May 31, 1932. J. L. LARKIN 1,860,349

COLLAPSIBLE CONTAINER

Filed June 5, 1930

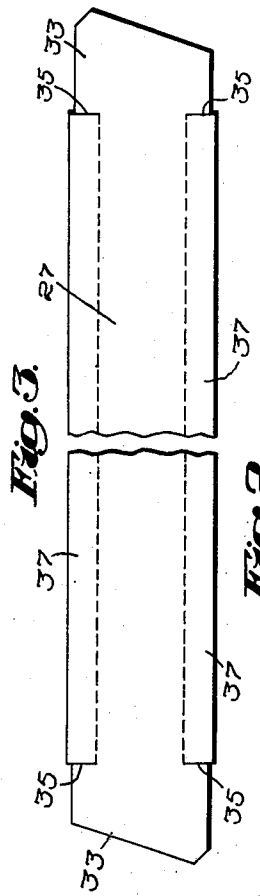



Fig. 3.

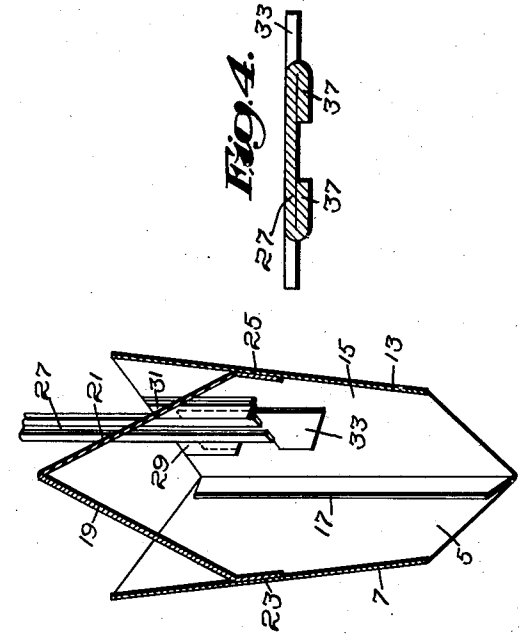



Fig. 2.




Fig. 4.

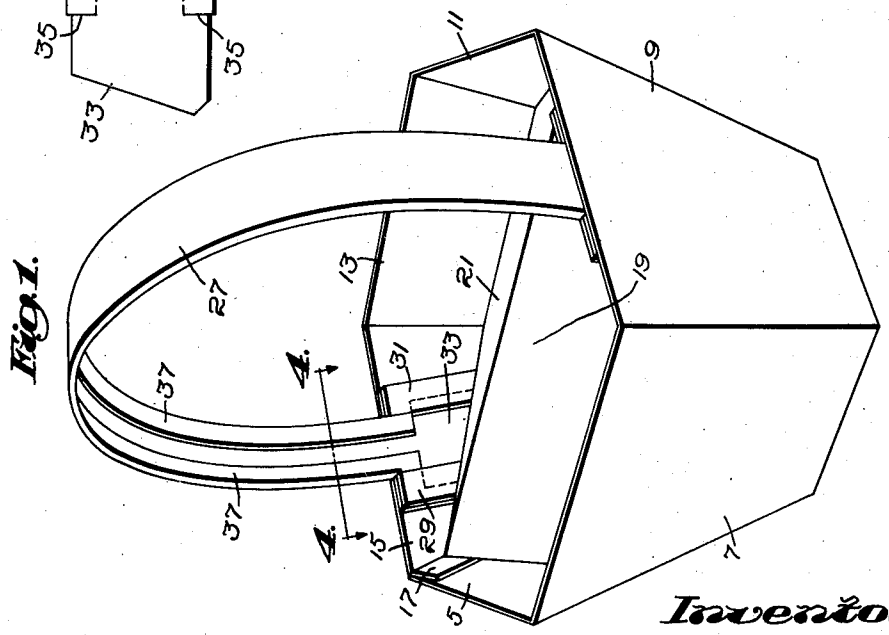



Fig. 1.

Inventor:
James L. Larkin
by Emery, Booth, Varney & Townsend
Attys

Patented May 31, 1932 1,860,349

# UNITED STATES PATENT OFFICE

JAMES L. LARKIN, OF LYNN, MASSACHUSETTS, ASSIGNOR TO FORBES LITHOGRAPH MANUFACTURING COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS

## COLLAPSIBLE CONTAINER

Application filed June 5, 1930. Serial No. 459,313.

This invention relates to containers and more particularly to a basket or similar container which may be constructed of cardboard and placed on a merchant's counter to receive articles for display.

The invention will be well understood by reference to the following description taken in connection with the accompanying drawings, wherein:—

Fig. 1 is a perspective view of the container in its expended or erected form;

Fig. 2 is a central section of the container partially collapsed;

Fig. 3 is a broken-away plan on an enlarged scale of a blank used to form a handle; and

Fig. 4 is a section through the handle on a like scale on the plane of the line 4—4 of Fig. 1.

The container shown comprises a series of sides 5, 7, 9, 11, 13 and 15 hinged together in circuit. They are herein constructed of a single piece of cardboard creased or scored to form the hinges, the ends of the piece being joined together by the adhesively secured tab or flange 17. The container is preferably larger at the top than at the bottom as shown. In other words, it is in the general form of the frustum of a pyramid whose bases are polygons of an even number of sides. For reasons which will appear, it is preferable to have at least six sides. Such a container can be folded flat, for instance with side 5 face to face with side 15, 7 with 13 and 9 with 11, or expanded to the position shown in Fig. 1.

The bottom of the container in the form herein shown is what may be called a false bottom, being disposed well above the lower edges of the sides. It may comprise two sections 19 and 21, herein integrally hinged together at their inner edges and hingedly secured, as by means of downturned flanges 23 and 25, to the inner faces of two opposite sides 7 and 13 of the container preferably, as shown in Fig. 2, well above the lower edges of these sides. This bottom can fold, as shown in Fig. 2, when the basket is collapsed, the sections 19 and 21 then projecting upwardly. The combined width of the sections is preferably greater than the diameter of the pyramid at the plane of connection of the two edges to the sides. Thus when the basket is expanded, the bottom does not extend out flat but projects in convex form, forming a dihedral ridge, as shown in Fig. 1. Weight on the bottom tends to press it to the flat position and thus hold the container expanded. The lateral edges of the bottom sections fit the opposed sides of the container and, when the latter is pyramidal in form as here, these sides support the bottom from beneath.

The bottom, presenting a ridge in this manner, not only diminishes the available space above so that when articles are placed in the container for display a relatively few articles will give the appearance of a full basket, but it minimizes the chance that these articles will pile up flat in the bottom of the basket. On the contrary, it holds them at various angles, giving a more pleasing appearance to the display.

The container may be provided with a handle and there is herein shown a bail-like handle 27 which is normally flat and which when bowed into arcuate form to engage opposite sides of the container, as shown in Fig. 1, acts resiliently to hold the same in extended position. This handle may be detachable to permit the container to collapse, and I have herein shown the opposite inner sides of the basket as being provided with spaced strips 29 and 31 presenting downwardly facing pockets. The handle may be provided with the T heads 33, the body of the handle fitting between the strips 29 and 31 and the head engaging in the pockets into which it may be slid from below, as illustrated in Fig. 2.

The handle may be easily assembled when the basket is in partially open position, as shown in Fig. 2. The construction may be such that when it is expanded, the lateral edges of the bottom will snap underneath the lower edges of the T heads 33 whereby they mutually act one on the other, the bottom holding the head engaged in the pockets and the handle holding the bottom in its depressed or expanded position.

Referring to Figs. 3 and 4, the handle is preferably formed of a strip of heavy cardboard which may be cut inwardly from either

side adjacent the edges as indicated at 35 in Fig. 3 and the portions of the blank between these cuts may be folded over inwardly as flanges 37, thus defining at either end of the blank the T head 33 and providing a smooth rounded edge to the handle where grasped by the hand and a reinforced body.

I am aware that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and I therefore desire the present embodiment to be considered in all respects as illustrative and not restrictive; reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

Claims:

1. A collapsible container in the form of the frustum of a polygonal pyramid comprising interhinged sides and a folding bottom comprising two sections connected to opposite sides and having a combined width greater than the diameter of the pyramid in the plane of such connection and of a length to engage sides of the pyramid lateral to said opposite sides.

2. A collapsible container having six or a greater even number of sides interhinged in circuit and adapted alternatively to be folded flat or expanded into open position and a folding bottom having a corresponding number of edges fitting the sides in the expanded condition of the container and comprising two sections connected to opposite sides and having a combined width greater than the distance between the lines of connection in the expanded position of the container.

3. A collapsible container comprising a circuit of interhinged sides adapted alternatively to be folded flat or expanded into open position and a false bottom collapsible with said container and comprising two sections each pivoted at one edge to opposite sides near the upper edges thereof and having their opposite edges connected to project upward dihedrally in the expanded container, said bottom also having edges to rest against and be supported on sides of the container lateral to said opposite sides.

4. A collapsible container comprising a bottom and a circuit of interhinged sides adapted alternately to be folded flat or expanded into open position, means on opposite sides defining downwardly opening slots and a bail handle having T heads engageable in said slots, said handle being normally flat and when so engaged exerting an expanding stress on said sides.

5. A collapsible container comprising a circuit of interhinged sides adapted alternatively to be folded flat or expanded into open position, a shiftable bottom fitting between the sides in the open position, a normally flat bail handle bendable to bowed tensioned form to extend between opposite sides of the expanded container and means to engage its end with said sides.

6. A handle comprising a flat strip cut inwardly from its edges near the ends, the marginal portions of material between the cuts at either side being folded over on the central portion of the strip to provide T heads at the extremities of the strip and a body portion having a doubled edge.

7. A collapsible container comprising a circuit of interhinged sides adapted alternatively to be folded flat or expanded into open position, sockets on opposite sides thereof, a detachable handle having heads engageable in said sockets, and a shiftable bottom disposed to underlie said heads to maintain them so engaged.

8. A collapsible container comprising a circuit of interhinged sides adapted alternatively to be folded flat or expanded into open position, sockets on opposite sides thereof, a detachable handle having heads engageable in said sockets, and a bottom comprising sections each hinged along one edge to another pair of opposite sides to project upwardly therefrom when the container is collapsed, opposite edges of the sections being connected to form a bottom when the container is expanded with edge portions of said bottom then underlying said heads to maintain them so engaged.

9. A collapsible container in the form of the frustum of a polygonal pyramid comprising interhinged sides and a folding bottom comprising two sections connected to opposite sides and centrally hinged to one another, their length along the hinge line being greater than the diagonal width of the polygon which is a section of the pyramid at the plane of connection whereby the portions of the bottom at the extremities of said line wedge into the adjacent dihedral angles of the pyramid to assist in holding the container expanded.

10. A collapsible container in the form of the frustum of a polygonal pyramid comprising interhinged sides and a bottom connected at opposite sides by means providing a hinge whereby the bottom may lie flat with the collapsed sides, said bottom having edges corresponding to the remaining sides to engage the same and being of greater area than the cross-section of the container in the plane of the connection whereby the bottom assumes a non-plane form wedging into the taper of the pyramid.

In testimony whereof, I have signed my name to this specification.

JAMES L. LARKIN.