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G. L. FERRI, JR

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CONTAINER WITH DISPENSING SPOUT

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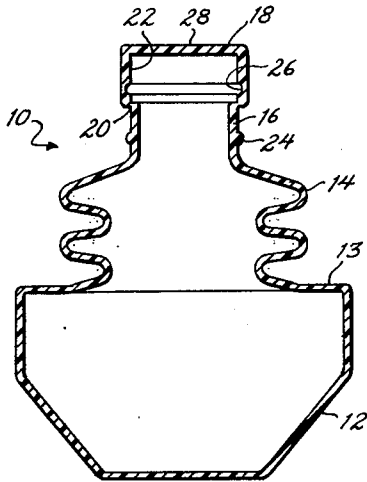


Fig. 1.

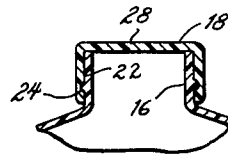


Fig. 2.

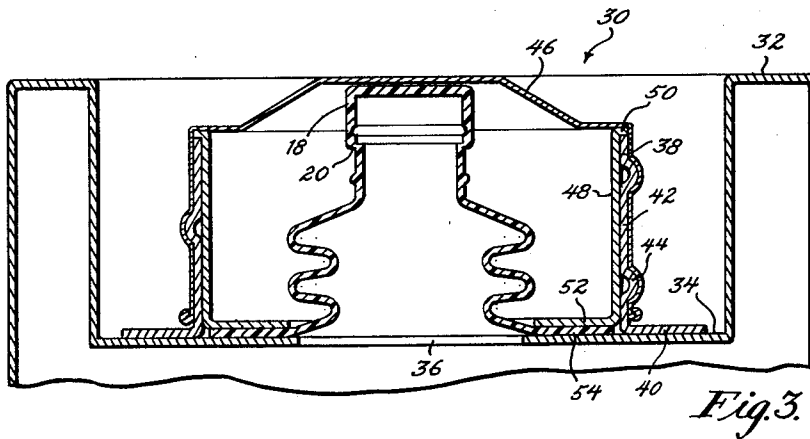


Fig. 3.

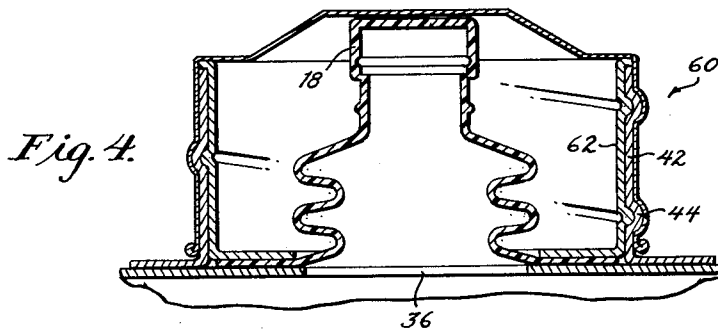


Fig. 4.

INVENTOR.
GUSTAV L. FERRI, JR.
BY
Arthur H. Seidel
ATTORNEY

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CONTAINER WITH DISPENSING SPOUT

Gustave L. Ferri, Jr., 9 Sandra Circle, Westfield, N.J.
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This invention relates to a container having a dispensing spout, and more particularly, to a container having a bellows type dispensing spout wherein a cap for said spout is integral therewith.

The present invention is directed to a dispensing spout wherein a cap is integral with the spout and capable of being severed therefrom when it is desired to utilize the contents of the container. Thereafter, the cap is capable of being secured around a neck on the spout. The bellows type dispensing spout of the present invention may be integrally formed with the container by blow molding processes. Alternatively, the bellows type dispensing spout of the present invention may be secured to any type of conventional container.

It is an object of the present invention to provide a novel bellows type dispensing spout for a container.

It is another object of the present invention to provide a novel bellows type dispensing spout having a cap integral therewith and capable of being severed therefrom for disposal around a neck of said spout.

It is another object of the present invention to provide a novel bellows type dispensing spout capable of being secured to a container.

Other objects will appear hereinafter.

For the purpose of illustrating the invention there is shown in the drawings forms which are presently preferred; it being understood, however, that this invention is not limited to the precise arrangements and instrumentalities shown.

FIGURE 1 is a transverse sectional view of a container having the bellows type dispensing spout of the present invention.

FIGURE 2 is a transverse sectional view of the neck portion of the bellows type dispensing spout of the present invention with the cap severed from the neck portion and disposed therearound.

FIGURE 3 is a partial transverse sectional view of an alternative embodiment of the present invention.

FIGURE 4 is a partial transverse sectional view of still another embodiment of the present invention.

Referring to the drawing in detail, wherein like numerals indicate like elements, there is shown in FIGURE 1 a container having a bellows type dispensing spout designated generally as 10.

The container 10 includes a body 12 integrally connected with a planar portion 13 on a bellows type dispensing spout. A bellows portion 14 is provided on the spout between the planar portion 13 and the neck 16.

The spout is provided with a cap 18 which is integrally connected to the neck 16 by a reduced thickness portion 20. The cap 18 is cup-shaped in transverse cross section and is provided with a wall 22 having an inner diameter substantially equal to the outer diameter of the neck 16.

A projection 24 extends radially outwardly from the peripheral surface of the neck 16. The inner surface of the wall 22 is provided with a recess 26. Preferably, the projection 24 extends around the entire periphery of the neck 16. Likewise, the recess 26 extends around the entire inner periphery of the wall 22. The axial distance between the projection 24 and the reduced thickness portion 20 is equal to the axial distance between the recess 26 and the wall 28 on cap 18.

The bellows type dispensing spout is preferably formed by blow molding process integral with the body 12 which may be made from any synthetic resin. Accordingly, dis-

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pensing may take place by squeezing the body 12 after the cap 18 has been removed from the neck 16 as will be made clear hereinafter. The bellows portion 14 enables the overall height of the container 10 to be substantially reduced for shipment purposes.

When it is desired to dispense the contents from the container 10, the cap 18 is separated from the neck 16 by severing the reduced thickness portion 20. The synthetic resin material from which the container 10 is made readily permits the cap 18 to be severed from the neck 16 by use of a sharp instrument such as a pair of scissors, a knife, etc.

Since the inner diameter of the wall 22 is substantially equal to the outer diameter of the neck 16, the cap 18 is capable of being disposed around the neck 16 as shown more clearly in FIGURE 2. As shown more clearly in FIGURE 2, the projection 24 is disposed within the recess 26 to retain the cap 18 around the neck 16. Thus, the cap 18 is snapped onto the neck 16 and is retained thereon until it is desired to dispense the contents of the container 10. At that time, the cap 18 is snapped off by use of one's fingers. Thereafter, the cap 18 may be snapped on to the neck 16 when dispensing has terminated.

There is shown in FIGURE 3 another embodiment of the present invention wherein a container is designated generally as 30. The container 30 is provided with a body 32 having a recessed wall 34 thereby defining a well. The wall 34 is provided with an aperture 36 therethrough. An annular ring 38 is fixedly secured to the wall 34 in any convenient manner.

As shown more clearly in FIGURE 3, the annular ring 38 is L-shaped in transverse cross section. The L-shaped annular ring 38 includes a leg 40 which is juxtaposed to and fixedly secured to the wall 34. Also, the ring 38 includes an upright leg 42 having threads 44 on its outer peripheral surface formed by deforming said leg 42. A closure 46 made from a rigid material is threadedly engaged with the threads 44 on the leg 42. The closure 46 is preferably made from sheet metal and alternatively may be snapped on to the outer peripheral surface of the leg 42.

A ferrule is disposed within the ring 38. The ferrule 48 is an annular ring force-fitted within the leg 42 of the ring 38. The ferrule 48 is provided with a lip 50 extending over the uppermost surface of the leg 42 as shown more clearly in FIGURE 3. The ferrule 48 is provided at the end remote from the lip 50 with a radially inwardly directed flange 52. The flange 52 on the ferrule 48 clamps the planar portion 54 of the spout against the wall 34 of the container. The spout shown in FIGURE 3 is identical with the spout shown in FIGURES 1 and 2 with the planar portion 54 corresponding to the planar portion 13. Accordingly, the spout shown in FIGURE 3 need not be described in detail.

The annular ring 38, the ferrule 48 and the closure 46 protect the bellows type dispensing spout during shipment. The provision of a bellows type spout in the container 30 reduces the overall height thereof. By mounting the bellows type spout within a well in the body 32, containers may be stacked one on top of another for shipment purposes. It should be noted that the closure 46 is readily removable. However, the provision of a cap 18 which is integral with the pouring spout prevents the contents of the container 30 from being contaminated during shipment. That is, the cap 18 must be severed from the neck 16 in order for the contents of the container to be tampered with. If the reduced thickness portion 20 is severed, this will immediately indicate that the contents of the container 30 have been tampered with or contaminated.

FIGURE 4 discloses a container designated generally as 60. The container 60 is identical with the container 30 except as pointed out hereinafter. The ferrule 62

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is threaded to the inner peripheral surface of the leg 42 instead of the force-fit between these elements as shown in FIGURE 3. In this manner, the ferrule 62 is readily removable. It is desirable to have a ferrule which is readily removable since the bellows type dispensing spout is occasionally damaged or ruptured. Also, the facile removability of the ferrule 62 permits replacement of the bellows type dispensing spout with another spout of different dimensions.

The contents of the containers 30 and 60 are dispensed under force of gravity. The contents of the container 10 may be dispensed under force of gravity and/or assisted by squeezing the body 12.

The present invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof and, accordingly, reference should be made to the appended claims, rather than to the foregoing specification as indicating the scope of the invention.

I claim:

1. A container comprising a body, a spout of synthetic resin material, said spout being connected to said body, a cap integral with said spout, the inner diameter of said cap being substantially equal to the outer diameter of said spout, said cap being connected to said spout by a portion of reduced thickness which is readily severable, the open end of said cap being directly connected to the open end of said spout in juxtaposed relationship thereto, whereby said cap is capable of being severed from said spout and disposed around said spout.

2. A container in accordance with claim 1 wherein the inner periphery of said cap is provided with a recess, the outer periphery of said neck being provided with a projection, said projection being disposed within said recess with a snap fit when said cap is disposed around said spout.

3. A container comprising a hollow body, a collapsible bellows type spout of synthetic resin, said spout being connected to said body, a cap integral with said spout, the inner diameter of said cap being substantially equal to the outer diameter of said spout, said cap being connected to said spout by a portion of reduced thickness which is readily severable, said cap being cup-shaped with the interior of said cap forming a continuation of the

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passage through said spout, the open end of said cap being directly connected to the open end of said spout in juxtaposed relation thereto, whereby said cap is capable of being severed from said spout and disposed around said spout by means of a snap fit.

4. A container in accordance with claim 3 wherein said spout is integral with said body.

5. A container comprising a body, a collapsible spout secured to said body, a cap integral with said spout, the inner diameter of said cap being substantially equal to the outer diameter of said spout, the interior of said cap being a continuation of the passage through said spout, said cap being connected to said spout by a portion of reduced thickness which is readily severable, an annular ring surrounding said spout, said ring being fixedly secured to a wall of said container surrounding said spout, an annular ferrule in engagement with the inner periphery of said ring, said wall having an opening therethrough, said spout surrounding said opening and being in communication with the interior of said container through said opening, said ferrule having a flange securing a portion of said spout against said wall of said container, and said cap being capable of being severed from said spout and disposed around said spout.

6. A container in accordance with claim 5 including a closure secured to the outer periphery of said ring, said closure being cup-shaped, and said wall on said container partially defining a well on said container within which said ring, closure, ferrule and spout are disposed.

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