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N. ANDRÉ ETAL

3,175,684

MULTIBOTTLE PACKAGE AND CARRIER

Original Filed Dec. 30, 1959

2 Sheets-Sheet 1

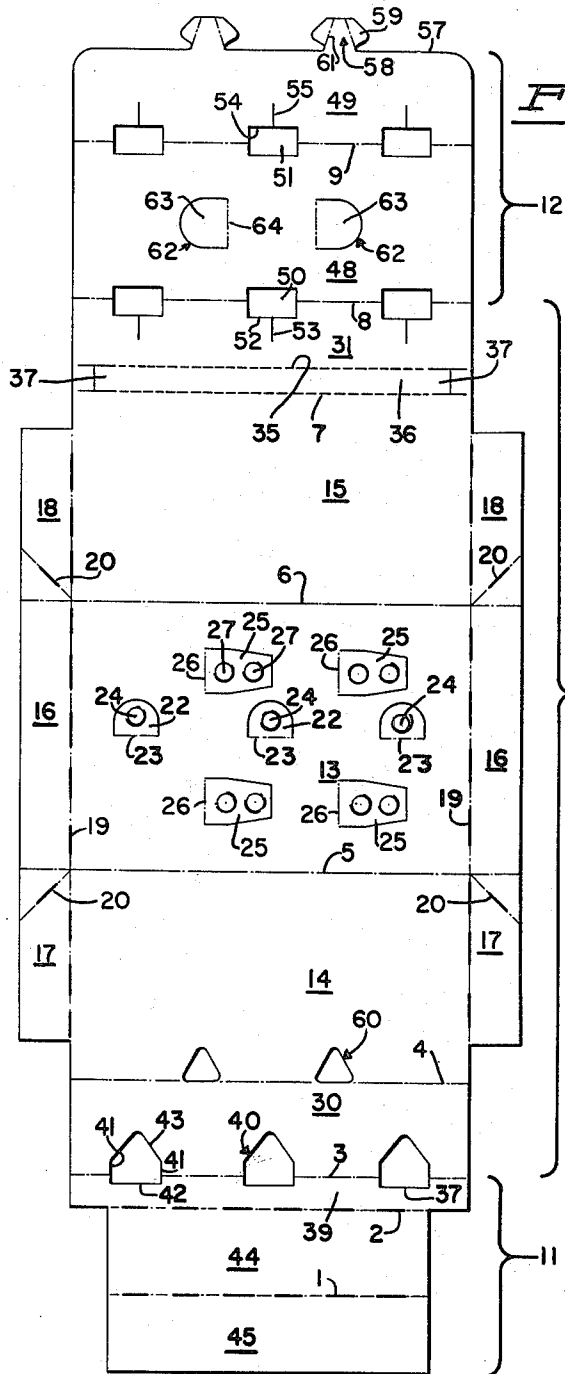


Fig-1

Fig-4

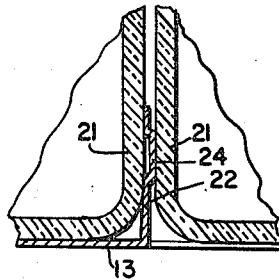
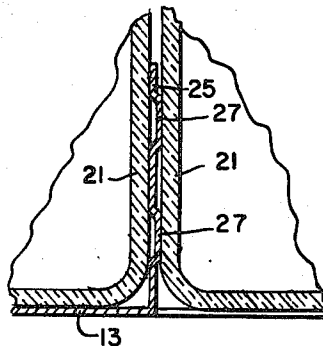


Fig-5



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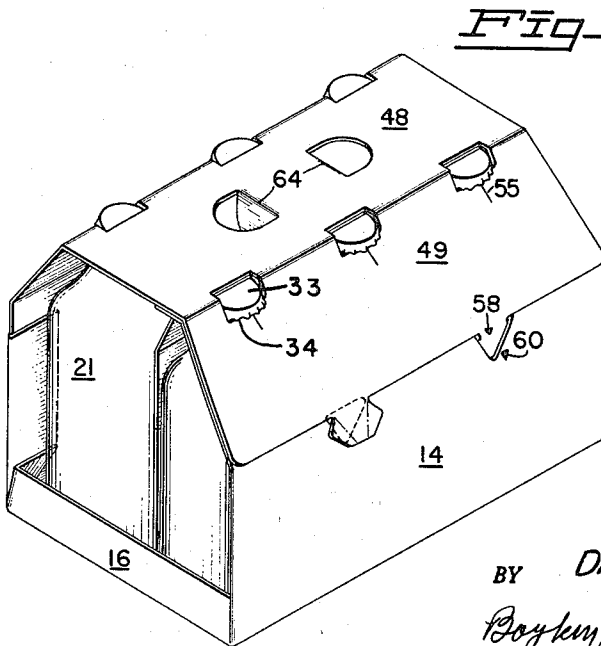
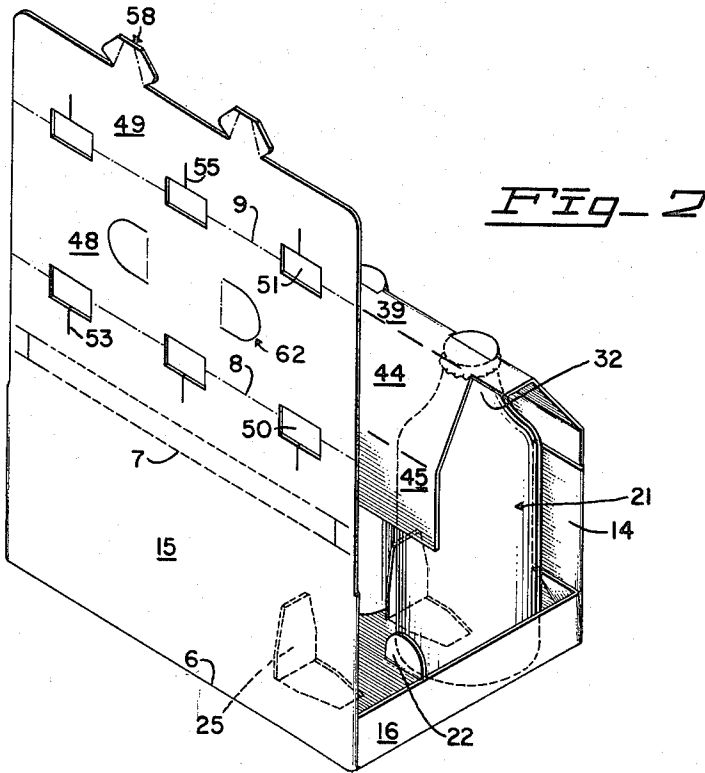
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MULTIBOTTLE PACKAGE AND CARRIER

Noble André, deceased, late of San Francisco, Calif., by Jean D. André, executrix, and David M. Blue, San Francisco, Calif., assignors to St. Regis Paper Company, a corporation of New York
Continuation of application Ser. No. 862,908, Dec. 30, 1959. This application Apr. 13, 1964, Ser. No. 360,479
6 Claims. (Cl. 206-65)

This application is a continuation application of "Multibottle Package and Carrier," having Serial No. 862,908 and filing date of December 30, 1959, now abandoned. The benefit of said filing date is hereby claimed for the present application.

This invention relates to a multibottle package, and to a blank to be used in making the package, and has for one of its objects the provision of a simple, reliable, safe and economically made multibottle package that is of a structure that lends itself to formation by automatic machinery.

Another object of the invention is the provision of a carrier blank that is simple, economical to make, and that is adapted to hold a pair of rows of bottles for carrying the latter when said blank is folded about said rows and is secured in place.

A still further object of the invention is the provision of a package of bottles that includes a carrier for holding the bottles together for carrying as a unit, and which package is formed without the use of glue, tape, staples and the like, and is adapted to be formed by automatic machinery.

A still further object of the invention is the provision of a multibottle package that includes a carrier in the form of a single, economically made, simple, cardboard blank, and which carrier includes as an integral part thereof means for extending between the bottles to protect them against breakage and to stabilize the bottles relative to each other.

Heretofore there has been considerable development in the design of multican packages, as distinguished from multibottle packages, although prior to the development of the can packages the problem of forming suitable multibottle carriers had been considered.

The cost of the carriers or carton-like carriers for forming a multibottle package must be relatively low inasmuch as this represents an expenditure that is not added to the cost of the goods. However, it is imperative that the package be sufficiently strong to withstand such abuse as it may receive in normal handling, and it must be sufficiently resistant to weakening under normal moisture condition encountered in refrigeration, to enable the package to be handled with safety.

The present carrier meets all of the requirements for a successful package.

Other objects and advantages will appear in the drawings and description.

In the drawings, FIG. 1 is a plan of view of the blank adapted to be folded about the bottles to form the multibottle package.

FIG. 2 is an isometric view of the package in the process of being formed, but the near bottle is omitted to show internal structure.

FIG. 3 is an isometric view of the package that is formed.

FIG. 4 is an enlarged, fragmentary, sectional view showing a bottle spacer and cushion means between the rows of bottles, at the lower ends of the bottles.

FIG. 5 is an enlarged, fragmentary sectional view showing a bottle spacer and cushion means between the lower ends of the bottles in each row.

In detail, the blank of FIG. 1 comprises an elongated

cardboard sheet that is generally oblong in outline and which sheet is formed with parallel, spaced, folding creases 1, 2, 3, 4, 5, 6, 7, 8 and 9 extending transversely thereacross, starting from the lower end of the blank as seen in FIG. 1.

For the purpose of description, the blank may be divided into what may be called an intermediate portion 10, that is bounded at one end by folding crease 3, and at the other end by folding crease 8.

At one end of this intermediate portion is an end portion 11 which is integral with the intermediate portion along crease 3, while an end portion 12 is at the other end of the intermediate portion and is integral with the latter along crease line 8.

The intermediate portion 10 comprises a bottom panel 13 that is between folding creases 5, 6. A side panel 14 is integral with the bottom panel 13 along folding crease 5 and lies between folding creases 4, 5, while along crease line 6 is a corresponding side panel 15 that lies between folding creases 6, 7.

Marginal portions 16 extending perpendicular to folding creases 5, 6 are at the opposite ends of the bottom panel 13 and these marginal portions are integral with corresponding extensions 17 thereof that extend partially across and integral with the ends of side panel 14, while corresponding extensions 18 of marginal portions 16 extend partially across and are integral with the ends of side panel 15.

Folding creases 5, 6 continue across the marginal portions at the junctures between portions 16, 17 and 16, 18 and folding creases 19, define the junctures between said marginal portions and the bottom and side panels.

Diagonally extending folding creases 20 extend across the marginal portions 17 and 18 from the junctures between creases 5, 19 for a purpose later to be described.

The bottom panel 13 is adapted to support two rows of bottles 21 in parallel, side by side relation. With the blank illustrated, there are three bottles in each row, and partially stamped from the bottom panel are three spacer tabs 22 that are adapted to be bent upwardly along aligned creases 23 that are substantially midway between creases 5, 6. These tabs are positioned to extend between the adjacent bottles in the two rows, as seen in FIGS. 2 and 4; thus spacing the rows of bottles apart. Each tab has a central portion 24 pressed to one side to form a yieldable cushion between the bottles (FIG. 4). The tabs 22 are joined to bottom panel 13 along crease lines 23.

Two other pairs of tabs 25 that are longer than the tabs 22 are partially stamped from bottom panel 13, and are integrally connected with said panel along creases 26. These creases are positioned so that the tabs 25, when folded upwardly at right angles to the bottom panel will be between the adjacent bottles in each row. Spaced portions 27 each corresponding to portions 24 in each tab 22 are formed in each tab 25 providing the same type of yieldable cushion means that is provided by portions 24.

When the bottles 21 are positioned in two rows on the bottom panel 13, the end bottles of the rows will be along crease lines 19, and upon folding the side panels 15 upwardly and at the same time swinging marginal portions 17, 18 toward each other and to positions against the oppositely facing sides of the side panels 15, the marginal portions 16 will automatically be folded upwardly to positions substantially against the lower lateral sides of the end bottles of the rows that are directed oppositely outwardly of said rows longitudinally of the latter, as seen in FIG. 2. The marginal portions 17, 18 will snap past the bottles to be held by the end bottles of the rows substantially against said oppositely facing sides of said side panels.

Adjoining the transverse folding crease 4 and integral with side panel 14 along said crease is one extension panel

30, and adjoining the transverse crease 7 and integral with side panel 15 along said crease is another extension panel 31 of similar width. The extension 30 is between creases 3, 4 while extension 31 is between creases 7, 8.

The side panels 14, 15 are adapted to extend upwardly over the oppositely outwardly facing surfaces of the main bodies of the bottles, and when said side panels so extend, the extensions 30, 31 will extend convergently upwardly to the upper ends of the restricted diameter necks 32 of the bottles.

The bottles 21 preferably have the conventional caps 33 secured over their upper ends, each cap including a portion projecting radially outwardly of the neck 32 providing a downwardly directed shoulder 34 around each neck (FIG. 3).

The folding crease 7 is also formed for tearing therealong and along a perforated line 35 parallel thereto and within extension 31 relatively close to the crease 7. Crease 7 is actually a line of perforations, so that the strip 36' between the line 7, 35 of the perforations is a tear strip that may be grasped by tabs 37 at either end of said strip for tearing it away to facilitate removal of the carrier from the bottles when the bottles are to be used.

From the foregoing it will be seen that the side panels 14, 15 and the extensions 30, 31 actually will extend over the lateral sides of the bottles, including their necks. These panels 14, 15 and the extensions 30, 31 that are integral therewith together with the bottom panel 13 has been called the intermediate portion of the blank.

The end portion 11 that adjoins the intermediate portion along crease line 3 comprises a narrow end panel 39 that is disposed between creases 2, 3. This is termed an "end panel" because it is adapted to be positioned over the upper ends of one of the rows of bottles.

Along the folding crease 3 the blank is formed with three spaced, openings 40 of corresponding shape, each having parallel spaced opposed edges 41 that extend across folding crease 3 perpendicular to the latter. The ends of edges 41 that extend into the end panel 39 connect with the ends of a straight edge 42 that is parallel with crease 3, while edges 43 extend convergently from the opposite ends of edges 41 to meeting relation within extension 30.

When the extension 30 extends slantingly upwardly to the upper ends of the row of bottles adjacent thereto, the caps 33 may freely project partially through said openings 40 with the edge 37 of each opening extending across the upper side of each cap. The divergently downwardly extending edges 43 of each opening extend past and below the shoulder 34 provided by each cap so that such shoulder may be engaged by another part of the blank on the end portion 12, as will later appear.

Adjoining the end panel 39 along crease line 2 is an extension panel 44 that is adapted to extend slantingly downwardly and divergently relative to extension 30 so that the terminating end section 45 that is integral with extension panel 44 along crease 1 may extend vertically downwardly between the rows of bottles 21.

From the foregoing explanation, it is seen that what has been designated the end portion 11 comprises end panel 39 that extends over caps 33 of one row of bottles, and extension 44 that extends inclined downwardly from the caps and terminal end section 45 that extends between the rows of bottles at the upper portions of the main bodies thereof.

Adjoining the extension 31 of the other end portion 12, and integral with said extension along folding crease 8 is an end panel 48 that is of sufficient width to extend over the upper ends of the bottles of both rows.

Adjoining this end panel 48 along folding crease 9 is a terminal end section 49 that is adapted to extend downwardly over the inclined extension 30 when the end portion 11 is folded to a position in which the terminal end section 45 on the latter is between the rows of bottles.

Along the folding crease 8 the blank is formed with three oblong openings 50 and three similar openings 51 are along crease 9. These openings are preferably elongated longitudinally of the folding creases along which they are positioned, and the parallel end edges of openings 50 extend perpendicularly across the folding crease 8. One edge 52 of each opening 50 is within the extension 31. A slit 53 within extension 31 perpendicular to said edge 52 extends to the latter at a point centrally between the end edges of each opening 50.

When the end panel 48 is positioned over the upper ends of the bottles, and over the end panel 39, the caps 33 will project partially through the openings 50 and the marginal portion along edge 52 at opposite sides of each slit 53 will spring across the radially projecting sides of the cap and below the shoulders 34 into engagement with said shoulders.

The same action occurs when the terminal end section 49 is swung downwardly over the extension 30, it being noted that the edge 54 defining one side of each opening 51 is formed with a slit 55 that is similar to each slit 53.

The edge 54 will engage the shoulder provided by each cap that extends through the openings 40 along crease 3, since the shoulder is left exposed for such engagement between the convergent edges 43 of each opening 40.

Along the free end edge 57 of the blank that defines one edge of the terminal section 49 are a pair of locking tabs 58, each tab being formed with a pair of wings 59 that project generally laterally relative to the longitudinal axis of the blank.

A pair of triangular openings 60 are formed in the side panel 14 along the folding crease 4, the base of each triangle being along said crease, and the other two edges of each opening 60 extending convergently into said side panel.

The wings 59 on tabs 58 integrally join the tabs along crease lines 61 having substantially the same inclination relative to each other as the convergent side edges of the opening 60.

When the terminal end section 49 is over and against the inclined extension 30 the locking tabs 58 will be over each of the openings 60. By pushing the tabs through said openings the wing 59 will spring past the side edges of the triangular opening and will lock the blank about the bottles to form the package.

The end panel 48 is formed with a pair of finger openings 62 by partially stamping tabs 63 out of said end panel intermediate folding creases 8, 9. The tabs 63 are integral with the end panel along parallel folding creases 64 that are at the adjacent sides of the openings 62 and that extend longitudinally of the blank.

When a person wishes to carry the package, the tabs 63 are pushed downwardly, by two fingers of the lifting hand and the lifting pressure will be along the crease lines 64 where the openings are reinforced by tabs 63.

The edges 52, 54 along one of the sides of each of the openings 50, 51 will engage the downwardly directed shoulders 34 of caps 33, and the tabs 59 in conjunction with the marginal portions of openings 60 will securely hold the blank against separation from the bottles when the package is carried.

The bottles themselves are held against outward movement at their lower ends by marginal portions 16, which marginal portions also provide an attractive advertising space.

The cushions between the bottles insure against breakage, chipping or objectionable rattle of the bottles.

It is to be understood that modifications may be made in the structure that is specifically disclosed, and it is the intention that the appended claims shall cover any such modifications as may come within the broad terms thereof.

We claim:

- 1. A multibottle package comprising:
 - a pair of parallel rows of upstanding bottles in side by side relation each bottle including a restricted neck in upward extension thereof having a closure on the upper end of each neck projecting radially outwardly thereof;
 - a carrier for said bottles comprising a single elongated cardboard blank folded about said rows transversely thereof, said blank including an intermediate portion extending below the bottoms and over the oppositely outwardly directed sides of said rows of bottles and a pair of end portions respectively integral with said intermediate portion along two of its opposite edges, one end portion of said pair extending over the bottles of one row thereof and downwardly between said rows spacing them apart, the other end portion of said pair extending over both rows of bottles and over said one end portion and partially over each cap and in engagement with the underside of each cap at the side thereof facing laterally outwardly of the pair of rows, and interlocking means respectively on said other end portion and said intermediate portion securing said other end portion to said intermediate portion and holding both of said end portions over said bottles.
 - 2. A multibottle package comprising:
 - a pair of parallel rows of upstanding bottles in side by side relation including a closure on the upper end of each bottle;
 - a carrier for said bottles comprising a single elongated cardboard blank folded about said rows transversely thereof, said blank including an intermediate portion extending below the bottoms and over the oppositely outwardly directed sides of said rows of bottles and a pair of end portions respectively integral with said intermediate portion along two of its opposite edges, one end portion of said pair extending over the bottles of one row thereof and downwardly between said rows in engagement with the adjacent sides of the bottles of said rows at the upper portions of said sides spacing said rows of bottles apart, the other end portion of said pair extending over both rows of bottles and over said one end portion, interlocking means respectively on said other end portion and said intermediate portion securing said other end portion to said intermediate portion and holding both of said end portions over said bottles, and
- spacing means on said intermediate portion integral therewith extending upwardly between the bottles in each row and between said rows of bottles spacing the lower ends of said bottles from each other.
- 3. A multibottle package comprising:
 - a pair of parallel rows of upstanding bottles in side by side relation including a closure on the upper end of each bottle;
 - a carrier for said bottles comprising a single elongated cardboard blank folded about said rows transversely thereof, said blank including an intermediate portion extending below the bottoms and over the outwardly directed sides of said rows of bottles and a pair of end portions respectively integral with said intermediate portion along two of its opposite edges, one end portion of said pair extending over the bottles of one row thereof and downwardly between said rows in engagement with the adjacent sides of the bottles of said rows at the upper portions of said sides spacing said rows of bottles apart, the other end portion of said pair extending over both rows of bottles and over said one end portion, and
- interlocking means respectively on said other end portion and said intermediate portion securing said other end portion to said intermediate portion and holding both of said end portions over said bottles,

- spacing means on said intermediate portion integral therewith extending upwardly between the bottles in each row and between said rows of bottles spacing the lower ends of said bottles from each other, and
 - yieldable cushion means formed on each of said spacing means providing cushions for protecting said bottles against breakage due to shock.
- 4. A package comprising:
 - a pair of parallel, horizontally extending rows of upstanding bottles in side by side relation, which bottles have cylindrical lower body portions and neck portions thereon coaxial with and extending upwardly from said body portions, said neck portions being substantially less in diameter at their upper ends than the diameter of said body portions, and caps secured over the upper ends of said neck portions projecting radially therefrom to provide axially downwardly facing surfaces on said caps around the upper ends of said neck portions, with the caps on one row of bottles being widely spaced from the caps on the other row;
 - an elongated blank formed with folding creases extending transversely thereacross spaced longitudinally of said blank to provide a generally horizontal bottom panel on which said rows of bottles are supported; opposed side panels extending upwardly from said bottom panel in substantially vertical parallel relation across the laterally oppositely outwardly facing sides of said body portions of said pair of rows of bottles and then angularly upwardly toward each other across said neck portions to said caps;
 - a horizontal planar top panel in opposed relation to said bottom panel integral with one of said side panels disposed over said caps and across the space between the caps on the bottles of said pair of rows at substantially the level of the uppermost surfaces of said caps thereby providing a horizontal seat extending between the caps on the bottles of said rows at said level on which a similar package is adapted to be supported;
 - means integral with said top panel in engagement with the said axially downwardly facing surfaces of said caps securing said top panel horizontal at said level.
 - 5. In a construction as defined in claim 4:
 - said top panel being formed with a pair of finger openings spaced between the caps on said rows of bottles adapted to receive a pair of fingers of a hand for lifting said package by said top panel.
 - 6. A package comprising:
 - a pair of parallel, horizontally extending rows of upstanding bottles in side by side relation, which bottles have cylindrical lower body portions and neck portions thereon coaxial with and extending upwardly from said body portions, said neck portions being substantially less in diameter at their upper ends than the diameter of said body portions, and caps secured over the upper ends of said neck portions projecting radially therefrom to provide axially downwardly facing surfaces on said caps around the upper ends of said neck portions, with the caps on one row of bottles being widely spaced from the caps on the other row;
 - an elongated blank formed with folding creases extending transversely thereacross spaced longitudinally of said blank to provide a generally horizontal bottom panel on which said rows of bottles are supported;
 - opposed side panels extending upwardly from said bottom panel in substantially vertical parallel relation across the laterally oppositely outwardly facing sides of said body portions of said pair of rows of bottles and then angularly upwardly toward each other across said neck portions to said caps;

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a horizontal planar top panel attached to said side panels and in opposed relation to said bottom panel and disposed over said caps and across the space between the caps on the bottles of said pair of rows at substantially the level of the uppermost surfaces of said caps thereby providing a horizontal seat extending between the caps on the bottles of said rows at said level on which a similar package is adapted to be supported;

means integral with said top panel in engagement with the said axially downwardly facing surfaces of said caps securing said top panel horizontal at said level.

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