible sheet material, such as paperboard and the like. The container is provided with a tear tab which provides a dispensing opening in the container when the tab is torn open.

Further details and advantages of the invention will be apparent from the following description and accompanying drawings, wherein

Figure 1 is a plan view of a blank made of paperboard cut and scored to form a carton according to this invention,

Figure 2 is a fragmental plan view of a portion of the reverse side of the blank shown in Figure 1,

Figure 3 is a sectional view taken on lines 3—3 of Figure 2,

Figure 4 is a fragmental perspective view of the blank in partially set-up condition,

Figure 5 is a perspective view of the partially set-up container at a later stage,

Figure 6 is a fragmental perspective view of the completed container in sealed condition,

Figure 7 is a fragmental perspective view of the container showing the tear tab in open position, and

Figure 8 is a fragmental perspective view showing the tear tab in reclosed position.

Referring to the drawings, the carton is made from a single paperboard blank suitably cut and scored along lines 10 to 20, inclusive, to form consecutively hinged side wall 30, front wall 31, side wall 32, rear wall 33 and glue panel 34. Side wall 30 is provided with end flaps 35 hinged along score lines 14. Front wall 31 is provided with a bottom closure flap 36 hinged along score line 17 and separated from adjacent flap 35 along cut line 28 and from bottom end flap 38' along cut line 27. Side wall 32 is provided with bottom end flap 38' hinged on score line 18' and top end flap 38 hinged along score line 18. Flap 38' is separated from end flap 40 by cut line 26 and flap 38 is separated from flap 39 by cut line 23. Top closure flap 37 is hinged to front wall 31 along spaced and aligned score lines 15 and 16. Flap 37 is provided with spaced parallel perforated lines 51 and 53, which extend to the free margin of flap 37. A rectangular opening 37d is provided in flap 37 by straight line cuts 50, 51', 52 and 54. Cuts 50 and 52 are extended continuations of perforated lines 53 and 51, respectively. Cut line 54 is positioned about the middle of flap 37 and is parallel to score lines 15 and 16. Cut line 51 is aligned with score lines 15 and 16. The perforated lines 51 and 53 provide laterally spaced end panels 37a and 37c and an intermediate tear-out panel 37b in which the rectangular opening 37a is formed as previously described. Panels 37a and 37c preferably are of the same width. Panel 37c is separated from flap 38 by cut line 22.

A trapezoidal area is defined on the outer surface of the front wall 31 adjacent the rectangular opening 37d, as shown in Figure 2, by partially cut lines 60, 61 and 62 which extend only partially through the paperboard blank so as to provide a peelable layer in the front wall

2

adjacent the opening 37d for a purpose to be explained later.

Rear wall 33 is provided with a bottom closure flap 40 hinged thereto along score line 19 and separated from flap 38 by cut line 26. Glue panel or flap 34 is hinged to the rear wall 33 along score line 13.

A top closure flap 39 is hinged to the upper portion of rear wall 33 along score line 20. Closure flap 39 is provided with spaced parallel perforated lines 43 and 44, intersecting hinge line 20 and spaced apart the same distance as spaced perforated lines 51 and 53 in closure flap 37. Perforated lines 43 and 44 also extend to the free marginal edge of flap 39. It will be seen that perforated lines 43 and 44 provide laterally spaced end panels 39a and 39c and an intermediate tear-out panel 39b in flap 39. A pull tab 42 is hinged to intermediate panel 39b along score line 41. The width of tab 42 is slightly less than the width of opening 37d in closure flap 37.

In forming a receptacle from the described blank, glue panel 34 is folded over on score line 13 and adhesive is applied to its outer surface. The blank is then folded over along score line 11 to bring the free marginal portion of end wall 30 into contact with the glue panel to which it is adhered. The walls 30, 31, 32 and 33 are then set up in right-angle relation to form an open-ended rectangular tube as shown in Figure 4. Bottom flaps 35 and 38' are then folded inwardly and the closure flaps 36 and 40 are folded into face to face contact, adhesive being applied to one or both of their contacting faces so as to form a sealed bottom wall for the container. These contacting surfaces may be provided if desired with heat sensitive coatings or films which are activated by applying heat and pressure to the folded over flaps forming the bottom.

The contents desired to be packaged are then placed in the carton. The carton is then closed by folding top flaps 35 and 38 inwardly. Top closure flap 39 is then folded towards upstanding top closure flap 37 and pull tab 42 is inserted through the rectangular opening 37d in flap 37, as shown in Figure 5. Flaps 37 and 39 are then completely folded down and brought into face contact. Suitable adhesive is applied to one or both of the contacting surfaces in order to adhere them together. If desired, these contacting surfaces may be provided with heat sensitive coatings or films which are activated by applying heat and pressure to the folded over flaps 37 and 39 in sealing the top of the carton. Pull tab 42 is then folded downwardly along score line 41 and brought into face contact with adjacent outer portion of the front wall 31 defined by partially cut score lines 60, 61 and 62, and adhered thereto. It is preferred not to provide adhesive on the inner surface of the pull tab 42 along its marginal portion 42a so as to provide a free grasping portion to facilitate grasping and pulling the tab 42.

In opening the carton, the free marginal portion 42a of pull tab 42 is grasped and upon applying sufficient force the tab 42 will be separated from the front wall 31 and carry with it a separated layer portion 63 of the front wall 31 defined by partial cut lines 60, 61 and 62, as shown in Figure 7, leaving the remaining layer portion 63' integral with front wall 31. Upon pulling the tab 42 further toward the rear wall 33, intermediate tear-out panel 37b of closure flap 37 will be torn and separated along perforated lines 51 and 53, at the same time intermediate tear-out panel 39b of closure flap 39 will be torn and separated along perforated lines 43 and 44, as shown in Figure 7. A rectangular dispensing opening is thus provided in the top wall of the carton, from which the contents can be removed. The top can be reclosed by tucking the pull tab 42 into the opening 37d, as shown in Figure 8.

3

It will be apparent that the size of the dispensing opening can be readily varied since it is determined by varying the width of the intermediate tear-out panels 37b and 39b. Changes and modifications may be made in the various details of the described specific embodiment of this invention which are intended to be included within the scope of the appended claims.

I claim:

1. A dispensing container formed from a single blank suitably cut and scored to provide hinged front, rear and side walls, closure flaps hinged to said walls for providing bottom and top walls, the top closure flap hinged to the front wall being constituted of spaced end panels and an intermediate tear-out panel defined by spaced parallel lines of weakening, said intermediate panel being provided with a rectangular opening having a width equal to the distance between said spaced lines of weakening, the top closure flap hinged to said rear wall being provided with spaced lines of weakening to form spaced end panels and an intermediate tear-out panel, a pull tab hinged to said last-mentioned intermediate panel, said pull tab having a width not greater than the width of said rectangular opening in the top closure flap of said front wall, said pull tab being inserted through said rectangular opening and folded over and adhered to the adjacent upper portion of said front wall, said pull tab being adapted to be pulled upwardly and freed from adherence to the front wall and tear the intermediate tear-out panels in said top front and rear closure flaps to provide a dispensing opening in the top wall of the container.

2. A dispensing container as defined in claim 1 formed of paperboard, wherein the upper front wall portion adhered to the pull tab is provided with lines of weakening extending partially through the paperboard to permit ready separation of said upper front wall portion from the remaining front wall portion when the pull tab is pulled to provide a dispensing opening.

3. A dispensing container as defined in claim 1, wherein the rectangular opening in the top closure panel hinged to the front wall is positioned along the hinge line of said top closure panel.

4. A dispensing container as defined in claim 2, wherein

4

the free margin of the pull tab is unadhered to the front wall to provide a grasping portion therefor.

5. A dispensing container formed from a single paperboard blank suitably cut and scored to provide hinged front, rear and side walls and closure flaps hinged to said walls for providing bottom and top walls for the container, the first of said closure flaps being hinged to the front wall and a second being hinged to the rear wall, said first flap being divided into a pair of laterally spaced end panels and an intermediate tear-out panel by spaced lines of weakening, the intermediate panel adjacent the hinge connection of said first flap to the front wall being provided with an opening of width equal to the distance between said spaced lines of weakening, said second flap being divided into a pair of laterally spaced end panels and an intermediate tear-out panel by spaced lines of weakening, and a pull tab hinged to the edge of said last-mentioned intermediate panel opposite the hinge connection of said second flap to the rear wall, said pull tab being of width not greater than the width of said opening, said flaps being folded over the container end to close the same with the first flap superposed over the second flap and with the pull tab inserted through said opening and folded over and adhered to the exterior surface of the adjacent upper portion of the front wall, each of said lines of weakening in the first closure flap being positioned therein to lie in superposed position relative to a line of weakening in the second closure flap, said pull tab being adapted to be pulled upwardly and freed from adherence to the front wall and then to separate the intermediate tear-out panels in said closure flaps from the adjacent spaced end panels along the respective lines of weakening to provide a dispensing opening in the container.

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