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(54) **PACKAGE WITH TAMPER EVIDENT SEAL**

(57) The present disclosure relates to a package 1 for consumer goods. The package 1 comprises a container 3, a lid 5, and a security ring 7. The container 3 comprises a bottom wall 9 and a side wall 11, which extends from the bottom wall 9, thereby forming a bottom cavity 13. The lid 5 comprises a top wall 19 and a side wall 21, which extends downward from the top wall 19.

The security ring 7 is attached to both the container 3 and the lid 5, extending along the perimeter of the container 3 and about the perimeter of the lid 5, when the package 1 is unbroken. The security ring 7 is formed integrally with the container 3. The disclosure also relates to a method for filling and sealing a package 1.

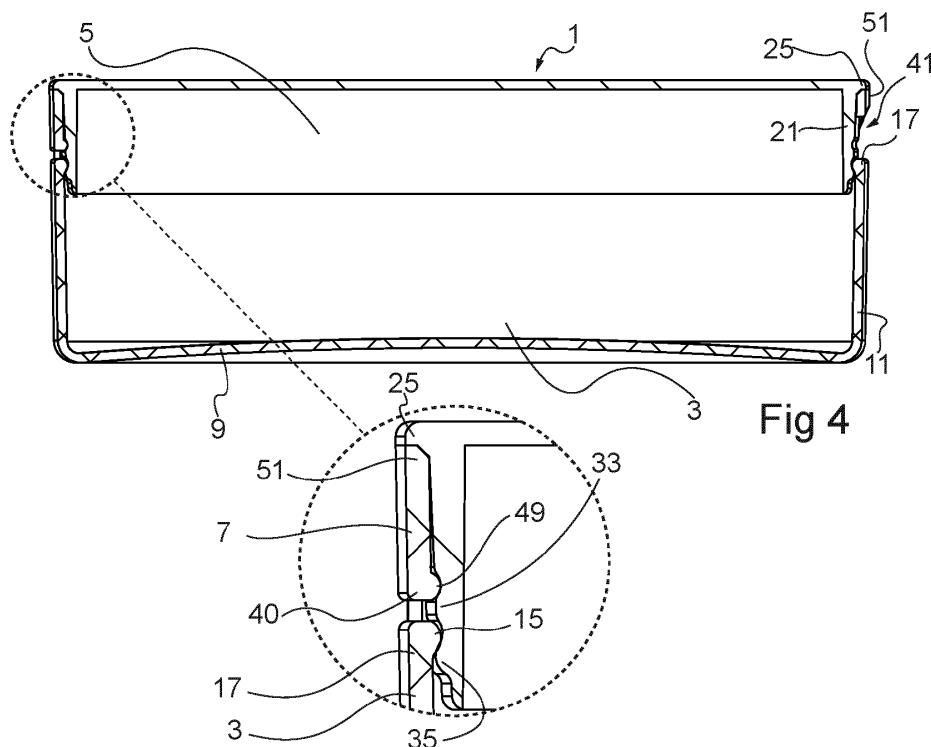


Fig 4

Description

Field of the invention

[0001] The present invention relates to the field of packages for use with consumer goods and more particularly a package provided with a tamper evident seal.

Background

[0002] Tamper-evident seals are today often used for a package, indicating if someone has been manipulating with the product since it left the manufacturer.

[0003] Numerous constructions have been proposed that provides evidence of tampering with a lid for a package. Such constructions have generally made use of separate bands or strips of materials which must be removed from the package prior to removal of the lid, such that absence or altering of the band or strip indicates that someone might have been manipulating with the product.

[0004] US 2009/0230003 A1 discloses a pocket-sized container for consumer items, wherein the container is provided with a tamper evident label, arranged around both the lid and bottom side walls when the container is in a closed position. The tamper evident label can be a shrink-wrap strip. Once the strip has been removed it is evident that the package has been opened.

[0005] SE 539642 C2 discloses a pocket-size package for consumer goods, wherein the package is provided with tamper evident seal. The tamper evident seal comprises a tearable non-attachable element attached between the lid and the container through a thin-walled seam. Once the tearable non-attachable element has been removed it is evident that the package has been opened.

Summary

[0006] It is an object of the present invention to provide an alternative package with improved tamper resistance to deter tampering and to provide a more environmentally friendly package comprising a tamper evident seal.

[0007] To this end, there is provided a package for consumer goods. The package comprises a container, a lid, and a security ring, wherein the container comprises a bottom wall, and a side wall which extends from the bottom wall, thereby forming a bottom cavity, wherein the lid may comprise a top wall and a side wall, which extends downward from the top wall, wherein the security ring may be attached to both the container and the lid, extending along the perimeter of the container and about the perimeter of the lid, when the package is unbroken and, wherein the security ring may be formed integrally with the container. Said security ring forms a tamper-evident seal on said container.

[0008] Preferably, the security ring may be molded to the container through at least one frangible bridge along an upper edge of the container. Alternatively, a lower

edge of the security ring may be spot-welded or ultrasonic-welded to an upper edge of the container at several places, creating weakened or frangible bridges defined by the welds, so that any attempt to open the lid will result in breaking these frangible bridges and it will be evident that the container has been opened and its content can no longer be guaranteed by the manufacturer.

[0009] The diameter of the security ring may correspond to the diameter of the container, and the security ring may thus form an extension of the envelope surface of the container. The security ring may be axially separated from the container.

[0010] The outer shape of the package without any parts extending from the perimeter of the container can imply that the package can be stacked and packed in large numbers in a simple way.

[0011] When the package is unbroken, the security ring is only connected to the container through at least one frangible bridge. Preferably, the security ring is connected through the container through several frangible bridges. Said frangible bridges can be evenly distributed along the upper edge of the container. The length of each of the frangible bridges may be between 0,5 - 2mm.

[0012] Optionally, the security ring may enclose a side wall of the lid.

[0013] The height of the lid side wall may be smaller than the height of the container side wall. The lid side wall may be slightly slanted from an upper edge to a lower edge and may be pressed into the container when the package is closed.

[0014] The package may have various shapes such as square, polygonal etc., but preferably the package is circular or has two pairs of opposing, parallel side walls with rounded corners. The package may have a diameter of between 40 - 400 mm. The package may be a pocket-sized package. The pocket-sized package may hold both tobacco products and non-tobacco products, including orally consumed pouches of dry snuff. The package of pocket-size may have an overall size that allows a consumer to comfortably hold the package within the palm of a hand and to store the container within a shirt pocket or in a rear pocket of a pair of trousers.

[0015] Preferably, the engagement between the security ring and the lid is stronger than the engagement between the security ring and the container side wall.

[0016] Preferably, the lid and the security ring may be formed as separate, distinct components, for example by injection molding as separate plastic components. But when the package is unbroken, the security ring encloses the lid side wall and forms a uniform package with the container.

[0017] Preferably, the lid may comprise a security ring locking protrusion, wherein the security ring locking protrusion is protruding radially outwards from a lower portion of the lid side wall and engages with a protrusion extending radially inwards from the security ring.

[0018] The lid may be opened in an opening direction along an opening axis, which may extend through the

respective centers of the lid and the container when the container is closed by the lid, wherein radially is defined as radially in relation to the opening axis.

[0019] After filling the container with the attached sealing ring with consumer goods, the lid is pressed into the container and the locking protrusion may be snap-fit and/or press-fit to the inner face of the security ring, e.g. where the security ring locking protrusion engages with a protrusion arranged at the inner face of a lower edge of the security ring. After closing, an upper edge of the security ring may rest against a radially protruding edge that extends around the perimeter of the lid. A security ring locking protrusion may be continuous or discontinuous.

[0020] Since the security ring may be attached to the lid through a stronger attachment than to the container, the security ring may remain on the lid, attached to the perimeter thereof even when the lid is closed and reopened again, and thereby no loose debris is formed when opening the package for the first time. This results in a reduced risk of the tamper evident seal ending up on the street or in the nature. The security ring may thus be adapted to, when the frangible bridges has been broken, attach to an upper portion of the lid and stay clear from the container.

[0021] In one embodiment, a non-frangible part of the security ring may be integrally connected to the upper edge of the container to define a hinge. One or several frangible bridges may be replaced by a hinge for attaching the security ring to the container even after opening of the container for the first time. This hinge may comprise one or two bendable parts that are molded between a lower edge of the security ring and an upper edge of the container. Since the security ring is attached to the lid, the lid will partly be attached to the container when the package is opened, and it is not as easy to lose the lid as if the whole lid were removed from the container when opening the package.

[0022] Preferably, the security ring may comprise a recess adapted for opening of the package, said recess comprising a gripping edge allowing gripping a lower edge of the security ring with a finger. This gripping edge may be adapted to be opened by a thumb by pressing the thumb on the gripping edge, thereby releasing the lid from the container, and the package is opened. Thereby, any locking protrusion between the lid and the security ring is not subjected to all the force required to open the package. The recess may be arranged opposite to any hinge along the perimeter of the lid. The lid can thus be opened by applying a pressuring force on the security ring and the lid may be opened in the opening direction along the opening axis. In this way, the package may be opened in a natural way without rotation of the lid.

[0023] Preferably, the lid may further comprise a container snap-lock, wherein the container snap-lock is protruding radially outwards from a lower portion of the lid sidewall and releasably engages with a protrusion extending radially inwards from an upper edge of the con-

tainer. The security ring locking protrusion and the container snap-lock may be axially spaced, forming a gap therebetween. The security ring locking protrusion may be arranged above the container snap-lock and the gap therebetween creates a clearance between the two protrusions on the lid side wall.

[0024] The container, the lid and the security ring may be formed from a variety of different materials or combinations thereof, such as metal, plastic, cardboard, and the like: Preferably, the package may be formed from a thermoplastic material having a resilience and hardness to render the package rigid to be self-supporting, yet resilient to give away when the lid is fitted into the security ring and into the container. The thermoplastic material is advantageously from the group of polypropylenes, polyethylene, polystyrene, nylon, polysulfone, polyester, polyurethane and combinations thereof. The thermoplastic material may also be a non-fossil material.

[0025] Due to the flexible material of all parts and the fact that the security ring locking protrusion and the container snap-lock are not completely flush with the lid side wall, these protrusions will press in a resilient way against the inside of the security ring and the inside of the container and keeps the security ring and the lid in place.

[0026] In one embodiment, the lid may comprise a bottom wall forming a storage space between the walls of the lid. The storage space may be used for storage of used goods such as orally consumed pouches of dipping tobacco/moist snuff, instead of throwing them on the ground, and thereby creating a more environmentally friendly package.

[0027] Preferably, the lid top wall may be openable for access to the storage space. The lid top wall may surround an opening to the storage space.

[0028] Preferably, the lid top wall may comprise a lid snap-lock, extending radially outwards from a lower portion of the lid top wall and releasably engages with a protrusion extending radially inwards from an upper edge of the lid side wall when the lid top wall is pressed into the storage space for closing this space. The lid top wall may be flush with the upper edge of the lid side wall when the storage space is closed, creating a uniform package. The lid top wall may have an opening direction along an opening axis, which way extend through the respective centers of the lid and the container when the storage space is closed by the lid top wall.

[0029] The lid top wall may be opened through a recess arranged in an upper edge of the lid side wall. By forming a part of the rim arranged along the perimeter of the upper edge of the lid side wall discontinuous, a recess may be formed. By gripping the recess with a finger and pressing the lid top wall upwards, the snap-lock between the lid top wall and the lid side wall is released and the lid top wall can be opened for access to the storage space.

[0030] In one embodiment, the lid may comprise a movable wall allowing changing the volume of the storage space. By moving the wall, it will be possible to increase or decrease the volume of the storage space,

Preferably, the movable wall may be the lid bottom wall. The radially outer edge of the bottom wall may comprise a flexible attachment rim attaching the bottom wall to the lid side wall, enabling the bottom wall to be movable between an upper position and a lower position. The outer edge of the bottom wall may comprise an inclined attachment to an inner face of the lid side wall, allowing the bottom wall to fold out and move from an upper position to a lower position and thereby increasing the volume of the storage space. When the content in the container decreases, it will be possible to store more used goods in the storage space of the lid due to the movable wall.

[0031] According to a second aspect, there is provided a package for consumer goods. The package may comprise a container, wherein the container comprises a bottom wall and a side wall, which extends from the bottom wall, thereby forming a bottom cavity; and a lid, wherein the lid comprises a top wall, a side wall, which extends downward from the top wall; and a bottom wall forming a storage space between the walls of the lid. The lid bottom wall may be movable allowing changing the volume of the storage space. The outer edge of the bottom wall may comprise a flexible attachment rim for attachment to the lid side wall, enabling the bottom wall to be movable between an upper position and a lower position. The outer edge of the bottom wall may comprise an inclined attachment to an inner face of the lid side wall, allowing the bottom wall to fold out and move from an upper position to a lower position and thereby increasing the volume of the storage space. When the content in the container decreases, it will be possible to store more used goods in the storage space of the lid due to the movable wall.

[0032] According to a third aspect, it is provided a package that may be easily manufactured, filled with consumer product, and sealed.

[0033] To this end, there is provided a method for filling and sealing a package. The method may comprise the steps of: Providing a container having an opening, the container being provided with a security ring attached to a rim of the opening. The container is filled with a product and the lid is pressed into the opening of the container such that a radially outer face of the lid is press-fit or snap-fit in the security ring. The security ring may be attached to the container through frangible bridges. Once the package has been opened for the first time, these frangible bridges will break, and security ring will detach from the container. Once these bridges have been broken, they may not be attached to the container again, and consequently, it is evident that the package has been opened and its content can no longer be guaranteed by the manufacturer. If there is a strong attachment between the lid and the security ring, the security ring will remain on the lid even after that the package has been opened for the first time, closed, and reopened again. In this way it is possible to produce a package with a tamper evident seal, which has a positive impact on the environmental since no loose debris is formed when the package is

opened for the first time.

[0034] The sealed pocket-sized package may also be provided with labels on the lid and/or the container. These labels may indicate contents, manufacturer, warnings etc.

[0035] It is noted that embodiments of the invention may be embodied by all possible combinations of features recited in the claims. Further, it will be appreciated that the various embodiments described for the device are all combinable with the method as defined in accordance with the third aspect of the present invention, and vice versa.

Brief description of the drawings

[0036] The above, as well as additional objects, features and advantages of the present invention, will be better understood through the following illustrative and nonlimiting detailed description of preferred embodiments of the present invention, with reference to the appended drawings, where the same reference numerals will be used for similar elements, wherein:

Fig. 1A shows a general overview in perspective of a package according to a first embodiment in a closed position.

Fig. 1B shows a general overview in perspective of the package of Fig. 1A in an open position.

Fig. 2 shows a general side view of the different components of the package of Figs. 1A-B in open position.

Figs. 3A and 3B are section views illustrating an exemplary attachment between a security ring and a container of the package of Fig. 2, wherein Fig. 3B is an enlarged view of section B in Fig. 3A.

Fig. 4 is a section showing the attachment of the different components of the package according to the first embodiment.

Fig. 5 is a side view illustrating the different components of a package according to a second embodiment.

Fig. 6 is a section showing the attachment of the different parts of the package according to the second embodiment.

Figs. 7A and 7B are sections of a lid of a package according to a third embodiment, wherein Fig. 7A illustrates the lid in a first position, and Fig. 7B illustrates the lid in a second position.

Fig. 8 shows a method for filling and sealing a package.

[0037] All the figures are schematic, not necessarily to scale, and generally only show parts which are necessary to elucidate the embodiments, wherein other parts may be omitted.

Detailed description of the exemplary embodiments

[0038] Figs. 1A and 1B illustrate overviews of the package 1 according to a first embodiment. Fig. 1A shows the package 1 in a closed position and Fig. 1B shows the package 1 in an open position. The package 1 comprises three components: a container 3, which houses the goods within the package 1, a lid 5, which forms a cover of the goods within the container 5, and a security ring 7, which indicates any attempts of tampering with the goods within the package 1.

[0039] The package 1 may have various shapes as seen from above such as square, polygonal etc., but preferably the package can be circular, as illustrated in Figs 1A and 1B, or have parallel side walls with rounded corners.

[0040] The container 3, lid 5 and security ring 7 may be formed from a variety of different material or combinations thereof, such as metal, plastic, cardboard, and the like. The package 1 can be made of a thermoplastic material that is flexible yet self-supporting. The thermoplastic material is advantageously from the group of polypropylenes, polyethylene, polystyrene, nylon, polysulfone, polyester, polyurethane, and combinations thereof. The thermoplastic material may also be a non-fossil material.

[0041] The lid 5 may be opened in an opening direction along an opening axis A and may have a center axis B in the center of the lid 5 which extends along the opening axis A when the lid is closed.

[0042] Fig. 2 shows the components 3, 5, 7 of the package 1 before the lid 5 has been attached to the container 3 for the first time. The container 3 includes a bottom wall 9 and a peripheral side wall 11 that extends from and circumferentially surrounds the bottom wall 9. The container 3 is unitary formed by the bottom wall 9 and the side wall 11. The bottom wall 9 and the side wall 11 together define a bottom cavity 13 of the container 3 for housing the goods to be stored within the package 1. The container 3 has an opening, opposite to the bottom wall 9, for access to the bottom cavity 13.

[0043] As shown in Fig. 2, the lid 5 includes a lid top wall 19 and a lid side wall 21, which extends from the lid top wall 19 forming a skirt. The lid 5 is unitary formed by the lid top wall 19 and the lid side wall 21. A circumferential edge 25 of the lid top wall 19 extends radially outwards beyond the side wall 21 and forms a rim adjacent an upper edge 27 of the lid side wall 21. The lid side wall 21 may have slanted outer face, defining a frustoconical shape tapering slightly from the upper edge 27, close to the top wall 19, towards a lower edge 29.

[0044] The height of the lid side wall 21, measured along an opening axis A of the package 1, can be smaller than the height of the container side wall 11.

[0045] A lower portion of the lid side wall 21 includes two resilient protrusions 33, 35, protruding radially outwards. Radially is defined herein as radially in relation to the opening axis A, whereas whenever a vertical direction

or position is referred to, the upwards direction is defined as the direction of opening the lid along the opening axis A. The two protrusions 33, 35 are a security ring locking protrusion 33, for engagement with the security ring 7, and a container snap-lock 35, for engagement with the container 3. The two protrusions 33, 35 circumferentially surround the lid side wall 19. As shown in Fig 2, the two protrusions 33, 35 are axially spaced, forming a gap 37 therebetween. In the shown embodiment, these protrusions 33, 35 are continuous, each defining a respective ridge extending about the perimeter of the side wall, but they can be discontinuous as well.

[0046] The security ring 7 may be integrally formed with the container 3, while the lid 5 may be formed as separate component, distinct from the security ring 7. The security ring 7 may be formed as a narrow strip with a height of about 5-10 mm. When manufacturing of the package 1, the security ring 7 can be attached to the upper edge 17 of the container sidewall 11 by spot welding. The attachment takes place at dots circumferentially distributed about upper edge 17 of the container side wall 11 at regular intervals, creating frangible bridges 39 with a lower edge 40 of the security ring 7. Between the frangible bridges 39 there are arranged heels 38, which rest against the upper edge 17 of the container side wall 11 and are integrally formed with the lower edge 40 of the security ring 7. As an alternative to spot welding, the security ring 7, container side wall 11, and frangible bridges 39 may be integrally formed by e.g. injection molding in a single piece or ultrasonic-welded.

[0047] The security ring 7 may also comprise a recess 41. The recess 41 may comprise a gripping edge 43 adapted to fit the shape of a finger, for example a thumb.

[0048] Figs. 3A and 3B show an example of how some, such as one or two, frangible bridges 39 may be replaced by a hinge 45. This hinge 45 may be a non-frangible part of the security ring 7. This non-frangible part may comprise one or two flexible, foldable connections between the upper edge 17 of the container side wall 21 and the lower edge 40 of the security ring 7. The hinge 45 may be arranged opposite to the recess 41 on the security ring 7 along the perimeter thereof. As shown in Fig. 3A, the container bottom wall 9 may be slightly concave or arcuate to protect any labels on the lid of another package during stacking of a plurality of packages.

[0049] Fig. 4 shows a cross section of the package 1 when the lid 5 has been connected to the container 3. After filling the container 3 with the attached sealing ring 7 with consumer goods, the lid 5 is pressed into the container 3. The heels 38 (Figs 2, 3) between the frangible bridges 39 (Figs. 2, 3) support the security ring 7 against the container side wall 21 to protect the frangible bridges 39 from breaking when the lid 5 is pressed into the container 3.

[0050] Upon closing, the security ring locking protrusion 33 on the lid side wall 21 may be snap-fit and/or press-fit to an inner face of the security ring 7, for example by allowing the security ring locking protrusion 33 to en-

gage with a protrusion 49 arranged at the inner face of a lower edge 40 of the security ring 7. An upper edge 51 of the security ring 7 rests against the lower face of the rim 25 adjacent the upper edge 27 of the lid side wall 21.

[0051] A locking edge 15 protrudes radially inwards from the inner face of the container side wall 11 and is formed adjacent to an upper edge 17 of the container side wall 11 opposite to the bottom wall 9.

[0052] When the lid 5 is pressed into the container 3, the container snap-lock 35 on the lid side wall 21 may snap to the locking edge 15 on the inner face of the container side wall 11. The lid 5 is thus snap-locked to the container 3 when closed, and if the package 1 has not been opened for the first time, the security ring 7 is attached to both the container 3 and the lid 5, forming a tamper evident seal.

[0053] If the package 1 is formed from a thermoplastic material, the package 1 is rigid to be self-supporting, yet resilient enough to give away when the lid 3 is pressed into the security ring 7 and into the container 5.

[0054] When the package 1 is opened for the first time, the user will place his finger, for example the thumb against the gripping edge 43 of the recess 41 (shown in Fig. 2) in the security ring 7 and press upwards. The snap-lock between the lid 5 and the container 3 will release and it is possible to remove the lid 5 from the container 3.

[0055] The frangible bridges 39 (Figs 2 and 3) between the security ring 7 and the container 3 will break when the package 1 is opened. Once these bridges 39 have been broken, they cannot be attached to the container 3 again, and consequently, it is evident that the package 1 has been opened and its content can no longer be guaranteed by the manufacturer. If the engagement between the security ring 7 and the lid 5 is sufficiently strong, the security ring 7 will remain on the lid 5 even after that the package 3 has been opened for the first time, closed, and reopened again.

[0056] If some of the frangible bridges 39 are replaced by a hinge 45 as seen in Figs 3A, 3B, an attachment between the container 3 and the security ring 7 will remain even after the package 1 has been opened for the first time. The lid 5 will thus remain stuck with the container 3 even when the package 1 has been opened as seen in Fig. 1B, which makes it easier to keep track of the lid 5.

[0057] A second embodiment of the invention is shown in Fig. 5. In this embodiment, the lid may comprise a bottom wall 53. A storage space 55 may be formed between the walls 19, 21, 53 of the lid 5. This storage space 55 may be used for consumed goods such as, for example, used orally consumed pouches of moist snuff. Instead of throwing the pouches on the ground, they are placed within the storage space 55. This embodiment has good impact on the environment since the consumed product is stored within the package 1. To be able to get access to the storage space 55, the lid top wall 19 may be openable. A lower portion of the lid top wall 19 includes a resilient protrusion 64 protruding radially outwards. This

protrusion 64 may be a lid snap-lock for engagement with an inner face of the lid side wall 19. A locking edge 62 (see Fig 6) protrudes radially inwards from the inner face of the lid side wall 21 and is formed adjacent to the upper edge 27 of the lid side wall 21. The lid top wall 19 may also be provided with a radially protruding edge 59 arranged along the perimeter of the lid top wall 19. The lid top wall is configured to be countersunk to be flush lid side wall 21. When the lid top wall 19 is pressed into the storage space 55, the lid snap lock 64 on lid top wall 19 may snap to the locking edge 62 on the inner face of the lid side wall, as seen in Fig 6. The lid top wall is thus snap-locked to the lid side wall 21 when closed. The protruding edge 59 of the lid top wall 19 will rest against an axial support rim 57 at the upper edge 27 of the lid side wall 21, with the lid top wall 19 flush with the upper edge 27 of the lid side wall 21. To be able to grip and open the lid top wall, the lid side wall 19 can be provided with a recess 61. By forming a part of the rim 57 arranged along the perimeter of the upper edge 27 of the lid side wall 21 discontinuous, a recess 61 may be formed. By gripping the recess 61 with a finger and pressing the lid top wall 19 upwards, the snap-lock between the lid top wall 19 and the lid side wall 21 is released and the lid top wall 19 can be opened for access to the storage space 55. The recess 61 for gripping the lid top wall 19 can be placed above the recess 41 on the security ring 7 to make it easier for the consumer.

[0058] Fig. 6 shows a cross section of the package 1 when the lid 5 according to the second embodiment has been connected to the container 3. The attachment between the lid 3 and the container 5 as well as the attachment between the security ring 7 and the lid 3 are independent of the storage space 55 within the lid 5. The attachments between the parts 3, 5, 7 is thus made as described with reference to Fig. 4 and there is no need to repeat this here. The attachment between the lid top wall 19 and the lid side wall 21 for closing the storage space 55 has been described with reference to Fig. 5 and there is no need to repeat this here.

[0059] Figs. 7A and 7B show a third embodiment of the invention. The lid 5 may be provided with a movable wall 53 allowing changing the volume of the storage space. This movable wall 53 could be a partition wall within the lid 5 but is preferably the lid bottom wall 53. An outer edge 63 of the lid bottom wall 53 can comprise a flexible attachment rim 67 attaching the bottom wall 53 to the lid side wall 21. This flexible attachment rim 67 enables the lid bottom wall 53 to move between an upper position (Fig. 7A) and a lower position (Fig. 7B). The attachment rim 67 may be inclined, e.g. by tapering slightly in a frustoconical manner, facilitating for the lid bottom wall 53 to be folded out and move from the upper position to the lower position and thereby increasing the volume of the storage space 55. When the content in the container 3 decreases, it will be possible to store more used goods within the storage space 55 of the lid 5 due to the movable wall 53.

[0060] It may also be possible to use the movable wall within a package that comprises a container and a lid with a storage space according to what has been described hereinabove, but without the security ring. This embodiment has not been shown in the drawings.

[0061] Fig. 8 shows a method for filling and sealing a package according to the invention. The method may comprise the following steps:

- 101; providing a container 3 having an opening, the container 3 being provided with a security ring 7 attached to a rim of the opening via a frangible attachment;
- 103; filling the container with a product; and
- 105; pressing a lid 5 into the opening of the container 3 such that a radially outer face of the lid 3 is press-fit or snap-fit in the security ring 7.

[0062] The method may also comprise the step of providing the package with labels on the lid and/or the container. These labels may indicate contents, manufacturer, warnings etc.

[0063] The invention has mainly been described above with reference to a few embodiments. However, as is readily appreciated by a person skilled in the art, other embodiments than the ones disclosed above are equally possible within the scope of the invention, as defined by the appended patent claims.

[0064] For example, the drawings have described a pocket-sized container that can be used to orally consumed pouched of snus, but the invention may be used for other kinds of packages. Both larger and smaller packages and for other consumer goods that needs to be provided with a tamper evident seal.

[0065] In the claims, the word "comprising" does not exclude other elements or steps, and the indefinite article "a" or "an" does not exclude a plurality.

Claims

1. A package (1) for consumer goods comprising:

a container (3), a lid (5), and a security ring (7), wherein the container (3) comprises a bottom wall (9) and a side wall (11), which extends from the bottom wall (9), thereby forming a bottom cavity (13), wherein the lid (5) comprises a top wall (19) and a side wall (21), which extends downward from the top wall (19), wherein the security ring (7) is attached to both the container (3) and the lid (5), extending along a perimeter of the container (3) and about a perimeter of the lid (5), when the package (1) is unbroken and, wherein the security ring (7) is formed integrally with the container (3), molded to the container

(3) through at least one frangible bridge (39) along an upper edge of the container (3).

2. Package (1) according to claim 1, wherein the lid (5) and the security ring (7) are formed as separate, distinct components.
3. Package (1) according to claim 1 or 2, wherein the lid (5) comprises a security ring locking protrusion (33), wherein the security ring locking protrusion (33) is protruding radially outwards from a lower portion of the lid side wall (21) and engages with a protrusion extending radially inwards from the security ring (7).
4. Package (1) according to any of the preceding claims, wherein a non-frangible part of the security ring (7) is integrally connected an upper edge (17) of the container (3) to define a hinge (45).
5. Package (1) according to any of the preceding claims, wherein the security ring (7) comprises a recess (41) adapted for opening of the package (1), said recess (41) comprises a gripping edge (43) allowing gripping a lower edge of the security ring (7) with a finger.
6. Package (1) according to any of the preceding claims, wherein the lid (5) further comprises a container snap-lock (35), wherein the container snap-lock (35) is protruding radially outwards from a lower portion of the lid sidewall (21) and resiliently engages with a protrusion (15) extending radially inwards from an upper edge (17) of the container (3).
7. Package (1) according to claim 6, wherein the security ring locking protrusion (33) and the container snap-lock (35) are axially spaced, forming a gap (37) therebetween.
8. Package (1) according to any of the preceding claims, wherein the package (1) is made from a thermoplastic material.
9. Package (1) according to any of the preceding claims, wherein the lid (5) further comprises a bottom wall (53) forming a storage space (55) between the top wall (19), side wall (21), and bottom wall (53) of the lid (5).
10. Package (1) according to claim 9, wherein the lid top wall (19) is openable.
11. Package (1) according to claim 9 and 10, wherein the lid top wall (19) comprises a lid snap-lock (64), extending radially outwards from a lower portion of the lid top wall (19) and releasably engages with a protrusion (62) extending radially inwards from an upper edge (27) of the lid side wall (21).

12. Package (1) according to claims 9-11, wherein the lid (5) comprises a movable wall allowing changing the volume of the storage space (55).
13. Package (1) according to claims 9-12, wherein an outer edge (63) of the bottom wall (53) comprises a flexible attachment rim (67) attaching the bottom wall (53) to the lid side wall (21), the flexible attachment rim (67) enabling the lid bottom wall (53) to be movable between an upper position and a lower position.
14. A package (1) for consumer goods comprising:
- a container (3), wherein the container (3) comprises a bottom wall (9) and a side wall (11), which extends from the bottom wall (9), thereby forming a bottom cavity (13); and
- a lid (5), wherein the lid (5) comprises a top wall (19), a side wall (21), which extends downward from the top wall (19), and a bottom wall (53) forming a storage space (55) between the walls (19, 21, 53) of the lid (5);
- wherein the lid bottom wall (53) is movable allowing changing the volume of the storage space (55).
15. A method for filling and sealing a package (1), the method comprising:
- providing (101) a container (3) having an opening, the container (3) being provided with a security ring (7) attached to a rim of the opening;
 - filling (103) the container (3) with a product; and
 - pressing (105) a lid (5) into the opening of the container (3) such that a radially outer face of the lid (5) is press-fit or snap-fit in the security ring (7).

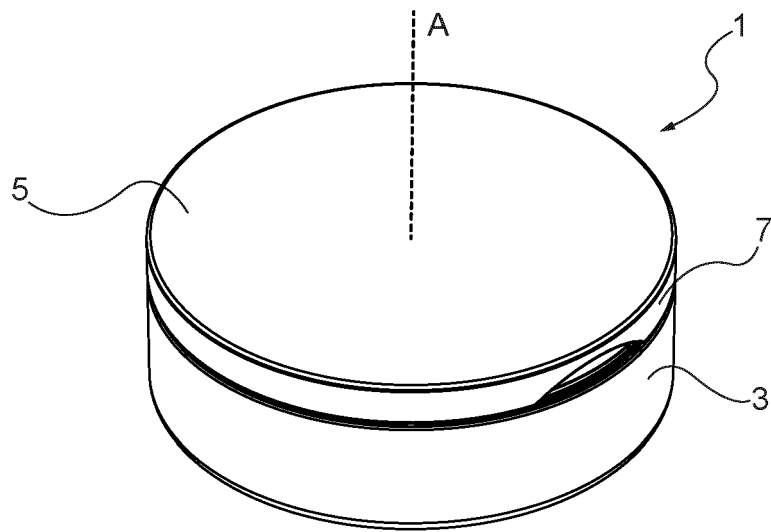


Fig 1A

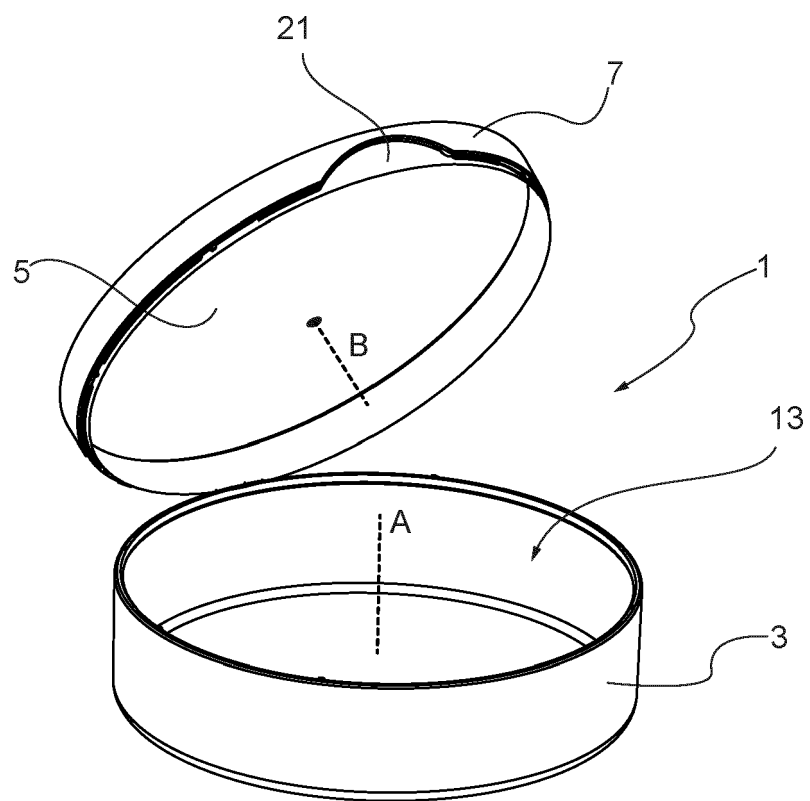
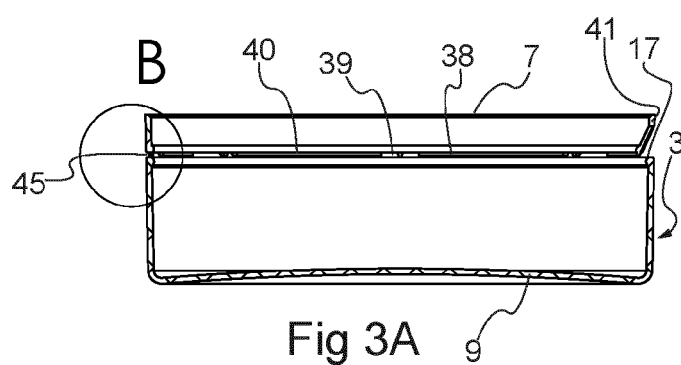
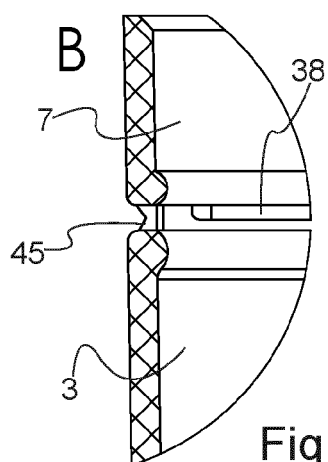
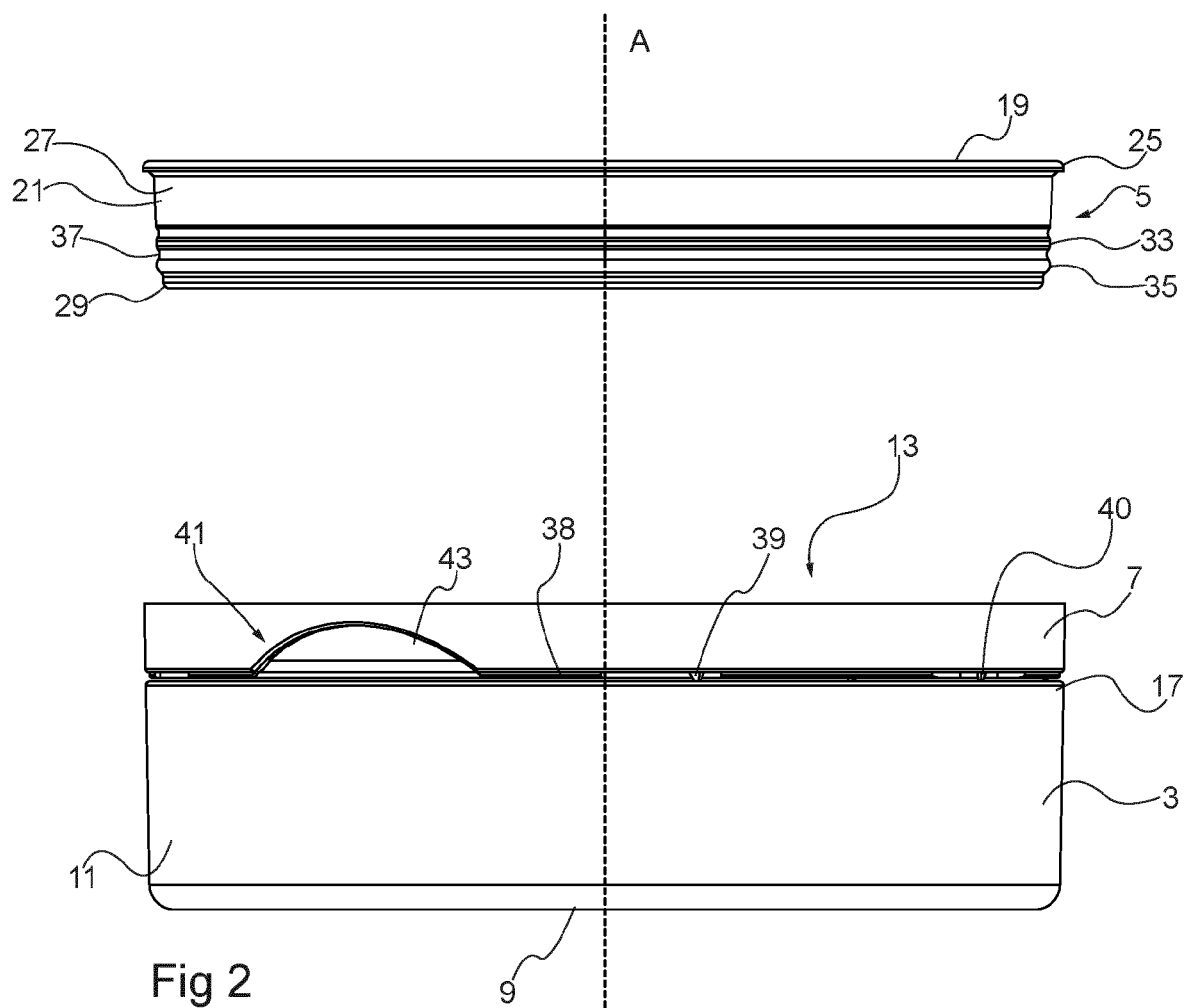
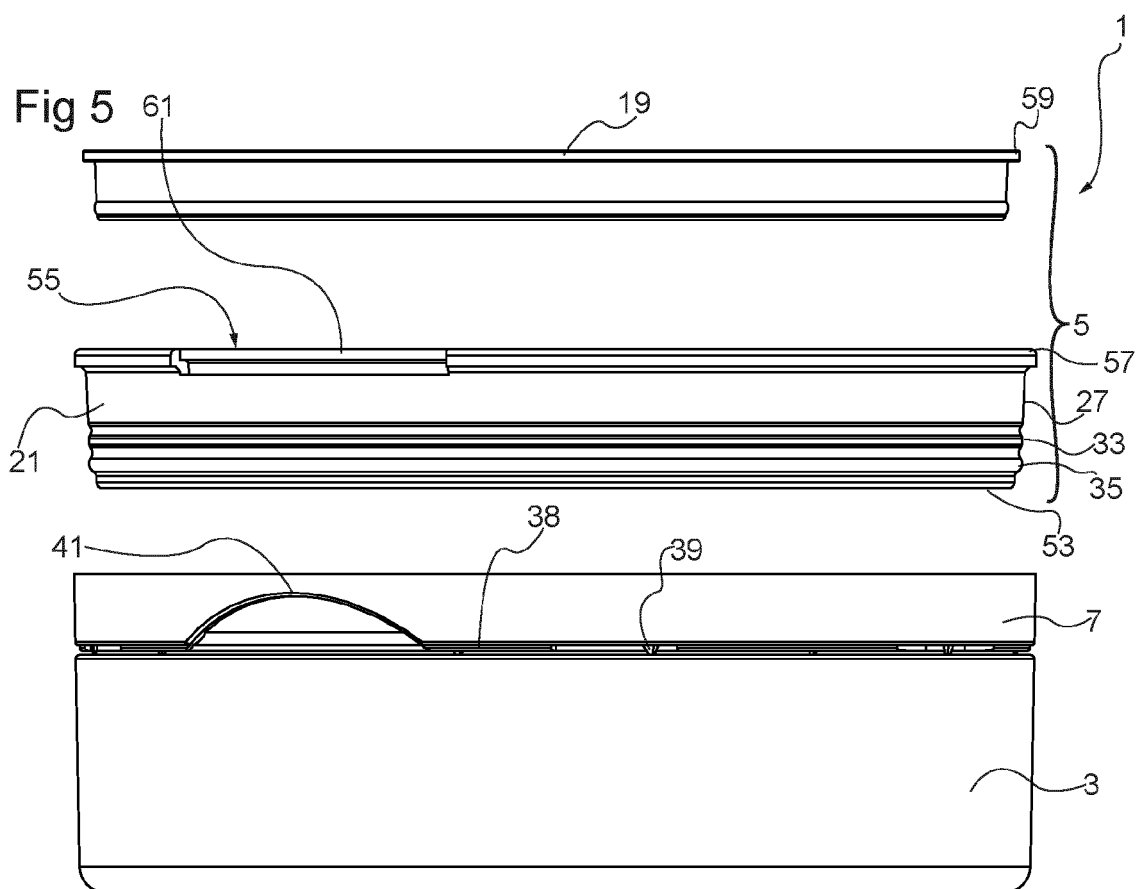
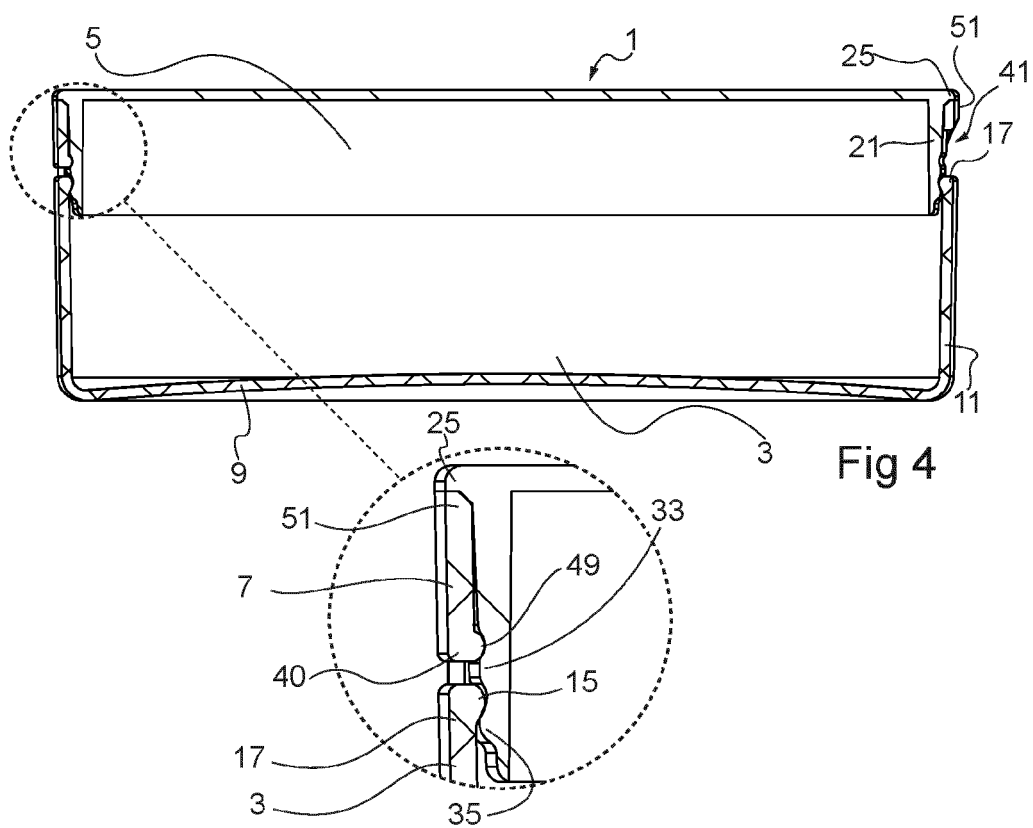


Fig 1B





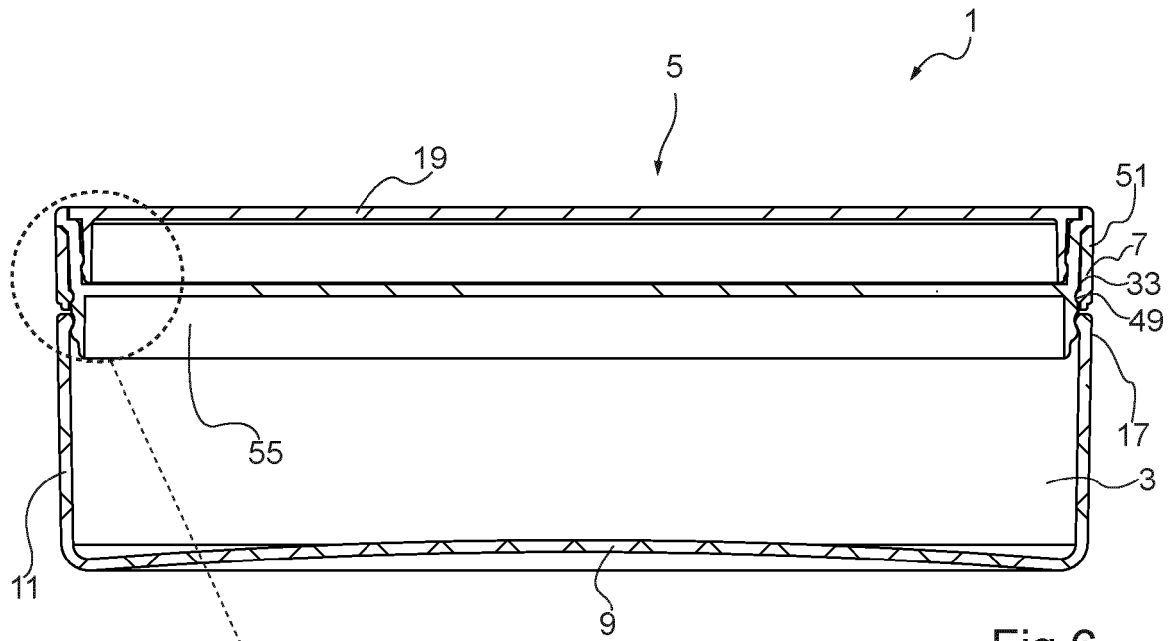


Fig 6

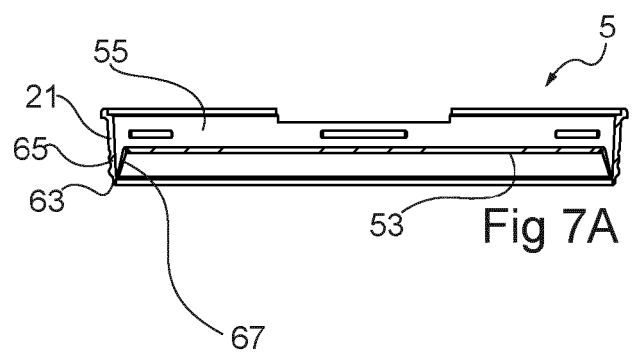
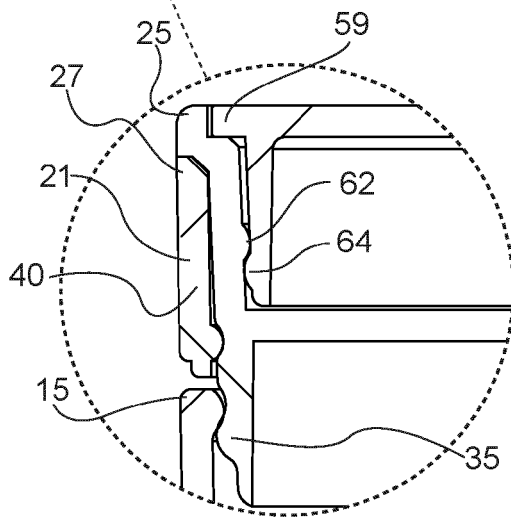


Fig 7A

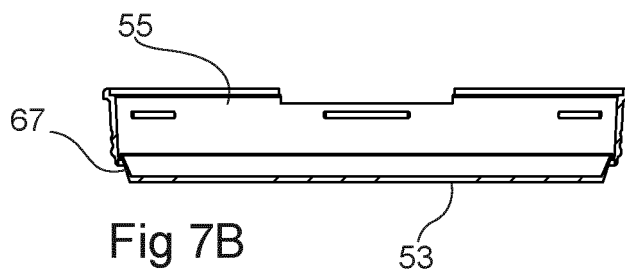


Fig 7B

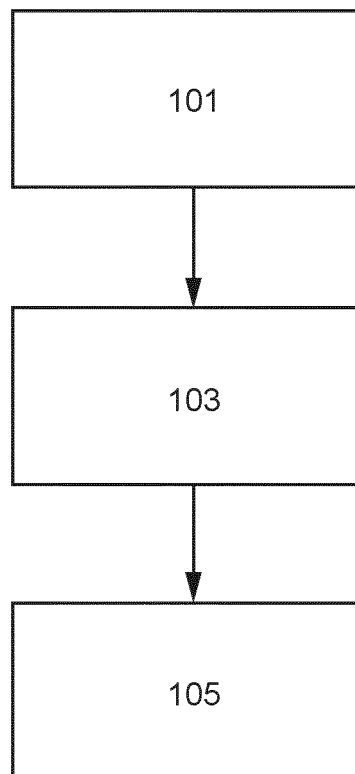


Fig 8



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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 16 June 2020	Examiner Fournier, Jacques
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