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(54) **Package for a smokeless tobacco product and method**

(57) The present invention relates to a package for a smokeless tobacco product comprising a can, a cap and a lid, wherein the cap is provided with a top cover having at least one access opening to a storage space, wherein the lid is configured to close the at least one access opening in the cap and swivelable about a central axis of rotation, which projects substantially perpendicularly to a plane of the access opening. The invention also relates to a method of manufacturing the package.

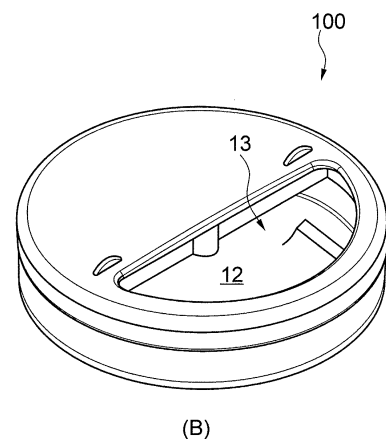
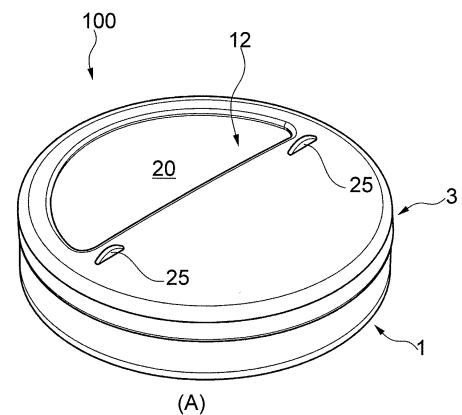


Fig. 2

Description

FIELD OF THE INVENTION

[0001] The invention relates to a package for a smokeless tobacco product and a method of manufacturing a package for a smokeless tobacco product.

BACKGROUND

[0002] A variety of different tobacco products is offered on the market and there is a class of goods which does not require combustion of the tobacco but is intended for oral administration, i.e. smokeless tobacco products. Examples are chewing tobacco, smokeless snuff and in particular so called "snus". Snus is a smokeless tobacco product which is provided in loose form or in individually wrapped pouches. Moist tobacco products like snus are particularly sensitive to environmental impacts such as changes in temperature or humidity. In order to provide a product which retains freshness and which is protected against negative environmental impact on the product performance, smokeless tobacco products are delivered in substantially air tight packages.

[0003] A typical package, for example for snus, is a substantially cylindrical can or container which is made from metal or a resilient plastic material. An attractively designed and durable package further protecting the smokeless tobacco product against environmental impact may be provided. SUMMARY

[0004] It is an object of the invention to provide a pack which allows the consumer to easily access the desired amount of the smokeless tobacco product without or minimum interference with the remaining products in the pack thereby providing hygienic advantages.

[0005] In one aspect of the invention, a package for a smokeless tobacco product is provided. The package comprises a can and a cap, wherein the cap comprises a top cover. At least one access opening to the storage space is provided in the top cover of the cap. A lid for closing the at least one access opening in the top cover of the cap is swivelable (rotatable, pivotable) about a central axis of rotation.

[0006] The axis of rotation is substantially perpendicular to a plane of the access opening. Furthermore, the axis of rotation is located in the center of the top cover of the lid and the top cover of the cap. The axis of rotation can only be the virtual axis of rotation of the lid around which the lid can be rotated. However, the axis can also be a real axis, like a stud or the like that extends perpendicular to the plane of the lid.

[0007] In other words, the package according to aspects of the invention advantageously comprises at least three portions: a can, a cap and a lid. The smokeless tobacco product, as for example snus, can substantially be arranged in the can. The cap is coupled to the can (cap and can may also be referred to as can portion and cap portion). The cap covers the storage space provided

by the can. However, there is at least one opening in the cap through which the smokeless tobacco product can be grabbed by a customer. In other words, the cap serves to cover and complete the inner storage space provided by the can and the cap except for one or more access openings in the top cover of the cap. The lid is arranged on top of the cap. The lid can be turned or rotated in order to open and close the package. Similar to the cap, there is also an access opening in the lid. If the access opening in the lid and access opening in the cap coincide (or at least sufficiently overlap), the consumer can access the storage space inside the package through both access openings, the one in the lid, and the one in the cap. This is referred to as the open position. The package can then be closed by turning the lid into the closed position, in which the lid covers the access opening in the top cover of the cap.

[0008] The top cover of the cap can be substantially flat. The top cover of the lid can also be substantially flat. The top cover of the cap and/or the top cover of the lid can both have any shape (i.e. they can be circular, polygonal, triangular, rectangular, oval etc.) under the condition that the lid can still be rotated with respect to the cap.

[0009] The top cover of the cap can be substantially disc-shaped. The top cover of the lid can also be substantially disc-shaped. Generally, the top cover of the cap is only partially omitted (i.e. there is always a portion in which the top cover of the cap is not present) to provide an access opening to the smokeless tobacco product.

[0010] In an advantageous embodiment, the top cover of the cap has at least a closed section that has the size of an access opening of the lid. This aspect allows the package to be closed by rotating the access opening of the top cover of the lid over the closed section of the cap.

[0011] In another embodiment, only equal to or less than half ($\leq 50\%$) of the top cover of the cap is omitted for providing the access opening. Likewise, equal to or less than half ($\leq 50\%$) of the top cover of the lid can be omitted for the access opening in the lid.

[0012] If the lid comprises at least a top cover which is substantially flat and/or disc-shaped, the package can be configured to be opened and closed by holding one or more fingers on the top side of the top cover of the lid and rotating the lid and/or the cap (together with the can) with respect to each other.

[0013] The cap can also be substantially cylindrically shaped. This means that a lateral cylindrical wall extends from the flat and/or disc-shaped top cover of the cap. The length (or height) of this lateral wall can be short and mainly serve to provide coupling or fixing means for fixing the cap to the can.

[0014] In an aspect of the invention, the lid can also be substantially cylindrically shaped such that the lid comprises a disc-shaped top cover and a lateral wall encompassing the lateral wall of the cap. In other words, the lid can have a cylindrical lateral wall that encompasses a cylindrical lateral wall of the cap. The package can then

be configured to be opened and closed by holding the outer surface of the side wall of the lid between two fingers and rotating the lid and/or the cap (together with the can) with respect to each other.

[0015] The lid can be coupled to the cap and/or the can by a central axis or stud around which the lid and the cap (together with the can) may be rotated for opening and closing the package.

[0016] However, in another embodiment, the lateral wall of the cylindrical shaped lid can be configured to engage with the cap or can in order to remain coupled to the cap or can while still allowing rotation. The coupling mechanism between the lid and the cap or can may comprise circumferential protrusions and corresponding circumferential notches along the outer or inner surfaces of the respective lateral walls of the lid and the cap and/or can.

[0017] The disc-shaped top cover of the lid can have at least one closed section and at least one open section. The open section comprises an access opening for providing access to the smokeless tobacco product.

[0018] The closed and open section or sections of the disc-shaped top cover of the lid can be substantially formed as circular sectors and/or circular segments. However, especially the access opening (or open sections) may have other shapes. The access opening or access openings can be rectangular, triangular or have the shape of a polygon.

[0019] According to an aspect of the invention, an additional compartment (for example waste compartment) can be arranged in the bottom of the can. The additional compartment (for example waste compartment) can be a depression in the bottom wall of the can. The used smokeless tobacco product can then be placed in the additional compartment in the bottom. A further lid may be provided for opening and closing the additional compartment in the bottom of the can. The additional compartment can then be reached through the rear side of the package, i.e. the lid for the additional compartment is at the opposite of the package than the lid for closing and opening the access opening in the cap.

[0020] According to an aspect of the invention, the additional compartment (for example waste compartment) can be arranged in the top cover of the cap. The additional compartment can serve to accommodate used smokeless tobacco product (for example used snus).

[0021] The additional compartment (for example waste compartment) is advantageously configured as a depression in the top cover of the cap.

[0022] The package can further comprise a latching mechanism between the lid and the cap. This latching mechanism can serve to hold the lid in a specific position.

[0023] The latching mechanism can comprise at least one surface protuberance (small knuckle or bump) on the top cover of the cap or on the inner surface of the disc-shaped top cover of the lid. Any protuberance can advantageously interact with a respective recess in the respective opposite part by engaging with a recess.

[0024] The latching mechanism can be configured to keep the lid at least in one open position and at least one closed position of the access opening.

[0025] The latching mechanism can be configured to provide higher resistance when the lid is rotated towards opening the additional compartment (for example waste compartment) than towards opening the access opening. In this aspect of the invention, the protuberance(s) and respective recesses can be larger or have a specific shape such that more force is needed to turn the lid in a position in which the additional compartment is accessible.

[0026] The top cover of the cap can comprise a plurality of sections. These sections can be configured as circular sectors or circular segment. There can be two closed flat sections, one additional compartment section with a depression and one access opening section for accessing the smokeless tobacco product.

[0027] Either one or all of the closed sections, additional compartment section and access opening section can be circular sectors and/or circular segments.

[0028] Likewise, the disc-shaped top cover of the lid can comprise at least two sections. These sections can be configured as circular sectors or circular segments.

[0029] There can be at least one closed flat section and an access opening section for accessing the smokeless tobacco product through the access opening in the lid and the access opening in the top cover of the cap. Either one or all of the sections can be circular sectors and/or circular segments.

[0030] In the present context a circular sector (or circle sector) is the portion of a disc (circle) enclosed by two radii and an arc. The central angle is the angle between the two radii enclosing the sector. A sector with the central angle of 180° is a semicircle. Sectors with other central angles are referred to as quadrants (90°), sextants (60°) and octants (45°).

[0031] In the context of this specification, the term circular sector/section relates to the partitioning (dimensioning) of the areas of the top cover of the cap and the top cover of the lid. For example, the access opening section of the top cover of the cap or the lid is the section in which the opening section is located. The access opening would then basically be in the centre of this section. The same applies to the additional compartment (for example waste compartment) section. The additional compartment is considered to be basically located in the center of the additional compartment section. However, neither does the additional compartment itself necessarily occupy the entire additional compartment section, nor does the access opening necessarily occupy the entire access opening section. According to aspects of the invention, there is typically a certain frame or border around the access opening and around the additional compartment. This frame or border is also considered part of the respective section. In particular, the depression for the additional compartment needs a certain frame for providing a smooth and stable transition between the de-

pression and the access opening.

[0032] In view of the above definitions, the central angle of the access opening section of the lid may be 90°, 120°, 180° or 270°.

[0033] In view of the above definitions, the central angle of at least one closed section of the lid may be 90°, 120°, 180° or 270°.

[0034] The central angle of at least one access opening section of the cap may also be 90°, 120°, 180° or 270°.

[0035] The central angle of at least one closed section of the cap may be 90°, 120°, 180° or 270°.

[0036] In an embodiment, the closed flat section, the access opening section and the additional compartment section in the top cover of the cap, all have a central angle of 120°. In this embodiment, the closed flat section in the top cover of the lid may have a central angle of around 240° and the access opening section in the top cover of the lid may have a central angle of 120°.

[0037] In an embodiment, each section (for example the two closed flat sections, one additional compartment section with the depression and an access opening section) of the top cover of the cap may substantially occupy one quadrant (all having a central angle of 90°).

[0038] At least one of the closed sections of the top cover of the cap can have at least the same area and shape as the access opening in the top cover of the lid in order to allow closing the package.

[0039] In an embodiment, the diameter of the can is about 30 mm to 120 mm, preferably 40 mm to 90 mm, more preferably 50 mm to 80 mm. The diameter of the top cover can then also be in the range of 30 mm to 120 mm, preferably 40 mm to 90 mm, more preferably 50 mm to 80 mm. The height of the can, i.e. the space for accommodating the smokeless tobacco product is about 12 mm to 50 mm, preferably 15 mm to 35 mm. These dimensions are advantageously applicable to all embodiments of this invention.

[0040] The can and the cap can be fixed to each other and/or can engage with each other. This simplifies manufacturing. The cap can engage with the can on the inside of the can or the cap can engage with the can on an outer surface of the can. In other words, the lateral wall of the cap may circumferentially encompass the lateral wall of the can, or, alternatively, the lateral wall of the can may circumferentially encompass the lateral wall of the cap. The connection or coupling between the can and the cap may then be provided in the area where the two lateral walls overlap. Alternatively or additionally to the protrusions and notches, the can and the cap can also be glued to each other or welded to each other.

[0041] Furthermore, any access opening (either in the lid or in the cap) may be sealed using a transparent foil. The transparent sealing allows a visual inspection of the content, for example the snus pouches. This may be advantageous for optical quality assurance during production and storage or may allow a customer to visually inspect the tobacco product prior to purchase. The foil also serves to preserve humidity and/or flavor of the smoke-

less tobacco product.

[0042] The can and/or the cap may comprise at least one inner wall that projects into the storage space for the smokeless tobacco product. The one or more inner walls are advantageously used to separate inner compartments, for example for different types or flavors of the smokeless tobacco product or for separating compartments with different purposes.

[0043] According to an aspect of the invention, the package comprises an inner lid between the lid and the cap. This inner lid mainly serves for two purposes: providing that the package can always be closed and providing that the inner side of the top cover of the lid that covers the additional compartment in the cap never covers the access opening in the cap where the fresh smokeless tobacco product is located, i.e. the inner lid serves to ensure that the fresh smokeless tobacco product is kept clean (hygienic reasons).

[0044] The inner lid can be substantially disc-shaped and can comprises an access opening section and a closed section. The closed section of the inner lid can have at least the shape and size of an access opening section of the lid. Accordingly, the inner lid can be used to close the access opening in the lid, in particular if the closed section in the cap is not large enough to entirely cover the access opening in the lid.

[0045] The inner lid can advantageously be configured to be rotated about the central axis of rotation, in particular the same axis of rotation about which the lid (the outer lid) can be rotated.

[0046] The inner lid can have a grip or protrusion configured to engage with an edge of the access opening the lid thereby limiting the maximum angle of rotation with respect to the lid. According to this aspect, the inner lid is limited in the angle of rotation about the central axis of rotation which can be advantageous for hygienic aspects and can also simplify the handling of the package.

[0047] Furthermore, also the lid can be configured to have only a limited angle of rotation. This can also be useful for hygienic aspects or for simplifying the handling of the package. The limited angle of rotation provides that the lid can be rotated by 360° or more.

[0048] In another embodiment, the inner lid can also be configured to substantially cover the additional compartment in the cap. It may then not be disc-shaped. The inner lid may then comprise a top cover that has the shape of a circle segment. The inner lid can have a part the can be coupled to the cap to provide a hinge about which the inner lid can be swiveled. In other words, the inner lid can be hingedly connected to the cap. The inner lid can be dimensioned and shaped such that it can only be opened when the access opening in the lid coincides substantially entirely with the inner lid. This prevents unintended opening of the additional compartment. In this embodiment, the package may have a blocking mechanism which prevents that the lid is rotated over the open additional compartment when the inner lid is open.

[0049] The package can further comprise an additional

top cap that is completely closed (without opening) and can be placed above the lid. This additional cap can be used when the package is sold and removed by the consumer when the package is opened for the first time.

[0050] The invention also provides a method of manufacturing a package for a smokeless tobacco product. Accordingly a can, a cap and a lid are manufactured in accordance with the aspects and embodiments of the invention set out above. The top cover of the cap has at least one access opening. The lid is configured to be rotatable with respect to the cap. The top cover of the lid has an access opening. The can, the cap and the lid are then assembled (coupled to each other) to form the package.

[0051] According to an aspect of the invention, at least one closed section of the cap can be dimensioned to have at least the size of an access opening in the lid. This ensures that the package can always be entirely closed.

[0052] Furthermore, a depression can be formed in the top cover of the cap which is configured to serve as a additional compartment for the smokeless tobacco product. This is advantageous as the cap can be manufactured in a single molding step. Advantageously, the can, the cap and/or the lid are manufactured by molding.

[0053] Other aspects of the method of manufacturing the package derive from the above and below description of the package according to the invention.

BRIEF DESCRIPTION OF DRAWINGS

[0054] Further aspects and characteristics of the invention ensue from the following description of the preferred embodiments of the invention with reference to the accompanying drawings, wherein

FIG. 1A and 1B are two simplified perspective explosion views showing the package 100 according to the same embodiment of the invention;

FIGs 2A and 2B are simplified perspective views showing the package shown in FIG. 1 in an assembled state;

FIGs 3A and 3B show further simplified perspective views of the embodiment of FIGs 1 and 2;

FIG. 4 shows another simplified perspective view of the package 100 shown in FIGs 1 to 3 in more detail;

FIG. 5 is a simplified top view on the top cover 8 of a cap 2 according to aspects of the invention which serves to illustrate aspects of the invention;

FIG. 6 shows a simplified top view on the top cover 10 of the lid 3 which also serves to illustrate aspects of the invention;

FIGs 7A and 7B show simplified perspective explosion views of another embodiment of the invention;

FIGs 8A, 8B and 8C show the different states of the package 100 of the embodiment shown in FIG. 7;

FIGs 9A and 9B show further simplified perspective views of the embodiment of FIGs 7 and 8;

FIG. 10 shows another simplified perspective view of the package 100 shown in FIGs 7 to 9 in more detail;

FIGs 11A and 11B are two simplified perspective explosion views of another embodiment of the invention;

FIGs 12A to 12D show perspective views of the package 100 according to the embodiments of FIG. 11;

FIG. 13 shows perspective explosion views of another embodiment of the invention;

FIGs 14A to 14D show perspective views of the four different positions of the lid 3 and the inner lid 24 according to the embodiment shown in FIG. 13;

FIGs 15A and 15B are simplified perspective explosion views of still another embodiment of the invention;

FIG. 16A to 16D show the different positions or states of the package 100 shown in FIG. 15;

FIGs 17A and 17B show further simplified perspective views of the embodiment of FIGs 15 and 16, and

FIG 18 shows another simplified perspective view of the package 100 shown in FIGs 15 to 17 in more detail.

DETAILED DESCRIPTION OF AN EXAMPLE EMBODIMENT

[0055] FIG. 1A and 1B are two simplified perspective explosion views showing the package 100 according to the same embodiment of the invention. The package 100 for a smokeless tobacco product comprises a can 1, a cap 2 and a lid 3.

[0056] The smokeless tobacco product can be, so called "snus", which is a smokeless tobacco product wrapped in individual pouches for oral administration. However, the package comprising the can 1, the cap 2 and the lid 3, according to this embodiment of the invention, is also suitable for any other smokeless tobacco product such as chewing tobacco, smokeless snuff, dissolvable films etc.

[0057] The diameter of the assembled package 100 is

30 mm to 120 mm, preferably 40 mm to 90 mm, more preferably 50 mm to 80 mm. The height of the package 2 is about 12 mm to 50 mm, preferably 15 mm to 35 mm. These dimensions are advantageously applicable to all embodiments of the invention.

[0058] Preferably, the can 1 has a substantially cylindrical shape. The can 1 may be manufactured using a metal or a rigid synthetic material. Preferably, the can 1 is an injection molded part of PP (polypropylene) or ABS (acrylonitrile butadiene styrene copolymer). The can 1 comprises a bottom wall 21 and a lateral wall 5, which projects substantially perpendicular to the bottom wall. The bottom wall 21 and the lateral wall 5 surround an interior space 6, which serves to accommodate the smokeless tobacco product. The lateral wall 5 of the can 1 comprises an upper rim 7 which is a free end of the lateral wall 5. The free end is averted from the bottom wall. An outer surface of the lateral wall 5 may be provided with an appealing design or with an embossing to simplify handling of the package for the smokeless tobacco product.

[0059] The diameter d1 of the can 6 is about 30 mm to 120 mm, preferably 40 mm to 90 mm, more preferably 50 mm to 80 mm. The height h1 of the can 6 is about 10 mm to 50 mm, preferably 15 to 30 mm. These dimensions are advantageously applicable to all embodiments of this invention.

[0060] The cap 2 comprises a top cover 8. The top cover 8 is substantially disc-shaped. The top cover 8 may be manufactured from a synthetic material. For example, a transparent or opaque plastic material which is based on one or more polyolefins such as polyethylene or polypropylene (PP) may be applied. The top cover 8 may be an injection molded part of PP, ABS or any other suitable synthetic material. Advantageously, the used materials may be recyclable or degradable (preferably biodegradable), as for example cardboard, paper etc with or without a coating of plastic or metal or the like. However, other materials, such as metal may be applied for manufacturing the top cover 8.

[0061] The cap 2 comprises a lateral wall 9. The height of the cap is h2. The diameter d2 of the cap 2 can be about the same as the diameter d1 of the can. The height h2 of the cap 2 can be smaller than the height h1 of the can.

[0062] The lateral wall 9 of the cap and the lateral wall 5 of the can 1 can be coupled to each other. The coupling provides that the can 1 and the cap 2 cannot rotate with respect to each other. The cap 2 and the can 1 are then configured to be joined with each other. The lower end of the lateral wall 9 of the cap 2 can engage with the upper end of the lateral wall 5 of the can. The lower end of the lateral wall 9 of the cap 2 may either be located inside the upper end of the lateral wall 5 of the can 1 or outside (in this embodiment inside). In other words, the diameter of the upper end of the lateral wall 5 of the can 1 may be a little bit smaller than the diameter of the lower end of the lateral wall 9 of the cap 2 such that the lateral

wall 9 of the cap 2 circumferentially encompasses the lateral wall 5 of the can 1. In another embodiment the diameter of the upper end of the lateral wall 5 of the can 1 may be a little bit greater than the diameter of the lower end of the lateral wall 9 of the cap 2 such that the lateral wall 5 of the can 1 circumferentially encompasses the lateral wall 9 of the cap 2.

[0063] There may be a frictional connection between the cap 2 and the can 1 due to mechanic friction between the outer surfaces of the lateral walls 5 and 9. However, the can 1 and the cap 2 may also be glued or joined together in a different way.

[0064] The lid 3 is also substantially cylindrically shaped. The lid 3 comprises a top cover 10 which is substantially disc-shaped and a lateral wall 11 of a height h3. The diameter d3 of the lid 3 is about 30 mm to 120 mm, preferably 40 mm to 90 mm, more preferably 50 mm to 80 mm.

[0065] The diameter d2 of the cap 2 can then be slightly smaller so that the lateral wall 11 of the lid 3 can encompass (overlap or cover) the lateral wall 9 of the cap 2. The thickness of the lateral walls 5, 9 and 11 can range from less than a millimeter to several millimeters. These dimensions are advantageously applicable (with or without some modifications dependent on the specific design) to all embodiments of this invention.

[0066] The storage space 6 inside the can 1 is accessible via an access opening 12 in the top cover 8 of the cap 2 and an access opening 13 in the top cover of the lid 3. If the access openings 12 and 13 coincide, i.e. if the customer rotates the lid 3 in the right position (open position), the customer has access to the smokeless tobacco product in the storage space 6.

[0067] The lid 3 has a closed section 19. The cap has a closed section 20. If the access opening of the lid 3 coincides with the closed section 20 of the cap 2, the package is in a closed state.

[0068] The access opening 12 can be sealed or closed using a transparent sheet or foil. This transparent "window" may be useful for quality inspection of the smokeless tobacco product. Furthermore, a customer may visually inspect, for example the snus pouches, prior to purchase. The access opening 12 can be closed by turning the lid 3.

[0069] The lid 3 and the cap 2 can be coupled to each other in a manner still allowing rotation of the lid 3 with respect to the cap.

[0070] The lid is pivotable around a central axis of rotation H1, wherein the axis H1 is substantially perpendicular to a plane of the top cover 8 of the cap 2 and to a plane of the top cover 10 of the lid 3. The possible rotation of the lid 3 is illustrated by arrows in the drawing. Furthermore, the outer surface of the lateral wall 11 of the lid 3 may be configured to facilitate the opening and closing. Signs like arrows or other indicators may be provided on the lid 3 and/or the cap 2 and/or the can 1 in order to inform the consumer as to how to open and close the package.

[0071] There is a stud 22 that protrudes from the inner side of the lid 3. The stud 22 is perpendicular to the plane of the top cover 10 of the lid 3. The stud 22 serves as rotating axis. The stud fits into a corresponding opening 23 in the center of the cap 2.

[0072] Alternatively, a lower rim of the lateral wall 11 of the lid 3 can engage with lateral wall 9 of the cap. The lid 3 can be coupled to the cap 2 using a snap fit connection. For example, there is a protrusion at the lateral wall 9 of the cap 2 which fits in a suitable notch in lateral wall 11 of the lid 3 or vice versa.

[0073] The packages for a smokeless tobacco product according to the above referenced embodiments may be substantially cylindrical.

[0074] FIGs 2A and 2B are simplified perspective views showing the package shown in FIG. 1 in an assembled state. This is the configuration in which the package is sold and used by the customer. FIG. 2A shows the closed state in which the opening 13 of the lid 3 is in a position in which it entirely coincides with the closed section 20 of the cap 2. There are further small grips or protrusions 25 on the top side of the top cover 10 of the lid 3 for simplifying the rotation of the lid 3. FIG. 2B shows the package 100 of this embodiment in an open state. In the open state the access opening 13 in the lid 3 coincides with the opening 12 of the cap 2. In the open position, it is possible for the customer to grab the smokeless tobacco product in the storage space 6 of the can.

[0075] FIGs 3A and 3B show further simplified perspective views of the embodiment of FIGs 1 and 2. FIG. 3B is a perspective cross sectional view of the package 100 along plane A-A indicated in FIG. 3A. In FIG. 3, the package 100 is in a closed state. It is apparent that the access opening 13 of the lid 3 coincides with the closed section 20 of the cap 2.

[0076] The cap 2 has a hook-shaped circumferential protrusion 15 along its lateral wall 9 that cooperates (engages) with a corresponding circumferential notch 16 on an inner side of the lateral wall 5 of the can 1 in order to keep the cap 2 and the can 1 together. This is an advantageous way of fixing the can 1 and the cap 2 to each other.

[0077] FIG. 4 shows another simplified perspective view of the package 100 shown in FIGs 1 to 3 in which some more details are made visible. The package 100 has a latching mechanism between the lid 3 and the cap 2. This latching mechanism serves to hold the lid 3 in one or more specific positions. In this embodiment, the latching mechanism comprises two surface protuberances on the top cover of the cap (or on the inner surface of disc-shaped top cover of the lid in a possible other embodiment which is not shown here). Each such protuberance 17 can interact with a respective recess in the respective opposite part, when the lid is rotated around the axis of rotation H1.

[0078] The small recesses or notches 18, which interact with the protuberances 17 provided on the top cover 8 of the cap 2, are shown in the enlarged views "Detail

A" and "Detail B". The latching mechanism can be configured to keep the lid 3 at least in one open position and at least in one closed position of the access opening. Accordingly there are two pairs of protuberances and corresponding notches in this embodiment (this embodiment is also referred to as semicircle-embodiment as explained below). In this embodiment, an additional compartment (for example waste compartment) may be arranged on the rear side of the can 1, for example in form of a depression in the bottom wall 21 of the can 1. The depression may be closed by a separate additional lid.

[0079] FIG. 5 is a simplified top view on the top cover 8 of a cap 2 according to aspects of the invention which serves to illustrate aspects of the invention. The top cover 8 has different sections, which are referred to as closed sections S1 and S3, a section S2 with the access opening 12 and a further section S4 that includes the depression for the additional compartment (for example waste compartment) 14. In this embodiment, each section S1 to S4 is basically a circular sector. In this embodiment the four circular sectors are quadrants having basically all the same central angle ($\alpha_1 = \alpha_2 = \alpha_3 = \alpha_4$).

[0080] However, the central angles α_1 to α_4 may be varied individually for each section in order to provide different configurations. The number of sections may also be changed such that there are only two or three sections. The respective central angles may then for example be 180° or 120° per section.

[0081] In this embodiment, the sections alternate so that between section S2 with the access opening and section S4 with the additional compartment, there is always a closed section S1 or S3, respectively. This can simplify the design as well as manufacturing of the package. It is, however, also possible to have only one closed section, one additional compartment (for example waste compartment) section and one opening access section.

[0082] FIG. 6 shows a simplified top view on the top cover 10 of the lid 3 which also serves to illustrate aspects of the invention. The top cover 10 is also partitioned into (or has) sections S1 to S4. These sections S1 to S4 advantageously interact with the sections S1 to S4 on the top cover 8 of the cap 2. The central angles β_1 to β_4 are also equal in this embodiment so that there are four similar circular sectors. However, the central angles β_1 to β_4 may individually be varied, for example in accordance with angles α_1 to α_4 of the top cover 8 of the cap 2 in order to change the size of the various sections. There is only section S2 in which the top cover is omitted in order to provide an access opening 13. This access opening coincides in one position (open position) with the access opening 12 in the cap 2. If the lid is rotated with respect to the cap 2, section S2 can coincide with sections S1 and S3 of the top cover 8 of the cap 2. In this situation, the package is closed (closed position). If section S2 is further rotated, it can coincide with section S4, which would then give access to the additional compartment 14 in the top cover 8 of the cap 2.

[0083] FIGs 7A and 7B show simplified perspective ex-

plosion views of another embodiment of the invention. In this embodiment, there the cap 2 has three sections. One closed section S1, one open section S2 comprising the access opening 12 and one additional compartment (for example waste compartment) section S3 comprising a depression 14 for accommodating the used smokeless tobacco product. The top cover of the cap 2 has a closed area 20. The lid 3 has an access opening 13 which covers about one third of the top cover 10 of the lid 3. Other components shown are similar to those described with respect to the other embodiments.

[0084] FIGs 8A, 8B and 8C show the different states of the package 100 of the embodiment shown in FIG. 7. FIG. 8A is the closed state, in which the access opening 13 of the lid coincides (overlaps entirely) with the closed section S1 (closed top cover area 20) of the cap. When the lid 3 is turned or rotated around the central axis (around stud 22 not visible here), the open position can be reached which is shown in FIG. 8B. In this position the access opening 13 in the lid 3 coincides with the access opening 12 in the cap. The smokeless tobacco product can now be reached by the customer. FIG. 8C shows a state in which the additional compartment 14 (depression in the top cover 8 of the cap) is open. This is the third state of the package.

[0085] FIGs 9A and 9B show further simplified perspective views of the embodiment of FIGs 7 and 8. FIG. 9B is a perspective cross sectional view of the package 100 along plane A-A indicated in FIG. 9A. In FIG. 9, the package 100 is a closed state.

[0086] The cap 2 has a hook-shaped circumferential protrusion 15 along its lateral wall 9 that cooperates (engages) with a corresponding circumferential notch 16 on inner side of the lateral wall 5 of the can 1 in order to keep the cap 2 and the can 1 together.

[0087] Furthermore, the additional compartment (for example waste compartment) 14, is also closed by the closed section 19 of the lid 3.

[0088] FIG. 10 shows another simplified perspective view of the package 100 shown in FIGs 7 to 9 in which some more details are visible. The package 100 has a latching mechanism between the lid 3 and the cap 2. This latching mechanism serves to hold the lid 3 in the three specific positions ("open", "closed" and "waste"-position). In this embodiment, the latching mechanism comprises three surface protuberances on the top cover of the cap (or on the inner surface of disc-shaped top cover of the lid in a possible other embodiment which is not shown here). Each such protuberance 17 can interact with a respective recess 18 in the respective opposite part, when the lid is rotated around the axis of rotation H1.

[0089] The small recesses or notches 18, which interact with the protuberances 17 provided on the top cover 8 of the cap 2, are shown in the enlarged views "Detail A", "Detail B" and "Detail C". The latching mechanism can be configured to keep the lid 3 at least in one open position and at least in one closed position and in the "waste"-position of the access opening. Accordingly

there are three pairs of protuberances and corresponding notches in this embodiment (this embodiment is also referred to as one-third-embodiment).

[0090] Advantageously, the latching mechanism can be configured to provide higher resistance when the lid 3 is rotated towards opening (making accessible) the additional compartment (for example waste compartment) than towards opening the access opening. In this aspect of the invention, some of the protuberance(s) 17 and respective recesses 18 can have larger dimensions so that more force is needed to turn the lid 3 into a position in which the additional compartment (for example waste compartment) is accessible than to turn the lid 3 into any other position. In other words, the protuberances and recesses can be varied in size and/or shape so that the resistance for rotating the lid 3 into the position where the additional compartment (for example waste compartment) is accessible is greater than the resistance for a rotation towards the opening and/or closing the package (closed position and open position). This prevents an unintended opening of the additional compartment (for example waste compartment).

[0091] FIGs 11A and 11B are two simplified perspective explosion views of another embodiment of the invention. In this embodiment, the access opening 13 of the lid 3 and the access opening 26 of the inner lid 24 can basically occupy one quadrant of a circle.

[0092] In addition to the other embodiments, there is an optional inner lid 24 that can be arranged between the lid 3 and the cap 2. This embodiment can be implemented either with or without the inner lid 24. The cap 2 has four sections S1 to S4. One section, for example section S2 can be configured as a additional compartment in the cap 2 as previously described (depression in the cap). However, it is also possible to provide a additional compartment in the can, for example in section 29 of the can 1. The can 1 has inner walls 37, 38, 39 and 40 which divide the inner storage space 6 into four compartments 29 to 32. These compartments 29 to 32 may then serve to accommodate different types or flavors of smokeless tobacco products. One compartment, for example compartment 29, may serve as additional compartment (for example waste compartment).

[0093] The optional inner lid 24 mainly serves to allow complete closing of the package. As the cap is mainly open, an additional inner lid 24 is required to completely close the package 100. The inner lid 24 is substantially flat. The inner lid 24 is also disc-shaped in this embodiment. The inner lid 24 has an access opening 26 which basically occupies one quadrant of inner lid 24. The inner lid 24 has an hole 28 through with the stud 22 of the lid 3 can be inserted into a hole 23 in the cap 2. The lid 3 as well as the inner lid 24 can then be rotated around the central axis of the package.

[0094] If however, the cap 2 is configured to have one or two closed sections (for example S1 and/or S3), one open section and one additional compartment (for example waste compartment) section (depression in the cap),

the inner lid 24 is not necessary. The package can be closed and opened as previously described. One or more of the inner walls 37 to 40 may then also be omitted. The inner walls 33, 34, 35 and 36 of the cap 2 are mainly extensions of the inner walls 37, 38, 39 and 40 of the can 1. If the inner walls of the can are omitted, the inner walls of the cap can also be omitted.

[0095] According to an aspect of the invention, the inner lid 24 also provides hygienic advantages. The inner lid can then be used as an intermediate cover between the inner side of the lid 3 and the additional compartment. The inner lid 24 can then be configured to cover only the additional compartment in a manner such that the inner side of the inner lid 24 is never located above the fresh smokeless tobacco or at least the section of the inner lid 24 that covers the additional compartment never gets into a position above the fresh smokeless tobacco product.

[0096] FIGs 12A to 12D show perspective views of the package 100 according to the embodiments of FIG. 11. FIG. 12A is a first open position. FIG. 12B is a second open position and FIG. 12C is a third open position. FIG. 12D is the position in which the additional compartment (for example waste compartment) is open (waste-position). The smokeless tobacco products in the open compartments of FIGs 12A, 12B and 12C can be of different type or flavor or they can be the same. Instead of having three open positions according to FIG. 12A, 12B and 12C, one or two of these positions can be a closed position if a respective closed section is provided in the cap 2 in the corresponding position. In this situation, the inner lid 24 may not be required for closing the package, but only for hygienic reasons or not at all.

[0097] FIG. 13 shows perspective explosion views of another embodiment of the invention. In this embodiment, there is an open section with an access opening 12 in the cap 2 and an additional compartment with a depression 14. Both sections are basically semi-circles. This embodiment is therefore also a semicircle embodiment as the one shown in FIGs 1 to 4 except that the second semicircle is now configured as an additional compartment. In this embodiment, either the additional compartment 14 or the access opening 12 of the cap 2 will always be open regardless of the position of the lid 3. The lid 3 also has an access opening that basically occupies half of the top cover 10 of the lid 3. In order to entirely close the package (additional compartment and access opening) it is necessary to provide an inner lid 24. The inner lid 24 is basically disc shaped and can be rotated to a certain extent independently from the lid 3. The closed section 27 of the inner lid 24 is at least as large as the access opening 13 of the lid 3. The inner lid 24 can then be brought in a position in which the access opening 13 of the lid 3 can be located above the closed section 27 of the inner lid 24 in order to close the package. The access opening 26 in the inner lid 24 is large enough to provide sufficient access to the additional compartment 14 and to the access opening 12 in the cap. A small

protrusion/protuberance/handle/ or the like 41 is provided on the top side of the inner lid 24 to allow rotating the inner lid 24 at least partially independently from the lid 3.

[0098] FIGs 14A to 14D show perspective views of the four different positions of the lid 3 and the inner lid 24 according to the embodiment shown in FIG. 13. FIG. 14A is a first closed position in which the fresh smokeless tobacco is covered by the closed section 27 of the inner lid 24 only, although the access opening 13 of the lid 3 coincides with the access opening 12 of the cap 2. FIG. 14B is the open position in which the inner lid 24 is in a position that the access opening 13 of the lid 3, the access opening 26 of the inner lid 24 and the access opening 12 of the cap 2 coincide. FIG. 14C shows a second closed position in which the closed section 27 of the inner lid 24 covers the additional compartment while the access opening 13 of the lid 3 coincides with the additional compartment section. FIG. 14D shows the waste-position in which the additional compartment 14 is open. The access opening 13 of the lid 3 and the access opening 12 of the cap 2 coincide so that the additional compartment is accessible.

[0099] FIGs 15A and 15B are simplified perspective explosion views of still another embodiment of the invention. This embodiment is another variation of the one-third-embodiment in which the access opening 13 in the lid 3 basically extends over one third of the top cover 10 of the lid 3. The basic characteristics of this embodiment are similar to the one shown in FIGs 7 to 9. However, the inner lid 24 is now configured to cover only the additional compartment 14. The inner lid 24 has a first part 42 which is basically a cover plate for covering the additional compartment 14 and a second part 43 that is configured as a hinge for swiveling the plate 42 in order to open and close the additional compartment.

[0100] FIG. 16A to 16D show the different positions or states of the package 100 shown in FIG. 15. FIG. 16A is the closed position in which the access opening 13 of the lid 3 coincides with the closed section of the cap 2. FIG. 16B shows the open position in which the access opening 13 of the lid 3 coincides with the access opening 12 of the cap. FIG. 16C shows the waste-position in which the additional compartment is accessible. The access opening 13 of the lid coincides with the additional compartment 14. Furthermore, the inner lid 24 is swiveled out around hinge 43 such that the cover plate 42 is moved away from the additional compartment 14. As the hinge 43 extends in a radial direction from the central axis of the package around which the lid 3 is rotated, the inner lid 24 can only be swiveled away from the additional compartment if the access opening 13 coincides completely with the area the inner lid 24 occupies. If only a part of the inner lid 24 is still covered by a closed section 19 of the lid 3, the additional compartment cannot be opened. Due to this configuration, it is impossible that the inner side of the top cover 10 of the lid 3 gets in contact with used smokeless tobacco product in the additional compartment 14. This package is therefore a perfectly hygienic package.

FIG 16D shows that the angle of rotation of the lid 3 is limited. It can only be rotated by 120° away from the closed position in each direction. Only a total movement of 240° is possible.

[0101] In this embodiment the inner lid 24 is connected by a hinge to the cap. The inner lid 24 is configured as a cover plate of the additional compartment. The inner lid 24 can only be swiveled out of the plane of the top cover of the cap, if the access opening 13 of the lid 3 completely coincides or overlaps with the inner lid 24. This prevents undesired opening of the additional compartment.

[0102] FIGs 17A and 17B show further simplified perspective views of the embodiment of FIGs 15 and 16. FIG. 17B is a perspective cross sectional view of the package 100 along plane A-A indicated in FIG. 17A. In FIG. 17, the package 100 is a closed state.

[0103] The additional compartment 14 is a depression in the top cover of the cap 2. In addition to the other embodiments there is a distance a1 between the central axis of rotation and the depression 14 of the additional compartment. Furthermore, there is also a distance a2 between the depression 14 of the additional compartment and the lateral wall 9 of the cap. Accordingly, there are two gaps g1 and g2 on either radial side of the depression 14. These gaps provide that the inner lid 24 on the additional compartment can be lifted or swiveled more easily and that the inner lid 24 has some distance with respect to the surrounding edges of the access opening 13 in the lid 3.

[0104] FIG. 18 shows another simplified perspective view of the package 100 shown in FIGs 15 to 17 in which some more details are visible. The package 100 has a latching mechanism between the lid 3 and the cap 2. This latching mechanism serves to hold the lid 3 in the three specific positions (open, closed and waste). In this embodiment, the latching mechanism comprises three surface protuberances on the top cover of the cap (or on the inner surface of disc-shaped top cover of the lid in a possible other embodiment which is not shown here). Each such protuberance 17 can interact with a respective recess in the respective opposite part, when the lid is rotated around the axis of rotation H1.

[0105] The small recesses or notches 18, which interact with the protuberances 17 provided on the top cover 8 of the cap 2, are shown in the enlarged views "Detail A", "Detail B" and "Detail C". The latching mechanism can be configured to keep the lid 3 at least in one open position and at least in one closed position and in the "waste"-position of the access opening. Accordingly there are three pairs of protuberances and corresponding notches in this embodiment (this embodiment is also referred to as one-third-embodiment).

[0106] In addition to the latching mechanism, there is a blocking mechanism in form of a protuberance 44 shown in an enlarged view as "Detail D". This blocking mechanism limits the angle of rotation of the lid 3. The lid has therefore only a limited angle of rotation of about 240° which prevents that at least a part of the inner sur-

face of the lid 3 can be located above the additional compartment (for example waste compartment) 14 and the access opening 12 in the cap.

[0107] Although the invention has been described hereinabove with reference to specific embodiments, it is not limited to these embodiments and no doubt further alternatives will occur to the skilled person that lie within the scope of the invention as claimed.

Claims

1. A package for a smokeless tobacco product comprising a can, a cap and a lid, wherein the cap is provided with a top cover having at least one access opening to a storage space, wherein the lid is configured to close the at least one access opening in the cap and swivelable about a central axis of rotation, which projects substantially perpendicularly to a plane of the access opening.
2. The package according to claim 1, wherein the lid comprises a top cover comprising at least one closed section and at least one access opening section.
3. The package according to claim 1 or 2, wherein the cap comprises at least one closed section and the closed section of the top cover of the cap has at least the size of an access opening of the lid.
4. The package according to anyone of the preceding claims, wherein the cap is coupled to the can at the inner or outer side of the lateral wall of the can in a manner that a rotation of the cap with respect to the can is prevented.
5. The package according to anyone of the preceding claims, wherein the sections of the top cover of the lid and/or the sections of the top cover of the cap are configured as circular sectors and/or circular segments.
6. The package according to claim 5, wherein the central angles of at least one of the sections of the top cover of the lid and/or the sections of the top cover of the cap are one or more out of angles of about 90°, 120° and/or 180°.
7. The package according to anyone of the preceding claims, wherein an additional compartment is arranged in the top cover of the cap.
8. The package according to claim 7, wherein the additional compartment is configured as a depression in the top cover of the cap.
9. The package according to claim 7 or 8, wherein the top cover of the cap comprises at least one closed

section, at least one additional compartment section and at least one access opening section.

10. The package according to claim 7 or 8, wherein the top cover of the cap comprises at least two closed sections, at least one additional compartment section and at least one access opening section. 5
11. The package according to anyone of the preceding claims, further comprising a latching mechanism between the lid and the cap. 10
12. The package according to claim 11, wherein the latching mechanism comprises at least one surface protuberance on the outer surface of the top cover of the cap or on the inner surface of disc-shaped top cover of the lid. 15
13. The package according to claims 11 or 12, wherein the latching mechanism is configured to hold the lid at least in one open position and in at least one closed position of the access opening. 20
14. The package according to anyone of claims 11 to 13, wherein the latching mechanism provides higher resistance with respect to opening the additional compartment by turning the lid than with respect to at least one other position of the lid. 25
15. The package according to anyone of the preceding claims, further comprising an inner lid located between the lid and the cap. 30
16. The package according to claim 15, wherein the inner lid is substantially disc-shaped and comprises an access opening section and a closed section which has at least the size of an access opening section of the lid. 35
17. The package according to claim 16, wherein the inner lid is configured to be rotated about the central axis of rotation. 40
18. The package according to claim 17, wherein the inner lid has a grip or protrusion configured to engage with an edge of the access opening the lid thereby limiting the maximum angle of rotation with respect to the lid. 45
19. The package according to anyone of claims 1 to 14, further comprising an inner lid, wherein the inner lid is configured to cover the additional compartment in the cap and the inner lid is hingedly connected to the cap and dimensioned such that it can only be opened when the access opening in the lid coincides substantially entirely with the inner lid. 50 55
20. A method of manufacturing a package for a smoke-

less tobacco product comprising the steps of: manufacturing a can, manufacturing a cap with a top cover having an access opening, manufacturing a lid configured to be rotatable with respect to the cap and with a top cover having an access opening; coupling the can, the cap and the lid to each other.

21. The method according to claim 20, further comprising dimensioning a closed section in the cap to have at least the size of one access opening in the lid.

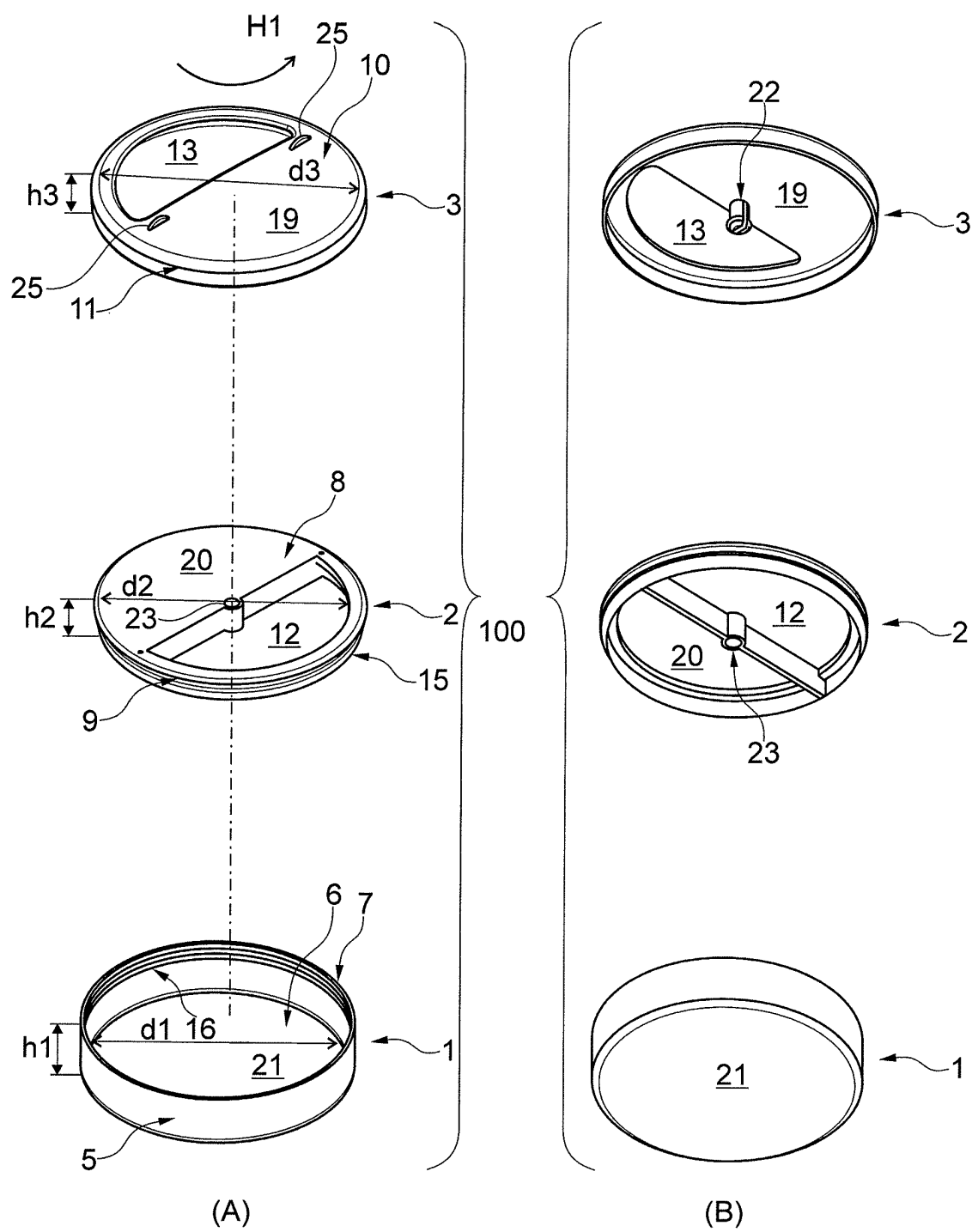
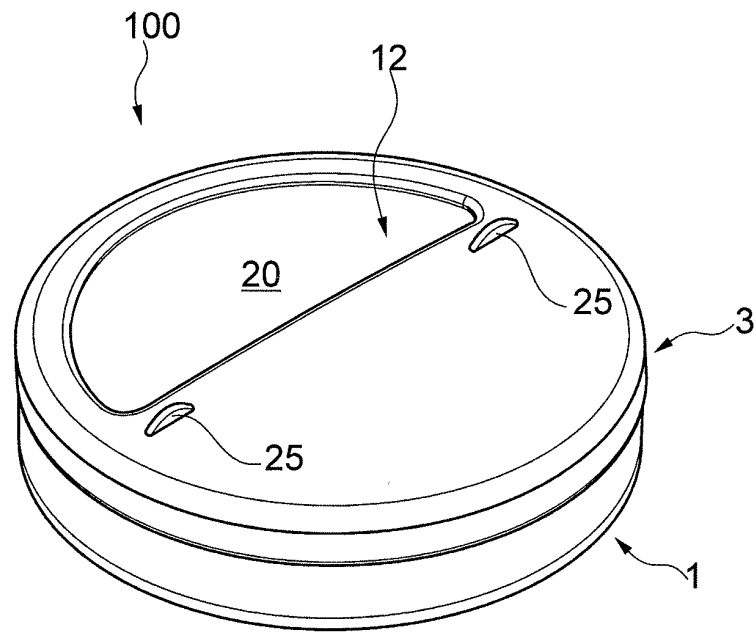
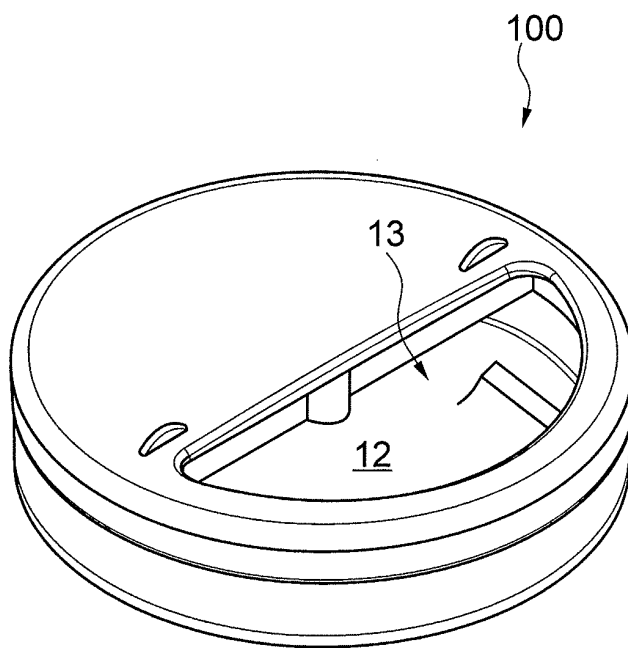


Fig. 1



(A)



(B)

Fig. 2

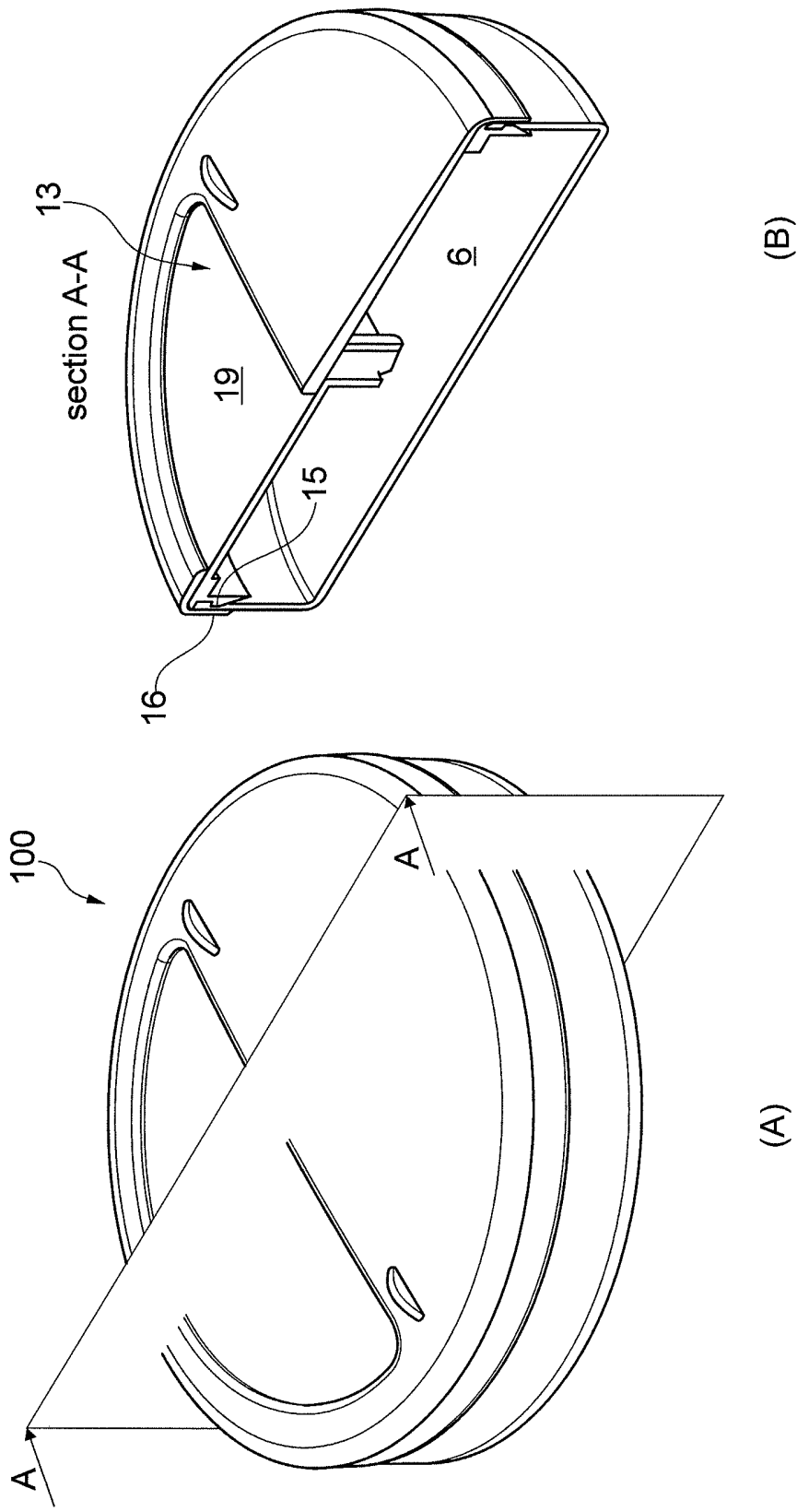


Fig. 3

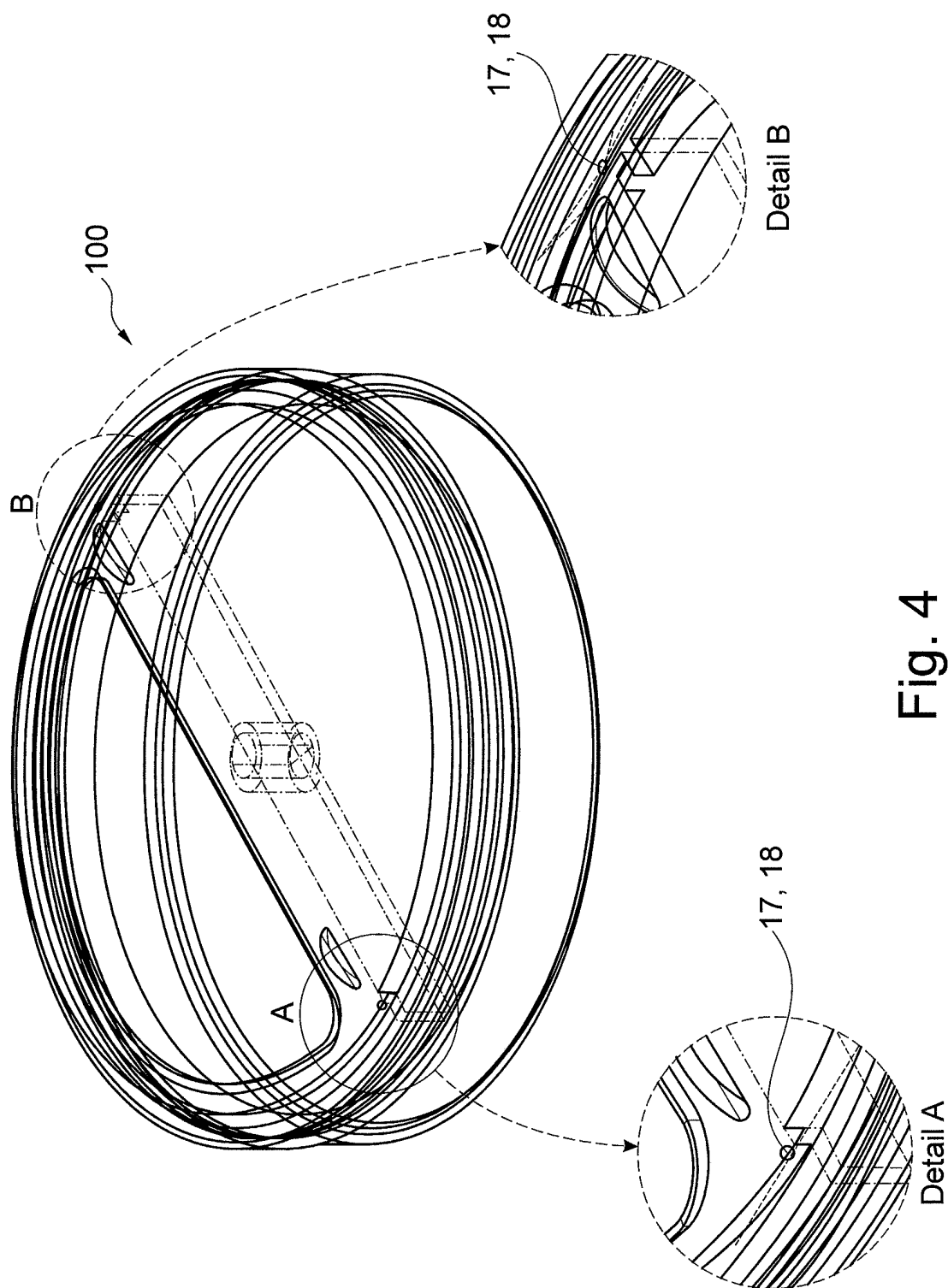


Fig. 4

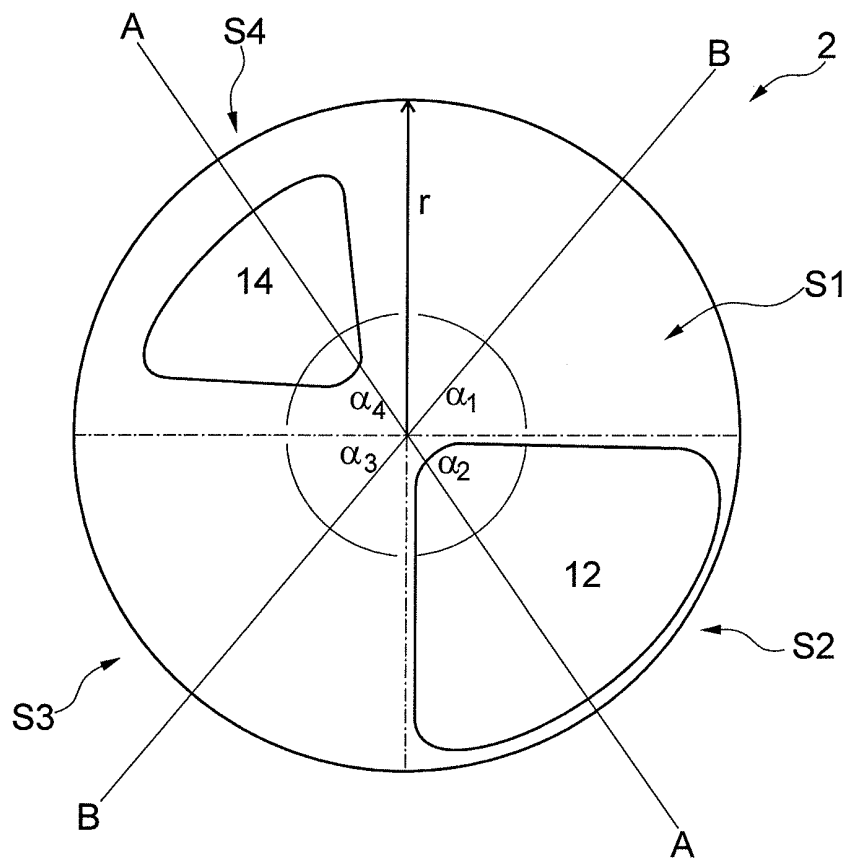


Fig. 5

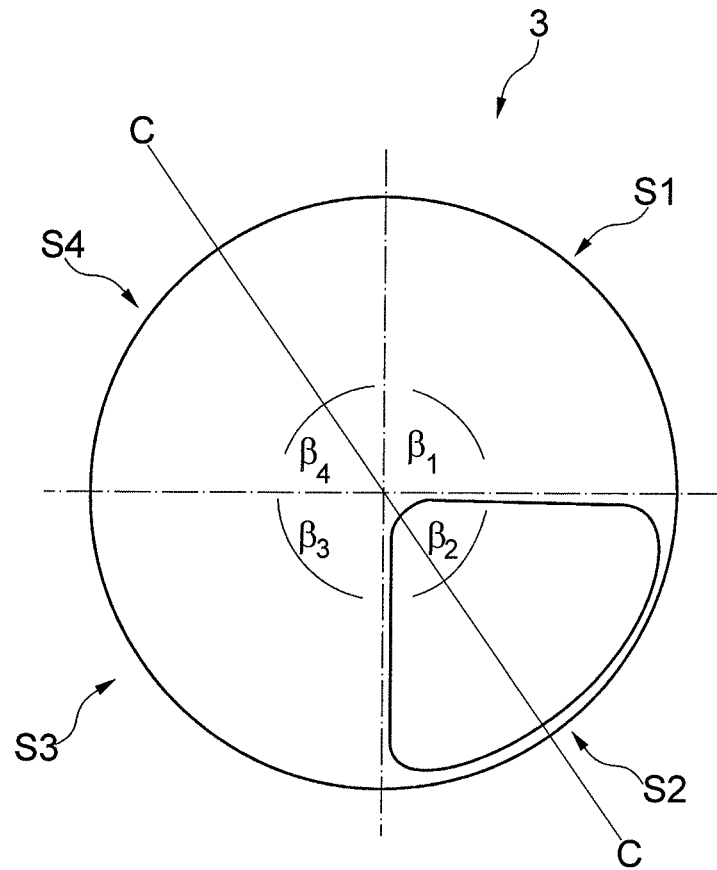


Fig. 6

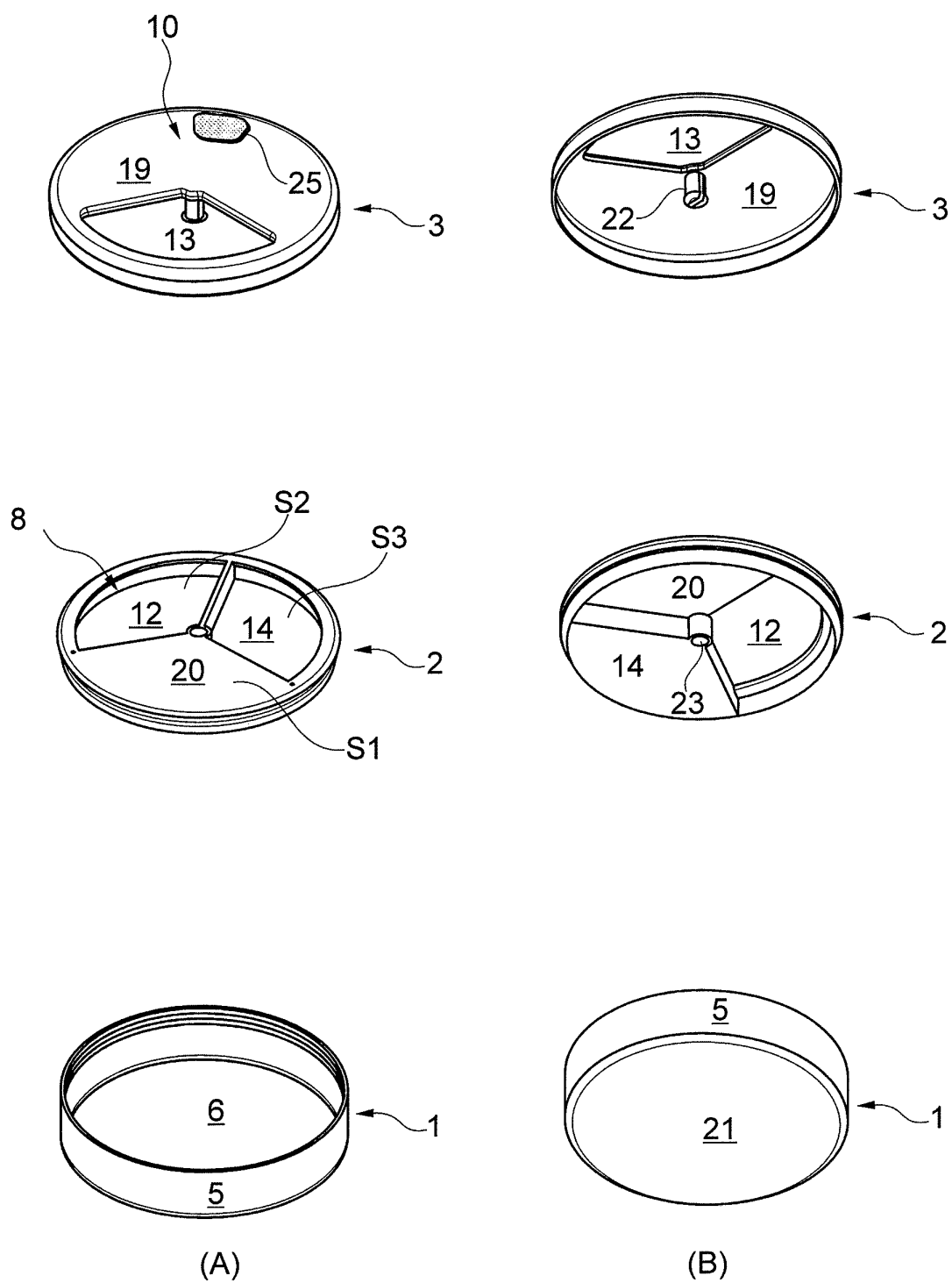


Fig. 7

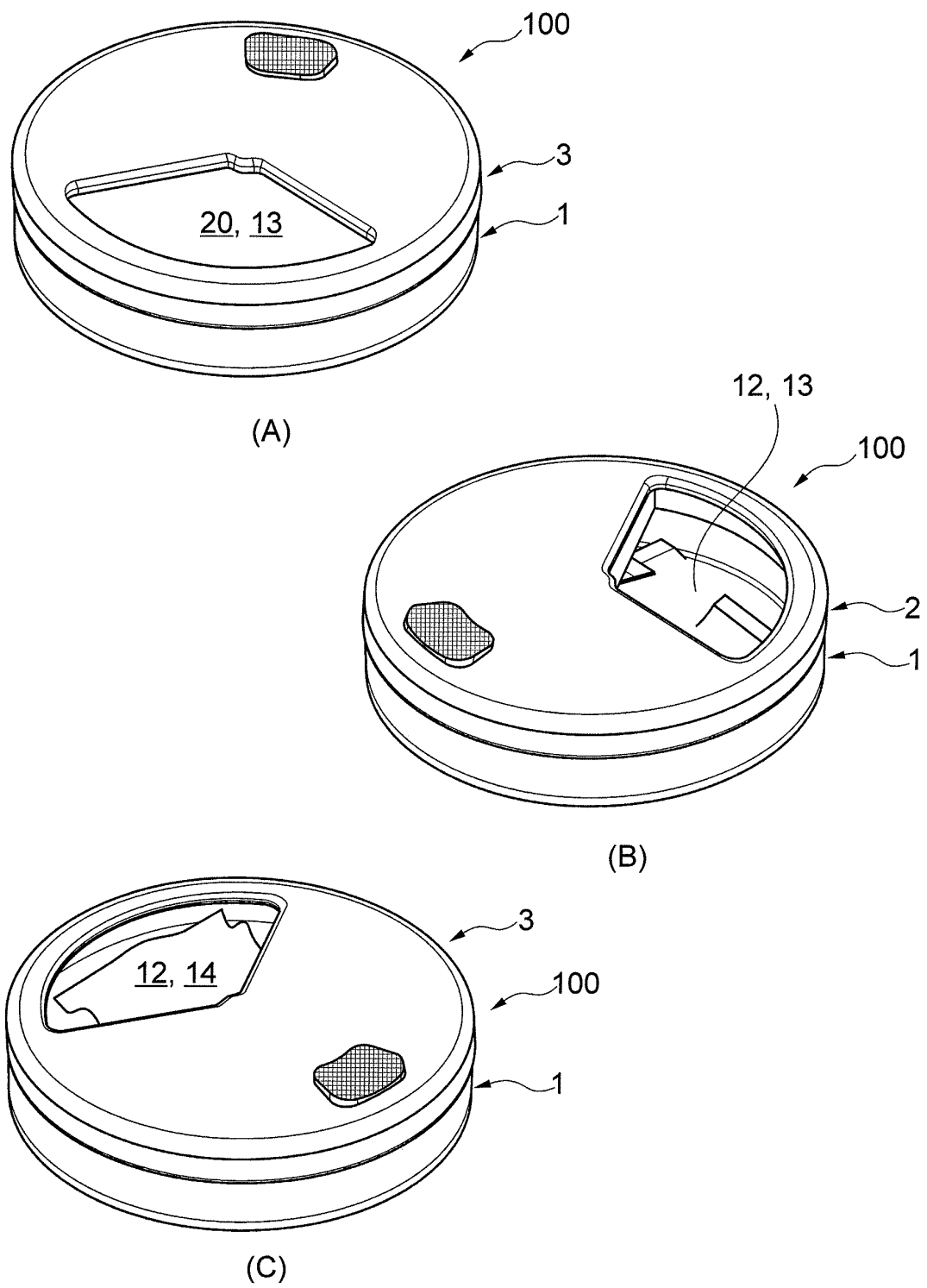


Fig. 8

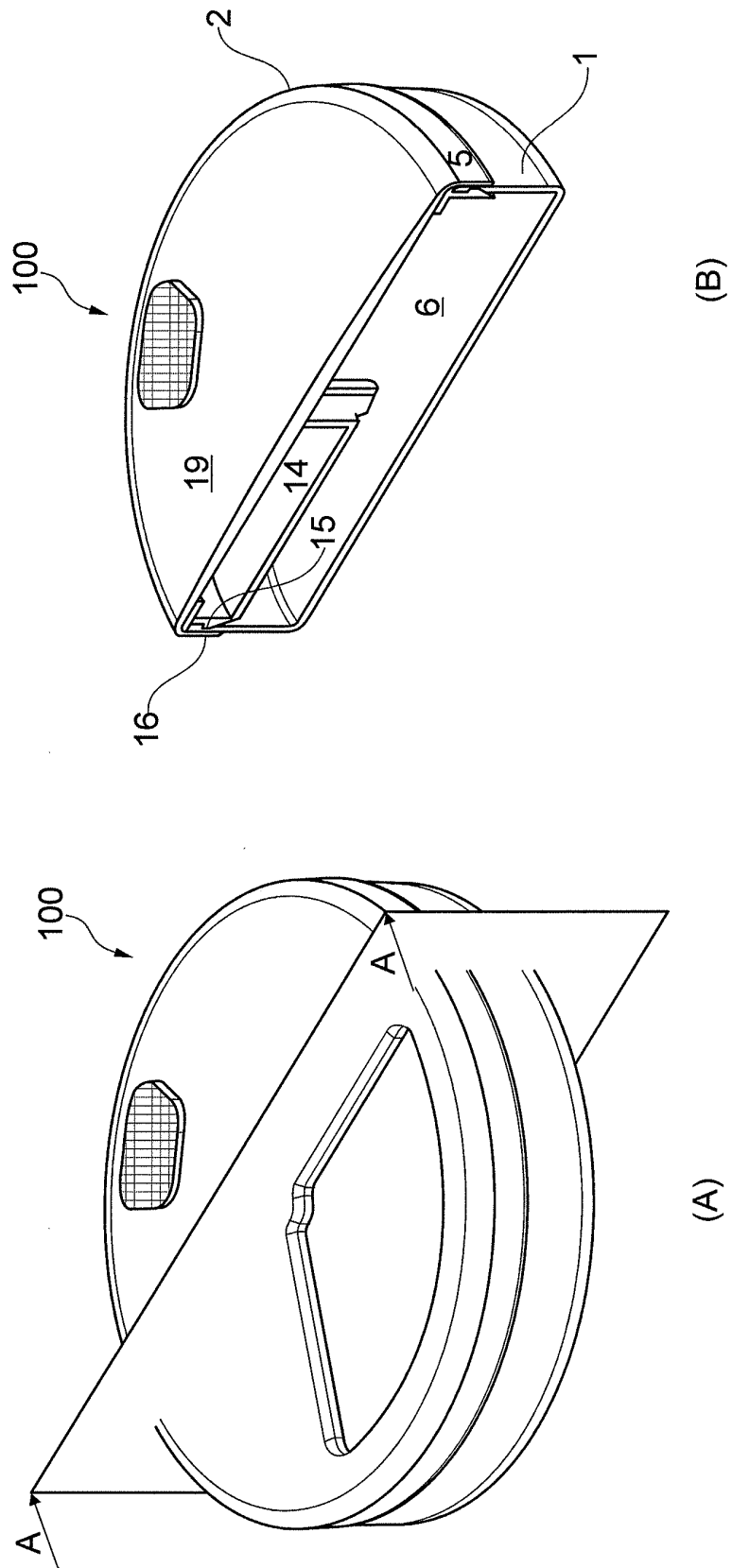


Fig. 9

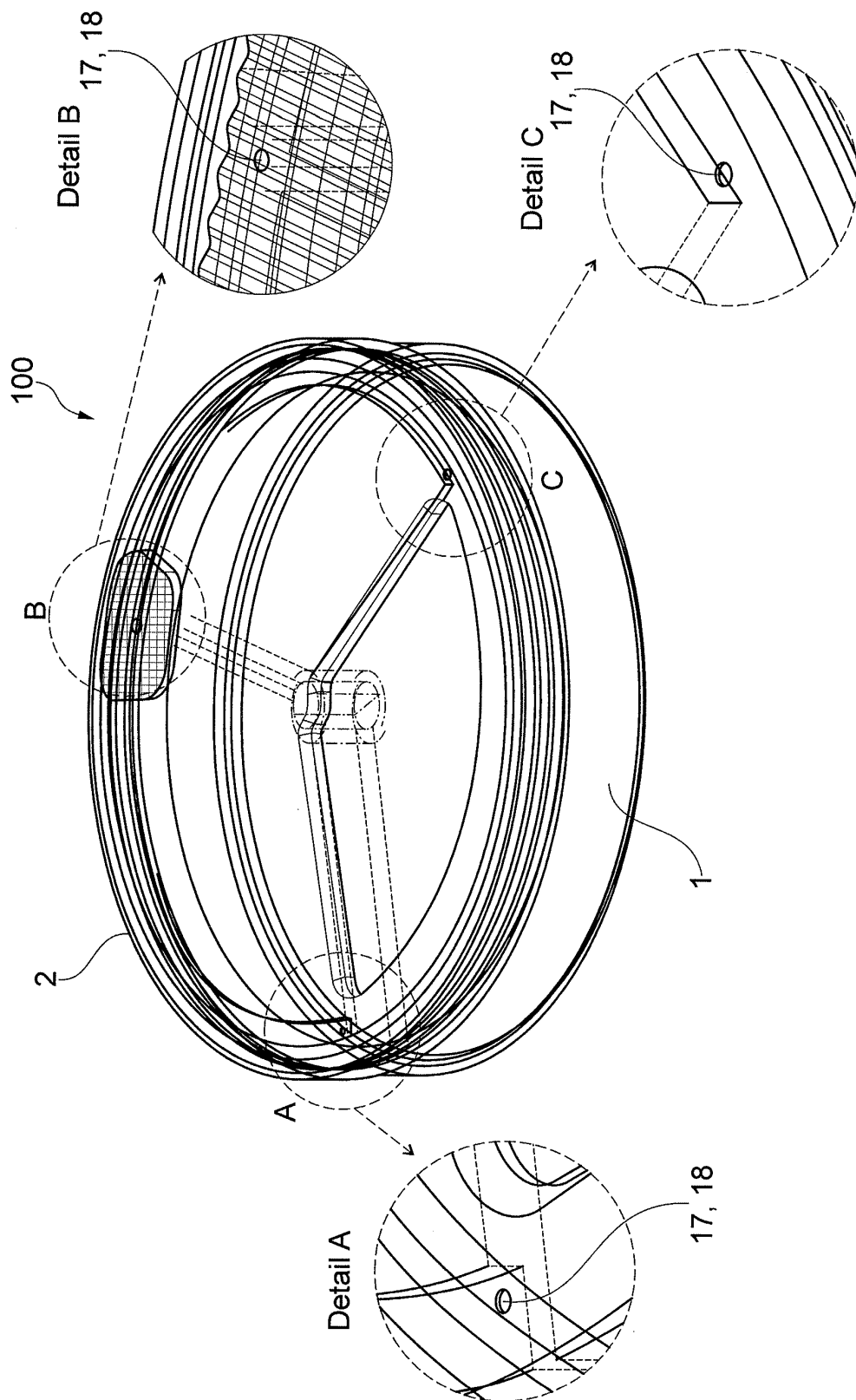


Fig. 10

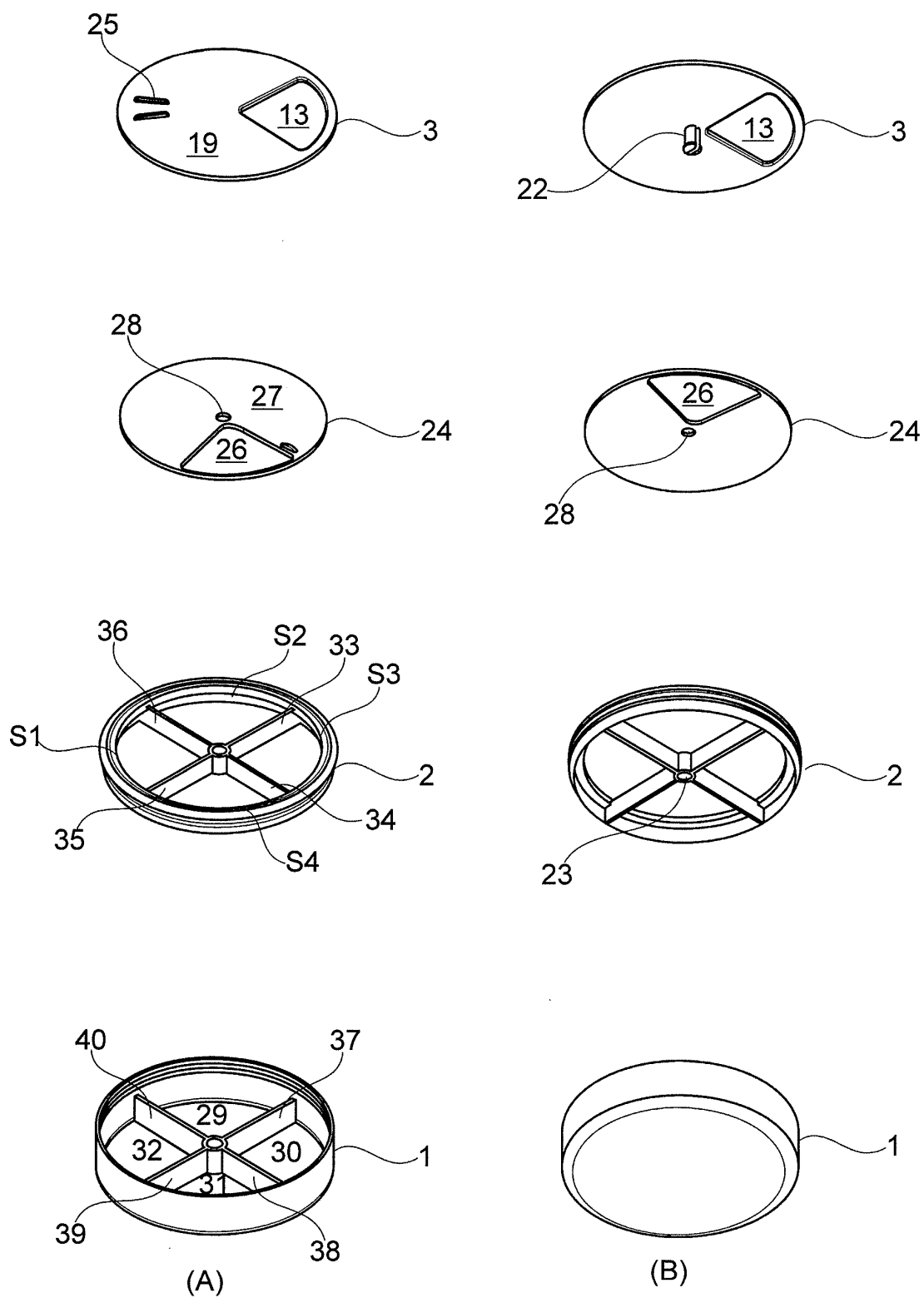


Fig. 11

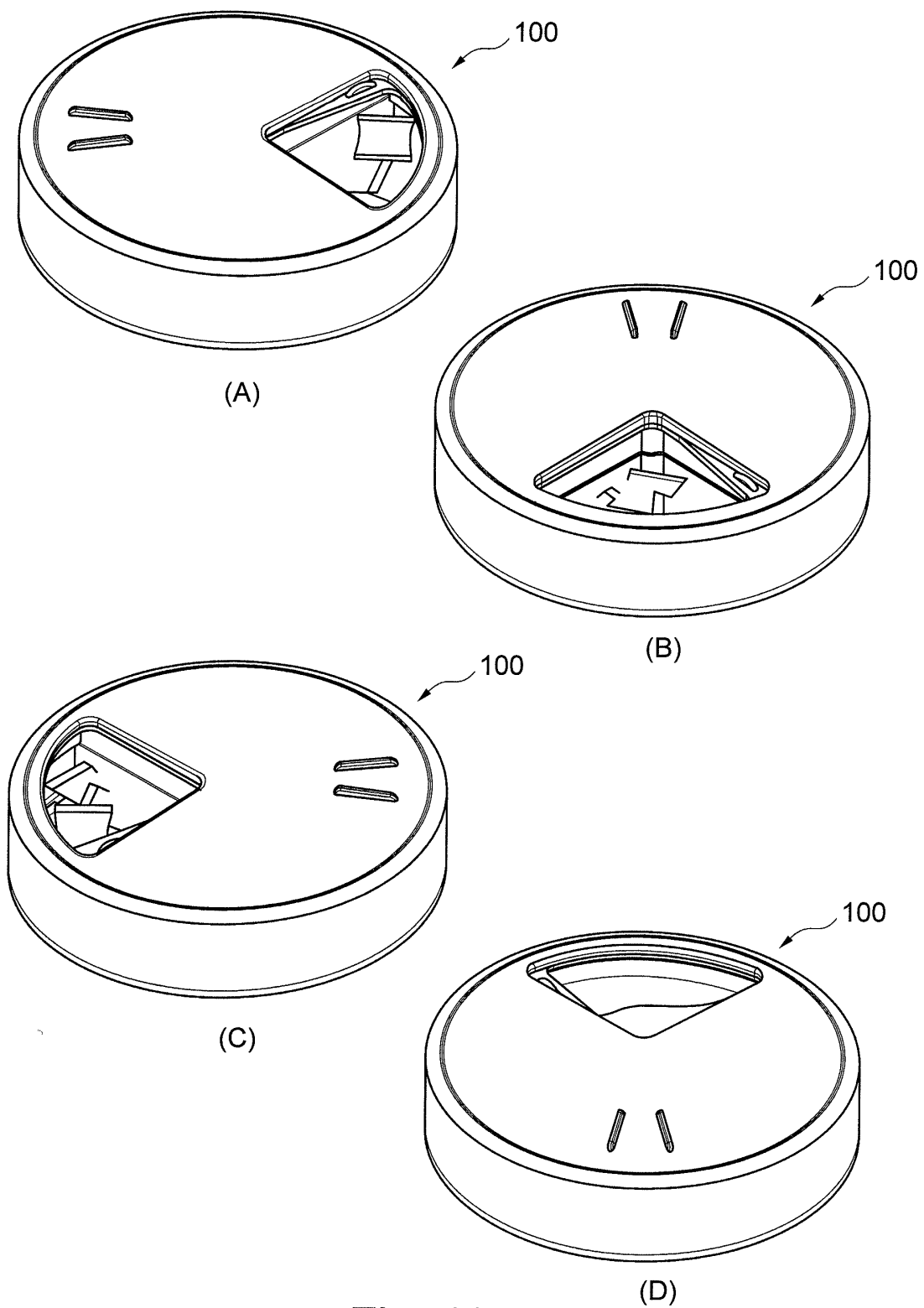


Fig. 12

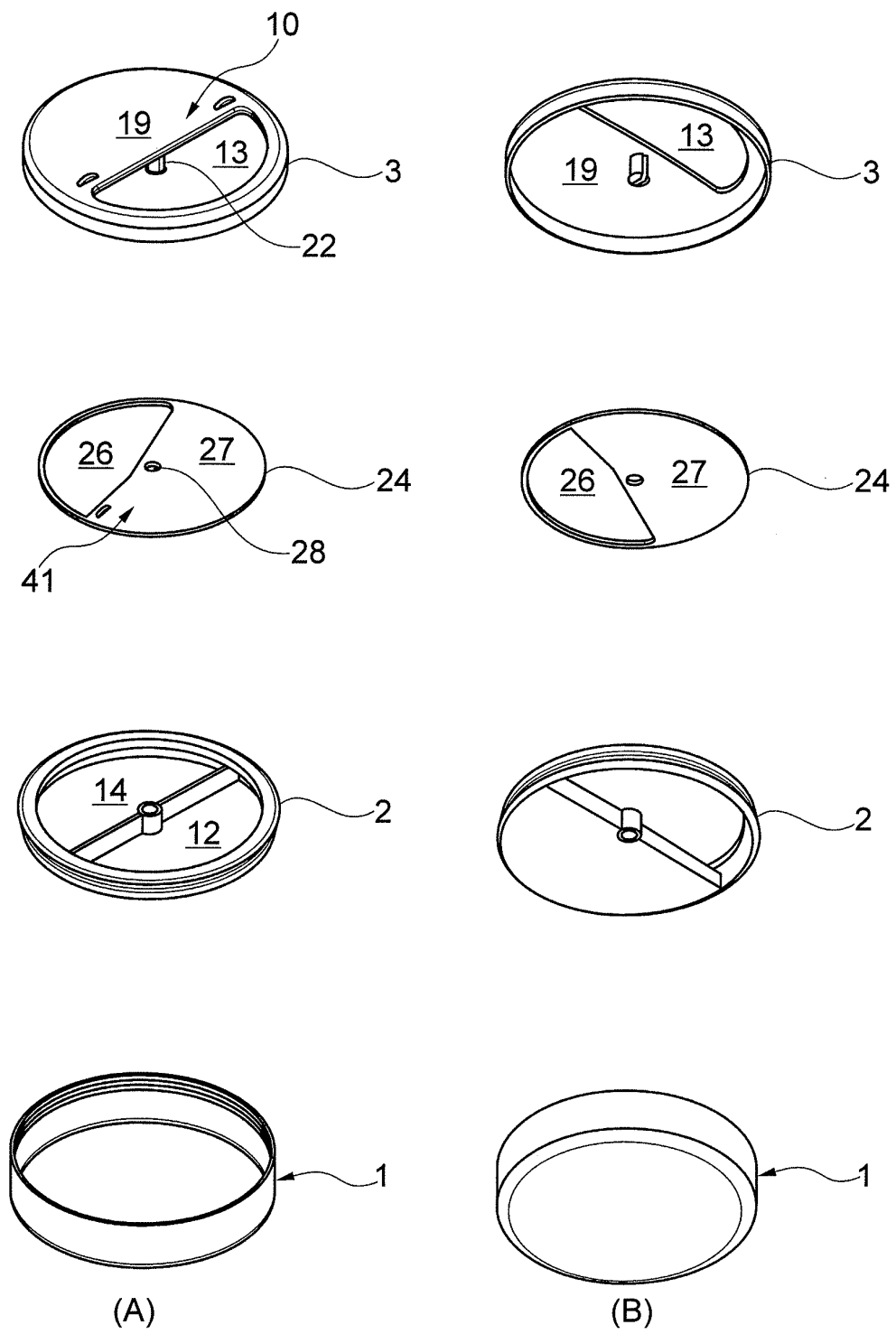


Fig. 13

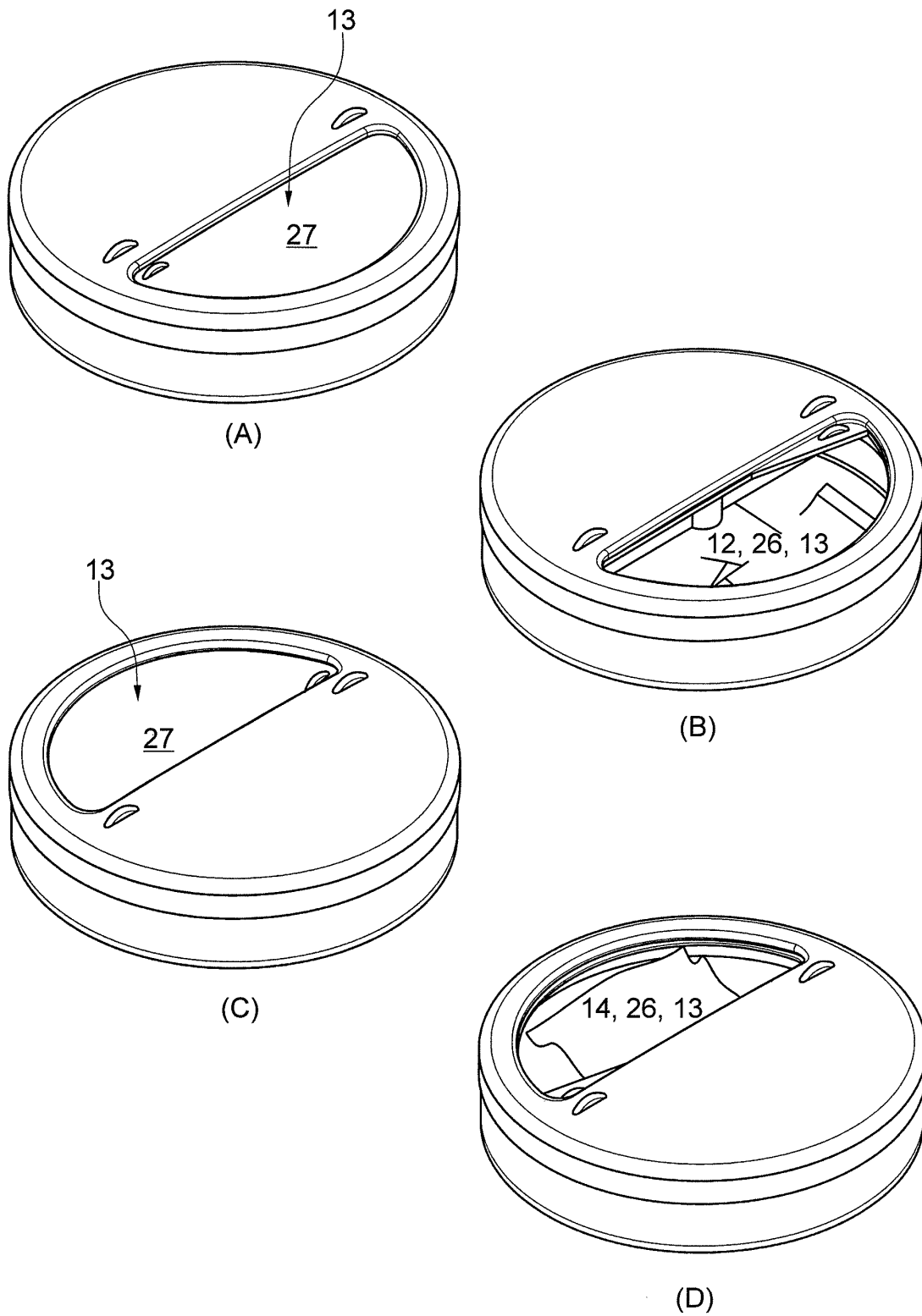


Fig. 14

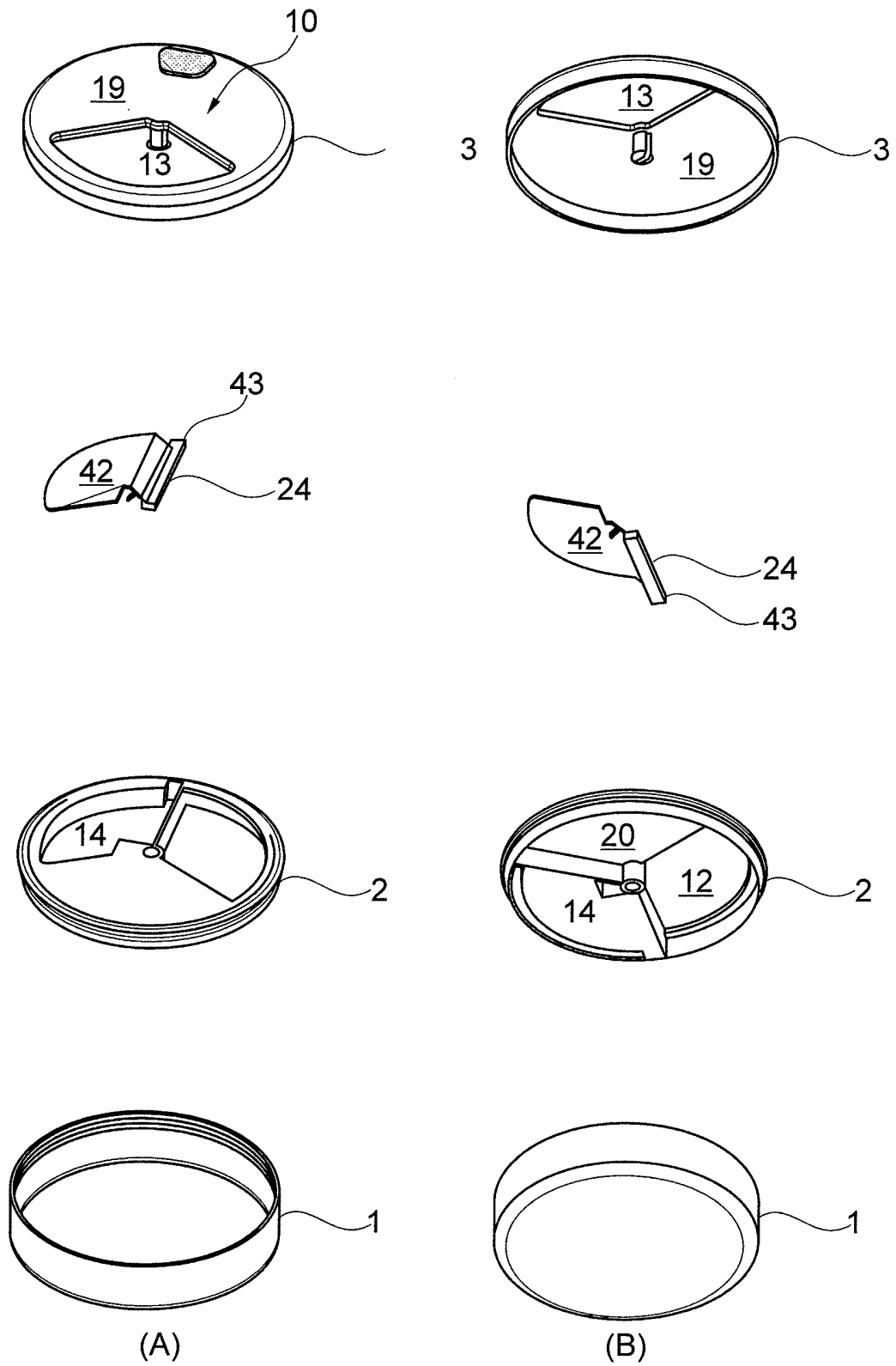


Fig. 15

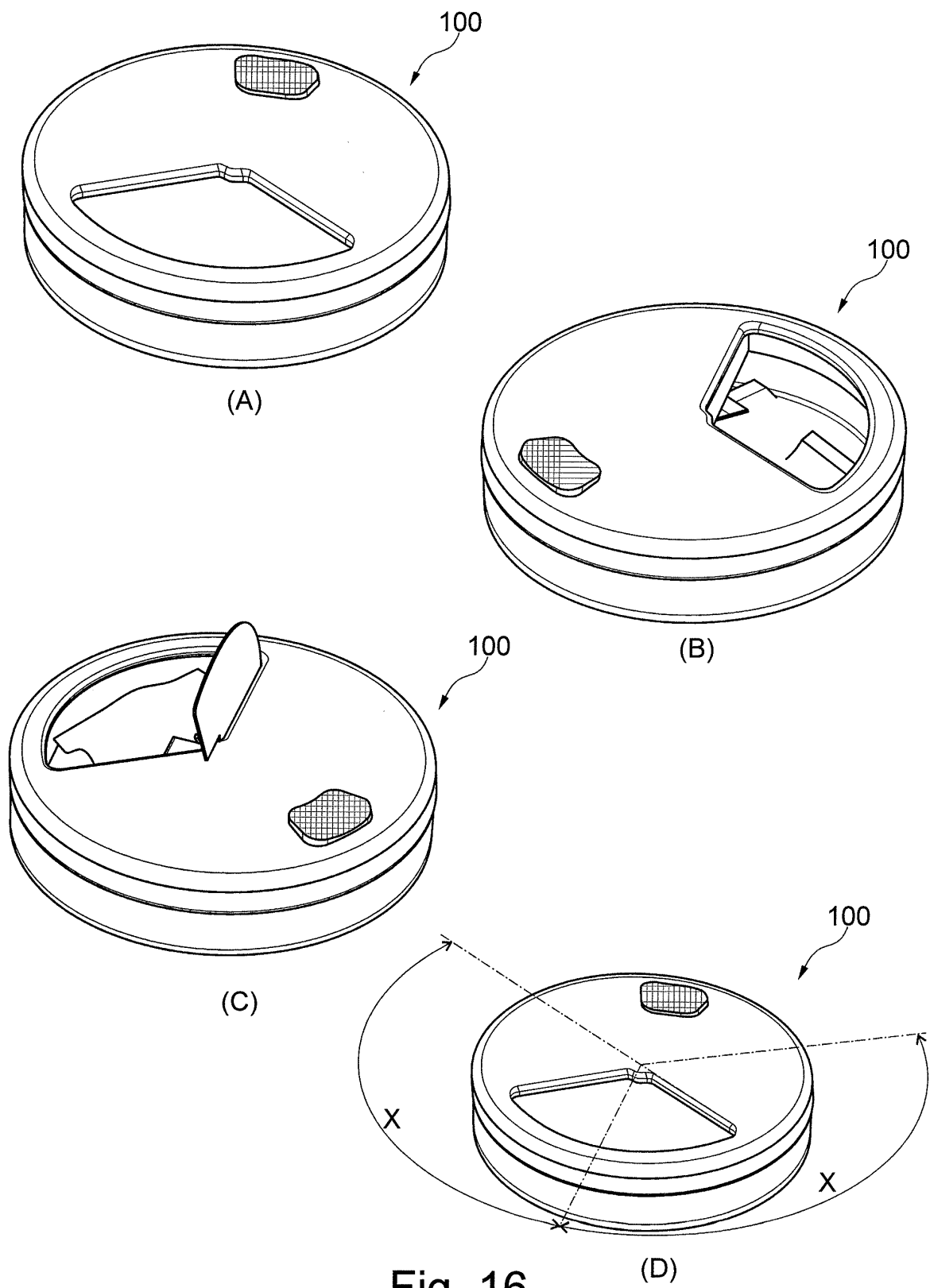


Fig. 16

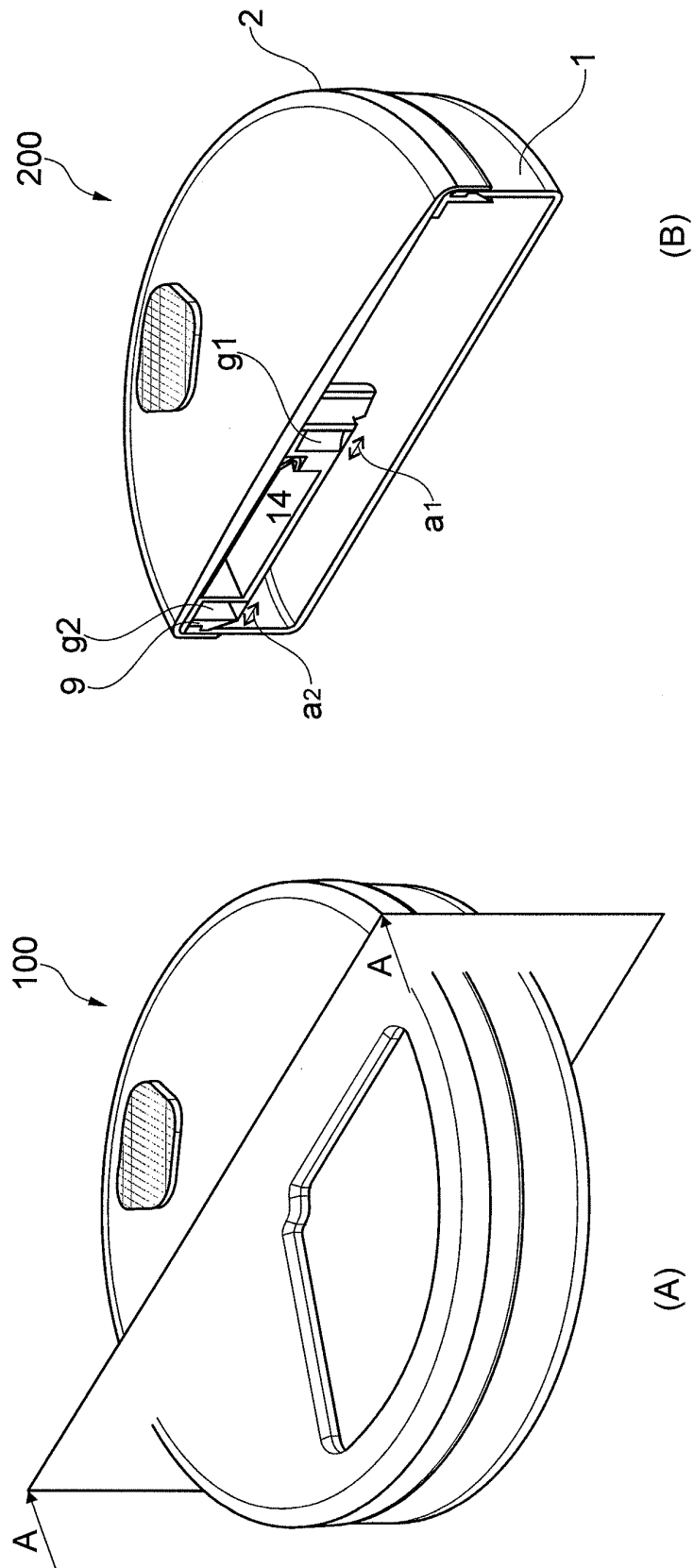


Fig. 17

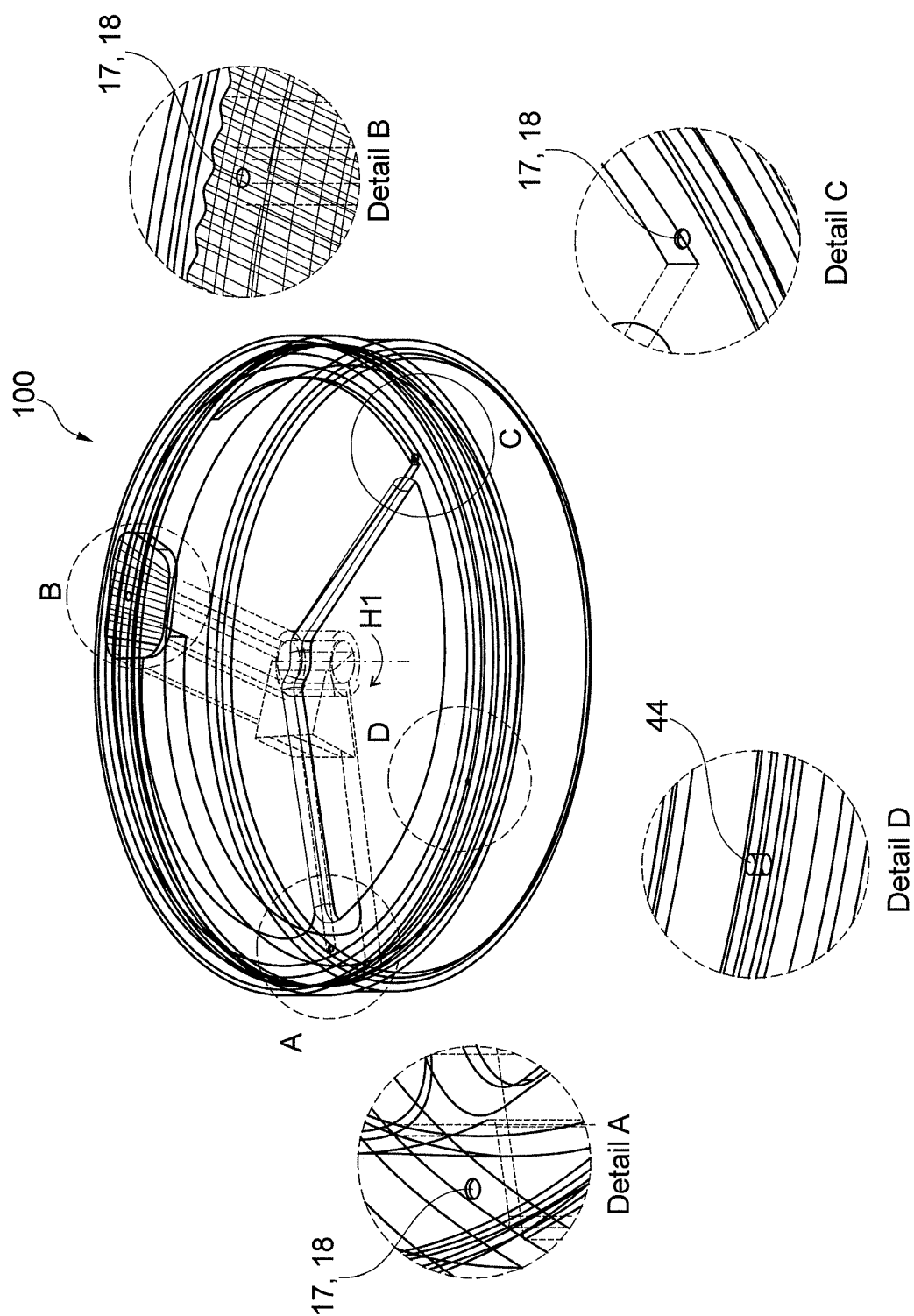


Fig. 18



EUROPEAN SEARCH REPORT

 Application Number
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			B65D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 20 November 2013	Examiner Visentin, Mauro
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