Oct. 8, 1940. H. K. POWELL 2,217,028

BOTTLE HOLDER

Filed Nov. 4, 1937 2 Sheets-Sheet 1

Fig. 1.

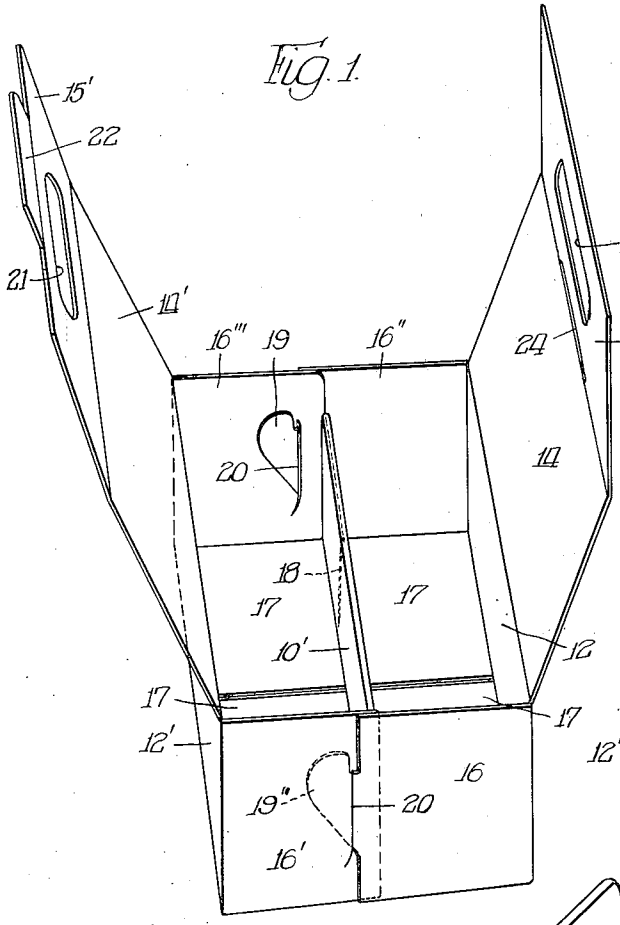


Fig. 2.

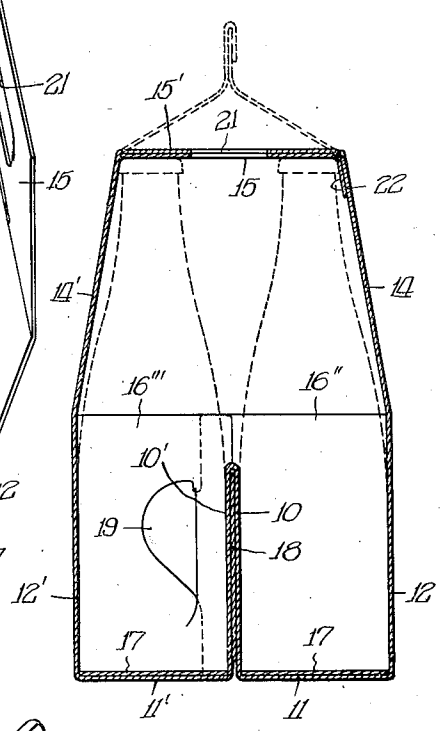
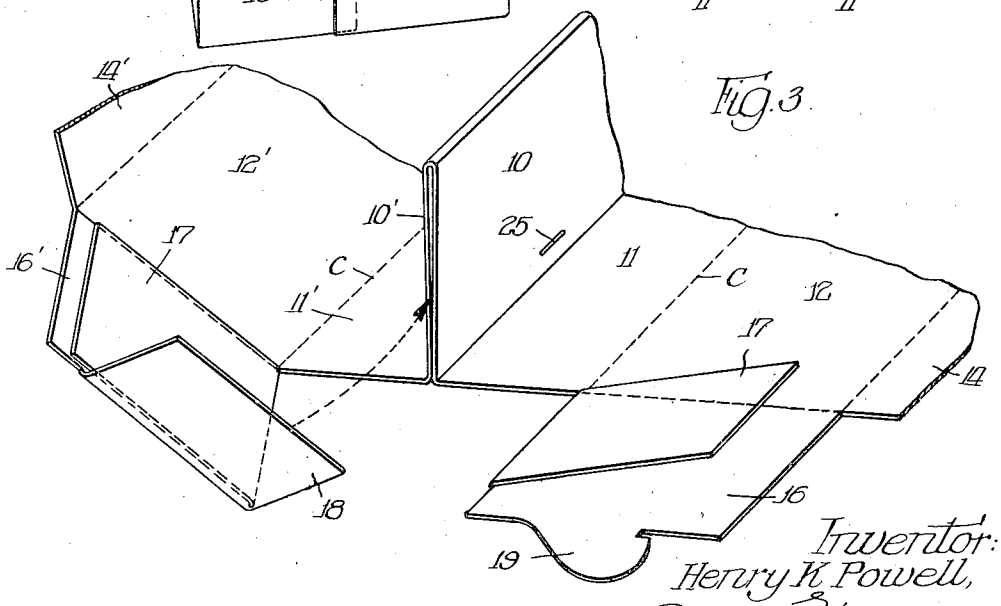


Fig. 3.

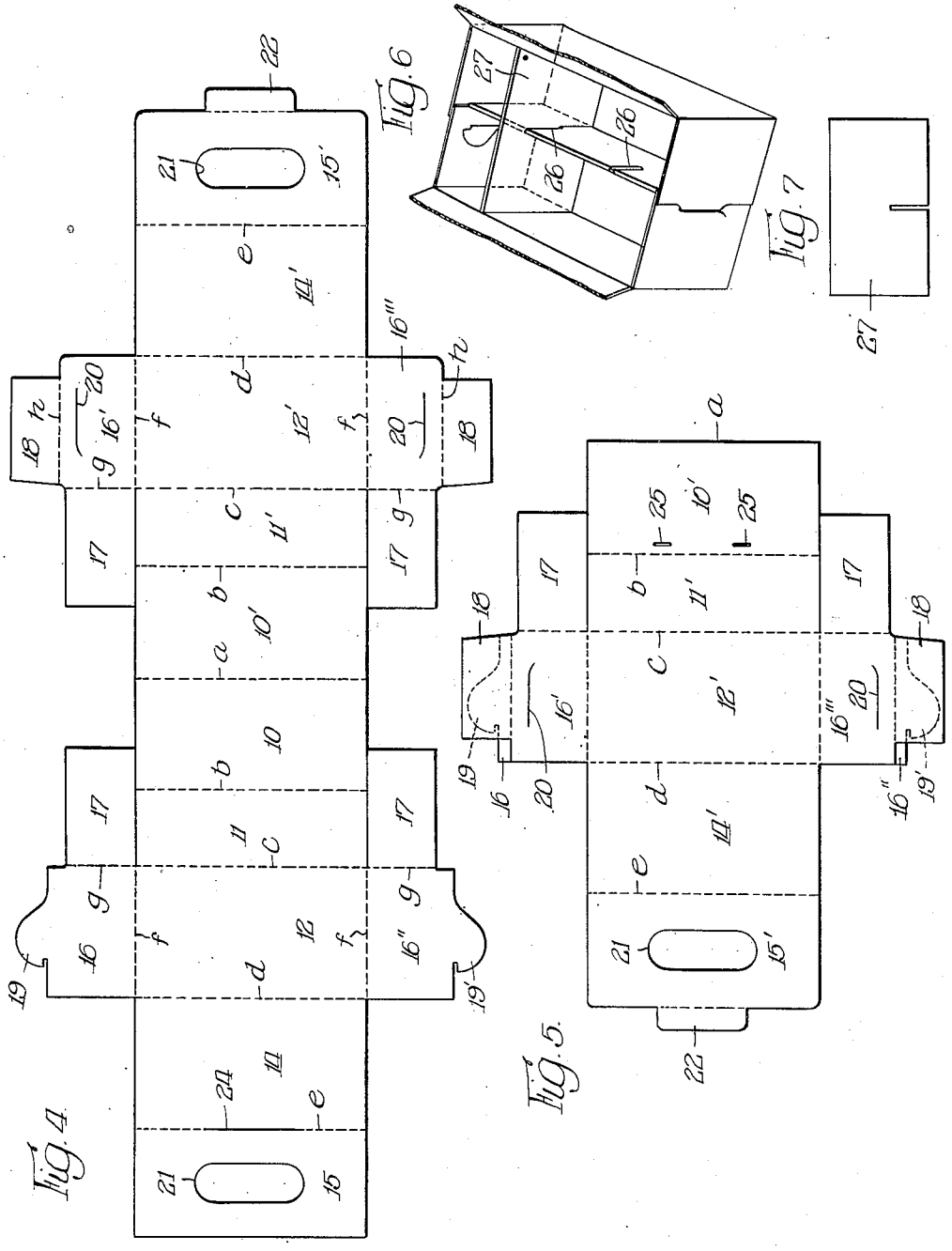


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BOTTLE HOLDER

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UNITED STATES PATENT OFFICE

2,217,028

BOTTLE HOLDER

Henry K. Powell, Chicago, Ill.

Application November 4, 1937, Serial No. 172,684

13 Claims. (Cl. 229—27)

This invention relates to holders or containers for the packaging of a plurality of bottles or similar articles in a manner to facilitate their being carried.

A general object of the invention is the provision of such a holder or container which can be fabricated economically from paper board or similar sheet material and which is of such character that it may be packaged, for shipment or storage, in a flat knocked-down condition, and may be set up by the user at the point of use, without the necessity for special apparatus or additional fastenings, into a form in which it constitutes a stable and sufficiently strong container for the packaging and transportation of a plurality of bottles or the like.

Another object is the provision of such a holder or container which, in its set-up condition, retains its form as a receptacle, even though empty or only partially filled, and hence forms a convenient repository for the bottles when they are empty.

Another object is the provision of such a holder or container which is particularly adapted for reuse, as for returning the empty bottles and for the packaging of additional groups of bottles.

Other and further objects will be pointed out or indicated hereinafter, or will be apparent from the following description.

For the purpose of aiding in an explanation of the invention, I disclose in the drawings forming a part of this specification, and hereinafter describe, certain embodiments of it. It is to be understood, however, that these are presented merely by way of illustration and are 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 drawings:

Fig. 1 is a perspective view of a container or holder embodying the invention, the same being shown in its set-up condition, but with some of the parts deflected out of their normal positions;

Fig. 2 is a transverse section of the same, showing the parts in normal relationship for forming a package;

Fig. 3 is a detail, showing in perspective various portions of the container in positions which they are caused to assume in the process of setting up the container;

Fig. 4 is a plan view of the blank of which the container is formed;

Fig. 5 is a plan view showing the container in its knocked-down condition;

Fig. 6 is a perspective view of the lower portion of the container modified for use of cross-partitions; and

Fig. 7 is a view of one of the cross-partitions.

Referring first to Fig. 4, it will be understood that the illustration represents a blank cut from a sheet of paper board or the like, same being slotted and creased to form a pair of partition panels 10 and 10' which are conjoined along the folding crease *a*, a pair of bottom panels 11 and 11' which are conjoined with the panels 10 and 10' respectively along crease lines *b*, and a pair of side panels 12 and 12' which are conjoined with panels 11 and 11' respectively along crease lines *c*, said side panels 12 and 12' having extension sections 14 and 14' which are conjoined to top panels 15 and 15' along crease lines *e*. Conjoined to the ends of side panel 12, along crease lines *f*, are end panels 16 and 16'' which respectively have extension tabs 17 conjoined to them along crease lines *g*. Side panel 12' likewise has end panels 16' and 16''' conjoined to its end along crease lines *f* which end panels have extension tabs 17 conjoined to them respectively. At their outer ends, panels 16' and 16''' have anchoring tabs 18 conjoined to them along crease lines *h*. Panels 16 and 16'' have locking hooks 19 at their outer ends, and panels 16' and 16''' are provided with slots 20 adapted to receive said locking hooks.

Top sections 15 and 15' are provided with apertures 21 in corresponding locations, section 15' is provided at its end margin with a tongue 22, and a slot 24 is provided at the margin of section 15 for receiving said tongue. Panels 10 and 10' are of like width, panels 11 and 11' are of like width, and panels 12 and 12' are of like width.

The blank so formed is folded on crease line *a* so that the panels to one side of said line are laid flat upon the corresponding panels to the other side thereof, and the panels 10 and 10' are fastened together adjacent crease lines *b* by staples 25 or the like. The container is thus completed in its knocked-down or flat condition, in which it may be stacked with others of like form for packaging and shipment.

The container is adapted to be set up from this knocked-down form by the user at the point of use. To accomplish the setting-up, the panels 11 and 11' are flexed outwardly into approximately right-angle relationship with panels 10 and 10', as seen in Fig. 3. Then one of the extension tabs 17 is bent upwardly against its conjoined panel 16' or 16''', its anchoring tab 18 is flexed upwardly along crease line *h*, and the side

panel is bent upwardly and the anchoring tongue 18 is slipped between the adjacent end portions of panels 10 and 10' and pressed home until the conjoined end panel is against the adjacent end of the bottom panel 11'. Then the extension tab 17 is flexed downwardly until it lies flat on said bottom panel. This procedure is then repeated with the corresponding end panel 16' or 16'''. Then the extension tabs 17 of the end panels 16 and 16'' are flexed over against said end panels, side section is flexed upwardly along crease line c, and hooks 19 are engaged in slots 20, whereupon the extension tabs 17 are flexed down flat against bottom panel 11.

The container, as so set up, forms a box-like receptacle which is closed at its bottom, sides and ends but open at its top, and subdivided longitudinally by partition panels 10 and 10' into two compartments. Bottles or other articles may be placed in these compartments so that they stand on the inner bottom formed by the tabs 17. The side sections 14 and 14' extend upwardly from the upper margins of the side panels and constitute side walls for protection of the upper portions of the bottles. To close the top of the container, the top section 15 is flexed inwardly on top of the bottles, the section 15' flexed inwardly onto the section 15, and the tongue 22 inserted through the slot 24, thus securing the top sections in that relationship. This brings the apertures 21 into registry so that they afford an opening for insertion of the fingers through the top of the container, to facilitate its being handled. This flat top of the container is supported on the bottles, and permits a number of the packages so formed to be stacked one upon another. To facilitate the carrying of the package by the hand, the top sections may be flexed upwardly into collateral relationship, as illustrated in dotted lines in Fig. 2, and the tongue 22 bent over the upper margin of section 15. This brings the apertures 21 opposite each other, so that the top sections thus form a handle whereby the package may be carried.

It will be observed that when the container is in its set-up condition, the engagement of the anchoring tongues 18 between the sections 10 and 10' forms a support for the partition and prevents the bottom of the receptacle from flexing downwardly. The extension tabs 17 hold the end panels 16 and 16'' against flexing downwardly, and thus prevent the hooks 19 being disengaged from the panels 16' and 16''' and likewise support said end panels 16' and 16''' against tilting inwardly and downwardly. The engagement of the extension tabs 17 between the outer walls 12 and 12' and panels 10 and 10' braces the end panels against flexing outwardly, and the stiff partition formed by the panels 10 and 10' holds them against flexing inwardly.

As a consequence, the receptacle is very stable, so that it does not collapse or fall apart when empty, or collapse or become distorted when supporting its contents of a contemplated weight. Accordingly, it forms a convenient receptacle for empty bottles in the household of the consumer, and inasmuch as it does not have to be mutilated in any fashion in order to remove the contents, it remains available for re-use in returning the empty bottles to the dealer, and for further use by him in the packaging of others.

If it is desired to subdivide the container compartments by cross-partitions for the purpose of keeping the bottles out of contact with one another, the construction may be modified as illustrated in Fig. 6. Here the partition panels 10, 10' are slotted downwardly from their upper margins for a portion of their height, as at 26, and slotted cross-partitions 27 are provided, same preferably being of length sufficient to span the space between the side panels 12, 12'. When these cross-partitions are engaged in the slots 26, they and the partition panels 10, 10' subdivide the container into cellular compartments, and the cross-partitions perform further functions as additional means for holding the partition panels 10, 10' together and bracing the side panels 12, 12' against flexing inwardly.

It is recognized that various other changes in the details of the container or the blank from which it is formed may be made without departing from the scope of the invention. For example, panel 16 may be transposed with panel 16''' so that each of panels 12 and 12' will have a hook-carrying panel at one end and a slotted panel at the other. The width of panels 10 and 10' may be changed so that the height of the partition relative to the end walls may be greater or less than that shown in the drawing. The two halves of the blank may be formed separate, i. e., as divided along the line a, and secured together by staples along that margin after being positioned one upon the other. All of such modifications are contemplated within the scope of the appended claims.

What I claim is:

1. A knocked-down container for the packaging of bottles or the like comprising a blank of sheet material formed and creased to provide symmetrically arranged partition panels, bottom panels conjoined respectively to a margin of respective partition panels, side panels conjoined respectively to a margin of respective bottom panels, and end panels conjoined respectively to the respective ends of the side panels, the partition panels being disposed in coinciding relationship one upon the other and being secured together adjacent their side margins, the bottom panels being flexible into right-angular relationship to the partition panels and the side panels being flexible to upstanding positions parallel with the partition panels and being provided at their upper ends with a handle whereby the container may be carried, the end panels being flexible to upstanding positions at right angles to the side panels and being provided with means whereby those at corresponding ends of the side panels may be interlocked with each other to hold the side panels against swinging outwardly.

2. A container as specified in claim 1 and wherein an end panel at each end of the partition panels is provided with an anchoring tongue in position to be inserted between the conjoined partition panels.

3. A container as specified in claim 1 and wherein the end panels are provided at their margins adjacent the bottom panels with extension flaps which are flexible into overlying relationship with the bottom panels.

4. A container as specified in claim 1 and wherein an end panel at each end of the partition panels is provided with an anchoring tongue insertable between the partition panels, and the end panels are provided on their margins adjacent the bottom panels with extension flaps flexible into overlying relationship with the bottom panels.

5. A container as specified in claim 1 and wherein the side sections are of greater height

than the partition panels and the handle is spaced a substantial distance above the latter.

6. A container for the packaging of bottles or the like comprising bottom panels disposed side-by-side, partition panels conjoined to the adjacent inner margins of the bottom panels and extending upwardly therefrom, said partition panels being disposed face-to-face and being connected to each other adjacent their upper and lower margins, side panels conjoined to the outer side margins of the bottom panels and extending upwardly therefrom, end panels conjoined respectively with end margins of the respective side panels and extending inwardly therefrom along the end margins of the bottom panels, the end panels at respective ends of the bottom panels being connected to each other to retain the end and side panels in upstanding position, and one of the end panels at each end of the partition panels being provided with an anchoring tongue inserted between the partition panels.

7. A container as specified in claim 6 and wherein the end panels are conjoined at their lower margins to extension flaps which rest on the upper surfaces of the bottom panels.

8. A container as specified in claim 6 and wherein the end panels are provided at their lower margins with extension flaps which are of approximately the same width as the bottom panels and are disposed on the upper surfaces thereof.

9. A container as specified in claim 6 and wherein the side panels have sections extending upwardly beyond the tops of the end panels, said sections being provided with a handle at their upper ends.

10. A container as specified in claim 6 and wherein the side panels have sections extending upwardly beyond the tops of the end panels, said sections being creased to form inwardly flexible top panels at their upper ends.

11. A container of the sort described comprising partition panels disposed face-to-face in upstanding position and secured to each other adjacent their upper and lower margins, bottom panels conjoined to and extending outwardly and oppositely from the lower margins of the partition panels, side panels conjoined to and extending upwardly from the outer margins of the bottom panels to a height materially greater than that of the partition panels, said side panels being provided at their upper extremities with a handle whereby the container may be carried, and end panels conjoined to the end margins of the side panels and extending inwardly therefrom along the end margins of the bottom panels, said end panels having anchoring connection with the partition panels to prevent downward displacement of the latter.

12. A container as specified in claim 11 and wherein at least some of the end panels have portions overlying the bottom panels in position to prevent upward displacement thereof.

13. A container of the sort described, comprising partition panels disposed face-to-face in upstanding position and conjoined to each other, bottom panels conjoined to and extending outwardly and oppositely from the lower margins of the partition panels, side panels conjoined to and extending upwardly from the outer margins of the bottom panels and provided with a handle at their upper ends, and cross-partitions slotted to straddle and clasp portions of the partition panels to brace them against spreading apart, said cross-partitions extending transversely of the container above the bottom panels.

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