



(12)

EUROPEAN PATENT APPLICATION

(43)

Date of publication:

22.04.2020 Bulletin 2020/17

(51)

Int Cl.:

A47F 3/14 (2006.01)

A47F 7/28 (2006.01)

B65D 25/54 (2006.01)

B65D 51/16 (2006.01)

(21)

Application number: 19203221.7

(22)

Date of filing: 15.10.2019

(84)

Designated Contracting States:

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated Extension States:

BA ME

Designated Validation States:

KH MA MD TN

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Priority: 16.10.2018 US 201862746136 P

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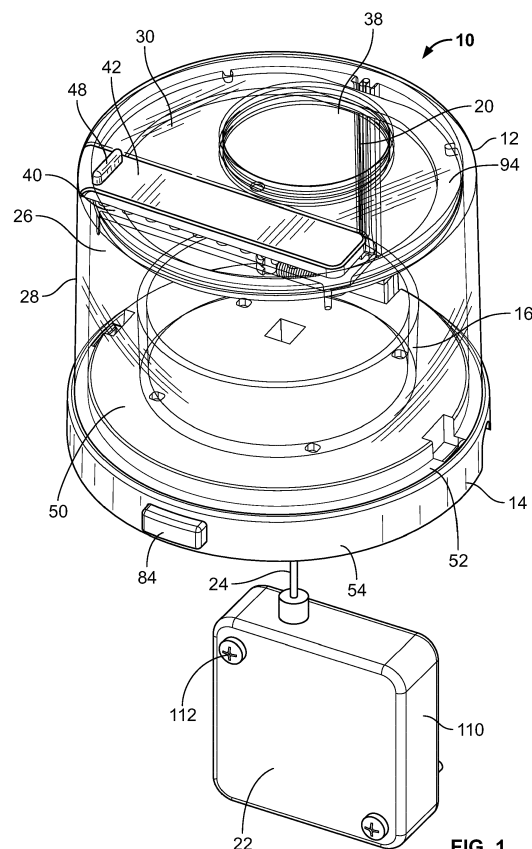
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CONTAINER FOR DISPLAYING AROMATIC PRODUCTS

(57)

A container including a housing configured to engage a base to define a display space therebetween. The container preferably includes a cover operable to cover and uncover a securement mechanism that releasably secures the housing to the base. The cover is preferably lockable to the base and provides secure means for preventing unauthorized removal of the housing from the base. The container preferably includes a light that is positioned above the base. A solid conductor, or a flexible conductor positioned within a rigid tube, preferably extends upward from a location that is adjacent the peripheral edge of the base to adjacent the light. The solid conductor or rigid tube is preferably positioned adjacent the inner surface of the housing where it does not materially obscure a customer's view of a product positioned in the container.



Description

BACKGROUND OF THE INVENTION

1. FIELD OF THE INVENTION

[0001] The present application relates generally to containers and, in particular, to containers for displaying aromatic products.

2. DESCRIPTION OF RELATED ART

[0002] With relatively recent changes to the law in certain jurisdictions, there are many merchants and retail stores selling cannabis and products derived therefrom (e.g., the dried flower buds of cannabis plants). Jurisdictions in which cannabis may be legally offered for sale typically require that merchants comply with specific laws, rules, and regulations relating to the storage and display of cannabis products in stores. As one example, in certain jurisdictions, cannabis products displayed in stores must be reasonably secured to prevent theft and/or access by members of the public that cannot legally consume the items. Many customers, however, desire to visibly inspect and smell cannabis plants prior to purchase. While containers used to display aromatic products and plants are generally known, conventional display containers do not: (1) meet the applicable laws, rules, and regulations in certain jurisdictions with respect to the display and storage of cannabis products for sale; and (2) allow customers to visibly inspect and smell the products in a desirable manner prior to purchase.

BRIEF SUMMARY OF THE INVENTION

[0003] In a first aspect, the invention described herein is directed to a container for displaying a product. The container includes a base and a housing that removably engages the base to define a display space positioned between the housing and the base. At least one of the housing and the base includes a securement mechanism that is configured to releasably secure the housing to the base. A cover is configured to be coupled to the base and is moveable between a closed position, in which the securement mechanism is inaccessible, and an open position, in which the securement mechanism is accessible. The cover is preferably releasably lockable to the base when in the closed position. The securement mechanism may comprise a lock that is configured to releasably engage the housing when the housing is coupled to the base. The securement mechanism may also comprise a clip engaging structure on one of the housing and the base that releasably engages a clip on the other of the housing and the base. When the cover is in the closed position, it preferably provides a secure means for preventing removal of the housing from the base so that an unauthorized person cannot access a product positioned in the display space. An authorized person may prefer-

ably move or remove the cover with a specialized tool (e.g., a screwdriver designed to engage a tamper-resistant fastener) to access the securement mechanism that allows removal of the housing from the base.

5 [0004] In some embodiments, the housing may be transparent.

[0005] In some embodiments, the housing may be frameless.

10 [0006] In some embodiments, the housing may be formed from a moldable material.

[0007] In some embodiments, the housing may include a magnifier. The magnifier may be positioned at a top of the housing.

15 [0008] In some embodiments, the housing may include a vent, and the container may include a vent cover that is movable between a closed position, in which the vent is covered, and an open position, in which the vent is at least partially exposed. The vent may be formed in a top of the housing.

20 [0009] In a second aspect, the invention described herein is directed to a container for displaying a product. The container includes a base with a peripheral edge, a housing, a light, and at least one solid conductor. The housing is configured for coupling to the base to define a display space positioned between an inner surface of the housing and the base. The light is positioned above the base and is operable to illuminate a portion of the base. The at least one solid conductor is coupled to the light and extends upward from a location that is adjacent the peripheral edge of the base to adjacent the light when the housing is coupled to the base, and the solid conductor is positioned adjacent the inner surface of the housing. The solid conductor preferably provides means for powering the light that does not materially obscure a customer's view of a product in the display space.

35 [0010] In some embodiments, the at least one solid conductor electrically couples the light to a power source.

[0011] In some embodiments, the power source includes at least one battery positioned adjacent the base.

40 [0012] In some embodiments, wherein the housing may be frameless.

[0013] In some embodiments, the housing may be formed from a moldable material.

45 [0014] In some embodiments, the housing may be transparent.

[0015] In some embodiments, the light may be positioned adjacent a top of the housing.

50 [0016] In some embodiments, the container may include a light ring to which the light is coupled, wherein the light ring is generally parallel and adjacent the top of the housing.

[0017] In some embodiments, the housing further includes a magnifier.

55 [0018] In some embodiments, the housing further includes a vent, and the container further includes a vent cover that is movable between a closed position, in which the vent is covered, and an open position, in which the vent is at least partially exposed. The vent cover may

include a sliding door that is biased to the closed position.

[0019] In a third aspect, the invention described herein is directed to a container for displaying a product. The container includes a base, a housing, a light, a rigid tube, and at least one flexible conductor. The base includes a peripheral edge. The housing is configured for coupling to the base to define a display space positioned between an inner surface of the housing and the base. The light is positioned above the base and is operable to illuminate a portion of the base. The at least one rigid tube extends upward from a location that is adjacent the peripheral edge of the base to adjacent the light when the housing is coupled to the base, and the rigid tube is positioned adjacent the inner surface of the housing. The at least one flexible conductor is positioned within the rigid tube and is coupled to the light. The rigid tube preferably provides means to contain the flexible conductor so that the flexible conductor does not materially obscure a customer's view of a product within display space.

[0020] In some embodiments, the at least one flexible conductor electrically couples the light to a power source.

[0021] In some embodiments, the housing may be frameless and transparent.

[0022] In some embodiments, the light may be positioned adjacent a top of the housing.

[0023] In some embodiments, the container further includes a light ring to which the light is coupled, wherein the light ring is generally parallel and adjacent the top of the housing.

[0024] The containers described herein preferably 1) meet applicable laws, rules, and regulations in most jurisdictions with respect to the storage and display of cannabis products in a store, 2) prevent theft of the products stored and displayed therein and/or access by members of the public that cannot legally consume the items, 3) improve the ability of customers to visibly inspect and smell samples (such as cannabis products) contained therein, and 4) are able to be releasably secured to a security device to prevent theft of the containers while on display, while still allowing authorized personnel to easily disconnect the containers from a security device (e.g., by unscrewing a tamper-resistant fastener that connects a security cable to the container) for secure storage at night as may be required by law.

[0025] Additional aspects of the invention, together with the advantages and novel features appurtenant thereto, will be set forth in part in the description which follows, and in part will become apparent to those skilled in the art upon examination of the following, or may be learned from the practice of the invention. The objects and advantages of the invention may be realized and attained by means of the instrumentalities and combinations particularly pointed out in the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0026]

Fig. 1 is a perspective view of a container, preferably for use in displaying aromatic products, in accordance with one preferred embodiment of the invention described herein. The container is attached to a security device.

Fig. 2 is an exploded view of the container and security device shown in Fig. 1.

Fig. 3 is a top plan view of the container shown in Fig. 1.

Fig. 4 is a bottom plan view of the container shown in Fig. 1.

Fig. 5 is a bottom plan view of the housing of the container shown in Fig. 1.

Fig. 6 is a top plan view of the container shown in Fig. 1 with a sliding door in an open position.

Fig. 7 is a cross-sectional view of the container shown in Fig. 1 taken through the line 7-7 in Fig. 3.

Fig. 8 is a top plan view of a base of the container shown in Fig. 1.

Fig. 9 is a side bottom-perspective view of the container shown in Fig. 1.

Fig. 10 is a perspective view of an alternative embodiment of container in accordance with the invention described herein.

Fig. 11 is a top plan view of a base of the container shown in Fig. 10.

Fig. 12 is a perspective view of a housing and light system of the container shown in Fig. 10.

Fig. 13 is a sectional view showing engagement between the housing and the base of the container shown in Fig. 10.

Fig. 14 is a bottom plan view of the base of the container shown in Fig. 10 with a lower cover removed.

Fig. 15 is a bottom plan view of the base of another alternative embodiment of container in accordance with the invention described herein with a lower cover removed.

Fig. 16 is a cross-sectional view taken through the line 16-16 in Fig. 15.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENT

[0027] Referring to Fig. 1, a container in accordance with a preferred embodiment of the invention described herein is identified generally as 10. As described in more detail herein, container 10 is well-suited for the display of aromatic products, and in particular, cannabis products (e.g., the dried flower buds of cannabis plants) displayed as samples in retail stores. Preferably, container 10 meets most, if not all, of any laws, rules, or regulations relating to the display of cannabis products in retail stores in jurisdictions in which cannabis products may be legally offered for sale. Additionally, container 10 preferably prevents and/or deters theft of such products and access to such products by persons that are not legally allowed to consume the products. In spite of the fact that container 10 securely stores such products, it still allows customers

to both visually inspect and smell such products stored therein in order to better ascertain the products' quality and/or desirability. These advantages and features of container 10 are more fully described herein.

[0028] Referring to Fig. 1, container 10 includes a housing 12, a base 14, a bowl 16, a cover 18 (Fig. 4), and a light system 20. A security device 22 is connected to base 14 via a retractable tether 24. As shown in Fig. 1, housing 12 is coupled to base 14 to form an enclosed display space 26 in which bowl 16 is positioned. A customer may visually inspect and smell a sample contained in bowl 16 as more fully described herein.

[0029] Referring still to Fig. 1, housing 12 includes a cylindrical sidewall 28 and a planar top 30 formed integrally with sidewall 28. Referring to Figs. 2 and 5, a bottom peripheral edge 32 of cylindrical sidewall 28 defines an opening 27 at the bottom of housing 12. As shown in Figs. 2 and 7, clips 34, 36 extend down from bottom peripheral edge 32 and are configured to removably secure housing 12 to base 14 as more fully described herein. Clips 34, 36 are operable to flex radially inward with respect to sidewall 28. Although housing 12 is shown with a cylindrical sidewall, it is nonetheless within the scope of the present invention for the sidewall to have any suitable shape, including oval, square, triangular, or polygonal. Housing 12 is frameless and is preferably formed from a clear, moldable material such as a food grade plastic (e.g., poly(methyl methacrylate) or PMMA). While the housing 12 is preferably clear and transparent, it is within the scope of the invention to form at least a portion of the housing from a non-transparent material.

[0030] As best shown in Figs. 3 and 6, housing 12 includes a magnifier 38, a vent 40, and a sliding door 42 that is movable to selectively cover and uncover vent 40. Magnifier 38 is positioned within an opening (shown in Fig. 2) in planar top 30 and is coupled thereto via any suitable method known in the art. As best shown in Fig. 6, vent 40 comprises a plurality of perforations 44 formed within planar top 30. Although not shown, it is within the scope of the present invention for vent 40 to be a separate, perforated plate that is then positioned above, over, or within an opening in planar top 30 and coupled thereto via any suitable method known in the art. As best shown in Fig. 1, sliding door 42 overlays and is aligned with vent 40 when in a closed position. Sliding door 42 is spring-loaded via an extension spring 46 in order to bias sliding door 42 to its closed position (shown in Figs. 1, 3, and 5). Sliding door 42 is moveable from the closed position (shown in Fig. 3), in which vent 40 is covered by sliding door 42, to an open position (shown in Fig. 6), in which vent 40 is exposed. Extension spring 46 is coupled at one end to sliding door 42 and at another end to housing 12. Configured in this way, extension spring 46 biases sliding door 42 to the closed position. As shown in Fig. 1, sliding door 42 includes a tab 48 that is engageable by a user's finger to allow a user to apply force to door 42 and extension spring 46 in order to move sliding door 42 to the open position. Although shown with a sliding

door, it is nonetheless within the scope of the present invention for the container to include any other suitable movable or removable vent cover. For example, the vent cover could be a rubber plug configured to removably fit over vent 40. It should be noted that the diameter of each perforation 44 of vent 40 is preferably configured to be smaller than that of any sample stored within bowl 16 in order to prevent the removal of the sample through the perforations.

[0031] Referring to Figs. 1, 2 and 8, base 14 includes a platform 50 and an outer ring 52 that is integrally formed with and extends radially outward from platform 50. Platform 50 extends vertically upward from outer ring 52 to elevate platform 50 relative to outer ring 52. Referring to Fig. 1, an outer side wall 54 of base 14 is generally cylindrical and has a substantially similar diameter to that of housing 12 such that it generally aligns with housing 12. With reference to Figs. 1 and 2, an inner surface 56 (best shown in Fig. 5) of sidewall 28 has a diameter that is slightly larger than the outer diameter of platform 50 so that platform 50 is received within the opening 27 of housing 12 when housing 12 is placed on base 14 and sidewall 28 rests on outer ring 52. As best shown in Fig. 8, clip channels 58, 60 are defined by openings in an upper surface of outer ring 52 and notches 62, 64 in platform 50. As best shown in Fig. 7, clip channels 58, 60 (partially shown) include respective outer edges 66, 68 and respective clip engaging structures 70, 72.

[0032] Referring to Fig. 4, bottom cover 18 is secured to platform 50 with tamper resistant screws 74 (e.g., spanner screws, security hex screws, or fasteners that otherwise are formed to engage with a non-standard tool for rotation of the screws), though any suitable fastener(s) or tamper resistant screw(s) known in the art are within the scope of the present invention.

[0033] Referring to Figs. 1, 2, and 7, housing 12 is removably secured to base 14 as described herein. As best shown in Fig. 7, clip channels 58, 60 (partially shown in Fig. 7) are configured to align with and receive respective clips 34, 36. In order to removably attach housing 12 to base 14, clips 34, 36 of housing 12 are aligned with clip channels 58, 60 of base 14 as best shown in Fig. 2, and the housing 12 is pressed down on the base 14 until the clips 34, 36 are received by the clip channels 58, 60. Referring to Fig. 7, each of clips 34, 36 is flexible and includes a respective sloped or ramped leading edge 76, 78 such that as clips 34, 36 are inserted into respective clip channels 58, 60, leading edges 76, 78 each press against respective outer edges 66, 68 of clip channels 58, 60 and move away from an outer perimeter of outer ring 52 and toward a center of platform 50. Once clips 34, 36 are fully inserted into respective clip channels 58, 60 and their respective leading edges have each passed respective outer edges 66, 68, leading edges 76, 78 return or "snap" back to their original positions, in turn frictionally and interferingly interlocking upper surfaces 80, 82 of respective clips 34, 36 with respective clip engaging structures 70, 72 in order to removably secure housing

12 to base 14. When container 10 is assembled as shown in Fig. 1, cover 18 is secured to base 14 in a closed position in which it encloses clip engaging structures 70, 72 and clips 34, 36 within a cavity 83 of base 14 to make the clip engaging structures 70, 72 and clips 34, 36 inaccessible. The cavity 83 is only accessible when cover 18 is removed from base 14 and in an open position.

[0034] The clips 34, 36 (or first engaging structures) and clip engaging structures 70, 72 (or second engaging structures) form a securement mechanism that releasably secures housing 12 to base 14. Other types of engaging structures and securement mechanisms are within the scope of the invention, including the securement mechanism described below with respect to the container 200 shown in Figs. 10-14.

[0035] When housing 12 is coupled to base 14 via clips 34, 36 and clip engaging structures 70, 72, any product samples contained within the display space 26 between housing 12 and base 14 cannot be accessed without first detaching housing 12 from base 14. In order to detach housing 12 from base 14, cover 18 must be removed from base 14 by first removing tamper resistant screws 74 in order to gain access to clips 34, 36. The utilization of screws, and more preferably, tamper resistant screws, reduces or eliminates the possibility a customer may impermissibly gain access to a sample contained in container 10. Once cover 18 is removed, a user can simply press clips 34, 36 out of engagement with respective clip engaging structures 70, 72. From there, housing 12 is lifted relative to base 14 to remove the housing 12 from the base 14 for access to the bowl 16 and any product samples contained therein. Alternatively, cover 18 may be secured to base 14 and moveable between a closed position, in which it covers clip engaging structures 70, 72 and clips 34, 36 such that clips 34, 36 cannot be disengaged from clip engaging structures 70, 72, and an open position, in which clips 34, 36 are accessible for disengagement from clip engaging structures 70, 72. Cover 18 may be releasably locked to base 14 when in the closed position.

[0036] Although clips 34, 36 and clip engaging structures 70, 72 are described and shown in the drawings for coupling housing 12 to base 14, instead of clips 34, 36 and clip engaging structures 70, 72, base 14 may include any type of suitable engaging structure designed to engage a suitable engaging structure of housing 12.

[0037] With reference to Fig. 1 and 4, base 14 also includes a button 84, which may be pressed for turning on and off one or more lights, as described below, a battery cover 86 that covers a cavity containing batteries 108 for powering one or more lights, and a screw port 88 for receiving a screwdriver to secure security device 22 to base 14.

[0038] Looking to Fig. 1, bowl 16 is supported by platform 50 within display space 26. Sample products are preferably positioned within bowl 16 for viewing through housing 12. Bowl 16 is preferably removable from being supported by platform 50 when housing 12 is detached

from base 14. Preferably, as shown, bowl 16 is transparent. As shown in Fig. 2, the bottom of bowl 16 includes a plurality of posts 90 (not all posts are visible), each of which is configured to align with a respective one of a plurality of indentations 92 in the top surface of platform 50. Each post 90 interacts with its respective indentation in order to align bowl 16 with respect to base 14. As shown, each post 90 preferably interacts with its respective indentation in order to center the bowl with respect to base 14. Posts 90 may be configured to be received by indentations 92, which are larger than posts 90. Alternatively, there could be an interference fit between the posts 90 and the indentations 92 such that some force must be applied to the bowl 16 in order to remove it from platform 50 and press it into engagement with platform 50.

[0039] Referring to Figs. 1 and 2, light system 20 is attached to base 14. As shown, light system 20 includes a light ring 94 and a plurality of light-emitting diode (LED) lamps or light bulbs 96, each of which is coupled to light ring 94 and oriented to illuminate bowl 16 and platform 50. Referring still to Fig. 2, light bulbs 96 are connected to a power source, preferably batteries 108 housed within a cavity of base 14, via conductors 98, 100, each of which is a solid elongated rod with insulation covering its outer surface. Conductors 98, 100 are each positioned at an outer edge of platform 50. Conductors 98, 100 extend from base 14 at a location that is adjacent an outer peripheral edge of base 14 upward to light ring 94. Conductors 98, 100 are positioned adjacent inner surface 56 of sidewall 28 (best shown in Fig. 5) when housing 12 is coupled to base 14. As best shown in Fig. 5, inner surface 56 of sidewall 28 includes a U-shaped recess 102 that is defined by ridges 104, 106 and that is generally configured to align with and receive a portion of conductors 98, 100. Referring back to Fig. 2, bottom ends of conductors 98, 100 are supported by base 14, while top ends of conductors 98, 100 are affixed to light ring 94. Conductors 98, 100 are preferably substantially rigid such that they are able to support and suspend light ring 94 above platform 50 without bending. Conductors 98, 100 are preferably vertically oriented when base 14 is horizontal and extend perpendicularly upward from base 14. Ridges 104, 106 preferably assist in maintaining conductors 98, 100 in a vertical orientation. It is also within the scope of the invention for container 10 to include one or more rigid posts (not shown) that extend upward from base 14 to light ring 94 and support light ring 94 above base 14. The rigid post(s) would preferably have a lower end positioned adjacent a peripheral edge of base 14 and be positioned adjacent sidewall 28. Light system 20, including conductors 98, 100 may alternatively be coupled to housing 12 in a similar manner as described below with respect to the container 200 shown in Figs. 10-14.

[0040] As shown in Figs. 1 and 7, light ring 94 is positioned generally parallel to and adjacent the top 30 of housing 12 when housing 12 is coupled to base 14. The outer diameter of light ring 94 is preferably slightly smaller

than the inner diameter of sidewall 28 so that light ring 94 is positioned directly adjacent sidewall 28. An outer edge of light ring 94 may contact the inner surface of sidewall 28 when housing 12 is coupled to base 14. The distance between the inner diameter of light ring 94 and the outer diameter of light ring 94 is preferably fairly short so that the opening through light ring 94 is fairly large. In this manner, light ring 94 does not substantially obstruct the view of sample product within bowl 16 through top 30. Since light ring 94 is positioned adjacent top 30, it further does not obstruct the view of sample product within bowl 16 through sidewall 28.

[0041] Referring to Fig. 2, the power source for light bulbs 96 is a plurality of disposable and/or rechargeable batteries 108 which are contained within a cavity of base 14 (as shown in Fig. 7) and retained within said cavity in part by battery cover 86. Light bulbs 96 may be turned on and off by pressing button 84, as pressing button 84 connects light bulbs 96 to the batteries 108 via conductors 98, 100 as is known in the art. Although light system 20 is shown and described as including a light ring 94 with LED lamps powered by batteries, it should be understood that any suitable light or power sources are nonetheless within the scope of the present invention. Exemplary non-limiting power sources include an AC power adapter, and exemplary non-limiting light sources include incandescent or fluorescent bulbs.

[0042] As an alternative to solid conductors 98, 100, it is within the scope of the present invention for the conductors 98, 100 to be flexible conductors, such as stranded conductors of a wire gauge that is sufficiently flexible. If conductors 98, 100 are flexible, they are preferably positioned within a rigid tube that extends upward from base 14 to light ring 94. The rigid tube preferably has a lower end that is positioned adjacent a peripheral edge of base 14, and the rigid tube preferably extends vertically upward adjacent sidewall 28 of housing 12. The rigid tube preferably supports light ring 94 above base 14 in a similar manner as described above with respect to solid conductors 98, 100. The rigid tube preferably contains the flexible conductors so that they do not impede viewability of a product sample within container 10.

[0043] Referring to Figs. 1 and 2, security device 22 is shown. Security device 22 includes a rectangular housing 110 and a retractable tether 24, which preferably coils within housing 110. The housing 110 is configured to be secured with one or more fasteners to a fixed surface such as the topside, side, or underside of a table or cabinet. As shown, the fasteners utilized are screws 112. One end of retractable tether 24 is secured within housing 110, while the other end is removably secured to base 14 with tamper resistant screw 114 (e.g., a spanner screw, a security hex screw, or a fastener that otherwise is formed to engage with a non-standard tool for rotation of the screw), though any suitable fastener or tamper resistant screw known in the art is within the scope of the present invention. More specifically, with reference to Figs. 4 and 9, cover 18 and base 14 include screw port

88, which is defined by a recess formed within both cover 18 and outer ring 52. Base 14 includes a sidewall 116 positioned at the end of screw port 88 that is configured to receive screw 114 (shown in Fig. 2). The utilization of a screw, and more preferably, a tamper resistant screw, reduces or eliminates the possibility a customer may remove container 10 from the store. Additionally, if a customer attempts to disconnect retractable tether 24 from security device 22, whether by force or otherwise, security device 22 may be configured to alert the store operator and/or the local authorities. In spite of these desirable security features, retractable tether 24 still allows a customer to pick up container 10 and lift it above the surface to which housing 110 is secured in order to more closely inspect a sample contained therein. Additionally, store operators are still able to easily detach tether 24 from base 14 in order to remove container 10 or store it in a more secure location when the store is closed. Screw 114 is preferably permanently coupled to tether 24 in a manner that allows screw 114 to rotate with respect to tether 24 so that screw 114 is not lost when it is disengaged from container 10.

[0044] Container 200 shown in Figs. 10-14 is an alternative embodiment of container in accordance with the invention described herein. Container 200 is substantially similar to container 10. Accordingly, only the differences between container 10 and container 200 are described in detail herein. Container 200 has a housing 202 that removably engages base 204 via first engaging structures 206, 208 (Fig. 11) on base 204 that are configured to matingly engage second engaging structures 210, 212 (Fig. 12) on housing 202. Fig. 13 shows the engagement between first engaging structure 206 and second engaging structure 210. First engaging structure 206 is positioned adjacent a slot 211 formed in an upper surface of base 204 and includes a protrusion 206a and a downwardly facing surface 206b. Second engaging structure 210 extends downward from a sidewall 213 of housing 202 and includes a recess 210a and an upwardly facing surface 210b. To engage first engaging structure 206 and second engaging structure 210, second engaging structure 210 is first inserted into slot 211. Housing 202 is then rotated in a clockwise direction (when viewed as shown in Fig. 11) until the protrusion 206a is positioned within recess 210a and upwardly facing surface 210b engages downwardly facing surface 206b. The engagement between upwardly facing surface 210b and downwardly facing surface 206b prevents the disengagement of housing 202 from base 204. Housing 202 must be rotated back in a counterclockwise direction (when viewed as shown in Fig. 11) to disengage first engaging structure 206 from second engaging structure 210 before housing 202 is removable from base 204. First engaging structure 208 and second engaging structure 212 have a similar structure as first engaging structure 206 and second engaging structure 210 and thus are not described in detail herein.

[0045] Referring to Fig. 14, base 204 has a lock 214

(or securement mechanism) that is configured to releasably engage the housing 202 when the housing 202 is coupled to base 204 and first engaging structures 206, 208 engage second engaging structures 210, 212. Lock 214 is coupled to a bottom surface of base 204 with a pin 216. A torsion spring 218 engages a portion of lock 214 and base 204 to bias lock 214 to the locked position shown in Fig. 14. In the locked position a cam surface 220 of lock 214 engages the second engaging structure 212 of housing 202 to secure housing 202 to base 204. When second engaging structure 212 matingly engages the first engaging structure 208 of base 204 and lock 214 engages second engaging structure 212 as shown in Fig. 14, housing 202 cannot be rotated to disengage first engaging structure 208 and second engaging structure 212. Lock 214 must be rotated to an unlocked position (not shown) to disengage first engaging structure 208 from second engaging structure 212. Lock 214 is rotated to the unlocked position by rotating it in a clockwise direction (when viewed as shown in Fig. 14). When lock 214 is rotated to the unlocked position, housing 202 may be rotated to disengage first engaging structures 206, 208 from second engaging structures 210, 212 so that housing 202 may be removed from engagement with base 204.

[0046] A cover 222 of container 200 is releasably securable to base 204 preferably in the same manner as described above with respect to container 10. Cover 222 is movable between a closed position, in which cover 222 is secured to base 204 and lock 214 is inaccessible, and an open position, in which cover 222 is not secured to base 204 and lock 214 is accessible. In the closed position, cover 222 encloses a cavity 224 of base 204 that contains lock 214. The lock 214 is not accessible for movement from its locked position to its unlocked position when cover 222 is coupled to base 204 and in the closed position. Thus, when cover 222 is in the closed position covering cavity 224 and housing 202 is coupled to base 204 as described above, lock 214 cannot be accessed to disengage it from housing 202 and remove housing 202 from base 204. Cover 222 must be removed from housing 202 to make lock 214 accessible for movement from its locked position to its unlocked position thereby permitting removal of housing 202 from base 204. Because cover 222 is preferably releasably lockable to base 204 with, for example, tamper-resistant screws, cover 222 deters unauthorized individuals from removing housing 202 from base 204.

[0047] Container 200 has a light system 226 that is similar to the light system 20 of container 10 except that more details are shown in the drawings on the connection between light system 226 and a power source 228 (i.e., batteries shown in Fig. 14). Referring to Fig. 12, light system 226 includes a light ring 230 with a plurality of light bulbs 232. Conductors 234 and 236 extend from light ring 230 to a connector 238. Conductors 234, 236 may be solid conductors with an outer insulation, or flexible wire conductors placed within a rigid tube, as de-

scribed above in connection with container 10. Connector 238 includes a circuit board 240 coupled to a housing 242. Pins 244, 246 are coupled to circuit board 240. Pins 244, 246 are conductive, spring-loaded retractable pins. Pin 244 is electrically coupled to conductor 234 via circuit board 240, and pin 246 is electrically coupled to conductor 236 via circuit board 240.

[0048] Referring to Fig. 11, a circuit board 248 is coupled to an upper surface of base 204. Circuit board 248 includes a positive conductive pathway 250 that is electrically coupled to a wire 252 (Fig. 14) that extends to switch 254. Another wire 256 couples switch to a positive terminal 257 of batteries 228. Circuit board 248 includes a negative conductive pathway 258 that is electrically coupled to a wire 260 that extends to a negative terminal 261 of batteries 228. When housing 202 is secured to base 204, as described above, pins 244, 246 are placed in electrical contact with negative conductive pathway 258 and positive conductive pathway 250, respectively. Because the pins 244, 246 are spring-loaded, a reliable electrical connection is maintained between pins 244, 246 and circuit board 248. The shapes of positive conductive pathway 250 and negative conductive pathway 258 ensure that the pins 244, 246 make contact with the appropriate pathway 250, 258 as housing 202 is rotated into engagement with base 204, as described above. Light bulbs 232 are electrically connected to conductors 234, 236 so that light bulbs 232 are powered on when switch 254 (Fig. 14) is pressed.

[0049] Light system 226, including light ring 230, light bulbs 232, conductors 234, 236, circuit board 240, connector 238, and pins 244, 246, is connected to housing 202 via pins 262 on housing 202 that extend into holes 264 of light ring 230. The pins 262 may frictionally engage surfaces surrounding the holes 264 of light ring 230 to retain light system 226 with housing 202. Thus, light system 226 is removable from base 204 along with housing 202, and the pins 244, 246 and pathways 250, 258 ensure that reliable electrical connection is established between light system 226 and batteries 228 when housing 202 is coupled to base 204.

[0050] Container 200 also includes a bowl 266 with a silicone pad 268 placed therein. The bowl 266 includes a plurality of posts 270 that extend upward through holes in the silicone pad 268 to retain the silicone pad 268 in place within the bowl 266.

[0051] Referring to Figs. 15 and 16, another alternative embodiment of container is identified generally as 300. Container 300 is substantially similar to container 200, and thus only the differences between the containers are described in detail herein. Container 300 has a housing 302 that removably engages base 304 via first engaging structures 306, 308 on base 304 that are configured to matingly engage second engaging structures 310, 312 on housing 302. First engaging structures 306, 308 are substantially similar to first engaging structures 206, 208 described above, and second engaging structures 310, 312 are substantially similar to second engaging struc-

tures 210, 212 described above. First engaging structures 306, 308 further engage second engaging structures 310, 312 in a similar manner as described above with respect to first engaging structures 206, 208 and second engaging structures 210, 212. The main difference between container 300 and container 200 is that the slots 314, 316 in base 304 are formed so that they do not require rotation of housing 302 to engage housing 302 with base 304. Instead, the slots 314, 316 are sized and positioned so that the housing 302 may be pressed down on base 304 to engage housing 302 with base 304. To engage housing 302 with base 304, the second engaging structures 310, 312 on housing 302 are inserted through slots 314, 316, and the housing 302 is pressed downward toward base 304. As the second engaging structures 310, 312 move downward, they flex backward in a direction away from first engaging structures 306, 308. When the second engaging structures 310, 312 reach the position shown in Fig. 16, they flex outward toward first engaging structures 306, 308 and engage the first engaging structures 306, 308 in the same manner as described above for container 10. The slots 314, 316 are sized to allow the second engaging structures 310, 312 to flex backward away from first engaging structures 306, 308 as housing 302 is pressed downward toward base 304. As shown in Fig. 15, container 300 includes a lock 318 (or securement mechanism) that releasably engages the housing 302 in substantially the same manner as described above with respect to lock 214 shown in Fig. 14. Container 300 further includes a cover 320 (Fig. 16) that is substantially similar to the cover 222 of container 200 and that is securable to base 304 to deter unauthorized individuals from removing housing 302 from base 304.

[0052] In use, a store operator preferably places a product sample within the bowl 16 of container 10 and couples housing 12 to base 14 as described above. The housing 110 of security device 22 is secured to a heavy or immovable fixture and the retractable tether 24 is secured to base 14 with screw 114 as described above. The container 10 displays the product sample in a secure manner that makes it difficult for a customer to remove the product sample from the container 10 without the use of special tools.

[0053] Housing 12 of container 10 allows a customer to visibly inspect and smell a sample stored within bowl 16 of container 10. With reference to Fig. 1, a customer may visibly inspect a sample stored within bowl 16 by looking through either clear housing 12 or magnifier 38. Magnifier 38 allows a customer to view magnified images of the surfaces of a sample stored within bowl 16 in order to better ascertain its quality and/or desirability. The fact that housing 12 is frameless and that its opening is located at its bottom further enhances the viewability of a sample stored within bowl 16 due to the fact that visible obstructions are reduced. Housing 12 and bowl 16 may optionally include an anti-reflective coating in order to reduce glare, thereby further enhancing the viewability

of samples stored within bowl 16. A customer may move sliding door 42 to the open position in order to smell a sample stored within bowl 16 through perforations 44 of vent 40.

[0054] Further, base 14 includes certain features that either enhance or minimally impact the viewability of a sample contained within bowl 16 of container 10. As described above, the utilization of solid conductors 98, 100 avoids the possibility of stray wiring that unnecessarily restricts the viewability of the sample. It should be noted that the utilization of one or more rigid tubes through which conductive wiring extends would achieve substantially the same result. Additionally, the positioning of conductors 98, 100 at and above an outer edge of platform 50 results in minimal impact on the viewability of the sample, particularly through planar top 30 of housing 12. The positioning of light ring 94 adjacent top 30 and the relatively large opening through the center of light ring 94 also results in minimal impact on the viewability of a sample. A customer may also turn on the LED lamps of light ring 94 by pressing button 84 in order to better illuminate (and thus enhance the viewability of) the sample.

[0055] In order to remove the sample from bowl 16 for secure storage of the sample or to replace the sample with another product sample, a store worker must first remove cover 18 from the bottom of base 14. Preferably, the cover 18 is removed by using a specialized tool to remove tamper resistant screws 74. After cover 18 is removed, housing 12 may be removed from base 14 by pressing clips 34, 36 as described above to disengage them from clip engaging structures 70, 72.

[0056] At the end of the day, a store worker may securely store container 10, and any product samples contained therein, by disconnecting tether 24 from base 14 as described above. Container 10 may then be taken to a secure location within the store for overnight storage.

[0057] Container 200 is used in a similar manner as described above with respect to container 10 except that the housing 202 of container 200 engages the base 204 in a slightly different manner. As described above, the second engaging structures 210, 212 on housing 202 are first inserted into slots 211 of base 204, and then the entire housing 202 is rotated until first engaging structures 206, 208 of base 204 matingly engage second engaging structures 210, 212 and lock 214 engages housing 202. To remove housing 202 from base 204, cover 222 must first be removed from engagement with base 204, preferably by using a special tool designed to engage tamper-resistant fasteners that join cover 222 to base 204. Then, lock 214 is rotated out of engagement with housing 202, and housing 202 is rotated until first engaging structures 206, 208 of base 204 do not matingly engage second engaging structures 210, 212. Housing 202 may then be lifted out of engagement with base 204.

[0058] Further, container 300 is usable in a similar manner as container 200 except that the housing 302 is pressed downward onto base 304 to engage first engaging structures 306, 308 with second engaging structures

310, 312, as described above.

[0059] From the foregoing it will be seen that this invention is one well adapted to attain all ends and objectives herein-above set forth, together with the other advantages which are obvious and which are inherent to the invention.

[0060] Since many possible embodiments may be made of the invention without departing from the scope thereof, it is to be understood that all matters herein set forth or shown in the accompanying drawings are to be interpreted as illustrative, and not in a limiting sense.

[0061] While specific embodiments have been shown and discussed, various modifications may of course be made, and the invention is not limited to the specific forms or arrangement of parts and steps described herein, except insofar as such limitations are included in the following claims. Further, it will be understood that certain features and subcombinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of the claims.

Claims

1. A container for displaying a product comprising:

a base;
a housing that removably engages the base to define a display space positioned between the housing and the base, wherein at least one of the housing and the base comprises a securement mechanism that is configured to releasably secure the housing to the base; and
a cover that is configured to be coupled to the base, wherein the cover is moveable between a closed position, in which the securement mechanism is inaccessible, and an open position, in which the securement mechanism is accessible.

2. The container of claim 1, wherein the securement mechanism comprises a lock that is configured to releasably engage the housing when the housing is coupled to the base and wherein, preferably, when the housing engages the base, the lock is moveable between a first position, in which the lock engages the housing and secures the housing to the base, and a second position, in which the lock does not engage the housing and the housing is removable from engagement with the base.

3. The container of claim 2, wherein the lock is not accessible for movement from the first position to the second position when the cover is coupled to the base, and wherein the lock is accessible for movement from the first position to the second position when the cover is not coupled to the base.

4. The container of any preceding claim, wherein the base comprises a first engaging structure, wherein the housing comprises a second engaging structure that is configured to removably engage the first engaging structure and wherein, preferably, the cover covers the first engaging structure and the second engaging structure when the first engaging structure engages the second engaging structure and the cover is in the closed position, with the first engaging structure and the second engaging structure being accessible when the first engaging structure engages the second engaging structure and the cover is in the open position.

5. The container of claim 4, wherein the first engaging structure and the second engaging structure form the securement mechanism, wherein the first engaging structure comprises a clip engaging structure, and wherein the second engaging structure comprises a clip.

6. The container of claim 5, wherein the housing comprises a top and a sidewall coupled to the top, wherein the clip is coupled to and extends away from the sidewall and wherein, optionally, the clip is operable to flex with respect to the sidewall.

7. The container of any preceding claim, wherein the cover is releasably lockable to the base when the cover is in the closed position and wherein, optionally, the container further comprises at least one tamper-resistant fastener that is configured to releasably lock the cover to the base when the cover is in the closed position.

8. The container of any preceding claim, wherein the cover is removably secured to the base when the cover is in the closed position, and wherein the cover is removed from securement with the base when the cover is in the open position.

9. The container of any preceding claim, wherein the housing further comprises a vent, and further comprising a vent cover that is movable between a closed position, in which the vent is covered, and an open position, in which the vent is at least partially exposed, wherein, optionally, the vent cover comprises a sliding door that is biased to the closed position.

10. The container of any preceding claim, further comprising a light positioned where it is operable to illuminate a portion of the base, wherein, preferably, the light is positioned above the base.

11. The container of claim 10, wherein at least one solid conductor extends from adjacent the base to adjacent the light when the housing engages the base, and wherein the at least one solid conductor electri-

cally couples the light to a power source when the housing engages the base, wherein, preferably, the solid conductor extends upward from the base at a location that is adjacent a peripheral edge of the base when the housing engages the base, with the solid conductor being positioned adjacent an inner surface of the housing. 5

12. The container of claim 11, wherein the power source comprises at least one battery positioned adjacent the base. 10

13. The container of claim 10, wherein at least one flexible conductor extends from adjacent the base to adjacent the light when the housing engages the base, wherein the at least one flexible conductor electrically couples the light to a power source when the housing engages the base, wherein the at least one flexible conductor is positioned within a rigid tube, and wherein, preferably, the rigid tube extends upward from the base at a location that is adjacent a peripheral edge of the base when the housing engages the base, with the rigid tube being positioned adjacent an inner surface of the housing. 15
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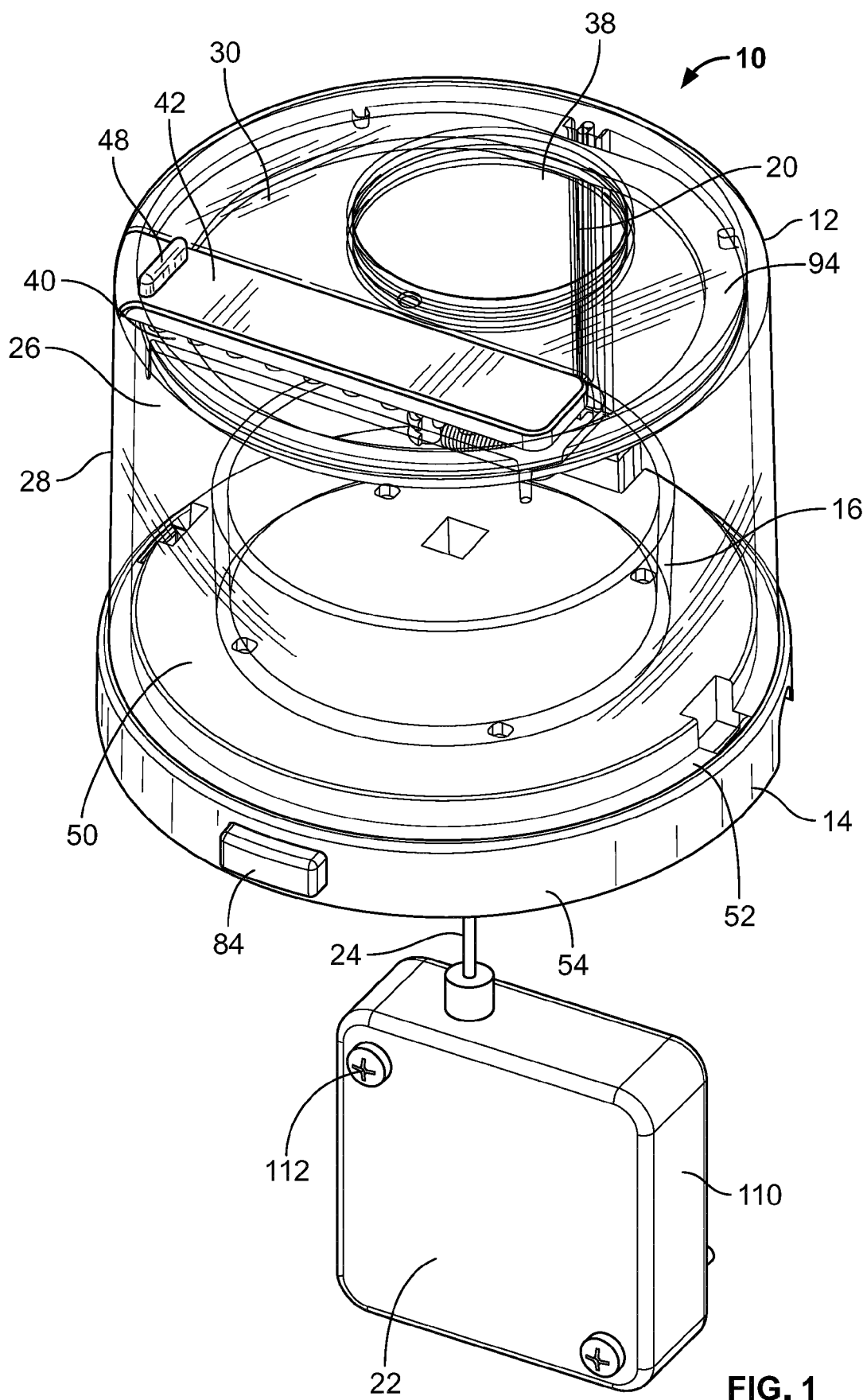
14. The container of any of claims 10 - 13, wherein the light is positioned adjacent a top of the housing, wherein, preferably, the container further comprises a light ring to which the light is coupled, wherein the light ring is generally parallel and adjacent the top of the housing. 25
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15. The container of any preceding claim, further comprising a security device configured to be removably secured to at least one of the base, the housing, or the cover, wherein, preferably, the security device comprises a housing and a retractable tether coupled to the housing, with an end of the retractable tether being configured to be removably secured to at least one of the base, the housing, or the cover with a tamper-resistant screw. 35
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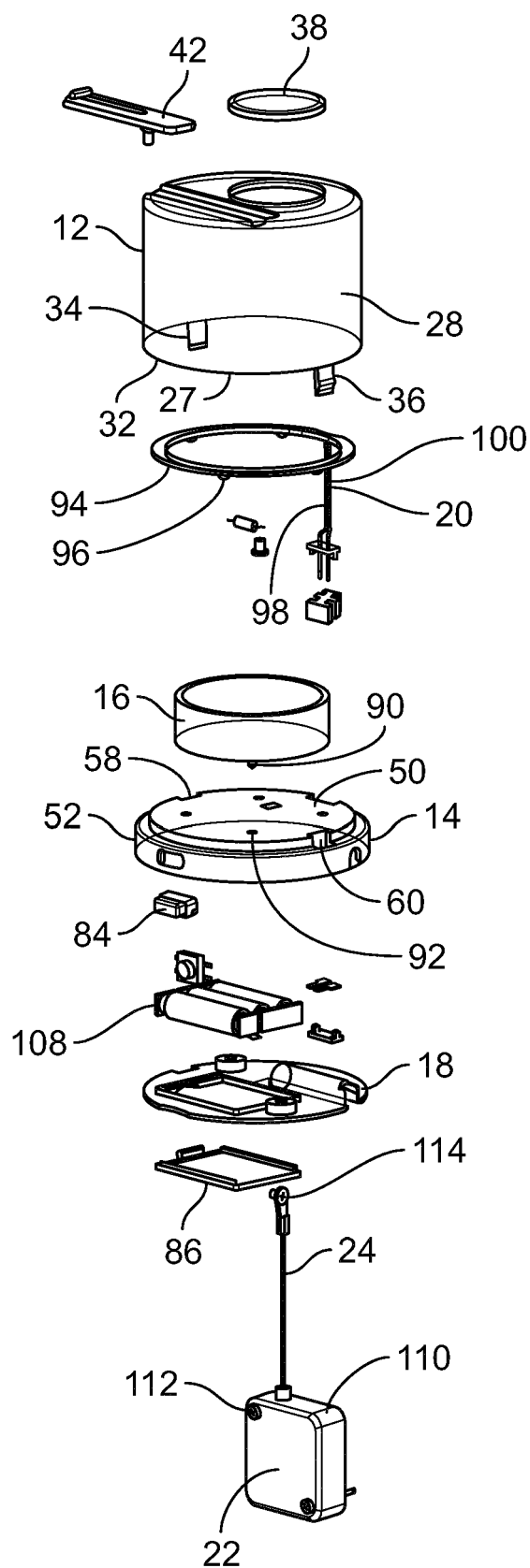


FIG. 2

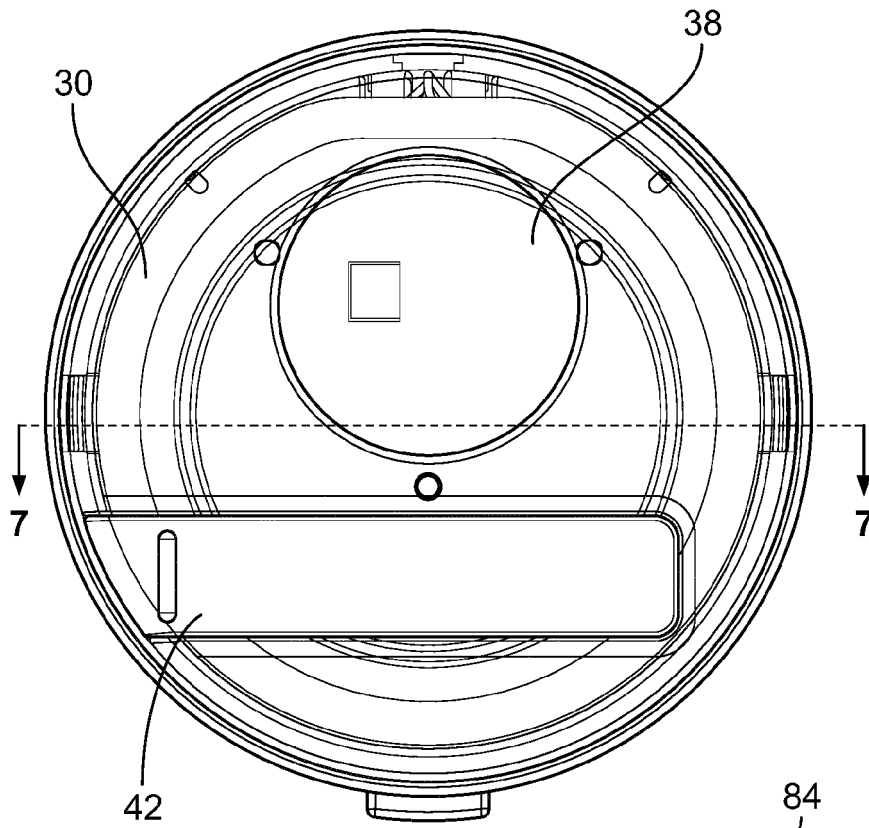


FIG. 3

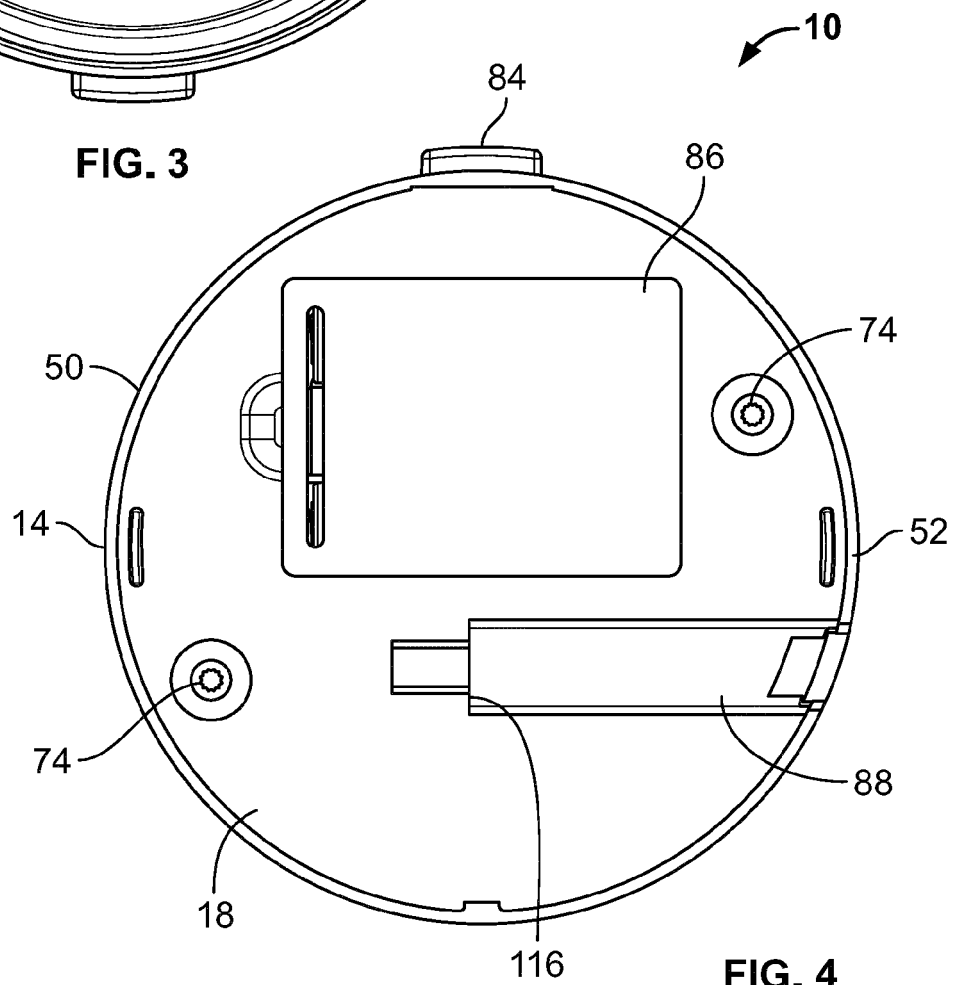


FIG. 4

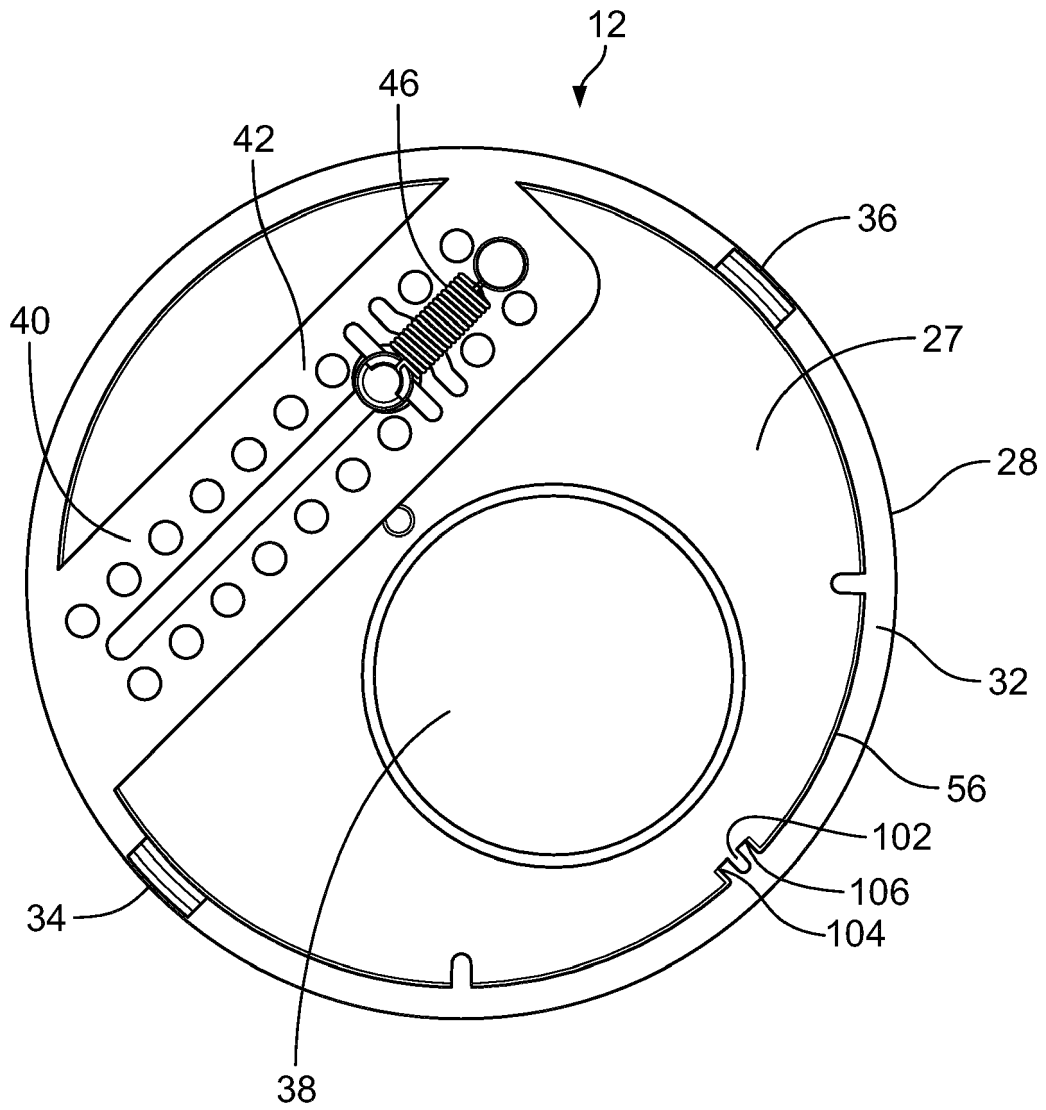


FIG. 5

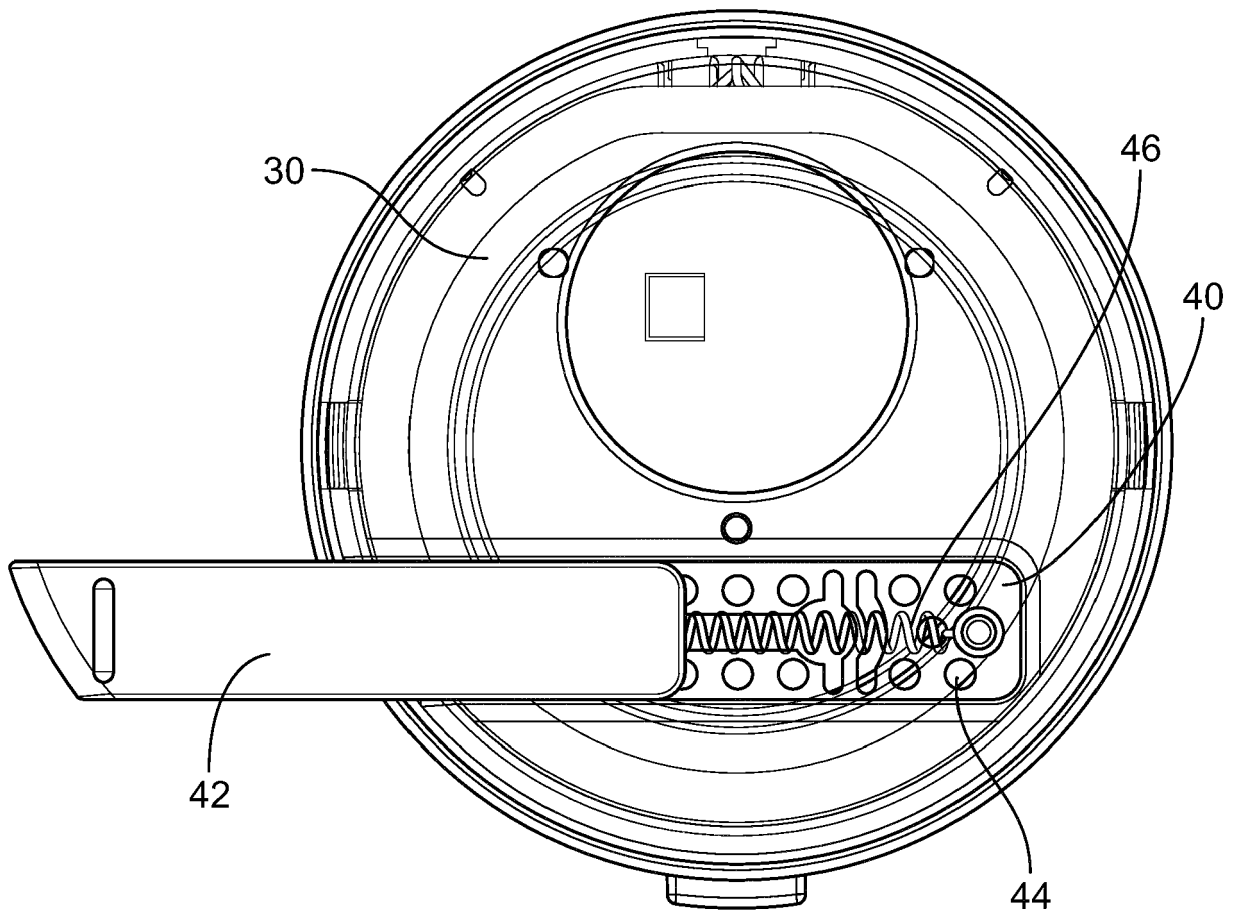


FIG. 6

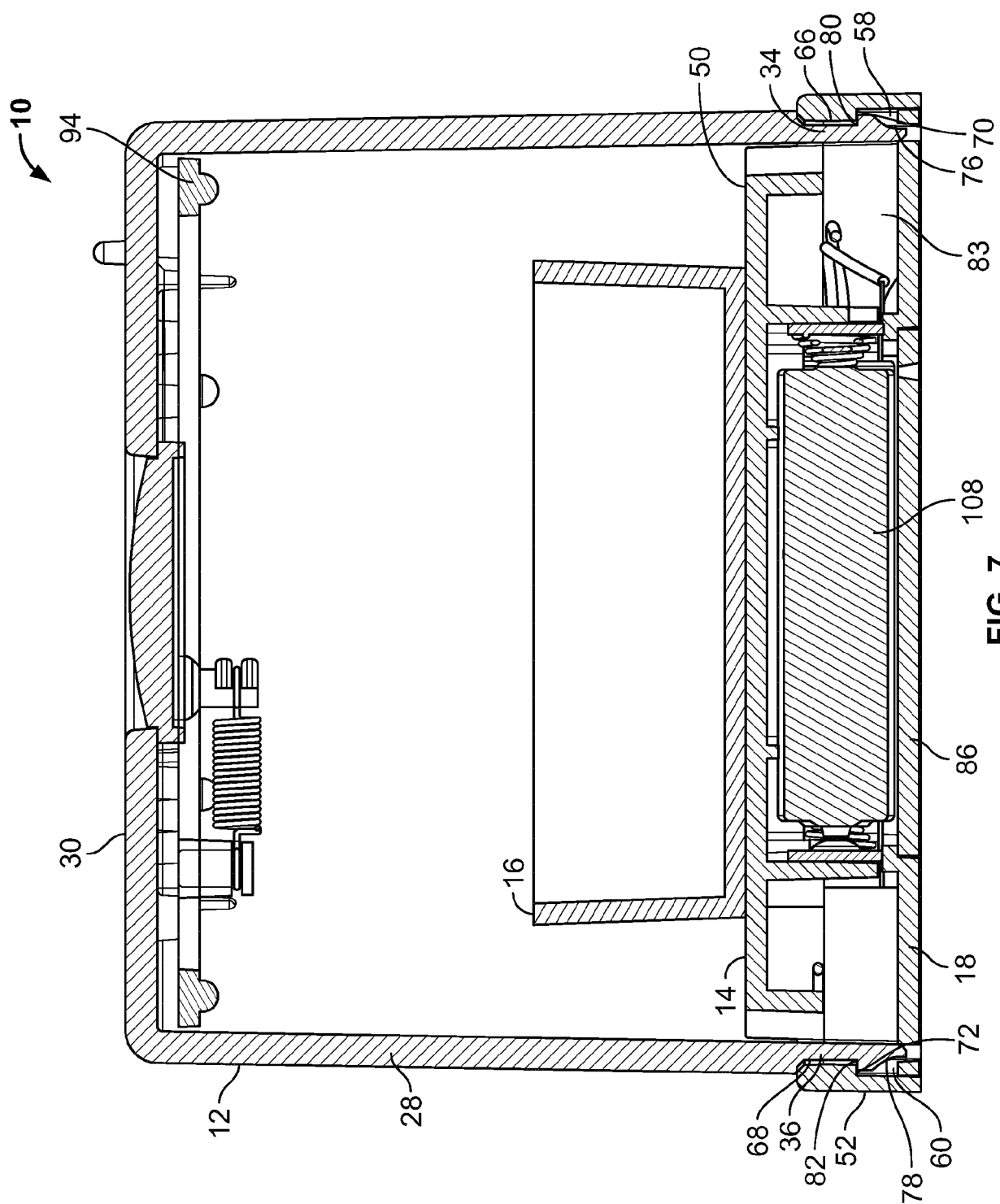


FIG. 7

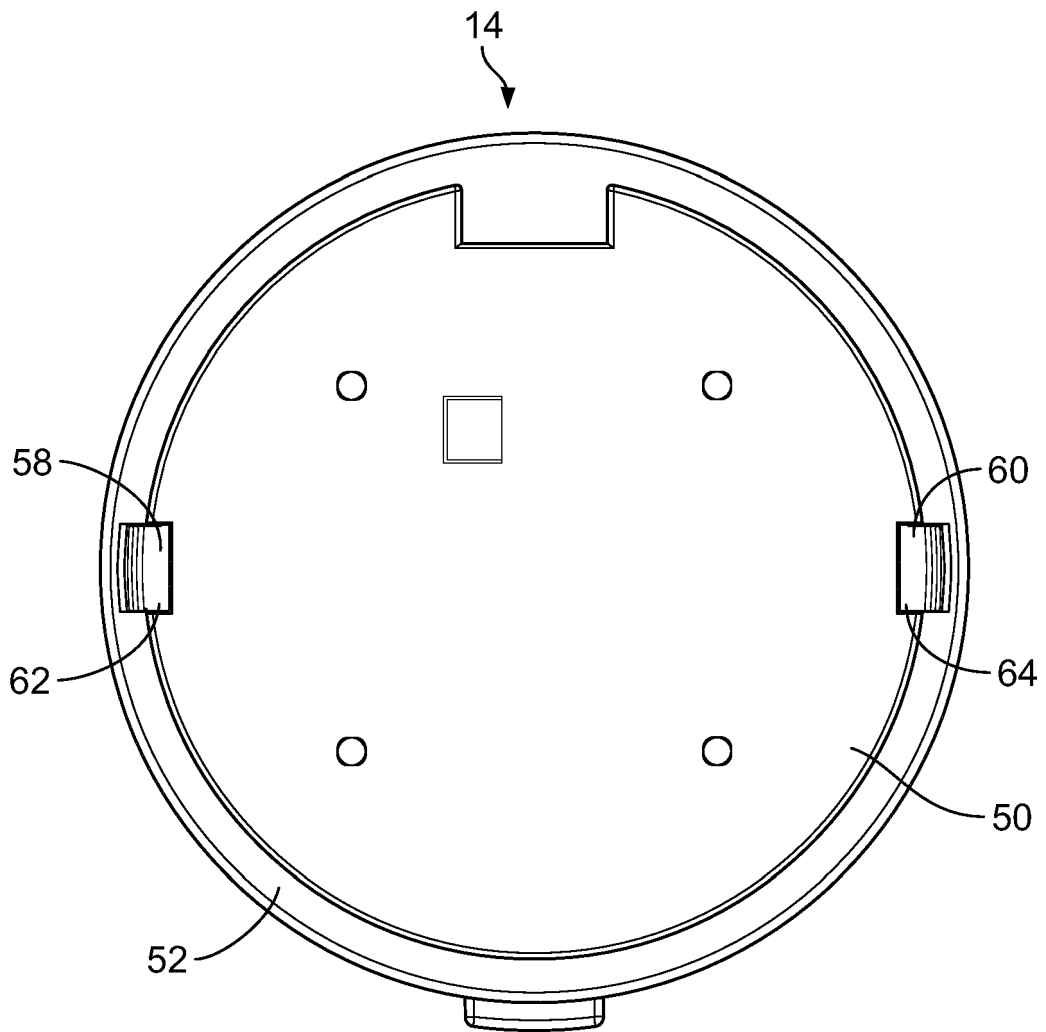


FIG. 8

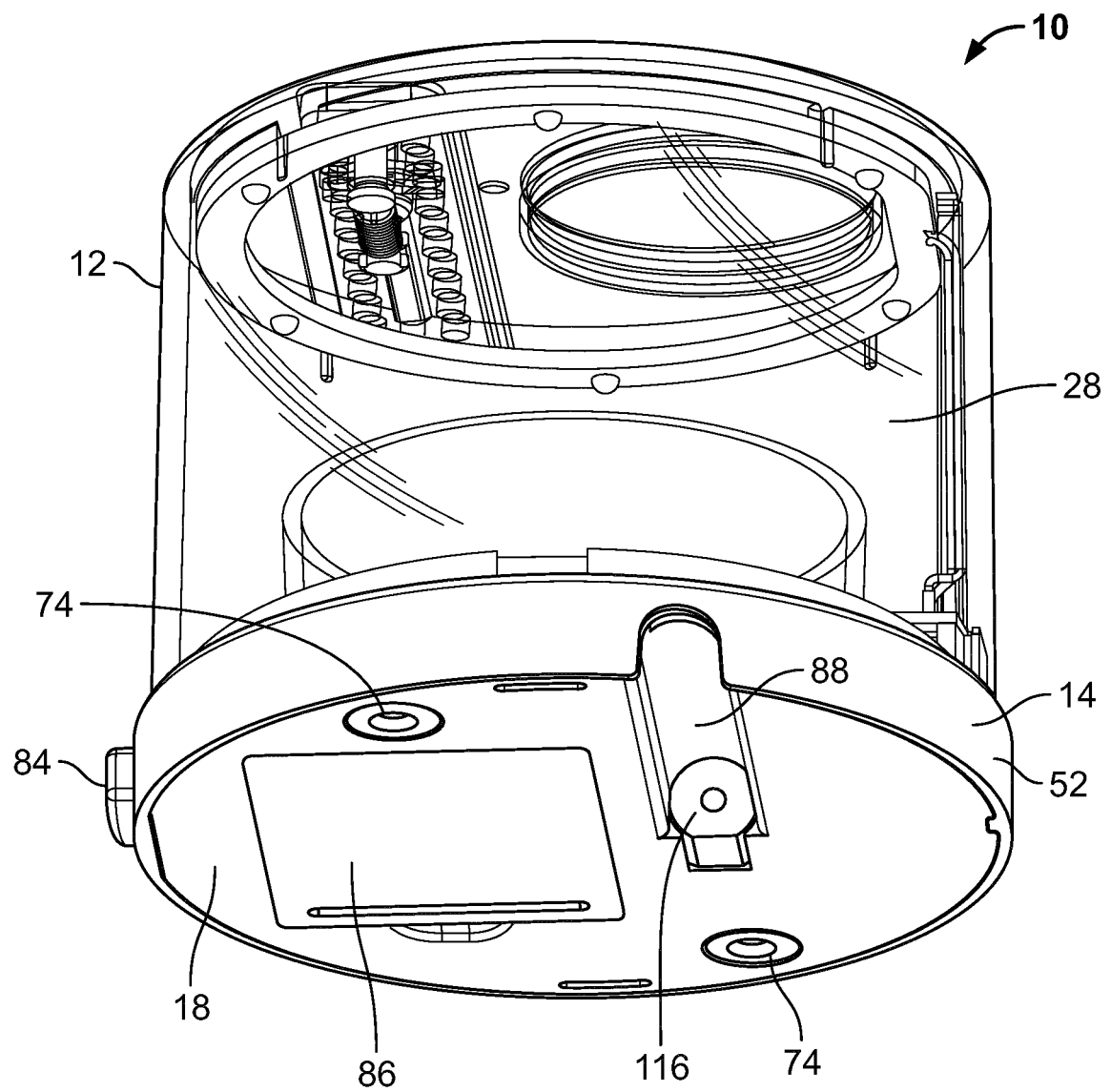


FIG. 9

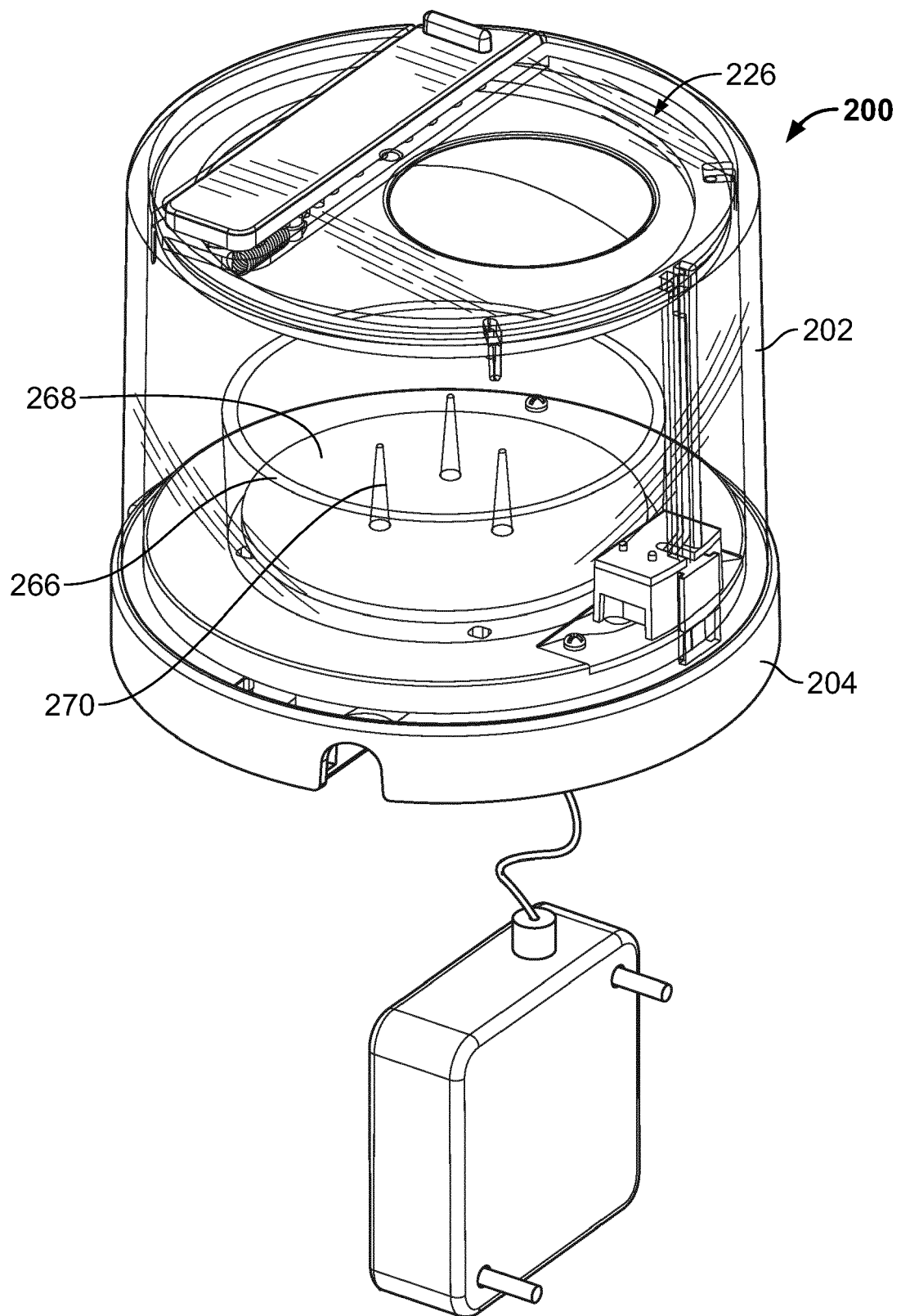


FIG. 10

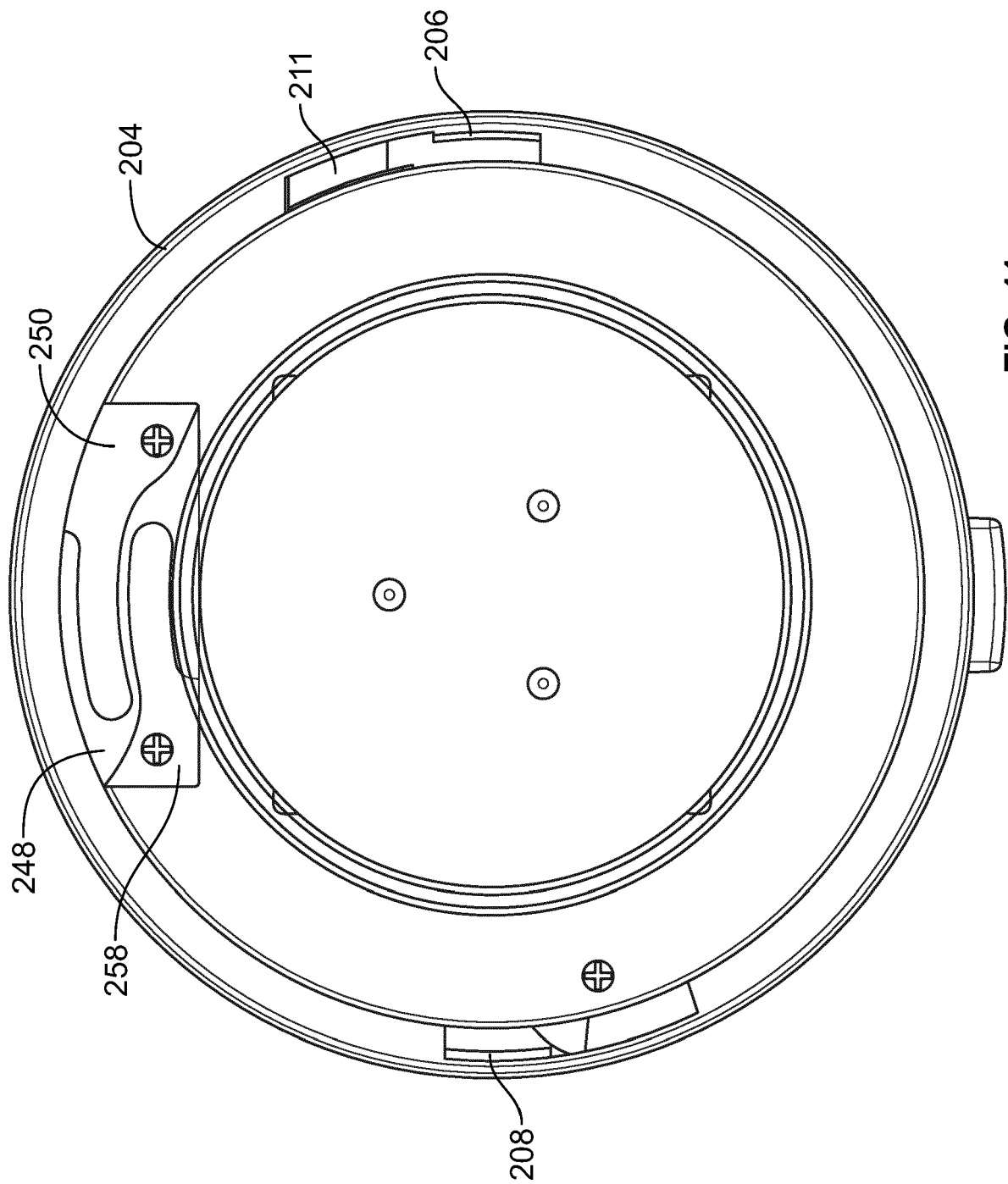


FIG. 11

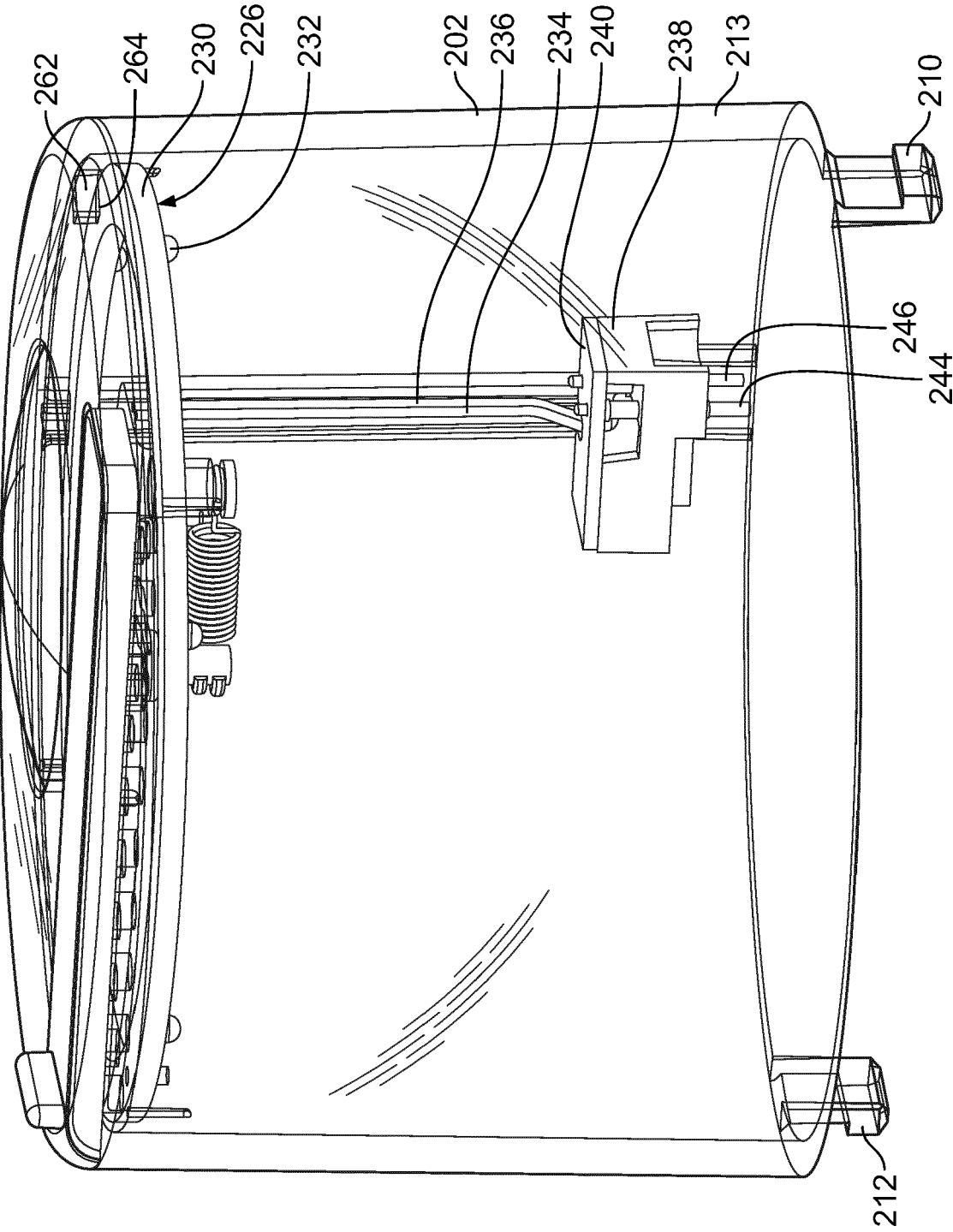


FIG. 12

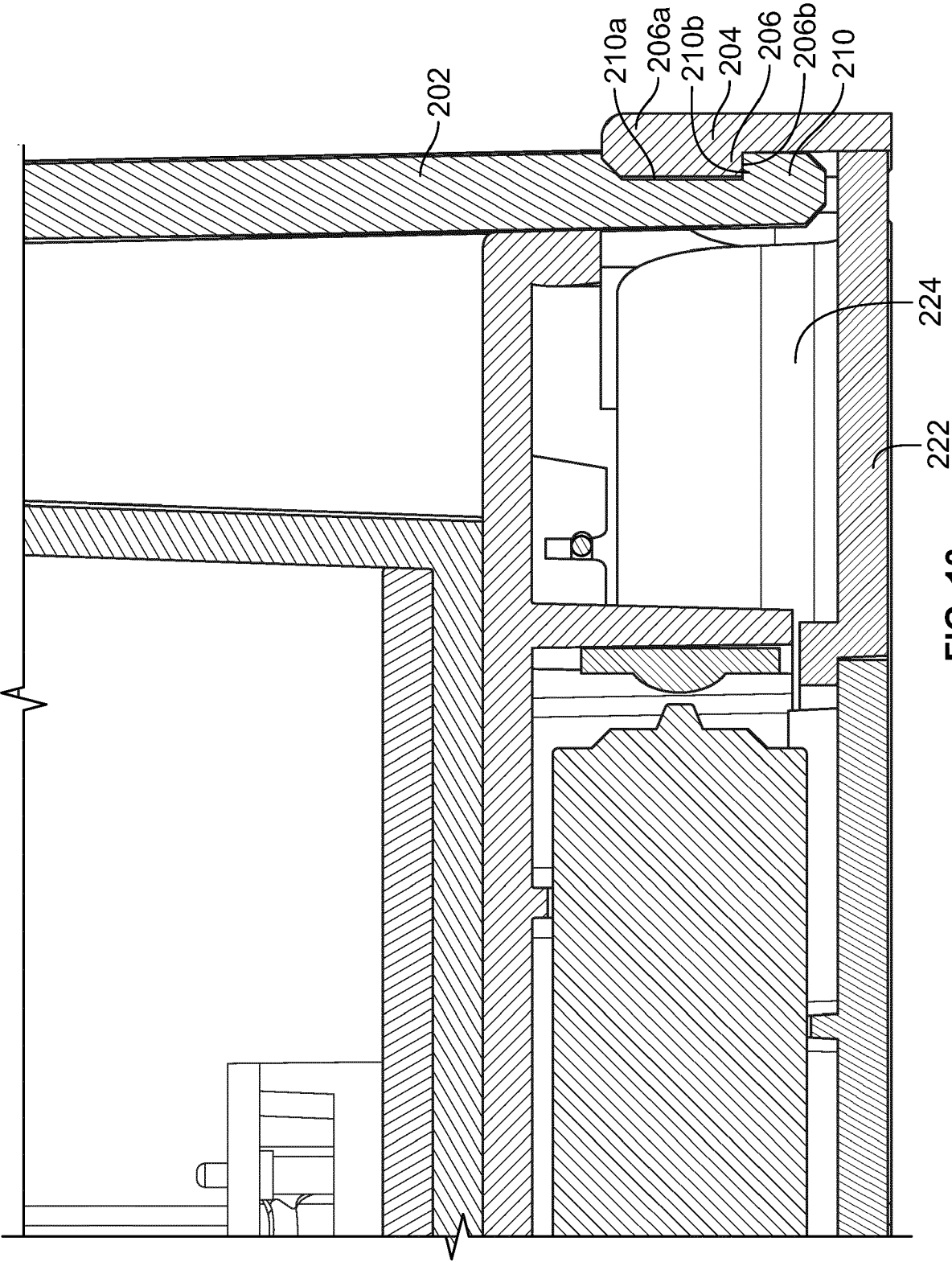


FIG. 13

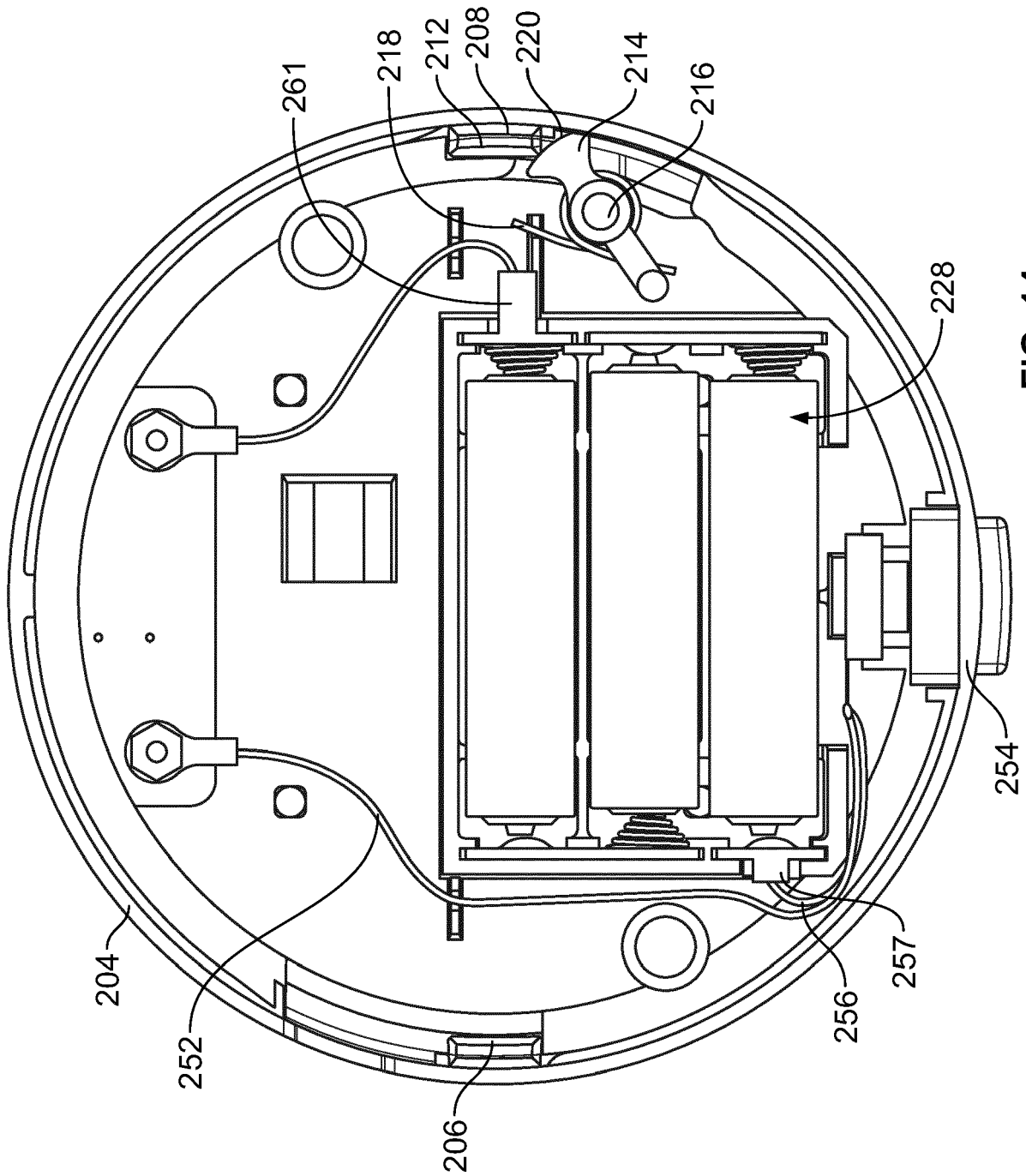


FIG. 14

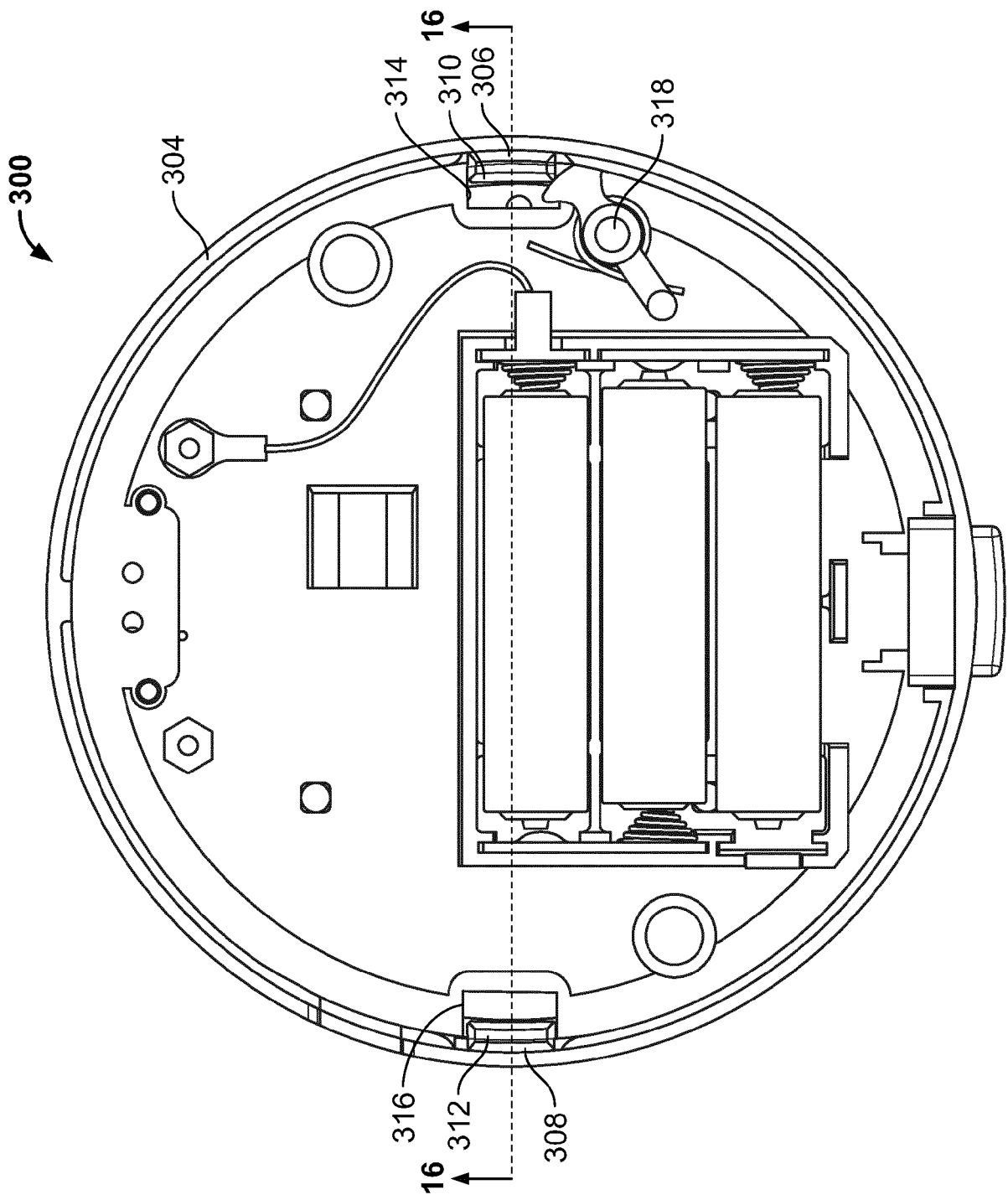


FIG. 15

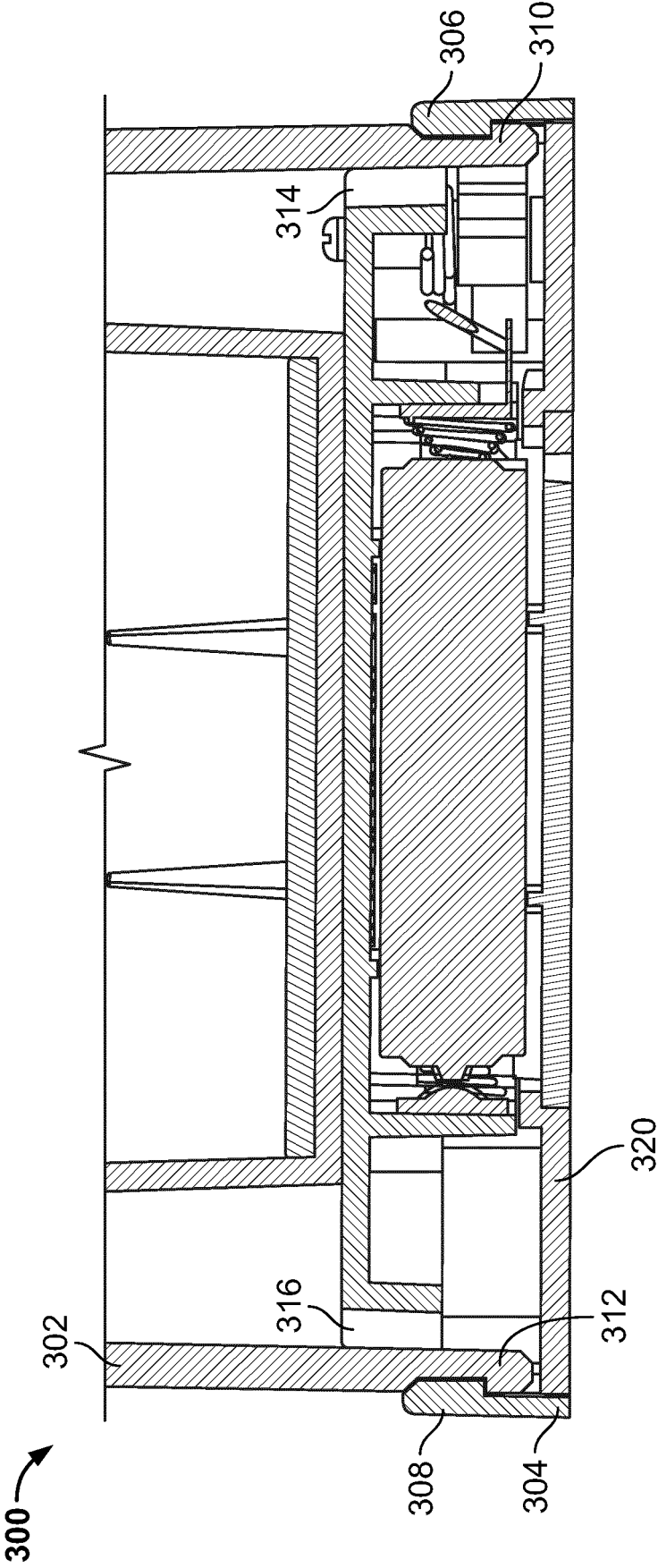


FIG. 16



EUROPEAN SEARCH REPORT

Application Number
EP 19 20 3221

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2016/031605 A1 (BEAN JAMES [US] ET AL) 4 February 2016 (2016-02-04) * figures 8-9 *	1-15	INV. A47F3/14 A47F7/28 B65D25/54
A	US 2016/318672 A1 (SMITH WILLIAM THOMAS [US] ET AL) 3 November 2016 (2016-11-03) * figures 10-11 *	15	ADD. B65D51/16
			TECHNICAL FIELDS SEARCHED (IPC)
			A47F A45D B65D
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 17 December 2019	Examiner Ibarrondo, Borja
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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ON EUROPEAN PATENT APPLICATION NO.

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The members are as contained in the European Patent Office EDP file on
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17-12-2019

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2016031605 A1	04-02-2016	NONE	
US 2016318672 A1	03-11-2016	NONE	

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82