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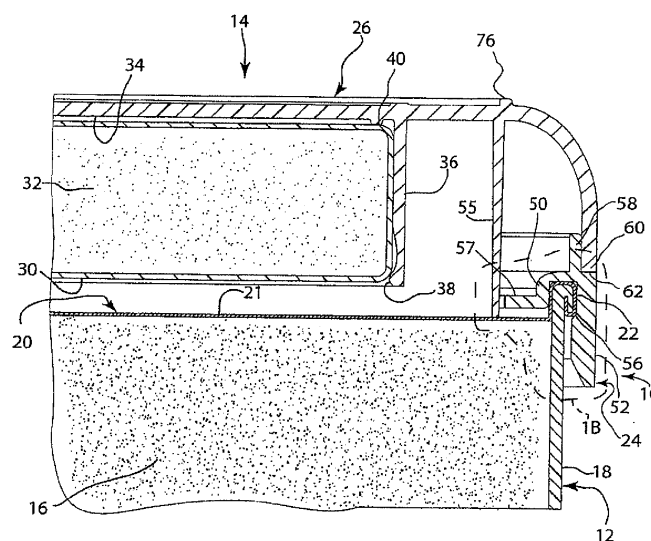
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(54) **Push button flip top with attached second container**

(57) The present invention provides a container unit  
comprising a main container in which a dry beverage mix  
is contained; a secondary container containing a dry ad-  
ditive for a beverage made with said dry beverage mix;

and a top which closes said main container and which is  
openable relative to said main container, said top remov-  
ably mounting said secondary container to an inside sur-  
face thereof.



**Fig. 1A**

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## Description

### BACKGROUND OF THE INVENTION

**[0001]** Containers with a flip top to dispense or access a product therein are well known. Also known is the provision of a container with an additional item to be used with the product, where the additional item is provided beneath a flip top and separated from the opening. However, some such flip tops do not secure the item in place and are generally limited by the size of the neck of the container. Other flip tops have been provided with an item attached to an inside of the top, so that the item extends down into the opening and body of the container. However, room must be left in the container for the item, as a result of which the item is subject to being knocked loose or opened by the product in the container.

### BRIEF SUMMARY OF THE INVENTION

**[0002]** In accordance with the present invention, a container is provided which includes a main container body having a rigid rim and a flip top for the main body. This flip top includes a base member which is attached to the rigid rim of the main body and a cover member which is hingedly connected to the base member and which has a first catch member. The base member also includes a push button which is formed therewith such that the push button is resiliently mounted. This push button includes a second catch member such that the second catch member interacts with the first catch member when the cover member is in a closed position relative to the base member to hold the cover member to the base member, and such that the first and second catch members are separable from one another when the push button is pushed.

**[0003]** In one embodiment of this invention, the cover member includes a skirt portion and a cutout in the skirt portion, where the first catch member extends from the cutout. The push button of the base member also extends upwards from an adjacent portion of the base member. Preferably, the flip top is an integral injection molded plastic.

**[0004]** In another embodiment, the first catch members are located to either side of the cutout, and the second catch members of the push button are located on lateral wings on either side of the push button which extend behind the cutout on opposite sides thereof. In addition, a lower edge of each wing is located adjacent an upper edge of the base member. A resilient link is used to interconnect the base member and the push button in order to mount the push button upstanding from and resiliently to the base member. The resilient link being located such that the resilient movement of the push button as the push button is pushed causes at least one of the lower edges of the wings to contact and move past the upper edge of the base member, producing a perceivable sensation indicative of the separation of the first and second catch members.

**[0005]** In one preferred embodiment, the base member includes an upstanding leg. The skirt portion covers the base member, and extends about the upstanding leg when the cover member is in the closed position. The main body includes a non-metal surrounding wall, and the rigid rim is a composite formed of a metal rolled with a top portion of the non-metal surrounding wall. Preferably, the surrounding wall is made of a foil paperboard and is generally circular in cross section, and the cover member is dome shaped.

**[0006]** In preferred embodiments, the rigid rim includes a flange extending inwardly. The cover member then includes an inner sealing member which engages the flange, either vertically or radially, when the cover member is in the closed position. In addition, the base member includes a leg which extends below an outside portion of the rim, and the leg includes a shoulder which is trapped below the outside portion of the rim to securely attach the base member to the rim.

**[0007]** Also in a preferred embodiment, the main container body houses a powdered beverage mix, preferably a dry coffee related product. The cover member then includes a secondary container in which a secondary powdered additive used in conjunction with the beverage mix is contained. A mounting means is provided for removably mounting the secondary container to an inside surface of the cover member. Preferably, the rim includes an internal flange, and a removable membrane is attached to the flange below the secondary container. The mounting means includes opposed resilient arms extending from the inside surface between which the secondary container is trapped and held in place.

**[0008]** Further in a preferred embodiment, a spring member is provided which biases the cover member away from the closed position.

**[0009]** Also in accordance with the present invention, a container unit is provided which includes a main container in which a dry beverage mix is contained and a secondary container containing a dry additive for a beverage made with the dry beverage mix. The unit also includes a top which closes the main container and which is openable relative to the main container, the top removably mounting the secondary container to an inside surface thereof.

**[0010]** In a preferred embodiment, the top includes opposed resilient arms extending from an inside surface thereof between which the secondary container is trapped and held in place. In addition, the top includes a base member which is attached to a rigid rim of the main container, and a cover member which is hingedly connected to the base member. This cover member includes a first catch member. The base member then includes a push button which is resiliently mounted and which includes a second catch member. The second catch member interacts with the first catch member when the cover member is in a closed position relative to the base member to hold the cover member to the base member, and the first and second catch members are separable from

one another when the push button is pushed.

**[0011]** In one preferred embodiment, the cover member includes a skirt portion and a cutout in the skirt portion where the first catch member extends from the cutout. The push button of the base member extends upwards from an adjacent portion of the base member. Preferably, the flip top is an integral injection molded plastic.

**[0012]** In another embodiment, the first catch members are located to either side of the cutout, and the second catch members of the push button are located on lateral wings on either side of the push button which extend behind the cutout on opposite sides thereof. In addition, a lower edge of each wing is located adjacent an upper edge of the base member. A resilient link is used to interconnect the base member and the push button in order to mount the push button upstanding from and resiliently to the base member. The resilient link being located such that the resilient movement of the push button as the push button is pushed causes at least one of the lower edges of the wings to contact and move past the upper edge of the base member, producing a perceivable sensation indicative of the separation of the first and second catch members.

**[0013]** Also in a preferred embodiment, the base member includes an upstanding leg. The skirt portion covers the base member and extends about the upstanding leg when the cover member is in the closed position.

**[0014]** Further in a preferred embodiment, the main body includes a non-metal surrounding wall. The rigid rim is a composite formed of a metal rolled with a top portion of the non-metal surrounding wall. Preferably, the surrounding wall is made of a foil paperboard, the surrounding wall is generally circular in cross section, and the cover member is dome shaped.

**[0015]** Still further in a preferred embodiment, the rigid rim includes a flange extending inwardly. The cover member includes an inner sealing member which engages, either vertically or radially, the flange when the cover member is in the closed position. In addition, the base member includes a leg which extends below an outside portion of the rim, and the leg includes a shoulder which is trapped below the outside portion of the rim to securely attached the base member to the rim. Further, the rim includes an internal flange and a removable membrane attached to the flange below the secondary container, and a spring member which biases the cover member to an open position.

**[0016]** It is an advantage of the present invention that a flip top for a container having a rigid rim is provided.

**[0017]** It is also an advantage of the present invention that a second container of sufficient size can be provided with a first container.

**[0018]** It is a further advantage that of the present invention that storage of a dry product of a first container and a different product of a second container is made as a unit.

**[0019]** It is a still further advantage that of the present invention that a flip top is provided with a push button

which is attractive and easily operated to release a cover member thereof.

**[0020]** It is yet another advantage of the present invention that a perceivable sensation is produced when the push button is pushed sufficiently to be indicative of a separation the first and second catch members.

**[0021]** Other features and advantages of the present invention are stated in or apparent from detailed descriptions of presently preferred embodiments of the invention as discussed in greater detail below.

#### BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

**[0022]** Figure 1A is a cross sectional elevation view of a portion of a cylindrical container unit having a main container and a flip top according to the present invention.

**[0023]** Figure 1 B is an enlarged cross sectional view of a portion of the cylindrical container unit shown by broken line 1B in figure 1A.

**[0024]** Figure 2 is a cross sectional view of the flip top depicted in an open position (and taken along section line 2-2 in figure 3).

**[0025]** Figure 3 is a top plan view of the flip top of the container unit depicted in figure 2.

**[0026]** Figure 4 is a bottom plan view of the flip top of the container unit depicted in figure 2.

**[0027]** Figure 5 is a elevation view of the base member of the flip top taken from the direction of arrow 5 in figure 2.

**[0028]** Figure 6 is a cross sectional view of the base member of the flip top taken along section line 6-6 in figure 4.

**[0029]** Figure 7A is a cross sectional view of the cover member of the flip top taken along section line 7A-7A in figure 4 with part of the sealing ring cut away for clarity.

**[0030]** Figure 7B is a cross sectional view of the cover member of the flip top taken along section line 7B-7B in figure 3.

**[0031]** Figure 7C is a cross sectional view of an enlarged portion of the latch shown by broken line 7C in figure 2.

**[0032]** Figure 8A is an enlarged cross sectional view of the hinge shown by broken line 8A in figure 2.

**[0033]** Figure 8B is a cross sectional view of the hinge taken along section line 8B-8B in figure 3.

**[0034]** Figure 9 is a perspective view of the flip top depicted in figure 1 showing the mounting of a second container to the cover member.

**[0035]** Figure 10 is a cross sectional view of a portion of the cover member taken along section line 10-10 in figure 9.

**[0036]** Figure 11 is a perspective view of a flip top similar to that of figure 9 but having an alternative mounting for an alternative second container.

**[0037]** Figure 12 is a cross sectional view of a portion of the cover member taken along section line 12-12 in figure 11.

**[0038]** Figure 13 is a cross sectional view of an en-

larged portion of the cover member shown by broken line 13 in figure 6.

[0039] Figure 14 is a cross sectional view of an enlarged portion of the cover member shown by broken line 14 in figure 2.

[0040] Figure 15 is a cross sectional view of the first catch member of the push button shown in figure 14 showing the relationship to the second catch member.

[0041] Figure 16 is a perspective view of an alternative embodiment of a flip top similar to that of figures 1-5 but having an alternative push button with a perceivable sensation feature.

[0042] Figure 17 is a front elevational view in partial cross section of the base member of the flip top depicted in figure 16.

[0043] Figure 18 is a front elevational view in partial cross section of the cover member of the flip top depicted in figure 16.

[0044] Figure 19 is an elevational cross sectional view of the cover member depicted in figure 18 taken along section line 19-19.

[0045] Figure 20 is an enlarged perspective view of the portion of figure 17 identified with broken line 20.

#### DETAILED DESCRIPTION OF THE INVENTION

[0046] With reference now to the drawings in which like numerals represent like elements in the views, a portion of a container unit 10 in accordance with the present invention is depicted in figure 1A. Container unit 10 includes a main body or first container 12 and a flip top 14. Broadly, first container 12 is used for containing a first dry product 16 used to make a flavored beverage therefrom, preferably such as a flavored creamer to be added to coffee to make cappuccino or the like, or such as a dry powder used to make cappuccino, coffee, tea or hot chocolate or the like from hot water, or as otherwise desired. First container 12 preferably has a composite composition when containing a powdered product or the like. In particular, first container 12 is formed with a surrounding side wall 18 of plastic or lined (foil) paperboard. Typically, side wall 18 is generally cylindrical in cross section, though typically not a straight cylinder but with curves, protrusions or indentations along the height thereof as well appreciated by those of ordinary skill to aid in gripping and/or for aesthetic reasons. Alternatively, first container 12 could be of other shapes as desired, including rectangular, oval, etc. as well known in the art; and from other materials as desired, such as plastic. First container 12 also includes a bottom or bottom closure (not shown) and a sealed top 20.

[0047] As shown in greater detail in figure 1 B, where sealed top 20 meets the formed top part of surrounding side wall 18, a metallic rim 22 is provided which makes this area relatively rigid (though other materials such as plastic could be used so long as the rim does not easily deform from its circular shape and is thus suitable to retain flip top 14 thereon as discussed below). In this pre-

ferred embodiment, sealed top 20 includes a removable membrane such as a foil seal 21 which is provided to seal product 16 in container 10 after manufacture and during shipping and transport to the consumer. Foil seal 21 is attached at its periphery to an inwardly directed flange 23 of rim 22, and it will be appreciated that flange 23 thus serves to reinforce the rigidity of rim 22. Flange 23 extends completely about first container 12 as shown schematically by the broken line in figure 4 (which otherwise does not depict first container 12). Foil seal 21 is suitably removable by the consumer at the first use of first product 16 by tearing or breaking thereof, or preferably by pulling against a weak adhesive attaching the outer periphery of foil seal 21 to flange 23 as known in the art. Where foil seal 21 is attached adhesively, foil seal 21 is removable via a tab (not shown) or the like. When the removable foil seal 21 is removed, first product 16 is then easily removed from main body 12, as with a spoon or the like or carefully poured therefrom. Foil seal 21 also preferably includes a one-way valve 25 (shown only schematically in figure 4) or the like by which any pressure which might build up in first container 12 is released, as also well known in the art.

[0048] Flip top 14 is preferably formed of an injection-moulded plastic or the like and broadly includes two parts, a base member 24 and a cover member 26. Base member 24 and cover member 26 are integrally connected together by a butterfly hinge 28 along adjacent peripheral portions thereof, though a straight hinge could be used if desired. Flip top 14 is shown as an integral piece in figures 2-4, while base member 24, cover member 26 and hinge 28 are shown separately in respective figures 5-6, 7A-7C and 8. Hinge 28 has a weakened portion 27 which permits cover member 26 to easily pivot between a closed position as shown in figure 1A and preferably a full open position as shown in figures 2-4. Preferably, hinge 28 is designed (e.g., inherently biased) to resiliently move cover member 26 away from the closed position toward the full open position. The degree and strength required for the opening of cover member 26 can be as small or great as desired, and will be determined by the size and design of hinge 28. This degree and strength should at least be sufficient to make it easy for the user to move cover member 26 to an opened position where product 16 in first container 12 is easily accessed, which need not be a full open position but could be an intermediate position such as upstanding vertically from base member 24. If desired or needed, an extra spring component or the like can be added to make sure that cover member 26 moves to a sufficiently opened position. For example, a spring member 29 is shown in figure 2 upstanding from base member 24 which could be used for this purpose though it is expected that spring member 29 will not be needed in this embodiment. When cover member 26 is in the closed position, spring member 29 is resiliently bent (doubled) over, so that as spring member 29 seeks to return to its unbent position, spring member thus serves to resiliently urge cover member 26 back

to the open position.

**[0049]** Cover member 26 is optionally used to hold and protect an item or second container 30 during shipping and storage by the consumer. Preferably, where a second container 30 is provided, second container 30 contains a second dry product or additive 32 which is designed to be used in conjunction with or complementary to first dry beverage product 16 in first container 12, though second product 32 could be otherwise used as desired or needed. For a coffee to which a flavored cream mix product 16 is added to form a cappuccino, second product 32 could be for example chocolate or cinnamon sprinkles or powder or the like, or some other flavoring or complement as desired. It will also be appreciated that cover member 26 primarily serves as an easily pivoted cover and seal for first product 16 in first container 12 after foil seal 21 is removed by the user (as discussed subsequently) for easy access to first product 16.

**[0050]** Where second container 30 is provided and is rectangular as shown, cover member 26 mounts rectangular second container 30 securely to an inside surface 34 thereof. This mounting is accomplished by use of a mounting means including outstanding arms 36 extending inwardly from inside surface 34 and preferably formed integrally therewith. Arms 36 are provided with an enlarged head 38 as shown in figures 1A and 9-10. The spacing and longitudinal extent of arms 36 are designed to resiliently capture and hold second container 30 securely against inside surface 34. Preferably, a small raised ledge 40 (as shown in figure 9) is provided on inside surface 34 against which second container 30 is pressed by heads 38. Small projections 42 are also upstanding from inside surface 34 on either side of second container 30, to prevent second container 30 from shifting too far to one side or the other during shipping and storage by the user.

**[0051]** While not shown in detail, it will be appreciated that once second container 30 is removed from between arms 36, second container 30 includes a pivoted cap 44 or the like which is suitably pivoted out of a closed position to allow a small portion of second product 32 to be dispensed as by shaking of second container 30 above the coffee or like beverage after first product 16 has been added thereto. It will also be appreciated that pivoted cap 44 is preferably designed to be held closed by one arm 36 when trapped between arms 36 to prevent second product 32 from accidentally being added to first product 16 while second container 30 is mounted to inside surface 34 of cover member 26. Between uses, second container 30 is designed to be easily returned to the mounted position between arms 36 for a convenient user storage until a subsequent use with another coffee is desired.

**[0052]** An alternative mounting means for holding a second container 30' to an inside surface 34' of a cover member 26' is shown in figures 11-12. In this preferred embodiment, second container 30' is broadly cylindrically shaped and includes a circular projecting flange 46. Flange 46 is retained underneath of enlarged heads 38'

of arcuate arms 36' as shown (which arms 36' are thus shorter than arms 36). It will be appreciated that second container 30' includes a pivoted cap 44' having protruding-pegs fitting into and closing dispensing apertures 48, and that cap 44' is held closed by being pressed against inside surface 34'. Like second container 30, second container 30' is also designed to be returned to the mounted position onto inside surface 34' after use and thus for storage until second container 30' is needed again.

**[0053]** In order to securely attach flip top 14 to rim 22 of first container 12, the periphery of base member 24 is particularly shaped as shown best in figures 1A, 1B and 13. In particular, base member 24 includes a short depending leg 50 which is positioned on the inside surface of rim 22 above flange 23, and a long depending leg 52 which is positioned along and which extends below a bottom outside surface or the like of rim 22. In order to securely hold base member 24 to rim 22 which as noted above is rigid, rim 22 has a lower outside end 54 and long leg 52 includes a complementary located shoulder 56 which fits just below outside end 54. Thus, when base member 24 is force fit mounted on rim 22, shoulder 56 is trapped below outside end 54 to securely hold base member 24 in place on first container 12. The construction of base member 24 serves to make it relatively rigid as well, so that it stays securely on rigid rim 22 once mounted thereon.

**[0054]** As also shown by figures 1A and 13, base member 24 also includes an upstanding leg 58. When cover member 26 is in the closed position, a peripheral skirt portion 60 of cover member 26 is positioned just outside of upstanding leg 58 and engages a landing 62 of base member 24 provided outside of upstanding leg 58 to present a smooth and pleasing appearance. It will also be noted that a sealing ring 55 depends from inside surface 34 such that sealing ring 55 engages flange 23 of rigid rim 22 when cover member 26 is in the closed position (see figure 1A). Sealing ring 55 thus serves to assure that none of product 16 located in first container 12 will leak past sealing ring 55 after foil seal 21 is removed, especially when container unit 10 is shaken or dropped. Sealing ring 55 also serves to add strength to cover member 26 during production (including mounting of a second container, and subsequent filling of first container 12 where that comes last - see below) and as it sits atop first container 12 with base member 24 during shipping and handling. Thus, it will be appreciated that after removal of foil seal 21 by the user, cover member 26 acts as a protective sealing cover for first product 16 in first container 12 as well as a holder for second container 30 if one is provided.

**[0055]** In order to retain cover member 26 in the closed position on base member 24 as shown in figures 1A and 1B, a holding means 64 is provided as shown best in figures 7C, 14 and 15. Holding means 64 includes a push button 66 which is located between a circumferential gap in upstanding leg 58 as shown in figure 5, and which extends upwards past the top of upstanding leg 58. Push

button 66 has a finger press portion 67 which is pushed by the user to resiliently move push button 66 radially inward a slight amount as shown by the arrow in figure 15. This radial movement is allowed by the use of a groove 68 in the material of base member 24 around push button 66 where push button 68 is integrally formed with base member 24. It will be appreciated that this movement of push button 66 relative to the remainder of base member 24 is necessary as rigid rim 22 otherwise prevents base member 24 from deflecting inwards as push button 66 is pushed. Located at a top end of push button 66 is a first catch member 70; which location of first catch member 70 above the remainder of base member 24 provides catch member 70 at a distant position from groove 68 so that a sufficient movement thereof is achieved when push button 66 is pushed. Complementary to and located above a cutout 72 in cover member 26 is a second catch member 74 as shown in figure 7C. Both catch members 70 and 74 are longitudinally curved as shown, following the complementary contours respectively of push button 66 and cutout 72.

**[0056]** As shown in figure 15, when cover member 26 is in the closed position, first catch member 70 catches and holds second catch member 74 underneath thereof to hold cover member 26 in the closed position against the opening bias of and about hinge 28 (and/or spring 29). Thus, when push button 66 is moved inwardly a short distance as shown by the arrow in figure 15, second catch member 74 is no longer held underneath first catch member 70, so cover member 26 is then free to move upwards due to the opening bias of hinge 28. Cover member 26 thus pivots upward and is opened (or can be further opened as far as needed) to provide access first product 16 in first container 12 and to provide access to remove second container 30 (if provided) from inside surface 34 of cover member 26. It will be appreciated that this movement of push button 66 relative to the remainder of base member 24 is necessary as rigid rim 22 otherwise prevents other portions of base member 24 from deflecting inwards as push button 66 is pushed; and the location of first catch member 70 above the remainder of base member 24 also provides catch member 70 at a position for a sufficient movement thereof relative to second catch member 72.

**[0057]** Depicted in figures 16-20 is an alternative embodiment of a flip top 80 usable on a container similar to container 12. Flip top 80 is much like flip top 14, and thus similar elements of flip top 80 will be identified with the same numerals as the corresponding elements of flip top 14 but with the addition of a prime ('). Like flip top 14, flip top 80 is preferably formed of an injection-moulded plastic or the like and broadly includes two parts, a base member 24' and a cover member 26'. Base member 24' and cover member 26' are integrally connected together by a simple connecting hinge 28' which has a weakened line therealong so as to be sufficiently resilient to allow the two members 24' and 26' to pivot relative to one another as desired. Similar to hinge 28, hinge 28' is de-

signed (e.g., inherently biased) to resiliently move cover member 26' away from the closed position with base member 24', but in this embodiment just sufficiently biased only to raise cover member 26' slightly away from base member 24'. If desired or needed, an extra spring component or the like can be added in the manner as noted above with hinge 28. Cover member 26' of this alternative embodiment is optionally used to hold and protect a small item or second container during shipping and storage by the consumer, and thus any such item would be secured inside of integral central reinforcing cylindrical band 82 by any suitable mechanism such as arms 36' - though if it is not desired to hold a second container, arms 36' could be eliminated. It will be appreciated that integral radiating reinforcing struts 84 as shown are integrally formed with reinforcing cylindrical band 82.

**[0058]** In order to securely attach flip top 80 to the rim of the container (not shown), the periphery of base member 24' is particularly shaped and acts much like the periphery of base member 24 as shown in figures 1A, 1B and 13 and hence will not be discussed in detail further. However, it will be noted that flange 27' of base member 24' of flip top 80 is similar to flange 57 found on base member 24, and corresponding flange 23' (shown partially in figure 18) of this container similar to flange 23 of container 12. Likewise, cover member 26' does have a sealing ring 55' similar to sealing ring 55, but it will be noted that sealing ring 55' bows outward slightly at the distal end 86 thereof. As a result, as cover member 26' is moved to the closed position, distal end 86 moves resiliently past the inner end (or circumferential edge of this embodiment) of flange 23' to form a resilient seal therewith. Base member 24' like base member 24 also includes an upstanding leg 58' such that when cover member 26' is in the closed position, a peripheral skirt portion 60' of cover member 26' is positioned just outside of upstanding leg 58' and engages a landing 62' of base member 24' provided outside of upstanding leg 58'.

**[0059]** In order to retain cover member 26' in the closed position on base member 24', a holding means 64' broadly similar to holding means 64 is provided as shown best in figures 16-20. Holding means 64' includes a push button 66' which is likewise located in a circumferential gap or downwardly scalloped portion in upstanding leg 58' as shown in figure 17, and which extends upwards past the top of upstanding leg 58'. Push button 66' is pushed by the user to resiliently move push button 66' radially inward a slight amount. This radial movement is allowed by the use of a resilient link 88 at the bottom of push button 66' to the material of base member 24', so that push button 66' is integrally formed with base member 24'. It will be appreciated that this movement of push button 66' relative to the remainder of base member 24' is necessary as the rigid rim of the container otherwise prevents base member 24' from deflecting inwards as push button 66' is pushed.

**[0060]** Extending laterally (circumferentially in this em-

bodiment where the container is a cylinder) from push button 66' are opposed wings 90. Each wing 90 includes thereon an embossed or outwardly extending catch member 70'. As shown in figure 19, the upper surface of each catch member 70' is slanted while the lower surface is perpendicular. Complementary to and located adjacent a cutout 72' in cover member 26' are associated second catch members 74', each formed as a mating inwardly extending depression on the inside surface of skirt portion 60' as shown in figures 18-19. The perpendicular portions of embossed/depressed catch members 70' and 74' assure a positive locking of the two together, while the slanted portions provide for an easy sliding movement of catch member 70' past the edge of upstanding leg 58' and into catch member 74'. It will be appreciated that the embossed/depressed configurations of catch members 70' and 74' could be reversed, in which case, the slanted portions and flat portions of the embossed catch member on skirt portion 60 and the associated depressions in wings 90 would be reversed in orientation.

**[0061]** As shown in figure 19, when cover member 26' is in the closed position, both first catch members 70' catch and hold respective second catch members 74' therein to hold cover member 26' in the closed position against the slight opening bias of and about hinge 28'. Thus, when a user's finger 89 moves push button 66' inwardly a short distance about resilient link 88 as shown by the dotted lines of push button 66' in figure 20, second catch members 74' are no longer held within first catch member 70', so cover member 26 in then free to move upwards due to the opening bias of hinge 28'.

**[0062]** It will also be appreciated that due to the location of link 88, as push button 66' is pushed inward by a user, at least one of, and typically both of, lower edges 92 contact or slide along and then move past or off of an upper edge 94 of upstanding leg 58' of base member 24' as shown by the dotted lines in figure 20. To assure this contact, it will be appreciated that upper edge 94 has been widened at the location adjacent wings 90 as shown in figure 20. The movement of lower edges 92 past or off of upper edge 94 serves to produce a perceivable sensation by the user, in this case both an audio as a "click" sound and a tactile sensation. This sensation is designed to occur so as to be indicative of the separation of first and second catch members 70', 74' whereby the user knows that when the sensation is perceived, further pushing of push button 66' is no longer required to release cover member 26' from base member 24'.

**[0063]** It will be noted that it is anticipated that container 12 will be provided with a (metal, rolled rim) bottom last In the manufacturing process, so that flip top 14 (including second container 30 as desired) will be attached to first container 12 before first product 16 is added through the still opened bottom of the inverted container unit 10. In order to protect the release valve provided on foil seal 21 (as noted above), a filter paper 75 (shown schematically in figure 4) covers one-way release valve 25 to pre-

vent one-way valve 25 from becoming clogged with the powdered first product 16 during the filling operation thereof. As both the release valve 25 and filter paper 75 are attached to foil seal 21, both come off when foil seal 21 is initially removed by the user.

**[0064]** Preferably, flip top 14 also includes a top exterior rim 76 on cover member 26. Rim 76 is designed to receive a bottom of another container unit 10 therein, so that rim 76 promotes a steady stacking of container units 10 as known in the art.

**[0065]** While the present invention has been described with respect to exemplary embodiments thereof, it will be understood by those of ordinary skill in the art that variations and modifications can be effected within the scope and spirit of the invention.

#### 1. A container comprising:

a main container body having a rigid rim; and  
a flip top for said main body, said flop top comprising:

a base member which is attached to said rigid rim of said main body;

a cover member which is hingedly connected to said base member and having a first catch member and skirt portion with a cutout adjacent to said first catch member;  
and

a push button which is upstanding from and resiliently mounted to a remainder of said base member, said push button including a second catch member wherein said second catch member interacts with said first catch member when said cover member is in a closed position relative to said base member with said push button extending into said cutout to hold said cover member to said base member and wherein said first and second catch members are separable from one another when the push button is pushed.

#### 2. The container of clause 1:

wherein said push button includes oppositely directed lateral wings extending therefrom, each said wing including a respective first catch member thereon; and

wherein said cover member includes respective said second catch members at either lateral side of said cutout.

#### 3. The container of clause 2:

wherein a lower edge of each said wing is located adjacent an upper edge of said base member; and

- further including a resilient link interconnecting said base member and said push button in order to mount said push button upstanding from and resiliently to said base member, said resilient link being located such that the resilient movement of said push button as said push button is pushed causes at least one of the lower edges of said wings to contact and move past said upper edge of said base member to produce a perceivable sensation indicative of the separation of said first and second catch members. 5
4. The container of clause 3 wherein said upper edge of said base member is extended inwardly adjacent said lower edges of said wings to help assure contact of at least one of the lower edges of said wings therewith and hence production of the sensation. 10
5. The container of any one of clauses 1 to 4, wherein said flip top is formed of an integral injection molded plastic. 20
6. The container of any one of clauses 1 to 5: 25
- wherein said base member includes an upstanding leg; and
- wherein said skirt portion covers said base member and extends about said upstanding leg when said cover member is in the closed position. 30
7. The container of any one of clauses 1 to 6: 35
- wherein said main body includes a non-metal surrounding wall; and
- wherein said rigid rim is a composite formed of a metal rolled with a top portion of said non-metal surrounding wall. 40
8. The container of clause 7 wherein said surrounding wall is made of a foil paperboard; wherein said surrounding wall is generally circular in cross section; and wherein said cover member is dome shaped. 45
9. The container of any one of clauses 1 to 8 wherein said rigid rim includes a flange extending inwardly; and wherein said cover member includes an inner sealing member which engages said flange when said cover member is in the closed position. 50
10. The container of any one of clauses 1 to 9, wherein said base member includes a leg which extends below an outside portion of said rim, and said leg includes a shoulder which is trapped below said outside portion of said rim to securely attach said base member to said rim.
11. The container of any one of clauses 1 to 10 wherein said main container body houses a powdered beverage mix; and wherein said cover member comprises:
- a secondary container in which a secondary powdered additive used in conjunction with the beverage mix is contained; and
- a mounting means for removably mounting said secondary container to an inside surface of said cover member.
12. The container of clause 11, wherein said rim includes an internal flange and removable membrane attached to said flange below said secondary container.
13. The container of any one of clauses 1 to 12, further including a spring member which biases said cover member away from the closed position.
14. A flip top which is attached atop a container of a product comprising:
- a base member which is securely attached to the container;
- a cover member which covers said base member, said cover member comprising:
- an inside surface located above said base member; and
- a skirt portion which covers an outer portion of said base member,
- a hinge provided between said base member and said cover member which allows said cover member to pivot relative to said base member between a closed position where said cover member covers a majority of said base member and an opened position where said cover member does not cover a majority of said base member;
- and
- a holding means for holding said cover member in the closed position, said holding means comprising:
- a cutout in said skirt portion of said cover member and a first catch member located adjacent to said cutout; and
- a push button extending upwards from said base member and including a second catch member, said push button being resiliently



- movable (a) from a hold position where said first and second catch members are engaged and hold said cover member in the closed position with said push button extending into said cutout and (b) to a release position where said first and second catch members are released and said cover member is movable to the opened position. 5
15. The flip top of clause 14: 10
- wherein said push button includes oppositely directed wings extending therefrom and located behind said skirt portion when said cover member is in the closed position, each said wing including a respective first catch member thereon; and 15
- wherein said skirt member includes respective said second catch members at either lateral side of said cutout. 20
16. The flip top of clause 15: 25
- wherein a lower edge of each said wing is located immediately adjacent an upper edge of said base member; and
- further including a resilient link interconnecting said base member and said push button in order to mount said push button upstanding from and resiliently to said base member, said resilient link being located such that the resilient movement of said push button as said push button is pushed causes at least one of the lower edges of said wings to slide off of said upper edge of said base member to produce a perceivable sensation indicative of the separation of said first and second catch members. 30 35
17. The flip top of any one of clauses 14 to 16 wherein said upper edge of said base member is extended inwardly adjacent said lower edges of said wings to help assure sliding of at least one of the lower edges of said wings therewith and hence production of the sensation. 40 45
18. The flip top of any one of clauses 14 to 17, wherein said base member and cover member are formed of an integral injection molded plastic.
19. The flip top of any one of clauses 14 to 18, wherein said base member includes a leg which extends below an outside portion of a rim of the container, and wherein said leg includes a shoulder which is trapped below said outside portion of said rim to securely attach said base member to said rim. 50 55
20. The flip top of any one of clauses 14 to 19; wherein said rim includes a peripheral flange extending inwardly therefrom; and 5
- wherein said cover member includes an inner sealing ring which engages said peripheral flange when said cover member is in the closed position.
21. The flip top of clauses 20 wherein said base member includes an upstanding leg; and wherein said skirt portion of said cover member extends about said upstanding leg when said cover member is in the closed position.
22. The flip top of any one of clauses 14 to 21 wherein said base member and said cover member are generally cylindrical; and wherein said hinge is provided at opposed portions of peripheral edges of said base member and cover member.
23. The flip top of any one of clauses 14 to 22 wherein said push button is generally oval and said cutout is generally configured to receive a portion of said push button therein; and wherein said first catch member and said second catch members are mating convexo-concavo elements.
24. The flip top of any one of clauses 14 to 23, wherein said hinge biases said cover member away from the closed position.
25. The flip top of any one of clauses 14 to 24, wherein said cover member includes an inner seal ring which engages the first container.
26. The flip top of any one of clauses 14 to 25: further comprising a second container for a complementary product to the first-mentioned product of the first mentioned container; wherein said cover member includes a height which is sufficient to space said inside surface from the first-mentioned container such that said second container is receivable between the first-mentioned container and said inside surface; and further comprising a mounting means for removably mounting said second container to said inside surface of said cover member; such that when said cover member is in the opened position, said second container is accessible to be removed from said mounting means.
27. The flip top of clause 26, wherein said mounting means includes opposed resilient arms extending from said inside surface between which said second container is trapped and held in place.

28. A container unit comprising:

a main container in which a dry beverage mix is contained;  
a secondary container containing a dry additive for a beverage made with said dry beverage mix; and  
a top which closes said main container and which is openable relative to said main container, said top removably mounting said secondary container to an inside surface thereof.

29. The container unit of clause 28, wherein said top includes opposed resilient arms extending from the inside surface thereof between which said secondary container is trapped and held in place.

30. The container unit of clause 28 or 29, wherein the dry beverage mix is a coffee mix; and wherein the dry additive is a product complementary to and designed to be added to a beverage made with the coffee mix.

31. The container unit of any one of clauses 28 to 30, wherein said top comprises:

a base member which is attached to a rigid rim of said main container; and  
a cover member which is hingedly connected to said base member.

## Claims

1. A container unit comprising:

a main container in which a dry beverage mix is contained;  
a secondary container containing a dry additive for a beverage made with said dry beverage mix; and  
a top which closes said main container and which is openable relative to said main container, said top removably mounting said secondary container to an inside surface thereof.

2. A container unit as claimed in Claim 1, wherein said top includes opposed resilient arms extending from the inside surface thereof between which said secondary container is trapped and held in place.

3. A container unit as claimed in Claim 1, wherein the dry beverage mix is a coffee mix; and wherein the dry additive is a product complementary to and designed to be added to a beverage made with the coffee mix.

4. A container unit as claimed in Claim 1, wherein said top comprises:

a base member which is attached to a rigid rim of said main container; and  
a cover member which is hingedly connected to said base member.

5. The container unit of Claim 1 wherein:

said main container comprises a main container body having a rigid rim; and  
said top is a flip top for said main body, said flip top comprising:

a base member which is attached to said rigid rim of said main body;  
a cover member which is hingedly connected to said base member and

having a first catch member and skirt portion with a cutout adjacent to said first catch member; and

a push button which is upstanding from and resiliently mounted to a remainder of said base member, said push button including a second catch member wherein said second catch member interacts with said first catch member when said cover member is in a closed position relative to said base member with said push button extending into said cutout to hold said cover member to said base member;  
wherein said first and second catch members are separable from one another when the push button is pushed; and  
wherein said cover member comprises:

a mounting means for removably mounting said secondary container to an inside surface of said cover member.

6. A container unit as claimed in Claim 5, wherein said rim includes an internal flange and a removable membrane attached to said flange below said secondary container.

7. The container of Claim 1, wherein the top comprises:

a base member which is securely attached to the main container;  
a cover member which covers said base member, said cover member comprising:

an inside surface located above said base member; and  
a skirt portion which covers an outer portion

of said base member,

a hinge provided between said base member and said cover member which allows said cover member to pivot relative to said base member between a closed position where said cover member covers a majority of said base member and an opened position where said cover member does not cover a majority of said base member;  
a holding means for holding said cover member in the closed position, said holding means comprising:

a cutout in said skirt portion of said cover member and a first catch member located adjacent to said cutout; and  
a push button extending upwards from said base member and including a second catch member, said push button being resiliently movable (a) from a hold position where said first and second catch members are engaged and hold said cover member in the closed position with said push button extending into said cutout and (b) to a release position where said first and second catch members are released and said cover member is movable to the opened position;

wherein said cover member includes a height which is sufficient to space said inside surface from the main container such that said second container is receivable between the main container and said inside surface; and  
further comprising a mounting means for removably mounting said second container to said inside surface of said cover member;  
such that when said cover member is in the opened position, said second container is accessible to be removed from said mounting means.

8. A container unit as claimed in Claim 7, wherein said mounting means includes opposed resilient arms extending from said inside surface between which said second container is trapped and held in place.

9. A flip top which is attached atop a container of a product comprising:

a base member which is securely attached to the container;  
a cover member which covers said base member, said cover member comprising:

an inside surface located above said base member; and  
a skirt portion which covers an outer portion

of said base member,

a hinge provided between said base member and said cover member which allows said cover member to pivot relative to said base member between a closed position where said cover member covers a majority of said base member and an opened position where said cover member does not cover a majority of said base member;  
a holding means for holding said cover member in the closed position, said holding means comprising:

a cutout in said skirt portion of said cover member and a first catch member located adjacent to said cutout; and  
a push button extending upwards from said base member and including a second catch member, said push button being resiliently movable (a) from a hold position where said first and second catch members are engaged and hold said cover member in the closed position with said push button extending into said cutout and (b) to a release position where said first and second catch members are released and said cover member is movable to the opened position;  
and

a second container for a complementary product to the first-mentioned product of the first-mentioned container;

wherein said cover member includes a height which is sufficient to space said inside surface from the first-mentioned container such that said second container is receivable between the first-mentioned container and said inside surface;  
and

further comprising a mounting means for removably mounting said second container to said inside surface of said cover member;

such that when said cover member is in the opened position, said second container is accessible to be removed from said mounting means.

10. A flip top as claimed in Claim 9, wherein said mounting means includes opposed resilient arms extending from said inside surface between which said second container is trapped and held in place.

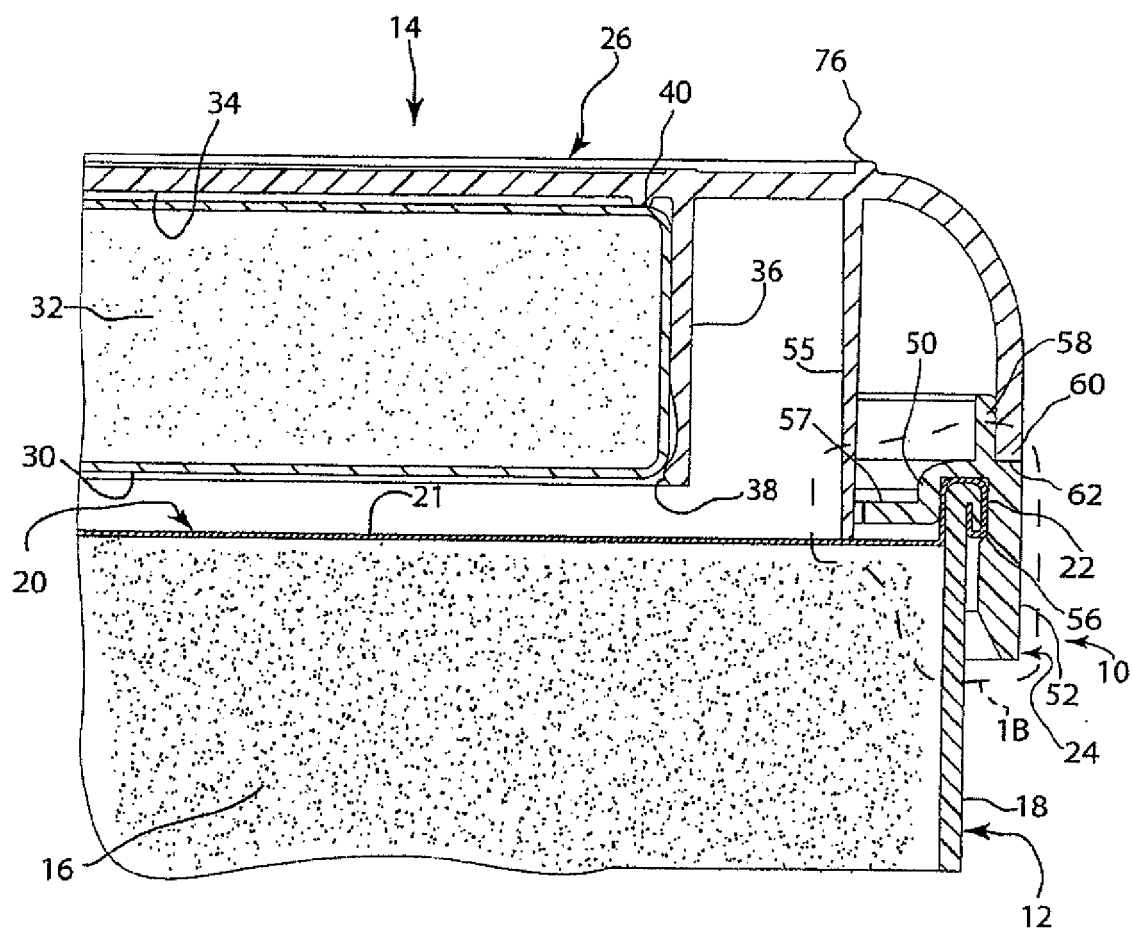


Fig. 1A

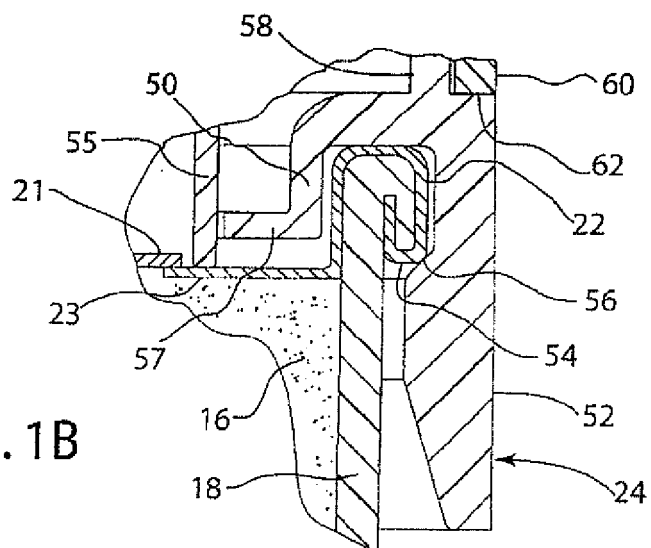


Fig. 1B

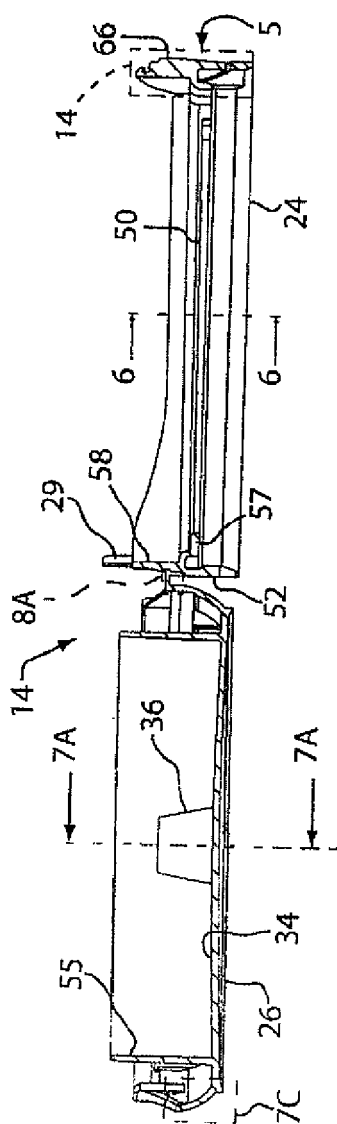


Fig. 2

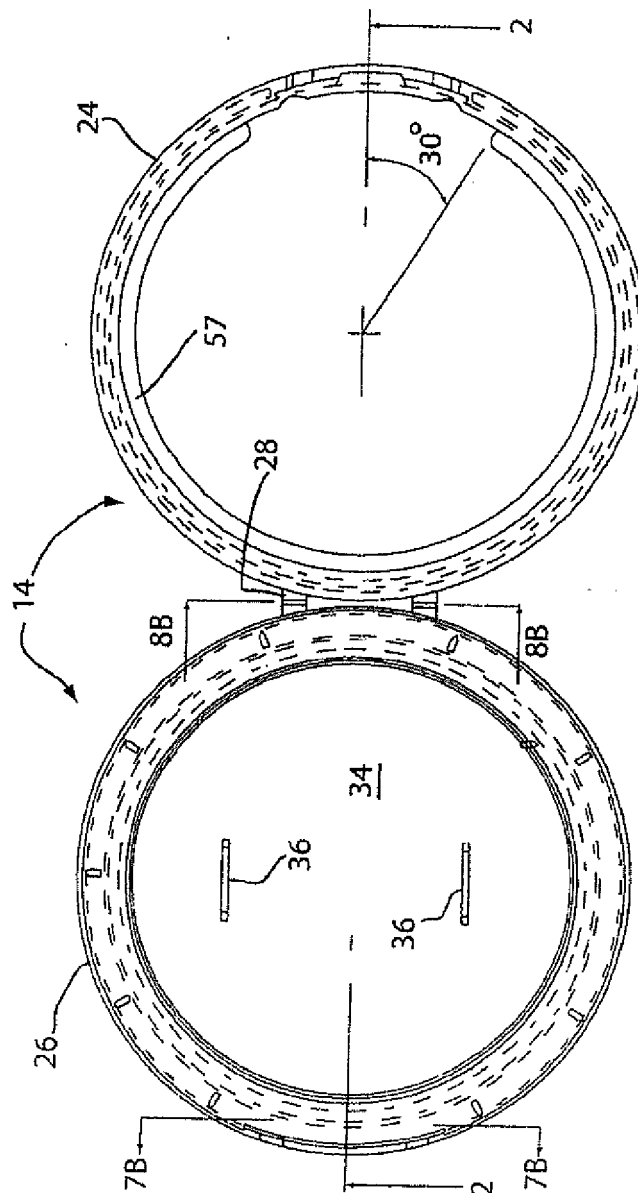


Fig. 3

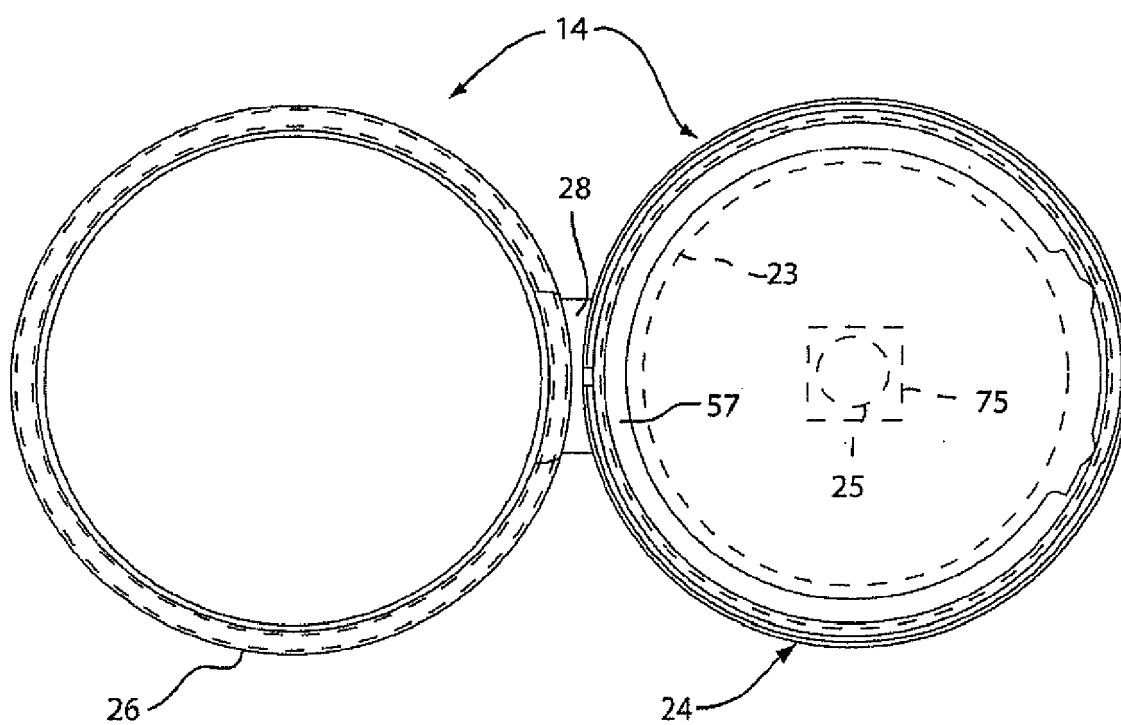


Fig. 4

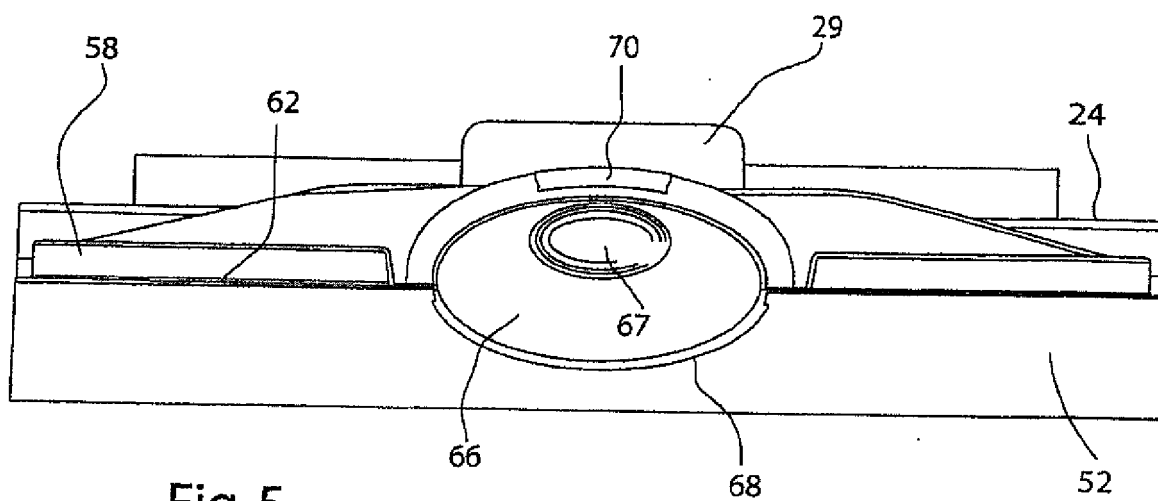


Fig. 5

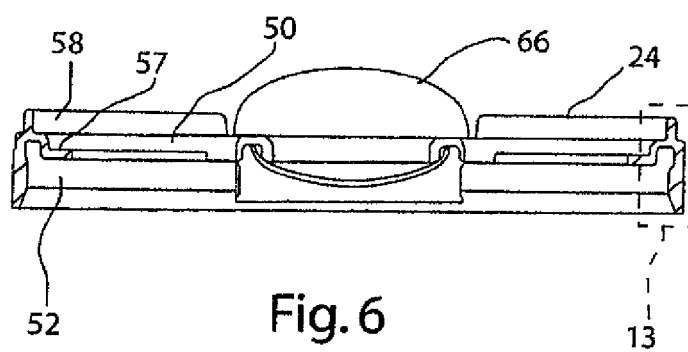


Fig. 6

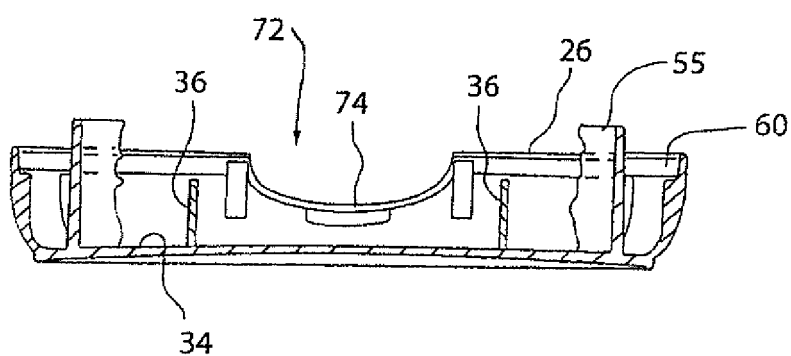
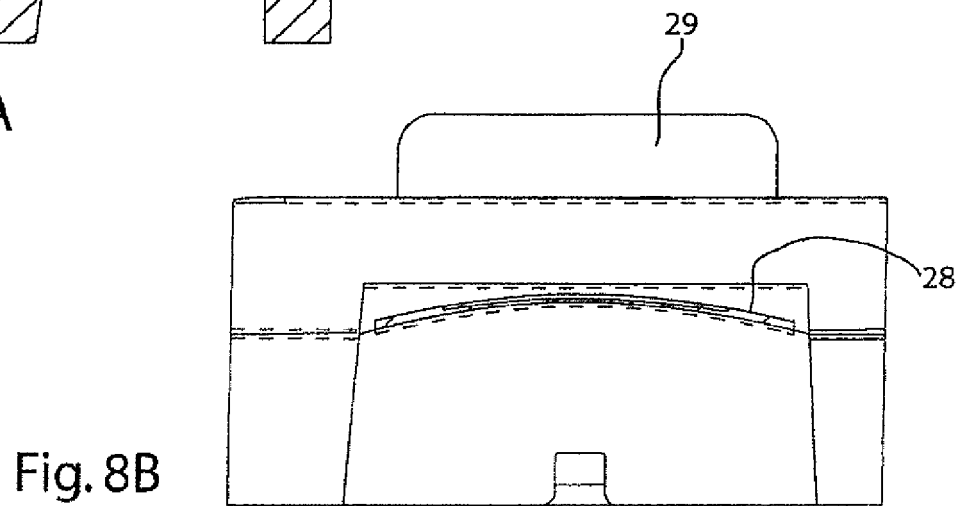
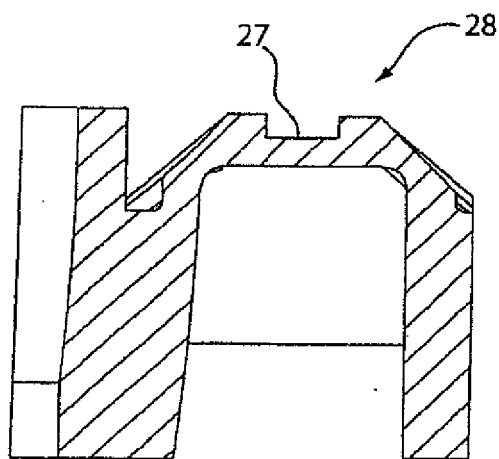
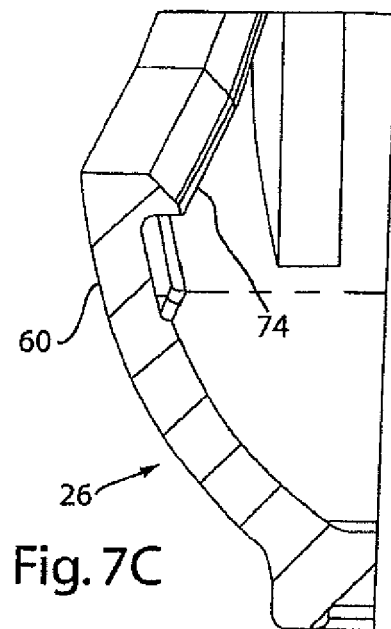
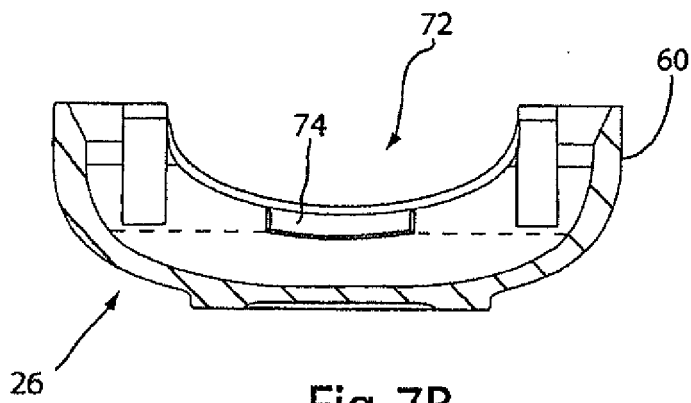


Fig. 7A





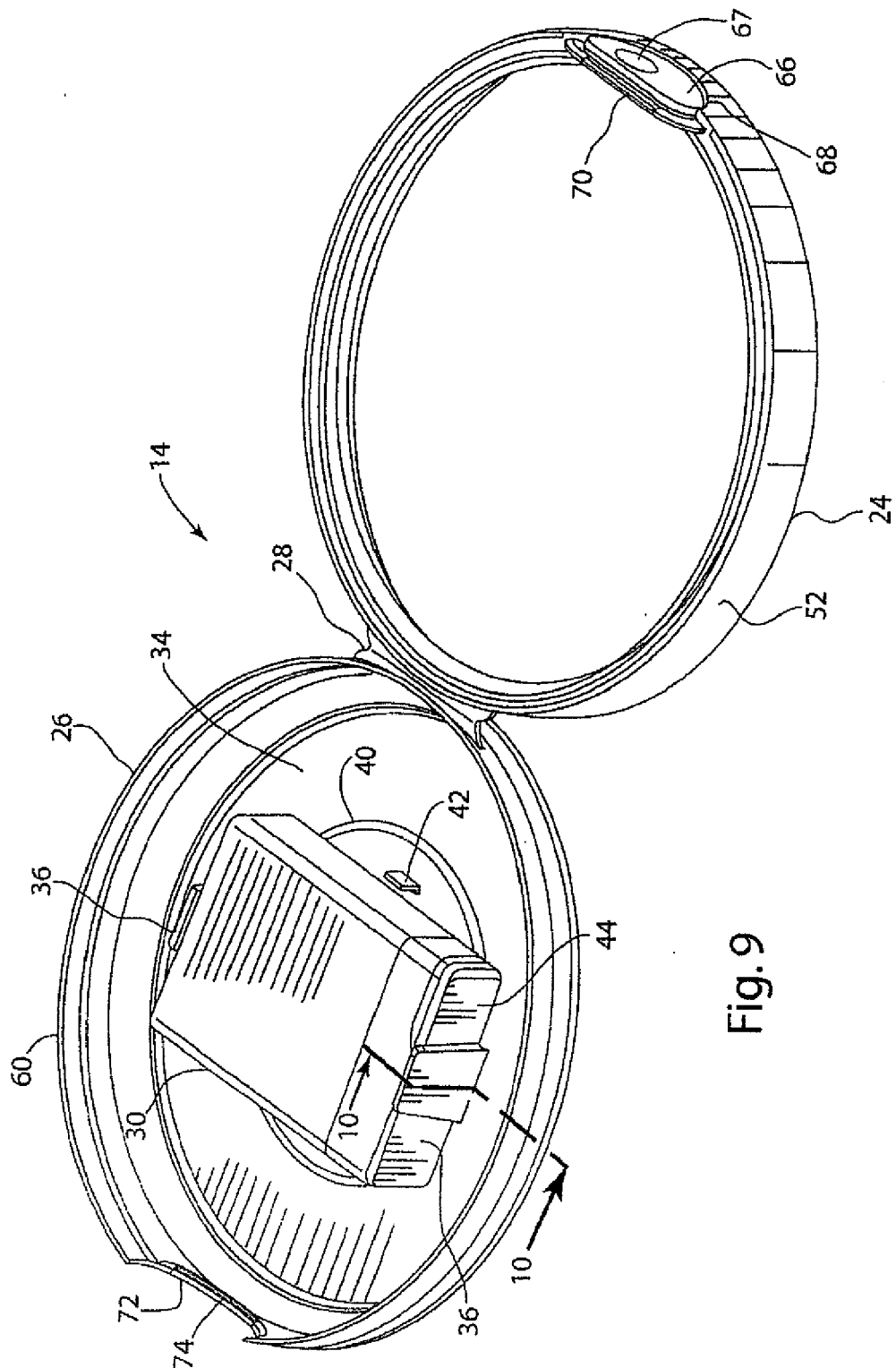


Fig. 9

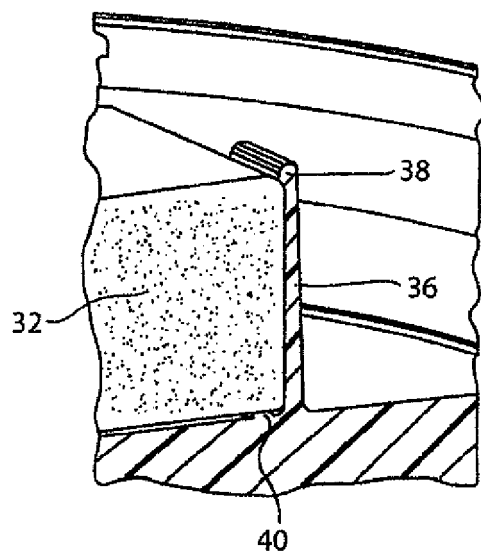


Fig. 10

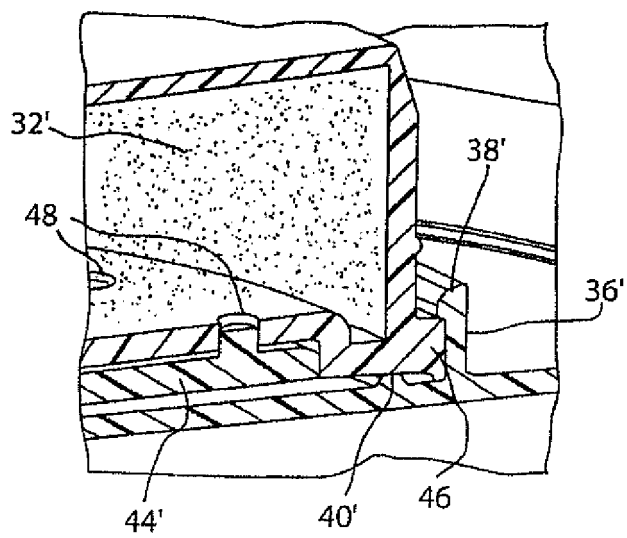


Fig. 12

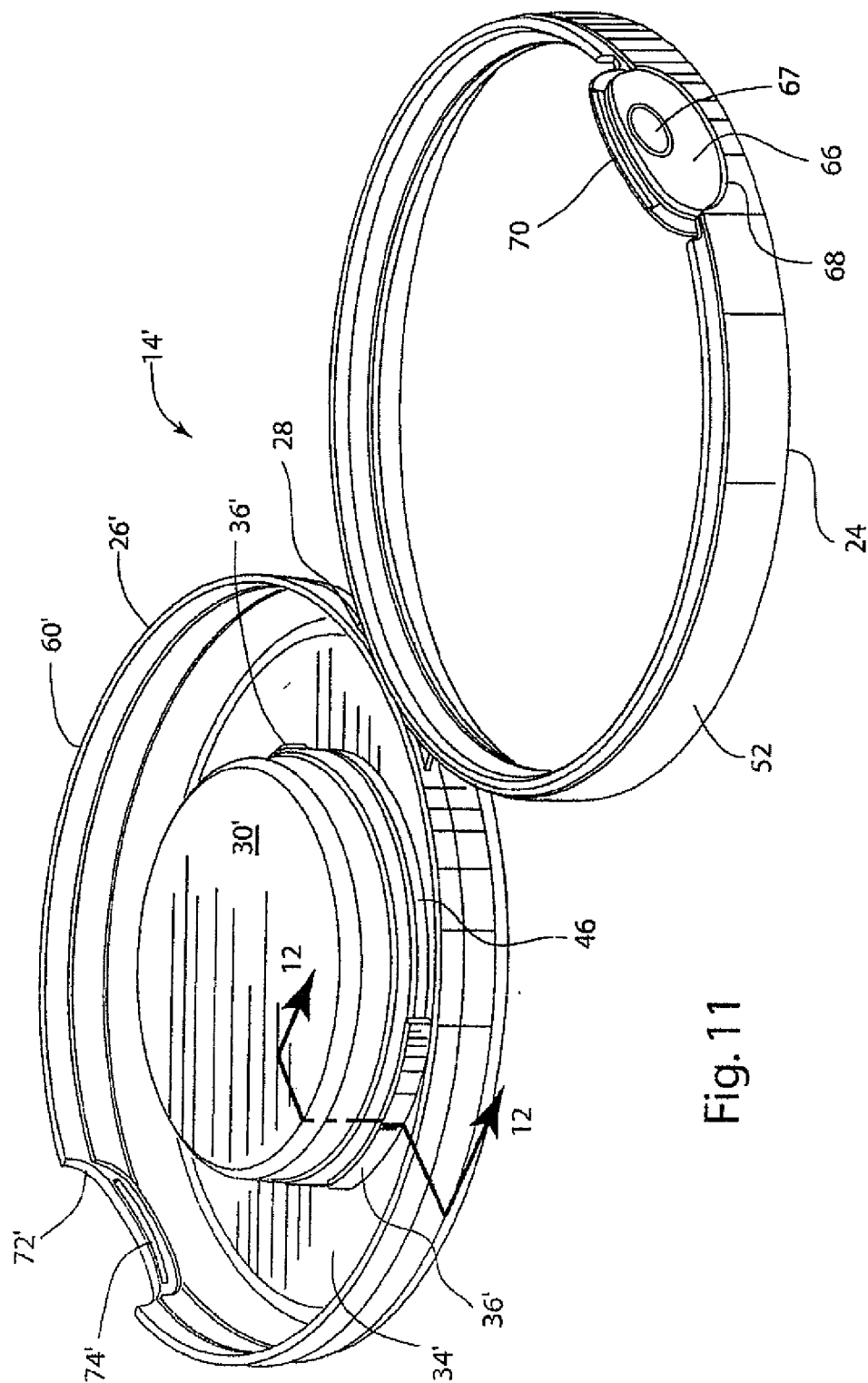


Fig. 11

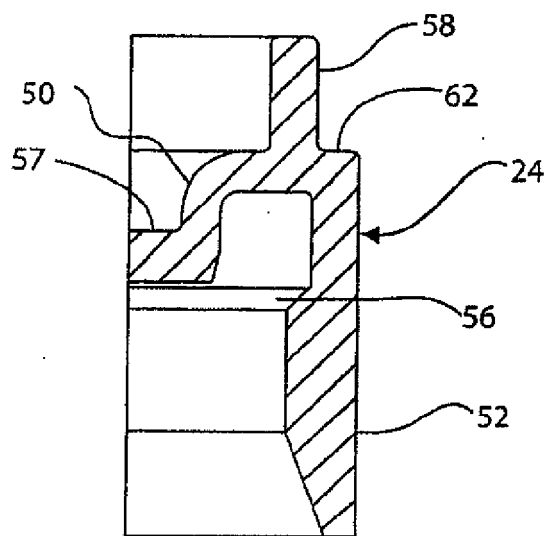


Fig. 13

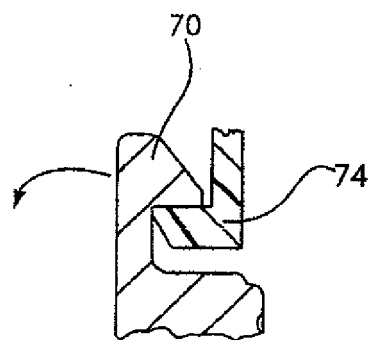


Fig. 15

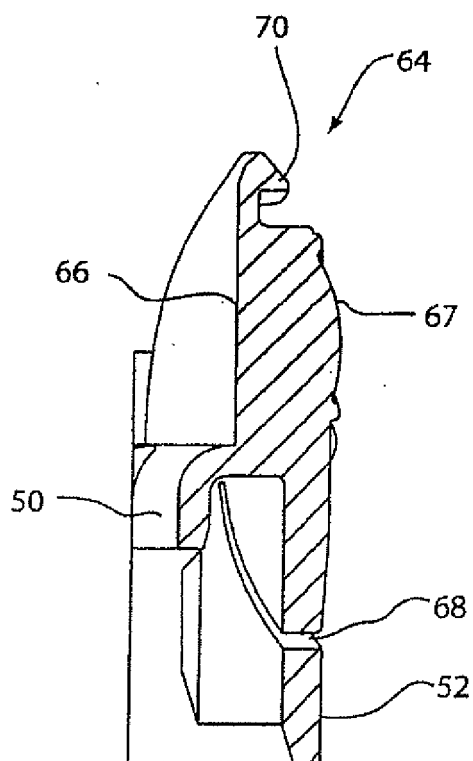


Fig. 14

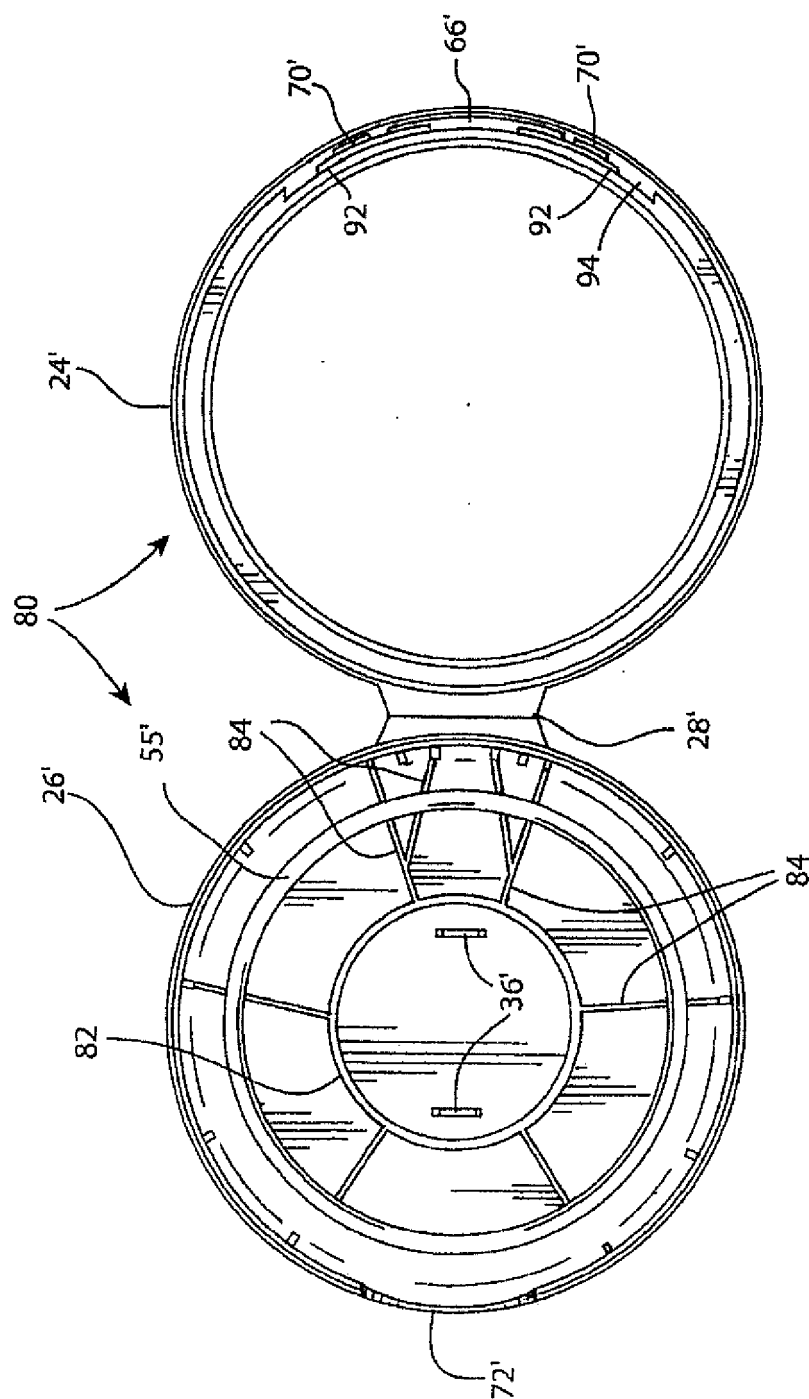


Fig. 16

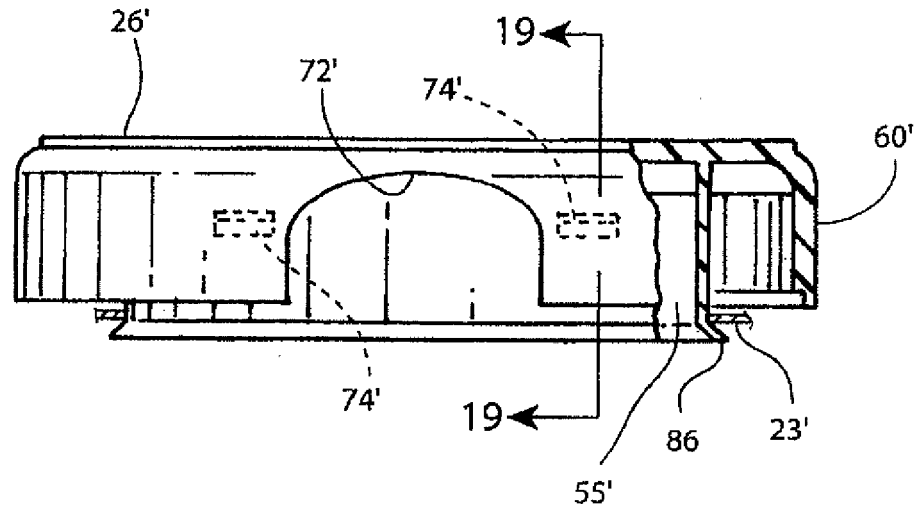


Fig. 18

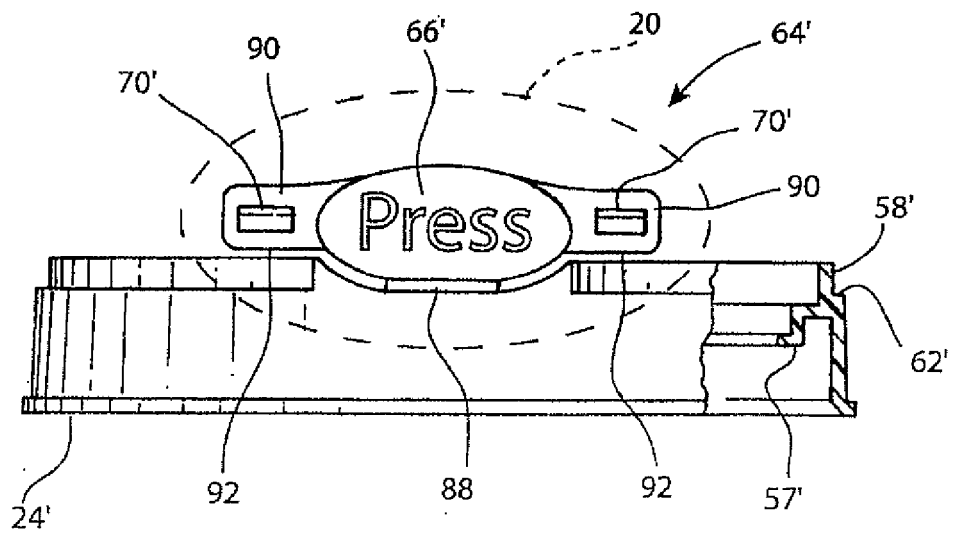


Fig. 17

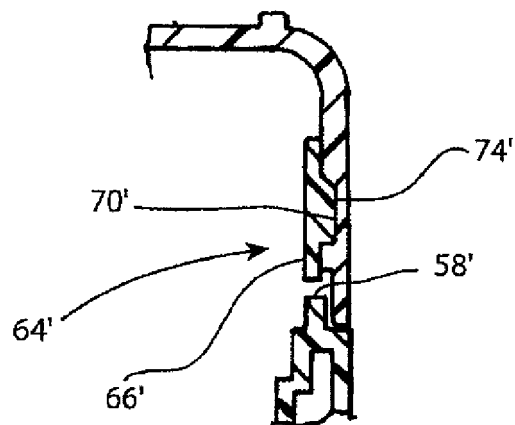


Fig. 19

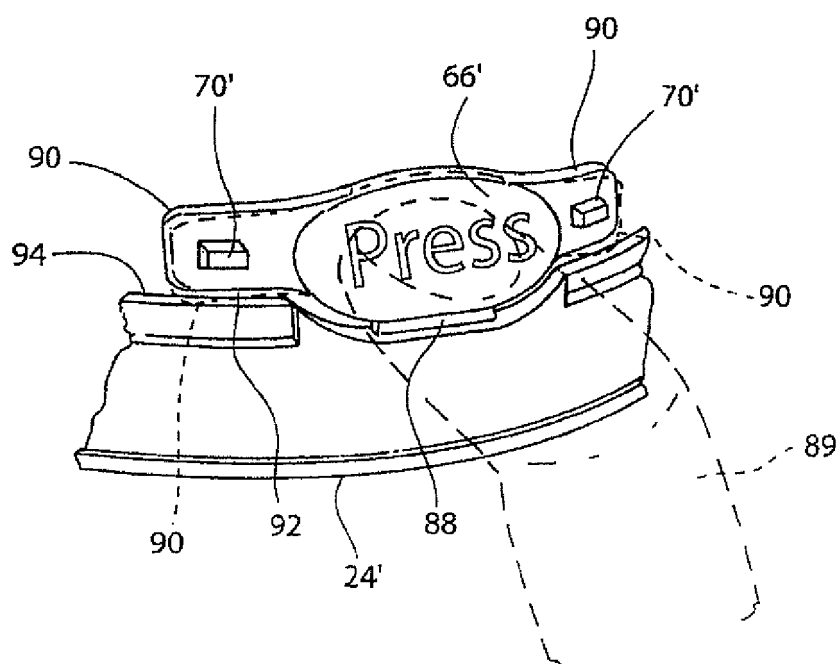


Fig. 20



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Application Number  
EP 11 18 2661

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Place of search The Hague		Date of completion of the search 17 November 2011	Examiner Gino, Christophe
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