Jan. 26, 1943. W. H. LIEBER 2,309,348

CARTON

Filed July 5, 1941

Fig. 1.

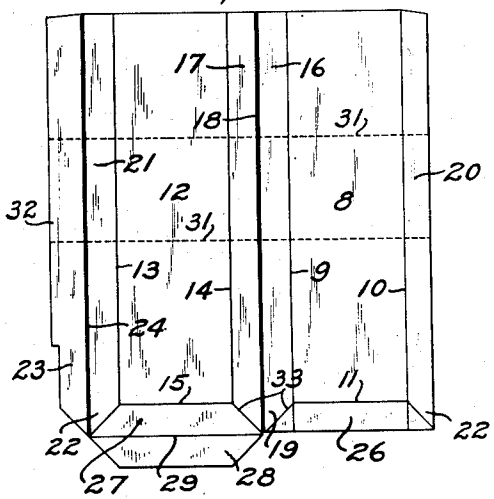
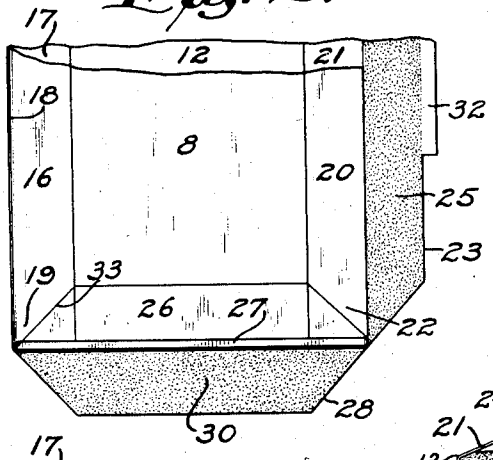


Fig. 2.



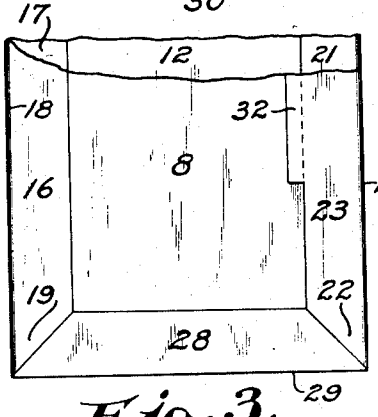


Fig. 3.

Fig. 4.

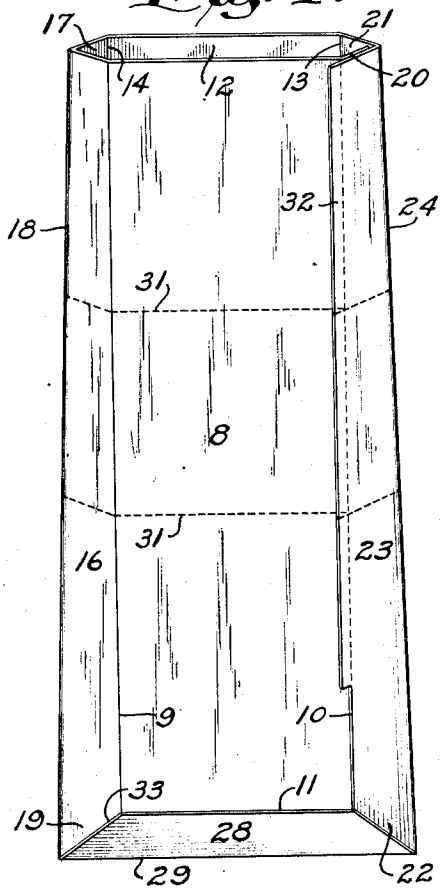


Fig. 5.

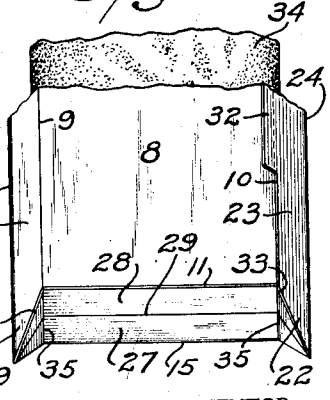


Fig. 6.

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2,309,348

CARTON

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Application July 5, 1941, Serial No. 401,134

7 Claims. (Cl. 220—37)

The present invention relates generally to improvements in the art of facilitating the handling and distribution of certain delicate commodities; and relates more specifically to improvements in the construction and operation of cartons for holding confections such as batches of ice-cream or the like, during merchandising thereof, and while the confections are being eaten.

An object of the invention is to provide an improved confection holding carton or the like, which is simple in construction and effective in use.

The dispensation of certain delicate confections such as ice-cream in batches, has heretofore involved many problems, and it has previously been proposed to provide a relatively compact six sided collapsible carton, which when distended, would hold a bar of ice-cream while being eaten. One of these prior cartons was formed of a single cardboard blank having a rectangular front panel foldably connected to another wider rectangular panel provided with a lower tapered extension and a substantially rectangular end flap depending therefrom. The opposite sides of the wider panel and of the tapered extension were scored and foldable to provide a central rear wall panel of the same width as the front panel, and to also provide two relatively foldable side walls at each of the opposite sides of the assembled carton, each set of side walls having an integral depending triangular ear at the lower extremity thereof. The lower tapered extension was additionally scored and foldable to provide a bottom which was loosely cooperable with the triangular ears of the side walls, and the bottom thus produced was secured to the lower portion of the rectangular front wall panel by adhesive applied to the rectangular flap.

While this prior six sided collapsible holder was relatively satisfactory for its intended purpose, the looseness between the bottom and the opposite side ears did not prevent molten ice-cream or other confection, from leaking through the lower portion of the carton; the provision of the rectangular lower flap made it necessary to waste considerable cardboard stock in producing the blanks; and the formation and fastening of the bottom forming extension did not tend to positively retain the container in properly spread condition so that the confection could be readily inserted within the distended structure.

It is therefore a more specific object of my invention to provide various improvements in the formation of this type of six sided collapsible cartons, whereby the cost of construction is reduced to a minimum, while the efficiency thereof is enhanced to a maximum.

Another specific object of the present invention is to provide an improved collapsible holder for ice-cream or the like, formed of a single blank of cardboard or similar sheet material, and having a simple leak-proof bottom.

A further specific object of this invention is to provide an improved six sided box assemblage formed of cardboard or the like, and which is adapted to be expeditiously produced with minimum waste of stock.

Still another specific object of the invention is to provide an improved collapsible carton assemblage in which the construction of the bottom closure and its attachment, is such that the structure will distend with a snap action, and will be positively maintained in distended position so that insertion of the commodity is readily possible.

These and other specific objects and advantages will be apparent from the following detailed description.

A clear conception of the several features constituting the present improvement, and of the mode of manufacturing and of utilizing confection holding cartons made in accordance with the invention, may be had by referring to the drawing accompanying and forming a part of this specification wherein like reference characters designate the same or similar parts in the various views.

Fig. 1 is a plan view of one of the improved carton blanks, viewed from the outer side;

Fig. 2 is an enlarged direct front view of the lower portion of the carton only partially assembled;

Fig. 3 is a fragmentary view similar to that of Fig. 2, showing the carton completely assembled and in collapsed condition;

Fig. 4 is a front and top perspective view of one of the assembled cartons, showing the same partially distended;

Fig. 5 is a front and bottom perspective view of the assembled carton, showing the bottom closure snapped into distended position, and a confection bar inserted; and

Fig. 6 is a full top view of the distended and confection laden carton.

While the invention has been shown and described herein as being specifically embodied by way of illustration, in a six sided cardboard carton especially adapted to hold a bar of ice-cream or the like, it is not the intent to thereby un-

necessarily restrict the scope or utility of the present improvement.

Referring to the drawing, the improved confection holding carton shown therein may be formed of a one-piece or single cardboard blank such as shown in Fig. 1, and this blank comprises in general an approximately rectangular elongated front wall or panel 8 bounded at its opposite sides by score lines 9, 10, and at its lower end by a transverse score line 11; a similarly shaped rear wall or panel 12 bounded at its opposite sides by score lines 13, 14 and at its lower end by a transverse score line 15 located in horizontal alinement with the score line 11; a pair of similar adjoining side walls 16, 17 foldably interconnected along a central score line 18 and being connected to the front and rear panels 8, 12 at the score lines 9, 14 respectively, the lower ends of the side walls 16, 17 being oppositely inclined to provide an integral triangular ear 19; a pair of similar opposite side walls 20, 21 foldably connected to the front and rear panels 8, 12 respectively along the other side score lines 10, 13, and having their lower extremities oppositely inclined and cooperable to provide an integral triangular composite ear 22; an elongated side assembly panel 23 foldably connected to the side wall 21 along a score line 24 and having adhesive 25 on its inner side; a trapezoidal transverse bottom panel 26 interposed between the ears 19, 22 beneath the front panel 8 and foldably connected thereto along the lower score line 11; a similar trapezoidal transverse bottom panel 27 interposed between the ears 19, 22 beneath the rear panel 12 and being foldably connected thereto along the score line 15; and a lower transverse tapered extension or assembly panel 28 foldably connected to the lower edge of the panel 27 along a score line 29 and having adhesive 30 on its inner side.

As previously indicated, each blank may be formed of a single sheet of cardboard or similar sheet stock, and the successive blanks may be quickly and accurately produced with the aid of punches and dies. The carton blank may be of any desired vertical length; and may be provided with one or more transverse lines of perforations 31 so as to permit convenient removal of successive sections thereof, and the assembly panel 23 may also be formed with an elongated side tab 32 for facilitating such removal of the sections. The adhesive 25, 30 is applied only to the inner sides of the assembly panels 23, 28 as clearly shown in Fig. 2; and while the vertical score lines 9, 10 at the opposite sides of the front panel 8 are preferably extended downwardly across the bottom panel 26, the other vertical score lines 13, 14 at the opposite sides of the rear panel 12 need not be carried across the lower panels 27, 28. The bottom panel 26 is also preferably formed of slightly less vertical width than the other bottom panel 27 as indicated in Figs. 1 and 2; and both of the bottom panels 26, 27 are foldably connected to the adjacent ears 19, 22 along diagonal score lines 33 as shown. The blanks may obviously be produced with very little waste of stock, since each complete blank is approximately rectangular, and the assembled cartons are adapted to receive and hold rectangular prismatic bars 34 of any desired confection such as ice cream.

The completed carton blanks, shown in Fig. 1, may be stacked and either stored or shipped in compact form, and when it becomes desirable to assemble such a blank, this can be readily effected in the following manner. The blank may be positioned and initially folded along the medial score line 18 to position the front wall 8 above the rear wall 12, and to simultaneously position the side wall 16 over the side wall 17 and the side wall 20 over the side wall 21. The bottom panel 26 will then be superimposed over the bottom panel 27. The areas of adhesive 25, 30 may then be moistened and the assembly panels 23, 28 may be folded inwardly along the score lines 24, 29 respectively so as to superimpose the adhesive panels 23, 28 over the adjacent panels 20, 26 respectively. The assembly of the carton is thus completed and the completed cartons when in collapsed position as shown in Fig. 3 may likewise be stacked and stored or shipped in compact form.

When it becomes desirable to distend one of the cartons for the reception of a bar 34 of confection or the like, the collapsed carton should first be spread at the top as illustrated in Fig. 4. Pressure should then be applied to the medial portion of the carton along the lower score line 29, and this application of pressure will snap the bottom panels 26, 27 and the lower assembly panel 28 upwardly so that the mid-portions of these panels will lie in a plane at the lower extremities of the front and rear walls 8, 12 while the opposite side portions of the bottom panels will coact with the ears 19, 22 as shown in Fig. 5, to thereby lock the carton in distended position. Due to the fact that the adhesive 30 covers the entire inner surface of the assembly panel 28, the entire bottom of the carton will be firmly united and thoroughly sealed so as to preclude possible leakage of liquid through the bottom. The slight weakening of the bottom panel 26 by extending the score lines 9, 10 thereacross will be sufficient to permit the bottom panels to be snapped upwardly after the carton has been assembled, and when this snap action takes place, creases 35 will be formed across the bottom adjacent to the ears 19, 22 as clearly illustrated in Fig. 5. The bar 34 of confection may thereafter be inserted within the distended carton, without danger of having the carton collapse, and the several sections of the carton structure may be subsequently removed with the aid of the perforations 31.

From the foregoing detailed description it will be apparent that the present invention provides an improved confection holding carton which is extremely simple in construction and highly effective in use. The improved carton structures may obviously be formed of relatively simple blanks with minimum waste of stock, and either the blanks or the assembled collapsed cartons can be conveniently stacked and confined within limited space. The construction of the improved carton is obviously such that it may be readily distended and locked in distended condition, and the formation of the bottom of the carton is such that a tight seal is provided and leakage of liquid from within the carton is positively prevented. The improved assemblage has proven highly practical in actual commercial use, and can obviously be manufactured and sold at moderate cost.

It should be understood that it is not desired to limit this invention to the exact details of construction, or to the precise mode of use, herein shown and described, for various modifications within the scope of the claims may occur to persons skilled in the art.

I claim:

1. A carton comprising, front and rear wall panels interconnected along their opposite side

edges by sets of side walls, the side walls of each set being foldably connected to each other and to the adjacent side edges of the front and rear panels and having an integral triangular ear depending below the lower edges of said panels, a transverse bottom panel foldably connected to the lower edge of each front and rear panel and to the adjacent inclined edges of both of said ears, and an assembly panel having the same width and end shape as that of said bottom panels foldably connected to the lower edge of one of said transverse bottom panels and being adhesively attached to the entire outer surface of the other transverse bottom panel.

2. A carton comprising, front and rear rectangular wall panels interconnected along their opposite side edges by pairs of side walls, the side walls of each pair being foldably connected to each other and to the adjacent side edges of the front and rear panels and having a rigid downwardly converging triangular ear depending below the lower edges of said panels, a trapezoidal transverse bottom panel foldably connected to the lower edge of each front and rear panel and to the adjacent inclined edges of both of said side ears, and a trapezoidal assembly panel having the same width and end shape as that of said bottom panels foldably connected to the lower edge of one of said transverse bottom panels and being adhesively attached to the entire outer surface of the other transverse bottom panel.

3. A carton comprising, front and rear rectangular wall panels interconnected along their opposite side edges by pairs of side walls, the side walls of each pair being foldably connected to each other and to the adjacent side edges of the front and rear panels and having a rigid downwardly converging triangular ear depending below the lower edges of said panels, a trapezoidal transverse bottom panel foldably connected to the lower edge of each front and rear panel and to the adjacent inclined edges of both of said side ears, and a trapezoidal assembly panel having the same width and end shape as that of said bottom panels foldably connected to the lower edge of one of said transverse bottom panels and being adhesively attached to the entire outer surface of the other transverse bottom panel, one of said transverse bottom panels being provided with score lines extending thereacross in alinement with the opposite sides of one of said wall panels to cause said bottom panels to snap into and to remain in positions in a common horizontal plane when inward pressure is applied to the lowermost edge of the collapsed carton.

4. A carton formed of a single blank, and comprising, front and rear rectangular wall panels interconnected along their opposite side edges by pairs of similar side walls, the side walls of each pair being directly foldably connected to each other and to the adjacent side edges of the front and rear panels and each pair having a rigid downwardly converging triangular ear depending below the lower horizontal edges of said panels, a trapezoidal transverse bottom panel directly foldably connected at its top to the lower edge of each front and rear panel and at its opposite sides to the adjacent inclined edges of both of said side ears, and a similar trapezoidal assembly panel directly foldably connected to the lower edge of one of said transverse bottom panels and being adhesively attached to the entire outer surface of the other transverse bottom panel.

5. A carton formed of a single blank, and comprising, front and rear rectangular wall panels interconnected along their opposite side edges by pairs of similar side walls, the side walls of each pair being directly foldably connected to each other and to the adjacent side edges of the front and rear panels and each pair having a rigid downwardly converging triangular ear depending below the lower horizontal edges of said panels, a trapezoidal transverse bottom panel directly foldably connected at its top to the lower edge of each front and rear panel and at its opposite sides to the adjacent inclined edges of both of said side ears, and a similar trapezoidal assembly panel directly foldably connected to the lower edge of one of said transverse bottom panels and being adhesively attached to the entire outer surface of the other transverse bottom panel, one of said transverse bottom panels being scored thereacross in line with the opposite side edges of the adjacent wall panel to cause said bottom panels to snap into and to remain in a common horizontal plane when inward and upward pressure is applied to the lowermost edge of the collapsed carton.

6. A carton comprising, front and rear approximately rectangular wall panels interconnected along their opposite side edges by pairs of foldably connected side walls, each pair of said side walls having an integral pointed ear depending below the alined lower edges of said panels, a single transverse bottom panel foldably connected to the lower edge of each front and rear panel and to the adjacent inclined edges of said ears, and an assembly panel of the same width as the combined width of one of said rectangular wall panels plus one pair of said side walls foldably connected to the lower edge of one of said transverse bottom panels and being adhesively attached to the outer surface of the other transverse bottom panel in close proximity to the inclined side edges of said ears.

7. A carton comprising, front and rear approximately rectangular wall panels interconnected along their opposite side edges by pairs of foldably connected side walls, each pair of said side walls having an integral pointed ear depending below the alined lower edges of said panels, a single transverse bottom panel foldably connected to the lower edge of each front and rear panel and to the adjacent inclined edges of said ears, and an assembly panel of the same width as the combined width of one of said rectangular wall panels plus one pair of said side walls foldably connected to the lower edge of one of said transverse bottom panels and being adhesively attached to the outer surface of the other transverse bottom panel in close proximity to the inclined side edges of said ears, one of said bottom panels having fold lines thereacross in line with the opposite side edges of the corresponding wall panel to cause said bottom panels to snap into and to remain in a common plane when the carton is distended.

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