

Sept. 29, 1953

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2,653,749

BOTTLE CARRYING CARTON

Filed Jan. 26, 1949

2 Sheets-Sheet 1

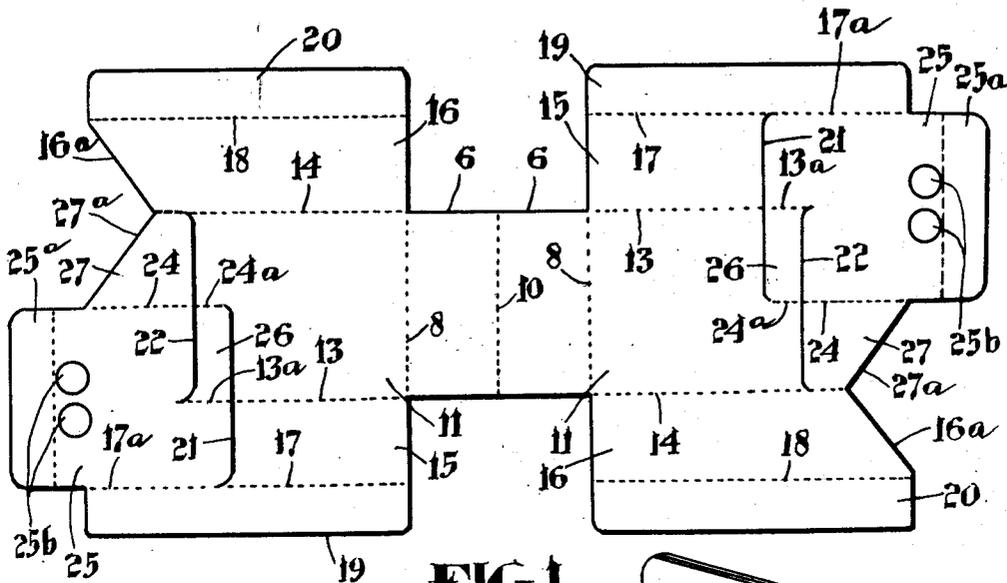


FIG. 1

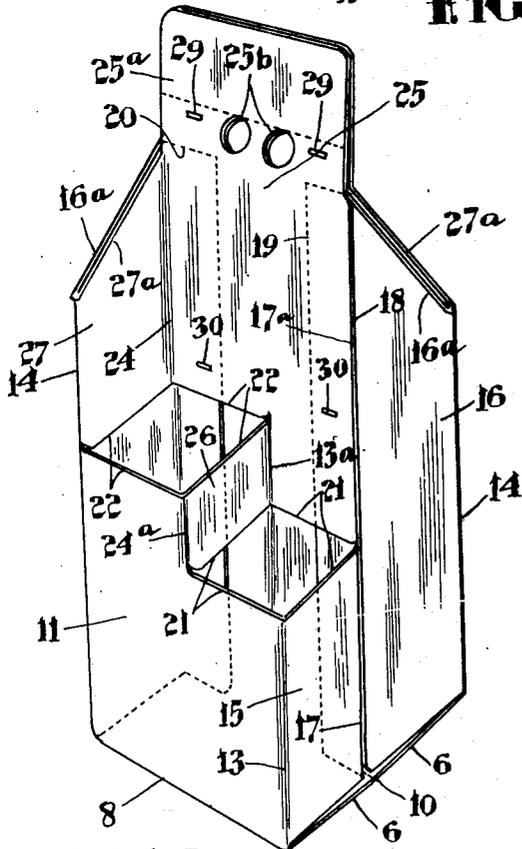


FIG. 2

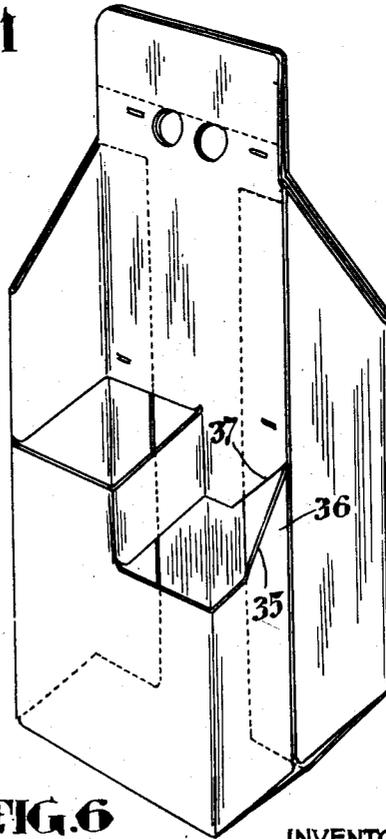


FIG. 6

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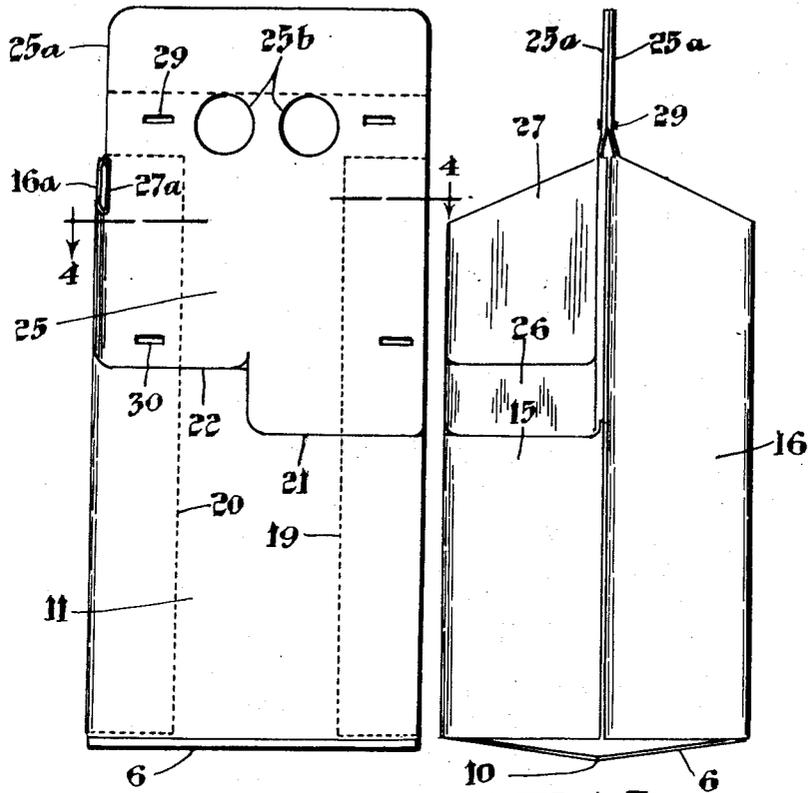


FIG. 3

FIG. 5

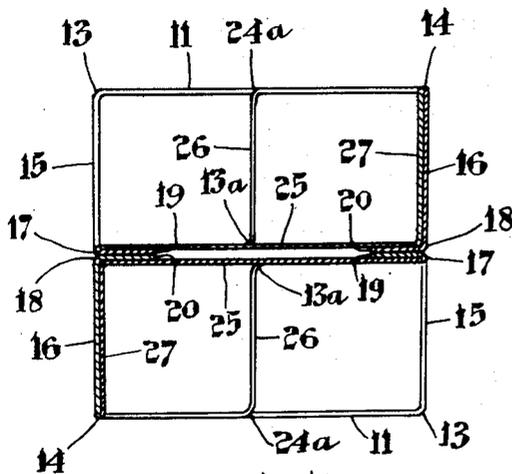


FIG. 4

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# UNITED STATES PATENT OFFICE

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## BOTTLE CARRYING CARTON

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In Canada October 26, 1948

1 Claim. (Cl. 229—28)

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This invention relates to improvements in bottle carrying cartons of the type comprising bottle receiving compartments arranged on either side of a central double-walled partition forming in part the carrying handle of the carton.

A particular object of this invention is to provide an improved carton, formed from a single blank, in which the end walls of the bottle receiving compartments are designed to protect the bottles contained therein.

One feature of the invention resides in the provision of end wall panels, arranged in pairs at each end of the carton, which extend upwardly from the bottom wall of the carton to completely enclose the lower portion of the bottles contained in the carton.

Another feature consists in providing end wall panels of unequal length with a long and a short panel forming each end wall of the carton. Each pair of end wall panels is alternately arranged with respect to the opposing pair of panels so that, when a number of cartons are placed end to end, the longer panel at each end of one carton will always be butted against the shorter panel of the adjacent carton. In this manner, the bottles of one carton are protected against direct contact with the bottles of an adjacent carton by the use of two extended length end wall panels instead of four. In addition, to the protection afforded, a considerable saving of material is realized.

My improved carton also provides for full length intumed marginal extension flaps of the end wall panels which lie between and are secured to the abutting panels forming the central double-walled portion of the carton.

Other objects and characteristic features of this invention will be more readily understood from the following detailed description taken in connection with the accompanying drawings, in which—

Fig. 1 is a plan view of a blank from which the carton embodying my invention is formed.

Fig. 2 is a perspective view of the assembled carton.

Fig. 3 is a side elevational view of the carton.

Fig. 4 is a sectional view taken along the section lines 4—4 of Fig. 3.

Fig. 5 is an end elevational view of the carton.

Fig. 6 is a perspective view of a modified form of the carton.

Referring more particularly to the drawings, the carton is formed from a blank shown in Fig. 1. A pair of bottom wall forming panels 6 are defined by outer crease lines 8 and intermediate

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crease line 10. Side wall panels 11 are secured to the bottom wall panels 6 at crease lines 8 to extend upwardly from said bottom wall panels. Each panel 11 is defined along its side edges by crease lines 13 and 14 and by an uneven upper edge hereinafter more fully described. A pair of end wall panels 15 and 16 of substantially different vertical lengths, are secured to the side edges of each panel 11 along the crease lines 13 and 14 respectively, the length of panel 16 being greater than panel 15. Panels 15 and 16 are defined along their outer side edges by crease lines 17 and 18, which crease lines separate marginal end extension flaps 19 and 20 from panels 15 and 16 respectively.

The blank is slit along horizontal lines 21 and 22 at different levels from the base 8 of side wall panel 11, said slits serving in part to define the uneven upper edge of panel 11. The lower slit 21 extends inwardly from the crease line 17 defining the outer side edge of end panel 15 to a point substantially midway between the side edges defined by crease lines 13 and 14 of panel 11. Slit 21 separates crease line 13 from crease line 13a which is, in effect, a continuation of crease line 13. A crease line 24 extends upwardly from the inner end of slit 21 to the upper edge of the blank. Slit 22 extends inwardly from the crease line 14 to meet the upper end of crease line extension 13a. Slit 22 separates the crease line 24 into upper and lower portions designated 24 and 24a respectively.

The upper edge of uneven side panel 11 is defined by the horizontal slit 21 from crease line 13 to crease line 24a, the upwardly directed vertical crease line 24a, and the horizontal slit 22 from the upper end of crease line 24a to the crease line 14. The vertical crease line 24 and the upper section 17a of vertical crease line 17 define the side edges of an upper panel 25 which forms one of the walls of a double-walled partition in the carton. The lower edge of panel 25 is defined by the horizontal slit 21 from crease line 17a to crease line 13a, the upwardly directed vertical crease line 13a, and the horizontal slit 22 from crease line 13a to crease line 24. Panels 25 are provided with conventional handle extensions 25a which are scored in the usual manner to provide finger grip openings 25b. An intervening panel 26 separated at its lower and upper edges from panels 11 and 25 by slits 21 and 22 has its terminal ends secured to panels 11 and 25 respectively along the crease lines 24a and 13a.

An end wall thickening panel 27 lies between the end wall panel 16 and panel 25, its bottom

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wall being defined by the slit 22 between the crease lines 14 and 24. The outer ends of the blank are provided with a V-shaped notch, the inclined edges 16a and 27a of which define the upper edges of panels 16 and 27 respectively. It will be noted that the blank is stamped in such a manner that the portions of the blank beyond either side 8 of the bottom wall forming panels 6 have identical inversely arranged patterns.

To assemble the bottle carrying carton, the blank is first folded along the two crease lines 8 at opposite sides of the bottom wall panels 6 to direct the side wall forming panels 11 upwardly therefrom. The end wall panels 15 and 16 are then bent rearwardly from each side wall panel 11 along the side edges defined by crease lines 13 and 14. At the same time each end wall thickening panel 27 is directed rearwardly from the crease line 14 and each panel 26 is likewise directed rearwardly from crease line 24a so as to offset each panel 25 rearwardly of panel 11 and in back-to-back relation to each other with the handle extensions 25a and finger grip openings 25b disposed to form a common carrier handle. The marginal extension flaps 19 and 20 are then bent inwardly along their respective crease lines 17 and 18 to lie between the opposing panels 25. In this manner the integrally connected end panels 27 and 16 are placed in back-to-back relation to form a double thickness end wall section in that portion of the end wall 16 which extends beyond the upper edge of adjacent side wall panel 11. Each panel 26 is vertically disposed between side wall panel 11 and offset panel 25 with its upper end edge extending along a horizontal plane.

The purpose of providing the aforementioned inverse arrangement of the patterns beyond the bottom wall forming panels 6 is so that, when the blank is folded, as above described, each end wall panel 15 and 16 on one side of the carton is respectively placed in side-by-side relation with the alternate end wall panel 16 and 15 on the other side of the carton. It therefore follows that extension flaps 19 and 20 on one side of the carton are respectively placed in face-to-face relation with the extension flaps 20 and 19 on the other side of the carton between the opposing panels 25. Upper and lower staples 29 and 30, or other suitable fastening elements, secure the carton in its assembled form. Staples 29 serve to secure the handle section and staples 30 serve to secure the carton proper through the panels 25 and the extension flaps 19 and 20 interposed therebetween.

The carton, in its assembled relation, presents a pair of oppositely disposed bottle carrying compartments on either side of the carrying handle. Each compartment consists of a bottom wall 6, outer side wall 11 and end walls 15 and 16 with the panels 25 and extension flaps 19 and 20 forming a common inner side wall partition. Panels 25 extend across the full width of the upper section of the carton while extension flaps 19 and 20 extend inwardly a substantial distance from each end of the carton between the bottom wall and the handle. The extension flaps 19 and 20 reinforce the carton from top to bottom adjacent the ends of the carton and also serve as partition panels between the compartments from the bottom of the carton to the bottom of the panels 25. Extension flaps 19 and 20 are preferably wide enough to prevent contact of the bottles in adjacent compartments. The vertical panel 26 serves as a partition in each compartment as well as a

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spacer between the side wall 11 and the offset wall panel 25. Although I have only shown one partition 26 for each compartment, it will be appreciated that a plurality of such partitions may be provided depending on the width of the compartment and the number of bottles required to fill each compartment. It will be noted that the end walls 15 and 16 of each compartment extend downwardly to meet the bottom wall panel 6 when the carton has been assembled. Thus, the bottles are protected from falling or sliding out through the bottom end of the carton. While the end wall 15 is relatively short in height, the end wall 16 extends upwardly a substantial distance above the upper edge of the compartment. This upper extension is thickened by panel 27. The alternate arrangement of the end panels 15 and 16 is such that, when a plurality of cartons are placed end to end, the bottles of one carton are always protected from direct contact with the bottles of adjacent cartons by the double walled extension of end wall 16. This alternate arrangement makes it only necessary to provide two of such end wall panels instead of four.

In the modified form of carton shown in Fig. 6 a substantial portion of the upper edge 21 of each end wall 15 slopes upwardly and rearwardly, as indicated at 35, toward the crease line 17 to provide a triangular extension 36 at the upper end of end wall 15. A complementary slope to the lower edge of panel 25 is provided, as indicated at 37. The extra triangular extension 36 gives greater supporting strength to the end wall against endwise jostling of the bottles in the carton. This is particularly desirable in cases where the end wall is comparatively low in relation to the height of the bottle. In addition, the angular meeting of the upper edge portion 35 with crease line 17 tends to increase the resistance against tearing of the carton at this meeting point. This likewise is desirable where the height of the bottle is substantially greater than that of the end wall.

The empty carton in its assembled condition is collapsible for shipping purposes and for space saving. This is done by folding the carton along the crease lines 10 of the bottom wall, 17 and 18 at one end, and 13 and 14 at the other end. In this manner the bottom wall panels 6 will be extended outwardly from their side edges 8 and the end of the carton which is folded along crease lines 13 and 14, will have the outer surfaces of the adjacent end wall panels 15 and 16 disposed in face-to-face contact.

Having thus described the preferred embodiments of my invention, it will be understood that further modifications may be resorted to within the scope and spirit of this invention as defined in the appended claim.

I claim:

A carton formed from a single blank to provide a pair of bottom wall panels having their inner longitudinal edges integrally joined together along a fold line coextensive with said edges and portions extending beyond the outer longitudinal edges of said bottom wall panels of identical inversely arranged patterns, each of said portions comprising a side wall panel having its lower edge integrally joined to said outer edge of the bottom wall panel along a fold line paralleling the first mentioned fold line and constituting the outer side wall of a bottle receiving compartment whose bottom wall is formed by the adjacent bottom wall panel, a pair of end wall panels closing the opposing ends of said

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compartment, said end wall panels having their outer vertical edges integrally joined to and extending rearwardly from the adjacent vertical side edges of said side wall panel along vertical fold lines, a partition-forming panel secured in abutting back-to-back relation with the corresponding panel of the opposing compartment and in inwardly offset spaced relation to its compartment outer side wall panel, a connecting member extending between the upper central portion of the outer side wall panel and the central wall portion of the adjacent partition-forming panel, the ends of said connecting member being integrally joined to said outer side wall and partition-forming panels along vertical fold lines with the upper and lower edges of said connecting member being horizontally disposed between the said panels, one end wall panel of each compartment being of a length to extend vertically from the lower edge of the connected outer side wall panel to a point a substantial distance above said outer side wall panel, an end wall reinforcing panel extending between the adjacent side edge of said partition-forming panel and the outer edge of that portion of said first end wall panel extending above the outer side wall, said reinforcing panel being joined to said partition-forming panel and to said end wall panel extension along vertical fold lines and being disposed in back-to-back relation with said end wall panel extension, a full-length extension flap integrally joined to the inner edge of said first mentioned end wall along a vertical fold line, said flap being folded to lie between adjacent side portions of said back-to-back partition-forming panels of each compartment, the remaining end wall panel of each

compartment being of a full length equal to at least the length of the adjacent vertical edge portion of the outer side wall panel to which it is integrally connected, said remaining end wall having its inner side edge disposed adjacent the inner side edge of the first mentioned end wall of the opposing compartment and a second full length extension flap integrally joined in its upper section to the adjacent edge of the corresponding partition-forming panel and in its lower section to the inner edge of said remaining end wall panel along a vertical fold line, said second mentioned flap being folded along its entire length to lie along its entire length in face-to-face relation with said first mentioned extension flap of the opposing compartment and with its upper portion between adjacent side portions of said back-to-back partition-forming panels, and means for securing said partition-forming panels in back-to-back relation and said face-to-face flaps between said partition-forming panels when the carton is assembled so that the said inner vertical edges of adjacent end wall panels of compartment are disposed in abutting engagement.

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