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(54) **Packaging and cover for packaging for cosmetic or pharmaceutical compositions**

Verpackung und Verfahren zum Verpacken von kosmetischen oder pharmazeutischen
Zusammensetzungen

Emballage et procédé pour emballage de compositions cosmétiques ou pharmaceutiques

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- **PATENT ABSTRACTS OF JAPAN vol. 097, no. 002, 28 February 1997 (1997-02-28) & JP 08 256828 A (KAMAYA KAGAKU KOGYO CO LTD), 8 October 1996 (1996-10-08)**
- **PATENT ABSTRACTS OF JAPAN vol. 096, no. 006, 28 June 1996 (1996-06-28) & JP 08 052027 A (KANEBO LTD;OTHERS: 01), 27 February 1996 (1996-02-27)**

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Description**BACKGROUND OF THE INVENTION**

[0001] The present invention relates to a refillable packaging for cosmetic compositions and/or pharmaceutical compositions and to a process for packaging a cosmetic and/or pharmaceutical composition packaged in the refillable packaging.

[0002] Packagings for cosmetic compositions are typically provided with a rigid cover which prevents variation of the internal volume of the packaging. In the case of sealed packaging, a variation of the internal pressure, for example, an increase of the internal pressure induced by closing of the cover, or a variation of the external pressure, induces a difference of pressure between the interior and the exterior of the packaging.

[0003] This pressure variation has numerous disadvantages. On one hand, hermetic sealing of the packaging can be compromised leading to a risk of leakage of the cosmetic composition due to excessive internal pressure, or of contamination of the cosmetic composition due to internal low pressure. Furthermore, low pressure created by movement of the wall of the cover during opening of the packaging risks detaching the cosmetic composition and carrying it outside of its housing. Moreover, compression of the air tends to work against closing of the packaging, while external pressure not balanced by an equivalent internal pressure tends to work against opening of the packaging. This pressure variation occurs for containers with a sealed compartment.

[0004] Cosmetic compositions based on wax and emulsions of fatty material can advantageously be refilled within a container, particularly in the case of foundations, lipsticks, rouges or creams, by-products based on solvents, such as water, volatile silicones, alcohols or mixtures of them. These types of products require for their storage a packaging with a sealed compartment.

[0005] One additional embodiment of the present invention includes a process for packaging a cosmetic and/or pharmaceutical composition. The process includes filling a container of a refill with cosmetic and/or pharmaceutical composition. The process also includes assembling the container of the refill containing cosmetic and/or pharmaceutical composition with the packaging. The filling can occur when the cosmetic and/or pharmaceutical composition is hot.

[0006] It is known from the document EP-A-0845230, a refillable packaging provided with an external envelope, an opening at the base of the envelope for receiving a container and means for locking the container.

[0007] The sealed packagings for cosmetic compositions of known type have an elastomer seal with compression having an axial component. These packagings have numerous disadvantages. The sealed quality is only ensured if the elastomer seal is compressed with a relatively high force, making the closing of the packaging difficult or not very reliable. Furthermore, the

packaging has a high price, due not only to the use of an expensive seal, but also due to difficulties of automation of the positioning of a non-rigid part, such as an elastomer seal.

5 [0008] One other problem with sealed cosmetic packaging concerns refills. Production of a packaging of a cosmetic composition by placing a refill inside a housing is known. The positioning and holding of the refill is not always easy. Moreover, the volume of the container receiving the refill increases the space requirement of the packaging. Furthermore, it is not always easy to ensure the temporary hermetic sealing of a sealed compartment of a refillable packaging for a cosmetic and/or pharmaceutical composition produced based on a volatile solvent.

SUMMARY OF THE INVENTION

[0009] One embodiment of the the present invention includes a refillable packaging for a cosmetic and/or pharmaceutical composition. The refillable packaging has an external envelope, the base of which being provided with opening for receiving container of a refill of cosmetic and/or pharmaceutical composition, the packaging further comprising an opening of container that opens inside external envelope, means of locking of container of the refill in position in the packaging. The container comprises first radially internal wall which delimits a chamber for receiving the cosmetic and/or pharmaceutical composition and a second radially external wall for application of means of hermetic sealing of container of the refill.

[0010] In more specific embodiments:

- 35 - the opening is made in base of external envelope of the packaging and the external wall of the bottom of container of the refill is in the extension of the external side of base of envelope of the packaging;
- means of locking has projecting elements ensuring the locking and holding by clipping of container of the refill in the packaging;
- means of hermetic sealing of container are provided with rib which is applied radially on wall arranged facing it in order to ensure said hermetic sealing;
- 45 - the container of the refill has an undercut wall, which delimits a chamber for receiving the cosmetic and/or pharmaceutical composition;
- the packaging is a flat box and in that the container of the refill is a trough or a well;
- 50 - a platform delimits a chamber for receiving the cosmetic and/or pharmaceutical composition and a ventilated compartment for receiving means of application of the cosmetic and/or pharmaceutical composition;
- 55 - the platform ensures the hermetic sealing of container of the refill and wherein said platform can be deformed so as to allow compensation for the difference pressure between the interior and the exte-

rior of container of the refill.

[0011] One packaging embodiment includes a mechanism for receiving a removable container forming a refill of cosmetic and/or pharmaceutical composition. The packaging has a receiving opening and some mechanism of locking in position, particularly by clipping, of a removable container in the form of the trough or cup, whose opening opens inside the packaging. Some packaging embodiments further include the ventilated compartment, some mechanism of application of the cosmetic and/or pharmaceutical composition of a sponge or Japanese foam type.

[0012] For some embodiments, the cover of the packaging constitutes the cover of the sealed compartment. The sealed compartment is for cosmetic compositions based on volatile solvents and a ventilated housing for storage of a mechanism of application, such as a Japanese foam or a sponge, which are better maintained in a dry atmosphere. In this case, the packaging according to the present invention comprises the intermediate platform between the cover of the packaging and the sealed compartment.

[0013] The platform delimits a chamber for receiving the cosmetic and/or pharmaceutical composition and a ventilated compartment for receiving the mechanism of application of the cosmetic and/or pharmaceutical composition. The platform ensures hermetic sealing of the container of the refill.

[0014] One additional embodiment of the present invention includes a process for packaging a cosmetic and/or pharmaceutical composition. The process includes filling a container a refill with cosmetic and/or pharmaceutical composition. The process also includes assembling the container of the refill containing cosmetic and/or pharmaceutical composition with the packaging. The filling can occur when the cosmetic and/or pharmaceutical composition is hot.

DESCRIPTION OF THE DRAWINGS

[0015]

Figures 1 to 3 are cross sectional views of embodiments of packagings of the art.

Figure 4 is a cross-sectional view of an embodiment of packaging of the present invention.

Figures 5 and 6 are cross-sectional views of embodiments of a refill trough of the packaging of the present invention.

Figure 7 is a top view of the refill trough of the packaging of Figure 6.

DESCRIPTION OF DETAILED EMBODIMENTS

[0016] In Figure 1 is a packaging, which has external envelope 1, for example, cylindrical, elliptical-based, oval, polygonal or other shape, which is closed by cover

6. Base 45 of envelope 1 is provided with opening 46 for receiving refill 29, in particular, within a trough or a well 10 which is capable of receiving a cosmetic and/or pharmaceutical composition. Some mechanism for locking 39, for example, with a screw thread, a set of pins or pegs allowing locking by catching, ensuring that trough or well 10 is assembled with the packaging.

[0017] The packaging of Figure 1 does not ensure hermetic sealing of refill 29. In particular, this packaging offers the risk of passage of fluid at the edges of opening 46 between the edge of base 45 and the wall facing trough or well 10.

[0018] Use of packaging of Figure 2 requires several operations that include removing cover 6, removing cover 47, taking the desired quantity of the cosmetic and/or pharmaceutical composition, putting cover 47 back on well 10 and putting cover 6 back on the packaging.

[0019] In Figure 3 is an example of a packaging which has cover 6 provided, for example, in its center with a cap 47 which ensures the temporary hermetic sealing of trough or well. Furthermore, an execution example of the packaging illustrated in Figures 4, 5 and 6 according to the invention has a mechanism of locking that comprises pegs 50 and 51, that catch envelope 1 of the packaging which has corresponding grooves.

[0020] In Figure 4 is an execution variant of the packaging according to the present invention, whose trough or well 10 moreover has radially internal chamber 49 for receiving the cosmetic composition, which is delimited by walls 50 and radially external walls 51 for application of cap 13' of cover 6. Cap 13' is applied on the radially internal side of radially external wall 51 and thus ensures temporary hermetic sealing of chamber 49. The radially external force exerted by cap 13' on walls 51 is only very partially transmitted to walls 50, which considerably limits the risk of detachment of the cosmetic composition from wall 50. One preferred embodiment of refill 29, for example, in the form of a trough or well according to the present invention, is illustrated in Figures 5 to 7. Trough or well 10 advantageously has an undercut shape, that is to say that its opening 52 has a width smaller than that of its bottom facing it. Consequently, on the one hand, well 10 tends to retain the cosmetic composition if the box according to the present invention is overturned, opening 52 downward, and on the other hand, the narrow walls of the well at the site of opening 52 provide optical masking of the possible detachments of the cosmetic composition with respect to the walls at the bottom due to evaporation of the solvent in case of prolonged opening of the box, corresponding to a common error of users. The undercut shape of trough or well 10 for receiving the cosmetic makes it possible to mask the shrinkage of this composition which is poured hot into the trough or well, during its shrinkage due to a cooling phase.

[0021] The undercut well is produced by blowing or advantageously by injection, with a mold which is opened in two steps: first of all, the exterior of the mold

is released; then a piston ensures the release of the trough or well with elastic deformation of the plastic material constituting the trough. The attachment of well 10 on lower part of the box according to the present invention is done by any known mechanism such as, for example, by screwing over a quarter turn, pinning, or advantageously, by catching. For example, trough or well 10 has, exterior to walls, radially external wall 51 provided with securing element, for example, in the form of hooks or on the contrary, securing grooves distributed preferably regularly on the periphery of wall 51. In the example illustrated, the well is roughly elliptical, and it has four securing hooks 48 arranged at the intersection of the large and the small axis of the ellipse with the external side of wall 51.

[0022] The securing of refill 29 by opening 10 made in base 45 of the box according to the present invention allows one to produce a packaging with a limited space requirement. Moreover, the bottom of well or trough 10 extending advantageously in the extension of the bottom of lower part of the box according to the present invention gives the latter a particularly aesthetic appearance.

[0023] Furthermore, well or trough 10 is particularly easy to fill on an automatic filling line, particularly hot. In such a case, the well is made out of a material which is resistant to the filling temperature. The rest of the box can be made of materials with a lower price.

Claims

1. A refillable packaging for a cosmetic and/or pharmaceutical composition, which has external envelope (1), wherein the base (45) of the external envelope (1) is provided with opening (46) receiving a container (29) of a refill of cosmetic and/or pharmaceutical composition, the packaging further comprising an opening (52) of container (29) that opens inside external envelope (1), means of locking (39) of container (29) of the refill in position in the packaging, **characterised in that** the container (29) further comprises first radially internal wall (50) which delimits a chamber (49) for receiving the cosmetic and/or pharmaceutical composition and a second radially external wall (51) for application of means (47, 13') of hermetic sealing of container (29) of the refill.
2. The packaging according to claim 1, wherein the opening (46) is made in base (45) of external envelope (1) of the packaging and the external wall of the bottom of container (29) of the refill is in the extension of the external side of base (45) of envelope (1) of the packaging.
3. The packaging according to claim 1 or 2, further comprising means of locking that has projecting el-

ements (48) ensuring the locking and holding by clipping of container (29) of the refill in the packaging.

4. The packaging according to any one of the preceding claims, wherein the means (47, 13') to ensure hermetic sealing of container (29) of the refill provided with means of locking that catch the envelope (1) with corresponding grooves.
5. The packaging according to any one of the preceding claims, wherein the container (29) of the refill has an undercut wall (50), which delimits the chamber (49) for receiving the cosmetic and/or pharmaceutical composition.
6. The packaging according to any one of the preceding claims, wherein said packaging is a flat box and in that the container (29) of the refill is a trough or a well.
7. The packaging according to any one of the preceding claims, further comprising a platform delimiting a chamber (49) for receiving the cosmetic and/or pharmaceutical composition and a ventilated compartment for receiving means of application of the cosmetic and/or pharmaceutical composition.
8. The packaging according to claim 7, wherein the platform (30) ensures the hermetic sealing of container (29) of the refill and wherein said platform can be deformed so as to allow compensation for the difference pressure between the interior and the exterior of container (29) of the refill.
9. The packaging according to any one of the preceding claims, further containing a cosmetic and/or pharmaceutical composition.
10. A process for packaging a cosmetic and/or pharmaceutical composition, comprising:
 - a) filling container (29) of a refill with cosmetic and/or pharmaceutical composition;
 - b) assembling container (29) of the refill containing cosmetic and/or pharmaceutical composition in the external envelope (1) to form a refillable packaging according to claim 1.
11. A process according to claim 10, **characterized in that** the filling occurs when the cosmetic and/or pharmaceutical composition is hot.

55 Patentansprüche

1. Wiederbefüllbare Verpackung für eine kosmetische und/oder pharmazeutische Zusammensetzung,

- aufweisend: eine Außenhülle (1), wobei die Basis (45) der Außenhülle (1) mit einer Öffnung (46) versehen ist, die einen Nachfüllungsbehälter (29) einer kosmetischen und/oder pharmazeutischen Zusammensetzung (5) aufnimmt, wobei die Verpackung ferner eine Öffnung (52) eines Behälters (29) aufweist, die sich in die Außenhülle (1) öffnet, Mittel (39) zum Festlegen des Nachfüllungsbehälters (29) in seiner Position in der Verpackung, **dadurch gekennzeichnet, daß** der Behälter (29) ferner eine erste radial innere Wand (50) umfaßt, welche eine Kammer (49) begrenzt, die die kosmetische und/oder pharmazeutische Zusammensetzung aufnimmt, sowie eine radial äußere Wand (51), um Mittel (47, 13') anzulegen, die den Nachfüllungsbehälter (29) hermetisch abdichten.
2. Verpackung nach Anspruch 1, wobei die Öffnung (46) in der Basis (45) der Außenhülle (1) der Verpackung angefertigt ist, und sich die Außenwand des Bodens des Nachfüllungsbehälters (29) in der Verlängerung der Außenseite der Basis (45) der Verpackungshülle (1) befindet.
3. Verpackung nach Anspruch 1 oder 2, ferner ein Festlegungsmittel umfassend, das vorstehende Elemente (48) aufweist, die das Festlegen und Festspannen des Nachfüllungsbehälters (29) in der Verpackung sicherstellen.
4. Verpackung nach einem der vorangehenden Ansprüche, wobei die Mittel (47, 13'), welche die hermetische Abdichtung des Nachfüllungsbehälters (29) sicherstellen, mit Festlegungsmitteln versehen sind, welche die Hülle mit entsprechenden Rillen einfangen.
5. Verpackung nach einem der vorangegangenen Ansprüche, wobei der Nachfüllungsbehälter (29) eine hinterschnittene Wand (50) aufweist, welche die Kammer (49) zum Aufnehmen der kosmetischen und/oder pharmazeutischen Zusammensetzung begrenzt.
6. Verpackung nach einem der vorangegangenen Ansprüche, wobei die Verpackung ein flacher Kasten ist, und der Nachfüllungsbehälter (29) eine Wanne oder ein Rohr ist.
7. Verpackung nach einem der vorangehenden Ansprüche, ferner eine Plattform umfassend, welche eine Kammer (49) zum Aufnehmen der kosmetischen und/oder pharmazeutischen Zusammensetzung begrenzt, sowie eine belüftete Kammer, um ein Mittel zum Auftragen der kosmetischen und/oder pharmazeutischen Zusammensetzung aufzunehmen.
8. Verpackung nach Anspruch 7, worin die Plattform (30) das hermetische Abdichten des Nachfüllungsbehälters (29) sicherstellt, und wobei die Plattform verformt werden kann, um einen Ausgleich des Druckunterschieds zwischen dem Inneren und dem Äußeren des Nachfüllungsbehälters (29) zu ermöglichen.
9. Verpackung nach einem der vorangegangenen Ansprüche, weiter eine kosmetische und/oder pharmazeutische Zusammensetzung enthaltend.
10. Verfahren zum Verpacken einer kosmetischen und/oder pharmazeutischen Zusammensetzung, umfassend:
- Befüllen eines Nachfüllungsbehälters (29) mit einer kosmetischen und/oder pharmazeutischen Zusammensetzung;
 - Einsetzen des Nachfüllungsbehälters (29), der eine kosmetische und/oder pharmazeutische Zusammensetzung enthält, in die Außenhülle (1), um eine wiederbefüllbare Verpackung nach Anspruch 1 zu bilden.
11. Verfahren nach Anspruch 10, **dadurch gekennzeichnet, daß** das Befüllen stattfindet, wenn die kosmetische und/oder pharmazeutische Zusammensetzung warm ist.

Revendications

- Conditionnement rechargeable pour composition cosmétique et/ou pharmaceutique comportant une enveloppe externe (1) **caractérisé en ce que** la base (45) de l'enveloppe externe (1) est munie d'une ouverture (46) de réception d'un récipient (29) d'une recharge de la composition cosmétique et/ou pharmaceutique, le conditionnement comprenant également une ouverture (52) du récipient (29) qui débouche à l'intérieur de l'enveloppe externe (1), des moyens de verrouillage (39) du récipient (29) de la recharge, en place dans le conditionnement, **caractérisé en ce que** le récipient (29) comporte également radialement une première paroi interne (50) qui délimite une chambre (49) pour recevoir la composition cosmétique et/ou pharmaceutique et une deuxième paroi externe s'étendant radialement (51) pour appliquer des moyens (47, 13') de scellement hermétique du récipient (29) de la recharge.
- Conditionnement selon la revendication 1, dans lequel l'ouverture (46) est pratiquée dans une base (45) de l'enveloppe externe (1) du conditionnement et dans lequel la paroi externe du fond du récipient (29) de la recharge se trouve dans le prolongement de la face externe de la base (45) de l'enveloppe

- (1) du conditionnement.
3. Conditionnement selon la revendication 1 ou 2, dans lequel les moyens de verrouillage comportent des éléments saillants (48) assurant le verrouillage et le maintien par clipage du récipient (29) de la recharge dans le conditionnement. 5
4. Conditionnement selon l'une quelconque des revendications précédentes, dans lequel les moyens (47, 13') pour assurer le scellement hermétique du récipient (29) de la recharge, sont munis de moyens de verrouillage pour saisir l'enveloppe (1) avec des nervures correspondantes. 10
5. Conditionnement selon l'une quelconque des revendications précédentes, dans lequel le récipient (29) de la recharge comporte une paroi en contre dépouille (50), délimitant la chambre (49) de réception de la composition cosmétique et/ou pharmaceutique. 15
6. Conditionnement selon l'une quelconque des revendications précédentes, **caractérisé en ce que** ledit conditionnement est un boîtier plat et **en ce que** le récipient (29) de la recharge est une coupelle ou un godet. 20
7. Conditionnement selon l'une quelconque des revendications précédentes, **caractérisé en ce qu'il** comporte une plate-forme délimitant une chambre (49) de réception de la composition cosmétique et/ou pharmaceutique et un compartiment ventilé de réception de moyens d'application de la composition cosmétique et/ou pharmaceutique. 25
8. Conditionnement selon la revendication 8, dans lequel la plate-forme (30) assure le scellement hermétique du récipient (29) de la recharge et dans lequel ladite plate-forme est déformable de manière à permettre la compensation de la différence de pressions entre l'intérieur et l'extérieur du récipient (29) de la recharge. 30
9. Conditionnement selon l'une quelconque des revendications précédentes, **caractérisé en ce qu'il** contient une composition cosmétique et/ou pharmaceutique. 35
10. Procédé de conditionnement d'une composition cosmétique et/ou pharmaceutique, **caractérisé en ce qu'il** comporte les étapes consistant à : 40
- a) remplir un récipient (29) d'une recharge avec une composition cosmétique et/ou pharmaceutique ; 45
- b) assembler le récipient (29) de la recharge récipient la composition cosmétique et/ou pharmaceutique dans l'enveloppe externe (1) pour former un conditionnement rechargeable selon la revendication 1. 50
11. Procédé selon la revendication 10, **caractérisé en ce que** le remplissage se produit lorsque la composition cosmétique et/ou pharmaceutique est chaude. 55

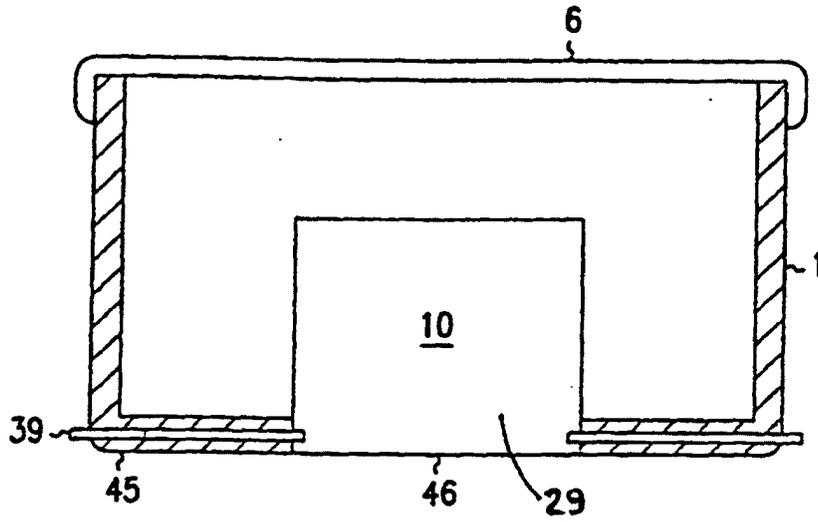


FIG. 1

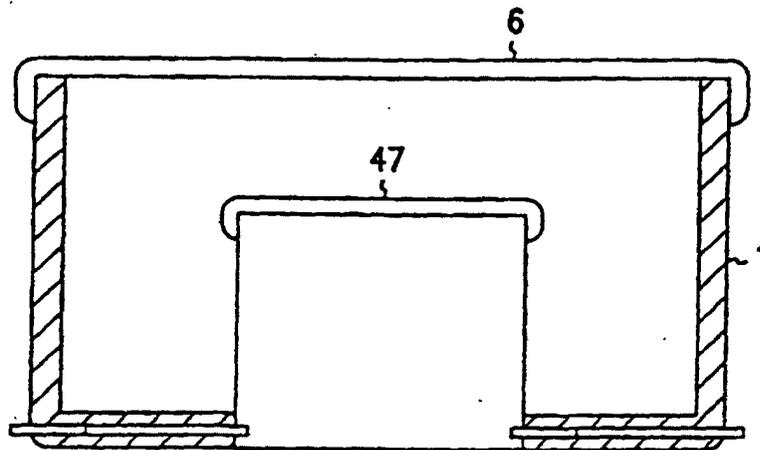


FIG. 2

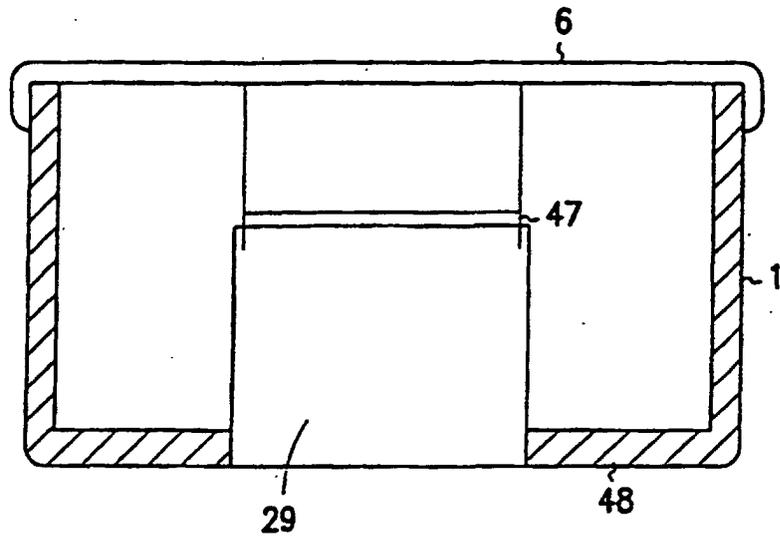


FIG. 3

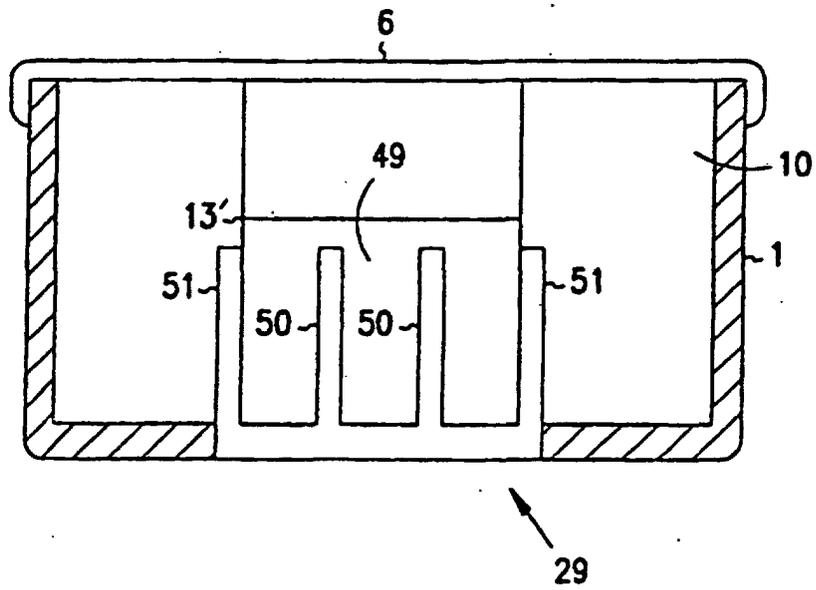


FIG. 4

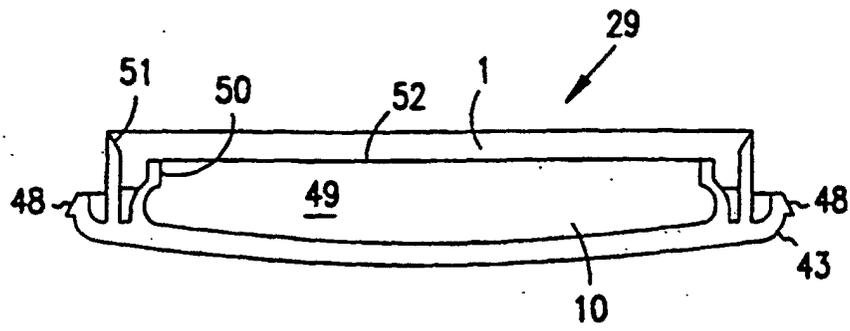


FIG. 5

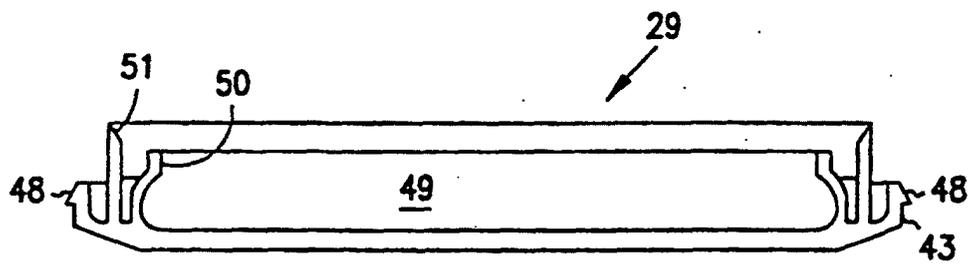


FIG. 6

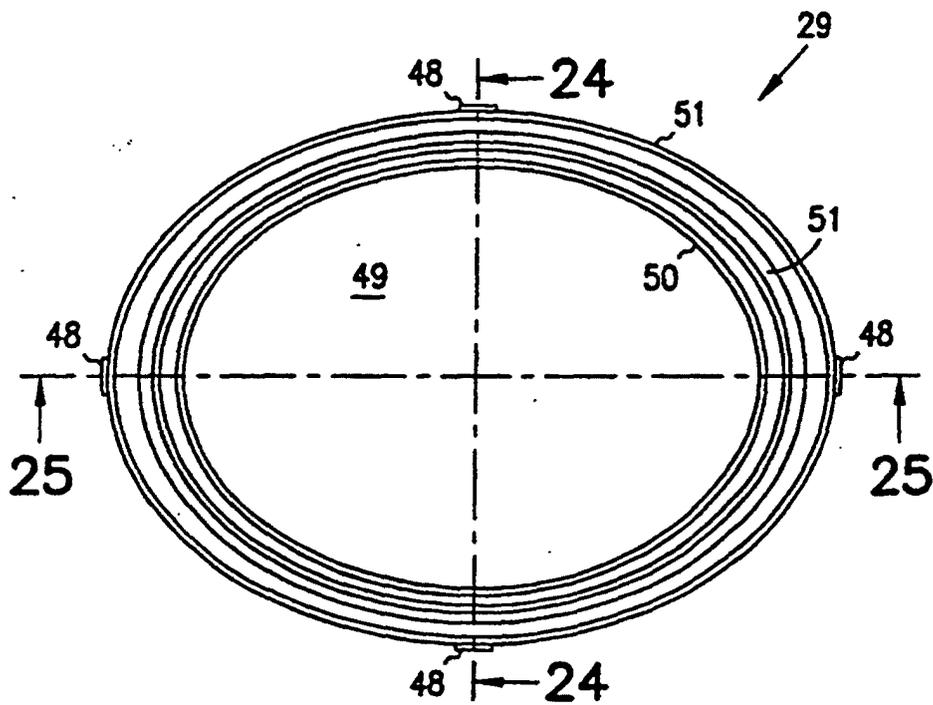


FIG. 7