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(54) **Container for candle wax**

(57) A container for candle wax comprises a base part (210; 310) with a bottom (212; 312), and a preferably cylinder-shaped wall (230; 330) extending upwardly from

the base part. By providing the base part and the wall as separate parts, several advantages are obtained regarding selection of material, light properties, and operation.

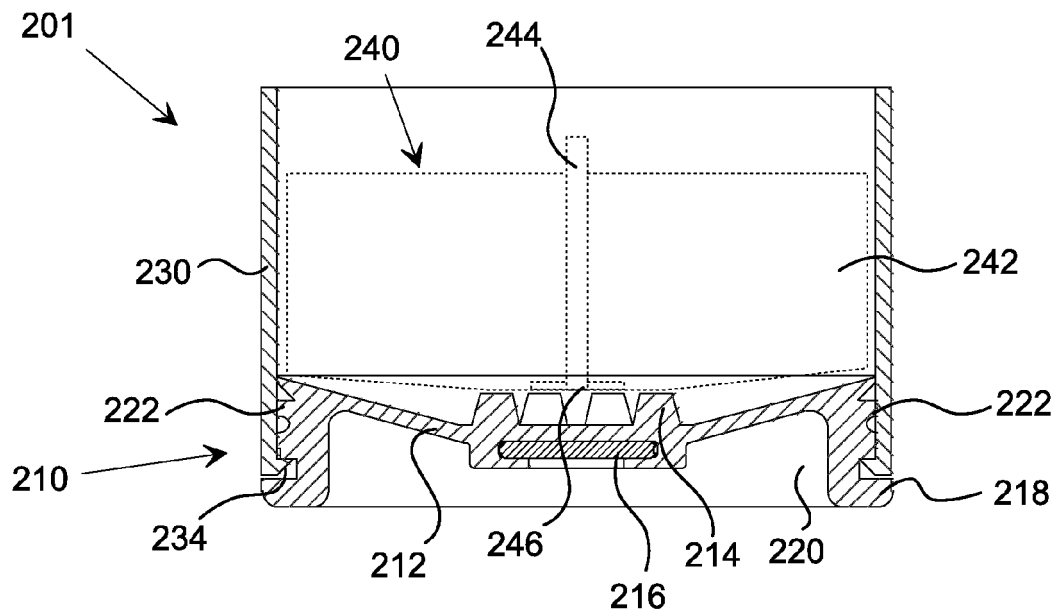


Fig. 2a

Description

Technical field

[0001] The present invention relates generally to containers for candle wax and more specifically to containers for so-called tea lights.

Background art

[0002] A tea light is a kind of living lights, which has been given its name from the fact that it can be used as a heat source for heating for example food and heating the surrounding area. Tea lights can also be used for a purely decorative purpose.

[0003] The function of the light is an oil lamp of the simplest kind, with the difference that the wick is centred in the middle and is supported by its own support and that a candle wax is used which is solidified at normal room temperature. The candle wax, which is provided in a cup or container, consists of paraffin or stearin which is transformed into liquid state from the heat of the flame. The container is usually made of aluminium and the support for the wick is made of steel.

[0004] Tea light is a product which affects the society by the vast consumption of the product. The container in which the candle wax is normally delivered consists of aluminium which is a very energy consuming material to produce. A large part of consumed tea light containers is not recycled despite society's investments in refuse sorting.

[0005] Tea lights with single use containers of aluminium also pose a safety risk. The container has low friction to the underlying surface and is easily displaced and become a fire hazard to adjacent materials. Furthermore, the wick support in which the wick is held can move when the candle wax is liquefied and can be given a changed heat influence resulting in a risk of flaming. Accidents also happen due to the wick floating to the surface and igniting the entire candle wax.

[0006] An additional problem with known single use containers of aluminum is that the material itself in the container, i.e., aluminium, blocks the light emitted by the tea light and the light effect thereby is impaired.

Summary of invention

[0007] An object of the present invention is to provide a container for candle wax which is easy to reuse.

[0008] Another object of the present invention is to provide a container for candle wax which enables full consumption of the entire candle wax and provides higher safety as compared to known containers in the form of single use containers of aluminium.

[0009] According to the invention there is provided a container for candle wax, comprising a base part with a bottom, and a preferably cylinder-shaped wall extending upwardly from the base part, which is **characterized in**

that the base part and the wall are provided as separate parts. By providing the base part and the wall as separate parts several advantages regarding selection of material, light properties, and operation are obtained.

5 **[0010]** In a preferred embodiment, the wall is made of a rigid material, preferably heat resistant plastic. The advantage is thereby achieved that this part can be transparent, which improves the light properties.

[0011] In a preferred embodiment, the base part is made of an elastic material, preferably fireproof silicone. By providing the base part in an elastic material removal of remaining candle wax is simplified. Furthermore, a tight joint between the base part and the wall is promoted, which improves fire safety.

10 **[0012]** In a preferred embodiment, the periphery of the base part is provided with one or more circumferential flanges which are adapted to make sealing engagement with the inner surface of the wall. The advantage is thereby achieved that the container is leak proof and that leakage of liquid candle wax is prevented, which improves the fire safety. This is further improved if the wall exhibits latches at the lower edge of the wall adapted to hold the wall in place on the base part.

15 **[0013]** In a preferred embodiment, the bottom is circular and slopes downwardly towards the centre of the bottom. It is thereby ensured that liquid candle wax is gathered below the wick, which results in complete or almost complete consumption of the candle wax.

20 **[0014]** In a preferred embodiment, a foot portion is provided at the periphery of the base part. This ensures a stable design, which prevents the container from turning over, which would be a fire hazard.

25 **[0015]** In a preferred embodiment, spacer means, preferably in the form of studs, are arranged in the centre of the bottom. This allows access for liquid candle wax below the wick, which further increases the incineration.

30 **[0016]** In a preferred embodiment, a magnet is secured centrally in the bottom of the base part. This cooperates with the metal in the wick support and ensures that the wick maintains its central position in the container, also when all candle wax is in liquid state.

35 **[0017]** In a preferred embodiment, candle wax is used in the form of an insert having a body of solidified candle wax, which preferably has one or more vertical channels in the periphery surface of the body, a wick, and a wick support. By having vertical channels in the body, air is allowed to flow out from the bottom of the container through these channels, which prevents remaining air from slowing down the placement of the candle wax into the container.

40 **[0018]** According a second aspect of the invention there is provided a container for candle wax, comprising a base part with a bottom, and a wall extending upwardly from the base portion, which is characterized by a foot portion provided at the base periphery, wherein the foot portion is circumferential at the periphery of the base portion.

45 **[0019]** In a preferred embodiment, the bottom and the

foot portion together with a support on which the container is located define a sealed space. Thanks to this space which is closed when the base part is provided on the support a zone is created between hot candle wax and the support. The space will contain air which has been heated by the incineration of the candle wax. Due to this heated air the candle wax is easily kept hot enough to remain in a liquid state until all candle wax has been consumed.

[0020] In a preferred embodiment the foot portion is shaped as a circular flange extending downwardly and preferably outwardly from the periphery of the base portion. A stable design is thereby achieved.

Brief description of drawings

[0021] The invention is now described, by way of example, with reference to the accompanying drawings, in which:

Fig. 1a shows a section of a first embodiment of a candle container according to the invention, wherein the base part and the wall are provided as a single part,

Fig. 1b shows a plan view of the candle container of Fig. 1a,

Fig. 2a shows a section of a second embodiment of a candle container according to the invention, wherein the base part and the wall are provided as separate parts,

Fig. 2b shows a plan view of the candle container of Fig. 2a,

Fig. 3a shows a section of a third embodiment of a candle container according to the invention, wherein a base part is attached to the bottom of a light lantern,

Fig. 3b shows a plan view of the candle container of Fig. 3a,

Fig. 4a shows a section of a fourth embodiment of a candle container according to the invention, wherein a base part is integrated with a tea light lantern,

Fig. 4b shows a plan view of the candle container of Fig. 4a.

Description of embodiments

[0022] In the following, a detailed description of preferred embodiments of a candle container according to the invention will be given.

[0023] In Figs. 1a and 1b a first embodiment of a candle container, generally designated 101, is shown which comprises a base part 110 and a cylindrical wall 130.

The base part 110 exhibits a circular bottom 112 with slants downwardly to the centre of the bottom, which enables flow of liquefied candle wax to the centre of the bottom. Spacer means in the form of studs 114 are arranged in the centre of the bottom 112, the function of which will be described in more detail below.

[0024] The container has a shape adapted to receive candle wax in the form of an insert 140, shown in dashed lines in the figures. The insert 140 comprises an essentially cylindrical body 142 comprising solidified candle wax, which in a preferred embodiment exhibits one or more vertical channels in the periphery surface of the body. These channels allow air to flow upward from the bottom and prevent remaining air from providing a resistance during the insertion of the body 142 of solidified candle wax. The insert 140 also comprises a centrally located wick 144, which at its lower portion is attached to a disc-shaped wick holder or support 146 made of non-inflammable material, such as steel.

[0025] In order to keep the wick centred or prevent it from flowing upward when all of the candle wax is in liquid state a magnet 116 is attached centrally in the bottom 112 of the base part 110. Through the interaction between the wick support 146 and the magnet 116 the position of the wick support is maintained, also when the container is subjected to impacts or other external influences when all of the candle wax has been liquefied.

[0026] The lower portion of the base part 110 exhibits at its periphery a preferably circumferential foot in the form of a cylindrical foot portion 118, which is shaped as a circular flange extending downwardly from the periphery of the base part 110. By means of this foot portion 118 good friction is obtained between the base part 110 and the support on which the base part is provided, which lessens the risk of inadvertent displacement of the container 101 and thereby accidents. Through the foot portion a sealed space 120 is also created between the bottom 112 and the support on which the base part 110 is provided. Thanks to this space which is sealed when the base part 110 is placed on the support a zone is created between the hot candle wax and the support. This space will contain air which has been heated by the incineration of the candle wax. Thanks to this heated air the entire candle wax is kept sufficiently hot to remain in liquid state until all candle wax has been consumed. The foot portion 110 also creates an insulation which prevents too much heating of the support, which results in lesser risk of fire.

[0027] The base part passes into a cylindrical wall 130, which extends upwardly from the periphery of the base part 110. The wall is at its upper edge provided with a thicker reinforcement 132.

[0028] In this embodiment, the entire container 101, including the base part 110 and the wall 130, is made of an elastic material, such as fireproof rubber. By making this material elastic remains of candle wax can be easily removed before reuse of the container, i.e., before a new insert 140 of candle wax is inserted into the container. This material has also the advantage that its thermal con-

ductivity is low and is aesthetically appealing; it can for example be made in different colours.

[0029] The container 101 for candle wax is used in the following way. An insert 140 of candle wax is placed in the empty container 101. The wick 144 is lighted during use and the heat that is generated successively liquefies the candle wax. Liquefied candle wax is allowed to flow down to the bottom 112 thanks to the channels 142a which are provided in the peripheral surface of the insert, where the liquefied candle wax due to the slanting of the bottom 112 is gathered in the area below the wick which is created by the spacer means 114. The liquefied stearin is there sucked up by the wick and is incinerated.

[0030] When essentially all candle wax had been incinerated, the remains are gathered below the wick, which ensures that essentially all candle wax is consumed. When the light has gone out remaining candle wax, when it has solidified, can easily be removed by pushing from below on the bottom 112 of the container 101. Since the container 101 is made of an elastic material the bottom is deformed, solidified candle wax will come off, where after the container 101 retains its previous shape when the pressure is released.

[0031] A second embodiment of a container for candle wax according to the invention will now be described with reference to Figs. 2a and 2b. Corresponding parts in this embodiment have the same reference numeral as the ones in Figs. 1a and 1b but increased by 100.

[0032] This second embodiment is in several aspects similar to the first embodiment disclosed with reference to Figs. 1a and 1b but with the difference that the wall is a separate part. A container for candle wax, generally designated 201, thus comprises a base part 210 and a cylindrical wall 230. The base part 210 exhibits a circular bottom 212 which slants in the direction of the centre, which allows liquefied candle wax to flow to the centre of the bottom. In the centre of the bottom 212 spacer means in the form of studs 214 are provided, which function in the same way as in the first embodiment.

[0033] The container has a shape adapted for reception of candle wax in the form of an insert 240, which to its shape and function corresponds to the insert 140 described above. A magnet 216 is also in this embodiment attached centrally in the bottom 212 of the base part 210 in order to keep the wick support 246 in place.

[0034] The lower portion of the base part 210 exhibits at its periphery a circumferential foot in the form of a cylindrical foot portion 218, which is shaped like a circular flange which extends downwardly from the periphery of the base part 210 and which, together with the bottom 212 and the support, defines a space 220. The foot portion 218 and the space 220 have the corresponding function as in the first embodiment.

[0035] Also this second embodiment comprises a cylindrical wall 230, which however is provided as a separate part. The wall 230 is preferably made of a rigid material, such as heat resistant plastic. By making it in this material the wall 230 can be made transparent, which

adds to a better light. Furthermore, the plastic can be of different colours, enabling lights of different colours.

[0036] The base part 210 is at its periphery provided with one or more circumferential flanges 222, which make sealing engagement with the inner surface of the cylindrical wall 230 when the wall has been moved over the base part, as shown in Fig. 2a. The engagement between the wall 230 and the base part 210 is further improved by latches 234 in the lower edge of the wall 230 which keep this in place on the base part. It is thus possible to remove the wall 230 from the base part during cleaning, for example. Since the base part 210 is made in an elastic material it is possible to reattach the wall 230 to the base part 210. This also allows for exchangeability if you want to exchange a wall 230 of a colour for a wall of a different colour, for example.

[0037] In other aspects the second embodiment functions as the first embodiment described above.

[0038] A third embodiment of a container according to the invention will now be described with reference to Figs. 3a and 3b. This third embodiment is to a large extent similar to the second embodiment described with reference to Figs. 2a and 2b but with the difference, that the base part is attached to a light lantern or the like, which surrounds the container itself. A container for candle wax, generally designated 301, thus comprises a base part 310 and a cylindrical wall 330. The base part 310 exhibits a circular bottom 312 which slants to the centre, which allows liquefied candle wax to flow to the centre of the bottom. In the centre of the bottom 312 there are provided spacer means in the form of studs 314, which function in the same way as in the first embodiment.

[0039] The base part 310 is attached to the bottom 342 of a light lantern, generally designated 340, which also exhibits a circumferential wall 344. The light lantern can be designed in many different shapes and materials and the shape shown in the figures is only one of many. The light lantern 340 is preferably made of coloured or uncoloured glass, but also other materials are possible.

[0040] The container has a shape adapted for reception of candle wax in the form of an insert (not shown in Figs. 3a and 3b), which to its shape and function corresponds to the insert 240 described above. A magnet 316 is also in this embodiment centrally attached in the bottom 312 of the base part 310 to keep the wick support (not shown) in place.

[0041] The lower portion of the base part 310 exhibits at its periphery a circumferential foot in the form of a cylindrical foot portion 318, which is shaped as a circular flange extending downwardly from the periphery of the base part 310 and which, together with the bottom 312 of the base part 310 and the bottom 342 of the light lantern 340 defines a space 220. The foot portion 318 and the space 320 have the corresponding function as in the first and second embodiments.

[0042] Also this third embodiment comprises a cylindrical wall 330, which as in the second embodiment is provided as a separate, preferably rigid part, made of

heat resistant plastic, for example. By providing the wall 330 in this material it can be made transparent, which adds to a better light function, particularly in combination with a transparent light lantern 340. In Fig. 3a the wall 330 is shown separated from the base part 310, for example just before it is put onto the base part or after it has been removed from the same. Since the wall 330 is removable any remaining candle wax can be reached, which thereby is easily removable before a new insert of candle wax is added.

[0043] The base part 310 is in other aspects designed as the base part 210 of the second embodiment, i.e., with one or more circumferential flanges at the periphery thereof for sealing engagement with the inner surface of the cylindrical wall 330.

[0044] In other aspects the third embodiment operates as the second embodiment described above.

[0045] A fourth embodiment of a container according to the invention will now be described with reference to Figs. 4a and 4b. this fourth embodiment is to a large extent similar to the third embodiment described with reference to Figs. 3a and 3b but with the difference, that the base part and the wall of the container are more integrated with the light lantern or the like, which surrounds the container for candle wax itself. Thus, a container for candle wax, generally designated 401, comprises a base part 410 and a cylindrical wall 430. The base part 410 exhibits a circular bottom 412 which slants towards the centre, which allows liquefied candle wax to flow to the centre of the bottom. In the centre of the bottom 412 there are spacer means provided in the form of studs 414, which function in the same way as those of the previous embodiments.

[0046] The base part 410 is integrated with the wall 444 of a light lantern, generally designated 440. The light lantern may be designed in many different shapes and materials and the shape shown in the figures is just one of many possible.

[0047] The container has a shape adapted for reception of candle wax in the form of an insert (not shown in Figs. 4a and 4b), which to its shape and function corresponds to the above described insert 240. Also in this embodiment a magnet 416 is attached centrally in the bottom 412 of the base part 410 to keep the wick support (not shown) in place.

[0048] The lower portion of the base part 410 is at its periphery integrated with the wall 444 of the light lantern 440 and forms a circumferential foot in the form of a cylindrical foot portion 418, which is designed as a circular flange extending downwardly and outwardly from the periphery of the base part 410. The foot portion 418 forms, together with the bottom 412 and the support on which the container is placed, a space 420. The foot portion 418 and the space 420 have corresponding functions as in the above described embodiments.

[0049] Also this fourth embodiment comprises a cylindrical wall 430, which as in the first embodiment is integrated with the base part 410. In this embodiment the

entire container, including the light lantern, be made of an elastic material, such as silicone, or in a rigid material, such as heat resistant glass.

[0050] In other aspects this fourth embodiment functions as the above described embodiments.

[0051] Preferred embodiments of a container for candle wax have been described. It will be realized that these can be modified within the scope of the appended claims without departing from the inventive idea. Thus, the features of the different embodiments can be combined unless this is prevented of practical reasons.

Claims

1. A container for candle wax, comprising a base part (210; 310) with a bottom (212; 312), and a preferably cylinder-shaped wall (230; 330) extending upwardly from the base part, **characterized in that** the base part and the wall are provided as separate parts.
2. The container for candle wax according to claim 1, wherein the wall (230; 330) is made of a rigid material, preferably heat resistant plastic.
3. The container for candle wax according to claim 1 or 2, wherein the wall (230; 330) is transparent.
4. The container for candle wax according to any one of claims 1-3, wherein the base part (110; 210; 310, 410) is made of an elastic material, preferably fire-proof silicone.
5. The container for candle wax according to any one of claims 1-4, wherein the base part (210) at its periphery is provided with one or more circumferential flanges (222) which are adapted to make sealing engagement with the inner surface of the cylindrical wall (230).
6. The container for candle wax according to any one of claims 1-5, wherein the wall (230) exhibits latches (234) at the lower edge of the wall adapted to hold the wall in place on the base part (210).
7. The container for candle wax according to any one of claims 1-6, wherein the bottom (212; 312) is circular and slopes downwardly towards the centre of the bottom.
8. The container for candle wax according to any one of claims 1-7, comprising a foot portion (218; 318) provided at the periphery of the base part (210; 310).
9. The container for candle wax according to any one of claims 1-8, comprising spacer means in the form

of studs (214; 314) arranged in the centre of the bottom (212; 312).

10. The container for candle wax according to any one of claims 1-9, comprising a magnet (216; 316) attached centrally in the bottom (212; 312) of the base part (210; 310). 5

11. The container for candle wax according to any one of claims 1-10, comprising candle wax in the form of an insert (240) having a body (242) of solidified candle wax, which preferably has one or more vertical channels in periphery surface of the body, a wick (244), and a wick support (246). 10
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12. A container for candle wax, comprising
a base part (110; 210; 310, 410) with a bottom (112; 212; 312; 412), and
a wall (130; 230; 330; 430) extending upwardly from the base part, **characterized by** 20
a foot portion (118; 218; 318; 418) provided at the periphery of the base (110; 210; 310, 410), wherein the foot portion (118; 218; 318; 418) is circumferential at the periphery of the base portion (110; 210; 310, 410). 25

13. The container for candle wax according to claim 12, wherein the bottom (112; 212; 312; 412) and the foot portion (118; 218; 318; 418) together with a support on which the container is located define a sealed space (120; 220; 320; 420). 30

14. The container for candle wax according to any one of claims 12 and 13, wherein the foot portion (418) is shaped as a circular flange extending downwardly and preferably outwardly from the periphery of the base part (410). 35

15. The container for candle wax according to any one of claims 12-14, wherein the base part (110; 210; 310; 410) is made of an elastic material, preferably fireproof silicone. 40
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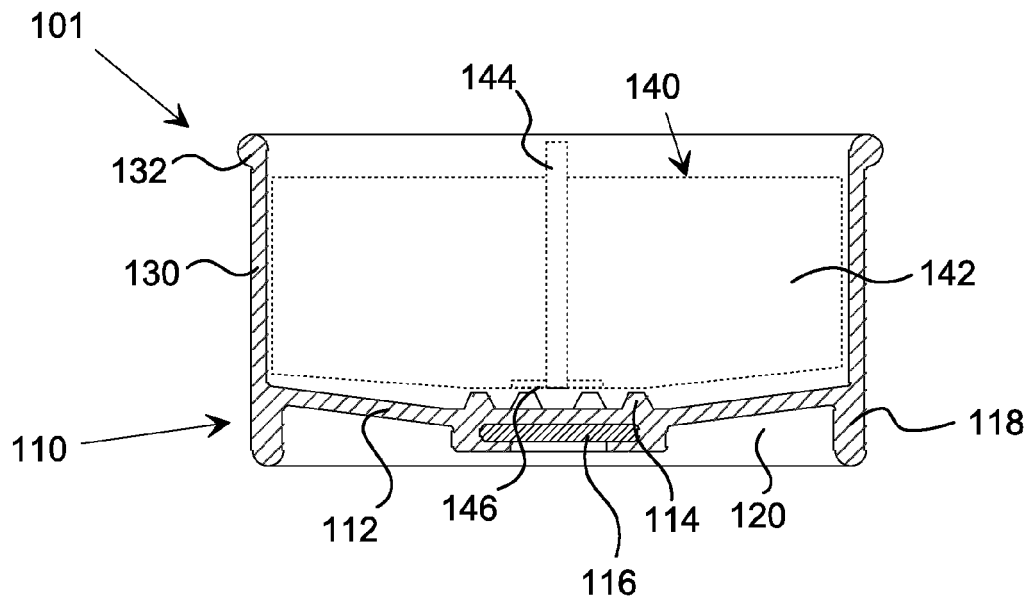


Fig. 1a

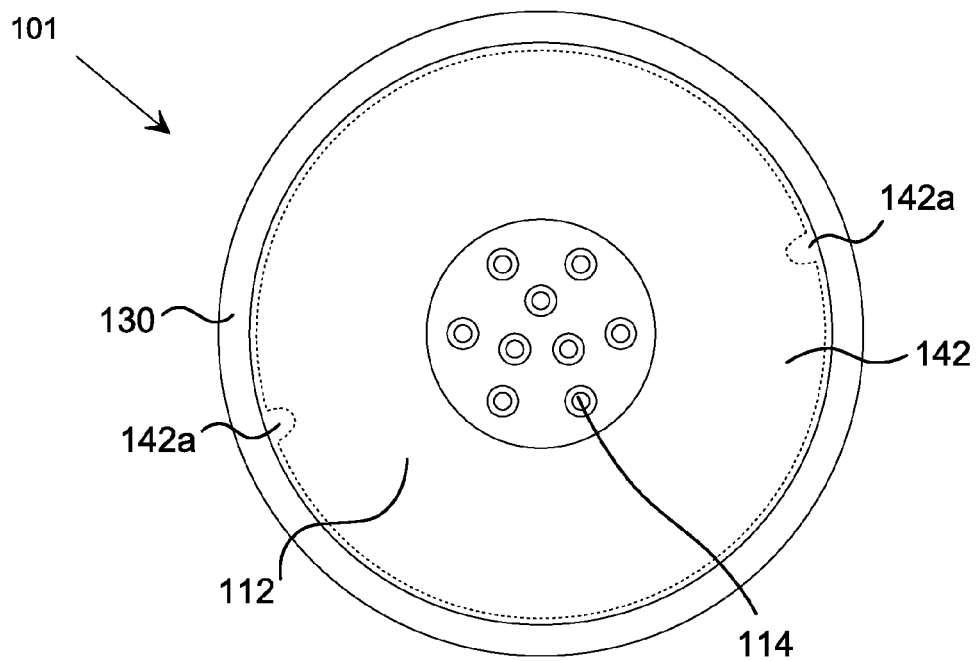


Fig. 1b

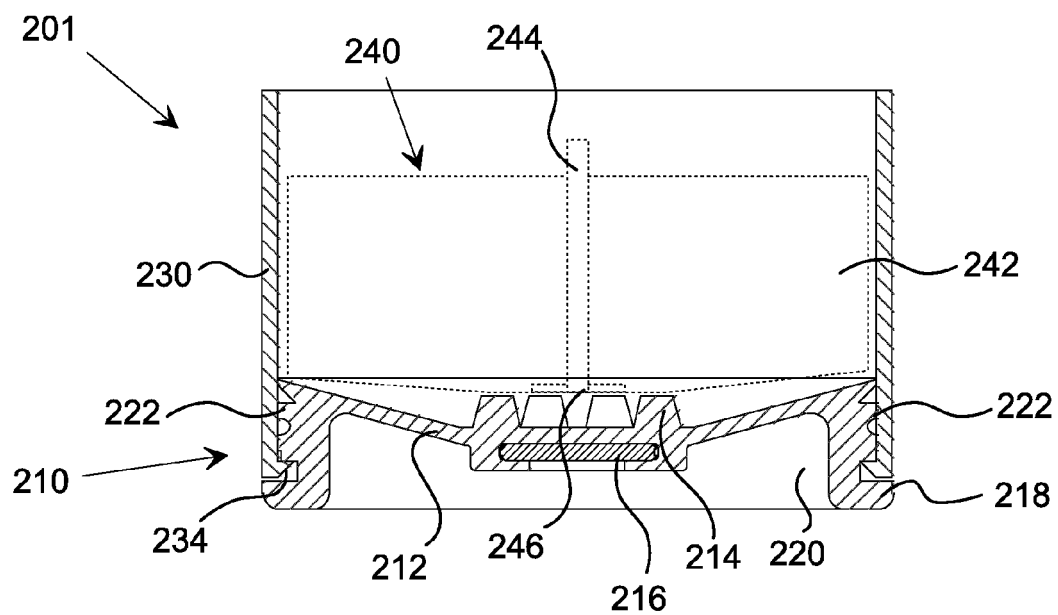


Fig. 2a

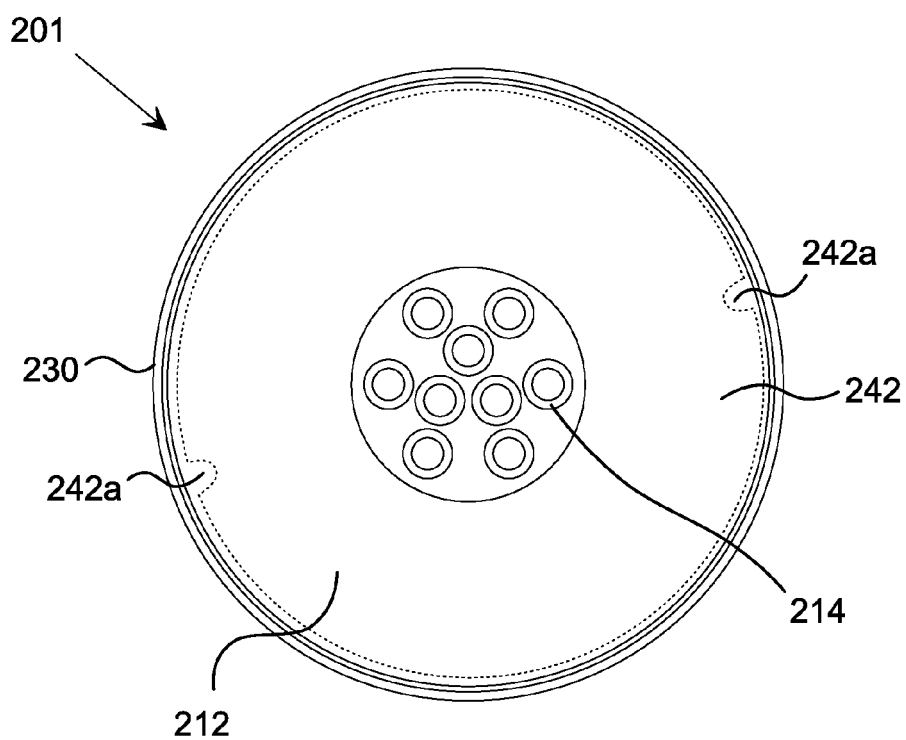


Fig. 2b

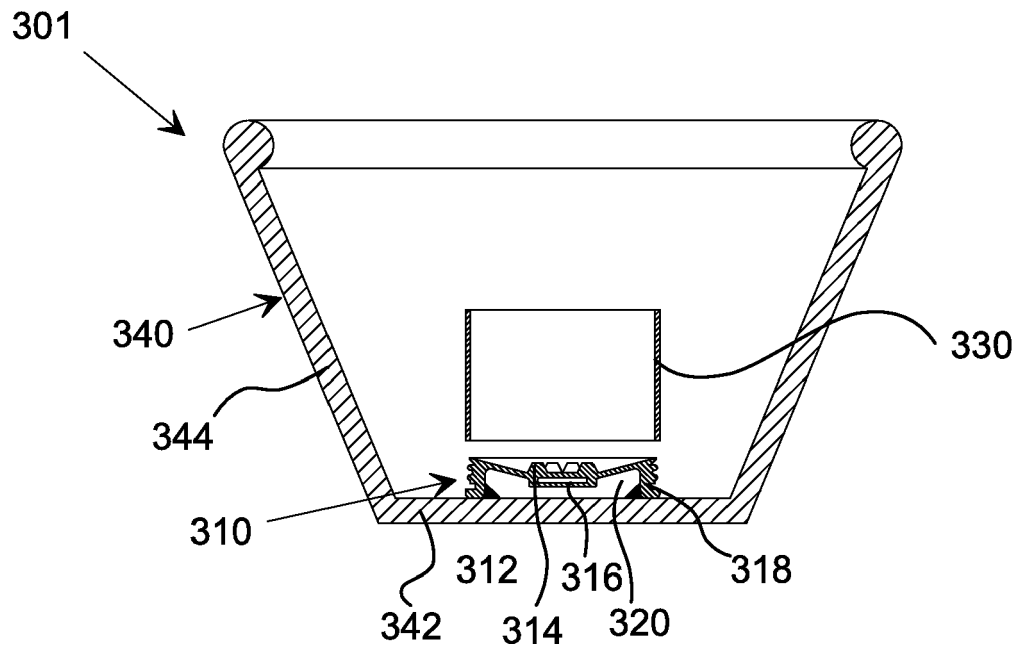


Fig. 3a

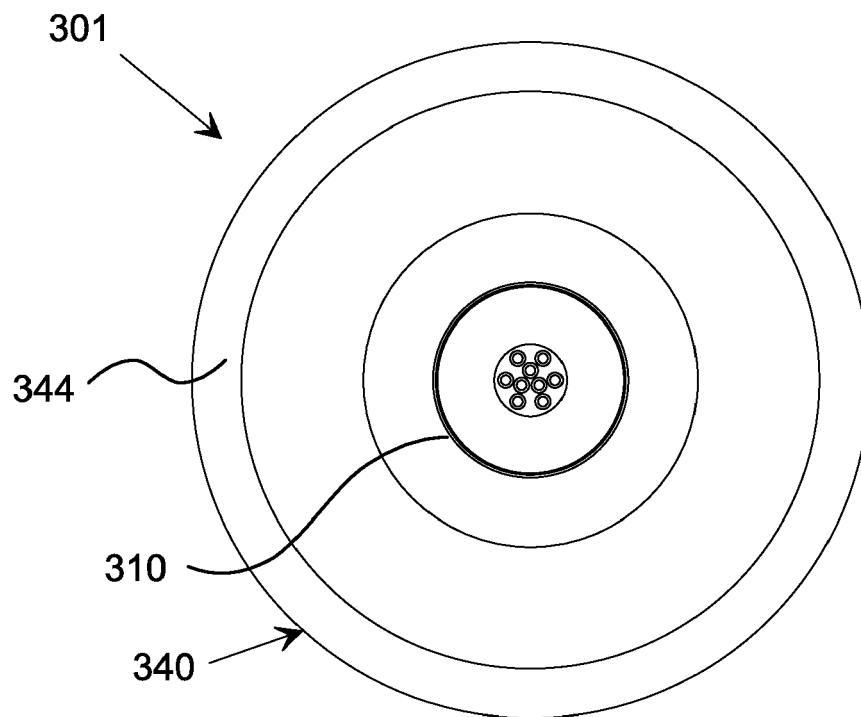


Fig. 3b

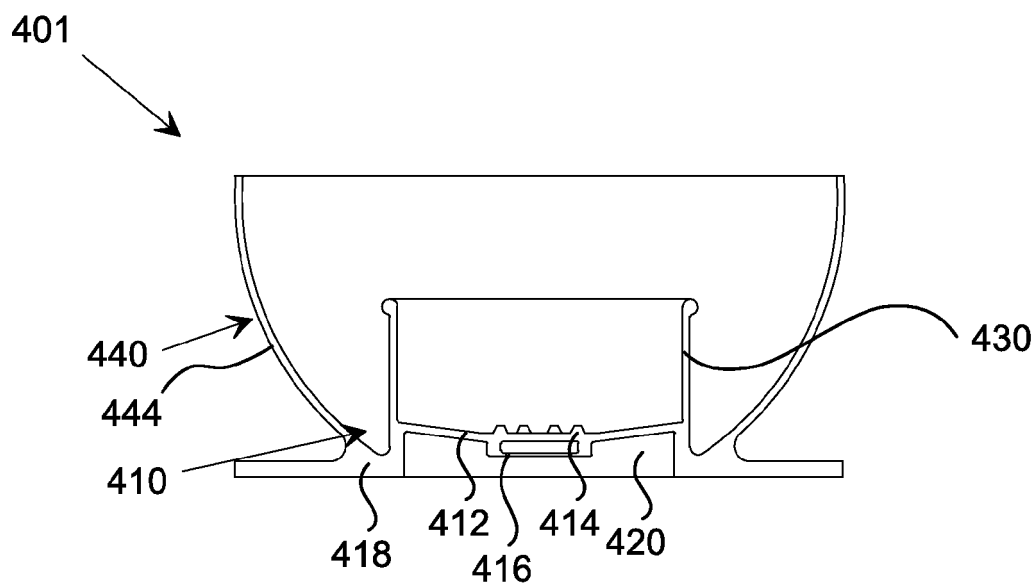


Fig. 4a

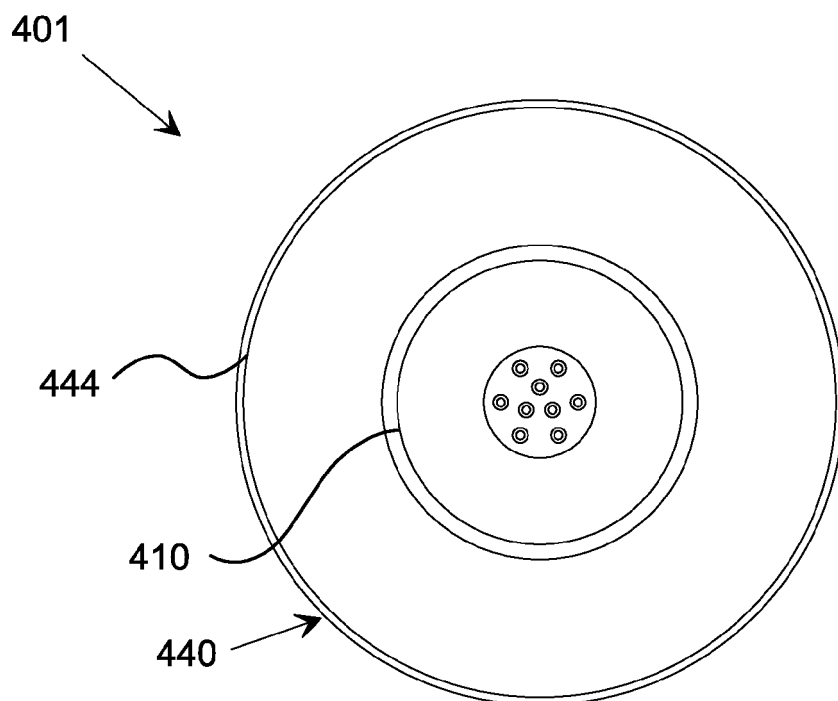


Fig. 4b