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H. K. POWELL

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BOTTLE HOLDER

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Fig. 1

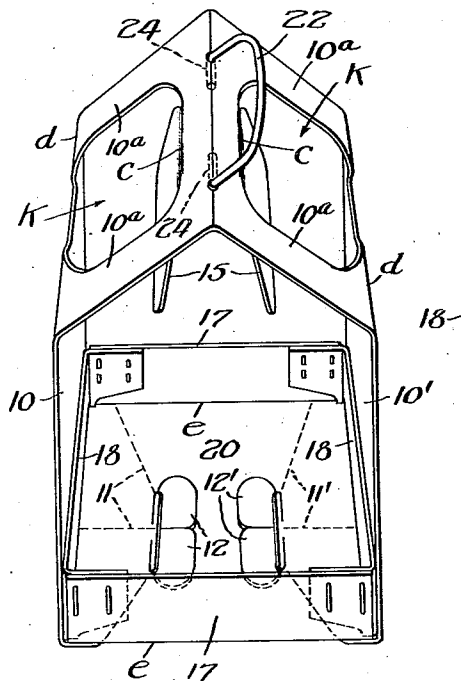


Fig. 2

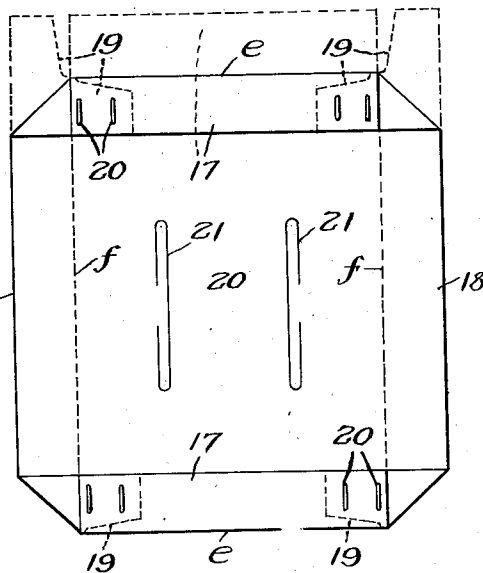
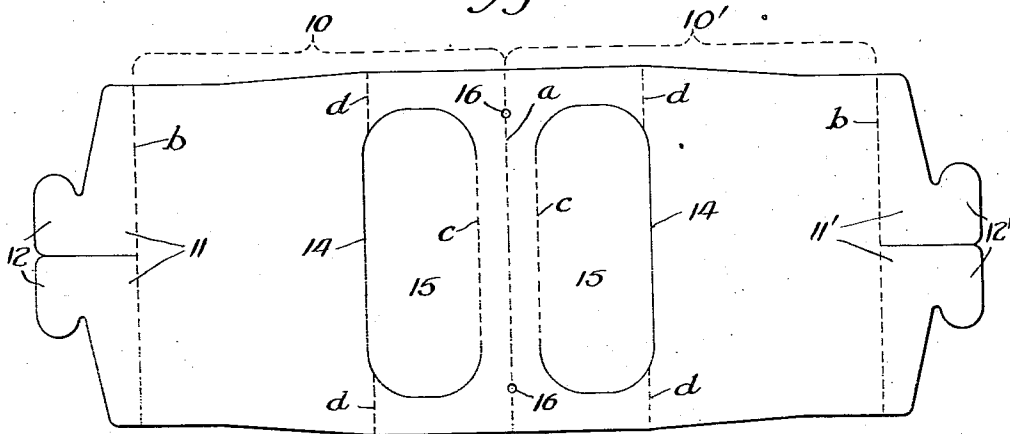


Fig. 3



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## UNITED STATES PATENT OFFICE

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## BOTTLE HOLDER

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12 Claims. (Cl. 229—52)

This invention relates to containers of the sort particularly adapted for the packaging of a plurality of bottles, or similar articles, in a manner such that they are securely retained and may be carried with convenience.

A general object of the present invention is the provision of such a container which may be fabricated from a suitable sheet stock, such as paper board, in a manner such that it may be supplied to users at a very low price, and which may be shipped in a flat or collapsed condition, so that it will occupy but little space in shipment or storage, and may be set up at the point of use by the user very quickly and easily and without requiring special apparatus or additional fastenings.

Another object is the provision of such a device which may be filled with bottles or the like very easily, and which will retain them very securely against falling out, yet will permit removal of one or more of them, when desired, without involving any mutilation, unfolding or taking apart of the container in any particular.

Other and further objects of the invention will be pointed out or indicated hereinafter, or will be apparent to one skilled in the art upon an understanding of the present specification or actual use of the device.

For the purpose of aiding in an explanation of the invention, I show in the accompanying drawing forming a part of this specification, and hereinafter describe, one form in which it may be embodied. It is to be understood, however, that this is presented merely for purpose of illustration and hence is not to be construed in any fashion for the purpose of limiting the appended claims short of the true and most comprehensive scope of the invention in the art.

In said drawing,

Fig. 1 is a perspective view of a container embodying the present invention, showing the same in its set-up condition, and as viewed from a position slightly above one end thereof;

Fig. 2 is a top or plan view of the bottom or tray portion of the device, showing it in its flattened or collapsed condition; and

Fig. 3 is a plan view of the body blank showing it in its flat, collapsed, or laid-out condition.

An understanding of the invention will be had most quickly from a description of this illustrative embodiment, which is as follows.

The device comprises a body portion which may be blanked from a sheet of cardboard in the form shown in Fig. 3, and a bottom or tray portion which is shown in a folded or flattened form in

Fig. 2, and which may be likewise formed from paper board having the proper strength and stiffness. The body member is apportioned by a top crease line *a* in two symmetrical portions comprising side panels 10 and 10' which, at their outer or lower ends, are provided with collaterally disposed flap extensions 11 and 11', which terminate as locking hooks 12 and 12'. Creases *b* demark lines on which the flaps 11 and 11' may be flexed relative to the panels. At opposite sides of the crest crease *a*, the panels are slotted along lines 14, and creased along lines *c* to form a pair of flaps 15 which are flexible toward each other on the crease lines *c*, to provide apertures through the upper portions of the panels. On the crest crease line *a*, the panels are provided with handle apertures 16, and, adjacent the outer or lower portions of the slots 14, with transverse crease lines *d*. The material of which the body is thus formed is of sufficient strength and stiffness to carry the intended weight, and to hold its shape, but sufficiently flexible to be bent for purposes herein-after explained.

The bottom or tray member, which is shown in Fig. 2, is likewise formed from a sheet of paper board or the like, and is of generally rectangular form and provided with end fold creases *e*, to form inwardly flexible end strips 17, and with side fold creases *f* to form side strips 18 which terminate in tongues 19. Said tongues are turned inwardly and are secured to the end strips 17 by suitable means such as staples 23, thus providing a continuous rim adapted to occupy an upstanding position along the margins of the bottom panel 20. The panel 20 is formed with slots 21 which are of a length less than the over-all length of the collaterally disposed hooks 12 and 12', but sufficient to span or accommodate the restricted neck portions of the collaterally disposed hooks.

A handle is provided, which may be of the form shown in Fig. 1, comprising a stiff wire bent to provide a bail portion 22 which terminates at aligned inwardly extending journal portions 24. The outer ends of said journal portions are spaced from each other approximately the same distance as are the handle apertures 16 of the body member, the inner ends of said journal members being considerably closer to each other than are the handle apertures.

The device is designed and proportioned in reference to the bottles or other articles which are to be packaged in it. In the embodiment shown in the drawing, the device is designed to hold six bottles arranged in two rows of three each. Hence, the bottom panel 20 is approximately

twice the width of one of the bottles, and has a length three times the diameter of the bottle bottom. The body member likewise is designed so that the side panels are of a height such that when the device is set up, the bottles may be inserted through the apertures K to positions where they stand upright on the bottom panel, in which positions the upper or neck portions of the bottles project through said apertures.

The device is packaged and shipped in its knocked-down condition, the body members, in their flat form illustrated in Fig. 3, being arranged in stacks one upon another, and the bottom members being stacked in the collapsed or flattened form shown in Fig. 2, wherein the end strips 17 are folded inwardly onto the bottom panel and the side strips 18 are flexed outwardly. The handles 22 are shipped in suitable containers.

In order to assemble the device, the user, taking the body member in its flat form shown in Fig. 3, first flexes or bows it transversely, so that it assumes an arched form wherein the handle apertures 16 are close enough to each other to permit insertion of first one of the journal portions 24 of the handle, and then the other, through the respective handle apertures 16. The body member then being released from the flexing pressure, it springs back to the flat form, thus locking the handle to it. The panels 10 and 10' are then flexed toward each other along the crest crease line 8, in the direction away from the handle bail, and the flaps 11 and 11' are flexed inwardly along the crease lines b. One of the bottom members is then set up by drawing the end strips 17 outwardly to perpendicular relationship with the bottom panel 20, which serves to swing the side strips 18 inwardly to such perpendicular relationship. The side panels are then placed in embracing relationship with the bottom or tray member, so that they rest against the outer sides of the side strips 18, and the flaps 11 and 11' folded inwardly against the lower surface of the bottom panel 20, and hooks of the respective pairs 12 and 12' are overlapped upon each other sufficiently to permit them to be introduced through the respective slots 21 until the neck or notched portions of the hooks pass through the slots, whereupon the hooks are allowed to move back into collateral relationship, where those of the respective pairs abut each other, thus holding the noses of the hooks in interlocking engagement with the bottom panel at the ends of the slots 21.

When the parts are in this position, the side panels 10 and 10' extend upwardly from the marginal portions of the bottom panel 20 and in engagement with the outer sides of the strips 18, thus holding the strips 18 and 17 in their upstanding positions, said strips of the bottom member cooperating with the lower portions of the side panels to brace them against collapsing or swinging inwardly.

The bottles are inserted into the set-up container through the bottle apertures K, the first two bottles inserted in each of said apertures being moved to the respective ends thereof, and the third bottle being inserted between them. When so inserted, the neck portions of the bottles remain projecting upwardly through the apertures K, the portions 10a at the ends of said apertures abutting the outer bottles of the rows and holding them against toppling over. The end strips 17 form abutments for preventing the bottles sliding off the ends of the bottom panel. Incident to the insertion of the bottles, the flaps 15 are swung downwardly and inwardly and form separators between the upper portions of the bot-

ties in the opposite rows and also form stiffening struts which stay the upper portions of the side panels between the apertures K against buckling under the weight of the contents when the device is supported by the handle bail 22.

The bottles may be removed from the device without mutilating it or taking it apart, simply by withdrawing the intermediate bottle of any row upwardly through the aperture K, then moving one of the terminal bottles of the row inwardly until it clears the strip 10a, whereupon it also may be removed upwardly. After all of the bottles are removed, the device still retains its set-up condition, ready to receive them again when they are empty.

When the loaded container is carried by the handle, the side panels are drawn toward each other, which clasps the bottles firmly against one another and holds them against rattling. The sharp bend of the side panels around the lateral corners of the tray member, plus the fact that the bottom panel is held down closely against the flaps 11 and 11', avoids the transmission of any great outward tension stresses against the necks or nose portions of the hooks 12 and 12'. The cooperating relationship of the bottom panel and said flaps also has the effect of materially stiffening the bottom structure, the end strips 17 also serving in that respect to stay the bottom structure against bowing or sagging under the weight of the bottles.

This container has additional advantage in the fact that it does not materially increase the overall dimensions of the group of bottles which it contains. Hence, for packaging a plurality of these containers, with their contents, they may be packed in the same size handling trays or crates or cases that are normally used for the bottles themselves, the gross packages thus being put up in this fashion by the bottlers so that the retailers do not have to concern themselves with making up the individual packages of a half dozen bottles. The handle is so proportioned that it may be moved to a position where it is below the tops of the bottles in the package so that a similar package or packages may be supported on the tops of the bottles when it is desired to stack the packages.

I claim:

1. A container for the packaging of bottles or the like comprising a collapsible body member of sheet material formed with oppositely disposed side panels which are connected at their upper ends and constitute the side walls of the assembled container, and a separate bottom member disposed between the lower portions of the side panels, the side panels having lower portions folded inwardly below the bottom member to serve as supports therefor, said bottom member and the lower portions of said side panels being formed with interlocking parts whereby they are connected, and a handle being provided at the upper end of the body member whereby the device may be carried with the bottom in approximately horizontal position.

2. A container as specified in claim 1 and wherein the bottom member is provided with upstanding retainer strips along its ends intermediate the side panels.

3. A container as specified in claim 1 and wherein the side panels extend upwardly from opposite side margins of the bottom member and have flaps folded inwardly against the lower surface of the bottom member and interlocked therewith by means of said interlocking parts.

4. A container as specified in claim 1 and wherein the bottom member is formed of sheet material and has upstanding strips along its end and side margins, said strips being foldable downwardly to flatten the bottom member when it is disconnected from the body member.

5. A container as specified in claim 1 and wherein the bottom member is formed of sheet material and has strips flexibly connected to it and to one another to form an upstanding rim along its end and side margins, and the side panels embrace the outer sides of the side strips when the container is in set-up condition.

6. A container as specified in claim 1 and wherein the bottom member is formed of sheet material and has inwardly foldable upstanding strips along its end margins and outwardly foldable upstanding strips along its side margins, said strips being connected to one another at their ends to form a continuous rim and being foldable downwardly to flat condition when the bottom member is detached from the body member, and the side panels abut the outer surfaces of the side strips when the container is in set-up condition and thereby maintain all of the strips in upstanding positions.

7. A container as specified in claim 1 and including also abutment members retained by the side panels in position at the ends of the bottom to retain the bottles against sliding off the latter.

8. A container for the packaging of bottles or the like comprising a body member of sheet material formed with oppositely disposed side panels which are connected at their upper ends and constitute the side walls of the assembled container, and a separate bottom member disposed between the lower portions of the side panels and spaced a substantial distance below their connection, lower portions of said side panels being folded inwardly below the bottom member and being formed with parts interlocking with the bottom member to secure it to the body member, the side panels being provided with apertures in their upper portions through which bottles may be inserted to and withdrawn from

positions where they stand upright on the bottom member between the side panels, and a handle being provided at the upper end of the body member whereby the assembled device may be carried with the bottom in approximately horizontal position.

9. A container as specified in claim 8 and wherein the width of the bottom member is adequate to accommodate a plurality of bottles standing thereon in a row and the length of the bottom member is adequate to accommodate a plurality of bottles standing thereon in a row.

10. A container for packaging a plurality of bottles or the like comprising a body member formed of paper board and having a pair of side panels which are flexibly connected to each other at one end and foldable to a flat form when in knocked-down condition, and a separate bottom member formed of sheet material and having side strips along its side margins and end strips along its end margins, said strips being connected to one another at their ends and adapted to occupy upstanding positions at said margins when the container is set up, said end strips adapted to be folded inwardly and the side strips adapted to be folded outwardly to permit the bottom member to be stacked in flat condition, said side panels having portions foldable under the bottom member and formed with parts adapted to be interlocked therewith to connect the side panels to the bottom member in positions where said side panels extend upwardly along the outer sides of the side strips and retain all the strips in upstanding positions.

11. A container as specified in claim 10 and including also a handle at the upper end of the body member whereby the assembled container may be carried with the bottom supported in horizontal position by the side panels.

12. A container as specified in claim 10 and wherein the end strips form upstanding abutments at end portions of the bottom member in position to engage bottles standing thereon in the set-up container.

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