June 12, 1962 T. W. POWELL 3,038,600

CARTON FOR RECEIVING AND CARRYING BEVERAGE CANS AND THE LIKE

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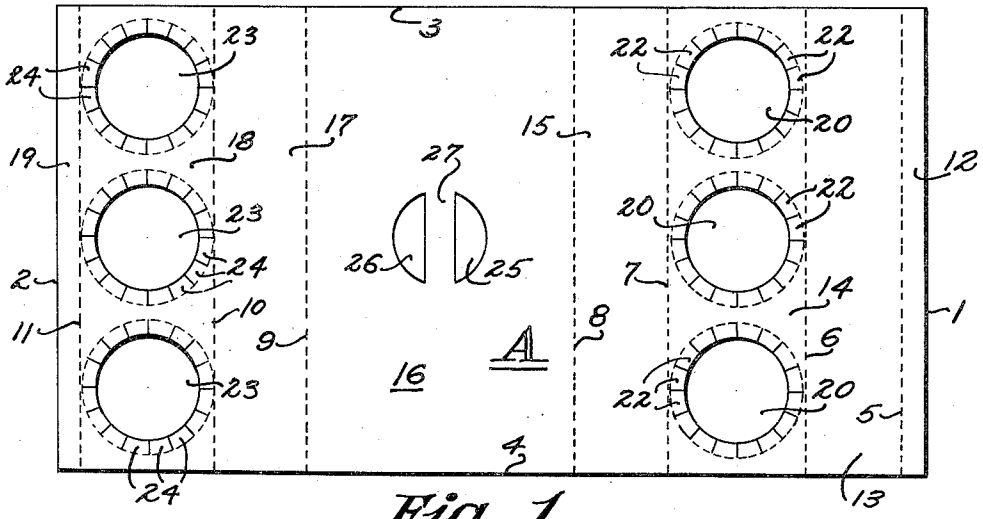


Fig. 1.

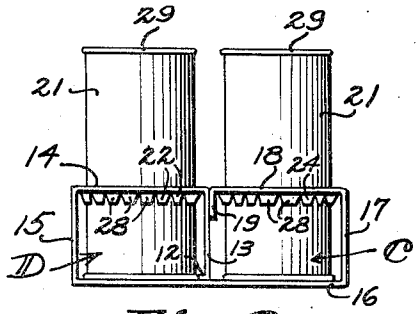


Fig. 2.

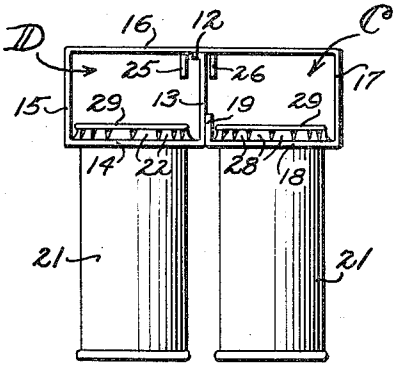


Fig. 3.

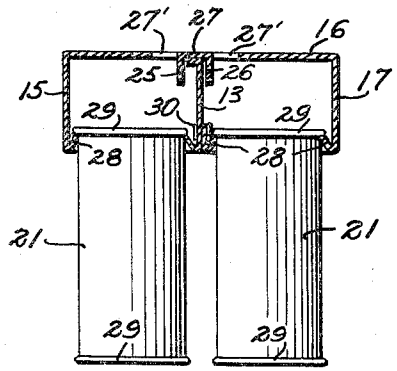


Fig. 4.

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CARTON FOR RECEIVING AND CARRYING BEVERAGE CANS AND THE LIKE

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The present invention relates to improvements in carrying devices or cartons for carrying a group of containers, such as cans, which are filled with selected beverages as contents of the cans. More particularly, the invention is concerned with an improved carrier for canned liquid beverages, wherein the assemblage of containers being carried is held securely against dropping, and which carrier entails the use of minimum amounts of material in its construction. Still more particularly, the improved carrier-carton of the instant invention which is made of a single one-piece blank of paperboard securely holds the containers by their rims, which is of simple and inexpensive construction, and which can be loaded and unloaded quickly and easily. In connection with the instant invention that the idea of economy in the use of material has become so acute that in many instances examples of better embodiments of articles or goods are being discarded for those not so good by reason of inferior representative embodiments demonstrating a saving of material, such as the saving of material which has been accomplished successfully in the instant invention.

It may be said, therefore, that a highly important object of the instant invention is to effect economies and savings in material used to construct a foldable one-piece blank employed for carrying, without danger of slipping and loss, an assembly of six cans of beverages, which is to say that a primary object of the instant invention is to effect a saving in material of a foldable one-piece blank for carrying a six-pack of canned beverages.

Another important object of the invention is the simplified structural formation of a minimum-sized, one-piece blank of stiff cardboard, having, when folded into a rectilinear for canned beverages, on its bottom surface, parallel series of three openings each for insertion therein of the ends of cans of beverages, the said openings preferably having serrated peripheries for gripping the top ends of the cans beneath the rims thereof for avoiding slipping of the cans out of the openings.

A further object of the invention is the provision of a minimum sized one-piece blank of stiff cardboard or the like which, when folded into a six-pack beverage can carrying carton or container is adapted to effect automatically, a pack-setting position when the pack is placed in the container with the cans positioned bottoms up in the aforesaid openings, the cans of the pack however becoming securely suspended by the rim of the top end of each can in its respective opening when the pack is being carried.

Further objects and advantages of the construction of the instant invention will become apparent as the description proceeds, and the features of novelty will be pointed out in particulartiy in the appended claims.

While the invention has been referred to above as being applied to a six-pack assembly of cans, it will be apparent that the novel structural features of the instant container are not limited necessarily thereto, the invention being adapted structurally for use with variable numbers of cans or containers of beverages without departing essentially from the construction of the six-pack carrying container or carton illustratively embodied in the accompanying drawings.

In the accompanying drawings which represent by way of an illustrative embodiment of the instant invention.

FIG. 1 is a top plan view of a carrier blank structurally embodying the features of the instant invention.

FIG. 2 is an end elevation of the carrying container of the instant invention, showing the blank of FIG. 1 in folded condition with the containers being illustrated as being in the still or sitting position.

FIG. 3 is an end elevation of the carrying container of the instant invention showing the container and its contents in carrying position.

FIG. 4 is a transverse cross-sectional view of the container and its contents in the carrying position, the view being taken transversely through the container and a finger-grip handle therefor in carrying position.

Referring more particularly to the drawings, the carrying container or carton of the present invention comprises a one-piece rectilinear blank A composed of a flat sheet stiff, rigid cardboard or similar material, the blank A being rectilinear for the purpose of saving material as will become apparent hereinafter, the illustrated blank A being the minimum of material possibly usable for fabrication of the completed carrying carton B. The blank A has opposite transverse ends 1 and 2, front and rear longitudinal edges 3 and 4, the blank body A being divided by respective parallel fold lines 5, 6, 7, 8, 9, 10, and 11, into successive sections or panels 12, 13, 14, 15, 16, 17, 18, and 19. Of these panels, those indicated at 12 and 19, respectively, are opposite end panels of substantially equal narrow width on uninterrupted panel 13, which is adjacent to narrow end panel 12, but which is substantially wider than end panel 12, than panel 14, which is to be provided with a row of equally spaced beverage can-receiving openings 20, preferably substantially circular in shape for receiving conventional beverage-receiving cans or containers 21, peripheral spaced radially extending slits 22, which are substantially equally spaced and are of substantially equal length. Such slits will be referred to hereinafter.

This panel 14 is followed in sequence by an uninterrupted panel 15, which is shown as being somewhat narrower than is the aforementioned panel 14, then by a wide panel 16, thence by another uninterrupted panel 17, which is of the same size as panel 15, panel 18, which is substantially the same size as above-mentioned panel 14, and narrow end panel 19, which, as has been indicated above is a narrow panel of approximately the same size as the leading narrow end panel 12.

The panel 18, which as has been stated is similar in size to panel 14, is provided likewise with a row of beverage can-receiving openings 23, which are similar to the above-mentioned openings 20, and which in a manner similar to openings 20, preferably are provided with peripheral radial slits 24, which are similar in spacing and length to the above mentioned slits 22, and perform like functions, as will be pointed out hereinafter. This panel 18 is followed in sequence by end panel 19, which is substantially of the same narrow width as is the opposite leading end panel 12. The blank A being a flat sheet which is rectilinear in shape the opposite ends 1 and 2 are parallel and of equal length, and the front and rear edges 3 and 4 of the blank A are parallel to each other and are of equal length, and define right angles with respect to the ends 1 and 2. The fold lines 5, 6, 7, 8, 9, 10, and 11, which define the aforesaid panels or sections, likewise are parallel and extend completely across the blank transversely to the longitudinal axis of the rectilinear blank.

In making the carrying container or carton B from the aforesaid one-piece blank A, the panel or section 16 which is shown as being substantially wider than are the panels 15 and 17 on either side thereof, is centrally cut out in positions 25 and 26, which are spaced apart so

as to leave a central web 27, which is to serve as the carrying member, the resulting cut out tongue members being folded inwardly to provide spaces 27' on each side of central web 27 sufficiently large to permit insertion of a carrier's hand for enabling grasping the central web 27. The panel sections 14 and 18 are cut suitably to provide the beverage container receiving openings 20 and 23, respectively. For a six-pack carrying carton or container each panel 14 and 18 is provided with a row of three such openings or holes, which are spaced equally and which are parallel to each other. Each of these openings has a normally smaller diameter than the conventionally sized containers or cans to be carried, and the periphery of each of the openings is provided with the spaced radial slits 22 and 24, all of which preferably are of equal number, are of equal length, and are spaced equally thereby defining equal intermediate deformable tabs 28, which are adapted to engage the rim of a beverage-containing can on the under surface of the top rim for securing such can inserted in an opening from slipping out of the opening while the pack of cans is being carried.

The carrying container or carton B is completed from the blank A by folding the blank inwardly at right angles along the respective fold lines beginning with end fold line 5 and terminating with the final end fold line 11, thus producing the completed carrying carton as shown in FIGS. 2, 3, and 4, in which panel 13 becomes a median web panel dividing the carton B into two equal container-receiving sections, namely, a right hand section C and a left hand section D, of which panel 17 becomes an outer sidewall of section C and panel 15 becomes the outer sidewall of section D. Panels 14 and 18 which are the receptacle-receiving panels assume contiguous positions in a level horizontal plane, and the narrow end panels 12 and 19 form upper and lower reinforcing webs for the web panel 13, and are secured suitably thereto, as by stapling, as is indicated at 30, this provision acting to assist in rigidifying the carton structure. Cut-out portions 25 and 26, which are folded at approximately right angles to the panel 16 along the parallel sides of the carrying web 27 facilitate grasping the web for carrying purposes.

When the carton is loaded preparatory to its being carried, it is inverted with respect to its carrying position, and the beverage containers 21 are placed in the container-receiving openings 20, which depresses the peripheral tabs 28, as is indicated by FIG. 2. The carton is substantially open in its bottom when in carrying position, except for the panels 14 and 18, as will be apparent from FIGS. 3 and 4 of the drawings. The wide panel 16 which provides the carrying web 27 forms the top of the carton when in the carrying position. When the carton is picked up for carrying, the beverage cans 21 slide through the openings 20 in the panels 14 and 18, which now are bottom panels for the carton until the peripheral rims 29 of the cans engage and are held by the peripheral tabs 28, which become deformed by movement of the cans and support the latter in a secure manner, so that the cans depend from the carton as shown on FIGS. 3 and 4 of the drawings, there being provided thereby completely safe carrying of the cans.

While the foregoing description and the accompanying drawings illustrate the beverage containers as being cans of the type conventionally employed for containing a beverage such as beer, it will be apparent that the present construction may be made suitable with only minor changes for carrying an assembly of containers of conventional shape other than cans; also, the present carton may be made suitable with only minor changes, for receiving and carrying safely containers having a shape other than cylindrical. It will be apparent also from the foregoing description and the accompanying drawings that the present carrying carton embodies the minimum of material that is requisite for structural stability, there being provided a throughly rigid carton for adequately sustaining, without appreciable deformation the weight of the aggregate of beverage-filled containers (cans) which the carton is designed to receive. It will be apparent also from the drawings that while the illustrated embodiment is for a "six-pack" carrying carton, the specific number of cans which may be carried by the carton may be varied as may be desired, so that it will become apparent that structure of the carton may be varied as may be required in conformity with service conditions and circumstances without departing from the concept of the invention; and, therefore, it will be understood that it is intended and desired to include within the scope of the invention such modifications and changes as may be necessary or desired to adapt the invention to varying conditions and uses, as defined by the appended claims.

Having thus described the invention, what I desire protected by Letters Patent is as set forth in the following claims.

I claim:

1. In combination, a plurality of cans of uniform diameter each having a chime end, and a carton normally retaining the cans chime end down in a stable storage position, said carton having a substantialy smaller vertical dimension than said cans and comprising a lower wall seating the chime ends of the cans and an upper wall having openings for holding the cans intermediate their ends, and means on said upper wall surrounding said openings adatped to engage the chimes of said cans upon inversion of the carton whereby when the carton is turned from a normal stacking position to an inverted carrying position said cans will slide in the openings until engaged by said means for support of the cans while the carton is carried.

2. The combination according to claim 1 wherein said means on said openings comprise a series of spaced radially extending peripheral slits defining a series of tabs.

3. The combination according to claim 2 wherein said carton is additionally provided with hand grasp apertures in said lower wall.

4. A carton adatped for stacking chimed cylindrical containers in an upright position and for carrying such containers in an inverted position, comprising a rectangular open ended tube of sheet material having planar and parallel top and bottom walls, at least two parallel rows of container receiving circular openings formed in said top wall, each opening being of a diameter substantially equal to the height of said carton, each of said openings being surrounded by radially extending slits spaced apart and of equal length to define a series of chime engageable tabs bendable inwardly of the carton upon such engagement, said bottom wall being substantially imperforate except for a pair of finger receiving apertures centrally positioned for carrying the carton in inverted condition, and a medial reenforcing partition secured to the bottom and top walls and positioned between said rows of container receiving openings and between said finger receiving apertures.

5. A carton according to claim 4 wherein said finger receiving apertures are separated by a web having integral stiffening means formed thereon extending inwardly of the carton.

References Cited in the file of this patent

UNITED STATES PATENTS

2,227,780	Hickman et al.	Jan. 7, 1941
2,331,038	Meller	Oct. 5, 1943
2,737,326	Toensmeier	Mar. 6, 1956
2,823,062	Toensmeier	Feb. 11, 1958
2,823,064	Toensmeier	Feb. 11, 1958
2,828,047	Weiselberg	Mar. 25, 1958
2,832,504	Foster	Apr. 29, 1958
2,839,235	Chidsey	June 17, 1958
2,874,835	Poupitch	Feb. 24, 1959
2,899,051	Barnby	Aug. 11, 1959