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L. H. PFOHL

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CONTAINER

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FIG. 1.

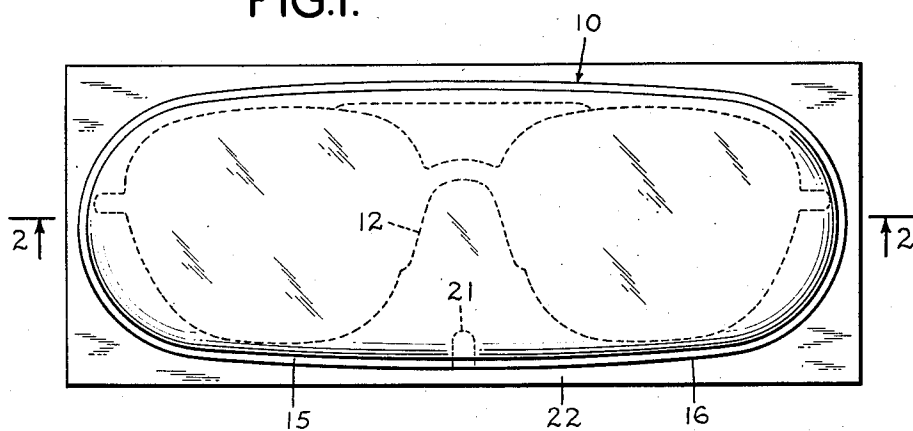


FIG. 2.

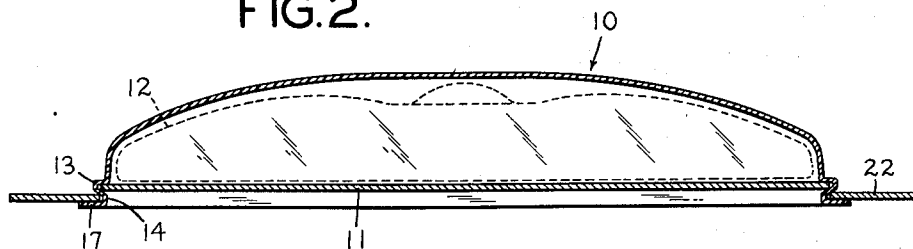
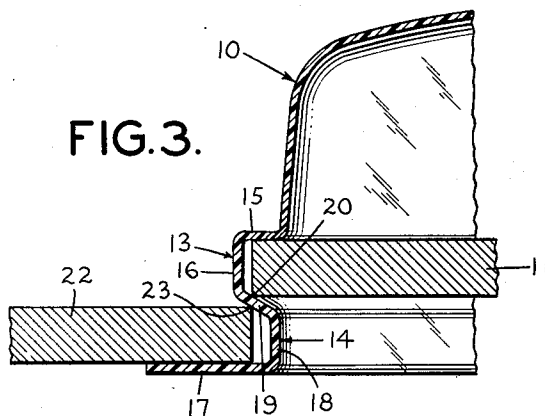


FIG. 3.



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CONTAINER

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10 Claims. (Cl. 206—78)

The present invention relates to containers and the like, and more particularly to containers for packaging merchandise and other items for purposes of display or sale.

It is frequently desirable to package merchandise for purposes of display in transparent packages. It is also desirable in many cases for such transparent packages to be affixed removably to large supporting structures such as display cards. For example, a number of items of merchandise are often removably mounted on a single display card so that the individual items may be removed one by one for purposes of sale. When the individual items are separately packaged and the packages themselves are mounted on the display card, it is important that the packages be easily removable from the display card. It has also been found desirable to make each individual package a complete unit so that the item or items of merchandise contained therein will be retained securely when the package is removed from the display card or the like.

A principal object of the invention has been the provision of a novel and improved container.

More particularly, it has been a principal object of the invention to provide a novel and improved container which may readily be affixed to and remove from a supporting structure and which, when so removed, nevertheless affords a complete package in itself.

Another object of the invention has been the provision of a hollow container structure having a rim adapted to be snapped into engagement with a supporting structure, the rim being adapted to retain a closure whose size and configuration is substantially the same as the hole in the supporting structure into which the container structure is snapped.

Other and further objects, features and advantages of the invention will appear more fully from the following description.

In accordance with the invention, the container is provided with a body member which may be generally dome-shaped and which is open at the base. The base has a rim which is generally S-shaped in cross section, thus affording a double undercut with the upper undercut extending outwardly and the lower undercut extending inwardly. A container bottom is snapped into and retained in the upper undercut. The lower undercut is adapted to have snapped into it and to retain therein the rim of a hole in a supporting structure.

The invention will now be described in greater detail with reference to the appended drawing, in which:

Fig. 1 is a plan view of one form of container embodying the invention;

Fig. 2 is a sectional view taken along the line 2—2 of Fig. 1; and

Fig. 3 is an enlarged detail view of a portion of Fig. 2.

Referring now to the drawing, the container illustrated comprises a generally dome-shaped body member 10, which is open at the base, and a bottom 11 which closes

the open base of the body member. The body member 10 is preferably made from a transparent plastic material such as acetate or vinyl plastic, while the bottom 11 may be made of paperboard or other suitable material. Either the body member 10 or the bottom 11 may be made of resilient material to permit the snap-in construction to be described. However, it is preferable that both be somewhat resilient.

The container illustrated is adapted for the display of sun glasses, as shown in dotted lines at 12, but it will be understood that this is only one example, and that a tremendous variety of articles may be packaged in containers constructed in accordance with the invention. Thus the shape of the body member and bottom may be varied widely to accommodate the particular item to be displayed.

As is best shown in Fig. 3, the base of the body member 10 has a rim which is generally S-shaped in cross section, affording an upper outwardly extending beaded undercut 13 and a lower inwardly extending beaded undercut 14. The undercut 13 has a generally horizontal shoulder 15 and a generally vertical surface 16. The undercut 14 has a generally horizontal outwardly extending flange edge 17 and a vertical surface 18. The surfaces 16 and 18 are joined by a diagonal surface 19. It should be understood that the terms "upper," "lower," "inwardly," "outwardly," "horizontal," "vertical" and "diagonal" are employed only as convenient terms of reference relative to the dome part of the body member 10 and do not necessarily have reference to the final disposition of the container in service.

The bottom 11 which closes the open base of the body member 10 fits within the undercut 13. A peripheral portion of the upper surface of the bottom 11 engages the lower side of the horizontal surface 15. The lower corner 20 of the bottom 11 contacts the diagonal surface 19. This surface contact with the surface 15 and the line contact with the surface 19, which preferably extend completely around the open base of the body member 10, serve releasably to retain the bottom 11 within the undercut 13.

In order to permit insertion of the bottom 11 into the undercut 13 and also to permit removal of the bottom 11 from the undercut 13, either the body member 10, or at least the base portion thereof, or the bottom 11 should be resilient. Preferably both are resilient. In assembling the bottom 11 and the body member 10, the bottom is placed in substantial registry with the open base of the body member 10 and is snapped into the position illustrated. To facilitate removal of the bottom 11 from the body member 10, a peripheral notch or a hole may be provided in the bottom 11 to permit insertion of a finger or instrument, thus permitting the bottom 11 to be snapped out of engagement with the body member 10. Such a peripheral notch is illustrated at 21 in Fig. 1.

The body member 10 with inserted bottom 11 is inserted into a hole provided in a supporting structure 22 which might be, for example, a paperboard display card arranged to support and display one or more containers such as are formed by the body member 10 and bottom 11. Such a display card could conveniently carry a suitable advertising message.

The bottom surface of the supporting structure 22 adjacent the hole is in surface contact with the upper surface of the flange 17. An upper corner 23 forming the upper edge of the hole in the structure 22 is in contact with the diagonal surface 19. The surface contact with the flange surface 17 and the line contact with the surface 19 serve releasably to retain the rim of the hole in the supporting structure 22 within the undercut 14, or in other words, causes the container to be retained in the hole provided in the structure 22.

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In order to assemble the container and the supporting structure, the dome of the body member 10 is inserted into the hole in the supporting structure 22 so that the surface 15 is in substantial registry with the rim of the hole. A force is then exerted on either the flange 17 or the bottom 11 to cause the body member 10 to snap into position in the hole, as illustrated in Fig. 3. Disassembly of the container from the supporting structure can easily be effected by exerting a force on the upper surface of the body member 10. The supporting structure, or at least that portion thereof adjacent the hole, or the body member 10 should be made of a resilient material to permit the snap in assembly and disassembly described. Preferably both are made from resilient materials. Thus, as mentioned previously, the supporting structure can conveniently be made of paperboard while the body member 10 can conveniently be made of a suitable plastic. The plastic should, of course, be one which will retain its shape in service. The outward extent of the flange 17 prevents the container from being forced completely through the hole in the supporting structure during assembly.

As best shown in Fig. 3, the bottom 11 should be substantially the same size as the hole in the supporting structure 22 so that both the bottom 11 and the supporting structure 22 can be retained in the undercuts 13 and 14, respectively. Preferably the bottom 11 is the same piece (or an identical one) removed from the structure 22 in die cutting or otherwise forming the hole therein.

When the container formed by the body member 10 and bottom 11 is removed from the supporting structure it nevertheless constitutes a complete package in itself.

While the invention has been described in connection with a specific embodiment thereof and in a specific use, various modifications thereof will occur to those skilled in the art without departing from the spirit and scope of the invention as set forth in the appended claims. For example, although the invention has been described in connection with the packaging of merchandise, it will be readily apparent that it may be used for other purposes such as a picture frame or as a toy or game. For the latter purpose some suitable game structure will usually be mounted or formed on the upper surface of the bottom 11.

What is claimed is:

1. A device of the character described, comprising a body member having an open base forming a rim which is generally S-shaped in cross section to provide an upper outwardly extending undercut and a lower inwardly extending undercut, the lower edge of said rim having a substantially flat, outwardly extending flange, and a bottom having a shape corresponding to the shape of said open base, the peripheral edge of said bottom extending into said upper undercut whereby said bottom is removably retained in said upper undercut.

2. A container comprising a generally dome-shaped body member having an open base forming a rim which is generally S-shaped in cross section to provide an upper outwardly extending undercut and a lower inwardly extending undercut, the lower edge of said rim having a substantially flat, outwardly extending flange, and a bottom having a shape corresponding to the shape of said open base, the peripheral edge of said bottom extending into said upper undercut, whereby said bottom is removably retained in said upper undercut.

3. A container comprising a generally dome-shaped body member having an open base forming a rim which is generally S-shaped in cross section to provide an upper outwardly extending undercut and a lower inwardly extending undercut, the lower edge of said rim having a substantially flat, outwardly extending flange, a card member having an aperture corresponding in size and shape to said open base, the peripheral edge of said aperture being arranged to be snapped into and out of said lower undercut for releasable retention of said body member on said card, and a bottom having a shape cor-

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responding to the shape of said open base, the peripheral edge of said bottom extending into said upper undercut whereby said bottom is removably retained in said upper undercut, at least one of said body members and said bottom being resilient to permit said bottom to be snapped into and out of said upper undercut.

4. A container comprising a generally dome-shaped body member formed from a resilient transparent plastic material and having an open base forming a rim which is generally S-shaped in cross section to provide an upper outwardly extending undercut and a lower inwardly extending undercut, the lower edge of said rim having a substantially flat, outwardly extending flange, a card member having an aperture corresponding in size and shape to said open base, the peripheral edge of said aperture being arranged to be snapped into and out of said lower undercut for releasable retention of said body member on said card, and a bottom having a shape corresponding to the shape of said open base, the peripheral edge of said bottom extending into said upper undercut, whereby said bottom is removably retained in said upper undercut.

5. A container comprising a generally dome-shaped body member formed from a resilient plastic material and having an open base forming a rim which is generally S-shaped in cross section to provide an upper outwardly extending undercut and a lower inwardly extending undercut, the lower edge of said rim having a substantially flat, outwardly extending flange, a card member having an aperture corresponding in size and shape to said open base, the peripheral edge of said aperture being arranged to be snapped into and out of said lower undercut for releasable retention of said body member on said card, and a bottom having a shape corresponding to the shape of said open base, the peripheral edge of said bottom extending into said upper undercut whereby said bottom is removably retained in said upper undercut, said upper undercut having an upper substantially horizontal surface in surface contact with said bottom and a lower diagonal surface in line contact with a peripheral edge of said bottom.

6. A display structure comprising a supporting member having a hole therein; and a container comprising a body member adapted to be inserted through said hole, said body member having an open base forming a rim which is generally S-shaped in cross section to provide an upper outwardly extending undercut and a lower inwardly extending undercut, the lower edge of said rim having a substantially flat, outwardly extending flange, and a bottom corresponding substantially in size and shape to said hole, the peripheral edge of said bottom extending into said upper undercut whereby said bottom is removably retained in said upper undercut, the rim of said hole extending into said lower undercut and a substantial portion of the area of said supporting member adjacent said rim thereof being in surface contact with said flange whereby said container is removably retained in said hole in said supporting member.

7. A merchandising display comprising an extended sheet having a hole therein, a generally dome-shaped body member extending into said hole and having an open base with a rim which is generally S-shaped in cross section to provide an upper outwardly extending undercut and a lower inwardly extending undercut, said lower undercut being in snap-in engagement with the rim of said hole for removably mounting said body member on said sheet, and a bottom having a size and shape conforming substantially with said hole and being in snap-in engagement with said upper undercut for removably retaining said bottom in said open base.

8. A merchandising display as set forth in claim 7 in which said sheet is formed from paperboard and said body member is formed from a resilient plastic.

9. A merchandising display as set forth in claim 8 in which said bottom is formed from paperboard.

10. A merchandising display as set forth in claim 9 in

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which said bottom is identical with the material removed
from said sheet to form said hole therein.

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