

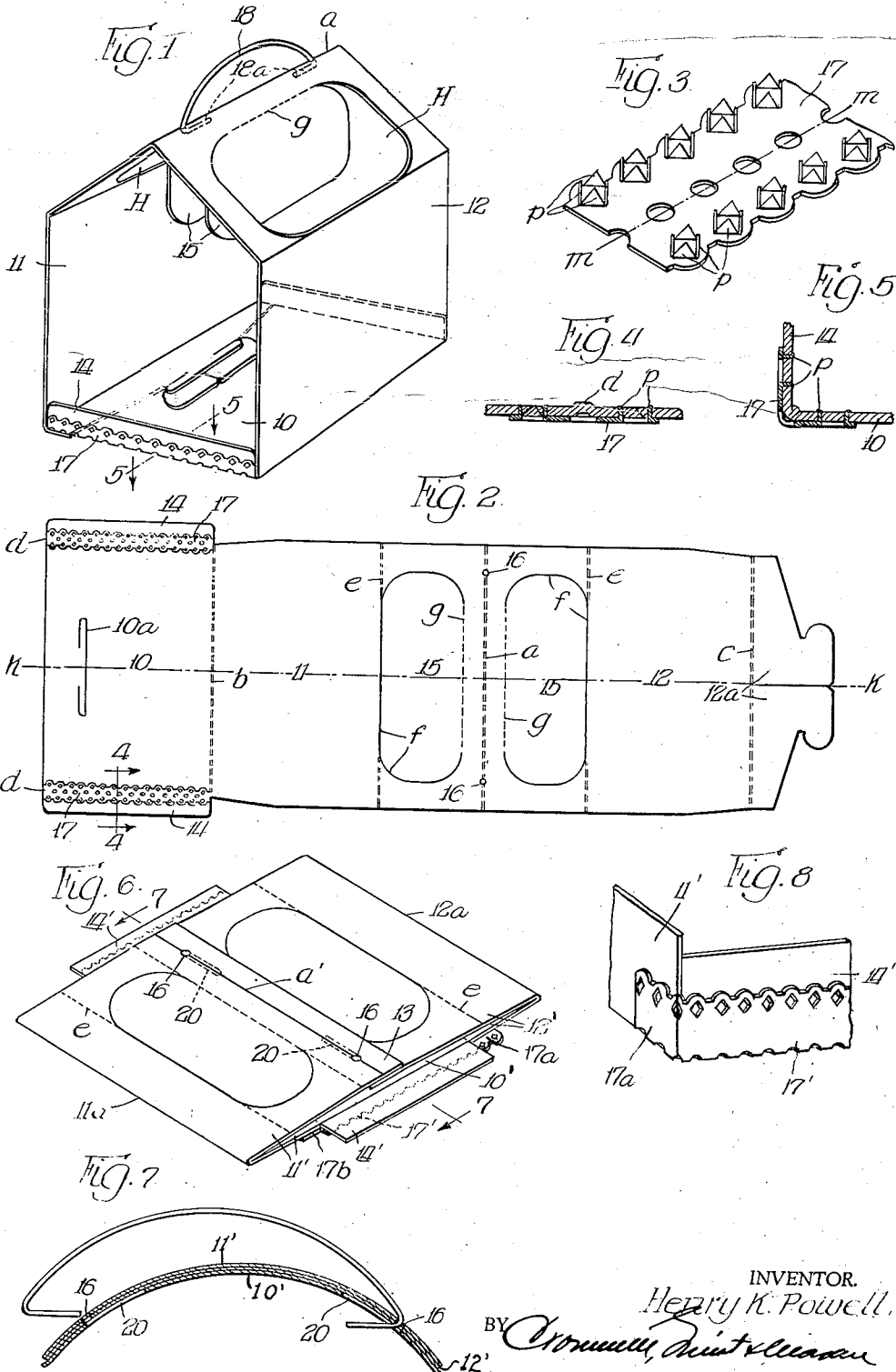
July 9, 1940.

H. K. POWELL

2,206,918

BOTTLE HOLDER

Filed May 5, 1938



INVENTOR.

Henry K. Powell.

ATTORNEYS.

UNITED STATES PATENT OFFICE

2,206,918

BOTTLE HOLDER

Henry K. Powell, Chicago, Ill.

Application May 5, 1938, Serial No. 208,127

11 Claims. (Cl. 229—49)

This invention relates to containers for the packaging of a plurality of bottles or the like in a fashion such as to permit their being carried conveniently.

One of the objects of the invention is the provision of such an article which may be made throughout of inexpensive materials, for the most part of material such as paper board, and which may be fabricated very economically so that it may be supplied to the users in quantities at a very low price per unit.

Another object is to provide a container of the sort above indicated which may be packaged in flat collapsed condition so that it occupies but little space, for storage or for shipment to the user, and may be set up by the user without requiring any special or additional apparatus or fastenings.

Another object is the provision of such a container which will properly hold its shape in set-up condition, will securely retain the bottles or other articles which it is designed to carry, and will permit them to be removed and put back in it, when desired, and without involving any dismantling or mutilation of the container.

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 subject matter of the invention or its employment in use.

For purpose of aiding in an explanation of the invention, I show in the accompanying drawing forming a part of this specification, and hereinafter describe, certain forms in which it may be embodied. It is to be understood, however, that these are presented merely for purpose 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 drawing,

Fig. 1 is a perspective view of one form of bottle holder or bottle carrier constituting an embodiment of the invention, showing same in its set-up condition ready for reception of its contents;

Fig. 2 is a plan view illustrating the form of the blank from which the article shown in Fig. 1 is formed;

Fig. 3 is a detail in the nature of a perspective view of a portion of a stay element employed in the construction illustrated in Fig. 1;

Fig. 4 is a sectional view, on an enlarged scale, such as taken on the line 4—4 of Fig. 2 but in inverted position;

Fig. 5 is a section such as taken on approximately line 5—5 of Fig. 1;

Fig. 6 is a perspective illustration of another embodiment of the invention, showing it in flat or collapsed condition;

Fig. 7 is a sectional view of same such as taken on line 7—7 of Fig. 6 but showing it in abnormal position to which it is flexed for the purpose of inserting the handle; and

Fig. 8 is a detail in the nature of a fragmentary perspective of a corner portion of a set-up container of the character illustrated in Fig. 1 but showing a modified feature.

An understanding of the invention may be most quickly had from a description of the illustrative embodiments shown in the drawing.

Fig. 2 illustrates a form of blank which is cut from suitable sheet material, such as paper board, said blank being provided with crease lines *a*, *b* and *c* which subdivide it into a bottom panel 10, side panel 11 and side panel 12, the latter having an extension comprising a pair of abutting locking tongues 12*a*, which are formed with hooks at their outer ends. The panel 10 is provided with a slot 10*a* adapted to receive the hook portions of said tongues, when they are overlapped one upon another to a sufficient extent, but being shorter than the overall or aggregate width of said hook portions, so that they will interengage with the end portions of said slot when the tongues are in abutting relationship with each other after such insertion.

At the ends of the bottom panel 10 are provided end strips 14 which extend from crease lines *d* along the end margins of the bottom panel.

The side panels 11 and 12 are creased transversely at *e* and are slit along the solid lines *f* to form apertures H (see Fig. 1) which are normally occupied by tabs 15 that remain joined with the side panels along crease lines *g* parallel with the crest crease line *a* upon which are formed the handle holes 16.

Applied to one side of the bottom panel across the crease lines *d* are stay elements 17. The type of stay elements here illustrated, and as shown more clearly in Figs. 3, 4 and 5, comprises a strip of suitable sheet metal of suitable strength and stiffness, yet which may be bent to assume the desired form, as to right-angle form along its median line *m—m*. On either one or both sides of its median line it is provided with points or prongs *p* which may be driven into the paper board and clenched to a greater or less extent, as illustrated in Fig. 4, thus securing the

stay element 17 against the outer surface of the bottom panel and end strips so that it extends across the fold crease *d*. As seen in Fig. 4, this fold crease preferably is made by displacing a narrow area of the sheet from the plane thereof in the direction away from the side to which the element 17 is applied.

A suitable handle is provided, that illustrated being formed of a piece of stiff wire which is bent to afford a bail portion 18 which has at its ends inwardly directed journal portions 18a in alignment with each other. The distance between the outer extremities of the journal portions 18a is approximately equal to the spacing of the handle holes 16, and hence the space between the adjacent ends of the journal portions 18a is considerably less than the distance between said handle holes.

For packaging the containers for storage or shipment to the user, they are stacked one upon another in the flat form shown in Fig. 2 and made up into bundles, thus each occupying but a very small space. The handles are shipped in suitable containers.

For the setting up of the container, it is taken in its flat form as shown in Fig. 2 and is bowed or arcuately flexed transversely, viz., around the median line K, until the handle holes 16 are brought closely enough together to permit the insertion of the ends of the handle journals 18a through them. When the journals have been so inserted, the flexed blank is released, and springs back to its flat condition, thereby securely locking the handle to it, yet permitting the handle to swing or rock. The end strips 14, together with the portions of the stay element 17 which overlap them, are then flexed into perpendicular or right angular relationship to the bottom panel 10, as illustrated in Fig. 5. The form of the fold crease *d* facilitates this bending of the paper board sheet without fracture of it, and the stay element 17 is adapted to be bent to the proper form by virtue of its ductility. However, it has the proper amount of inherent strength or stiffness to require the application of considerable pressure to bend it, and consequently tends to retain its bent form and support or stay the end strip 14 in the desired upright position. The blank is then bent on the crease lines *a* and *e*, and then on the crease lines *b* and *c*, to a relationship in which the side panels 11 and 12 are brought into approximately perpendicular relationship to the end panel 10 and along its opposite side margins, and the tongues 12 are flexed inwardly against the under surface of the bottom panel, and then overlapped one upon the other and inserted through the slot 10a, after which insertion of their hook portions they are restored to their collateral or abutting relationship. Thus the side panel 12 is interlocked with the bottom panel 10, so that the container, in its set-up condition, as shown in Fig. 1, has sides 11 and 12 extending upwardly from the bottom 10 and thence in an upwardly converging relationship to the crest line *a*. The bottles or other articles are introduced through the lateral apertures H which are afforded by bending the tabs 15 inwardly along the crease lines *g*. The device here shown is designed to hold six bottles in two rows of three each. The first two bottles introduced through each of the apertures H are moved to the ends of the apertures, and a third bottle is then inserted between them. When so disposed, the bottles are held definitely against falling out of the receptacle, as the upstanding strips 14, which

are held and braced securely by the stay elements 17, prevent the bottoms of the bottles from sliding out, while the portions of the side panels at the ends of the apertures H contact the necks or upper portions of the outer bottles in each row and prevent their toppling outwardly.

Accordingly, the group of bottles may be carried very conveniently and securely by the handle ball 18. Bottles may be removed and replaced as desired, provided the middle bottle is always removed first. The container does not have to be distorted or mutilated in any manner for such removal of the bottles, and it retains its proper set-up form after one or all of them are removed, hence continuing to serve as a convenient repository for the empty bottles.

In the modified construction shown in Fig. 6, the side panels 11' and 12' are left integrally conjoined with the opposite side margins of the bottom panel 10' which has suitable end strips 14' along its end margins. The upper end portions of the side panels are overlapped, as shown at 13, and permanently secured to each other by an adhesive so that both extend across the crest crease line *a'*. The side panels are provided with additional crease lines 11a and 12a, so disposed that the upper portions of said panels may be folded down flat upon the inner or upper surface of the bottom panel 10' and the lower portions of said side panels, as illustrated in Fig. 6. To accommodate the introduction of the handle into the handle holes 16, as above described, the bottom panel is provided with slots 20, adapted to underlie and align with the handle holes 16 when the container is in the collapsed form and said slots 20 are of sufficient length to accommodate passage of the journal portions 18a of the handle. Consequently, for insertion of the handle, the collapsed container is bowed or flexed, as illustrated in Fig. 7, the handle journals inserted through the openings 16 and 20, and then the container is released to resume its normally flat form. Then the side panels are flexed upwardly away from the bottom panel to the upright or perpendicular relationship, and the end strips 14' are turned up to their upstanding position. Of course, with this type of collapsible body portion, the end strips 14' may be of any of various kinds and various arrangements made for holding them in their upstanding position, the stay elements such as illustrated in Fig. 1 being only one of such various arrangements. This modified construction has the various advantages above described, but due to the presence of the additional creases 11a and 12a, does not maintain its straight upstanding form so staunchly as does the embodiment shown in Fig. 1. To make up for this deficiency, and afford the side panels additional support, the stay members may be extended at the ends of the end strips 14', viz., either the part which overlaps the end strip may be extended as at 17a or the part which overlaps the bottom panel may be extended as at 17b, or both may be extended in separated condition, so that they project beyond the outer sides of the side panels when the latter are in upstanding position. Accordingly, after the panels and end strips are flexed to the upstanding positions, these extending end portions, which are designated 17a in Fig. 8, may be bent into supporting engagement with the outer surfaces of the side panels, as shown in Fig. 8, and in that position serve to brace or stay the side panels in their upright positions. In this modification, as in the form shown in Fig. 1, the end strips, when in their upstanding position between the side

panels, act as spacers or stays which brace the lower portions of the side panels against bending toward each other. In addition to bracing or staying the end strips, the stay elements, when of the character illustrated in Figs. 1 and 2, perform the further important function of stiffening the bottom panel transversely, so as to resist any tendency of it to bow or sag under the weight of the contents.

Certain subject matter herein described or shown but not defined in the following claims is claimed in my co-pending applications Serial No. 196,230, filed March 16, 1938, and Serial No. 271,827, filed May 5, 1939, both for improvements in Bottle holders.

What I claim is:

1. A knock-down container for carrying a plurality of bottles or the like, comprising a sheet of paper board creased to form a bottom panel and side panels adapted to be flexed to upstanding positions at the side margins of the bottom panel and end strips adapted to be flexed to upstanding positions at the end margins of the bottom panel, said side panels being of greater height than said end strips and being provided at their upper ends with a handle whereby the container may be carried, and stay members attached to the bottom panel for cooperation with the end strips to sustain them in upstanding positions to serve as retaining abutments for bottles resting on the bottom panel.

2. A knock-down container for carrying a plurality of bottles or the like, comprising a sheet of paper board creased to form a bottom panel and side panels and end strips all in one piece, said side panels and end strips being flexible to upstanding positions at the respective side and end margins of the bottom panel and the side panels being of greater height than the end strips, said side panels being provided at their upper ends with a handle whereby the container may be carried, and stay members attached to the bottom panel and end strips to sustain the latter in upstanding positions.

3. A container as specified in claim 1 and wherein said stay members include portions for cooperation with the side panels to brace them against flexing outwardly adjacent the bottom panel.

4. A container as specified in claim 1 and wherein said end strips form spacers between the side panels and said stay members include portions for cooperation with the side panels to retain them in abutment with the end strips.

5. A container as specified in claim 2 and

wherein said stay members are in the form of relatively stiff metal cleats extending across the crease lines between the bottom panel and end strips and bendable with the end strips along said crease lines into angular cross-sectional form.

6. A container as specified in claim 2 and wherein said stay members are in the form of relatively stiff metal cleats extending across the crease lines between the bottom panel and end strips and bendable with the end strips along said crease lines into angular cross-sectional form, said stay members extending also transversely of the bottom panel and serving to stiffen it against flexing.

7. A container as specified in claim 2 and wherein said stay members are in the nature of relatively stiff metal tie strips extending across the crease lines between the bottom and side panels and secured to the panels at each side of said crease lines, and the crease lines are formed by narrow portions of the sheet offset away from the stay members and the stay members being bendable with the end strips along said crease lines into angular cross-sectional form.

8. A container for carrying bottles or the like comprising a sheet of paper board creased to form a bottom panel and side panels adapted to be flexed to upstanding positions at the side margins of the bottom panel, said side panels being provided at their upper ends with a handle whereby the container may be carried, and relatively stiff metal stay members fastened to the bottom panel and adapted to be bent to upstanding positions at the ends thereof.

9. A container as specified in claim 8 and wherein said stay members have end extensions adapted to be bent into engagement with outer surfaces of the side panels to brace their lower portions in upstanding positions.

10. A knock-down container as specified in claim 2 and wherein said side panels are provided in their upper portions with apertures through which bottles may be inserted and withdrawn to and from positions wherein they stand upright on the bottom panel.

11. A knock-down container as specified in claim 2 and wherein said side panels have upwardly converging upper portions which are connected to each other and provided with apertures through which bottles may be inserted and withdrawn to and from positions wherein they stand upright on the bottom panel while said upper portions remain connected.

HENRY K. POWELL. 55