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(54) **Package for the preservation and cooking of food products and method of its use**

Verpackung zum Konservieren und Kochen von Nahrungsmitteln und Verfahren zu deren Verwendung

Emballage pour la conservation et la cuisson de produits alimentaires et son procédé d'utilisation

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Description

[0001] This invention relates to a package for preserving food products and preparing them for consumption, of the type described in the preamble to claim 1.

[0002] This invention also relates to a method for preparing food products for consumption, of the type described in the preamble to claim 17.

[0003] As is known, in the food industry there has always been a need to make packages able to guarantee the preservation of food products for a desired period of time (called the "shelf-life") and at the same time able to speed up preparation of the food products for consumption.

[0004] In particular, in the "fresh" food products sector, for example tortelli, tortellini or other pasta made using eggs, the preservation of the organoleptic properties is extremely important, both to guarantee a top quality product and to prevent the growth of bacteria. Specifically with reference to the fresh food products sector, there is also a need to combine two or more products in the same package, for example a main dish and the relative dressing, so as to speed up the step of preparation for consumption.

[0005] According to the prior art, there are multiple packages, including separate containers, one for the main dish - for example fresh tortellini or pasta - and one for the dressing. In particular, there are prior art packages comprising a main bag, holding a pouch containing a single serving of the main dish, for example pasta made using eggs, typically tortellini, and a tub containing a single serving of dressing, for example a sauce to be served with the pasta.

[0006] The consumer opens the main bag to take out the pouch and the tub. Then, he empties the pasta contained in the pouch into a pan for cooking. He then adds water to the sauce contained in the tub, to dilute it, and pours the sauce diluted with water into the pan. Finally, he cooks the pasta, now dressed with the sauce, in the pan.

[0007] The main disadvantage of packages made according to the prior art summarised above is that they do not allow quick and easy preparation of the main dish for consumption. In fact, the consumer, having to handle two separate containers, must be particularly careful when pouring the dressing into the pan. Moreover, since the dressing in the tub has to be diluted with water, the step of preparation for consumption is disadvantageously lengthy and complex.

[0008] Another disadvantage of the packages made according to the prior art is that of exposing the consumer to the risk of getting dirty, especially when pouring into the pan the dressing, which is often semi-liquid and in any case further diluted with water.

[0009] A further disadvantage of the prior art packages is that they are bulky, since they consist of several separate containers, each with its own wrapper or packaging. With regard to that, the prior art packages have the further

disadvantage of being difficult to dispose of after the product has been consumed, since the main bag, the pouch and the tub are usually made of different materials. According to another prior art reference in document US 4,596,713, there are packages for microwave ovens which during heating are able to release a food additive contained in a pocket in the package. Such a package is used in particular for preparing popcorn.

[0010] Document FR 2929491 describes a package in accordance with the preamble of claim 1.

[0011] In this context, the technical purpose which forms the basis of this invention is to provide a package for preserving food products and preparing them for consumption that overcomes the above mentioned disadvantages of the prior art. In particular, the aim of this invention is to provide a package able to allow quick and easy preparation of food products for consumption.

[0012] With regard to that, another aim of this invention is to provide a package able to make easy, even for consumers who are not culinary experts, the preparation and cooking of food products whose cooking is challenging. Another aim of this invention is to provide a package able to prevent the risk of the end consumer getting dirty, during the step of preparing the products for consumption.

[0013] Another aim of this invention is to provide a package which is not bulky and which is easy to transport. Another aim of this invention is to provide a package which is easy to dispose of after the food products have been consumed.

[0014] Another aim of this invention is to provide a package able to contain two different food products, preventing both the growth of bacteria and the exchange and absorption of substances, for example water, between the two products.

[0015] Also a technical purpose of this invention is to provide a method for preparing food products for consumption.

[0016] The technical purposes indicated and the aims specified are substantially achieved by a package for preserving food products and preparing them for consumption and by a method for preparing food products for consumption comprising the technical features described in one or more of the appended claims.

[0017] Additional features and advantages of this invention are more apparent in the non-limiting description of a preferred, non-limiting embodiment of a package for preserving food products and preparing them for consumption, as shown in the accompanying drawings in which:

- Figure 1 is an axonometric top view of a package according to the invention;
- Figure 2 is a side cross-section of the package of Figure 1;
- Figures 3 and 4 are, respectively, an axonometric top view and bottom view of the package of the previous figures, in an open configuration;
- Figure 5 is a cutaway view of the package of the

- previous figures, in an operating configuration;
- Figures 6 to 8 are three views of a first construction detail of a package according to the invention;
- Figures 9 to 11 are three views of a second construction detail of a package according to the invention.

[0018] In particular with reference to Figures 1, 2 and 5, the numeral 1 denotes as a whole a package for preserving food products and preparing them for consumption in accordance with this invention.

[0019] With reference to the accompanying drawings, in particular Figure 2, the package 1 comprises a first container 2 containing a first food product 200 and a second container 3 containing a second food product 300. The first and second containers are coupled to each other.

[0020] In the preferred embodiment, the containers are made of polypropylene combined with ethylene vinyl alcohol (acronym: EVOH) to guarantee non-permeability of gases. In alternative embodiments, the containers may be made of polyethylene terephthalate (acronym: PET) or crystallised polyethylene terephthalate (acronym: CPET). In particular with reference to Figures 6 and 9, the first and second containers each comprise an access opening 2a, 3a. In particular, as shown in Figure 4, the containers are coupled to each other with the respective access openings 2a, 3a facing each other.

[0021] In particular with reference to Figures 2, 4, 9 and 10, the package 1 comprises a separator sheet 4 interposed between the first and second containers, for keeping the food products housed in the respective containers separate in a preservation operating configuration. In particular, the separator sheet is interposed between the containers 2, 3 in such a way that it simultaneously closes both of the access openings 2a, 3a (Figure 2).

[0022] In particular with reference to Figure 5, the separator sheet 4 is shaped in such a way that it breaks under the action of the pressure applied by steam which develops from at least one of the food products during a food product heating step to prepare them for consumption. Consequently, following breakage of the separator sheet, the first food product makes contact with the second food product. For that purpose, the separator sheet 4 comprises at least one portion 4a with a reduced transversal thickness, forming a predetermined tear zone for breakage controlled by the steam pressure. In particular, the transversal thickness of the separator sheet at the tear zone is such that it results in the breakage of the separator sheet at a pressure value greater than 1 bar, preferably between 1 bar and approximately 1.5 bar. Preferably, the tear zone is formed by a line 34a positioned at a centre line of the separator sheet 4 and extending in a main direction of extension of the package 1.

[0023] According to the embodiment illustrated in Figures 9 and 10, the separator sheet is a film made of heat-shrink plastic material. Preferably, the film is made of anti-condensation polypropylene with EVOH. In this

case, the tear zone is formed by one or more cuts made with a laser and such that they reduce the transversal thickness of the film, but without compromising its properties which make it non-permeable to gases.

[0024] In particular with reference to Figures 3, 4, 6 and 9, the access opening 2a, 3a of the containers 2, 3 have respective perimetric shapes which substantially match each other. Moreover, in the preferred embodiment illustrated in the accompanying drawings, the first container 2 is positioned above the second container 3 and is overturned, in such a way that, after the separator sheet 4 has broken, gravity makes the first food product flow into the second container, making contact with the second food product.

[0025] According to an alternative embodiment of the invention, the first food product may have a higher moisture content than that of the second food product, thus, following the heating step and breakage of the separator sheet - and therefore contact with the second food product - the first food product causes the second food product to be cooked. For example, the first food product 200 may be a dressing, for example a sauce, and the second food product 300 may be fresh pasta, for example tortellini.

[0026] In accordance with the preferred embodiment, the first and second food products have cooking times which are not less than 2 minutes, preferably between 2 minutes and around 8 minutes. In the embodiment in which the first food product is a dressing, for example a sauce, and the second food product is fresh pasta, for example tortellini, the cooking time of between 2 minutes and 8 minutes is what guarantees the formation - in the first container - of a steam pressure sufficient to make the separator sheet break and allow the first food product (for example, the sauce) to make contact with the second food product (for example, the fresh pasta), and cause the latter to be cooked. According to an alternative embodiment not illustrated, the second container, containing the pasta, may be fitted with a safety valve to prevent overpressures while the pasta is being cooked. In particular, the safety valve opens when a pressure value greater than approximately 1.5 bar is reached, allowing the steam to be vented.

[0027] In the preferred embodiment, the first and second containers 2, 3 also contain an inert gas or a mixture of inert gases designed to preserve the food products. Preferably, the pressure of the gases in each container is equal to around 0.5 bar and even more preferably said gases are nitrogen (N₂) or a mixture of carbon dioxide (CO₂) and nitrogen (N₂).

[0028] With reference to the accompanying drawings, the first container 2 comprises a contact portion 2b extending around its access opening 2a, the contact portion being substantially shaped to match a corresponding housing recess 3b in the second container 3. The housing recess 3b in turn extends around the access opening 3b of the second container 3. In the preferred embodiment illustrated, for example in Figures 3, 6 and 7, the housing

recess 3b is formed by a supporting base 3c connected to a vertical edge 3d.

[0029] Advantageously, the contact portion 2b and the housing recess 3b provide the package 1 with a seal and rigidity, as well as allowing easy centring of the containers 2, 3 during container production.

[0030] With reference to the accompanying drawings, the first container 2 comprises a collar 7 positioned around its access opening 2a, preferably in such a way that it surrounds the contact portion 2b (Figure 10). The second container 3 comprises an opposite collar 8 positioned around its access opening 3a, preferably in such a way that it surrounds the housing recess 3b (Figure 6). In particular, the opposite collar 8 extends from the vertical edge 3d of the housing recess 3b.

[0031] The containers are coupled by heat-sealing the collars 7, 8. In particular, the collar 7 of the first container 2 is pressed, when hot, against the opposite collar 8 of the second container 3 until the material used to make the collars fuses together. For that purpose, the collars are made of plastic material, preferably in a single piece with the respective containers 2, 3, and therefore of polypropylene combined with ethylene vinyl alcohol (acronym: EVOH), of polyethylene terephthalate (acronym: PET) or crystallised polyethylene terephthalate (acronym: CPET).

[0032] According to the invention, at least one of the containers 2, 3 comprises a grippable expansion allowing the containers to be pulled apart. With reference to the accompanying drawings, each container comprises a grippable portion 6, typically a tab, designed to be gripped by a user. Said grippable portions are suitable for forcefully pulling in opposite directions away from each other, to separate the containers. Preferably, each grippable portion 6 is formed on each container as an expansion of the collars 7, 8.

[0033] It should be noticed that heat-sealing the collars 7, 8 made of plastic material is very advantageous, since, while guaranteeing that the containers are coupled to each other during production of the package, it does not require the application of excessive force by the user to separate the containers during the step of preparation for consumption.

[0034] With reference to Figure 9, the separator sheet 4 is connected to a contact surface 5 positioned around the access opening 2a of the first container 2, between a perimetric edge 22a of the opening and the contact portion 2b. Preferably, the separator sheet 4 is heat-sealed, at its perimetric portions, to the contact surface 5 of the first container 2 (the sealing line is labelled "S" in Figure 10).

[0035] With reference to Figure 9, the contact surface 5 has a surface area whose dimensions are such that it receives the film in the retracted configuration following its breakage after the heating. In fact, after breaking due to the steam pressure, the film tears and, being made of heat-shrink plastic material and being sealed to the contact surface 5, it contracts due to the heating, and is po-

sitioned on the contact surface. Advantageously, the contraction of the film and its positioning on the contact surface maximises transit cross-section available for the first food product to flow from the first container to the second container.

[0036] According to the invention, a method for preparing food products for consumption comprises the following steps:

- 10 - preparing a first container 2 containing a first food product;
- preparing a second container 3 containing a second food product;
- coupling the containers 2, 3 to each other;
- 15 - interposing a separator sheet 4 between the containers 2, 3 for keeping the food products housed in the containers 2, 3 separate in a preservation operating configuration;
- heating the food products in the respective containers, the heating step causing the formation of steam in at least one of the containers due to the evaporation of liquid present, in the form of moisture, in the food product contained in it.

25 **[0037]** The heating step is carried out at least until, in at least one of the containers, a steam pressure value is reached such that it causes the separator sheet to break, resulting in the first food product making contact with the second food product without intervention by an operator.

30 **[0038]** The step of interposing the separator sheet may be performed either before or after the step of coupling the containers.

35 **[0039]** According to the invention, the steam pressure value which causes the separator sheet to break is greater than 1 bar, preferably between 1 bar and approximately 1.5 bar.

40 **[0040]** According to the invention, the first food product has a higher moisture content than that of the second food product. The heating step is prolonged after breakage of the separator sheet at least until a boiling temperature is reached for the liquid present in the form of moisture in the first food product, meaning that the contact between the first food product and the second food product causes the latter to be cooked

45 **[0041]** In particular, the heating step is performed at a temperature value of between approximately 80 °C and approximately 130 °C for a period of time which is not less than 2 minutes, preferably between 2 minutes and approximately 8 minutes.

50 **[0042]** The invention operates as follows.

[0043] The package is inserted in suitable food heating devices, for example a conventional oven, a microwave oven, etc.

55 **[0044]** Then, after being heated, at least one of the food products, for example the first food product, begins producing steam in the respective container, until a steam pressure able to break the separator film at the predetermined tear zone is built up.

[0045] After the film has broken, gravity makes the first food product flow into the second container and it makes contact with the second food product (Figure 5).

[0046] With reference to the preferred embodiment and without in any way limiting the scope of the invention, the first food product has a higher moisture content than that of the second food product. In this case, following the heating step and breakage of the film, and therefore contact with the second food product, the first food product causes the second food product to be cooked. That situation corresponds, for example, to the case in which the first food product may be a dressing, for example a sauce, and the second food product may be fresh pasta, for example tortellini.

[0047] After the film has broken, the torn film, being made of heat-shrink plastic material, contacts due to the heating, and is positioned on the contact surface 5 of the first container.

[0048] At the end of the heating step, the user grips the grippable portions 6 and forcefully pulls them in opposite directions away from each other, to uncouple the containers 2, 3 (Figure 3).

[0049] After the containers have been separated, the user can throw away the first container, on whose contact surface the torn film is positioned, and can eat the meal now ready in the second container, for example pasta dressed with sauce.

[0050] The invention brings important advantages.

[0051] First, a package according to this invention can allow quick and easy preparation of food products for consumption. Indeed, advantageously, automatic breakage of the separator sheet caused by the steam pressure and the consequent automatic contact between the first food product and the second food product, allow the food products to be prepared for consumption without any intervention by the end user.

[0052] Another advantage is the fact that the package according to the invention is not bulky and is easy to transport. Moreover, comprising only two containers made of the same plastic material, it is easy to dispose of after the food products have been consumed.

[0053] Advantageously, in the embodiment in which the first food product is a dressing, for example a sauce, and the second food product is fresh pasta, for example tortellini, the package according to the invention can surprisingly allow the preparation and dressing of fresh pasta even without boiling water which is normally needed to cook fresh pasta according to the prior art methods. Therefore, in light of this, the package according to the invention is particularly advantageous for allowing "take-away" consumption, since the preparation of the food products does not require the use of a fully equipped kitchen. All that is needed is a normal food heating device, such as a conventional oven or a microwave oven.

[0054] Advantageously, by suitably selecting the level of moisture in the first food product, for example a pre-determined sauce, the package can cook filled or unfilled pasta initially contained in the second container.

[0055] Advantageously, a package according to the invention prevents the risk of the consumer getting dirty during the food product preparation step.

[0056] Advantageously, a package according to the invention can preserve and cook "fresh" food products.

Claims

1. A package (1) for preserving food products and preparing them for consumption, comprising:
 - a first container (2) containing a first food product;
 - a second container (3) containing a second food product, the first and second containers being coupled to each other;
 - a separator sheet (4) interposed between the containers (2, 3) and designed to keep separate, in a preservation operating configuration, the food products housed in the containers, **characterised in that** the first and second containers (2, 3) each comprise an access opening (2a, 3a), the containers being coupled to each other with the respective access openings facing each other and **in that** the separator sheet (4) is designed to break under the action of the pressure applied by steam which develops from at least one of the food products during a food product heating step to prepare them for consumption, consequently, following breakage of the separator sheet, the first food product makes contact with the second food product.
2. The package according to claim 1, wherein the separator sheet (4) comprises at least one portion (4a) with a reduced transversal thickness forming a pre-determined tear zone for breakage controlled by the steam pressure.
3. The package according to claim 2, wherein the transversal thickness of the separator sheet (4) at the tear zone is such that it results in the breakage of the separator sheet at a steam pressure value greater than 1 bar, preferably between 1 bar and approximately 1.5 bar.
4. The package according to any of the foregoing claims, wherein the separator sheet (4) is a film of heat-shrink plastic material.
5. The package according to claim 1, wherein the separator sheet (4) is interposed between the containers (2, 3) in such a way that it simultaneously closes both of the access openings (2a, 3a).
6. The package according to any of the foregoing claims, wherein the first container (2) comprises a

- contact portion (2b) extending around its access opening (2a), the contact portion (2b) being substantially shaped to match a corresponding housing recess (3b) in the second container (3), the housing recess (3b) extending around the access opening (3a) of the second container (3).
7. The package according to claim 6, wherein the separator sheet (4) is connected to a contact surface (5) positioned around the access opening (2a) of the first container (2), between a perimetric edge of the opening (2a) and the contact portion (2b).
8. The package according to claim 6 or 7, wherein each of the containers (2, 3) comprises a collar (7, 8) positioned around its access opening (2a, 3a), the collars being connected to each other by heat sealing, thus coupling the containers (2, 3) to each other.
9. The package according to claim 7, wherein the separator sheet (4) is heat sealed, at its perimetric portions, to the contact surface (5) of the first container (2).
10. The package according to any of the foregoing claims, wherein the access openings (2a, 3a) of the containers (2, 3) have respective perimetric shapes substantially matching each other.
11. The package according to any of the foregoing claims, wherein at least one of the containers (2, 3) comprises a grippable expansion (6) allowing the containers to be pulled apart.
12. The package according to claim 5, wherein the first container (2) is positioned above the second container (3) and is overturned, in such a way that, after the separator sheet (4) has broken, gravity makes the first food product flow into the second container (3), making contact with the second food product.
13. The package according to claim 7, wherein the separator sheet (4) is a film of heat-shrink plastic material, the contact surface (5) having a surface area whose dimensions are such that it receives the film in the retracted configuration following its heating and breakage.
14. The package according to any of the foregoing claims, wherein the first food product is a dressing and the second food product is fresh pasta.
15. The package according to any of the foregoing claims, wherein the containers (2, 3) also contain an inert gas or a mixture of inert gases for preserving the food products, the pressure of the gas or the mixture of gases in each container being equal to at least 0.5 bar.
16. The package according to any of the foregoing claims, wherein the first food product has a higher moisture content than that of said second food product, thus, following heating and breakage of the separator sheet (4) and contact with the second food product, the first food product causes the second food product to be cooked.
17. A method for preparing fresh pasta for consumption, comprising the following steps:
- preparing a first container (2) containing a dressing;
 - preparing a second container (3) containing fresh pasta;
 - coupling the containers (2, 3) to each other;
 - interposing a separator sheet (4) between the containers (2, 3) for keeping the food products housed in the containers separate in a preservation operating configuration;
 - heating the food products, namely the dressing and the fresh pasta, in the respective containers (2, 3), the heating step causing the formation of steam in at least one of the containers due to the evaporation of liquid present, in the form of moisture, in the food product contained in it;
- characterised in that**
- the heating step is carried out at least until, in at least one of the containers (2, 3), a steam pressure value is reached such that it causes the separator sheet (4) to break, resulting in the dressing making contact with the fresh pasta without intervention by an operator, and **in that**
- the heating step is prolonged after breakage of the separator sheet (4) at least until a boiling temperature is reached for the liquid present in the form of moisture in the dressing, meaning that the contact between the dressing and the fresh pasta causes the latter to be cooked.

Patentansprüche

1. Verpackung (1) zum Konservieren von Nahrungsmitteln und zu deren Zubereitung für den Verzehr, umfassend:
- einen ersten Behälter (2), enthaltend ein erstes Nahrungsmittelprodukt;
 - einen zweiten Behälter (3), enthaltend ein zweites Nahrungsmittelprodukt,
 - wobei der erste und der zweite Behälter miteinander gekuppelt sind;
 - ein Trennblatt (4), das zwischen den Behältern (2, 3) angeordnet ist und ausgelegt ist, um die

- in den Behältern enthaltenen Nahrungsmittelprodukte in einer Betriebskonfiguration für die Konservierung getrennt zu halten, **dadurch gekennzeichnet, dass** der erste und der zweite Behälter (2, 3) jeweils eine Zugangsöffnung (2a, 3a) umfassen, wobei die Behälter miteinander gekuppelt sind und die jeweiligen Zugangsöffnungen einander gegenüberliegend angeordnet sind, und dadurch, dass das Trennblatt (4) ausgelegt ist, um unter der Wirkung des Drucks, der durch den Dampf hervorgerufen wird, der sich von mindestens einem der Nahrungsmittelprodukte während eines Schritts zum Erhitzen des Nahrungsmittelprodukts, um diese für den Verzehr zuzubereiten, entwickelt, zu brechen, wobei das erste Nahrungsmittelprodukt entsprechend nach dem Bruch des Trennblatts mit dem zweiten Nahrungsmittelprodukt in Kontakt kommt.
2. Verpackung nach Anspruch 1, wobei das Trennblatt (4) mindestens einen Abschnitt (4a) mit einer reduzierten transversalen Dicke umfasst, bildend eine vorgegebene Reißzone für den kontrollierten Bruch durch den Dampfdruck.
 3. Verpackung nach Anspruch 2, wobei die transversale Dicke des Trennblatts (4) an der Reißzone so beschaffen ist, dass sie den Bruch des Trennblatts bei einem Dampfdruckwert von über 1 bar, vorzugsweise zwischen 1 bar und zirka 1,5 bar hervorruft.
 4. Verpackung nach einem der vorhergehenden Ansprüche, wobei das Trennblatt (4) eine Wärmeschrumpffolie aus Kunststoffmaterial ist.
 5. Verpackung nach Anspruch 1, wobei das Trennblatt (4) zwischen den Behältern (2, 3) so angeordnet ist, dass es beide Zugangsöffnungen (2a, 3a) gleichzeitig verschließt.
 6. Verpackung nach einem der vorhergehenden Ansprüche, wobei der erste Behälter (2) einen Kontakt (2b) umfasst, der sich rund um seine Zugangsöffnung (2a) erstreckt, wobei der Kontaktabschnitt (2b) im Wesentlichen passend zu einer entsprechenden Aufnahmevertiefung (3b) im zweiten Behälter (3) geformt ist und sich die Aufnahmevertiefung (3b) rund um die Zugangsöffnung (3a) des zweiten Behälters (3) erstreckt.
 7. Verpackung nach Anspruch 6, wobei das Trennblatt (4) mit einer Kontaktfläche (5) verbunden ist, die rund um die Zugangsöffnung (2a) des ersten Behälters (2) zwischen einer Umfangskante der Öffnung (2a) und dem Kontaktabschnitt (2b) angeordnet ist.
 8. Verpackung nach Anspruch 6 oder 7, wobei jeder Behälter (2, 3) einen Bund (7, 8), positioniert rund um seine Zugangsöffnung (2a, 3a) umfasst, und die Bunde mittels einer Heißsiegelung miteinander verbunden sind, was die Behälter (2, 3) miteinander kuppelt.
 9. Verpackung nach Anspruch 7, wobei das Trennblatt (4) an seinen Umfangsabschnitten mit der Kontaktfläche (5) des ersten Behälters (2) heißversiegelt ist.
 10. Verpackung nach einem der vorhergehenden Ansprüche, wobei die Zugangsöffnungen (2a, 3a) der Behälter (2, 3) jeweils Umfangsformen aufweisen, die im Wesentlichen passend zueinander ausgestaltet sind.
 11. Verpackung nach einem der vorhergehenden Ansprüche, wobei mindestens einer der Behälter (2, 3) eine Griffverlängerung (6) umfasst, die das Auseinanderziehen der Behälter ermöglicht.
 12. Verpackung nach Anspruch 5, wobei der erste Behälter (2) über dem zweiten Behälter (3) positioniert ist und so gekippt wird, dass die Schwerkraft nach dem Bruch des Trennblatts (4) dafür sorgt, dass das erste Nahrungsmittelprodukt in den zweiten Behälter (3) strömt und mit dem zweiten Nahrungsmittelprodukt in Kontakt kommt.
 13. Verpackung nach Anspruch 7, wobei das Trennblatt (4) eine Wärmeschrumpffolie aus Kunststoffmaterial ist und die Kontaktflächen (5) einen Oberflächenbereich aufweisen, dessen Abmessungen so beschaffen sind, dass er die Folie in der geschrumpften Konfiguration nach deren Erhitzung und Bruch aufnimmt.
 14. Verpackung nach einem der vorhergehenden Ansprüche, wobei das erste Nahrungsmittelprodukt eine Sauce und das zweite Nahrungsmittelprodukt frische Pasta ist.
 15. Verpackung nach einem der vorhergehenden Ansprüche, wobei die Behälter (2, 3) ebenfalls ein Inertgas oder eine Mischung von Inertgasen zur Konservierung der Nahrungsmittelprodukte enthalten und der Druck des Gases oder der Gas Mischung in jedem Behälter gleich mindestens 0,5 bar ist.
 16. Verpackung nach einem der vorhergehenden Ansprüche, wobei das erste Nahrungsmittelprodukt eine höhere Feuchtigkeit aufweist als das zweite Nahrungsmittelprodukt, sodass das erste Nahrungsmittelprodukt nach dem Erhitzen und Bruch des Trennblatts (4) und dem Kontakt mit dem zweiten Nahrungsmittelprodukt das Garen des zweiten Nahrungsmittelprodukts bewirkt.

17. Verfahren zur Zubereitung frischer Pasta für den Verzehr,
umfassend die folgenden Schritte:

- Vorbereiten eines ersten Behälters (2), enthal- 5
tend eine Sauce;
- Vorbereiten eines zweiten Behälters (3), ent-
haltend frische Pasta;
- Kuppeln der Behälter (2, 3) miteinander;
- Einlegen eines Trennblatts (4) zwischen die 10
Behälter (2, 3), um dafür zu sorgen, dass die
Nahrungsmittelprodukte in einer Konservie-
rungsbetriebskonfiguration separat in den Be-
hältern untergebracht sind;
- Erhitzen der Nahrungsmittelprodukte, d. h. der 15
Sauce und der frischen Pasta, in den jeweiligen
Behältern (2, 3), wobei das Erhitzen die Bildung
von Dampf in mindestens einem der Behälter
aufgrund der Verdampfung der enthaltenen
Flüssigkeit in Form von Feuchtigkeit im darin 20
enthaltenen Nahrungsmittelprodukt bewirkt;
- **dadurch gekennzeichnet, dass** der Schritt
des Erhitzens mindestens so lange ausgeführt
wird, bis in mindestens einem der Behälter (2,
3) ein Dampfdruckwert erreicht wird, der den 25
Bruch des Trennblatts (4) verursacht, was dazu
führt, dass die Sauce ohne Zutun einer Person
mit der frischen Pasta in Kontakt kommt, und
dadurch, dass 30

der Schritt des Erhitzens nach dem Bruch des Trenn-
blatts (4) mindestens so lange fortgesetzt wird, bis
eine Temperatur erreicht wird, die zum Kochen der
in der Form von Feuchtigkeit in der Sauce enthalte-
nen Flüssigkeit führt, was bedeutet, dass der Kontakt 35
zwischen Sauce und frischer Pasta das Garen der
Letzteren bewirkt.

Revendications

1. Emballage (1) pour la conservation et la préparation
de produits alimentaires destinés à la consomma-
tion, comprenant :

- un premier récipient (2) contenant un premier 45
produit alimentaire ;
- un second récipient (3) contenant un second
produit alimentaire ;
- les premier et second récipients étant accouplés 50
l'un à l'autre ;
- une cloison séparatrice (4) interposée entre les
récipients (2, 3) et conçue pour garder séparés,
dans une configuration opérationnelle de con-
servation, les produits alimentaires logés dans 55
les récipients,

caractérisé en ce que les premier et second réci-

ipients (2, 3) comprennent chacun une ouverture
d'accès (2a, 3a), les récipients étant accouplés l'un
à l'autre avec les ouvertures d'accès respectives qui
se font face l'une à l'autre et **en ce que** la cloison
séparatrice (4) est conçue pour se briser sous l'ac-
tion de la pression appliquée par la vapeur qui se
développe à partir de l'un au moins des produits ali-
mentaires lors d'une étape de chauffage d'un produit
alimentaire destiné à la consommation ; par consé-
quent, suite à la rupture de la cloison séparatrice, le
premier produit alimentaire entrera en contact avec
le second produit alimentaire.

- 2.** Emballage selon la revendication 1, dans lequel la
cloison séparatrice (4) comprend au moins une par-
tie (4a) comportant une épaisseur transversale ré-
duite formant une zone de déchirure prédéterminée
pour la rupture contrôlée par la pression de vapeur.
- 3.** Emballage selon la revendication 2, dans lequel
l'épaisseur transversale de la cloison séparatrice (4)
au niveau de la zone de déchirure est ainsi faite pour
aboutir à la rupture de la cloison séparatrice à une
valeur de pression de vapeur supérieure à 1 bar, de
préférence entre 1 bar et approximativement 1,5 bar.
- 4.** Emballage selon l'une quelconque des revendica-
tions précédentes, dans lequel la cloison séparatrice
(4) est un film en matière plastique thermorétrécis-
sable.
- 5.** Emballage selon la revendication 1, dans lequel la
cloison séparatrice (4) est interposée entre les réci-
pients (2, 3) de telle sorte qu'elle ferme simultanément
les deux ouvertures d'accès (2a, 3a).
- 6.** Emballage selon l'une quelconque des revendica-
tions précédentes, dans lequel le premier récipient
(2) comprend une partie de contact (2b) se dévelop-
pant autour de sa propre ouverture d'accès (2a), la
partie de contact (2b) ayant substantiellement une
forme correspondant à un renforcement de loge-
ment correspondant (3b) dans le second récipient
(3), le renforcement de logement (3b) se dévelop-
pant autour de l'ouverture d'accès (3a) du second
récipient (3).
- 7.** Emballage selon la revendication 6, dans lequel la
cloison séparatrice (4) est reliée à une surface de
contact (5) située autour de l'ouverture d'accès (2a)
du premier récipient (2), entre un bord périphérique
de l'ouverture (2a) et la partie de contact (2b).
- 8.** Emballage selon les revendications 6 ou 7, dans le-
quel chacun des récipients (2, 3) comprend une ba-
gue (7, 8) positionnée autour de sa propre ouverture
d'accès (2a, 3a), les bagues étant reliées l'une à
l'autre par thermoscellage, accouplant ainsi les ré-

cipients (2, 3) l'un à l'autre.

9. Emballage selon la revendication 7, dans lequel la cloison séparatrice (4) est thermoscellée, au niveau de ses parties périphériques, à la surface de contact (5) du premier récipient (2). 5
10. Emballage selon l'une quelconque des revendications précédentes, dans lequel les ouvertures d'accès (2a, 3a) des récipients (2, 3) possèdent des formes périphériques respectives qui correspondent substantiellement l'une à l'autre. 10
11. Emballage selon l'une quelconque des revendications précédentes, dans lequel au moins l'un des récipients (2, 3) comprend un développement saisissable (6) permettant aux récipients d'être séparés. 15
12. Emballage selon la revendication 5, dans lequel le premier récipient (2) est positionné au-dessus du second récipient (3) et est renversé, de sorte qu'après la rupture de la cloison séparatrice (4), la gravité fait descendre le premier produit alimentaire dans le second récipient (3) et entre en contact avec le second produit alimentaire. 20 25
13. Emballage selon la revendication 7, dans lequel la cloison séparatrice (4) est un film en matière plastique thermorétrécissable, la surface de contact (5) possédant une surface dont les dimensions sont telles qu'elle reçoit le film dans une configuration rétractée en fonction de son propre chauffage et de sa propre rupture. 30 35
14. Emballage selon l'une quelconque des revendications précédentes, dans lequel le premier produit alimentaire est un assaisonnement et le second produit alimentaire est constitué de pâtes fraîches. 40
15. Emballage selon l'une quelconque des revendications précédentes, dans lequel les récipients (2, 3) contiennent aussi un gaz inerte ou un mélange de gaz inertes pour conserver les produits alimentaires, la pression du gaz ou du mélange de gaz dans chaque récipient étant égale à au moins 0,5 bar. 45
16. Emballage selon l'une quelconque des revendications précédentes, dans lequel le premier produit alimentaire possède une teneur en humidité supérieure à celle dudit second produit alimentaire qui, suite au chauffage et à la rupture de la cloison séparatrice (4) et au contact avec le second produit alimentaire, provoque ainsi la cuisson du second produit alimentaire par le premier. 50 55
17. Procédé de préparation de pâtes fraîches destinées à la consommation,

comprenant les étapes suivantes :

- préparer un premier récipient (2) contenant un assaisonnement ;
- préparer un second récipient (3) contenant des pâtes fraîches ;
- accoupler les récipients (2, 3) l'un à l'autre ;
- interposer une cloison séparatrice (4) entre les récipients (2, 3) pour garder les produits alimentaires logés

dans les récipients séparés dans une configuration opérationnelle de conservation ;

- chauffer les produits alimentaires, à savoir l'assaisonnement et les pâtes fraîches, dans les récipients respectifs (2, 3), l'étape de chauffage provoquant la formation de vapeur dans l'un au moins des récipients en raison de l'évaporation de liquide présent, sous forme d'humidité, dans le produit alimentaire contenu dans celui-ci ;
- **caractérisé en ce que** l'étape de chauffage est effectuée au moins jusqu'à ce qu'au moins dans un des récipients (2, 3), une valeur de pression de vapeur est atteinte de sorte à provoquer la rupture de la cloison séparatrice (4), aboutissant à l'entrée en contact de l'assaisonnement avec les pâtes fraîches sans l'intervention d'un opérateur, et **en ce que** l'étape de chauffage est prolongée après la rupture de la cloison séparatrice (4) au moins jusqu'à ce qu'une température d'ébullition soit atteinte par le liquide présent sous forme d'humidité dans l'assaisonnement, signifiant que le contact entre l'assaisonnement et les pâtes fraîches provoque la cuisson de ses dernières.

Fig.1

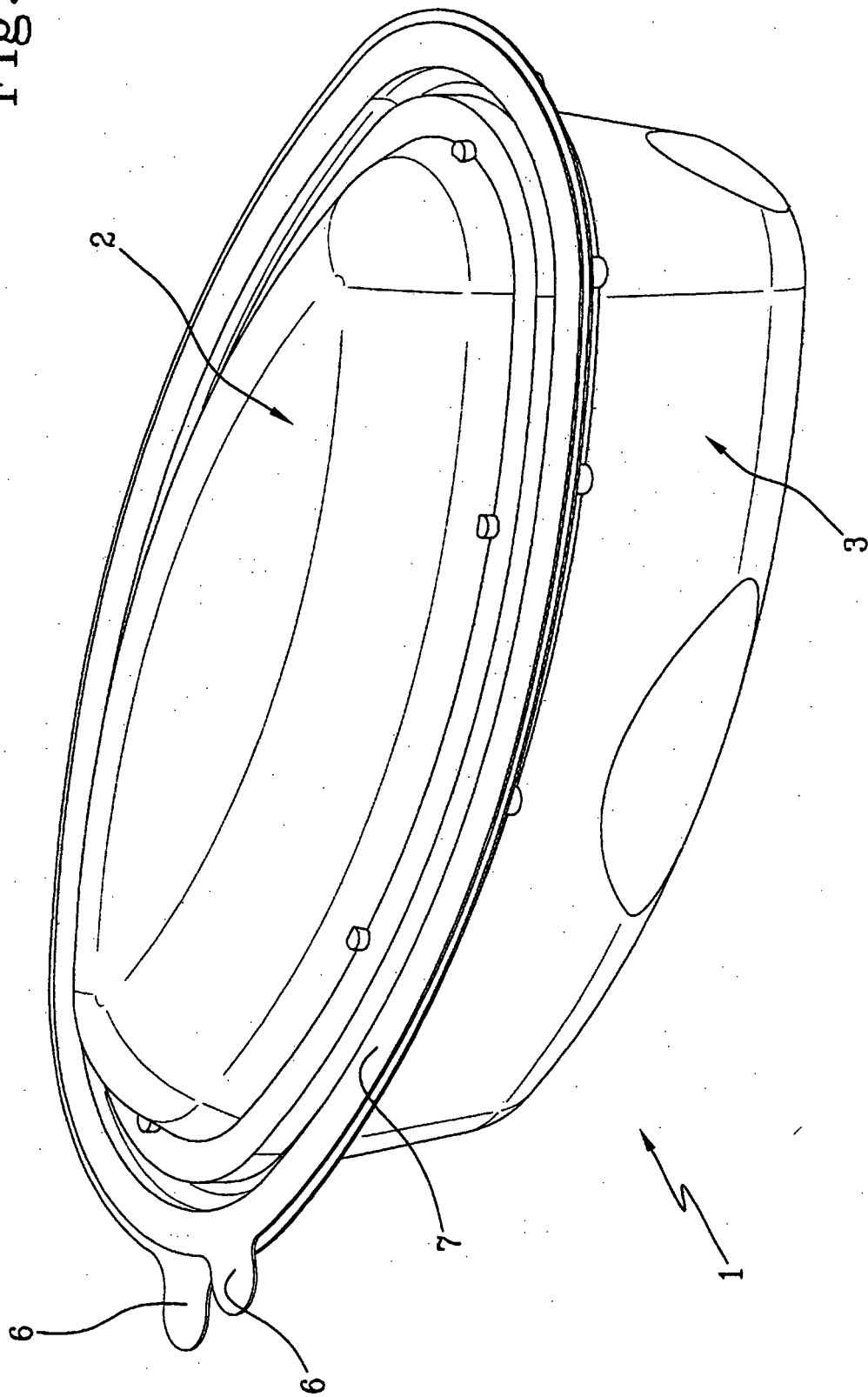
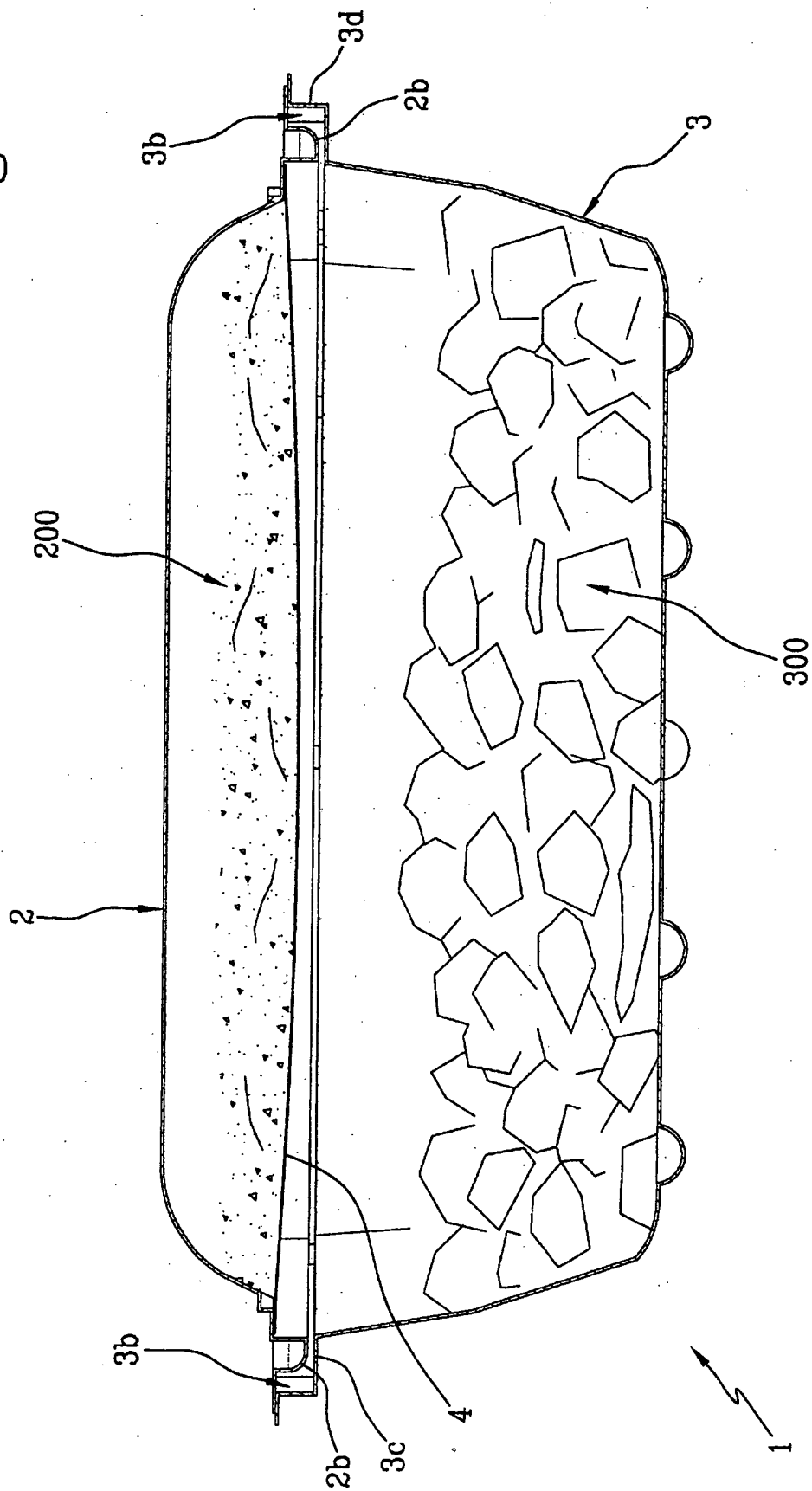


Fig.2



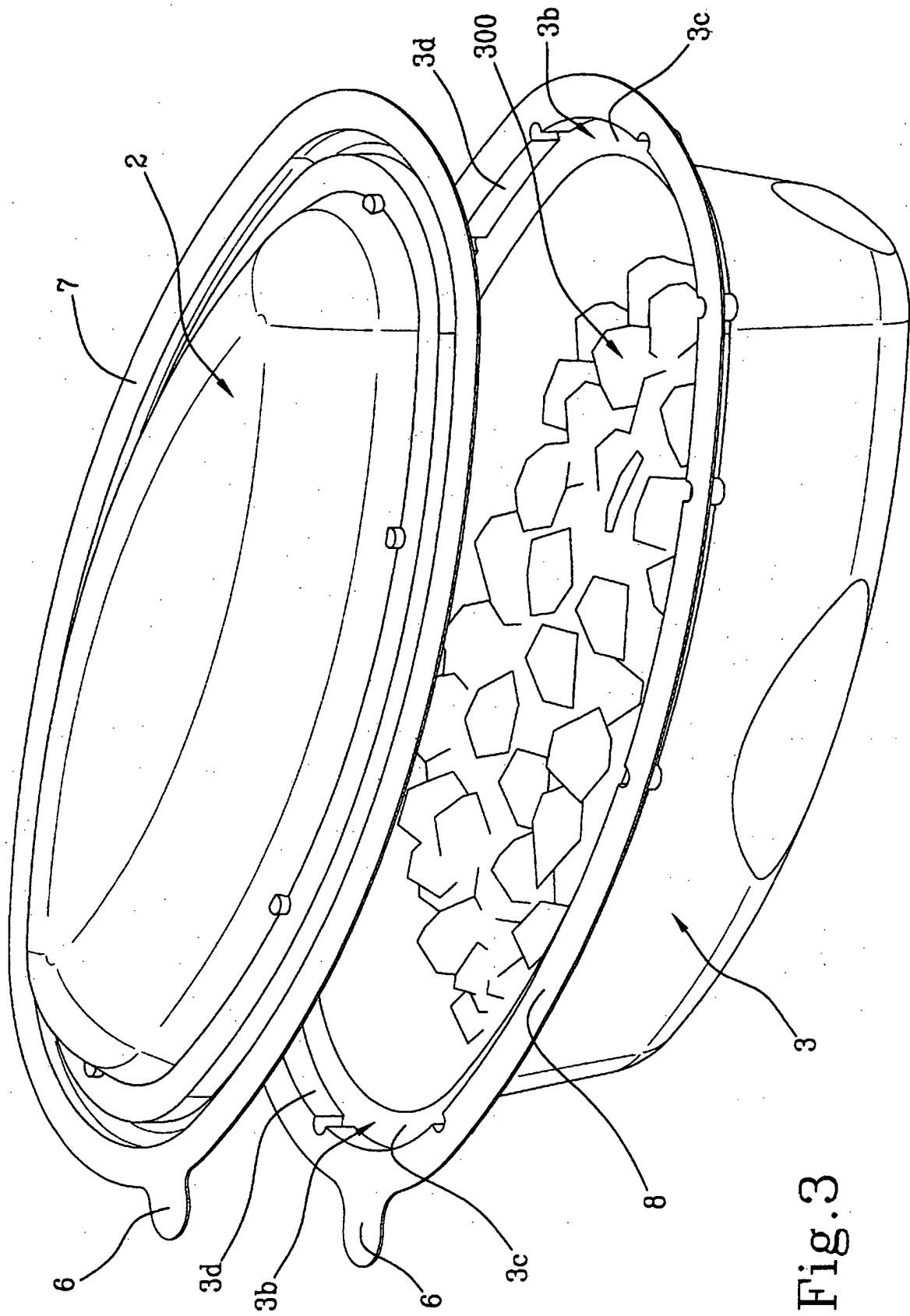


Fig. 3

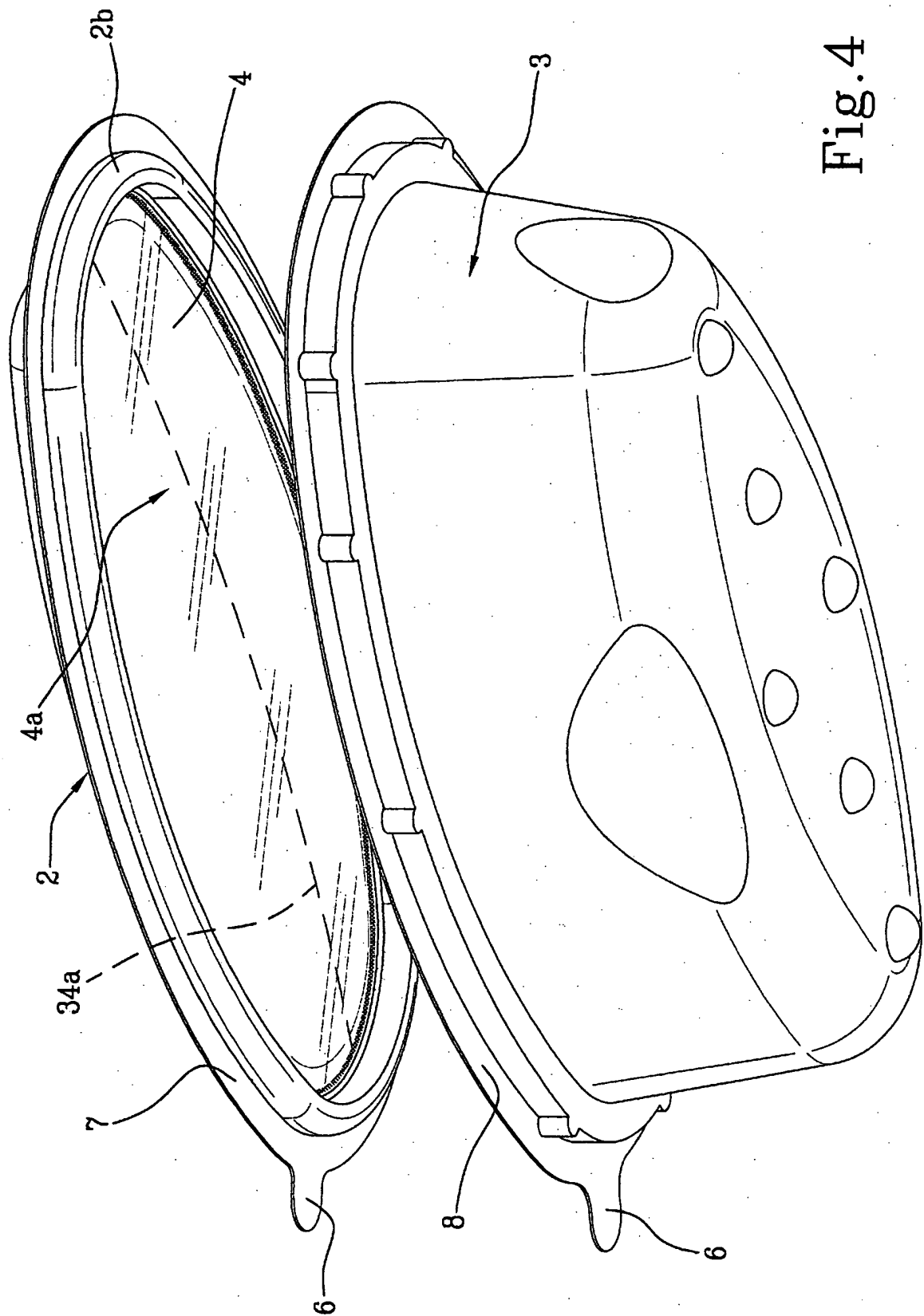
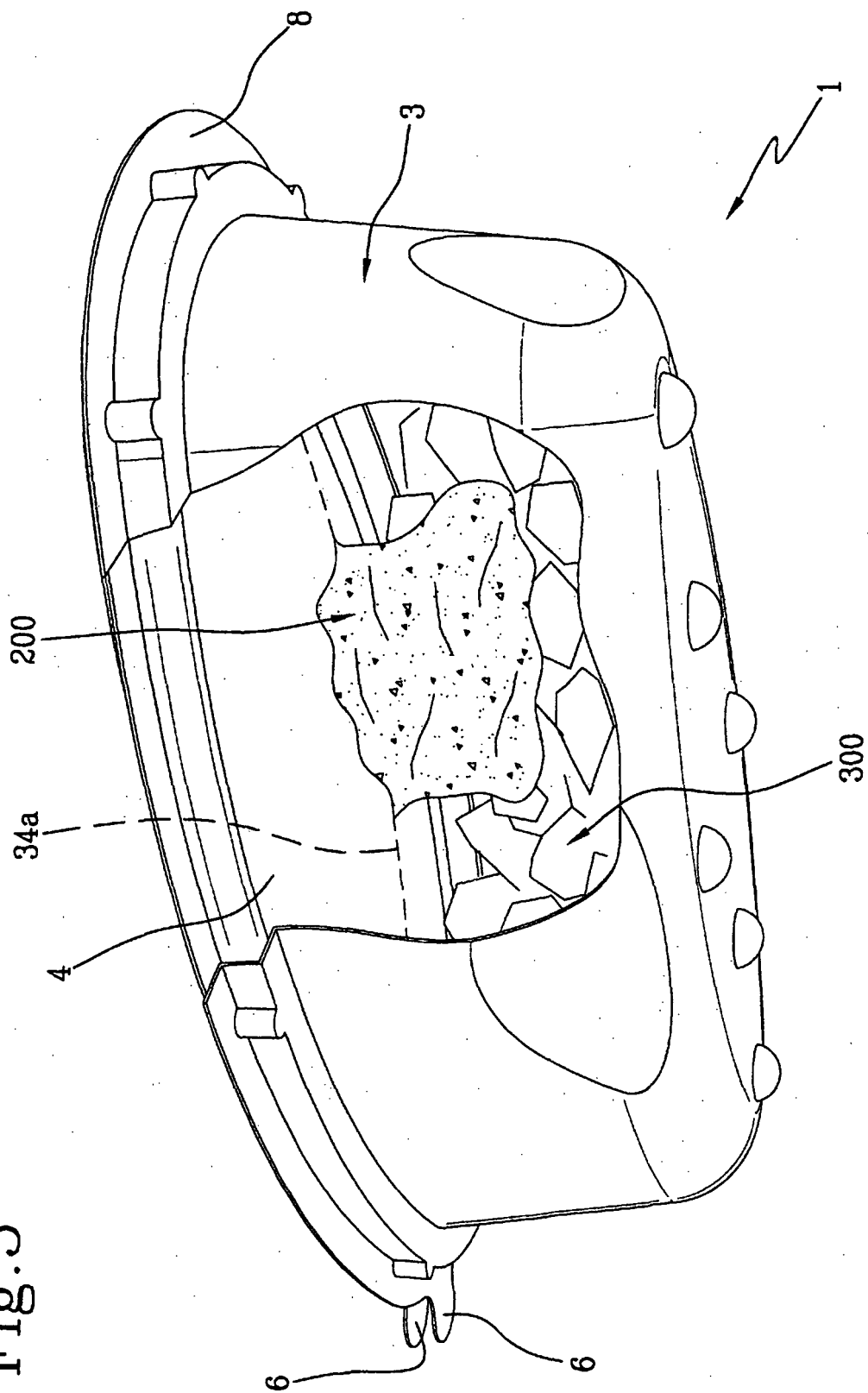


Fig.4

Fig.5



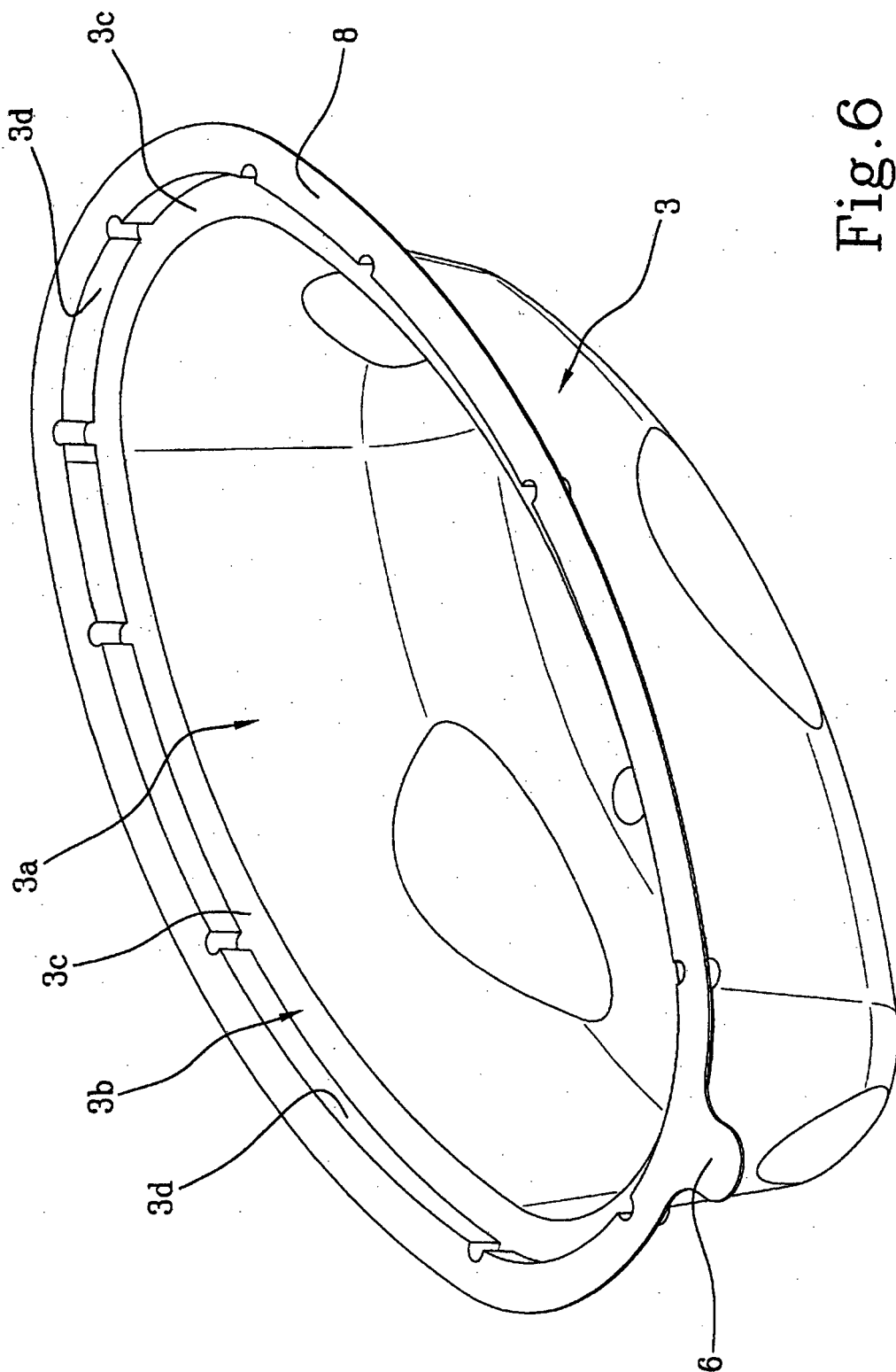


Fig. 6

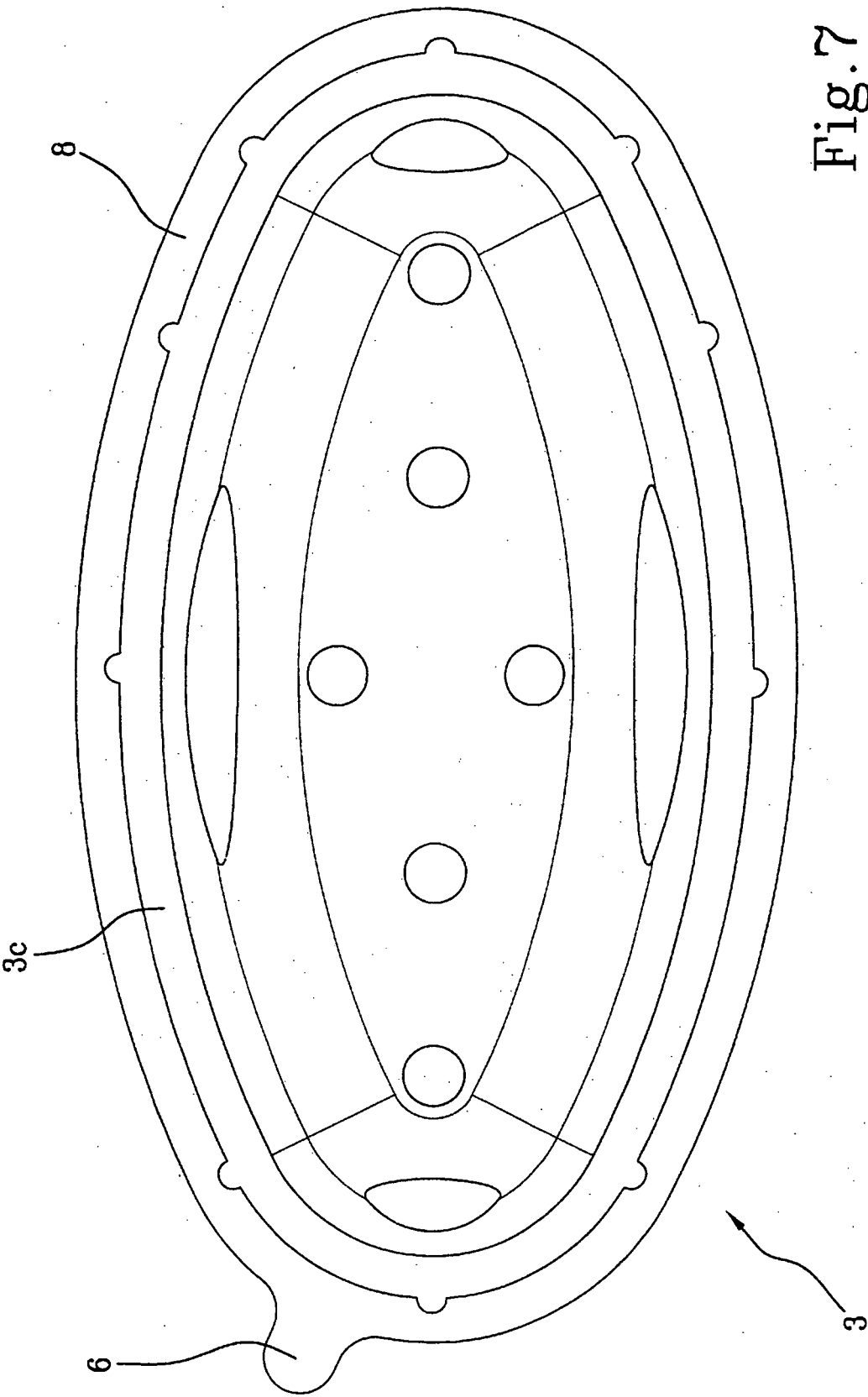


Fig. 7

Fig. 8

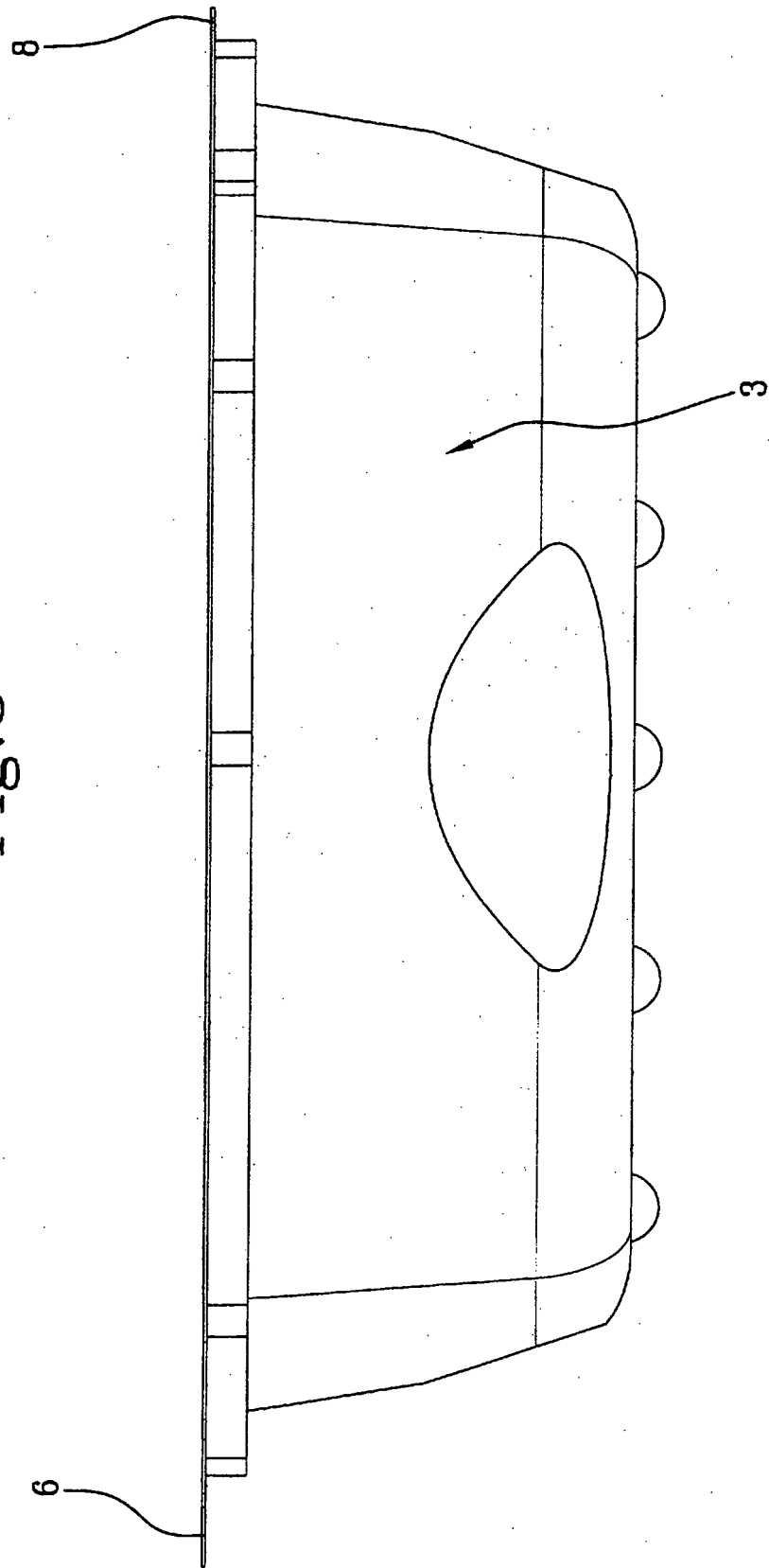
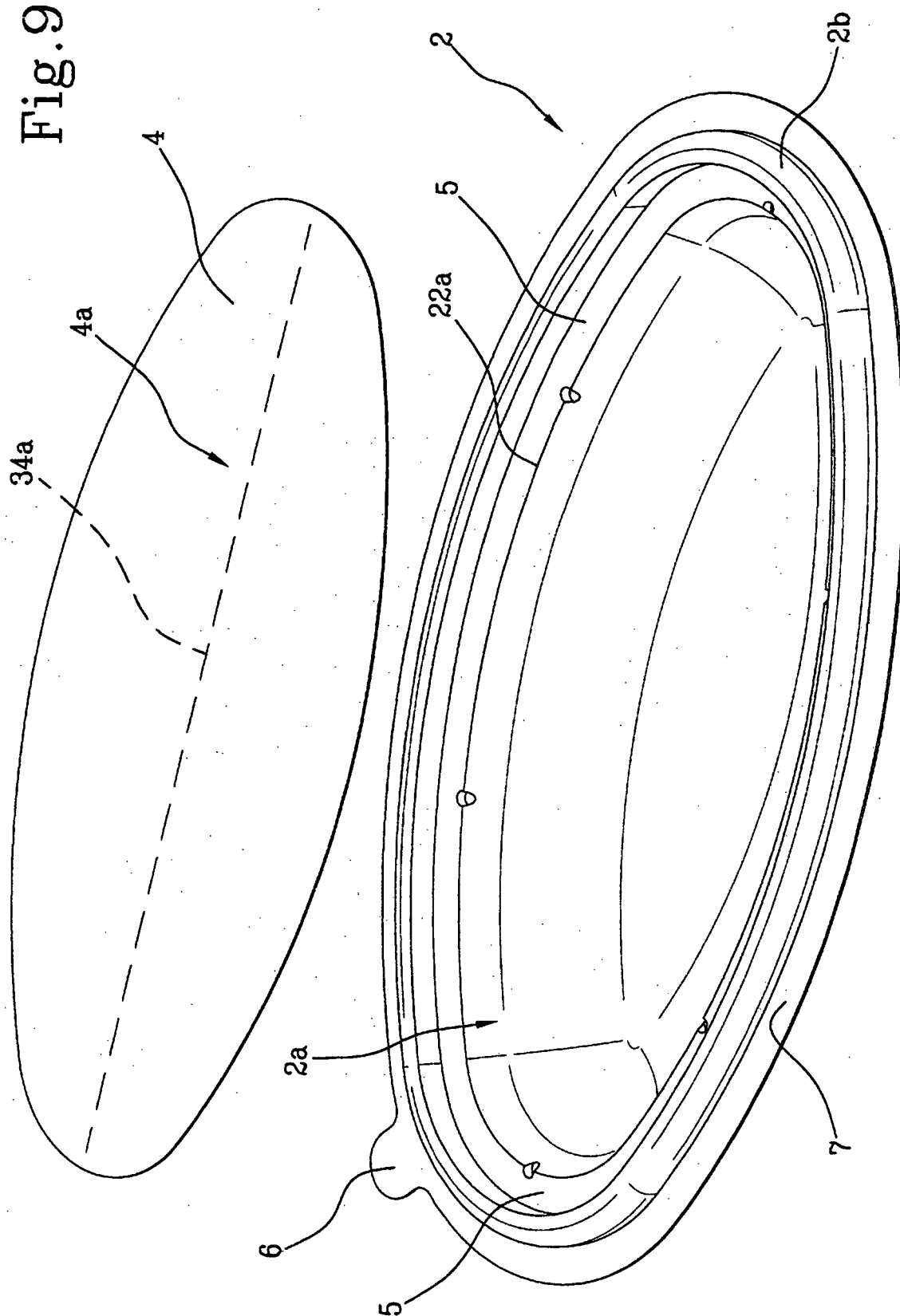


Fig. 9



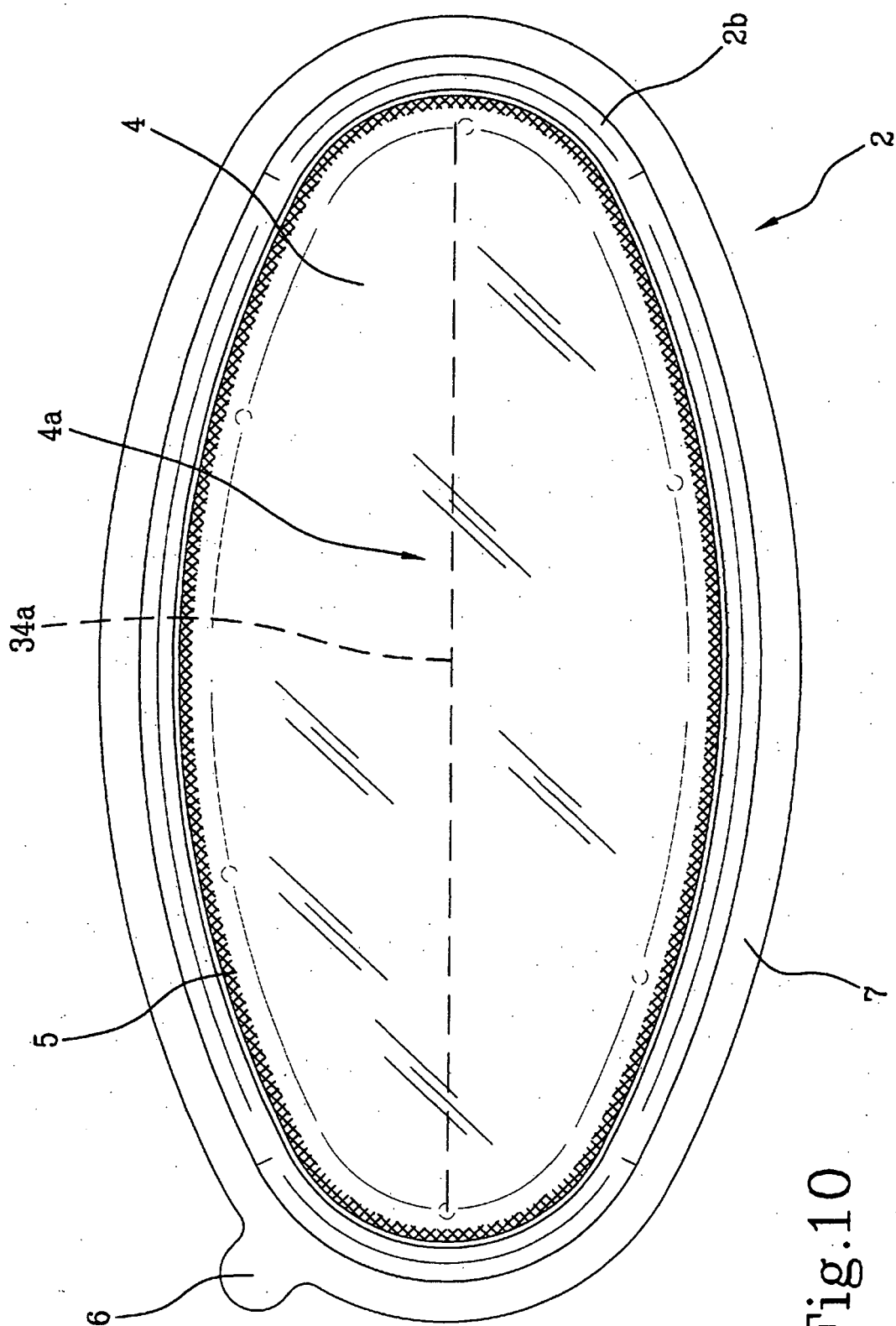


Fig.10

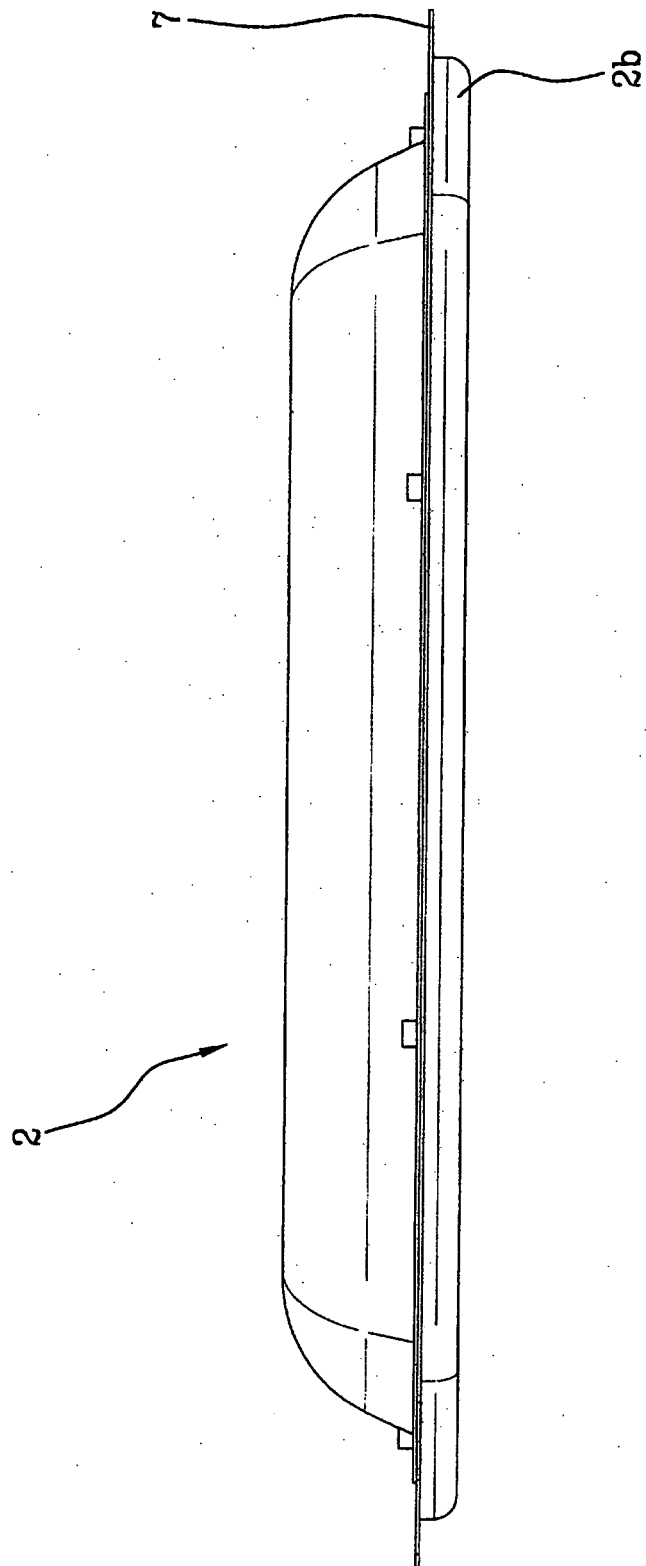


Fig. 11

REFERENCES CITED IN THE DESCRIPTION

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