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(54) **APPLICATOR HAVING THREE-DIMENSIONAL SURFACE CONTACT WITH RESERVOIR**

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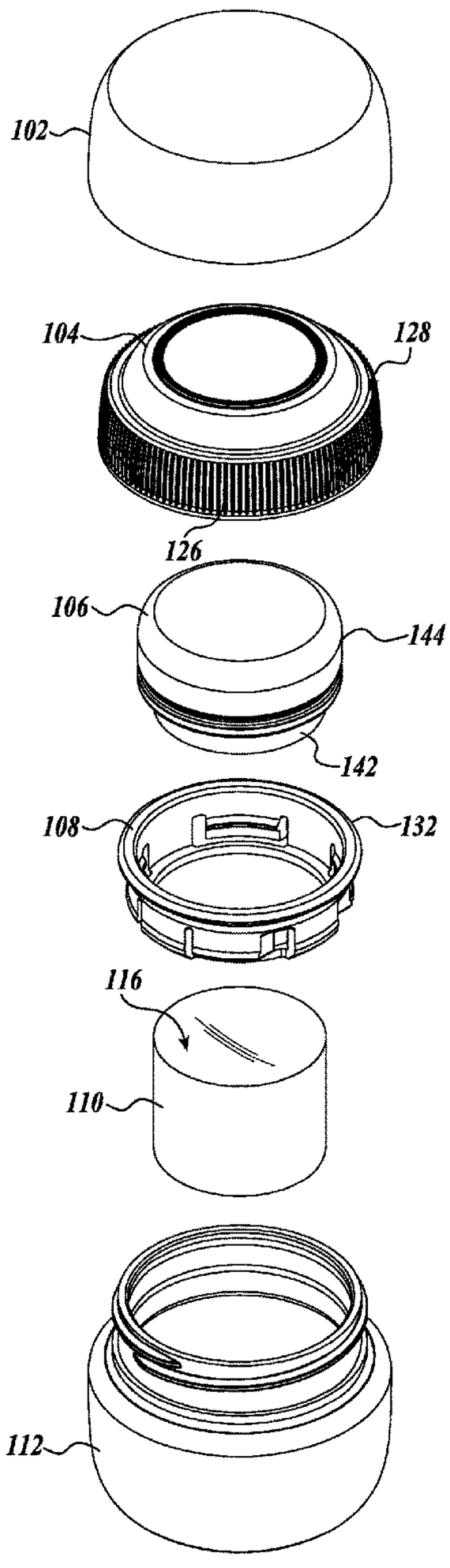
(57) **ABSTRACT**

A package includes an applicator with a contacting surface including a first porous material and a reservoir with a contacting surface including a second porous material. The package is filled with a liquid that is absorbed onto the reservoir. The contacting surfaces of the applicator and reservoir are three-dimensional to improve the transfer of fluid from the reservoir to the applicator.



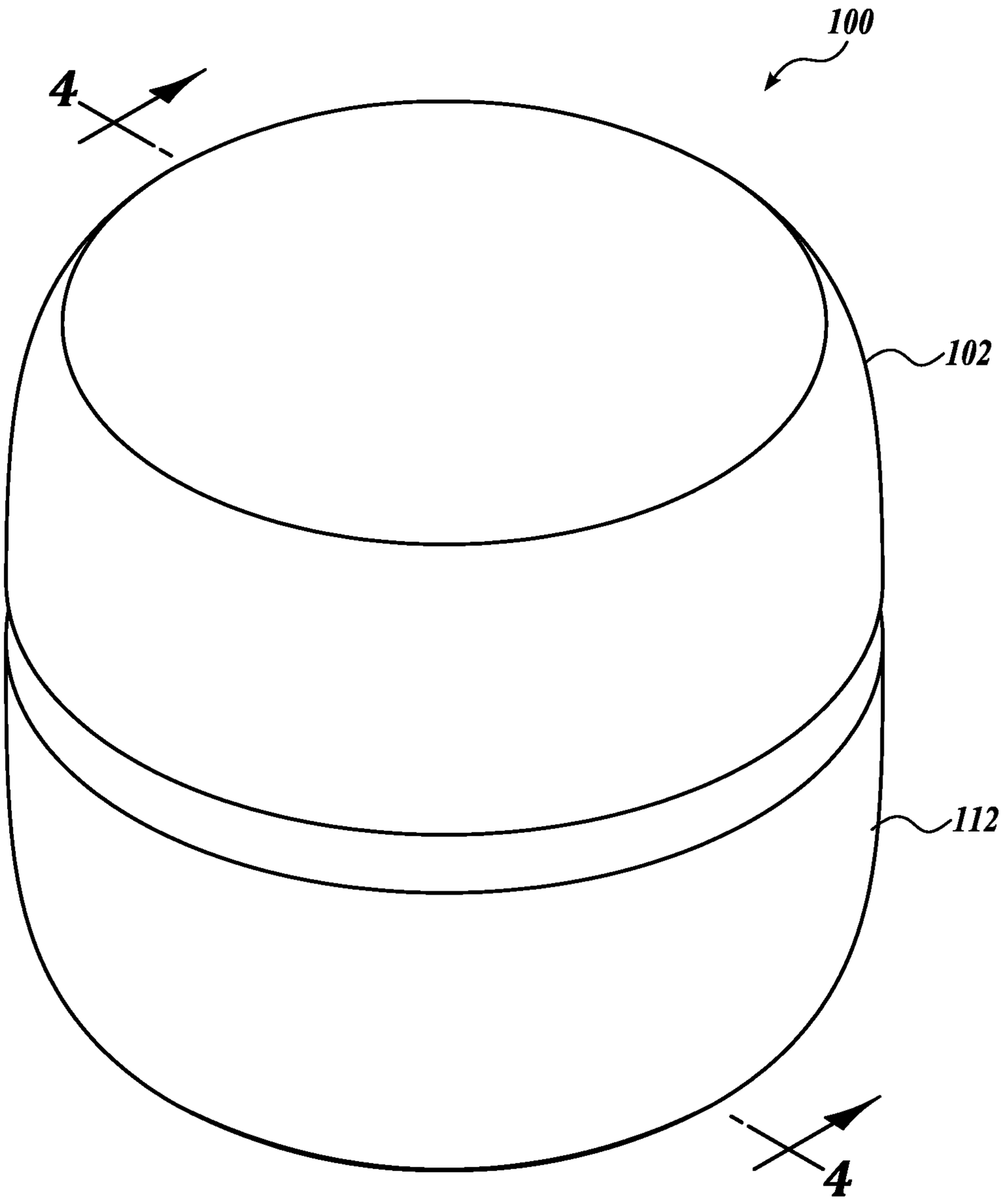



FIG. 1

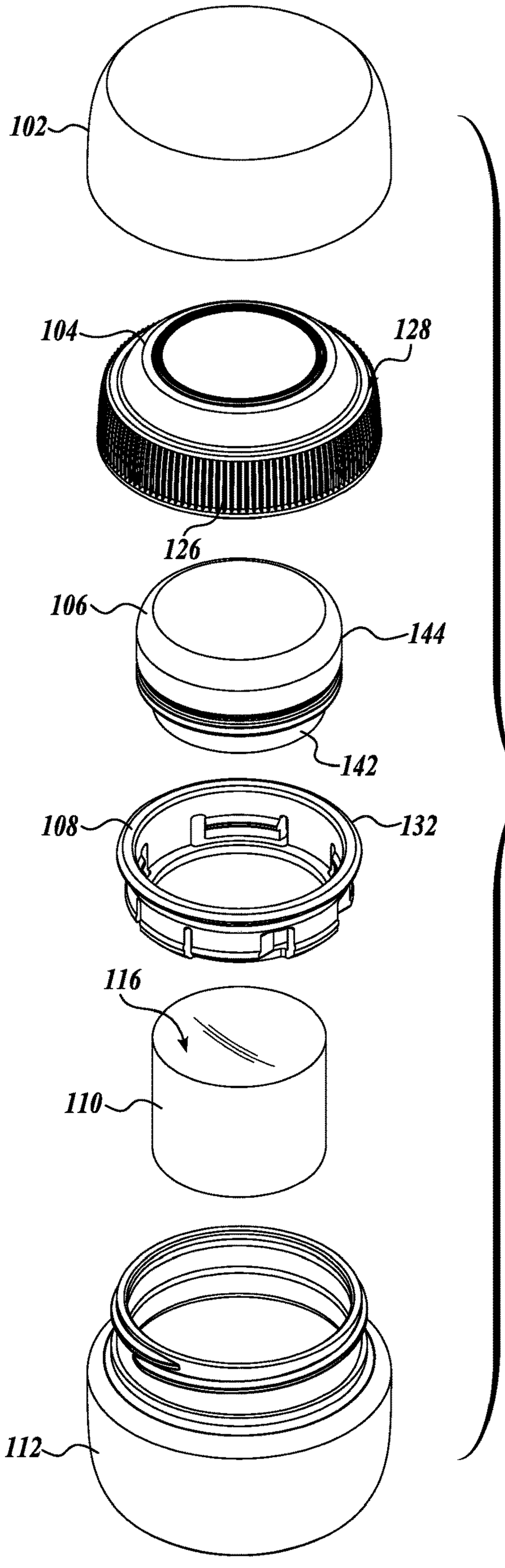



FIG. 2

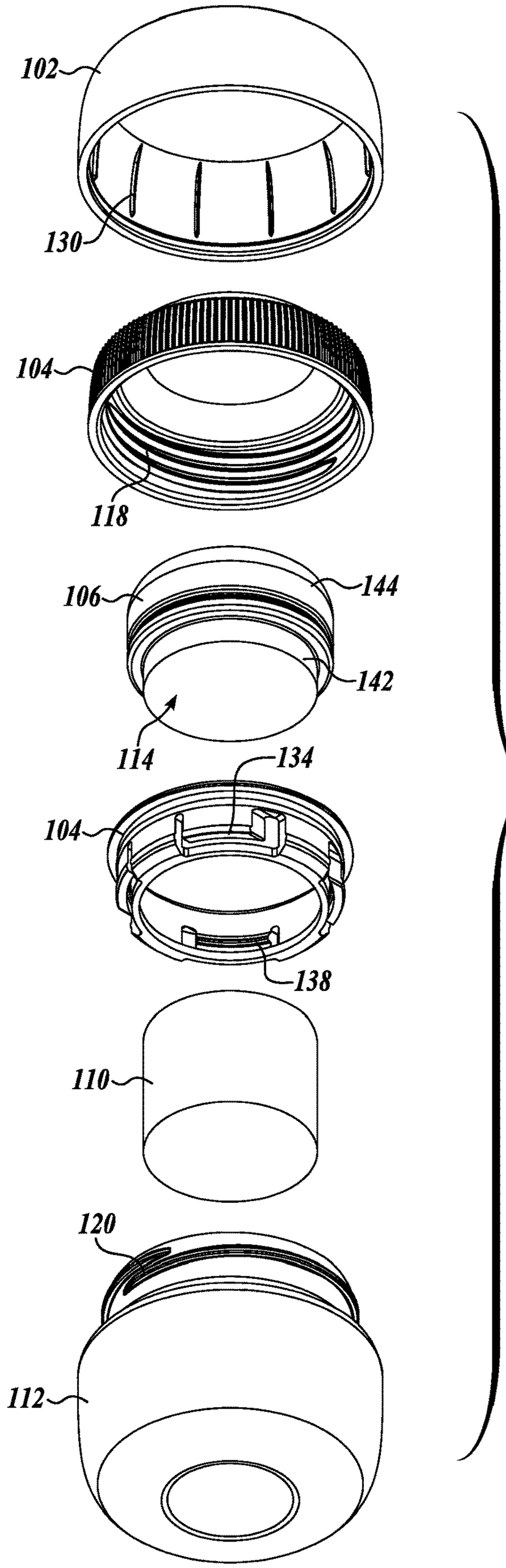



FIG. 3

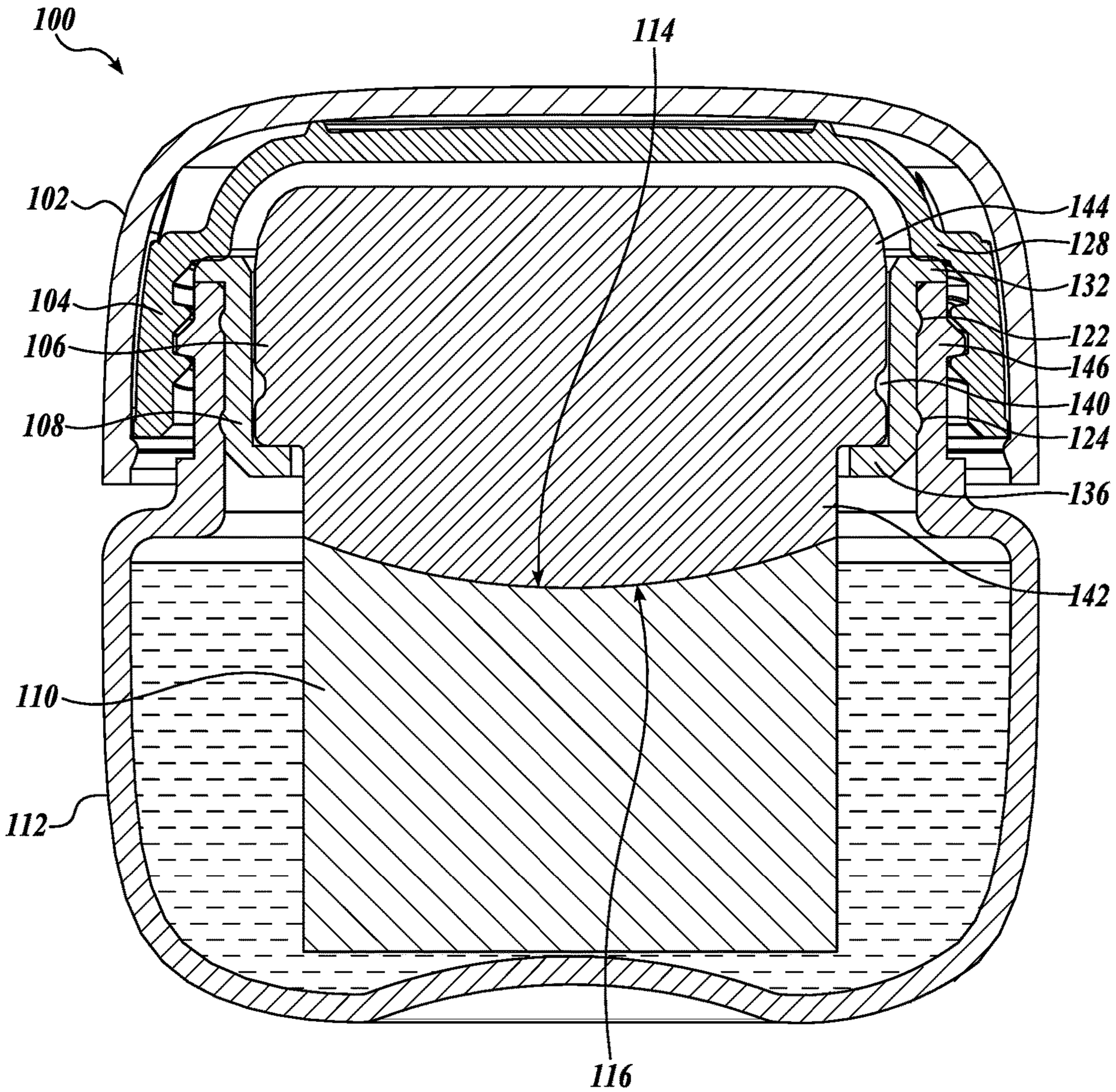

100
114
102
144
128
104
132
106
122
146
108
140
124
136
142
110
112
116

FIG. 4

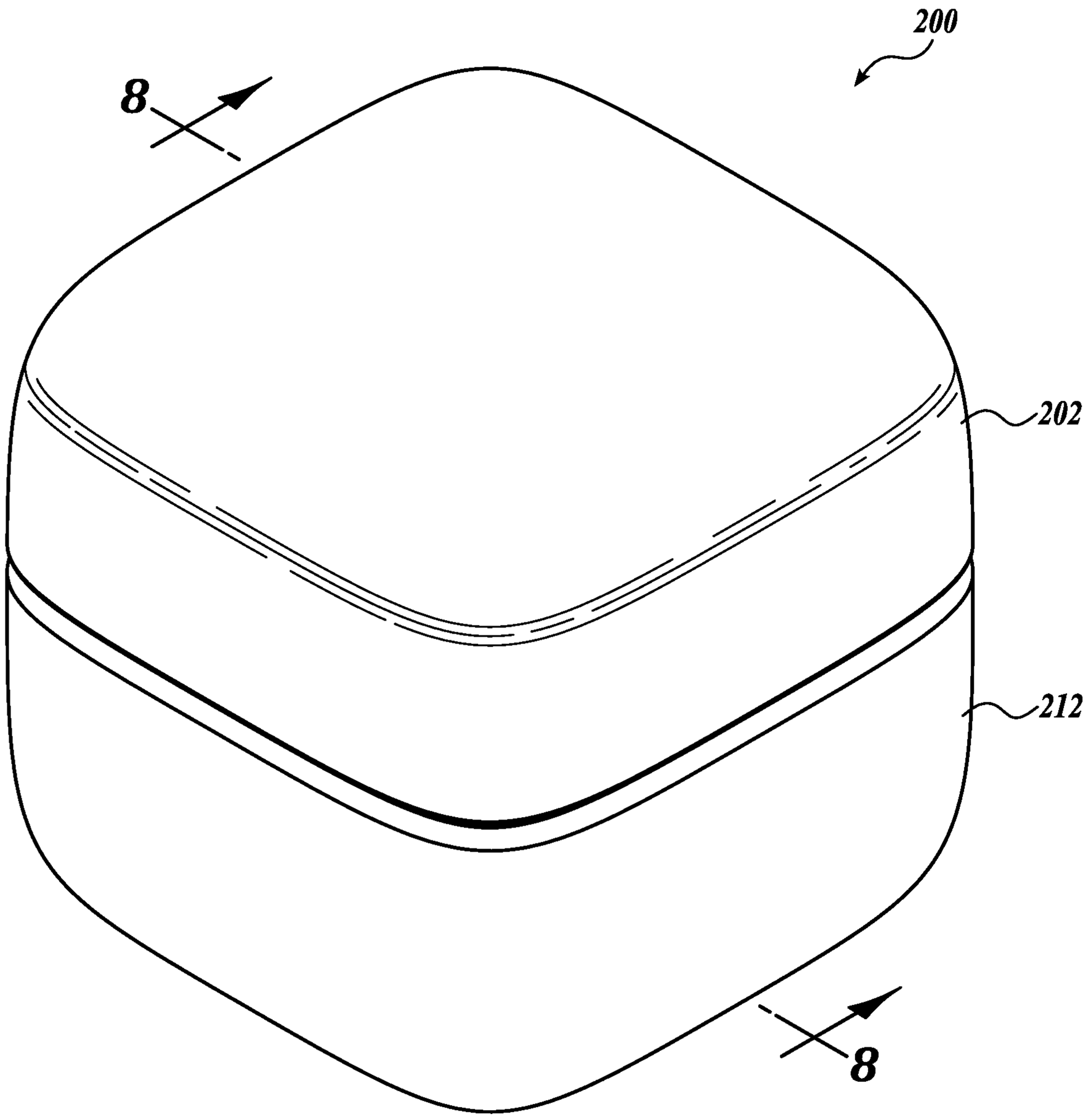



*FIG. 5*

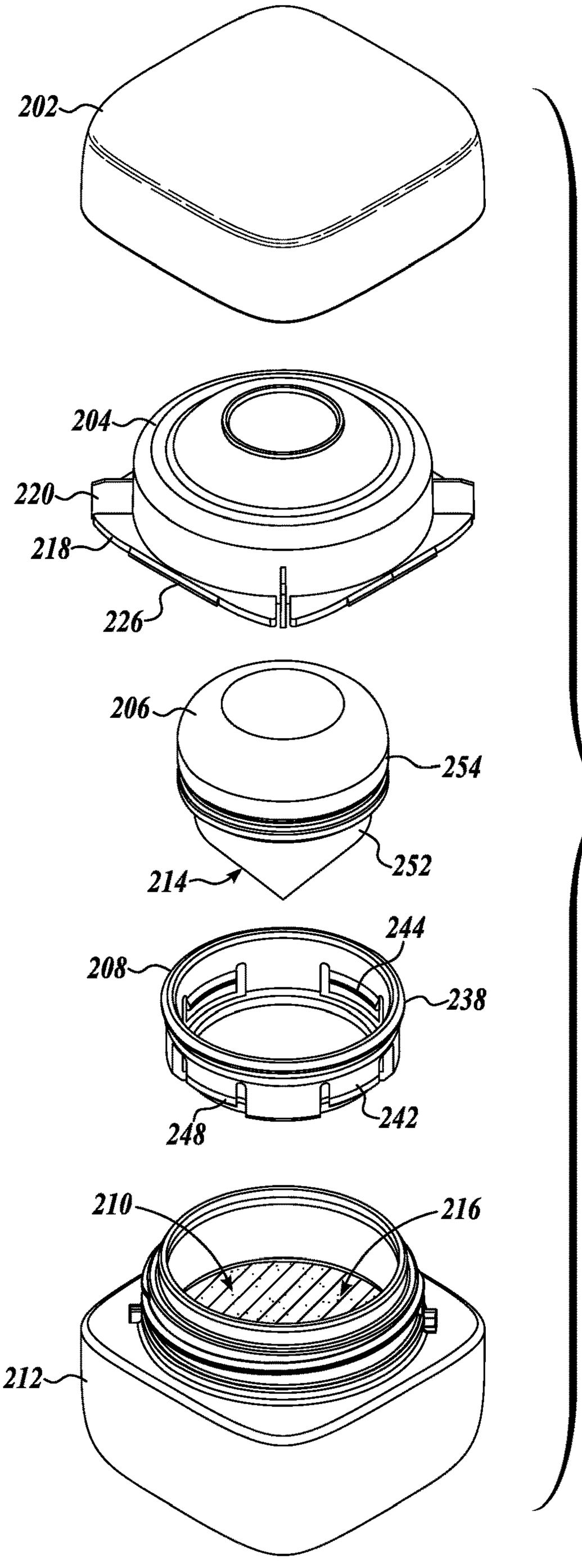

202
204
220
218
226
206
254
214
252
244
208
238
248
242
210
216
212

FIG. 6

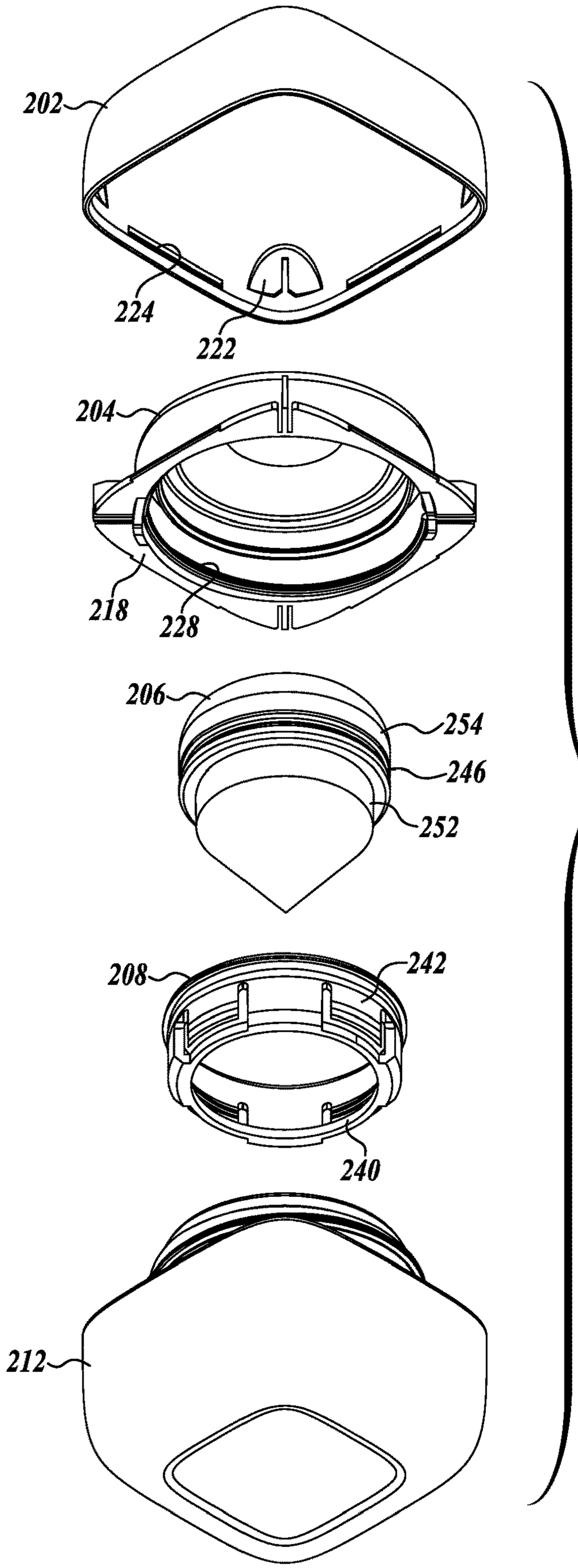



FIG. 7

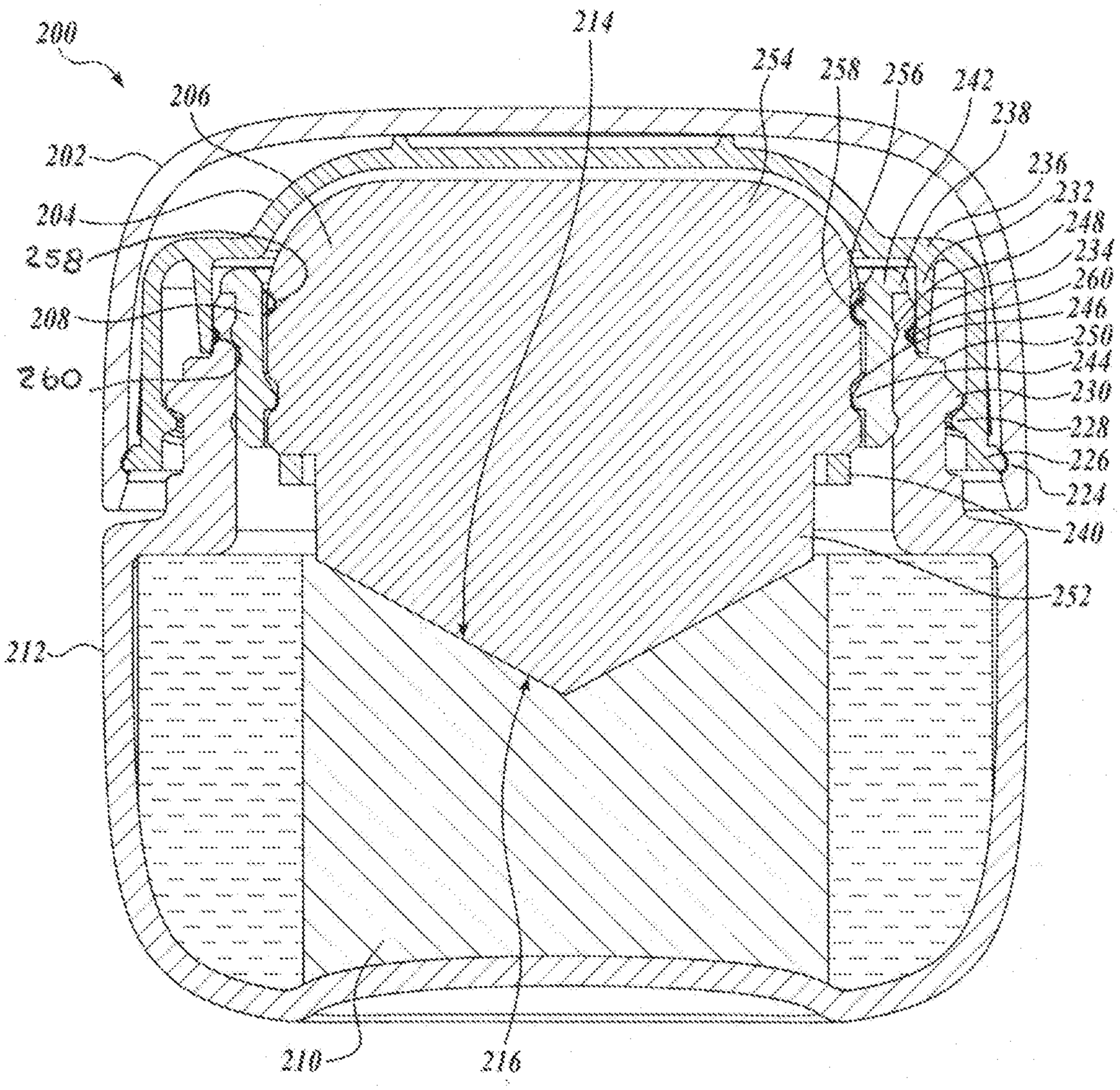

200
214
254
258
256
242
238
206
202
236
232
204
248
258
234
260
208
246
250
260
244
230
228
226
224
240
252
212
210
216

FIG. 8

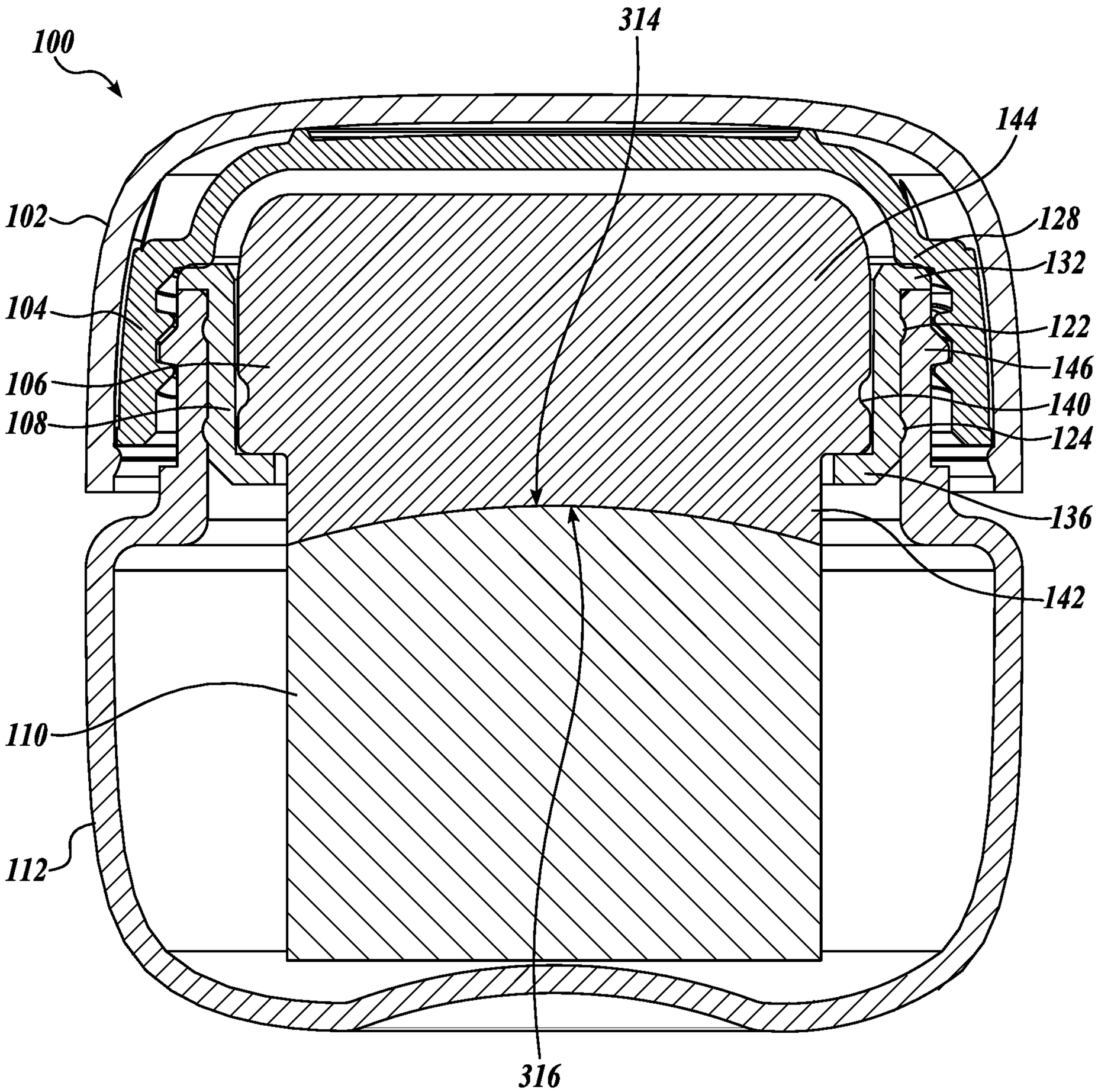

100
314
144
102
128
132
104
122
146
106
140
108
124
136
142
110
112
316

FIG. 9

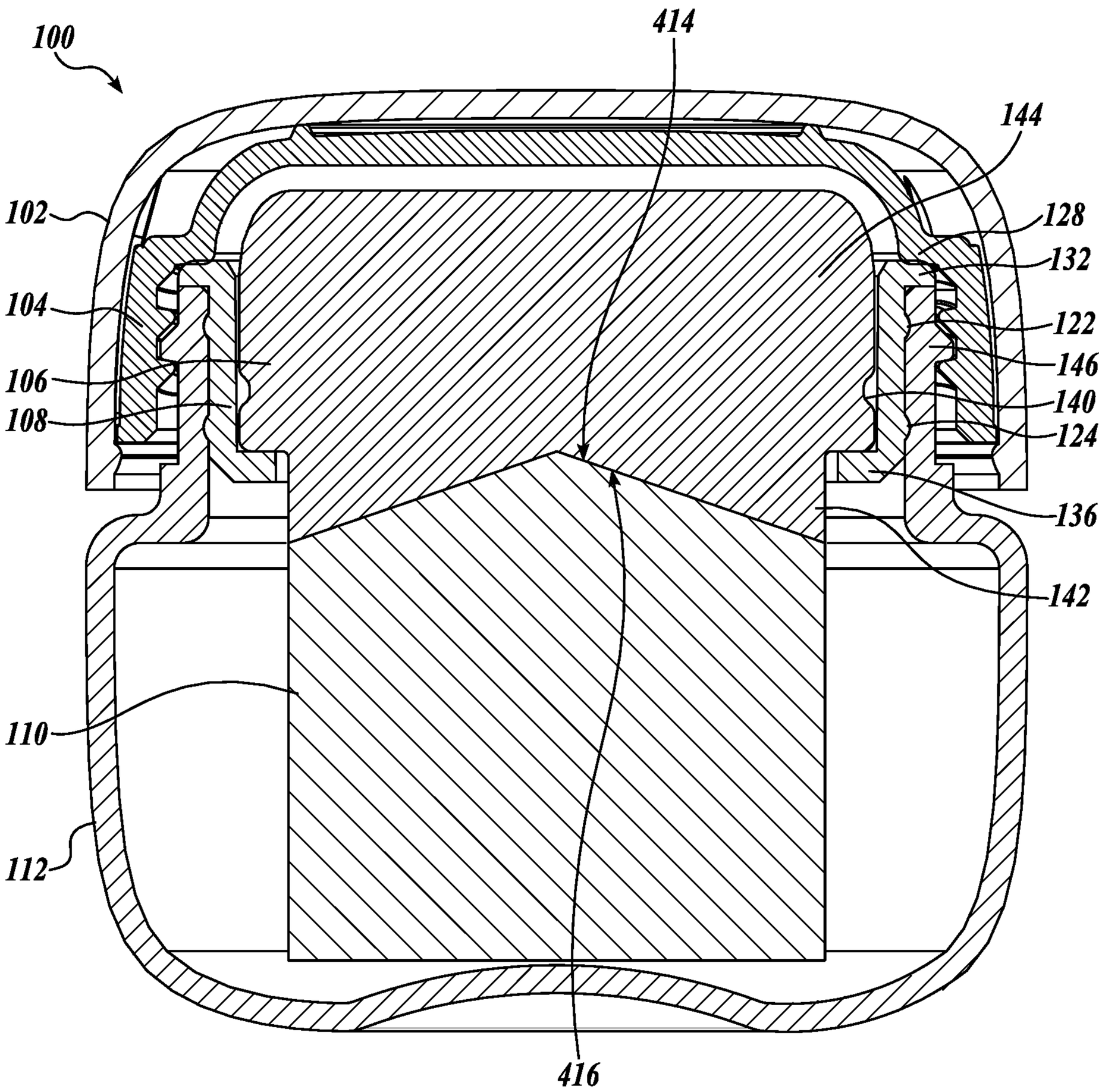

100
414
144
102
128
132
104
122
146
106
140
108
124
136
142
110
112
416

FIG. 10

# APPLICATOR HAVING THREE-DIMENSIONAL SURFACE CONTACT WITH RESERVOIR

## SUMMARY

**[0001]** This disclosure is related to a method of contacting two porous materials to allow more efficient capillary fluid transfer between the materials. For example, in the case of cosmetic formulations, an applicator can be contacted with a reservoir containing the formulation. The shapes of applicator and reservoir improve surface contact and fluid transport between two porous materials via three-dimensional surface contact and compression.

**[0002]** Cosmetic formulations are formulations that can be applied with an applicator. Cosmetic formulations can include but are not limited to formulations relating to make-up, and formulations that are meant to be applied to the skin and hair, such as creams, lotions, gels, dyes, and the like.

**[0003]** In one embodiment, the applicator and reservoir are created having a three-dimensional surface that protrudes from the surface of the applicator that contacts the reservoir. Typically, applicators and reservoirs contact each other via a flat, two-dimensional surface, such as any flat surface area against an equal flat surface area). According to this disclosure, and to improve this contact between applicator and reservoir, the applicator is formed with a three-dimensional surface having a length, width, as well as height dimension that increases the surface area beyond a flat profile. In one embodiment, the reservoir that is contacted by the applicator is also formed having a three-dimensional surface that is the negative of the three-dimensional surface of the applicator. For example, when the applicator has convex shape, the reservoir can have a concave shape.

**[0004]** The reservoir within the jar serves to contain the bulk of the formulation, such as liquid, in the package. The reservoir can be a sintered porous material, a closed cell material (like a urethane foam/sponge), or could be fibrous (like a sintered fiber reservoir in a highlighter marker for example). The applicator could be fastened or adhered to the reservoir, or could be unbonded but contacting surfaces. In one embodiment, the reservoir can have a flat surface against the domed or conical surface of the applicator due to manufacturing requirements, but could have an inverse shape that compliments the dome or cone of the applicator. The three-dimensional surface could include facets (i.e. a polyhedral dome surface) and could have a smooth, textured or rough surface depending on the fluid to transfer.

**[0005]** The jar serves to protect and contain the reservoir and potentially the applicator. However, the applicator could be separate from the reservoir. When the applicator is attached to a cap used to close the jar, the applicator would contact the reservoir when closed, but be separated from the reservoir when opened. In this case, the applicator would charge or recharge itself when the pack is closed.

**[0006]** This summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This summary is not intended to identify key features of the claimed subject matter, nor is it intended to be used as an aid in determining the scope of the claimed subject matter.

## DESCRIPTION OF THE DRAWINGS

**[0007]** The foregoing aspects and many of the attendant advantages of this invention will become more readily appreciated as the same become better understood by reference to the following detailed description, when taken in conjunction with the accompanying drawings, wherein:

**[0008]** FIG. **1** is a diagrammatical illustration of a package containing an applicator and reservoir having three-dimensional contacting surfaces;

**[0009]** FIG. **2** is a diagrammatical illustration of an exploded view of the package of FIG. **1**;

**[0010]** FIG. **3** is a diagrammatical illustration of an exploded view of the package of FIG. **1**;

**[0011]** FIG. **4** is a diagrammatical illustration of a cross-sectional view of the package of FIG. **1**;

**[0012]** FIG. **5** is a diagrammatical illustration of a package containing an applicator and reservoir having three-dimensional contacting surfaces;

**[0013]** FIG. **6** is a diagrammatical illustration of an exploded view of the package of FIG. **5**;

**[0014]** FIG. **7** is a diagrammatical illustration of an exploded view of the package of FIG. **5**;

**[0015]** FIG. **8** is a diagrammatical illustration of a cross-sectional view of the package of FIG. **5**;

**[0016]** FIG. **9** is diagrammatical illustration of a cross-sectional view of the package of FIG. **1** with alternate three-dimensional contacting surfaces; and

**[0017]** FIG. **10** is diagrammatical illustration of a cross-sectional view of the package of FIG. **1** with alternate three-dimensional contacting surfaces.

## DETAILED DESCRIPTION

**[0018]** FIGS. **1** to **4** illustrate an embodiment of a package **100** comprising an applicator **106** having a surface **114** including a first porous material, a reservoir **110** having a surface **116**, including a second porous material, wherein the first surface **114** extends in length, width and height, and the second surface **116** has an inverse shape of the first surface **114**, wherein the first surface **114** contacts the second surface **116** along the length, width, and height.

**[0019]** In one embodiment, the reservoir **110** is wetted with a liquid formulation, and the applicator **106** becomes wetted with the liquid formulation through contact of the first **114** and second **116** surfaces including length, width, and height dimensions of the surfaces. The three-dimensional surfaces that make contact between the reservoirs and applicators improve on the transfer from one medium to the other. For example, contact alone of the first and second surfaces is sufficient to transfer the liquid formulation from the reservoirs to the applicators. In one embodiment, formulations are formulations that can be applied with an applicator. Formulations can include but are not limited to formulations relating to make-up, and formulations that are meant to be applied to the skin and hair, such as creams, lotions, gels, salves, dyes, and the like.

**[0020]** In one embodiment, the applicator **106** or at least the first surface **114** is made from a first porous material which can be made from a foam. In one embodiment, the reservoir **110** including the second surface **116** includes a second porous material which can be made from a sintered porous material, a closed cell material, a urethane foam, or a fibrous material.

**[0021]** In one embodiment, the first surface **114** of the applicator **106** can be convex, conical, concave, or inverse conical. Generally, regardless of the shape, the first surface **114** of the applicator **106**, and the second surface **116** of the reservoir **110** are the inverse shape of each other.

**[0022]** Referring to FIGS. **2** to **4**, the package **100** includes an outer cap **102**, an inner cap **104**, a holder **108**, and a jar **112**, wherein the outer cap **102** is connected to the inner cap **104** to fix the inner cap **102** to the outer cap **102**, and the holder **108** supports the applicator **106**.

**[0023]** In one embodiment, the outer cap **102** has an outer continuous sidewall surrounding a closed top, and the inner cap **104** has an outer continuous sidewall surrounding a closed top. Both the outer caps and the inner caps are open at the bottom. In one embodiment, both the outer sidewall of the outer cap **102** and the outer sidewall of the inner cap **104** are circular. In one embodiment, the jar **112** also has a circular sidewall, with a closed bottom and an open top.

**[0024]** In one embodiment, the inner cap **104** includes screw threads **118** that thread onto matching screw threads **120** on the jar. Upon screwing the inner cap **104** on the jar **112**, the holder **108** is compressed between the inner cap **104** and a top edge of the jar **112**. When the inner cap **104** is unscrewed from the jar **112**, the holder **108** with the applicator **106** is removable from the jar **112**, and the applicator **106** is removed being wetted with formulation that is transferred through contact alone with the reservoir **110**. The transfer of formulation from the reservoir **110** to the applicator **106** happens at the inverse shaped contacting surfaces **114**, **116**. The reservoir **110** is not consumed, because the reservoir **110** sits in a liquid within the jar **112** and is constantly being replenished. The reservoir **110** functions to transfer the liquid in the jar **112** to the surface **116** where it is absorbed by the applicator **106**. Therefore, the contacting surfaces **114**, **116** make contact whenever the holder **108** is placed on the jar **112**.

**[0025]** Referring to FIG. **4**, the inner cap **104** fits entirely within the outer cap **102**. As seen in FIGS. **2** and **3**, the outer sidewall of the inner cap **104** has ridges **126** formed into the outer sidewall. The ridges **126** can form a continuous sawtooth texture around the outer sidewall. The ridges **126** extend from just above a ridge around the lower opening of the inner cap **104** to a shelf **128**. The shelf **128** forms a transitional section connecting the top of the outer sidewall and the closed top of the inner cap **104**. As seen in FIG. **3**, the inner sidewall of the of the outer cap **104** also has a plurality of ridges **130**. However, the ridges **130** are not continuously formed around the entire inner periphery, but, can be separated equidistant from each other. The ridges **130** are just wide enough to fit with any valley formed by any two of the ridges **126** on the inner cap **104**. Accordingly, the inner cap **104** can be attached to the inside of the outer cap **102** by forcing the ridges **130** of the outer cap **102** within the grooves of the ridges **126** of the inner cap **104**. The bottom side of the small diameter section **142** includes the first surface **114** extending in length, width and height that contacts the reservoir. The first surface **114** is a three-dimensional convex surface. The radius of convexity of the first surface **114** can be any radius, that is not infinite, meaning the first surface **114** is curved in three dimensions. Further, the convex first surface **114** is symmetrical about the center axis of the surface. The second surface **116** is the inverse shape of the first surface **114**. However, the second surface **116** can have a larger or smaller diameter as compared to the first surface **114**. When the first surface **114** or the second surface **116** are not circular in plan view, the first surface **114** and the second surface **116** can have similar or unequal peripheries.

**[0026]** In another embodiment, the first surface **114** and the second surface **116** can be conic surfaces, such as ellipses that are made when a cylinder is cut at an angle. In this embodiment, the surfaces **114** and **116** would be asymmetric, meaning not symmetrical about a center axis. Fluid flow and distribution between reservoir and applicator would also by asymmetric.

**[0027]** Referring to FIGS. **2** and **3**, the holder **108** is formed having an outer sidewall formed in the shape of a ring. The holder **108** has an open top and an open bottom. A flange like border **132** surrounds and extends radially outward from the top opening of the holder **108**. A flange like lip **136** forms a border around the bottom opening of the holder **108**. The lip **136** extends radially inward and can serve as a stop to prevent the applicator **106** from sliding out relative to the holder as seen in FIG. **4**. In one embodiment, the holder **108** may have a plurality of tabs **134** cut from the sidewall. The tabs **134** can be cut on three sides leaving the top connected to the sidewall, thereby allowing the tabs **134** to flex radially outward and apply compression radially inward. The tabs **134** can include a circumferential rib **138** on the inside surface of the tabs **134** which is used to keep the applicator **106** fixed to the holder **108** by fitting within a matching groove **140** on the applicator **106** which is made to receive the ribs **138** on the tabs **134**.

**[0028]** Referring to FIGS. **2** and **3**, the applicator **106** applicator includes a larger diameter section **144** above a small diameter section **142** with a groove **140** on the periphery of the large diameter section **144**, wherein the groove **140** mates to a rib **138** on the inner periphery of the holder **108**, and a step between the large diameter section **144** and the small diameter section **142** is supported on a radially inward extending lip **136** of the holder **108** as seen in FIG. **4**.

**[0029]** Referring to FIG. **4**, the outer periphery of the holder **108** can have one or more circumferential ribs **122**, **124** extending around the periphery of the holder **108** including the outer surface of the tabs **134**. The circumferential ribs **122**, **124** can be used to fix the holder **108** to the inside of the mouth **146** of the jar **112** when the inside of the mouth **146** is provided with grooves that accept the ribs **122**, **124**.

**[0030]** Referring to FIG. **4**, when the outer cap **102** is place on the jar **112**, the underside of the shelf **128** of the inner cap **104** compresses the upperside of the border **132** at the upper opening of the holder **108**, and the underside of the border **132** is compressed to an upperside of the edge of the mouth of the jar **112**. In this manner, a seal can be formed.

**[0031]** FIGS. **5** to **8** illustrate an embodiment of a package **200** comprising an applicator **206** having a surface **214** including a first porous material, a reservoir **210** having a surface **216**, including a second porous material, wherein the first surface **214** extends in length, width and height, and the second surface **216** has an inverse shape of the first surface **214**, wherein the first surface **214** contacts the second surface **216** along the length, width, and height.

**[0032]** In one embodiment, the reservoir **210** is wetted with a liquid formulation, and the applicator **206** becomes wetted with the liquid formulation through contact of the first **214** and second **216** surfaces including length, width,

and height dimensions of the surfaces. The three-dimensional surfaces that make contact between the reservoirs and applicators improve on the transfer from one medium to the other. For example, contact alone of the first and second surfaces is sufficient to transfer the liquid formulation from the reservoirs to the applicators. In one embodiment, formulations are formulations that can be applied with an applicator. Formulations can include but are not limited to formulations relating to make-up, and formulations that are meant to be applied to the skin and hair, such as creams, lotions, gels, salves, dyes, and the like.

**[0033]** In one embodiment, the applicator **206** or at least the first surface **214** is made from a first porous material which can be made from a foam. In one embodiment, the reservoir **210** including the second surface **216** includes a second porous material which can be made from a sintered porous material, a closed cell material, a urethane foam, or a fibrous material.

**[0034]** In one embodiment, the first surface **214** of the applicator **206** can be convex, conical, concave, or inverse conical. Generally, regardless of the shape, the first surface **214** of the applicator **206**, and the second surface **216** of the reservoir **210** are the inverse shape of each other. The first surface **214** is a three-dimensional conical surface. The angle of the cone of the first surface **214** can be any angle that is not zero, meaning the first surface **214** has a height dimension. Further, the conical first surface **214** is symmetrical about the center axis of the surface. The second surface **216** is the inverse shape of the first surface **214**. However, the second surface **216** can have a larger or smaller diameter as compared to the first surface **214**. When the first surface **214** or the second surface **216** are not circular in plan view, the first surface **214** and the second surface **216** can have similar or unequal peripheries.

**[0035]** In another embodiment, the first surface **214** and the second surface **216** can be conic surfaces, such as ellipses that are made when a cylinder is cut at an angle. In this embodiment, the surfaces **214** and **216** would be asymmetric, meaning not symmetrical about a center axis. Fluid flow and distribution between reservoir and applicator would also by asymmetric.

**[0036]** Referring to FIGS. **6** to **8**, the package **200** includes an outer cap **202**, an inner cap **204**, a holder **208**, and a jar **212**, wherein the outer cap **202** is connected to the inner cap **204** to fix the inner cap **202** to the outer cap **202**, and the holder **208** supports the applicator **206**.

**[0037]** In the package **200** of FIGS. **5** to **8**, the outer cap **202**, the inner cap **204**, the holder **208**, and the jar **212** each includes four corners of each respective periphery, wherein the four corners of the outer cap **202** line up with the four corners of the jar **212** when the outer cap **202** is placed on the jar **212**.

**[0038]** Referring to FIGS. **6** and **7**, the outer cap **202** has an outer continuous sidewall with four sides surrounding a closed top, and the inner cap **204** has an outer continuous sidewall surrounding a closed top. Both the outer cap **202** and the inner cap **204** are open at the bottom. The jar **212** also has a four-sided sidewall and a circular mouth. The jar **212** has a closed bottom and an open top.

**[0039]** In one embodiment, the inner cap **204** includes a flat horizontal border **218** that forms four sides. The border **218** is placed around the bottom of circular sidewall and is made to extend radially outward of the sidewall. A tab **220** projects upward and outward at each of the four corners of the inner cap **204**, but may not be connected to the border **218**. Instead, there are gaps on each side of the tabs **220** and the border **218** at each of the four corners. The tabs **220** are connected on the vertical side of the sidewall.

**[0040]** In one embodiment, a gusset **222** is placed inside of each of the four corners of the outer cap **202**. A slot is made in each of the gussets **222**. Therefore, each corner tab **220** of the inner cap **204** fits into a corner gusset **222** of the outer cap **202** to align the inner cap **204** to the outer cap **202**. In one embodiment, the inner periphery of the opening in outer cap **202** can have a horizontal groove **224** on each of the four sides near to the bottom edge of the opening. The inner cap **204** can have a horizontal rib **226** on each of the four sides of the border **218** that correspond to the grooves **224** on the outer cap **202**. Therefore, the inner cap **204** can be fixed to the outer cap **202** with the use of the tabs **220** and ribs **226** of the inner cap. Referring to FIG. **8**, the inner cap **104** fits entirely within the outer cap **102**.

**[0041]** Referring to FIGS. **6** and **7**, the holder **208** is formed having an outer sidewall formed in the shape of a ring. The holder **208** has an open top and an open bottom. A border flange **238** surrounds and extends radially outward from the top opening of the holder **208**. A flange like lip **240** forms a border around the bottom opening of the holder **208**. The lip **240** extends radially inward and can serve as a stop to prevent the applicator **206** from sliding out relative to the holder as seen in FIG. **8**. In one embodiment, the holder **208** may have a plurality of tabs **242** cut from the sidewall. The tabs **242** can be cut on three sides leaving the top connected to the sidewall, thereby allowing the tabs **242** to flex radially outward and apply compression radially inward. The tabs **242** can include a circumferential rib **244** on the inside surface of the tabs **244** which is used to keep the applicator **206** fixed to the holder **208** by fitting within a matching groove **246** on the applicator **206** which is made to receive the ribs **244** on the tabs **242**. The tabs **242** can also have a circumferential rib **248** on the exterior surface. The rib **248** can be used to affix the holder **208** to a corresponding groove on the inside of the mouth of the jar **212** as seen in FIG. **8**.

**[0042]** In one embodiment, the holder **208** has an inward protruding sealing bead **258** around the entire interior circumference of the holder **208**. The cross section of the sealing bead **258** can take the form of a section of a circle, such as a half-moon shape, or may have straight edges, such as triangular. The sealing bead **258** can be located adjacent and just below on the interior of the upper border flange **238** of the holder. The sealing bead **258** fits into a groove **256** around the entire exterior circumference of the applicator **206**. The groove **256** has the inverse shape of the sealing bead **258**. The sealing bead **258** creates a seal between the two components so that no liquid escapes in between. A second sealing bead **260** protrudes inward from around the entire interior circumference of the annular wall **232**. The second sealing bead **260** can be provided close or adjacent to the lower edge of the annular wall **232**. The sealing bead **260** fits into a groove having the inverse shape of sealing bead **260**. Such groove that accepts the sealing bead **260** can be placed on the exterior circumference of the mouth of the jar **212**.

**[0043]** The inner cap **204** further has a shelf **236**. The shelf **236** forms a transitional section connecting the top of the sidewall and the closed top of the inner cap **204** as seen in FIG. **8**. Also as seen in FIG. **8**, an annular wall **232** extends downward from the underside of the shelf **236**. The annular

wall **232** is only connected at the top edge to the underside of the shelf **236**, thereby forming a gap between the annular wall **232** and the sidewall of the of the inner cap **204**. In one embodiment, the annular wall **232** has a tapered wedge profile that is thicker on top and thinner on bottom. The annular wall **232** may also angled radially inward from bottom to top.

**[0044]** In one embodiment, the inner cap **204** includes a double-sided horizontally placed ramp **228** on the inside periphery of the circular sidewall of the inner cap **204**. The double-sided ramp **228** can be continuous around the inside of the sidewall and is placed toward the edge of the lower opening of the inner cap **204** as seen in FIG. **8**. The jar **212** has a circular mouth forming an opening in the jar **212**. Similarly, a continuous double-sided ramp **230** is placed on the outer periphery of the mouth of the jar **212**. Therefore, the circular ramp **228** of the inner cap **204** can snap on and off from the circular ramp **230** of the jar **212**.

**[0045]** Upon placing the outer cap **202** and inner cap **204** on the jar **212**, the inside periphery of the annular wall **232** of the holder **208** is pushes against the outer periphery of the mouth **234** at the top of the jar **212**. The bottom end of the wall **232** bottoms on a shelf **250** formed in the mouth of the jar **212** preventing further insertion of the inner cap **204**. If the holder **208** has been previously placed on the jar **212**, the sidewall of the holder **208** pushes against the inside of the annular mouth **234** of the jar **212**. Therefore, the annular mouth **234** of the jar **212** is captured between the outer periphery of the holder **208**, and the inner periphery of the wall **232** of the inner cap **204**. Accordingly, as the inner cap **204** and jar **212** are joined together to engage the ramps **228**, **230** with each other, the annular wall **232** of the inner cap **204** is compressed against the outer periphery of the mouth of the jar **212**. The holder **208** is stopped from further insertion into the jar **212** by the underside of the flange **238** resting on the top horizontal edge of the mouth of the jar **212**. Because of wall **232** bottoming on the shelf **250**, the flange **238** rests on a top edge of the mouth of the jar without the inner cap compressing the holder.

**[0046]** When the inner cap **204** is removed from the jar **212**, the holder **208** with the applicator **206** is removable from the jar **212**, and the applicator **206** is removed being wetted with formulation that is transferred through contact alone with the reservoir **210**. The transfer of formulation from the reservoir **210** to the applicator **106** happens at the inverse shaped contacting surfaces **214**, **216**. The reservoir **210** is not consumed, because the reservoir **210** sits in a liquid within the jar **212** and is constantly being replenished. The reservoir **210** functions to transfer the liquid in the jar **212** to the surface **216** where it is absorbed by the applicator **206**. Therefore, the contacting surfaces **214**, **216** make contact whenever the holder **208** is placed on the jar **212**.

**[0047]** Referring to FIGS. **6** and **7**, the applicator **206** includes a larger diameter section **254** above a small diameter section **252** with a circumferential groove **246** on the periphery of the larger diameter section **254**, wherein the groove **246** mates to the circumferential rib **244** on the inner periphery of the holder **208**, and a step between the large diameter section **254** and the small diameter section **252** is supported on a radially inward extending lip **240** of the holder.

**[0048]** FIG. **9** illustrates the package **100** of FIGS. **1** to **4** where like numbers represent like parts. However, in FIG. **9**, the applicator **106** is provided with a concave surface **314** and the reservoir **110** is provided with a convex surface **316**.

**[0049]** FIG. **10** illustrates the package **100** of FIGS. **1** to **4** where like numbers represent like parts. However, in FIG. **10**, the applicator **106** is provided with a surface shape **414** of an inverse cone, and the reservoir **110** is provided with a surface shape **316** of a cone.

**[0050]** While illustrative embodiments have been illustrated and described, it will be appreciated that various changes can be made therein without departing from the spirit and scope of the invention.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

**1**. A package, comprising:

an applicator having a surface including a first porous material;

a reservoir having a surface including a second porous material, wherein the first surface extends in length, width and height, and the second surface has a negative shape of the first surface, wherein the first surface contacts the second surface along the length, width, and height.

**2**. The package of claim **1**, wherein the reservoir is wetted with a liquid formulation, and the applicator is wetted with the liquid formulation through contact of the first and second surfaces.

**3**. The package of claim **2**, wherein the contact alone of the first and second surfaces is sufficient to transfer the liquid formulation from the reservoir to the applicator.

**4**. The package of claim **1**, wherein the first surface is made from a foam.

**5**. The package of claim **1**, wherein the second surface is made from a sintered porous material, a closed cell material, a urethane foam, or a fibrous material.

**6**. The package of claim **1**, wherein the first surface of the applicator is convex, or conical.

**7**. The package of claim **1**, comprising an outer cap, an inner cap, a holder, and a jar, wherein the outer cap is connected to the inner cap to fix the inner cap to the outer cap, and the holder supports the applicator.

**8**. The package of claim **7**, wherein the outer cap has an outer continuous sidewall surrounding a closed top, and the inner cap has an outer continuous sidewall surrounding a closed top.

**9**. The package of claim **7**, wherein the inner cap includes screw threads that thread onto matching screw threads on the jar, and the holder is compressed between the inner cap and a top edge of the jar.

**10**. The package of claim **9**, wherein the inner cap unscrews from the jar, and the holder with applicator are removable from the jar, wherein the applicator is wetted with formulation that is transferred through contact with the reservoir.

**11**. The package of claim **7**, wherein an underside shelf of the inner cap compresses an upperside border on the holder, and the underside of the border is compressed to an upperside of the edge of the jar.

**12**. The package of claim **7**, wherein the applicator includes a larger diameter section above a small diameter section with a groove on the periphery of the large diameter section, wherein the groove mates to a rib on the inner periphery of the holder, and a step between the large diameter section and the small diameter section is supported on a radially inward extending lip of the holder.

**13**. The package of claim **1**, wherein the applicator includes a larger diameter section above a small diameter section, wherein the small diameter section includes the first surface extending in length, width and height that contacts the reservoir.

**14**. The package of claim **7**, wherein the outer cap, the inner cap, the holder, and the jar each includes four corners of each respective periphery, wherein the four corners of the outer cup line up with the four corners of the jar.

**15**. The package of claim **14**, wherein the inner cap includes a flat border around a circular sidewall and a closed top, a tab projects upward from each of the four corners of the inner cap, a slot is placed inside of each of the four corners of the outer cap, wherein each corner tab of the inner cap fits into a corner slot of the outer cap.

**16**. The package of claim **14**, wherein the inner cap has an annular wall that extends downward that fits around the outer periphery of the mouth of the jar, the annular wall has a sealing bead that fits in a groove in the mouth of the jar.

**17**. The package of claim **16**, wherein the holder has an radially outward extending flange that rests on a top edge of the mouth of the jar without the inner cap compressing the holder, a sealing bead of the holder fits into a groove of the applicator.

**18**. The package of claim **16**, wherein the inner cap and jar have features which when engaged compress the annular wall of the inner cap against the outer periphery of the jar of the mouth.

**19**. The package of claim **16**, wherein the annular wall of the inner cap has a tapered wedge profile that is thicker on top and thinner on bottom.

**20**. The package of claim **14**, wherein the applicator includes a larger diameter section above a small diameter section with a groove on the periphery of the larger diameter section, wherein the groove mates to a rib on the inner periphery of the holder, and a step between the large diameter section and the small diameter section is supported on a radially inward extending border.

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