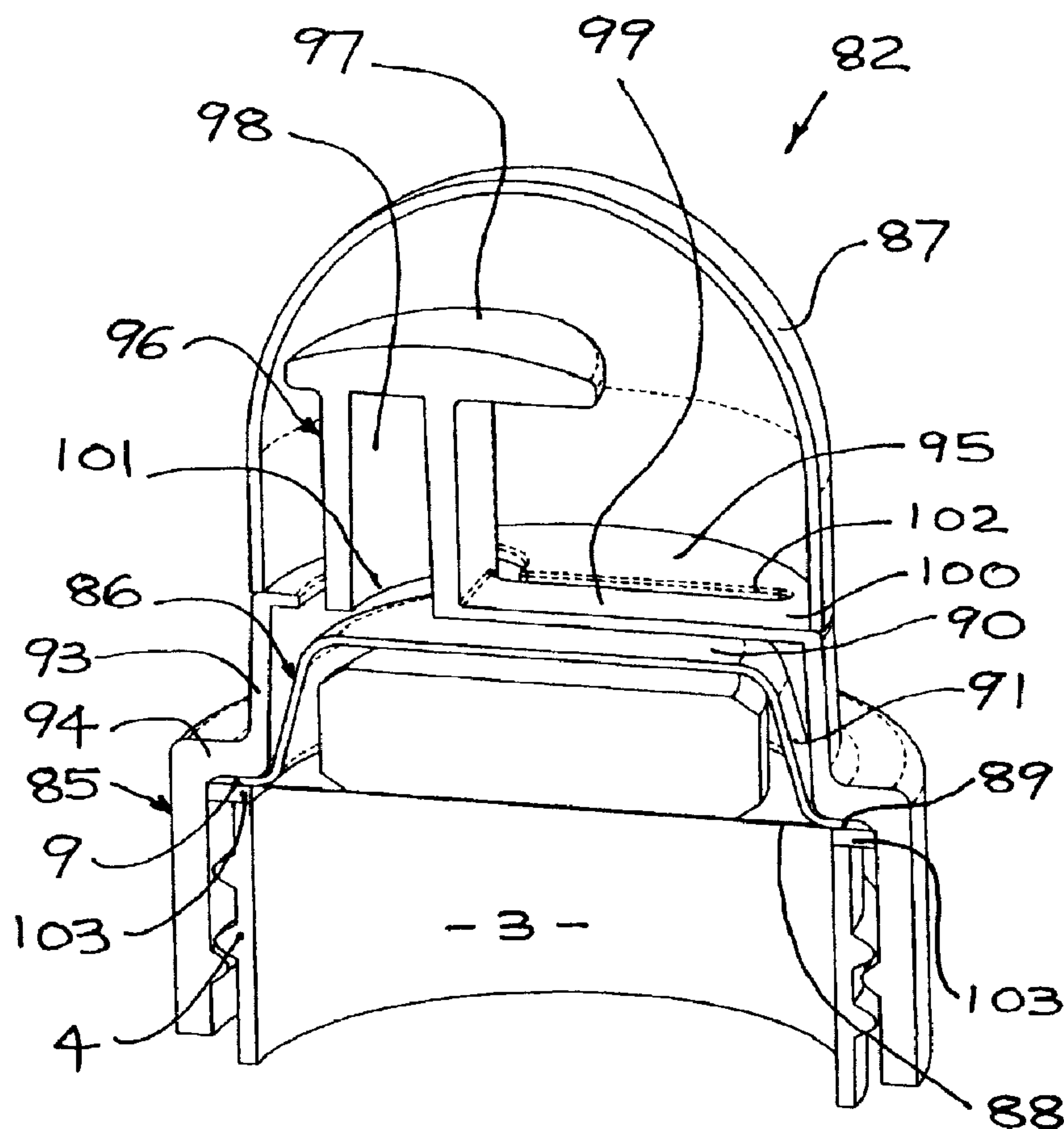




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(54) Titre : CAPSULE VERSEUSE POUR TABLETTE AMOVIBLE
(54) Title: DISCHARGE CAP FOR RELEASABLE TABLET



(57) Abrégé/Abstract:

A cap (2, 32, 62, 82, 112, 132, 152) for a container (3), for a drink of two components, can be stored or carried with the components stored separately. Mixing prior to consumption is effected by a pushing means (45, 76, 96) incorporated into a cover



(57) **Abrégé(suite)/Abstract(continued):**

(6, 46, 65, 86, 106, 216, 316) on the cap, which cover is releasably secured to the container. The pushing means bears against a tablet holder (12) the base (8, 88) of which has a low burst strength. The pushing means can be one of a number of embodiments, all of which can operate with or without an annular cutting ring (124, 224, 324, 424) and flexible seal (25, 125) adjacent the underside of the tablet holder. The cover and tablet holder form a liquid seal with the top of the container until the cover is removed.

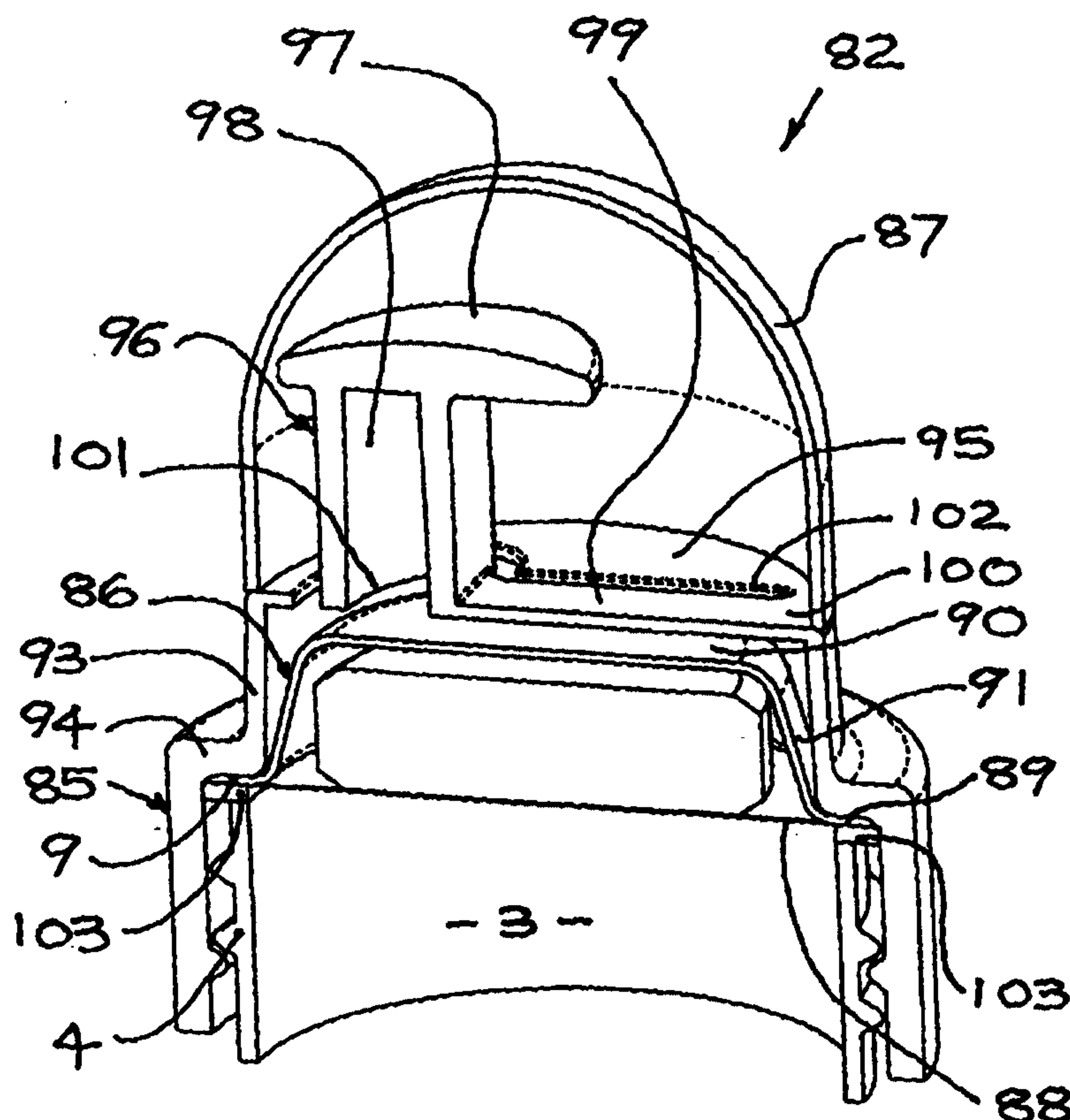
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(54) Title: DISCHARGE CAP FOR RELEASABLE TABLET**(57) Abstract**

A cap (2, 32, 62, 82, 112, 132, 152) for a container (3), for a drink of two components, can be stored or carried with the components stored separately. Mixing prior to consumption is effected by a pushing means (45, 76, 96) incorporated into a cover (6, 46, 65, 86, 106, 216, 316) on the cap, which cover is releasably secured to the container. The pushing means bears against a tablet holder (12) the base (8, 88) of which has a low burst strength. The pushing means can be one of a number of embodiments, all of which can operate with or without an annular cutting ring (124, 224, 324, 424) and flexible seal (25, 125) adjacent the underside of the tablet holder. The cover and tablet holder form a liquid seal with the top of the container until the cover is removed.



WO 00/27717

PCT/NZ99/00185

TITLE: DISCHARGE CAP FOR RELEASABLE TABLET**TECHNICAL FIELD**

The present invention relates to a cap for a container, in which the cap includes means for releasing material contained within the cap into the container and for sealing the container.

BACKGROUND ART

Different styles of caps or lids for containers (for liquids) are prolific. They are known in a variety of forms, which can include, for example: a tamper-evident ring, the ability to be releasable, a screw-thread, or a combination of these. Such caps can also include sipper tops (which can be drunk through and are slidably re-sealable).

Drinks and drink containers where two components making the drink are best mixed immediately before drinking are available separately. When the concentrate is in tablet or powder form, the availability of drink containers with all elements for the drink in the one container is not common. One example of such a cap for a container is in my application, WO 98/40289.

Other examples include the following. WO 98/00348 discloses a closure cap which ruptures a blister pack (containing a tablet) on the opening of the cap, and provides an immediate fluid pathway to the outside of the container. JP 08091418 also discloses a closure cap and basket. However the whole of the closure cap must be moved inwardly onto the container, to mix the liquid and the solid together.

US Patent No. 4638927 (Morane) discloses a cap with a slidable pusher to break the tablet holder. However, this action immediately creates a fluid pathway to the outside of the container. This also occurs in US Patent No. 3347410 (Schwartzman).

These problems are to some extent overcome by the invention disclosed in my application WO 98/40289. This discloses a cap with a collar, a basket containing the solid part of the drink, and a spike, formed in the cap, which can release the tablet into the fluid in the bottom of the container. The container and cap also include the ability of the cap to act as a sipper top, and to include a separate cover and tamper-evident ring.

The disadvantage of this manner of overcoming the drawbacks of earlier art is the complexity of the design and the die needed for the manufacture of the neck portion (to pierce the top and free the tablet into the fluid). Further, the overall height of the cap above the container can be awkward. In addition, the sealing of the container, either when mixing the fluid and solid or when the container is not in use after mixing, requires an arrangement of two sealing means or a sliding engagement of two or more parts.

It is an object of the present invention to address the foregoing problems or at least to provide the public with a useful choice.

Further aspects and advantages of the present invention will become apparent from the ensuing description which is given by way of example only.

DISCLOSURE OF INVENTION

According to one aspect of the present invention there is provided a releasable cap for a liquid container with a top opening which has a rim, said cap including a collar adapted to be releasably engaged with the top of the container, a tablet holder having a flexible top and a base of flexible material the flexible top and base being joined together at a flanged edge the flexible top and base forming therebetween a space for placement therein of a tablet the collar including means for retaining said flanged edge between the collar and the top of the container to form a fluid seal and pushing means capable of manual operation to cause the flexible top of the tablet holder to move relative to the collar to force the tablet through the base, said tablet holder and collar being, in use, releasably removable from the container characterised in that the base has a burst strength which is less than the flexible top, the flexible top provides part of the fluid seal once the burst strength of the base is exceeded on application of force by the pushing means, and an annular cutting ring positioned within the collar adjacent the base and has an inner edge adapted for cutting or tearing the base.

Preferrably in one form the inner edge is saw-tooth shaped with apices of the teeth facing inward.

In one form the cap can include a rupturable seal extendable over the top opening, the rupturable seal being located adjacent the base and having a rupture strength equal to or less than that of the base.

In another form the cap can include a rupturable seal extendable over the top opening, the rupturable seal being located to a side of the cutting ring opposite to that side of the cutting ring which is adjacent the base.

The cap can include an annular seal for sealing engagement with the said rim.

The cap can further include tamper evident means.

A cap in one form has fastened thereto a sipper top securable to the said container.

In a preferred form the cap further includes a removable cover releasably secured to the collar.

The pusher means can be a finger-engageable element within said cover, finger pressure on the said finger engageable element causing, in use, the movement of the flexible top relative to the collar.

In one form the pusher means is a finger-engageable element is formed integrally with the cap and includes a button fixed to a resilient hinge formed by a cut-out section of an outer side of the cap.

The pusher means can be a button movable relative to the collar.

In a preferred form the base includes an annular section positioned inside the flange edge and having a rupture strength lower than the remainder of the base.

According to another aspect of the invention there is provided a drink comprising a liquid component held in a container and a tablet held in a cap as defined in any of the above aspects of the invention wherein the tablet and liquid are mixed prior to consumption.

BRIEF DESCRIPTION OF DRAWINGS

By way of example only, preferred embodiments of the present invention will be described in detail with reference to the accompanying drawings, in which:-

Figure 1 is a partial perspective side section view of a first preferred embodiment of the present invention with the cap closed;

Figure 2 is the same view of the invention as shown in Fig. 1, without the cover;

Figure 3 is the same view as shown in Fig. 2, with the tablet holder broken and the tablet in the container;

Figure 4 is a partial perspective side section view of a second preferred embodiment of the present invention with the cap closed;

Figure 5 is the same view as Fig. 4, with the tablet holder broken and the tablet in the container;

Figure 6 is a partial perspective side section view of a third preferred embodiment of the present invention with the cap closed;

Figure 7 is the same view as Fig. 6 with the tamper-evident ring opened;

Figure 8 is the same view as Fig. 7, with the ring removed;

Figure 9 is the same view as Fig. 8, with the tablet holder broken and the tablet in the container;

Fig. 10 is a partial perspective side section view of a fourth preferred embodiment of the present invention with the cap closed;

Fig. 11 is a partial perspective side section view of a fifth preferred embodiment of the present invention with the cap closed;

Fig. 12 is a partial perspective side section view of a sixth preferred embodiment of the present invention with the cap closed;

Fig. 13 is a partial perspective side section view of a seventh preferred embodiment of the present invention with the cap closed;

Fig. 14 is the same view as Fig. 11, with the tablet holder broken and the tablet in the container;

Fig. 15 is a partial top perspective view of a second preferred embodiment of the pushing means of the present invention;

Fig. 16 is a plan view from underneath of a second preferred embodiment of the holder of the present invention;

Figs. 17 a and b show two views of a first preferred embodiment of the cutting ring of the present invention;

Figs. 18a and b show two views of a second preferred embodiment of the cutting ring of the present invention;

Figs. 19a and b show two views of a third preferred embodiment of the cutting ring of the present invention;

Fig. 20 is a plan view in diagrammatic form of a third preferred embodiment of the pushing lever of the present invention; and

Figs. 21a and b show two views of a fourth preferred embodiment of the cutting ring of the present invention.

BEST MODES FOR CARRYING OUT THE INVENTION

Referring to Figures 1 to 3, a first preferred embodiment of the cap 2 for a container 3 is there shown. The container 3 includes a top opening with external screw threads on sides 4. A collar 5 is internally screw-threaded to engage with the sides 4 of the container 3. The cap 2 includes a tablet holder 6 and cover 7.

The holder 6 includes a base 8 with a thickened circumferential edge 9, and a top 10. The base 8 and edge 9 are flat, with the top 10 having sides 11. The base 8, top 10, and sides 11 define a space for a tablet 12. The base 8 is of a material that has a considerably smaller burst strength than that of the top 10 or the sides 11. The base 8 is made of a foil material of known type which is impervious to liquid and gases. If so desired, the foil may include a plastic film of known type.

If so desired, the holder 6 may be arranged with the base 8 and top 10 inverted, so that the top 10 is flat and approximately co-planar with the edge 9. The base 8 and sides 11 would then extend downwardly from the top 10.

The edge 9 and the top 10 are of a plastics material that is generally stiffer than the material of the base 8. However the base 8 is also constructed so that there is a measure of flexibility therein.

The collar 5 includes sides 13 and a smaller annular flange 14. When the collar 5 is in position the flange 14 extends inwardly of the top of the sides 4 and of the edge 9. However the hole left in the collar 5 is sufficient that the sides 11 and the top 10 of the holder 6 will fit therethrough.

The cover 7 is shaped to fit over the collar 5 and holder 6 and be releasably securable to the collar 5. This securement can be through securing means on the collar 5 and the cover 7; or may be in the form of a snap or interference fit between the collar 5 and the cover 7, as is desired. Further, the cover 7 may be hinged to the collar 5, if so desired.

The collar 5 and the cover 7 may include tamper-evident means (not shown) of known type, if so desired. This may be incorporated into the collar 5 and cover 7 at the time of manufacture. Alternatively, the tamper evident means may be a plastic film (not shown) which is sealed around the collar 5 and the cover 7, covering the join therebetween. Such film is of the type that can be pulled off the container 3, when opening the container 3.

To mix the two parts of the drink, the cover 7 is removed and downward force exerted on the top 10 (Fig. 2). This downward pressure is generally supplied by a thumb or other manual means. The lesser burst strength of the base 8 causes this to break before the top 10. The flange 14 retains the edge 9 in position. Thus after the base 8 has broken, the tablet 12 is forced or dropped into the container 3, mixing with the liquid therein (Fig. 3).

If so desired, the base 8 includes a weakened circumferential portion immediately adjacent the outside edge of the tablet 12. Thus when the burst strength of the base 8 is reached, a circular portion of the base 8 parts from the rest of the base 8, allowing the tablet 12 to easily fall into the container 3.

If so desired, the holder 6 can be constructed so that the tablet 12 is encased in the foil of the base 8 with a circular overlap about the outside of the tablet 12. This overlap is then heat sealed or otherwise laminated to the edge 9 to form the holder 6.

The container 3 can be shaken or moved to aid in the mixing of the tablet 12 into the liquid. Once the tablet 12 is completely dissolved, the collar 5 and the remains of the holder 6 can be released from the container 3, allowing access to the drink (Fig. 4). The collar 5 and the cover 7 may be re-secured to the container 3, providing for a means to reseal the drink, if so desired.

Referring to Figures 4 and 5, a second embodiment of the cap 32 for the container 3 is there shown. Where parts are unchanged from that discussed above with reference to the first embodiment, like numerals are used.

The collar 35 includes a flange 44 and upper sloping side 34 to a domed top 46. At the centre of the top 46 is a button 45. The collar 35 is formed integrally. The flange 44 performs the same function as the flange 14 of the first embodiment, as described above.

To mix the two parts of the drink, the cover 7 is removed and downward force exerted on the button 45 (Fig. 5). This downward pressure is generally supplied by a thumb or other manual means. The lesser burst strength of the base 8 causes this to break before the top 10. The flange 44 retains the edge 9 in position. Thus after the base 8 has broken, the tablet 12 is forced or dropped into the container 3, mixing with the liquid therein (Fig. 5).

The container 3 can be shaken or moved to aid in the mixing of the tablet 12 into the liquid. The liquid seal is provided by the edge 9 and the top 10 of the tablet holder 6, which is retained in position by the collar 35. Once the tablet is completely dissolved, the collar 35 and the remains of the holder 6 can be released from the container 3, allowing access to the drink. The collar 35 and the cover 7 may be re-secured to the container 3, providing for a means to reseal the drink, if so desired.

Referring to Figures 6 to 9, a third embodiment of the cap 62 for the container 3 is there shown. Where parts are unchanged from that discussed above with reference to the first embodiment, like numerals are used.

The collar 65 includes a flange 74 and upper side 64 to a flat top 76. A ring of material 75 around the centre of the top 76 is immediately adjacent a breakaway portion 77. The portion 77 is a weakened portion of the top 76. The collar 65 is formed integrally. The flange 74 performs the same function as the flange 14 of the first

embodiment, as described above.

To mix the two parts of the drink, the cover 7 is removed. The ring of material 75 is lifted up (Fig. 7). Downward pressure is then applied to the top 10, as described above (Fig. 8). The flange 74 retains the edge 9 in position. Thus after the base 8 has broken, the tablet 12 is forced or dropped into the container 3, mixing with the liquid therein (Fig. 9).

In a further preferred embodiment, the ring of material 75 may be pushed downward, acting in the same manner as the button 45 (of the second preferred embodiment) to push the tablet 12 into the container 3.

Referring to Fig. 10, a fourth preferred embodiment of the cap 82 for a container 3 is thereshown. The container 3 includes a top opening with external screw threads on sides 4. A collar 85 is internally screw-threaded to engage with the sides 4 of the container 3. The cap 82 includes a tablet holder 86 and cover 87.

The holder 86 includes a base 88 with a thickened circumferential edge 89, and a top 90. The base 88 and edge 89 are flat, with the top 90 having sides 91. The base 88, top 90, and sides 91 define a space for a tablet 12. The base 88 is of a material that has a considerably smaller burst strength than that of the top 90 or the sides 91. The base 88 is made of a foil material, of known type which is impervious to liquid and gases. If so desired, the foil may included a plastic film of known type.

If so desired, the holder 86 may be arranged with the base 88 and top 90 inverted, so that the top 90 is flat and approximately co-planar with the edge 89. The base 88 and sides 91 would then extend downwardly from the top 90.

The edge 89 and the top 90 are of a material that is generally stiffer than the material of the base 88. However the base 88 is also constructed so that there is a measure of flexibility therein.

Referring to Figs 11 and 16, a fifth preferred embodiment of the cap 112 includes the holder 106 and is thereshown. The holder 106 includes the same parts as the first embodiment or the fourth embodiment of the holder 86 unless varied as here described. The holder 106 includes a circular area of low burst strength, generally indicated by the dotted line B on Fig. 16. This area B, which is essentially a thin annulus, is inward from the flanged edge 109. The burst strength of the area B is less than that of the remainder of the base 108.

Referring to Fig. 10, the collar 85 includes sides 93 and a smaller, annular flange 94. The flange 94 is dimensioned such that when the collar 85 is in position, it extends inwardly of the top of the sides 4 and of the edge 89. However the hole left in the collar 85 is sufficient that the sides 91 and the top 90 of the holder 86 will fit therethrough.

The cover 87 is shaped to fit over the collar 85 and holder 86 and be releasably securable to the collar 85. This securement can be through securing means (not shown) on the collar 85 and the cover 87; or may be in the form of a snap or interference fit between the collar 85 and the cover 87, as is desired. Further, the cover 87 may be hinged to the collar 85, if so desired.

The collar 85 and the cover 87 may include tamper-evident means (not shown) of known type, if so desired. This may be incorporated into the collar 85 and cover 87 at the time of manufacture. Alternatively, the tamper

evident means may be a plastic film (not shown) which is sealed around the collar 85 and the cover 87, covering the join therebetween. Such film is of the type that can be pulled off the container 3, when opening the container 3.

The collar 85 further includes a top 95 which incorporates a pushing lever generally denoted by the numeral 96. The lever 96 includes a thumb-engaging tab 97 which is connected by a column 98 and base 101 to a flexible section 99 of the top 95. The flexible section 99 is formed integrally with a hinging section, which is generally denoted by the number 100. The flexible section 99 and base 101 of the column 98 are separated from the remainder of the top 90 by cut-out slots and curves section 102. The tab 97 may be larger in surface area than the base 101, if so desired.

The collar 85 further includes an annular seal 103. The seal 103, of a flexible plastics such as EVA, is positioned between the top of the container 3 and the flanged edge 99 of the tablet holder (86, 106). The seal 103 may be permanently affixed to the top of the container 3, if so desired. The seal 103 aids in forming a liquid-tight seal between the container 3 and the collar 85. If so desired, the seal 103 may be an O-ring of known type.

The above described embodiment works as follows: To mix the two parts of the drink, the cover 87 is removed. Downward force (in the direction of Arrow C, Fig. 14) exerted on the tab 97 (Fig. 14). This downward pressure is generally supplied by a thumb or other manual means. As the tab 97 is depressed, the base 101 is depressed below the plane of top 95 to engage with the top 90 of the tablet holder 86. The flexible section 99 deforms (Fig. 14), preferably elastically, to operate as a hinging means or hinge section.

The lesser burst strength of the base 8 of the tablet holder 86 causes the base 88 to break before the top 90. The flange 94 retains the edge 99 in position. Thus after the base 88 has broken, the tablet 12 is forced or dropped into the container 3, mixing with the liquid therein. If the second preferred embodiment of the tablet holder 106 is used, the base 88 bursts almost completely along the area B (Fig. 16), allowing the tablet 12 to fall quickly into the container 3.

If so desired, the holder (86, 106) can be constructed so that the tablet 12 is encased in the foil of the base 88 with a circular overlap (not shown) about the outside of the tablet 12. This overlap is then heat sealed or otherwise laminated to the edge 89 to form the holder (86, 106).

The container 3 can be shaken or moved to aid in the mixing of the tablet 12 into the liquid. Once the tablet 12 is completely dissolved, the collar 85 and the remains of the holder (86, 106) can be released from the container 3, allowing access to the drink. The collar 85 and the cover 87 may be re-secured to the container 3, providing for a means to reseal the container 3, if so desired.

Referring to Fig. 11, a fifth preferred embodiment of the cap 112 of the present invention is there shown. Where parts are unchanged from that discussed above with reference to the fourth embodiment, like numerals are used.

Referring to Figs. 11 and 21 (a, b), the collar 105 includes a first preferred embodiment of an annular cutting ring 424. The ring 424 includes a plurality of teeth 425 or saw edgings, giving the ring 424 a saw-tooth

appearance. The tips of the teeth 425 are positioned on a circumference which is substantially the same as the circumference of the weakened area B on the tablet holder 106, if the second preferred embodiment of the holder 106 is used. If so desired, the teeth 425 continue around all the circumference of the ring 424. The collar 105 also includes two seals 103, one above and one below the cutting ring 424.

The operation of the collar 105 has only minor variations on that of the first preferred embodiment of the collar 85, except that as the base 101 bears down on the top 90 of the holder (86, 106), the teeth 125 of the ring 124 aid in bursting the base 88 of the holder (86, 106). The ring 124 can be left in place or removed, as is desired, when the holder (86, 106) and collar 105 are removed from the container 3.

Referring to Figs 18a and b, a second embodiment of the cutting ring 224 is thereshown. The inner tip 225 of the ring 224 is a continuous tapered tip around the circumference of the ring 224.

Figs 19a and b show a third preferred embodiment of a cutting ring 324 of the present invention, in which the inner, upper corner 325 of the ring 324 acts as the cutting edge. In like manner, Figs 21a and b show a fourth preferred embodiment of the cutting ring 424 with teeth 425. The major difference between this embodiment and the fourth preferred embodiment of the ring 124 is that the teeth 425 do not taper to a point at the tip as do the teeth 125 (Fig. 17a and b).

Referring to Fig. 12, a third preferred embodiment of the collar 205 is thereshown in a sixth preferred embodiment of the cap 132 of the present invention. Where parts are unchanged from that discussed above with reference to the fourth embodiment, like numerals are used.

The collar 205 includes a cutting ring 124 and one seal 103. Whilst the ring 124 is shown as the first preferred embodiment of the ring 124, it will be appreciated by one skilled in the field that any of the embodiments of the ring (124, 224, 324, 424) may be used, without departing from the scope of the invention.

Between the ring 124 and the seal 103 is a further, splash guard 25 which is circular in cross-section. If so desired, the guard 25 may be glued or otherwise permanently affixed to either the underside of the ring 124 or the top side of the seal 103, as is desired. The guard 25 is broken by the tablet 12 as it is pushed through into the container 3 by the downward action of the tab 97.

Referring to Fig. 13, a seventh preferred embodiment of the cap 152 of the present invention is thereshown. Where parts are unchanged from that discussed above with reference to the fourth embodiment, like numerals are used.

In this embodiment of the cap 152 the seal and cutting ring are combined into one part, generally denoted by numeral 123. This includes a shoulder of soft flexible material and an inner serrated edge, with teeth 225, of a harder material. If so desired, a splash guard-25 may be incorporated into the embodiment, as described above. The liquid seal is broken in the same manner as described above.

The pushing lever 96 has been described with a circular cross-section. However, it will be appreciated by those skilled in the art that the cross-sectional shape may be other than circular, for example, oval.

A second preferred embodiment of the pushing lever 216 is shown in Fig. 15. The tab 117, column 118 and

base 121 are of oval cross-section. The cut-out section 222 is arcuate and the two sides of the section 222 are not parallel.

A third preferred embodiment of the pushing lever 316 is shown in Fig. 20. The tab 117 is secured to a curved flexible section 319, with curved cut-outs 322.

It will be appreciated by one skilled in the art that the elements of the various embodiments of the pushing lever (96, 116, 216, 316) may be combined in different ways, without departing from the scope of the invention.

All parts of the cap (2, 32, 62, 82, 112, 132) are of plastics material. The collar (5, 35, 65, 85, 105, 205, 305) is formed in one piece, as is the cover (7, 87) and the holder (6, 86, 106). However, if so desired, the components may be formed in more than one piece and later assembled. The seal 103 is preferably of a very flexible plastics or a foam plastics such as EVA, or the like. The ring (124, 224, 324) is preferably of a rigid plastics material.

If so desired, the drink (consisting of the container 3, cap (2, 32, 62, 82, 112, 132), the tablet 12, and water or fluid) can be sold with an additional sipper top (not shown) so that the drink can easily be resealed once ready for drinking. Preferably the tablet 12 is of known type that is effervescent and/or easily dissolvable in water or a liquid.

Also, it will be appreciated that the above described holder (6, 86, 106) is a 'use once' variety. However, the remaining elements of the cap (2, 32, 62, 82, 112, 132) and container 3 may be re-used, if so desired. However, the materials and construction of these components are of such a nature that the cap (2, 32, 62, 82, 112, 132) and container 3 may be for a use once drink, at a reasonable price for the overhead of the cost of the container 3 in the cost of the drink.

The invention has been discussed above with a number of embodiments for the collar (5, 85, 105, 205, 305) and the pushing lever (96, 216, 316), it will be appreciated that these may be used in various combinations from the range of embodiments, without departing from the scope of the invention.

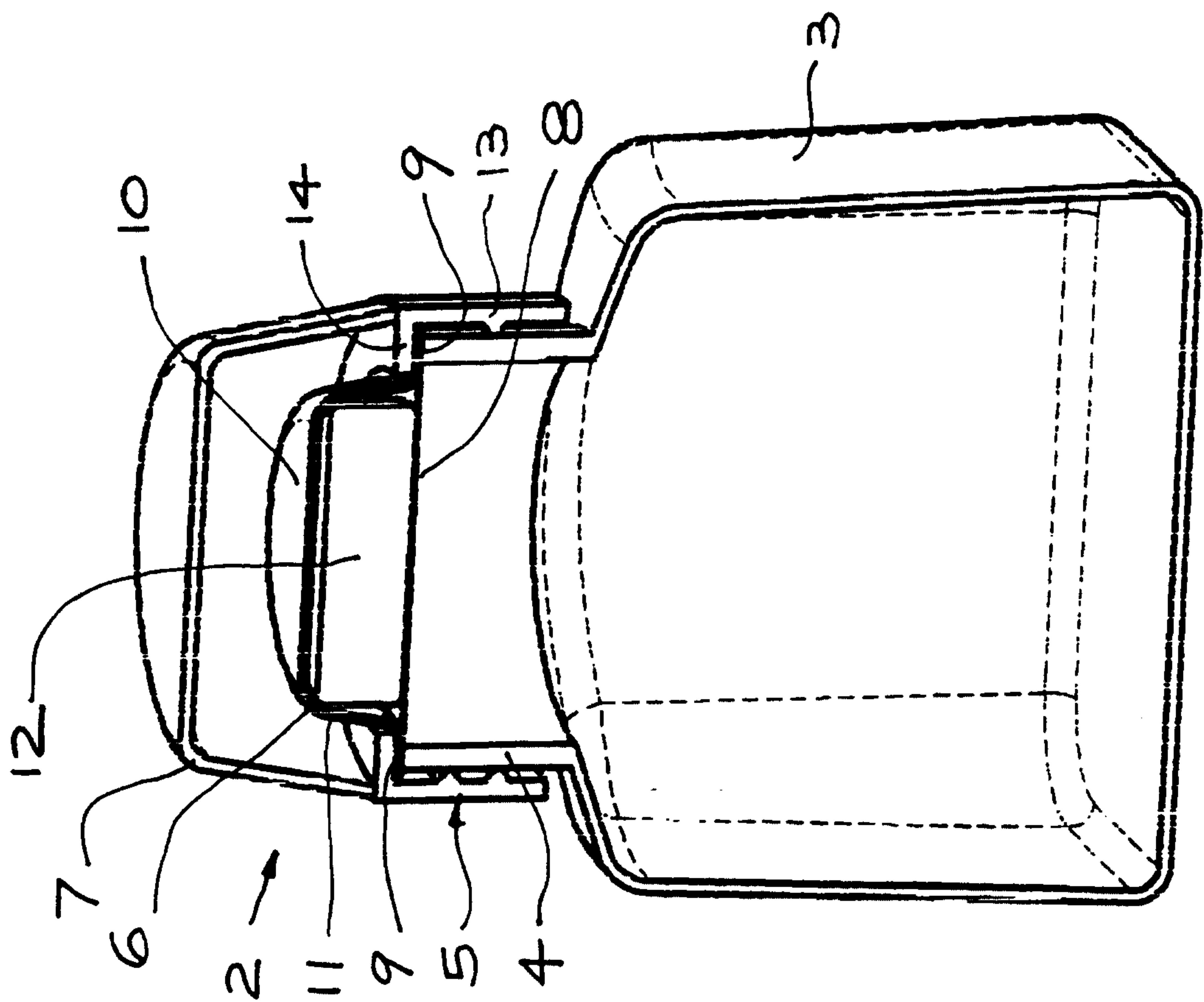
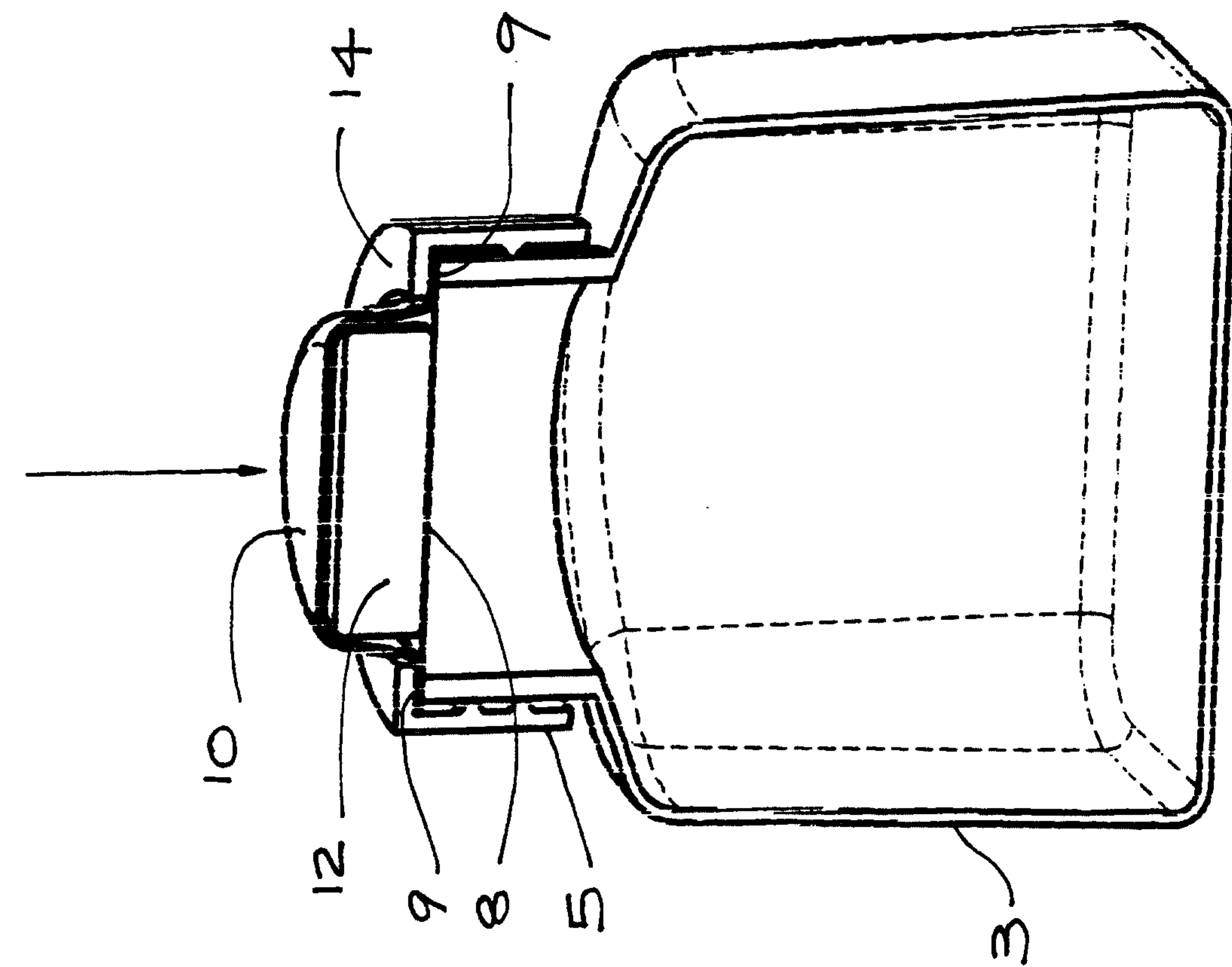
Aspects of the present invention have been described by way of example only and it should be appreciated that modifications and additions may be made thereto without departing from the scope thereof.

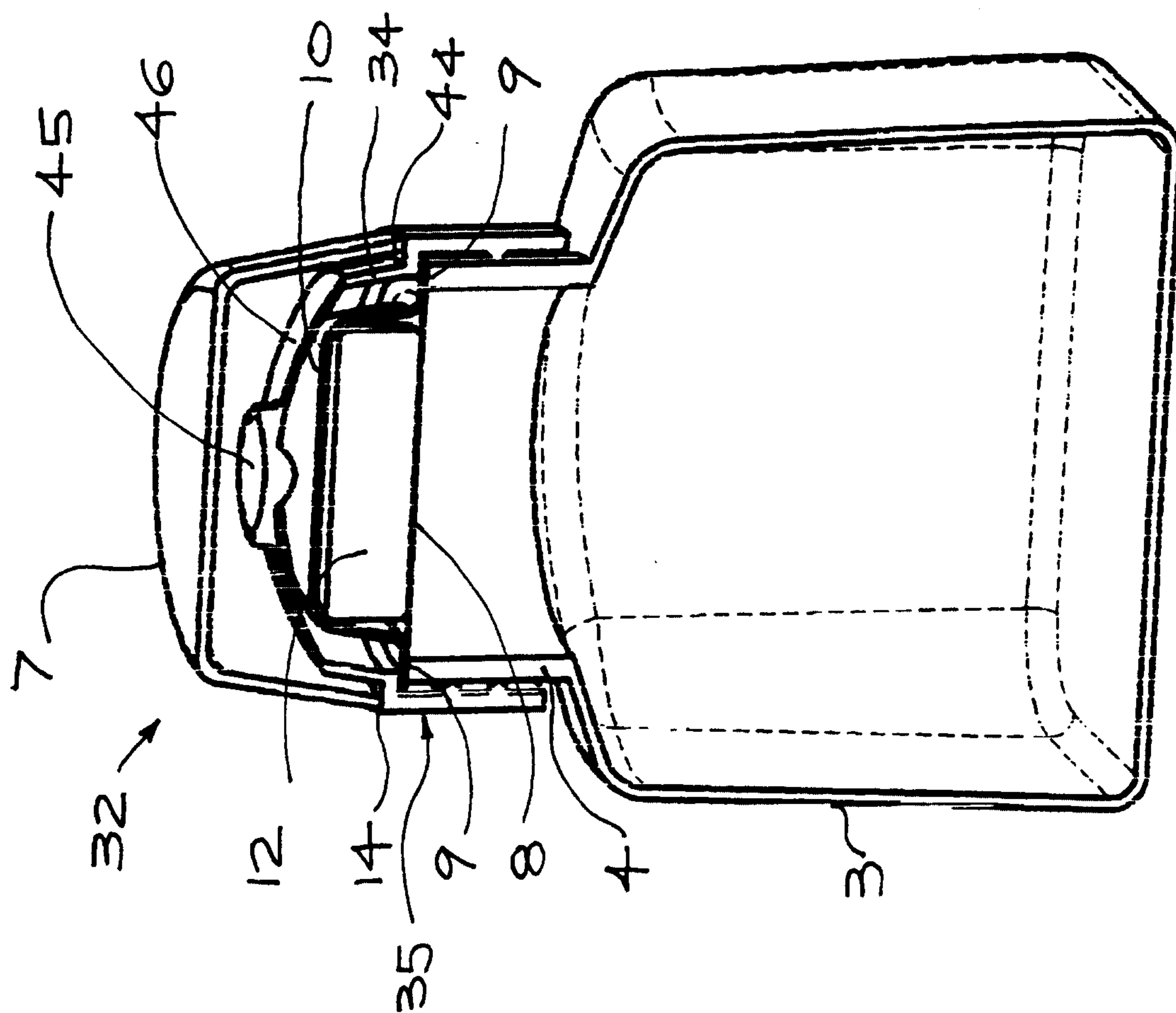
CLAIMS

1. A releasable cap for a liquid container with a top opening which has a rim, said cap including a collar adapted to be releasably engaged with the top of the container, a tablet holder having a flexible top and a base of flexible material the flexible top and base being joined together at a flanged edge the flexible top and base forming therebetween a space for placement therein of a tablet the collar including means for retaining said flanged edge between the collar and the top of the container to form a fluid seal and pushing means capable of manual operation to cause the flexible top of the tablet holder to move relative to the collar to force the tablet through the base, said tablet holder and collar being, in use, releasably removable from the container characterised in that the base has a burst strength which is less than the flexible top, the flexible top provides part of the fluid seal once the burst strength of the base is exceeded on application of force by the pushing means, and an annular cutting ring positioned within the collar adjacent the base and has an inner edge adapted for cutting or tearing the base.
2. A cap as claimed in claim 1 wherein said inner edge is saw-tooth shaped with apices of the teeth facing inward.
3. A cap as claimed in claim 1 to 2 further including a rupturable seal extendable over the top opening, the rupturable seal being located adjacent the base and having a rupture strength equal to or less than that of the base.
4. A cap as claimed in claim 1 or 2 further including a rupturable seal extendable over the top opening, the rupturable seal being located to a side of the cutting ring opposite to that side of the cutting ring which is adjacent the base.

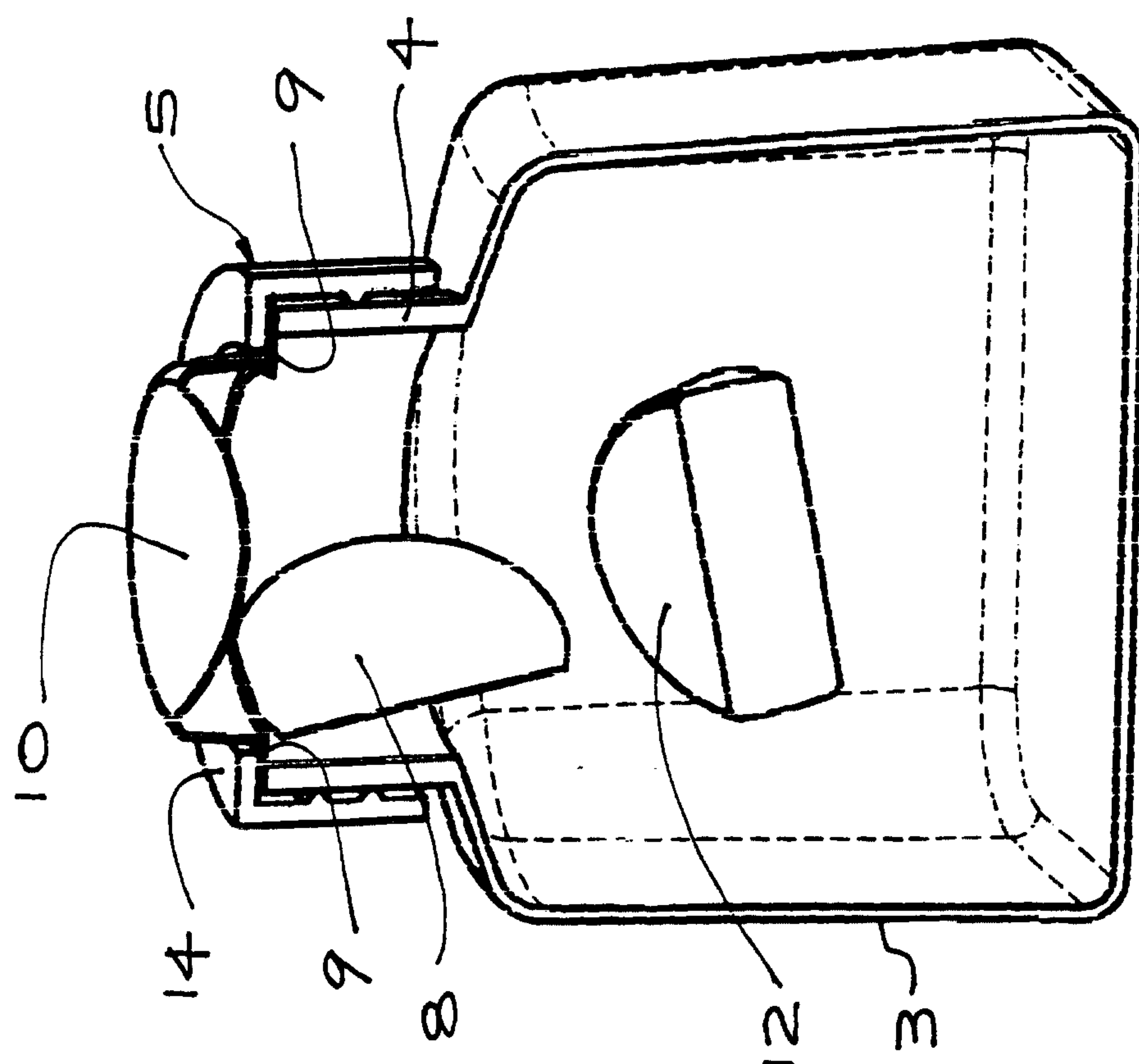
5. A cap as claimed in any one of claims 1 to 4 further including an annular seal for sealing engagement with the said rim.
6. A cap as claimed in any one of claims 1 to 5 further including tamper evident means.
7. A cap as claimed in any one of claims 1 to 6 wherein fastened thereto is a sipper top securable to the said container.
8. A cap as claimed in any one of claims 1 to 7 further including a removable cover releasably secured to the collar.
9. A cap as claimed in claim 8 wherein the pusher means is a finger-engageable element within said cover, finger pressure on the said finger engageable element causing, in use, the movement of the flexible top relative to the collar.
10. A cap as claimed in any one of claims 1 to 7 wherein the pusher means is a finger-engageable element is formed integrally with the cap and includes a button fixed to a resilient hinge formed by a cut-out section of an outer side of the cap.
11. A cap as claimed in any one of claims 1 to 7 wherein the pusher means is a button movable relative to the collar.
12. A cap as claimed in any one of claims 1 to 10 wherein the said base includes an annular section positioned inside the flange edge and having a rupture strength lower than the remainder of the base.

13. A drink comprising a liquid component held in a container and a tablet held in a cap as claimed in any one of claims 1 to 12, wherein the tablet and liquid are mixed prior to consumption.





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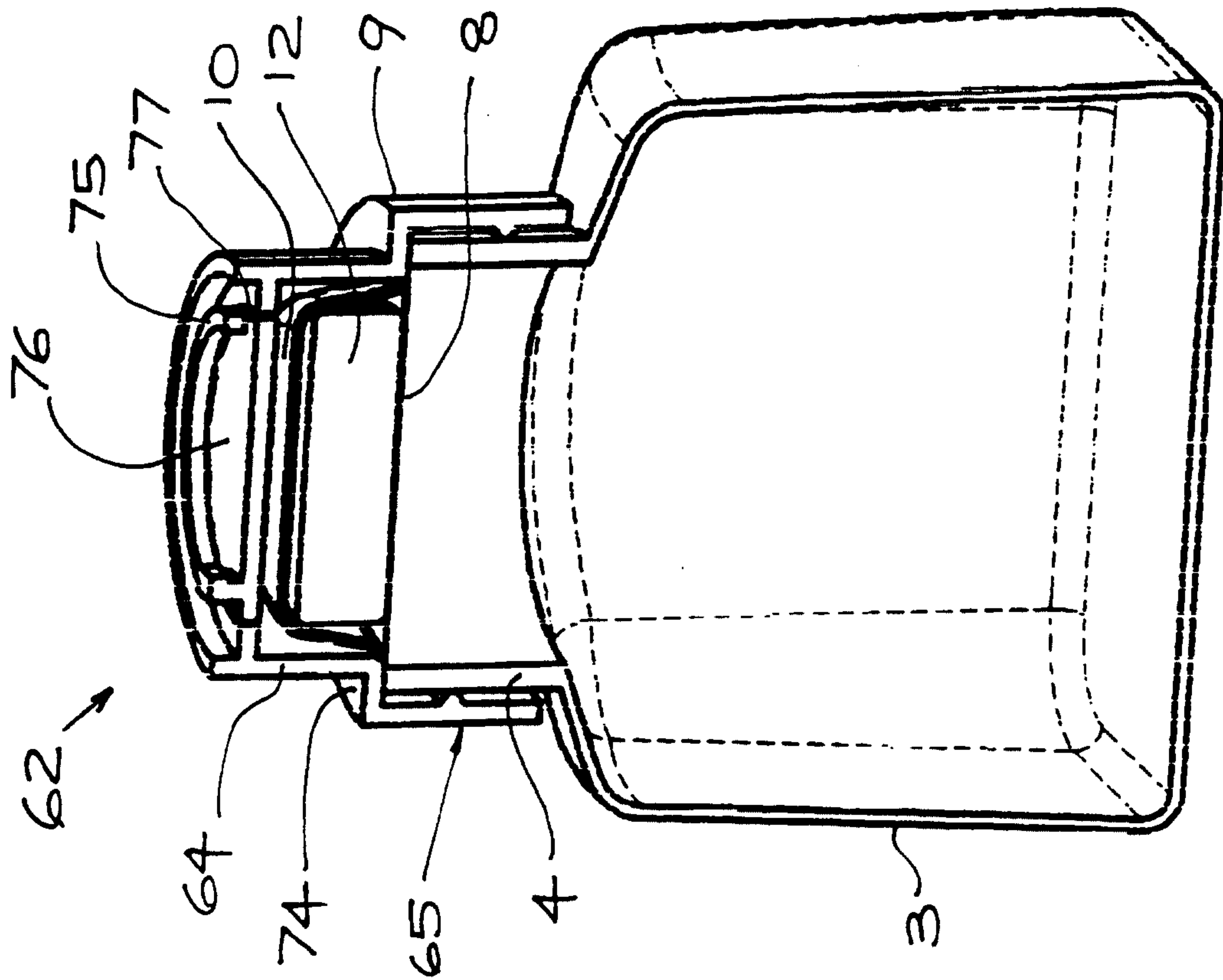


FIG. 6

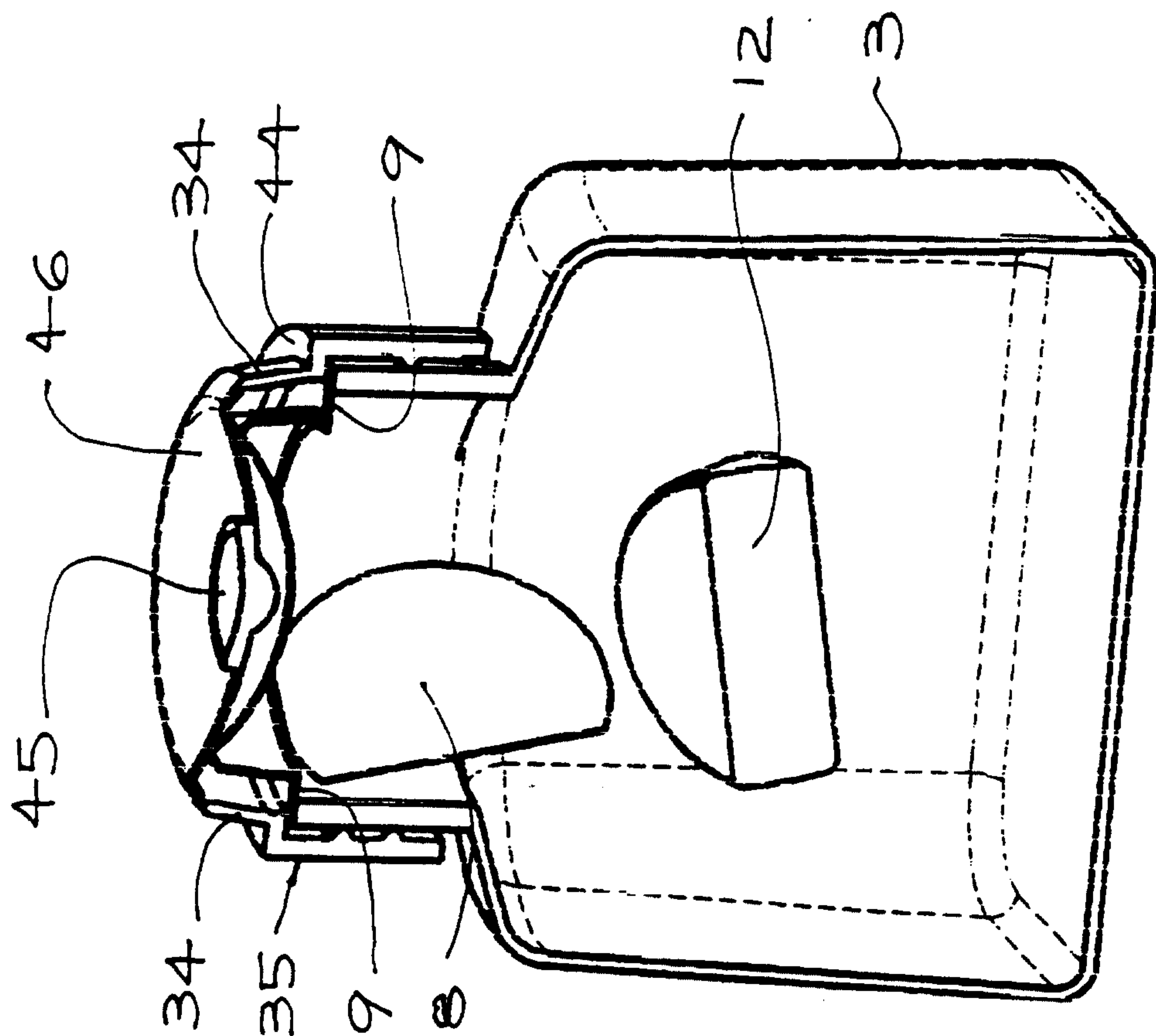


FIG. 5

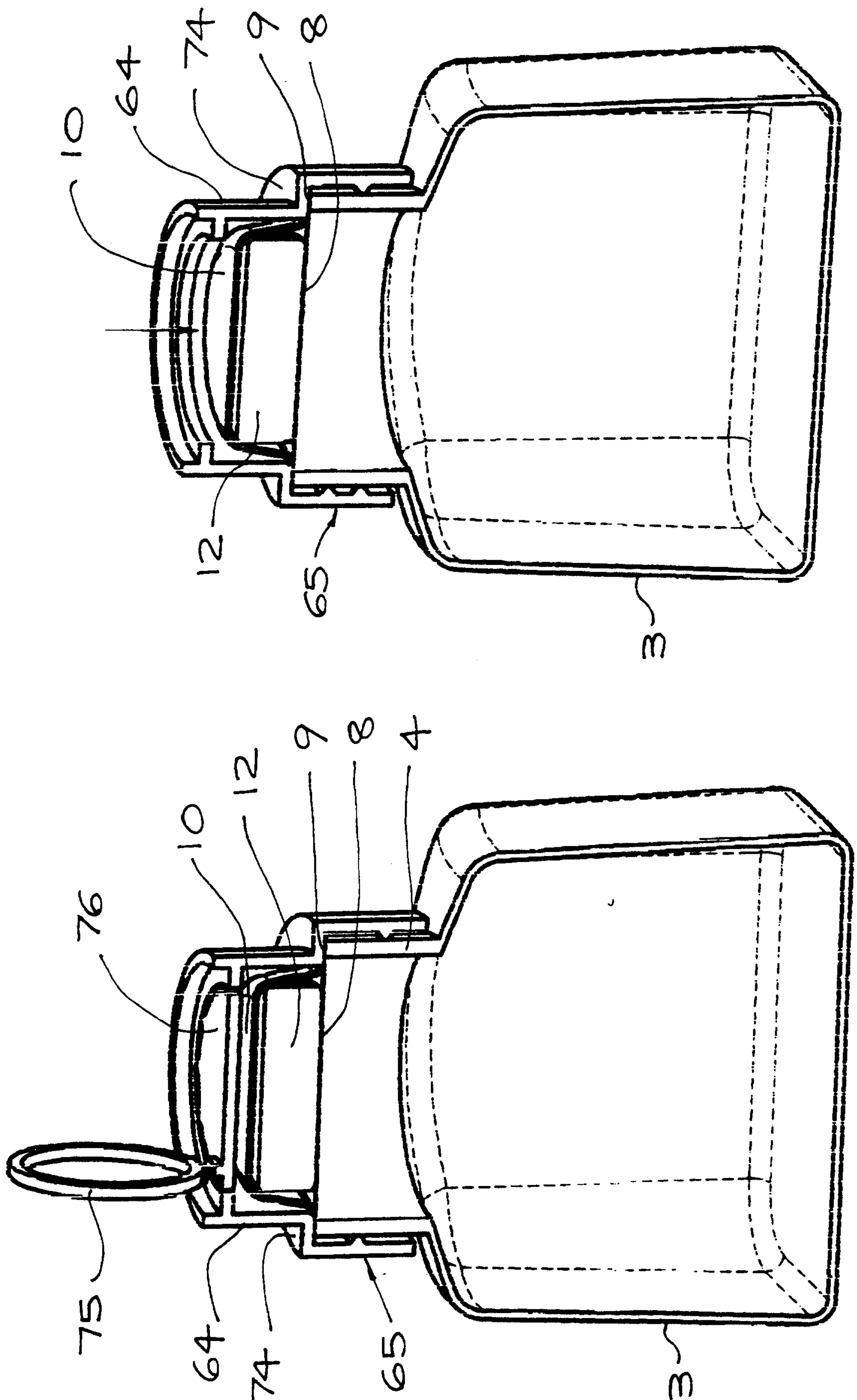


FIG. 8

FIG. 7

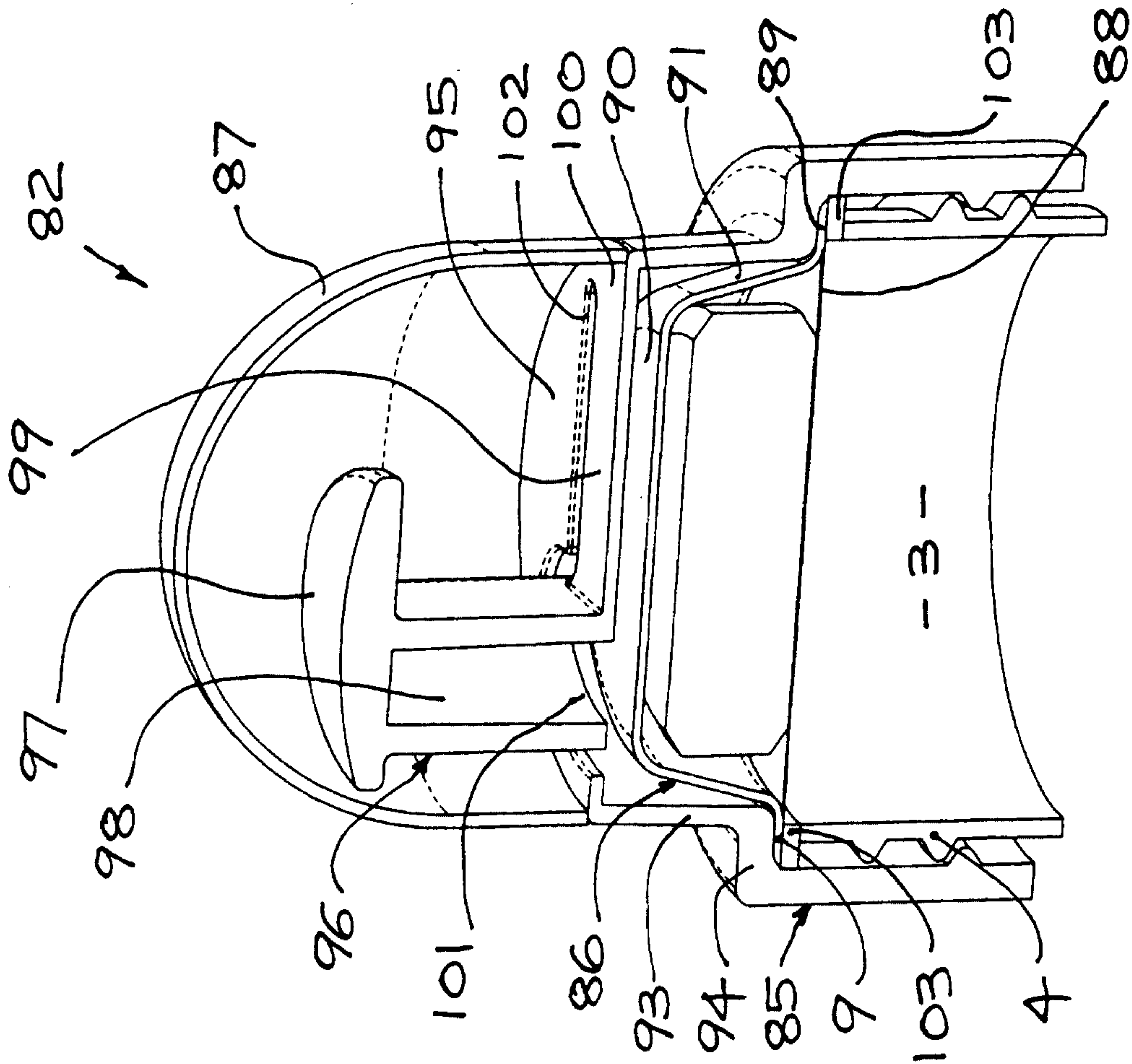


FIG. 9

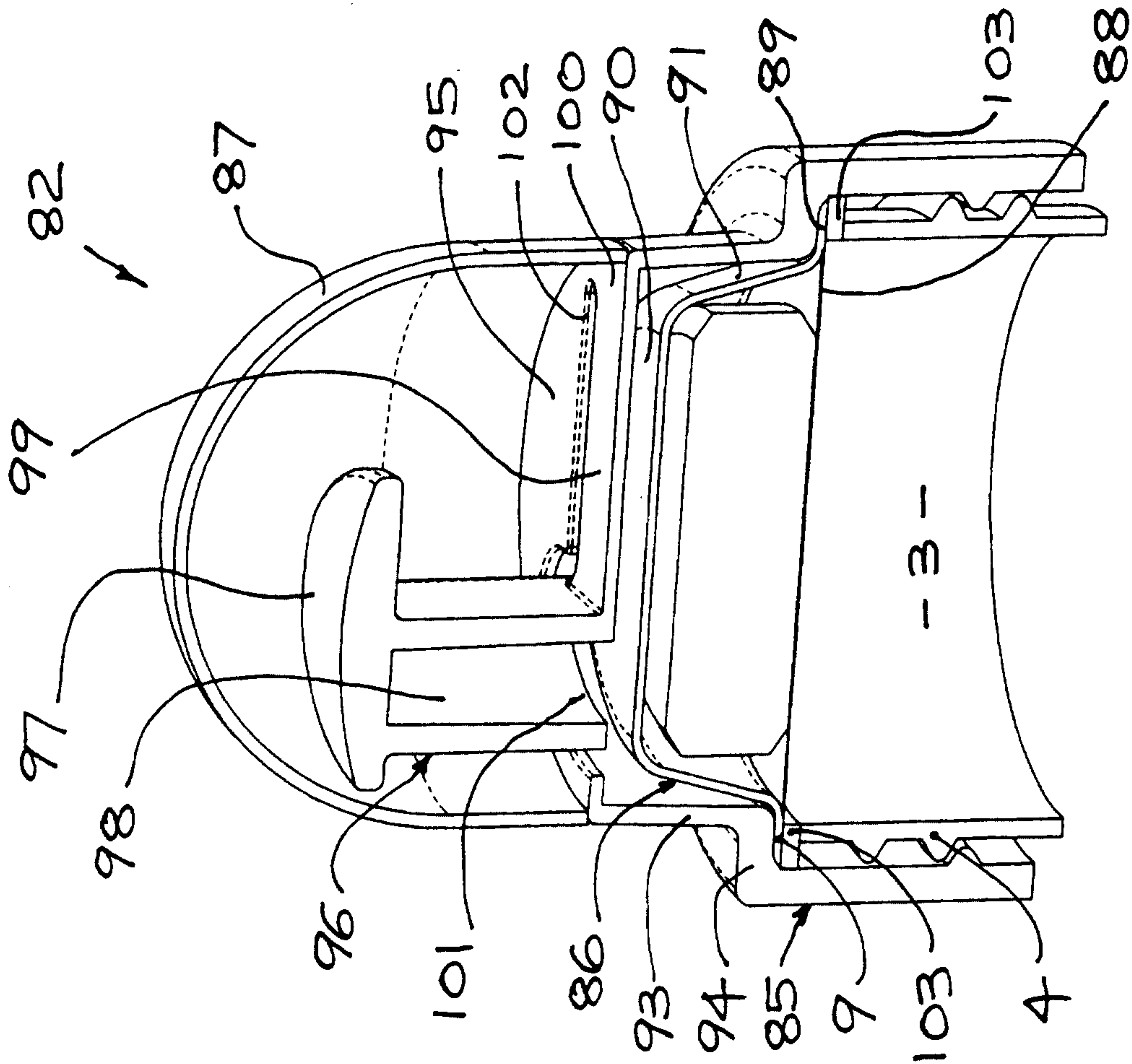


FIG. 10

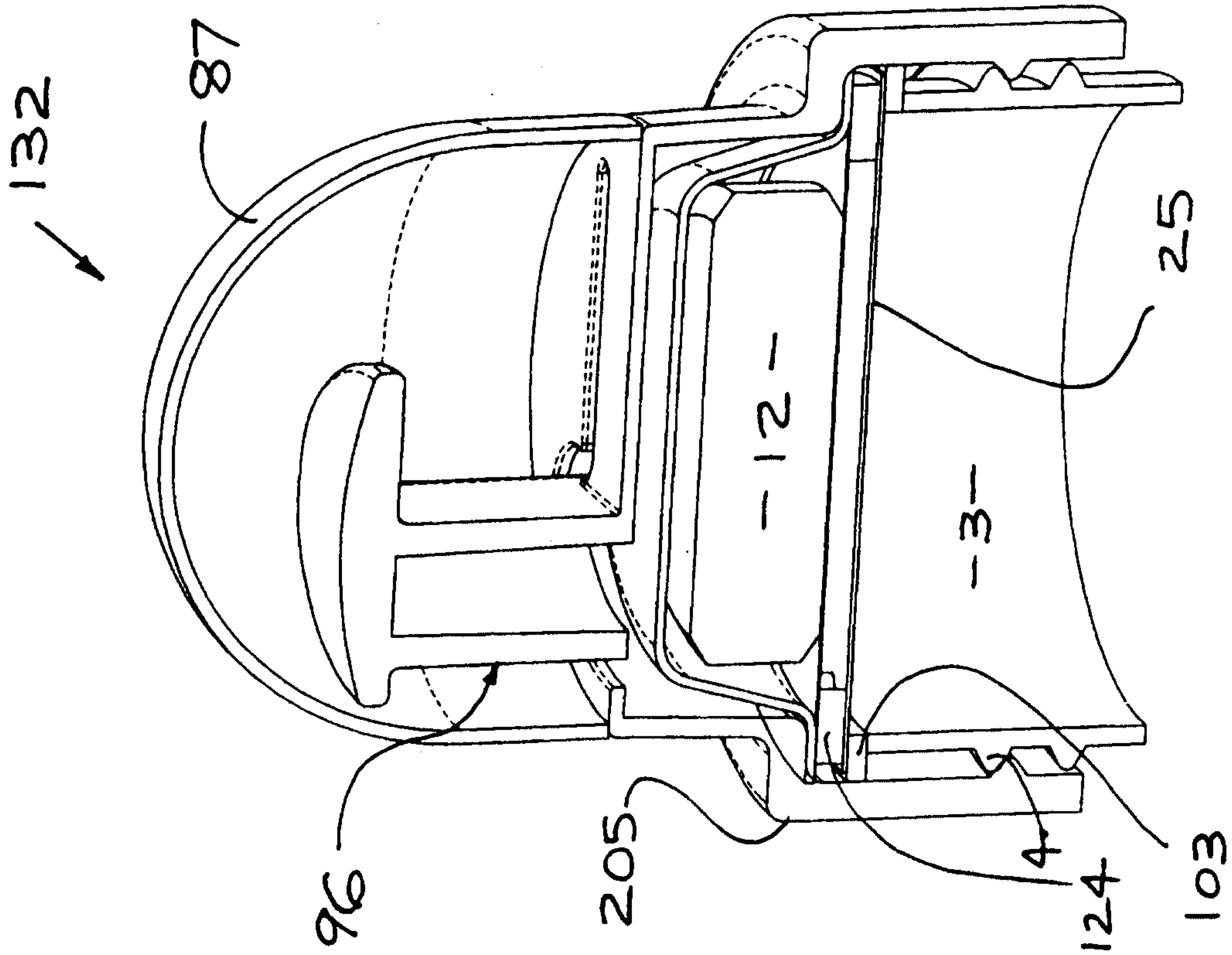


FIG. 12

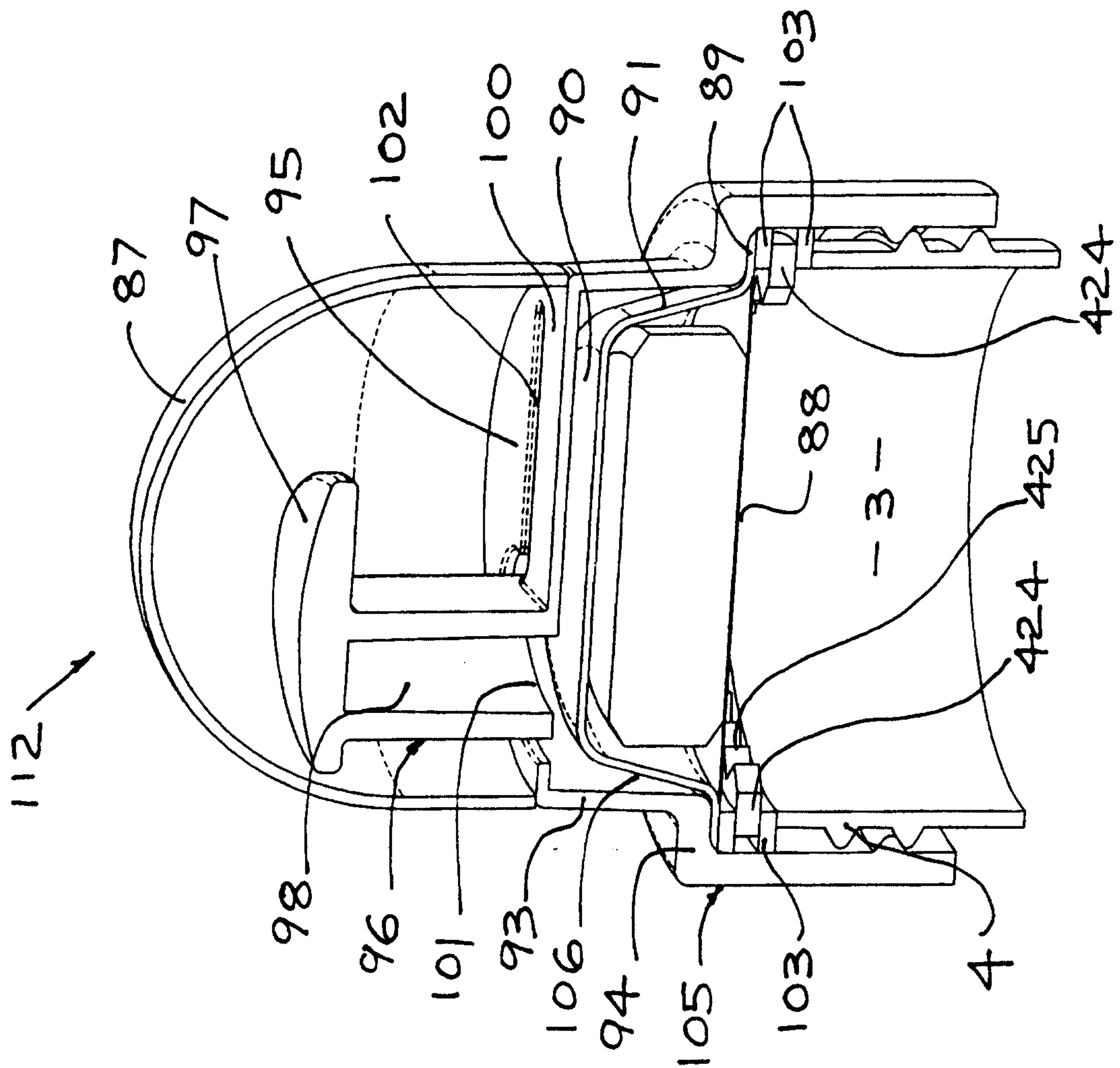


FIG. 11

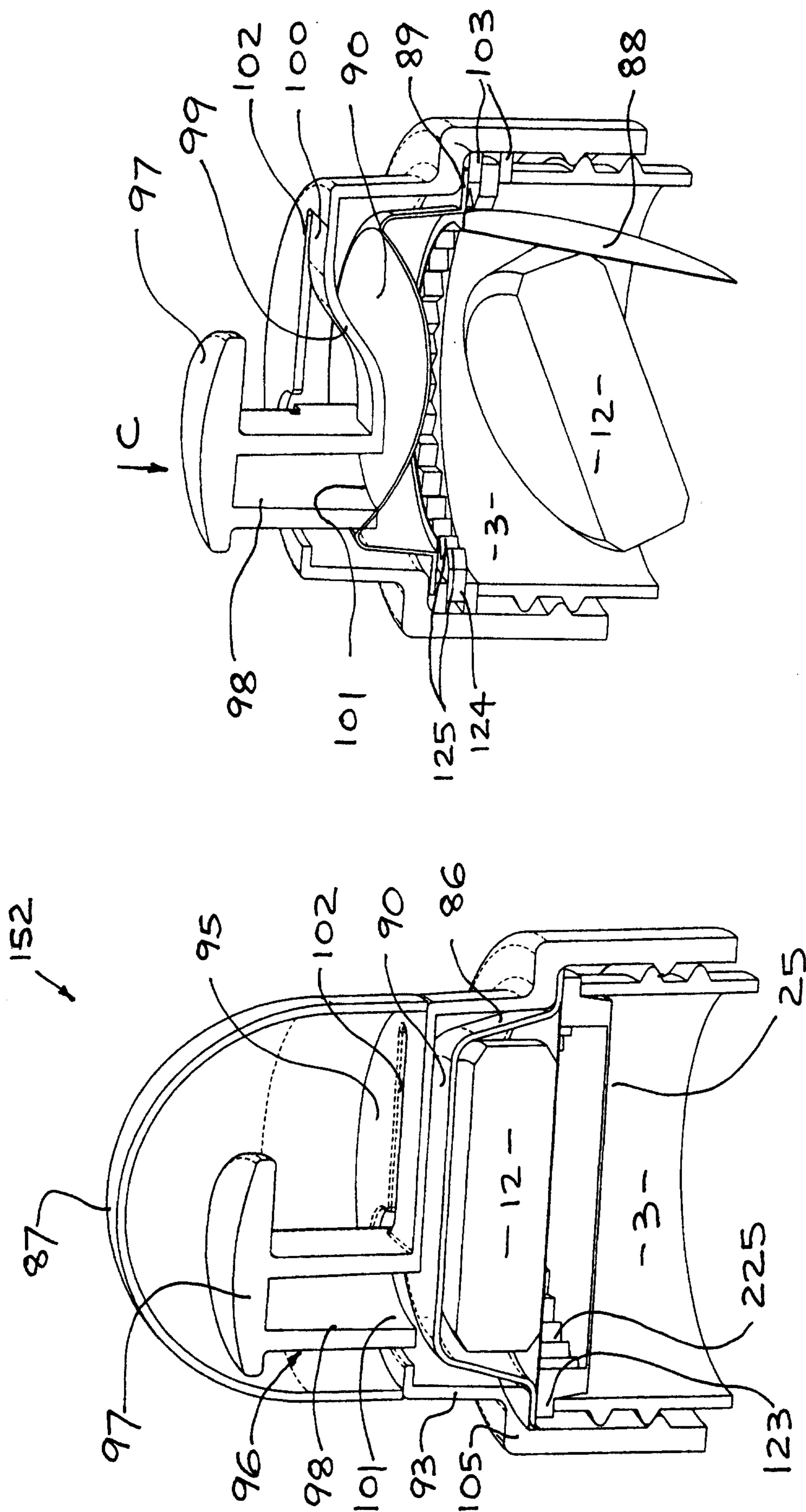


FIG. 13

FIG. 14

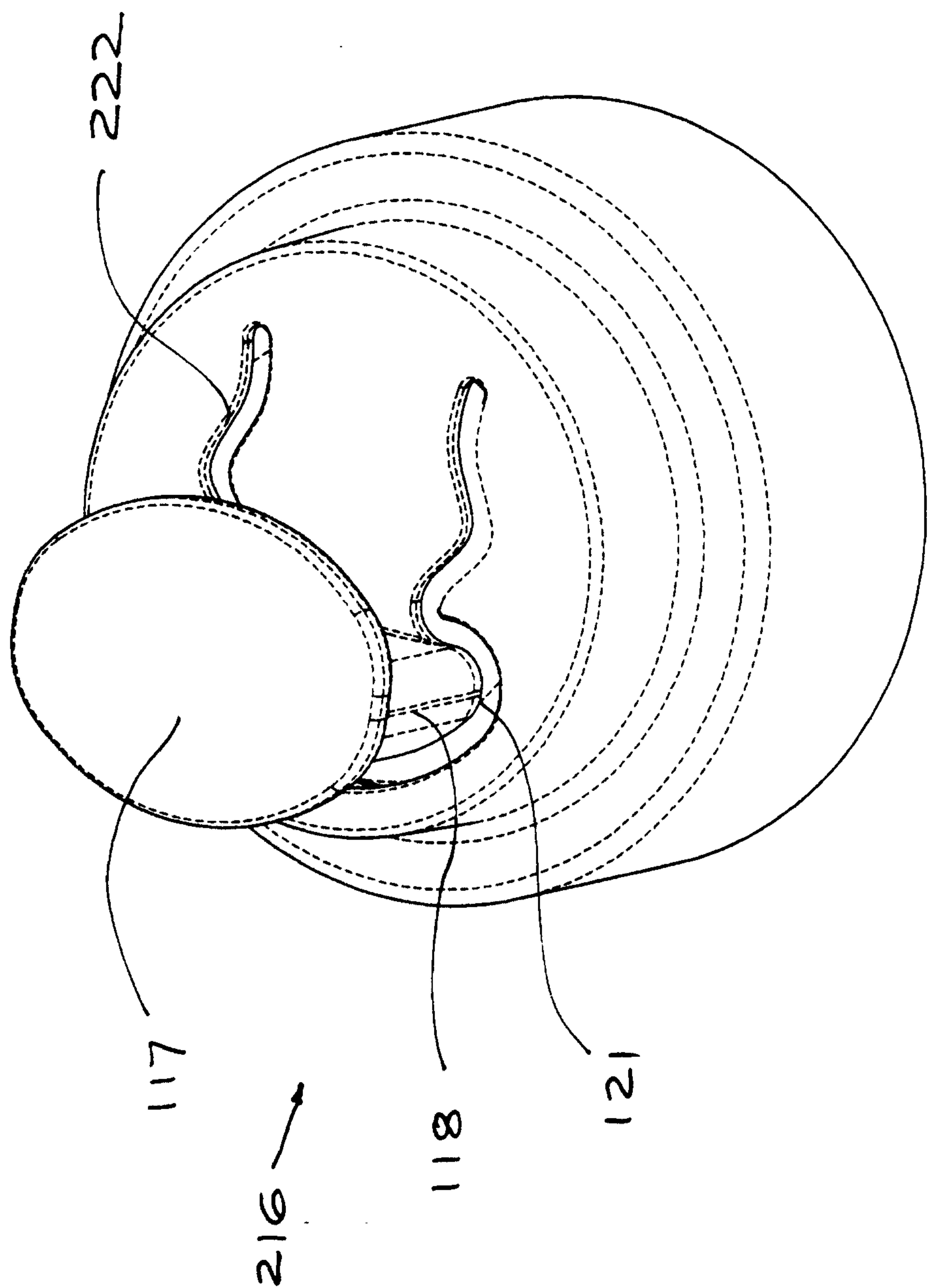


FIG. 15

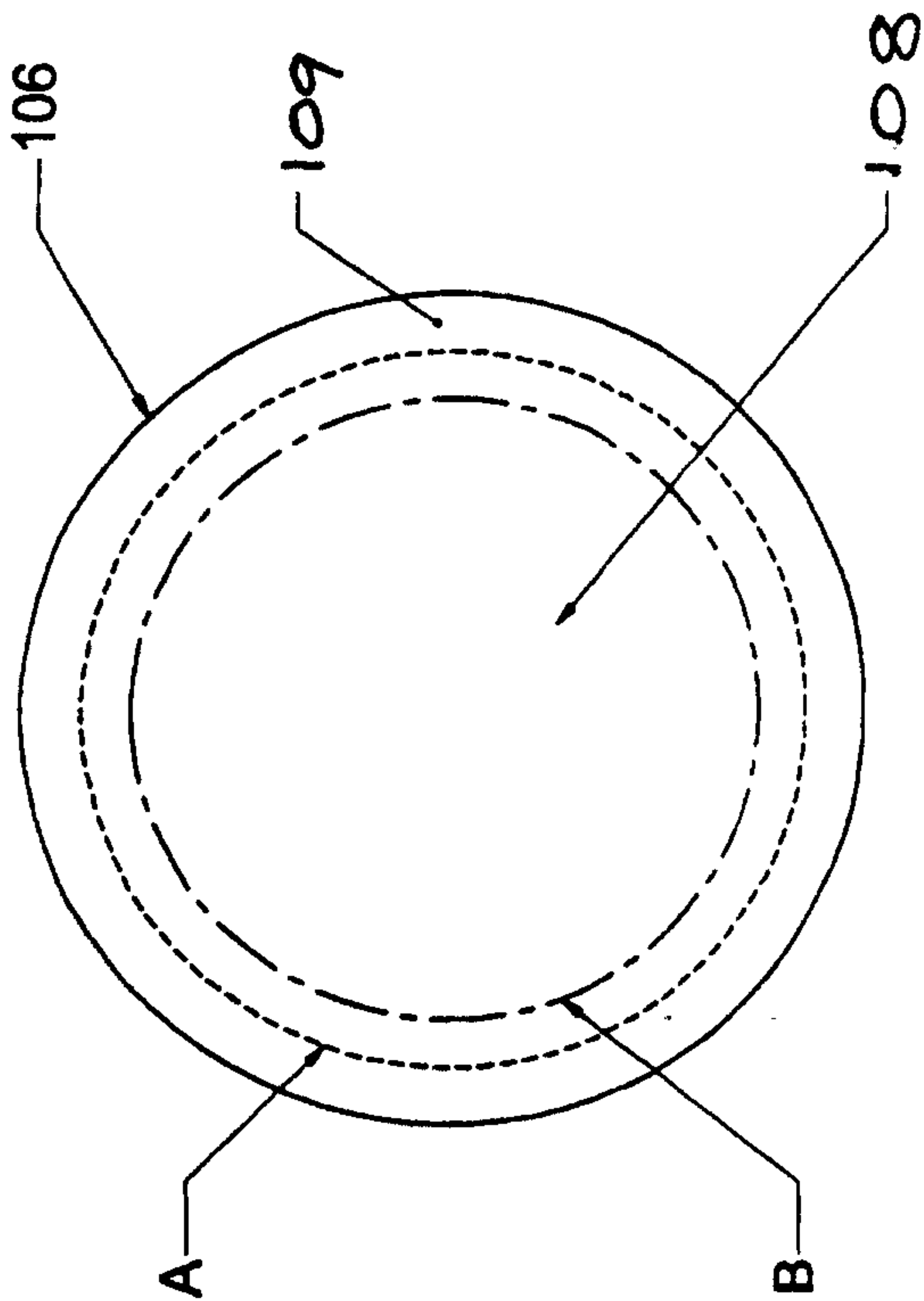


FIG. 16

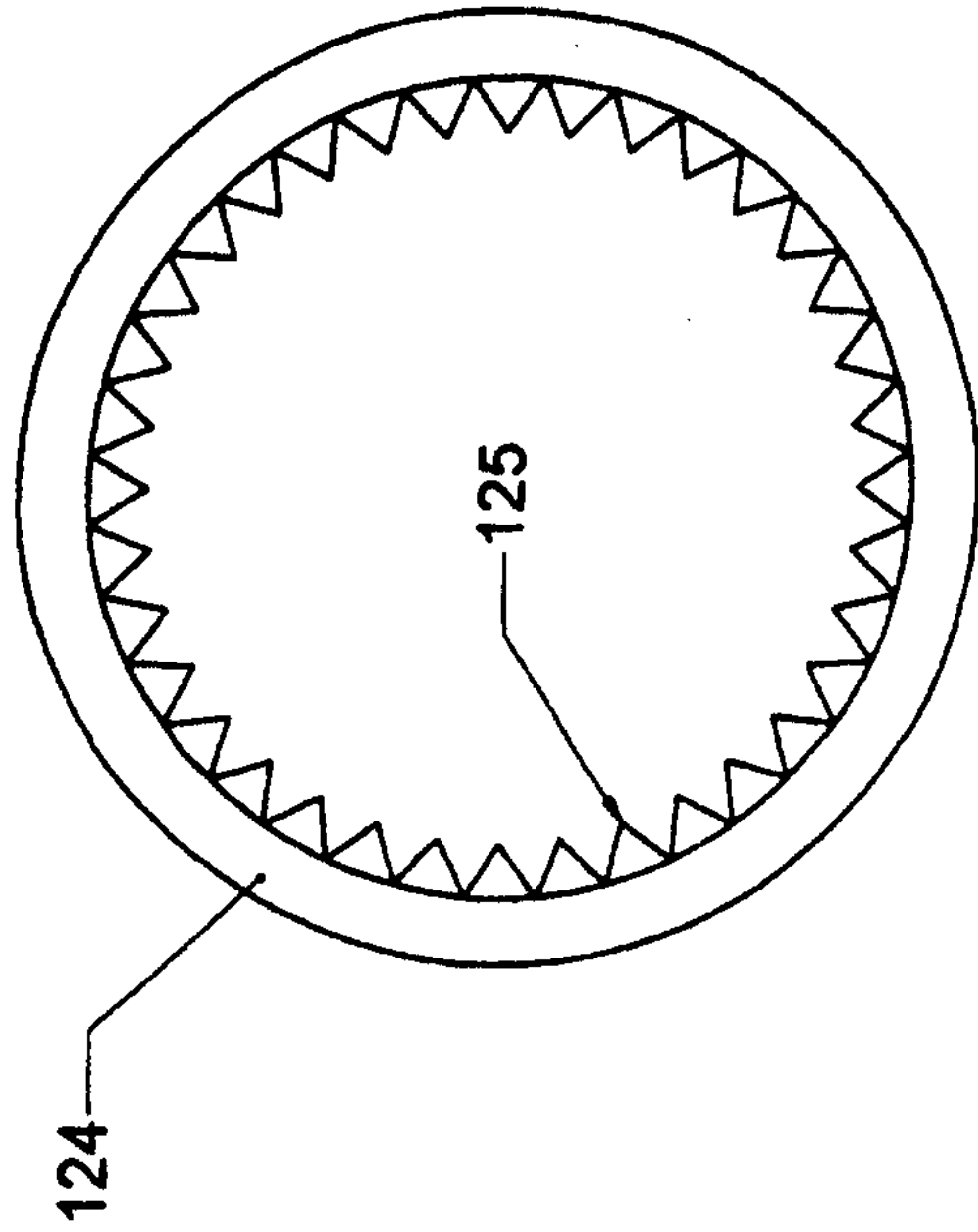


FIG. 17a

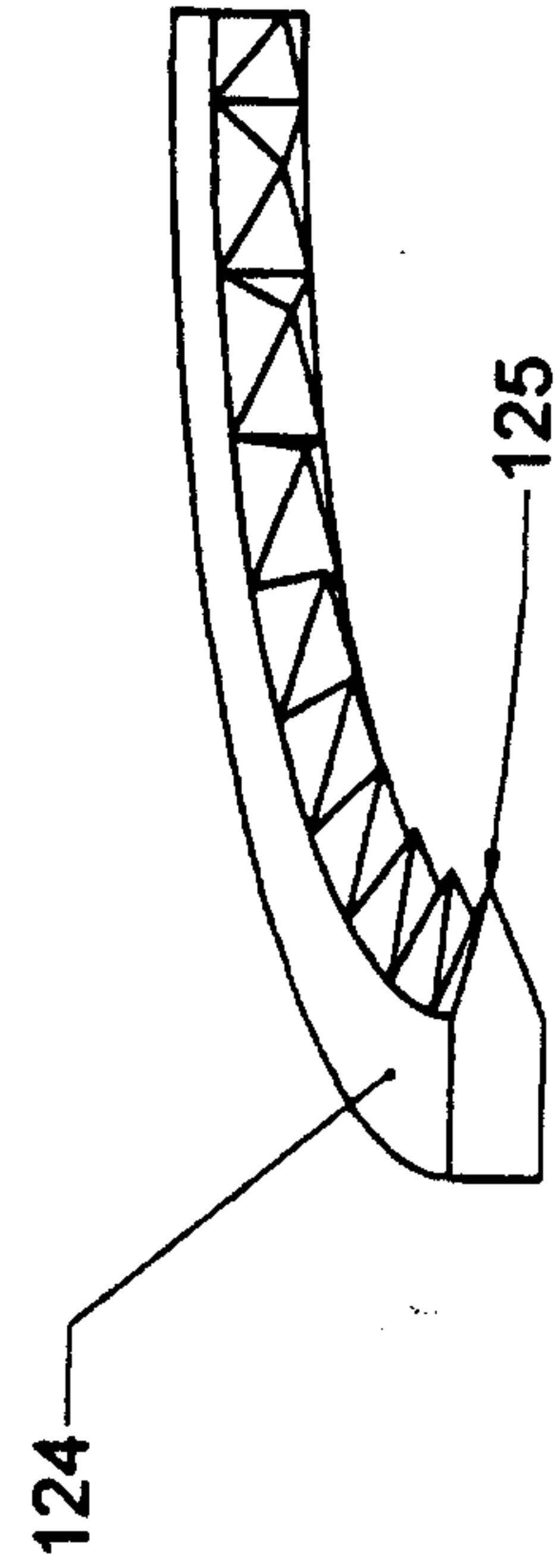


FIG. 17b

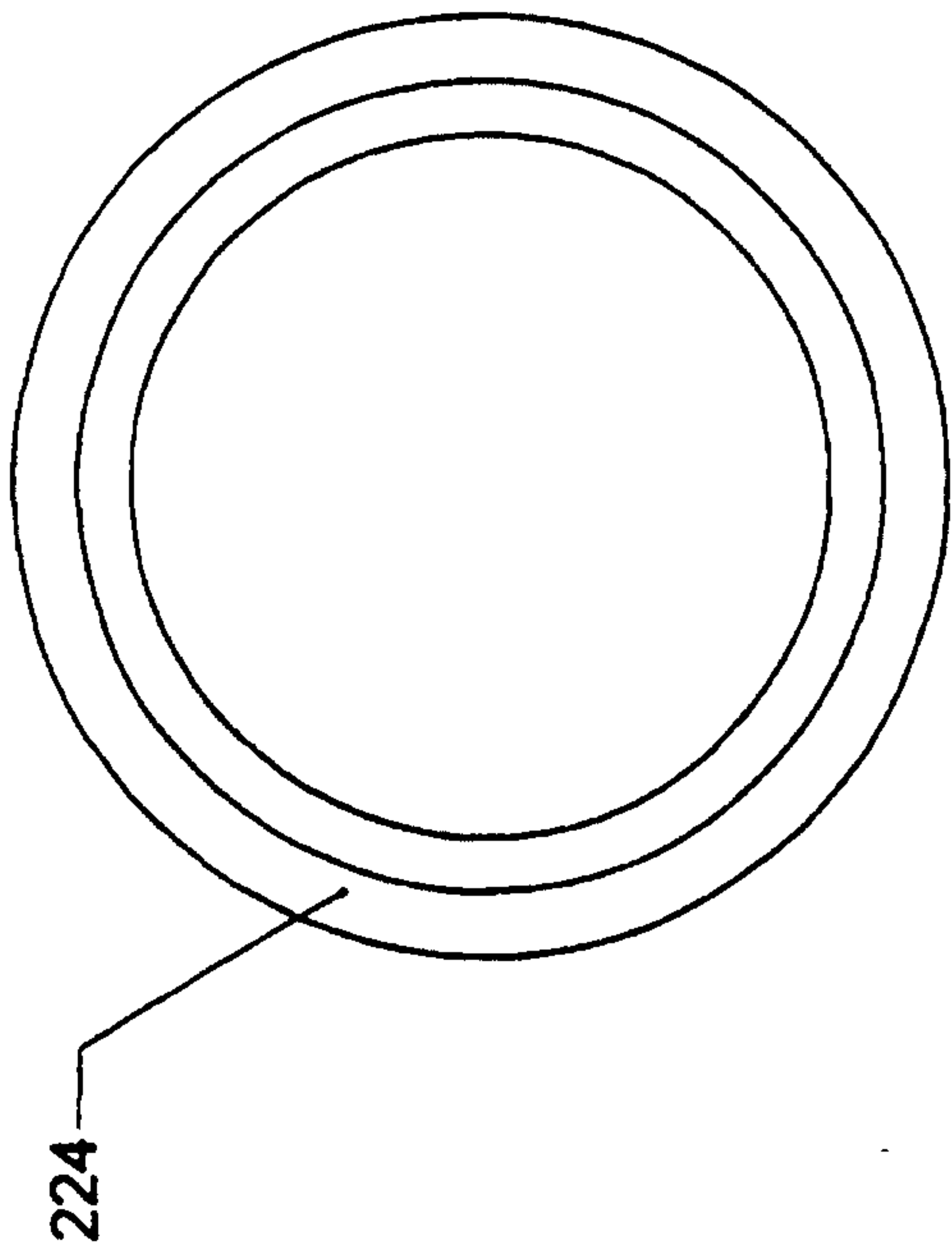


FIG. 18a

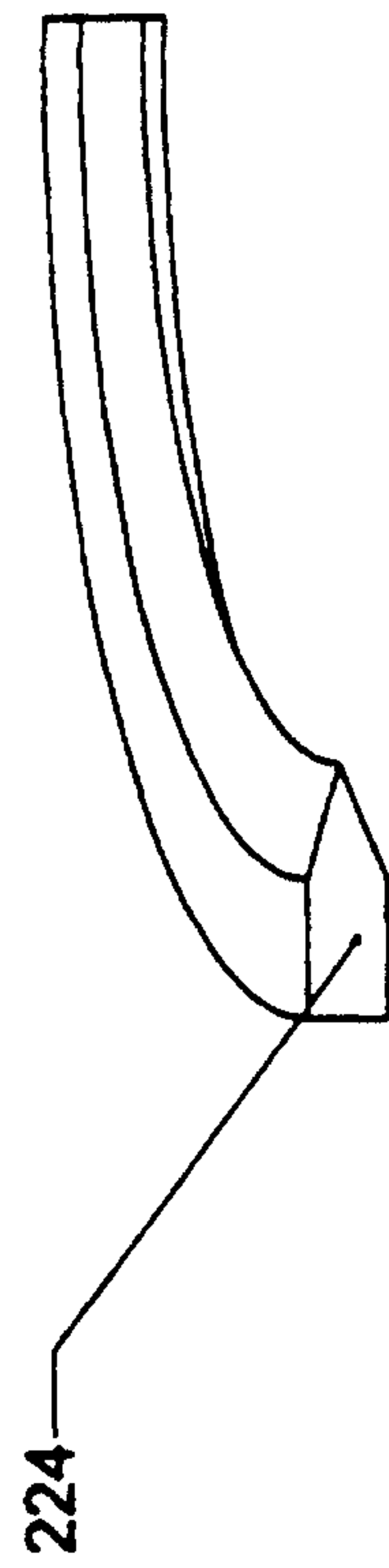


FIG. 18b

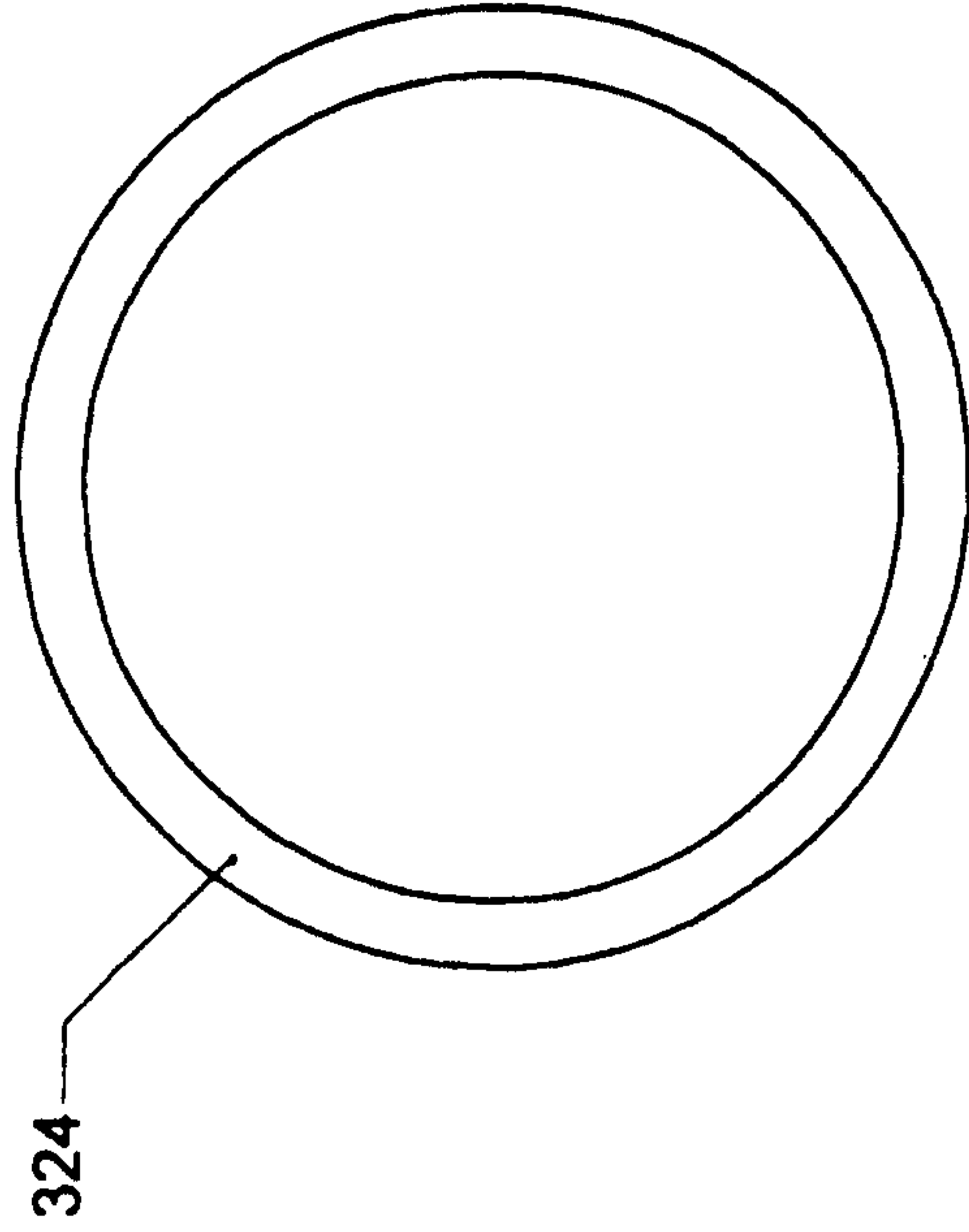


FIG. 19a

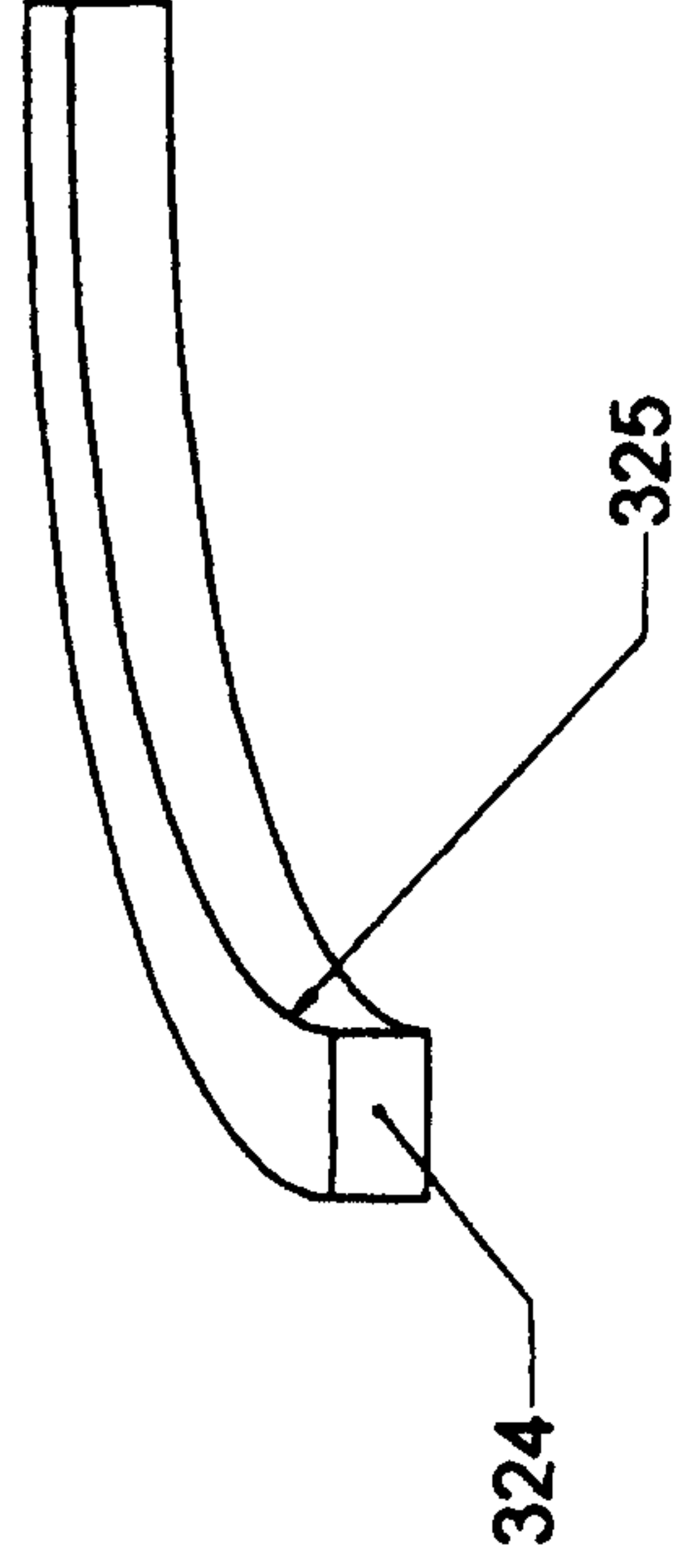


FIG. 19b

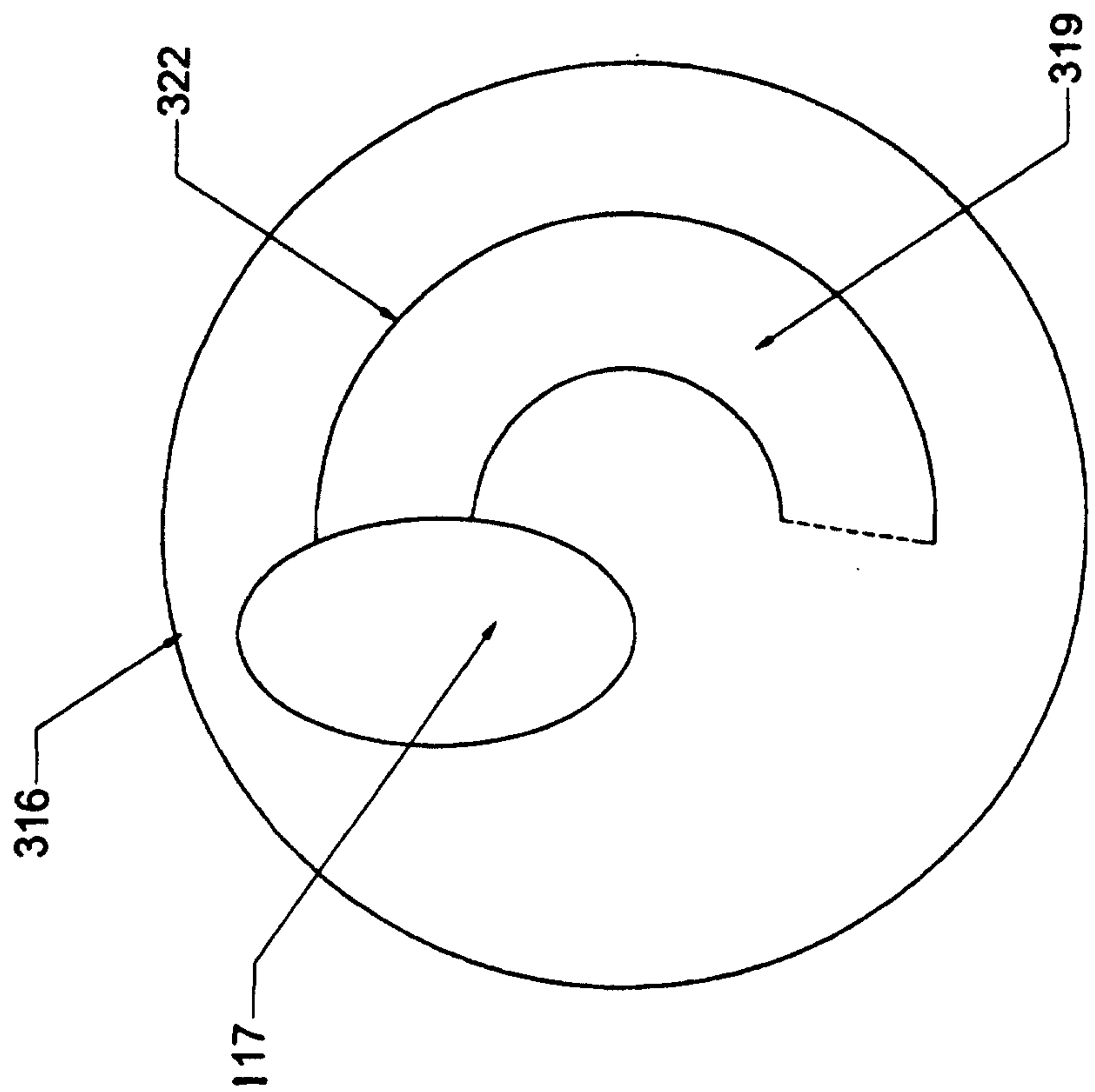


FIG. 20

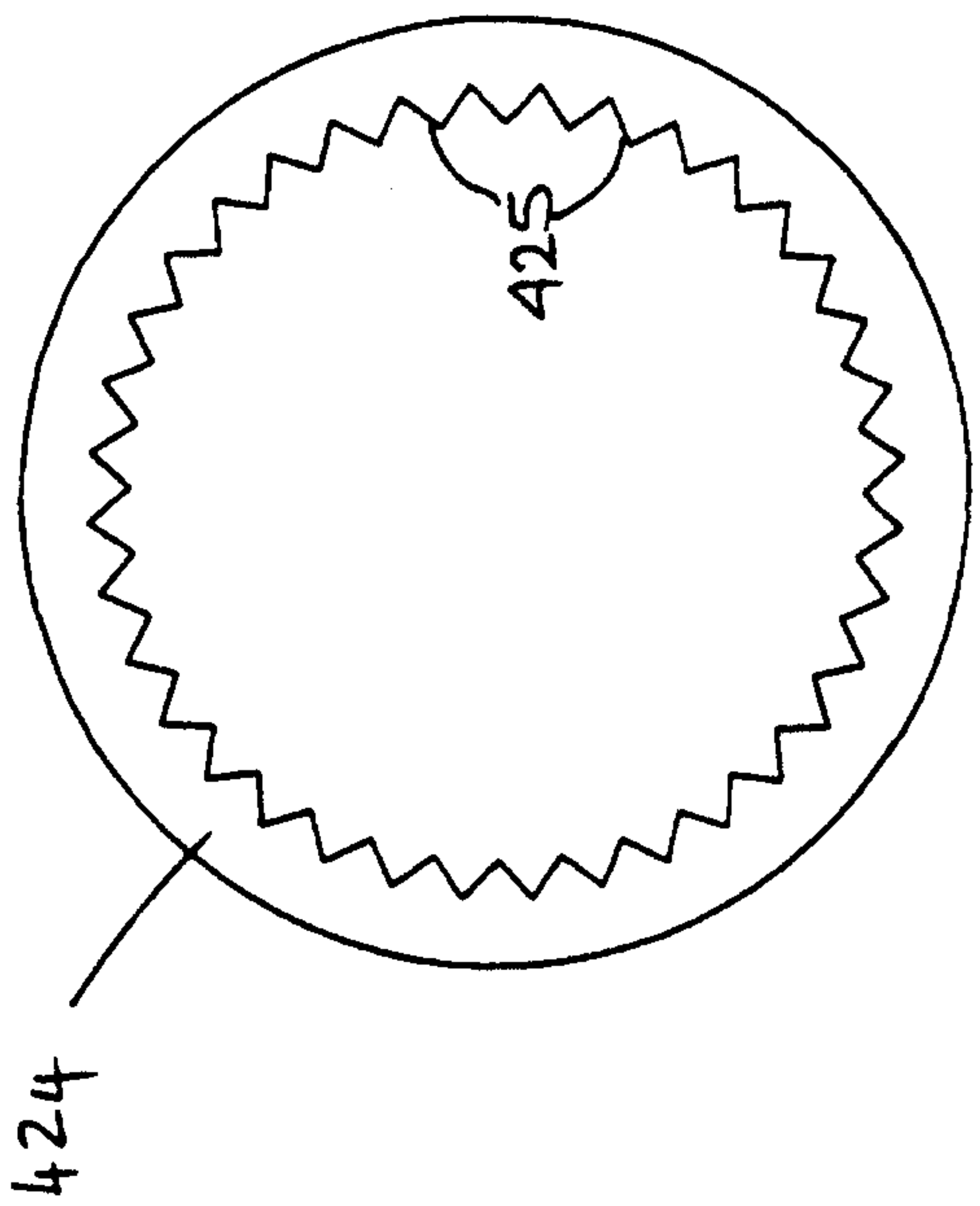


FIG. 21a

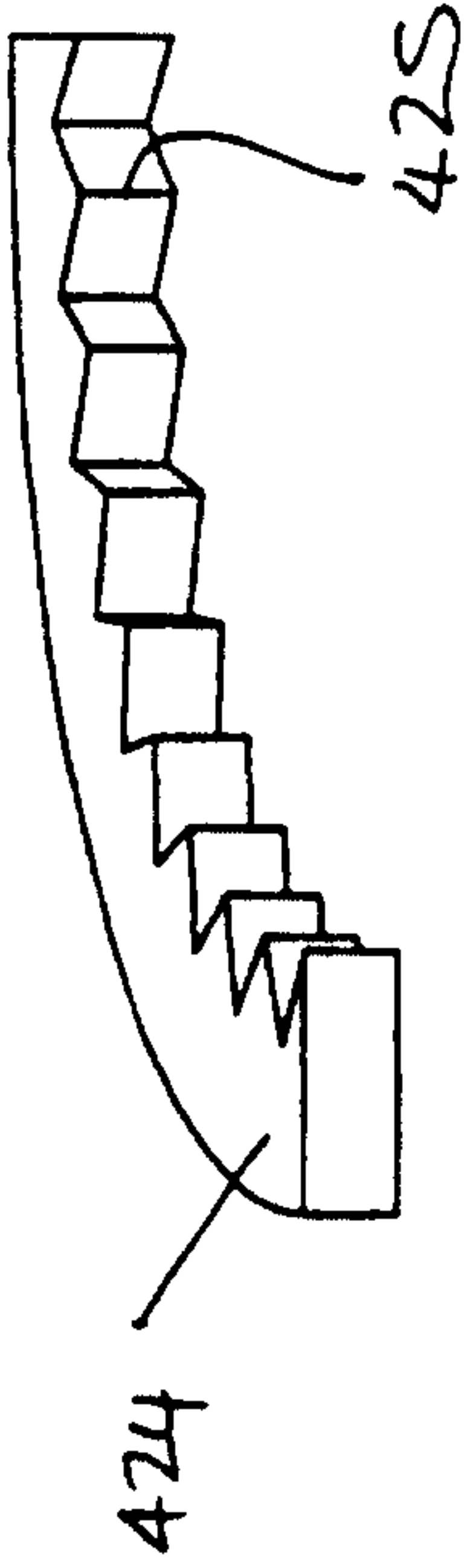


FIG. 21b

