CONTAINER WITH COLLAPSIBLE TRAY

Fig. 1

Fig. 2

Fig. 3

Fig. 4

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CONTAINER WITH COLLAPSIBLE TRAY


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This invention relates to a container, and more particularly a container of the drinking cup type provided with a collapsible tray.

Although various types of containers of the drinking cup type have been produced, their use usually results in leaving a ring of fluid on the resting surface for the container. This results from fluid which runs down the outside of the container. Not only is this generally undesirable, but it may also cause irreparable damage to furniture and other such objects.

It is therefore a principal object of the invention to provide a new and improved container with a collapsible tray.

Another object of the invention is to provide a new and improved tray. A collapsible type which is of the unbreakable type.

Still a further object of the invention is to provide a new and improved container with collapsible tray which may be efficiently staked for storage and shipping.

A further object of the invention is to provide a new and improved container with collapsible tray which is easily operated and used and is inexpensive to manufacture.

The above objects and many other objects of the invention are achieved by providing a collapsible container having a bottom portion which forms a bottom recess. A tray with a substantially circular periphery has a central portion secured with the bottom portion of the container.

The edge portion of the tray extends below the bottom portion of the container and is provided with a plurality of transverse fold lines extending from its central portion to its periphery. The edge portion of the tray is foldable into the bottom recess of the container with it periphery forming a central opening. The central opening allows the folded tray to be easily grasped for opening to its extended position.

The container may be made of a flexible material such as cardboard which will render it non-breakable and inexpensive. The container may be in the shape of a frustum with its bottom of reduced diameter so that one may be received within another for efficient storage and shipping.

The foregoing and other objects of the invention will become more apparent as the following detailed description of the invention is read in conjunction with the drawings, to which:

Figure 1 is a side elevational view of a container embodying the invention having a portion broken away to show its tray in the collapsed position,

Figure 2 is an inverted plan view of Figure 1,

Figure 3 is a view similar to that of Figure 1 showing the collapsible tray in its extended position, and

Figure 4 is an inverted plan view of Figure 3.

Like numerals designate like parts throughout the several views.

Refer now to the figures which disclose a container 10 embodying the invention comprising a wall portion 12 and a bottom portion 14 forming an internal cavity 16. If desired the wall portion 12 and the bottom 14 may be made of a cardboard material to render it non-breakable and inexpensive, although other materials may be utilized.

The wall 12 also may have the configuration of a frustum with its top edge 18 having a diameter greater than its lower edge 20. This construction allows the efficient stacking and economical shipping of a plurality of containers one within another.

The bottom portion 14 of the container 10 is positioned from the bottom edge 20 of the wall portion 12 to form a bottom recess 22.

A foldable tray 24 which may also be made of a flexible material such as cardboard having a substantially circular central portion 26 bounded by central fold lines 28 and having a substantially circular outer periphery 30.

The central portion 26 of the tray 24 is secured with the bottom portion 14 of the container 10 at 32, such as by gluing or any other suitable means. The periphery 30 of the tray 24 extends beyond the wall portion 12 and provides the tray 24 with a fluid retaining edge portion 34 as clearly shown by Figures 3 and 4.

The edge portion 34 of the tray is provided with a plurality of transverse fold lines extending from the central fold lines 28 to the periphery 30 of the tray 24. The radial fold lines 36 intersect at their inwardly directed ends with the angular fold lines 38 forming the alternate segments 40 and 42. The segments 40 are substantially triangular in form, while their adjacent segments 42 are four sided figures approximating parallelograms.

The transverse fold lines 36 and 38 allow the retaining edge portion 34 to be folded into the bottom recess 22 of the container 10, as illustrated in the Figures 1 and 2. In its folded position the periphery 30 of the tray 24 forms an opening 44 which allows the tray to be easily grasped and extended to its open position for use.

When the tray 24 is in its collapsed condition, the container then has the configuration of a frustum and can be used and stored in the ordinary manner. When the fluid is to be dispensed, the foldable tray 24 of the container 10 may be readily extended to protect the surface upon which the container may be placed from spilled material or material running down the wall 12 of the container. The tray will also reduce dripping from the bottom of the container when it is carried. It is also noted that the tray serves to further insulate the bottom of the container so as to protect the surface upon which it rests from heat when a hot substance is retained by the container 10. The extended tray 24 also adds stability to the container 10 making it more difficult to accidentally tip and spill its contents.

It will, of course, be understood that the description and drawings, herein contained, are illustrative merely, and that various modifications and changes may be made in the container device disclosed without departing from the spirit of the invention.

What is claimed is:

1. A container having a bottom portion forming a bottom recess, and a tray secured with the bottom of said container having an edge portion extendible beyond the bottom of said container for providing a continuous marginal area surrounding the bottom of said container, the edge of said tray being folded into the bottom recess of said container.

2. A container having a bottom portion forming a bottom recess, and a substantially circular tray secured with the bottom of said container having an edge portion extendible beyond the bottom of said container.
for providing a continuous marginal area surrounding the bottom of said container, the edge of said tray being provided with a plurality of transverse fold lines and being folded entirely into the bottom recess of said container.

3. A substantially cylindrical container having a bottom portion forming a bottom recess and a tray secured with the bottom of said container having a substantially circular periphery with an edge portion extendible beyond the bottom of said container for providing a continuous marginal area surrounding the bottom of said container, the edge portion of said tray being provided with a plurality of transverse fold lines extending to its periphery and being folded entirely into the bottom recess of said container, the periphery of said tray forming a central opening when in its folded position within the bottom recess of said container.

4. A container in the shape of a frustum having a bottom portion of reduced diameter and forming a bottom recess, and a tray having a central portion secured with the bottom portion of said container having a substantially circular periphery with an edge portion extendible beyond the bottom of said container for providing a continuous marginal area surrounding the bottom of said container, the edge portion of said tray being provided with a plurality of transverse fold lines extending to its periphery from its central portion, the edge portion of said tray being folded entirely into the bottom recess of said container, the periphery of said tray forming a central opening when in its folded position within the bottom recess of said container.

5. A flexible container in the shape of a frustum having a bottom portion of reduced diameter and forming a bottom recess, and a flexible tray having a substantially circular central portion permanently secured with the bottom portion of said container and having a substantially circular periphery with an edge portion extendible beyond the bottom of said container for providing a continuous marginal area surrounding the bottom of said container, the edge portion of said tray being provided with a plurality of transverse fold lines extending to its periphery from its central portion, the edge portion of said tray being folded entirely into the bottom recess of said container, the periphery of said tray forming a central opening when in its folded position within the bottom recess of said container.

6. A container having a substantially horizontal bottom with a boundary edge, and a tray secured with the bottom of said container having an edge portion extendible beyond the boundary edge of the bottom of said container for providing a continuous marginal area surrounding the bottom of said container, the edge of said tray being folded into a horizontal position entirely along the bottom and within the boundary edge of said container.

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