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CONTAINERS

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Fig. 1.

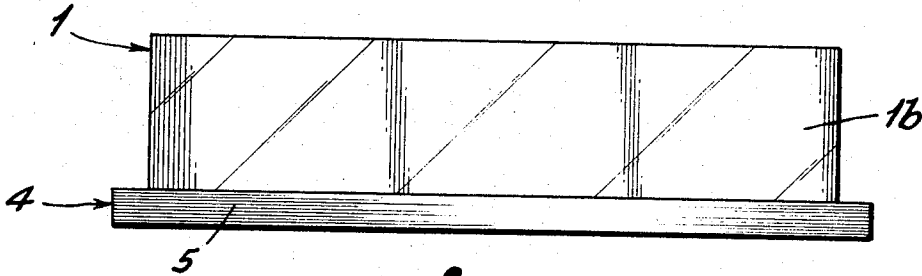


Fig. 2.

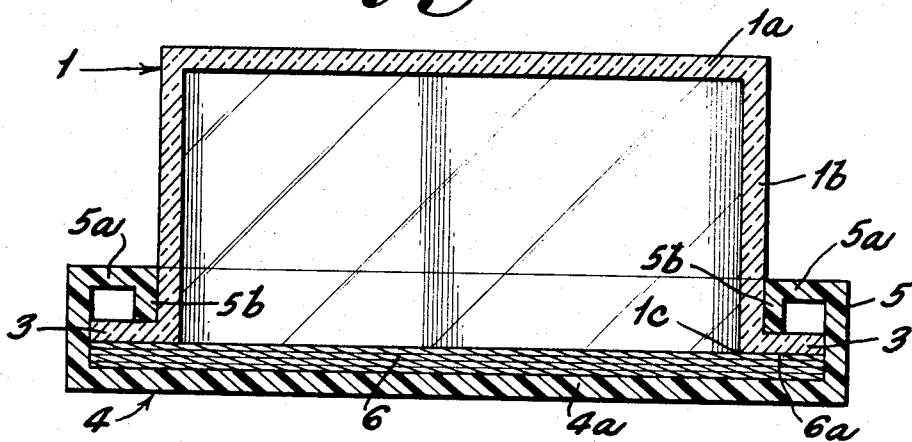
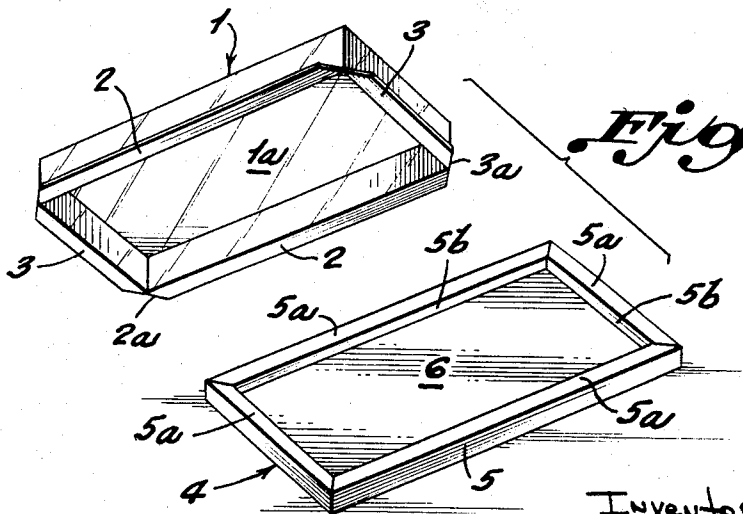


Fig. 3.



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CONTAINERS

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3 Claims. (Cl. 150—.5)

ABSTRACT OF THE DISCLOSURE

A container of plastic material having an open ended body portion, a closure for closing the open end of the body portion and constituting the bottom of the container, a laminated wall superposed on the inner surface of the bottom of the closure for reinforcing the closure, and complemental means on the body portion in the plane of the open end and on the interior of the closure for providing a detachable connection between the body portion and the closure.

The present invention relates to containers preferably of plastic material and more particularly to containers constituted by a body portion having an open end and a closure member therefor with the connection between the body portion and the closure member being such that the closure member forms the bottom of the body portion and the container possesses a unitary appearance.

There are several known types of plastic containers having a body portion and a closure in which flanges on one of the components will fit into guides on the other component to interconnect the components, but such prior containers have not been entirely satisfactory since there is a tendency for the closure for the container to fall out of place due to its own weight when the container may be positioned on an inclined surface.

Accordingly, an important object of the present invention is to provide a plastic container which will overcome the above and other objectionable features presently existing in the art.

Another object of this invention is to provide a plastic container defined by a body portion and a closure therefor and complemental means on the body portion and closure for effecting a detachable connection therebetween.

To accomplish the above and other objects, the present container includes two components, namely a body portion having an open end and a closure for such open end with such components being provided with complemental means adapted to effect a quick, positive and detachable connection between such components and with the closure also serving as the bottom of the container.

More specifically, the complemental means for effecting the detachable connection comprises outwardly directed flange means along the perimeter of and in the plane of the open end of the body portion and a continuous groove within the closure and in which groove the flange means is adapted to be positioned.

Further objects and advantages of the invention will become more readily apparent to persons skilled in the art from the following detailed description and annexed drawings of an embodiment of the invention and in which drawings:

FIGURE 1 is a view in side elevation of the present invention in the assembled and closed condition,

FIGURE 2 is a vertical sectional view of the container illustrated in FIGURE 1, and

FIGURE 3 is an exploded perspective view of the components constituting the container, namely the body portion and the closure member respectively.

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As previously mentioned, the container is of plastic material and preferably the body portion is formed of transparent material while the closure member is of opaque material so that there is provided a container which permits the ready inspection of the contents of the container without the necessity of opening the container.

Referring to the drawings, the container comprises a body 1 and a closure member 4. These components may be rectangular, quadrangular or any other desired configuration.

The body portion 1 is defined by an end wall 1a, a side wall 1b and an open end 1c. The longitudinal and transverse sides of the body portion are provided with outwardly directed flanges 2 and 3 respectively, arranged at right angles to the sides and normal to the plane of the open end 1c. At the juncture between the longitudinal and transverse side, the flanges 2 and 3 are angled off at approximately forty-five degrees as indicated at 2a and 3a respectively.

The closure member 4 comprises an end wall 4a and a side wall 5 perpendicular thereto. The side wall 5 extends inwardly to provide a flange 5a at right angles thereto and thence downwardly to provide a leg 5b arranged in parallelism to the side wall 5. The leg is of such length as to terminate short of or be spaced from the end wall 4a. A laminated wall 6 is positioned on the inner surface of the end wall 4a and is of such dimensions as to extend to the side wall 5, as clearly illustrated in FIGURES 2 and 3. In addition, the thickness of the wall 6 is such that a continuous groove or slot 6a is provided between the upper surface of the wall 6, the leg 5b and the side wall 5. The wall 6 serves to reinforce the closure member 4 and also function to retain the flanges 2 and 3 in the groove or slot 6a as will be later described.

While the operation of the container is believed to be readily apparent from the above description, it may be summarized as follows:

When the container contents have been positioned on the laminated wall 6, the longitudinal sides of the body portion 1 are pressed lightly and the flanges 2 and 3 introduced into the groove or slot 6a. Upon relieving the pressure, the body portion and closure will be interconnected as shown in FIGURE 2 with the wall 6 serving as a spring means for retaining the flanges within the slot 6a. When the container is to be opened, the sides are again pressed thereby causing the flanges 2 and 3 to leave the slot or groove 6a.

It will be readily appreciated from the foregoing that the present container is quite simple in structural detail and in operation. The co-action between the flanges of the body portion and the groove or slot of the closure member provides a quick and readily adaptable connection between the respective components. There is no likelihood of the two components becoming accidentally disengaged or disconnected and by virtue of the transparent nature of the container the contents are readily visible.

This invention is not to be confined to any strict conformity to the showings in the drawings but changes or modifications may be made therein so long as such changes or modifications mark no material departure from the spirit and scope of the appended claims.

I claim:

1. In a container of plastic material, a body portion having a closed end, a side wall, an open end and flange means extending outwardly from the side wall in a plane normal to the open end of the body portion, a closure for the open end of the body portion and adapted to constitute the bottom of the container, said closure having a closed end, a side wall, an inwardly directed flange and a leg extending from the inwardly directed flange in the direction of but spaced from the closed end, and a lami-

nated wall positioned on the inner surface of the closed end of the closure of such dimensions as to engage the inner surface of the side wall of the closure to reinforce the closed end thereof and be spaced from the leg to provide a slot extending about the interior adapted to receive the flange means of the body portion to detachably connect the body portion and closure.

2. The container as claimed in claim 1 in which the application of pressure to the side wall of the body portion displaces the normal position of said flange means enabling the flange means to be introduced into the slot, with the release of the pressure returning the flange means to its normal position secured between the laminated wall, the leg and the side wall of the closure and upon re-

application of pressure, the flange means leaves the slot for disconnecting the body portion and closure.

3. The container as claimed in claim 2 in which said body portion is of transparent material and said closure of opaque material.

References Cited

UNITED STATES PATENTS

2,606,586 8/1952 Hill 150-5
3,255,870 6/1966 Peck 206-45.34

FOREIGN PATENTS

642,272 8/1950 Great Britain.

DONALD F. NORTON, *Primary Examiner.*