June 2, 1942. H. K. POWELL 2,284,682

BOTTLE HOLDER

Filed Aug. 4, 1938 3 Sheets-Sheet 1

Fig. 1.

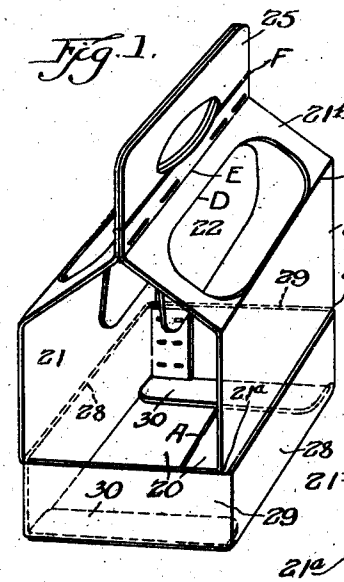


Fig. 2.

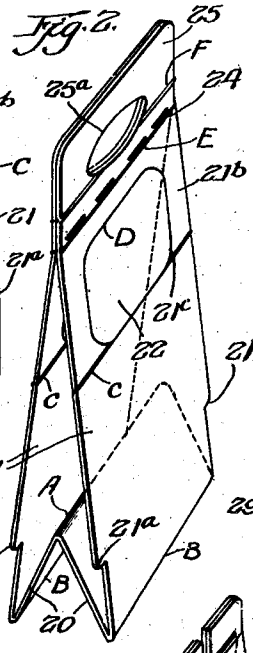


Fig. 3.

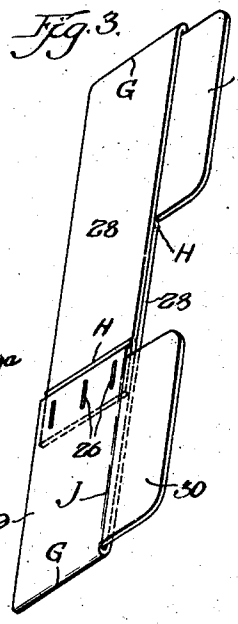


Fig. 4.

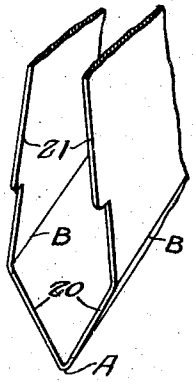


Fig. 5.

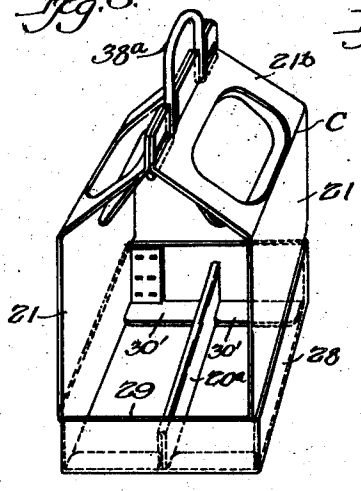


Fig. 6.

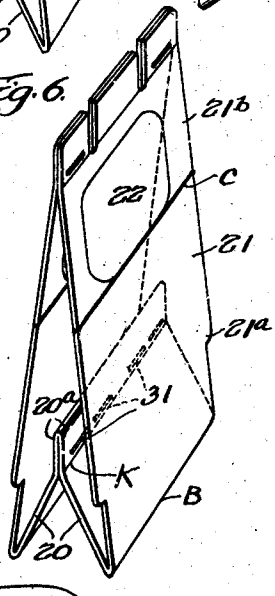


Fig. 7

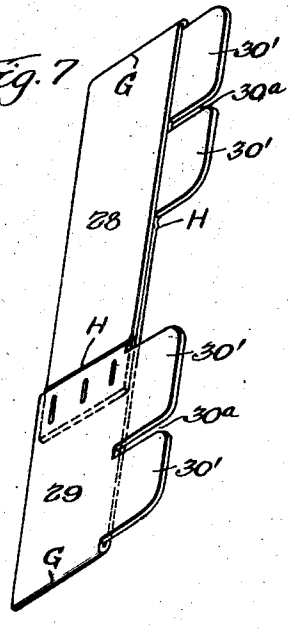
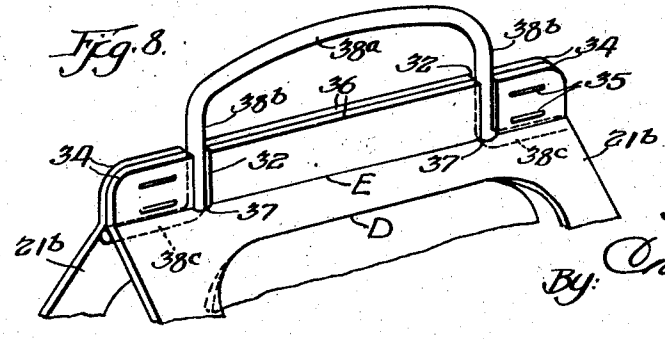


Fig. 8.



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BOTTLE HOLDER

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Fig. 9.

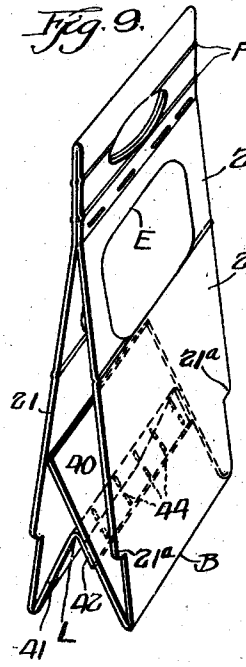


Fig. 10.

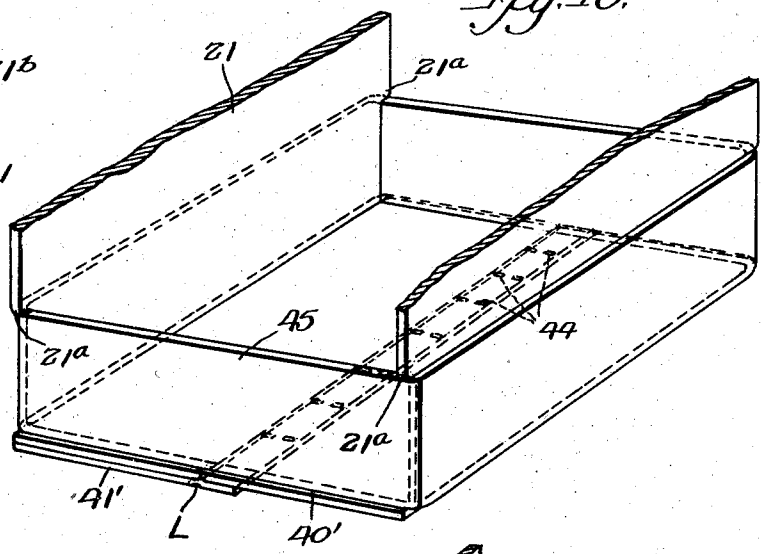


Fig. 11.

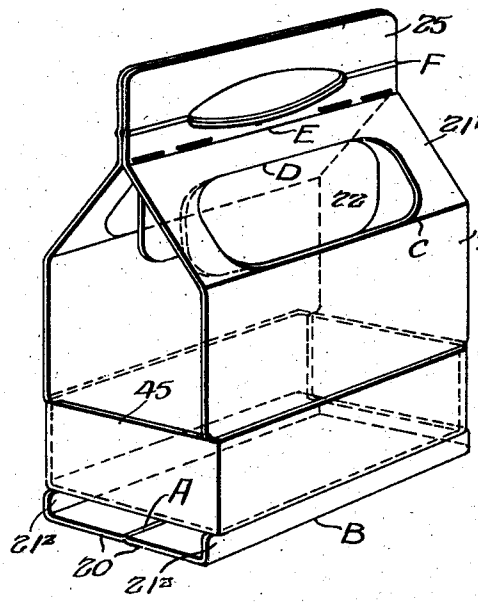
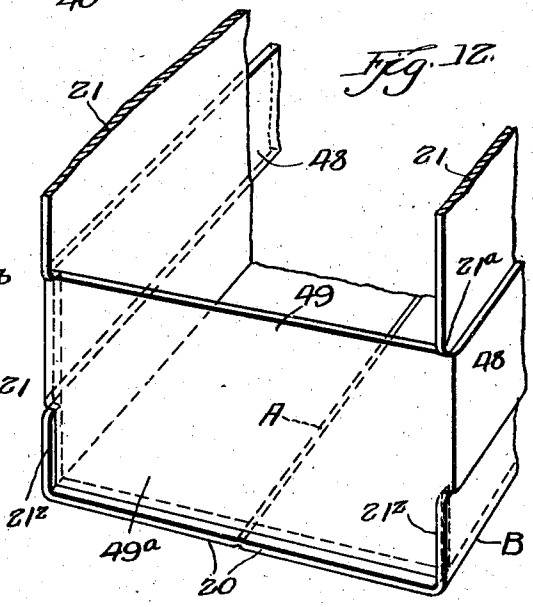


Fig. 12.



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BOTTLE HOLDER

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Fig. 13.

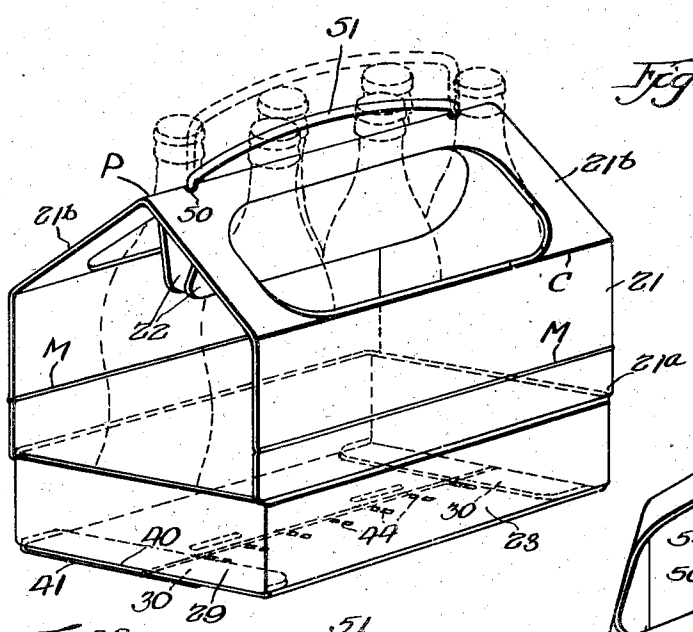


Fig. 16.

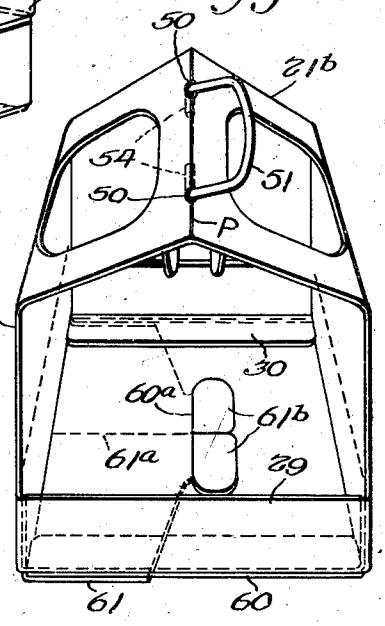


Fig. 14.

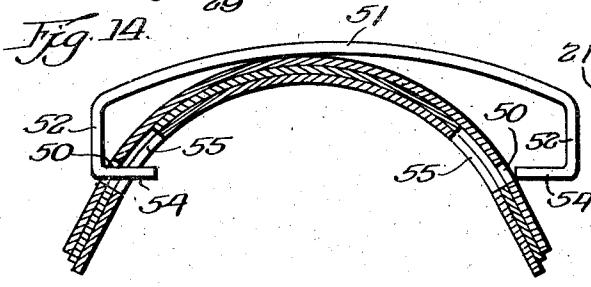
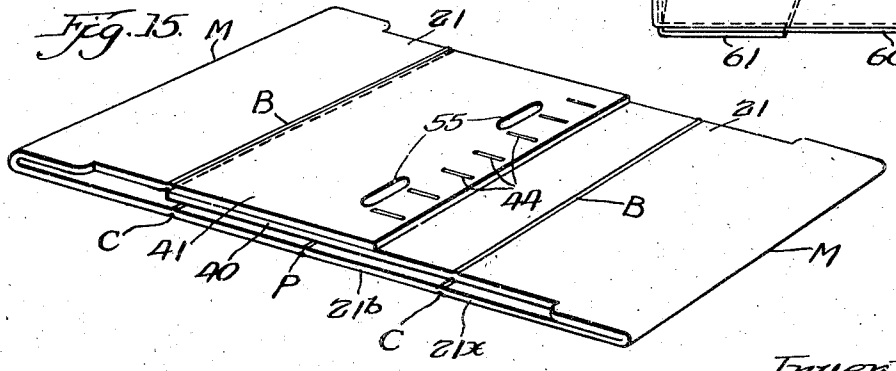


Fig. 15.



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UNITED STATES PATENT OFFICE

2,284,682

BOTTLE HOLDER

Henry K. Powell, Chicago, Ill.

Application August 4, 1938, Serial No. 222,962

7 Claims. (Cl. 229—23)

This invention relates to improvements in containers of the collapsible or knock-down type which are adapted for the holding or packaging of a plurality of articles, such as a number of bottles, in a manner such that they may be retained securely and carried with ease.

A general object of the invention is the provision of such a container which may be manufactured very economically from paper board or similar inexpensive material, with minimum waste, and in a form such that, in its collapsed condition, it may be packaged in numbers in relatively small space, and which may be set up at the point of use very quickly and easily and without requiring special equipment or additional fastenings.

Another object is the provision of such a receptacle which will retain a plurality of objects, such as bottles, very securely so that they may be carried with convenience and safety, which will permit the removal of one or all of the contained articles when desired, and after such removal will remain in its set-up condition and form, so as to continue to function as a repository for the empty bottles or the like and as a means for returning them conveniently to the place of purchase.

Another object is the provision of a receptacle of this kind which is so designed as to afford the requisite strength, even though made of relatively light paper board, and which provides effective protection for the contained articles, which uses but little space beyond the area required for the contained articles themselves, and hence may be used as holders for groups of the articles in crates or cases commonly employed for packing them in larger numbers, and which is adapted to permit a plurality of the packages, for which they constitute the holders, to be stacked one upon another in a stable relationship.

A particular object of the present improvements is the provision of a construction for receptacles of the sorts above described whereby they may be formed with collapsible or folding bottoms of a sort such as to minimize their area when in knocked-down condition and to facilitate their being set up.

Other and further objects of the invention will be pointed out or indicated hereinafter, or will be apparent upon an understanding of the further explanation of the invention hereinafter contained or upon actual use of the invention in practice.

For the purpose of aiding in an explanation of the invention, I show in the accompanying drawings forming a part of this specification, and hereinafter describe, various forms in which the invention and its several features may be embodied. It is to be understood, however, that these are presented merely for purpose of illustration, and hence 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 represents a perspective view of one form of container embodying the invention, same being shown in its set-up condition ready for reception of its contents;

Fig. 2 is a perspective view of the body member constituting part of the device shown in Fig. 1, same being shown in a partly collapsed condition;

Fig. 3 is a perspective view of the girth member forming a part of the device shown in Fig. 1, showing same on a somewhat larger scale than in Fig. 1, and in a collapsed condition;

Fig. 4 is a detail representing an alternative position of certain of the parts of the body member shown in Fig. 2, in a partly collapsed condition;

Fig. 5 is a perspective view of a second embodiment of the invention which differs in various features from the forms illustrated in Figs. 1 to 4 inclusive;

Fig. 6 is a perspective view of the body member constituting part of the embodiment shown in Fig. 5;

Fig. 7 is a perspective view of the girth member constituting a part of the device shown in Fig. 5, showing same on a somewhat larger scale and in a collapsed condition;

Fig. 8 is a perspective view of the top portion of the device illustrated in Fig. 5, showing the same on a larger scale and serving to illustrate particularly the handle and the arrangement for mounting it on the body member;

Fig. 9 is a perspective view of yet another form of body member which may be used in place of the one shown in Fig. 2;

Fig. 10 is a perspective detail illustrating the lower portion of a container embodying the present invention and showing a further modification in the form of the body member and girth member;

Fig. 11 is a perspective view of yet another embodiment of the invention, comprising a body member of the type shown in Fig. 1, slightly

modified, with a girth member of the type illustrated in Fig. 10;

Fig. 12 is a perspective detail illustrating the lower portion of a container embodying the invention, showing the type of body member illustrated in Fig. 11 but with still another type of girth member;

Fig. 13 is a perspective view of yet another embodiment of the invention, showing a type of top construction and handle mounting different from those illustrated in the preceding figures, with a body member and bottom construction like that illustrated in Fig. 9 and a girth member of the type illustrated in Fig. 3;

Fig. 14 is a cross section illustrating the type of body member shown in Fig. 13 in its collapsed form and in a bowed condition for the purpose of insertion of the handle;

Fig. 15 is a perspective illustrating the type of body member shown in Figs. 13 and 14, showing it in its flat or collapsed condition; and

Fig. 16 is a further embodiment of the invention using a body member having a top construction like that in Fig. 13 but with a different type of bottom construction, and a girth member of the type illustrated in Fig. 3.

Described generally, the present invention contemplates a container comprising a body member and a girth or retainer member, both of which are made of suitable sheet material, such as paper board, and are collapsible to a flat form. The body member includes a portion which form the bottom of the receptacle, and which is itself foldable or collapsible, either to positions between other portions of the body member, or to extended positions. The girth member comprises a strip or band, having its ends secured together or connected integrally, so that it forms a closed loop which may be set up into approximately rectangular form in encompassing relationship to the lower portion of the body member, said girth member being of less height than the body member and serving to provide an upstanding rim or ledge following the general outline of the bottom portion thereof, as a means to assist in holding the bottom member in its set-up form, and to retain the lower portions of the contained articles against displacement laterally from over the bottom portion. The body and girth members have portions which cooperate to retain them in the desired relationship when the device is in set-up condition. The body member is provided with apertures in its upper portion through which the bottles or other intended contents may be inserted, said top portions also cooperating with the intended content articles to prevent their falling out of the receptacle, yet exposing them to view and permitting them to be withdrawn when desired. The body member is provided with a handle at its upper end whereby the container may be carried with safety and convenience. Certain improved arrangements for mounting of the handle on the body member are provided, and the handles, of various forms, are adapted to be depressed or swung laterally to positions below the projecting tops of the bottles, so that the latter may serve as rests for packages superimposed upon them. The invention resides in the particular combinations and arrangements of the various parts, and will best be understood from a detailed description of the illustrative embodiments shown in the drawings.

In said drawings, like reference numerals are applied to like parts where they appear in the various figures in different embodiments of the invention. Referring first to the embodiment illustrated in Figs. 1 to 4 inclusive, and more specifically the body member which is shown in Fig. 2, it is to be observed that said body member is formed from a flat sheet of material, such as paper board, as a continuous or integral strip, which is cut and scored with fold creases to provide a bottom portion made up of two panels, designated **20**, which are integrally conjoined along a fold crease A. Integrally conjoined to the outer margins of the respective panels **20** are side panels **21**, which are alike in size and form, and are conjoined with the bottom panels on fold creases B, which are parallel with the crease A. The lower portions of the side panels **21** are the same width as the bottom panels **20** but at a short distance above their lower limits, they are widened slightly to provide outwardly jutting shoulders **21***a*, and at a distance above these shoulders, the side panels are creased transversely at C to demark top side portions **21***b*. These are slotted along lines **21***c* and creased along line D to form inwardly flexible tabs **22**, which, when folded inwardly, afford transversely extending openings in said top side portions. The end portions of the strip, at the upper ends of the portions **21***b*, are secured flat against each other by a plurality of staples **24** which are arranged along creases E that are parallel with creases C and B. These contacting portions are provided with an aperture **25** to accommodate the fingers, thus forming a handle, and above the staples **24** they are provided with creases F to facilitate their being bent outwardly away from each other, for purpose hereinafter explained.

This body member may be collapsed to a flat form by flexing it on the crease lines A and B, so as to fold the bottom panels **20** into surface contact with each other, either with said panels between the side panels, as seen in Fig. 2, or projecting beyond them, as seen in Fig. 4. Also, this body member may be flexed to its set-up form by flexing the bottom panels **20** outwardly into a common plane, and the side panels outwardly along the creases C into angular relationship with the top side portions **21***b*. This flexes said top side portions into angular relationship with the handle portions **25**, as seen in Fig. 1.

The girth member, which is shown in Fig. 3, is adapted to fit upon the lower portion of the bottom member when the latter is in its set-up form. Said girth member comprises a strip which is joined at its ends by staples **26** and creased transversely at G and H to form side sections **28** and end sections **29**. The end sections are formed with flaps **30** extending from their lower margins and demarked by creases J.

For assembling the girth member on the body member, it is opened up to its rectangular form, the flaps **30** are flexed inwardly and upwardly against the inner surfaces of the end sections **29**, and it is slide onto the lower portion of the body member, this being done before the bottom panels **20** are fully extended relative to each other. Then the bottom panels are flattened down, and the flaps **30** then allowed to flex down on top of them. With the parts in this relationship, which is shown in Fig. 1, the ends of the flaps **30** abut the inner surfaces of the side panels **21**, and brace them apart from each other and against the side sections **28**, thus definitely preventing the bottom from collapsing or flexing along the fold crease A. The shoulders **21***a* engage over the upper edge of the girth member

and hold it against slipping upwardly on the side panels, which extend upwardly from the girth member. As thus assembled, the device retains the form illustrated in Fig. 1.

To put bottles in it, the tabs **22** are flexed inwardly along the crease (D), the bottles are inserted through the apertures in the top side portions **21***b*, the first two bottles on each side being moved to the respective ends of the aperture, and the others then being inserted between them. The device illustrated is proportioned so as to hold six bottles, three in a row on each side, and when the bottles are in position as above described, they stand on the bottom panels **20**, and their necks or upper portions project out of the apertures in the top side portions. Consequently, they are held at both top and bottom against sliding or falling outwardly through the open end portions of the container. As thus packed, the container and its contents may be carried conveniently in the hand by means of the handle portion **25** and when it is desired to stack packages one upon another, the handle portions may be flexed outwardly away from each other along the creases (F) to positions where they are below the tops of the bottles so that the latter conjointly may form a rest for the superimposed package. The tabs **22** form angular stiffening struts for the top side portions and separators for the rows of bottles.

In order to provide for separation of the lower portions of the bottles, the bottom construction shown in Figs. 5 and 6 may be used. Here extensions **20***a* are formed on the bottom panels **20** and secured flat against each other by a row of staples **31** along crease lines K on which the bottom panels may be flexed outwardly so that they extend at right-angles from the conjoined extensions **20***a*. Consequently, when the body member is in its set-up form, the extension members **20***a* form a partition extending upwardly along the median line of the bottom portion.

To accommodate this partition, the girth member is constructed as shown in Fig. 7, viz., the tabs on the respective end sections are subdivided by slots **30***a*, so that the respective sections **30'** may fit between the partition and the side panels of the body member, as illustrated in Fig. 5, to brace the side panels apart and hold the bottom panels in their flat extended positions.

In Figs. 5 and 8 is shown also a modified handle arrangement. Here the flaps of the top side panels **21***b* extend but a short distance, and they are subdivided by slots **32** into outer sections **34**, which are fastened securely to each other by staples **35**, and intermediate sections **36**, which rest against each other but are not fastened to each other. At the ends of the slots **32** are holes **37** through the panels.

The handle is made of stiff wire and is formed with a bail having an arcuate portion **38***a* and parallel straight leg portions **38***b*, and journal portions **38***c* which extend outwardly from the lower ends of the leg portions **38***b* and are in alignment with each other. The spacing of the leg portions **38***b* corresponds to the distance between the slots **32**. Accordingly, the bail portion **38***a* may be forced between the flaps **36**, from the under side, the legs **38***b* finding their places in the slots **32**. After the arcuate portion **38***a* has passed above the flaps **36**, they spring back together and prevent its falling downwardly between them. Consequently, the bail **38***a* may be lifted to the position shown in Fig. 8, where the journal portions **38***c* seat in the crotch at the junction of the upper side portions **21***b* where they underlie the flap sections **34** which are firmly secured together by the staples. Consequently, the package may be carried by this handle with security, the handle having a pivotal or rocking mounting on the body member, and the legs **38***b* being braced by the flaps **36** against flexing toward each other. When released, the handle may drop downward until arrested by the flaps **36**, in which position it is below the tops of the bottles.

For some advantages, it may be desirable to keep the upper portion of the body member integral, and to connect the ends of the body member strip at the bottom, or elsewhere. Figs. 9, 13, 15 and 16 show body members wherein the upper side portions remain integral at their tops.

In the form of body member shown in Fig. 9, the ends of the strip are joined in the bottom structure, the bottom comprising an inner or overlying panel **40** integral with one of the side panels **21**, and an outer or underlying panel **41** having a flap **42** which is secured to the overlying panel by suitable fastening, such as staples **44**. The underlying panel has a fold crease L along the median line of the bottom, thus permitting the bottom to be collapsed or folded inwardly between the side panels **21**. This forms a particularly stiff and stable bottom if the overlying panel **40** is made the full width of the bottom so as to extend from its side panel to the opposite one, although it is quite stiff against flexing downwardly if the overlying panel extends across only a part of the width of the underlying panel.

In Fig. 13 is shown an assembly of such a bottom structure with a girth member of the type shown in Fig. 3, viz., the girth member having the stay flaps **30**. However, the stay flaps in this assembly are not necessary for the purpose of bracing the side panels apart, but serve the function of preventing the girth member from slipping off downwardly.

In Fig. 10 is illustrated an assembly of this type of bottom structure, slightly modified, with a girth member **45**, of plain band form, having no flaps at all. In order to hold this type of girth member from slipping off downwardly, the bottom panels are extended at the ends as indicated at **40'** and **41'** approximately to an extent corresponding to the shoulders **21***a*, so that they underlie the end sections of the girth member, just as said shoulders overlap them at the top. Thus the flapless girth member is definitely anchored in place, and, in turn, holds the bottom against flexing upwardly on the crease line L.

In Fig. 11 a flapless girth member **45** is shown assembled with a body member which is generally of the type illustrated in Fig. 1, but which is modified in the particular that the side panels are formed with lower shoulders **21***z*, which project under the margins of the end sections of the girth member and hold it against slipping downward. In Fig. 12 is illustrated a modification of the girth member in assembly with a body member of the type illustrated in Fig. 11, the side sections of the girth member here being designated by the reference numeral **48** and one of the end sections by the reference numeral **49**. It will be observed that the end section is modified in the particular that it is provided with a depending flap portion **49***a*, without any fold crease, so that said flap portion extends stiffly downward between the bottom shoulder

projections 21z of the side panels, thus forming a brace holding their lower portions spaced apart the full width of the bottom, and thus preventing collapse of the latter.

In Fig. 14 is shown a flexed position and in Fig. 15 an inverted collapsed position of the body member illustrated in Fig. 13, which has a bottom construction of the type illustrated in Fig. 9, viz., an overlying panel 40 and underlying panel 41 fastened together by staples 44. It will be seen that this body member has additional side panel creases M, so positioned that the upper portions 21x of the side panels and top side portions 21b may be folded flat against the bottom panel 40 and the lower portions of the side panels. The top side portions are integral at their upper ends, and on the top fold crease P are pierced with handle holes 50. These are for connections for the wire handle, which has a bail portion 51 with parallel legs 52 spaced apart the same distance as said holes 50, and inwardly projecting journal portions 54 at the lower ends of the leg portions. In order to affix this handle to the body member, the latter is bowed into an arcuate form, as illustrated in Fig. 14, to such extent that one of the journal members 54 may be inserted through a hole 50, and then the other journal member inserted through the other hole. Furthermore, in order to permit this insertion, the bottom panels are provided with extended slots 55, aligning with the holes 50 and of sufficient length to accommodate the journal members 54 and permit them to pass through the bottom panels both when they are inserted and when the body member is released so as to resume its flat form. When this is accomplished, the journal portions 54 engage under portions of the conjoined side panels in the top crotch, thereby affording support for the container and the handle and effectively locking the handle against detachment from it.

For some purposes it is desirable to dispense entirely with fastenings such as staples, and this may be accomplished by providing an interlocking slot and hook connection for the overlying and underlying bottom panels. Such a connection is illustrated in Fig. 16, the overlying panel being designated by the reference numeral 60, and the underlying panel by the reference numeral 61. The overlying panel is provided, on its median line, with a slot 60a, and the underlying panel is split in two parts along a line 61a, and formed with two locking hooks 61b at its ends. The overall width of the locking hooks 61b, when they are in lateral abutment, exceeds the length of the slot 60a, but by virtue of the split 61a the locking hooks 61b may be overlapped one upon the other for insertion through said slot. After being inserted they are returned to their collateral relationship, in which position they are retained by abutment of their margins along the slit 61a. After being so interlocked, the bottom panels may be flexed inwardly to facilitate insertion in the girth member. In Fig. 16 I have shown such a body member assembled with a girth member of the type illustrated in Fig. 3, having the flaps 30 which overlie the bottom panel 60 for the purpose of holding the girth member against sliding off downwardly and affording the bottom structure additional stiffening reinforcement.

In Fig. 13 is illustrated how the bottles are retained in a container of any of the particular forms above described, and showing also the handle in its dropped or lowered position, where it is below the level of the tops of the bottles and will not interfere with the stacking of another similar package upon them.

As will be apparent from the foregoing, the invention provides a container which may be completely collapsed for shipment and set up quite easily, and in its set-up condition, will permit removal and re-insertion of bottles without requiring any dismantling or dis-assembling. It is evident that various further modifications may be made in the construction without departing from the spirit of the invention or the scope of the claims.

I claim:

1. A container for packaging and carrying bottles and the like, comprising a body member and a girth member both formed of sheet material and collapsible to a flattened form, the body member comprising a bottom and side panels extending upwardly from opposite outer margins of said bottom and connected to each other at their upper portions, said bottom comprising bottom panels which are fastened together so as to fold along a line parallel with the side panels and one of said bottom panels being of width such as to extend over the other for a substantial distance beyond said fold line, the girth member having wall portions adapted to encompass the side panels and form an upstanding rim adjacent outer marginal portions of the bottom when the latter is in its unfolded set-up condition, and the side panels being provided with a handle at their upper ends.

2. A container for packaging and carrying bottles and the like, comprising a body member and a girth member both formed of sheet material and collapsible to a flattened form; the body member comprising a bottom having panels which are connected to each other and foldable toward and from each other, and side panels extending upwardly from opposite outer margins of said bottom and connected to each other at their upper portions, said bottom including also a partition formed thereon in position to extend upwardly from the bottom panels between the side panels; the girth member having wall portions adapted to encompass the side panels and form an upstanding rim adjacent outer marginal portions of the bottom when the latter is in its unfolded set-up condition, and the side panels being provided with a handle at their upper ends.

3. A container for packaging and carrying bottles and the like, comprising a body member and a girth member both formed of sheet material and collapsible to flattened form; the body member having a bottom and upwardly extending side panels at opposite margins thereof, said bottom being formed of panels which are fastened together and foldable against each other and said side panels being integrally connected at their upper ends; the girth member comprising a portion adapted to encompass the side panels and form an upstanding rim adjacent marginal portions of the bottom and a stay part adapted to be positioned between the side panels to brace their lower portions apart; the side panels being provided with a handle at their upper ends.

4. A container for packaging and carrying bottles and the like, comprising a body member and a girth member both formed of sheet material and collapsible to a flattened form; the body member having a bottom and upwardly extending side panels at opposite margins thereof; the girth member comprising a portion adapted to encompass the side panels and form an upstand-

ing rim adjacent marginal portions of the bottom and a flap arranged to extend inwardly between the side panels and rest upon the bottom and brace the lower portions of the side panels apart; the side panels being provided with a handle at their upper ends.

5. In a container for carrying a plurality of bottles or the like, a body member formed of sheet material and collapsible to flattened form, said body member having a bottom portion and upwardly extending side panels, the upper end portions of said side panels being abutted face to face and subdivided by slots and apertures into terminal flaps which are fastened together and intermediate flaps which are not; and a handle having a bail portion insertable between the intermediate flaps and leg portions spaced to occupy the slots and apertures and journal portions extending outwardly from the leg portions in position to underlie the terminal flaps along the line of junction of the side panels.

6. A container for packaging and carrying bottles and the like comprising a body member made of paper board and formed with a bottom and oppositely disposed side panels flexibly joined to opposite side margins of said bottom and having their upper end portions connected to each other over the bottom, the bottom having panels which are fastened to each other one over the other so as to fold toward and from each other along a crease line in the lower one only and parallel with their side margins, and the overlying bottom panel being of width such as to extend over the other for a substantial distance beyond said crease line.

7. A container for packaging and carrying bottles and the like comprising a body member made of paper board and formed with a bottom and oppositely disposed side panels flexibly joined to opposite side margins of said bottom and having their upper end portions connected to each other over the bottom, the bottom having panels which are fastened together one over the other so as to fold toward and from each other along a crease line in the lower one only and parallel with their side margins, the overlying panel being of width such as to extend from one side panel to the other when the lower bottom panel is in unfolded position.

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