(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 1 655 239 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
**24.06.2009 Bulletin 2009/26**

(21) Application number: **04766891.8**

(22) Date of filing: **28.07.2004**

(51) Int Cl.:
***B65D 81/32*** *(2006.01)*

(86) International application number:
**PCT/ES2004/000352**

(87) International publication number:
**WO 2005/012133 (10.02.2005 Gazette 2005/06)**

(54) **CONTAINER CAP FOR A CONTAINER**

BEHÄLTERKAPPE FÜR EINEN BEHÄLTER

COUVERCLE CONTENEUR POUR RÉCIPIENT

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR**

(30) Priority: **29.07.2003 ES 200301795**

(43) Date of publication of application:
**10.05.2006 Bulletin 2006/19**

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Printed by Jouve, 75001 PARIS (FR)

## Description

### Scope of the invention

**[0001]** This invention relates to a containing lid for a container, comprising a closed compartment containing a material that is able to flow, such as a sauce for a salad or other product provided in the container, when a sufficient external force is applied to said lid which is attached to the mouth of a corresponding container. When the lid is not attached to a container it can withstand a squashing, thus forming a unit that can be stored and transported without the compartment breaking, when said lid is resting on a surface.

### Background of the invention

**[0002]** Different proposals of containers divided into various compartments or chambers are known, with each compartment containing a different substance or material, and it being possible to mix said substances once the wall separating said compartments has been broken.

**[0003]** An example of this kind of containers is US patent 4836370, which proposes a container divided, by a dividing wall, into two receiving chambers. The inside of each chamber holds a different material, for example a yoghurt in one and cereal flakes in the other. The container includes structural components that will create an opening in the dividing wall in response to certain manipulation on the outside of the container to therefore allow the material contained in the two chambers to be combined in just one of them. Various embodiments are offered with different shapes of containers, of chambers, and above all, of structural components to provide different alternatives for breaking the dividing wall and, consequently, mixing the two types of material. Although one of said alternatives proposes a breakage system similar to the one proposed by the present invention, said breakage system is attached to the whole container, since it is the container and not the lid that is claimed, and also it does not offer an option for preventing the dividing wall from breaking in the presence of external pressure.

**[0004]** Devices are also known that have a double function, acting as a lid for a container and acting themselves as containers of different types of substances. The following documents give a fairly precise idea of the state of the art of this type of devices:

**[0005]** Utility model ES-A-231221, of public dominion, proposes a containing lid for containers, intended to be applied to a container or a similar receptacle, that can contain an article which, without its nature being related to the contents of the container, must be supplied together with said container. The document claims that the contents of said lid is a promotional article, such as a series of discs to be used as drawing templates. In order to access said article, it is necessary to separate an auxiliary disc from the lid, which acts as a base to support the article contained inside. Said utility model does not indicate whether the contents of said lid can be a flowable material, such as a sauce, or whether it can be mixed with a second material contained in the container to which said lid is attached.

**[0006]** US patent 2766796 proposes a receptacle which acts as a lid and can contain inside different vacuum-packaged products, such as pharmaceutical or food products, which can be mixed, once removed, with the contents of the container to which said receptacle is attached. Contrary to this invention, in order to mix the contents of both the receptacle used as a lid and the container on which it is attached, it is necessary to remove a cover from the top of the receptacle and also remove the receptacle from the container. In other words, both the receptacle and the container are undividedly attached, since the wall separating them, the base of the receptacle, cannot be broken.

**[0007]** US patent 3662913 also proposes a lid that also acts as a container, similar to the one proposed by the present invention, the main difference being that in this case the wall dividing the lid and the container on which the lid is placed, cannot be broken. Instead it has to be removed manually, by first removing the lid from the container.

**[0008]** US patent 5255812 discloses a container lid having an internal chamber for containing a liquid. The bottom wall of the chamber is flat and provides a central weakened area, the top wall of the chamber is a membrane being deformable from an initial convex configuration into a final flattened configuration by exerting a pressure on the same. A perforating member is integral with the top wall and projects toward the bottom wall. When the user presses the top wall, the perforating member pierces the weakened area of the bottom wall, thereby causing the liquid stored within the internal chamber to flow into the related container. The periphery of the lid is configured as a ring-shaped flange provided with a bottom annular groove for engaging the peripheral edge of the container and a topmost raised annular edge. The last acts a s a support which allows for stacking several container lids.

**[0009]** US patent A634003 discloses a container for separately accommodating a pair of liquids, such as mineral water and whisky, including a main body for accommodating a first liquid, a small cup for accommodating a second liquid, provided with a flange extending from the entire periphery of an upper end of the small cup and a skirt extending downward from the entire periphery of an upper end of the flange, and a flexible lid for liquid-tightly sealing an upper free opening of the small cup. The small cup is fit into an upper free opening of the main body engaging the flange and the skirt with the entire periphery of an upper end of the main body. The small cup has a specified area, in a bottom wall, at least partially bordered by a score line. The lid has a downward projection. The specified area is broken by pushing down the lid until a tip of the projection presses to break the specified area, whereby the second liquid flows down into the main body

and mixes with the first liquid in the main body.

**[0010]** It is, therefore, necessary to offer an alternative to the state of the art vis-à-vis this kind of devices, which, contrary to the above-mentioned prior art antecedents, offers a triple function, acting as a receptacle and container capable of preserving and storing inside a first substance, thanks to the solidity of its base in the storage position, which can act as a lid of a container capable of containing a second substance, and which facilitates the mixture of said substances by breaking a dividing wall acting as a base of said lid, without the need to remove the lid from the container to carry out this action and which, in turn, once said wall has been broken, allows the fluid product or substance to be poured in a progressive manner, according to the amount of said first substance that it is desired to deliver, in other words which allows administering the dosage of the product or substance to be poured at the user's discretion.

## Brief explanation of the invention

**[0011]** This invention proposes a containing lid for a container, comprising a series of laminar walls that delimit a closed compartment, containing a flowable material, such as a sauce. Said lid has a support configuration that is capable of preventing said compartment from being squashed when it is resting on a surface. It also comprises a perimeter closure configuration adapted to be attached to the mouth of a corresponding container encompassing the compartment, and at least one weakened area formed in a bottom laminar wall, which acts as the base of the lid, adapted to be broken by deforming the compartment by applying sufficient external force, whereby, thanks to said breakage, it is possible to pour said flowable material inside said container.

**[0012]** By virtue of the fact that said weakened area formed in said bottom laminar wall can only be broken when the lid is attached to the container, and not when it is resting on a surface, the lid can also be used to store and preserve the material contained inside, and it is possible to stack some lids on top of others without the risk of them breaking.

**[0013]** The container to which the lid is attached could contain a second substance that would be mixed, in the container, with the flowable material contained in the lid, once the bottom laminar wall of said lid is broken.

## Brief description of the drawings

**[0014]** Other characteristics of the invention will become more clearly apparent from the following description of some embodiments illustrated in the attached drawings, and which are to be considered in an illustrative, non-limiting way.

**[0015]** Some embodiments are described below, with reference to the attached drawings, in which:

Fig. 1 is a perspective view of an embodiment of the lid proposed by the present invention, in a position prior to being attached to a container;

Fig. 2 is a perspective view of the lid in Fig. 1, once it has been attached to the container, and pressed inwards;

Fig. 3 is a detailed, partial, enlarged elevation view of a cross section of the lid and the container in Fig. 2;

Fig. 4 shows, in cross section, various lids like the ones shown in Fig. 3 stacked on top of one another, illustrating a possible storage position;

Fig. 5 is a sectioned, side elevation view of the lid and the container in Fig. 2, once the bottom laminar wall of the lid has been broken;

Fig. 6 is a view like the one in Fig. 3, but for another embodiment with another perimeter closure configuration;

Fig. 7 is a perspective view of the lid proposed by the present invention, once it has been attached to a container, for another embodiment with a different shaped lid;

Fig. 8 is a perspective view, like the one in Fig. 7, but for a further embodiment;

Figs. 9 to 11 show variants that are not part of the invention, where:

Fig. 9a is a bottom view of the top wall of the lid proposed for an embodiment;

Fig. 9b is a cross sectioned side view of a lid which comprises the top wall of Fig. 9a;

Fig. 9c shows, in cross section, various top walls like the ones shown in Fig. 9a stacked on top of one another, illustrating a possible storage position;

Fig. 10a is a bottom view of the top wall of the lid proposed for another embodiment;

Fig. 10b is a cross sectioned side view of a lid which comprises the top wall of Fig. 10a;

Fig. 10c shows, in a cross sectioned side view, various top walls like the ones shown in Fig. 10a stacked on top of one another, illustrating a possible storage position;

Fig. 11a is a bottom view of the top wall of the lid proposed for another embodiment; and

Fig. 11b shows, in a cross sectioned side view, various lids comprising top walls like the ones shown in Fig. 11a stacked on top of one another, illustrating a possible storage position;

## Detailed description of some embodiments

**[0016]** As shown in the attached drawings, the containing lid for a container proposed by the present invention comprises as a unit a top laminar wall 1; a bottom laminar wall 2; at least one perimeter laminar wall 3, not very high in relation to the extension of said top and bottom laminar walls 1, 2, and which extends between the top and bottom laminar walls 1, 2 delimiting a closed compartment 4 containing a flowable material; at least one support configuration 5 formed in at least one of the top or bottom laminar walls 1, 2 and capable of making con-

tact with the other one of the bottom or top laminar walls 2,1 to prevent said compartment 4 from being squashed when it is resting on a surface; a perimeter closure configuration 7 adapted to be attached to the mouth of a corresponding container 8 encompassing the compartment 4; and at least one weakened area 6 formed in the bottom laminar wall 2 adapted to be broken by deforming the compartment 4 by applying a sufficient external force in order to pour said flowable material inside said container 8.

**[0017]** Figs. 3, 4 and 6 show how the bottom laminar wall 2 comprises at least one lower expansion configuration 9 defined by a fold extending along a closed contour around said weakened area 6 and which can be ununfolded downwards by said external force, forming a pouring funnel ending in said weakened area 6 that is broken when the lid is placed on the container 8. It can also be seen how the top laminar wall 1 comprises at least one top expansion configuration 10 defined by a fold extending along a closed contour.

**[0018]** In a preferred embodiment, said bottom laminar wall 2 and said perimeter laminar wall 3 form a single sheet, which can be stacked on top of other equal sheets, without fitting together, to be stored and transported.

**[0019]** Figs. 3, 4 and 6 show how said lower expansion configuration 9 is sunk towards the inside of the compartment 4 and said top expansion configuration 10 is symmetric, as a substantially mirror image, to said lower expansion configuration 9, with both lower and top expansion configurations 9, 10 including respective support crests that are in mutual contact, and which form said at least one support configuration 5. It can also be seen how at least the bottom laminar wall 2 comprises several of said lower expansion configurations 9, in a concentric arrangement around said weakened area 6, which delimit annular portions of the compartment 4 and which can be unfolded progressively from the most central to the most peripheral as the external force applied increases in order to administer the dosage of the pouring of the product contained in said annular portions of the compartment 4.

**[0020]** Figs. 3, 5 and 6 show how the top laminar wall 1 has an integrated or attached projection 11 which extends towards the inside of the compartment 4 opposite to said weakened area 6 of the bottom laminar wall 2, and which is adapted to break said weakened area 6 when said external force is applied on the top laminar wall 1.

**[0021]** The lid proposed by the present invention is made up of a first sheet 20 integrating the top laminar wall 1 and said perimeter closure configuration 7, and a second sheet 30 integrating the bottom laminar wall 2, the at least one perimeter laminar wall 3, and a perimeter attachment strip 12 attached to a bottom face of said first sheet 20, said perimeter attachment strip 12 being smaller than the perimeter closure configuration 7, which remains free. In this way, the subunits 20 and 30 can be fed into a machine automatically to manufacture the containing lid of the invention. For this purpose, it has also been envisaged that subunit 30 has a configuration that enables it to be stacked, partially introduced into its twin subunit, without them actually fitting together.

**[0022]** In the embodiment shown in Fig. 6, the perimeter closure configuration 7 comprises a flat strip adapted to be attached to a corresponding flat strip 13 formed next to a mouth of the container 8. On the other hand, in another embodiment, shown in Fig. 3, the perimeter closure configuration 7 comprises a groove adapted to receive in a snap fit a corresponding edge 14 formed next to a mouth of the container 8.

**[0023]** Fig. 7 illustrates a different lid configuration having a substantially square shape, different from the previous embodiments wherein the lid is circular, once it has been attached to a container which, logically, also has a substantially square opening.

**[0024]** Finally Fig. 8 illustrates another embodiment in which two of the lids shown in Figs. 1, 2, 3, 4, 5 and 6 are integrated as subunits in a single larger lid that includes both lids, it being possible for each of said lids to contain a different material, or the same material, enabling a greater or smaller dosage.

**[0025]** The embodiments in Figs. 9 to 11 illustrate different alternative ways of carrying out the lid that are not part of the invention, with variations to the means for breaking one of the walls of the lid and to the squash-resistant support configurations, offering differentiated areas for other functions (free area of the lid for another receptacle, etc.).

**[0026]** The lid referenced by the present invention can be defined in general terms, contemplating the various drawings, as a body comprising as a unit:

- a top wall 1, with at least one flexible portion (to allow the other wall to be broken);
- a bottom wall 2;
- at least one perimeter wall 3, not very high in relation to the extension of said top and bottom walls 1, 2 and which extends between said walls delimiting a closed compartment 4, containing a flowable material;
- at least one weakened area 6 formed in bottom wall 2, adapted to be broken by deforming the compartment 4 by applying a sufficient external force in order to pour said flowable material inside said container 8;
- at least one support configuration 5 formed in at least one of the top or bottom laminar walls 1, 2 and which can make contact with the other of the bottom or top laminar walls 2, 1 in order to efficiently prevent said compartment 4 from being squashed; and
- a perimeter closure configuration 7, attached at least to the edges of one of walls 1, 2, intended to be attached to the mouth of a corresponding container 8 encompassing the compartment 4 (so that when one of the walls is broken the contents of the compartment 4 passes into said container).

**[0027]** In the examples in Figs. 9 and 10, that are not

part of the invention the bottom wall is formed by a heat sellable film. For its part in Fig. 11, the bottom wall is formed by a membrane.

**[0028]** In the examples in Figs. 9 to 11, support configuration 5 is made up of a plurality of partition walls 31 or ribs which intercross along a common axis and are equally spaced. Such a configuration also contributes to providing stability when the lids are stacked as shown in Fig. 9c. Also said ribbed configuration 31 provides a means for breaking the lower wall in all the variants in Figs. 9 to 11.

**[0029]** In the variant in Fig. 10, there are at least two additional support configurations 5a, 5b formed in said perimeter wall 3, and they are made up of generatrix ribs 5a, 5b which project from the outside face of said wall 3 of the compartment 4, although they could also project from the inside face.

**[0030]** A person skilled in the art could introduce changes and modifications to the described embodiments (particularly if, and providing that, the lid has flexible walls or portions, can adopt different shapes and a variety of contours) without departing from the scope of the invention as defined in the attached claims.

## Claims

**1.** A containing lid for a container, comprising as a unit:

- a top wall (1), with at least one flexible portion;
- a bottom wall (2);
- at least one perimeter wall (3), having a small height compared to the extension of said top and bottom sheet walls (1, 2), and which extends between said top and bottom walls (1, 2) delimiting a closed compartment (4) containing a flowable material;
- at least one weakened area (6) formed in the bottom sheet wall (2) adapted to be broken by deforming the compartment (4) by applying a sufficient external force in order to pour said flowable material inside said container (8), **characterized by**
- respective support configurations (5) in the form of folds formed in both the top and bottom walls (1, 2) between said perimeter wall (3) and said weakened area (6), said support configurations (5) being suitable for preventing said compartment (4) from being squashed by making contact with each other when the compartment (4) is resting on a surface and submitted to an external force able to deform said compartment (4).

**2.** The containing lid according to claim 1, **characterised by** further comprising a perimeter closure configuration (7) adapted to be attached to the mouth of a corresponding container (8) encompassing said compartment (4).

**3.** Lid, according to claim 2, **characterised in that** said perimeter closure configuration (7) is attached at least to the edges of one of the walls (1, 2).

**4.** Lid, according to claim 1 or 2, **characterised in that** it comprises some additional support configurations (5a, 5b) in the form of generatrix ribs that project from an inside face of said perimeter wall (3) of the compartment (4).

**5.** Lid, according to claim 1 or 2, **characterised in that** it comprises additional support configurations (5a, 5b) in the form of generatrix ribs that project from an outside face of said perimeter wall (3) of the compartment (4).

**6.** Lid, according to claim 1 or 2, **characterised in that** said bottom wall (2) and said perimeter wall (3) form a single sheet.

**7.** Lid, according to claim 6, **characterised in that** said single sheet can be stacked on top of other equal sheets, without fitting together, to be stored and transported.

**8.** Lid, according to claim 1 or 2, **characterised in that** the bottom sheet wall (2) comprises at least one lower expansion configuration (9) defined by a fold extending along a closed contour around said weakened area (6) and which can be unfolded downwards by said external force forming a pouring funnel ending in said weakened area (6) that is broken when the lid is placed on the container (8).

**9.** Lid, according to claim. 8, **characterised in that** the top sheet wall (1) comprises at least one top expansion configuration (10) defined by a fold extending along a closed contour.

**10.** Lid, according to claim 9, **characterised in that** said lower expansion configuration (9) is sunk towards the inside of the compartment (4) and said top expansion configuration (10) is symmetrical, as a substantially mirror image of said lower expansion configuration (9), both lower and top configurations (9, 10) including respective support crests in mutual contact, forming said at least one support configuration (5).

**11.** Lid, according to claim 10, **characterised in that** at least the bottom sheet wall (2) comprises several of said lower expansion configurations (9), in a concentric arrangement around said weakened area (6), delimiting annular portions of the compartment (4) and which can be unfolded progressively from the most central to the most peripheral as the external force

applied increases in order to meter the pouring of the product contained in said annular portions of the compartment (4).

**12.** Lid, according to claim 1 or 2, **characterised in that** the top sheet wall (1) has an integrated or attached projection (11) which extends towards the inside of the compartment (4) opposite to said weakened area (6) of the bottom sheet wall (2) and that is adapted to break said weakened area (6) when said external force is applied on the top sheet wall (1).

**13.** Lid, according to claim 1 or 3, **characterised in that** it is made up of a first sheet (20) integrating the top sheet wall (1) and said perimeter closure configuration (7), and of a second sheet (30) integrating the bottom sheet wall (2), the at least one perimeter sheet wall (3), and a perimeter attachment strip (12) attached to a bottom face of said first sheet (20), said perimeter attachment strip (12) being smaller than the perimeter closure configuration (7), which remains free.

**14.** Lid, according to claim 1 or 3, **characterised in that** the perimeter closure configuration (7) comprises a flat strip adapted to be attached to a corresponding flat strip (13) formed next to a mouth of the container (8).

**15.** Lid, according to claim 1 or 3, **characterised in that** the perimeter closure configuration (7) comprises a groove adapted to receive in a snap fit a corresponding edge (14) formed next to a mouth of container (8).

**Patentansprüche**

**1.** Deckel mit Innenbehälter für einen Behälter, der als Einheit folgendes aufweist:

- eine Deckwand (1) mit mindestens einem flexiblen Abschnitt;
- eine Bodenwand (2);
- mindestens eine Umfassungswand (3) mit niedriger Höhe im Vergleich zur Ausdehnung der Deck- und Bodenplattenwand (1, 2), die sich zwischen der Deck- und Bodenwand (1, 2) erstreckt, wodurch ein geschlossener Zwischenraum (4) mit einem fließfähigen Material begrenzt wird;
- mindestens einen in der Bodenplattenwand (2) ausgebildeten Sollbruchbereich (6), der durch Deformation des Zwischenraums (4) durch Anwendung einer ausreichenden äußeren Kraft aufgebrochen werden kann, so dass das fließfähige Material in den Behälter (8) gefüllt werden kann, **gekennzeichnet durch**
- jeweilige Trägerstrukturen (5) in Form von Umschlägen, die sowohl in der Deck- als auch der Bodenwand (1, 2) zwischen der Umfassungswand (3) und den Sollbruchbereichen (6) ausgebildet sind, wobei die Trägerstrukturen (5) in der Lage sind, ein Zerdrücken des Zwischenraums (4) **durch** gegenseitige Berührung zu verhindern, wenn der Zwischenraum (4) auf einer Fläche aufliegt und einer äußeren Kraft ausgesetzt wird, **durch** die der Zwischenraum (4) deformiert werden kann.

**2.** Deckel mit Innenbehälter nach Anspruch 1, **dadurch gekennzeichnet, dass** er weiterhin eine Umfassungsverschlussstruktur (7) aufweist, die an der Öffnung eines den Zwischenraum (4) umfassenden entsprechenden Behälters (8) befestigt werden kann.

**3.** Deckel nach Anspruch 2, **dadurch gekennzeichnet, dass** die Umfassungsverschlussstruktur (7) zumindest an den Kanten einer der Wände (1, 2) befestigt ist.

**4.** Deckel nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** er einige zusätzliche Trägerstrukturen (5a, 5b) in Form erzeugender Rippen aufweist, die von einer Innenfläche der Umfassungswand (3) des Zwischenraums (4) hervorstehen.

**5.** Deckel nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** er zusätzliche Trägerstrukturen (5a, 5b) in Form erzeugender Rippen aufweist, die von einer Außenfläche der Umfassungswand (3) des Zwischenraums (4) hervorstehen.

**6.** Deckel nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** die Bodenwand (2) und Umfassungswand (3) eine einzige Platte darstellen.

**7.** Deckel nach Anspruch 6, **dadurch gekennzeichnet, dass** die Einzelplatte zur Lagerung oder zum Transport über andere gleiche Platten gestapelt werden kann, ohne damit verbunden zu sein.

**8.** Deckel nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** die Bodenplattenwand (2) mindestens eine untere Erweiterungsstruktur (9) aufweist, die durch einen Umschlag definiert ist, der sich entlang einer geschlossenen Kontur um den Sollbruchbereich (6) erstreckt und durch die äußere Kraft nach unten umgeschlagen werden kann, wodurch ein Einfülltrichter entsteht, der im Sollbruchbereich (6) endet, der beim Anbringen des Deckels am Behälter (8) aufgebrochen wird.

**9.** Deckel nach Anspruch 8, **dadurch gekennzeichnet, dass** die Deckplattenwand (1) mindestens eine obere Erweiterungsstruktur (10) aufweist, die durch

einen Umschlag definiert ist, der sich entlang einer geschlossenen Kontur erstreckt.

**10.** Deckel nach Anspruch 9, **dadurch gekennzeichnet, dass** die untere Erweiterungsstruktur (9) in das Innere des Zwischenraums (4) versenkt ist und die obere Erweiterungsstruktur (10) als ein im wesentlichen Spiegelbild der unteren Erweiterungsstruktur (9) symmetrisch ist, wobei sowohl die untere als auch die obere Struktur (9, 10) entsprechende, sich gegenseitig berührende Trägerkuppen aufweisen und hierdurch die zumindest eine Trägerstruktur (5) bilden.

**11.** Deckel nach Anspruch 10, **dadurch gekennzeichnet, dass** zumindest die Bodenplattenwand (2) mehrere der unteren Erweiterungsstrukturen (9) in einer konzentrischen Anordnung um den Sollbruchbereich (6) herum aufweist, wodurch ringförmige Abschnitte des Zwischenraums (4) abgegrenzt werden, die mit zunehmender Stärke der angewandten äußeren Kraft fortschreitend vom mittigsten bis zum äußersten Bereich aufgefaltet werden können, so dass das in den ringförmigen Bereichen des Zwischenraums (4) enthaltene Produkt dosiert eingefüllt werden kann.

**12.** Deckel nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** die Deckplattenwand (1) einen integrierten oder angebrachten Vorsprung (11) aufweist, der sich in Richtung des Innenraums des dem Sollbruchbereich (6) der Bodenplattenwand (2) gegenüber liegenden Zwischenraums (4) erstreckt und geeignet ist, den Sollbruchbereich (6) bei Anwendung der äußeren Kraft an der Deckplattenwand (1) aufzubrechen.

**13.** Deckel nach Anspruch 1 oder 3, **dadurch gekennzeichnet, dass** er sich zusammen setzt aus einer ersten Platte (20), in die die Deckplattenwand (1) und die Umfassungsverschlussstruktur (7) integriert sind, einer zweiten Platte (30), in die die Bodenplattenwand (2) integriert ist, der zumindest einen Umfassungsplattenwand (3) sowie einem Umfassungsbefestigungsstreifen (12), der an einer Bodenfläche der ersten Platte (20) befestigt ist, wobei der Umfassungsbefestigungsstreifen (12) kleiner ist als die Umfassungs-verschlussstruktur (7), die frei bleibt.

**14.** Deckel nach Anspruch 1 oder 3, **dadurch gekennzeichnet, dass** die Umfassungsverschlussstruktur (7) einen flachen Streifen aufweist, der an einem entsprechenden, neben einer Öffnung des Behälters (8) ausgebildeten flachen Streifen (13) befestigt werden kann.

**15.** Deckel nach Anspruch 1 oder 3, **dadurch gekennzeichnet, dass** die Umfassungsverschlussstruktur (7) eine Nut aufweist, in der eine neben der Öffnung des Behälters (8) ausgebildete Kante (14) in einem Schnappverschluss aufgenommen werden kann.

**Revendications**

**1.** Un couvercle conteneur pour un récipient, comportant comme une unité:

- une paroi supérieure (1) ayant au moins une portion flexible;
- une paroi inférieure (2);
- au moins une paroi périmétrique (3) pas très haute comparé avec l'étendue de ces parois en tôle supérieure et inférieure (1,2) et s'étendant entre ces parois supérieure et inférieure (1,2) délimitant un compartiment fermé (4) contenant un matériau fluide;
- au moins une région affaiblie (6) formée sur la paroi de tôle inférieure (2) adaptée pour être cassée par déformation du compartiment (4) en appliquant une force externe suffisante pour que ce matériau fluide s'écoule à l'intérieur de ce récipient (8) **caractérisé par**
- des configurations de support respectives (5) sous forme de plis formés aussi bien sur la paroi supérieure que sur l'inférieure (1,2) entre cette paroi périmétrique (3) et cette région affaiblie (6), ces configurations de support (5) étant appropriées pour empêcher que ce compartiment (4) soit écrasé en entrant en contact entre elles lorsque le compartiment (4) repose sur une surface et soumis à une force externe capable de déformer ce compartiment (4).

**2.** Le couvercle conteneur conformément à la revendication 1, **caractérisé en ce qu'**il comporte en plus une configuration de fermeture périmétrique (7) adaptée pour être reliée à la bouche d'un récipient correspondant (8) comprenant ce compartiment (4).

**3.** Couvercle, conformément à la revendication 2, **caractérisé en ce que** cette configuration de fermeture périmétrique (7) est reliée au moins aux bords d'une des parois (1, 2).

**4.** Le couvercle, conformément à la revendication 1 ou 2, **caractérisé en ce qu'**il comporte des configurations de support additionnelles (5a, 5b) sous forme de nervures génératrices se projetant depuis la face intérieure de cette paroi périmétrique (3) du compartiment (4).

**5.** Couvercle, conformément à la revendication 1 ou 2, **caractérisé en ce qu'**il comporte des configurations de support additionnelles (5a, 5b) sous forme de nervures génératrices se projetant depuis la face exté-

rieure de cette paroi périmétrique (3) du compartiment (4).

**6.** Couvercle, conformément à la revendication 1 ou 2, **caractérisé en ce que** cette paroi inférieure (2) et cette paroi périmétrique (3) forment une seule feuille.

**7.** Couvercle, conformément à la revendication 6, **caractérisé en ce que** cette seule feuille peut être empilée sur d'autres feuilles pareilles, sans être fixées entre elles, pour être stockées et transportées.

**8.** Couvercle, conformément à la revendication 1 ou 2, **caractérisé en ce que** la paroi en tôle inférieure (2) comporte au moins une configuration d'expansion inférieure (9) définie par un pli s'étendant le long d'un contour fermé autour de cette région affaiblie (6) et pouvant être déplié vers le bas par cette force externe en formant un entonnoir d'écoulement finissant dans cette région affaiblie (6) qui est cassée lorsque le couvercle est placé sur le récipient (8).

**9.** Couvercle, conformément à la revendication 8, **caractérisé en ce que** la paroi de tôle supérieure (1) comporte au moins une configuration d'expansion supérieure (10) définie par un pli s'étendant le long d'un contour fermé.

**10.** Couvercle, conformément à la revendication 9, **caractérisé en ce que** cette configuration d'expansion inférieure (9) descend vers l'intérieur du compartiment (4) et cette configuration d'expansion supérieure (10) est symétrique, sensiblement comme l'image d'un miroir de cette configuration d'expansion inférieure (9), aussi bien la configuration inférieure que la supérieure (9,10) comportant des crêtes de support respectives en contact entre elles, formant cette au moins une configuration de support (5).

**11.** Couvercle, conformément à la revendication 10, **caractérisé en ce qu'**au moins la paroi en tôle inférieure (2) comporte plusieurs de ces configurations d'expansion inférieures (9) en agencement concentrique autour de cette région affaiblie (6) en délimitant des portions annulaires du compartiment (4) et pouvant être dépliée progressivement depuis la partie la plus au centre jusqu'à la partie la plus périphérique lorsque la force externe appliquée augmente afin de contrôler l'écoulement du produit contenu dans ces portions annulaires du compartiment (4).

**12.** Couvercle, conformément à la revendication 1 ou 2, **caractérisé en ce que** la paroi en tôle supérieure (1) a une projection intégrée ou reliée (11) qui s'étend vers l'intérieur du compartiment (4) opposé à cette région affaiblie (6) de la paroi en tôle inférieure (2) et qui est adaptée pour casser cette région affaiblie (6) lorsque cette force externe est appliquée à la paroi en tôle supérieure (1).

**13.** Couvercle conformément à la revendication 1 ou 3, **caractérisé en ce qu'**il est formé par une première feuille (20) intégrant la paroi en tôle supérieure (1) et cette configuration de fermeture périmétrique (7) et une deuxième feuille (30) intégrant la paroi en tôle inférieure (2), la au moins une paroi en tôle périmétrique (3) et une bande de fixation périmétrique (12) fixée à la face inférieure de cette première feuille (20), cette bande de fixation périmétrique (12) étant plus petite que la configuration de fermeture périmétrique (7) qui reste libre.

**14.** Couvercle, conformément à la revendication 1 ou 3, **caractérisé en ce que** la configuration de fermeture périmétrique (7) comporte une bande plate adaptée pour être fixée à une bande plate correspondante (13) formée près de la bouche du récipient (8).

**15.** Couvercle, conformément à la revendication 1 ou 3, **caractérisé en ce que** la configuration de fermeture périmétrique (7) comporte une rainure adaptée pour recevoir en fixation immédiate un bord correspondant (14) formé près de la bouche du récipient (8).

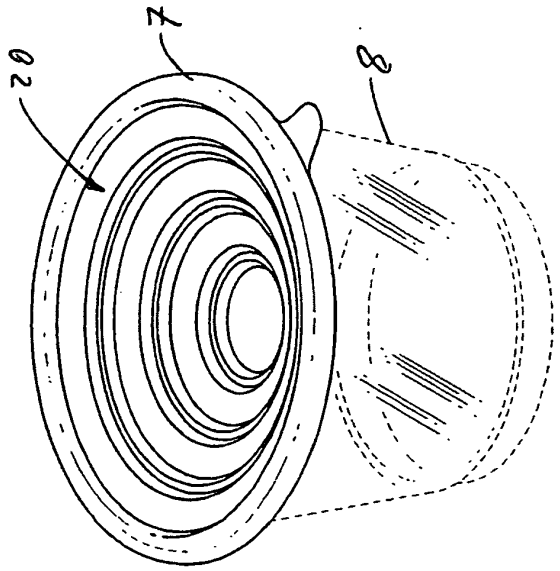



Fig.2

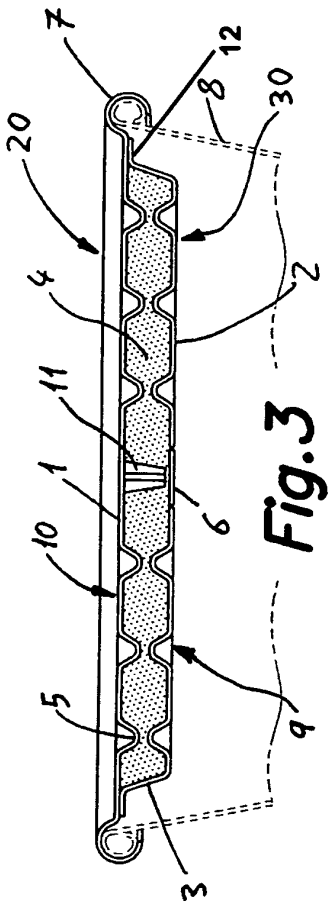



Fig.3

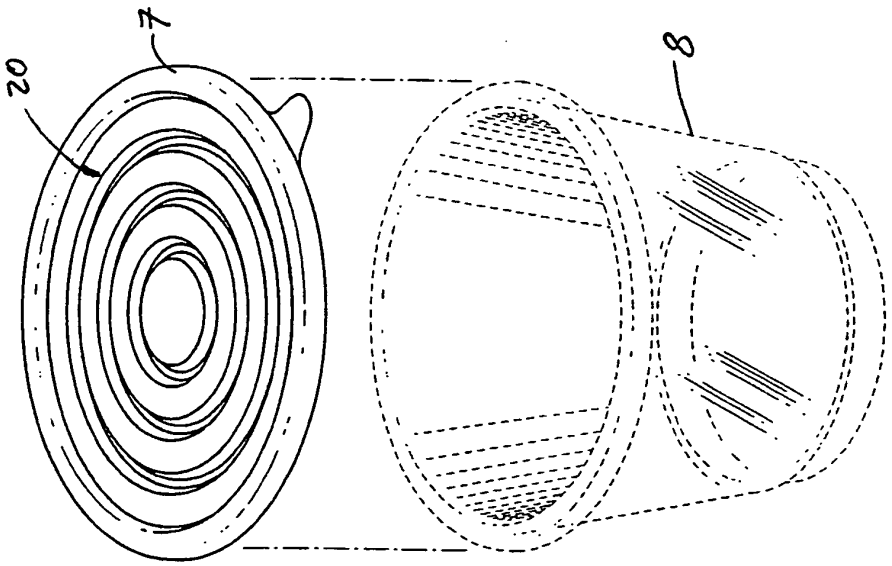



Fig.1

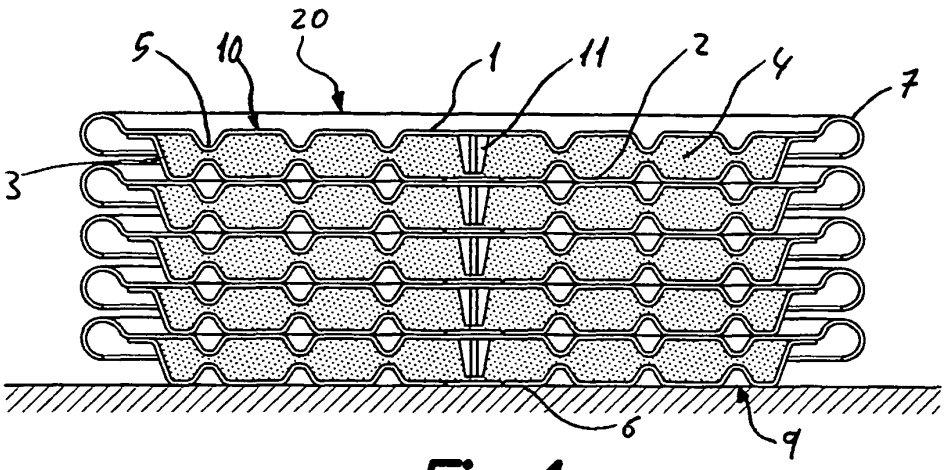



Fig.4

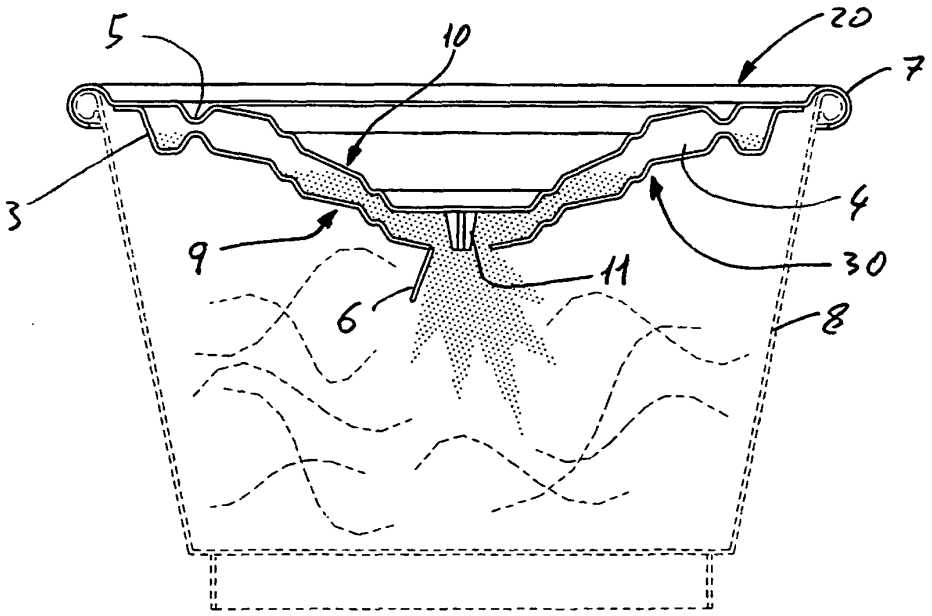



Fig.5

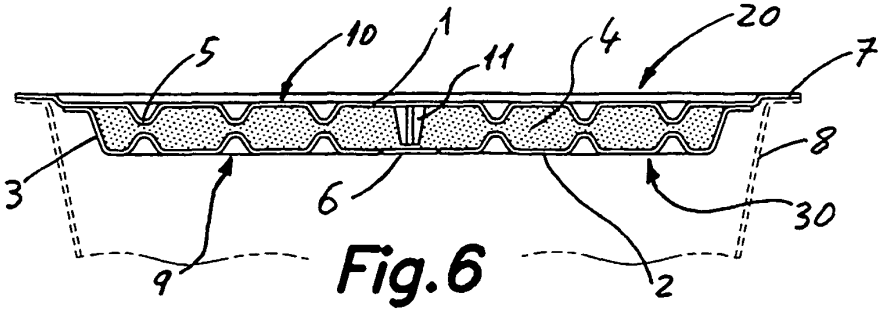



Fig.6

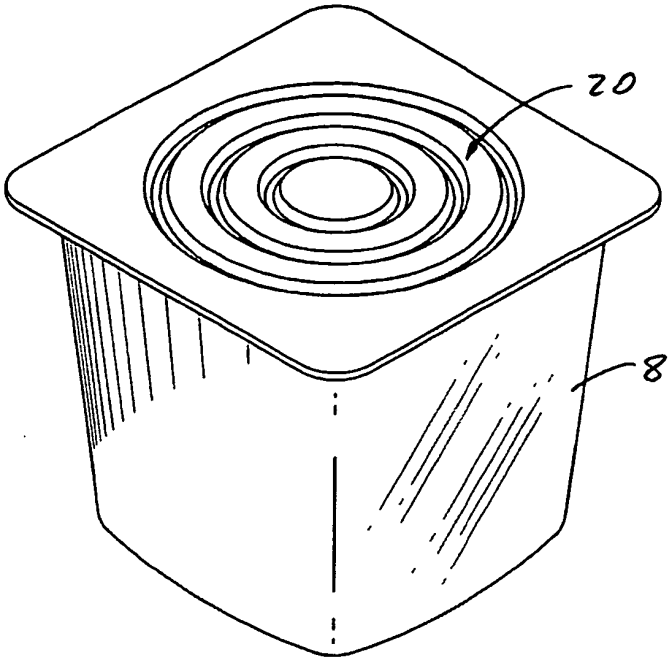



Fig.7

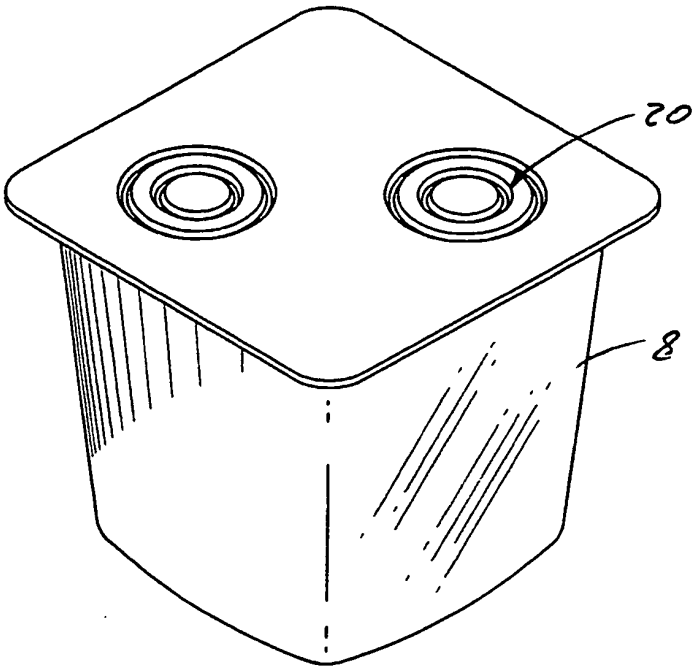



Fig.8

Fig. 9c

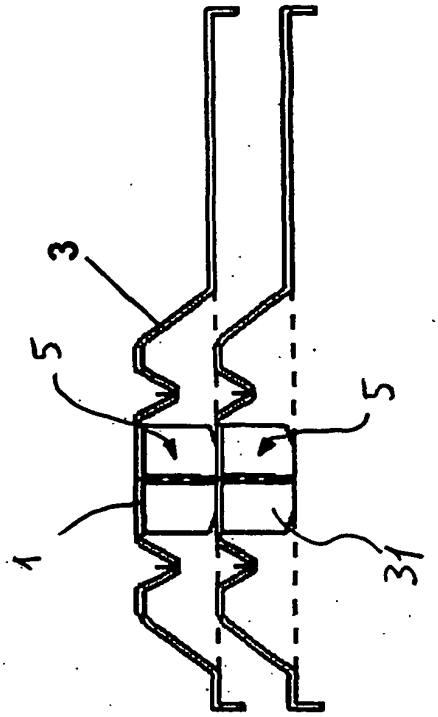



Fig. 9a

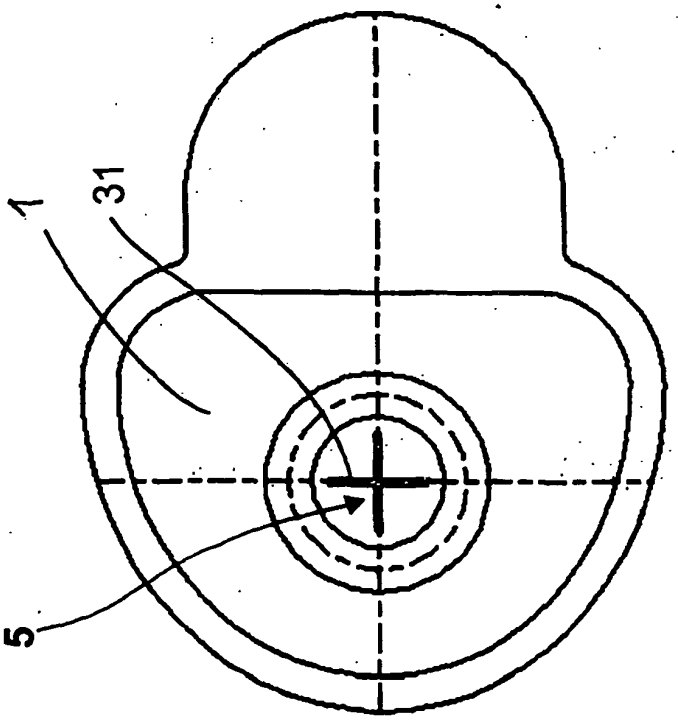



Fig. 9b

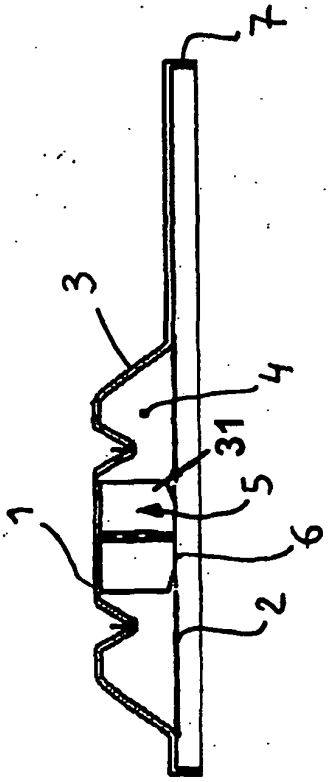


Fig. 10c

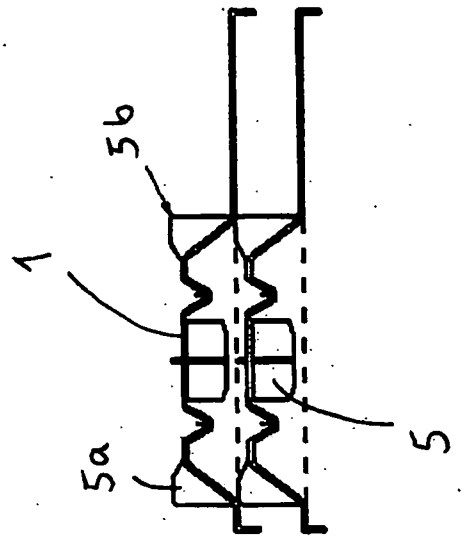



Fig. 10a

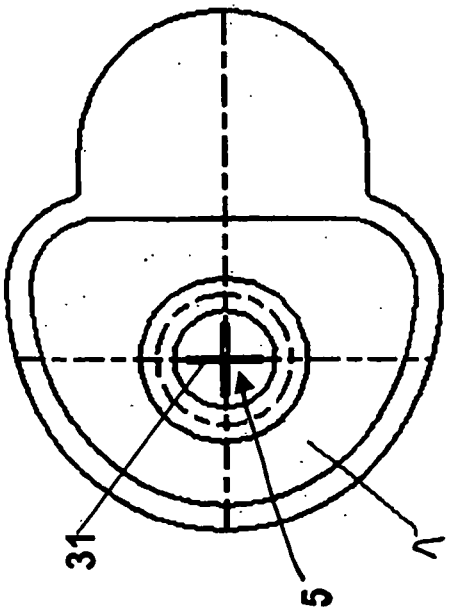
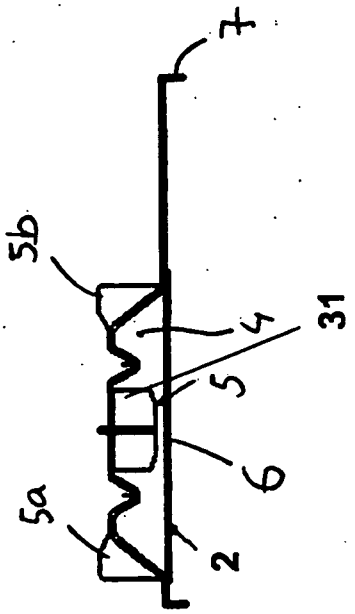



Fig. 10b



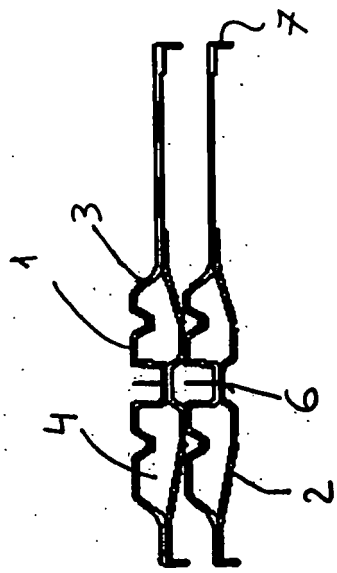
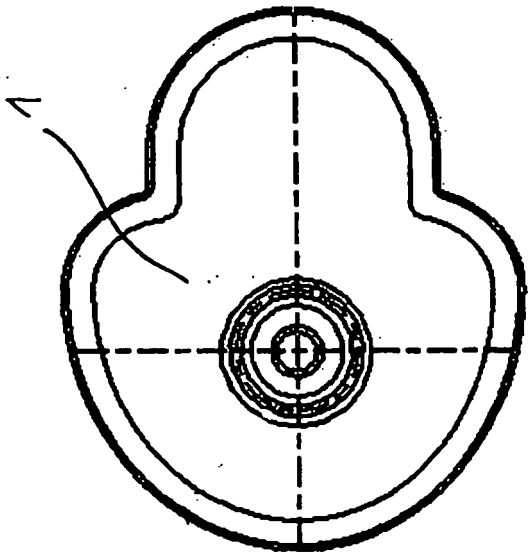



Fig. 11b

Fig. 11a



## REFERENCES CITED IN THE DESCRIPTION

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