

(19)



(11)

EP 2 517 969 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
31.10.2012 Bulletin 2012/44

(51) Int Cl.:
B65D 1/04 (2006.01) **B65D 1/06** (2006.01)
B65D 47/08 (2006.01) **B65D 81/32** (2006.01)
B65D 51/22 (2006.01)

(21) Application number: **12165911.4**

(22) Date of filing: **27.04.2012**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

(71) Applicant: **SP BERNER PLASTIC GROUP, S.L.**
46960 Aldaia (Valencia) (ES)

(72) Inventor: **Escarpa Gil, Julian**
46960 Aldaia (Valencia) (ES)

(30) Priority: **28.04.2011 ES 201130462 U**

(74) Representative: **Ungria Lopez, Javier**
Avda. Ramón y Cajal, 78
28043 Madrid (ES)

(54) **Two-compartment food container**

(57) Food container of the type having at least two separate compartments, with the possibility of mixing said products when used. The container (3) is formed by a main body (1) selected from prismatic, revolution and irregular; the main body (1) is divided into at least two spaces by at least one partition wall (4); there are two opposite ends existing in this main body (1) provided with closure bodies (2, 12) whose contours to fix the closure are circular, and whereby at least one of them has one or more sharp elements (6) with functions selected from: pricking, cutting, tearing, ripping and any combination thereof; whose length is such that it is introduced inside the container up to the partition wall (4); with one safety seal existing in at least one of the aforementioned opposite ends (9).

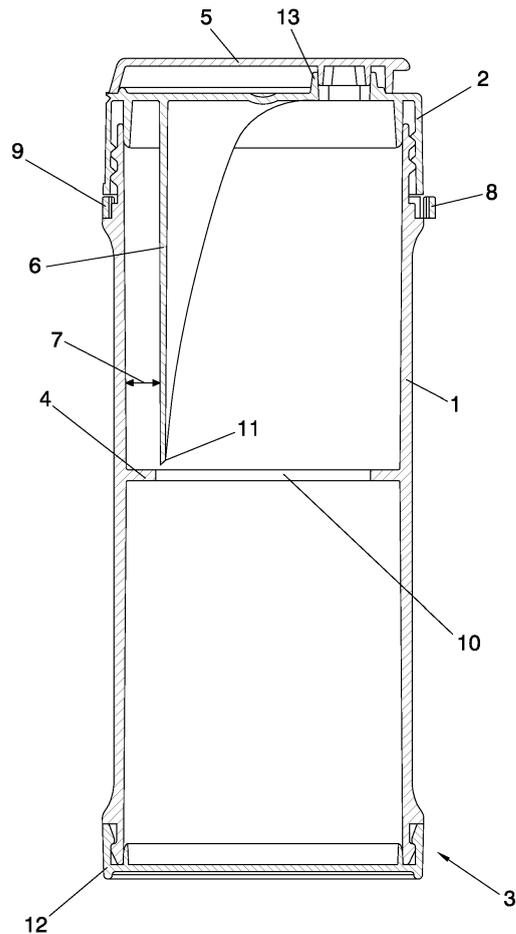


FIG. 2

EP 2 517 969 A1

Description

OBJECT OF THE INVENTION

[0001] The present invention, as expressed in the statement of this specification, relates to a food container whose essential purpose consists in offering an efficient, low-cost and simple manner, with many variation possibilities for the intake of food, medicines or to use other objects intended to be mixed in a certain proportion; furnishing two separate spaces in which one or more types of objects are provided so that at the time of the intake or use, they are conveniently mixed if desired; however, the mix may not be made and all or fewer of the objects that had been packed can be used or consumed, such that one single container enables many forms of consumption, mixing and use.

BACKGROUND OF THE INVENTION

[0002] Various containers are known to carry beverages, food and medicine or other objects of different natures, proportions, dimensions or formal and functional characteristics intended to be incorporated in a subject transporting the packed product or products comfortably and without too much hassle for the packed product. One example is a typical purse-sized bottle, a pill-holder with various compartments and many other containers facilitating the mixture of products when taking, storing, or using them. Thus, the flexible container for packing food products requiring sterile conditions, as described in patent AU 2009267370, relates to a flexible and flat bottle with many possibilities for transporting, using, and enjoying packed products. Another example of this type of containers made of plastic or other materials is the one described in the publication corresponding to USA patent US D628479, in which an essentially rectangular prismatic cup, with a quadrangular base and with diverging walls towards the upper base for the transportation of various objects, is reflected. Another example of the background of the present invention is the patent reflected in document WO 2010093639, in which a modular container and its corresponding system with several compartments that can be assembled in different volumes or capacities as needed, is reflected.

[0003] We are not aware of any food container in the current state of the art having a main body selected from prismatic, of revolution and irregular, in which two spaces are separated by a partition wall, with closure elements at the ends and with at least one sharp element allowing to mix the packed objects, as carried out by the food container of the invention.

DESCRIPTION OF THE INVENTION

[0004] To attain the objectives and to avoid the inconveniences indicated in the previous sections, the invention consists of a food container of the type having at

least two compartments for different products, having the possibility of mixing said products at the time of intake.

[0005] As a novelty, according to the invention, the container described herein has a main body that is selected from a prismatic body, a body of revolution and an irregular body; at least two spaces of said main body are separated by at least by one partition wall; there are two opposite ends in this main body, provided with respective closure bodies whose closure contours are circular and whereby at least one of them has one or more sharp elements with functions selected from: pricking, cutting, tearing, ripping and any combination thereof; whose length is such that it can be introduced inside the container up to said partition wall and with one safety seal existing in at least one of the aforementioned opposite ends.

[0006] According to various embodiments of the invention, the aforementioned partition wall is shaped by an internal ring-shaped base in relation to the external surface of the main body; wherein at least one through area of said partition wall is occluded by a body selected from: prickable, cuttable, tearable, rippable and any combination thereof.

[0007] According to the different embodiments of the invention, one of the aforementioned closure bodies is a screw cap with a threaded internal lateral wall; this threading is in correspondence with an external end wall of the main body said closure body is provided with a safety seal with an aperture flange and a lid blocking a pouring mouthpiece.

[0008] In some embodiments of the invention, one of the aforementioned closure bodies is opposite to a screw cap constituting the other aforementioned body and is fixed by means of an airtight closure with a snap-fit.

[0009] In some embodiments of the invention, the sharp element includes at least two waving cutting edges, among which there is a sharp-ended tip.

[0010] According to the preferred embodiments of the invention, the aforementioned main body and the aforementioned partition wall constitute a plastic monopiece body.

[0011] With the structure that has been described, the food container of the invention presents advantages that by means of a container having a very simple structure, and that is easy to use, realizable in a plastic monopiece body for the majority of the provided embodiments and applicable to an immense plurality of objects, a medicine mixer, a candy dispenser, a pill holder and in general, a container for medical or conventional foods, whether they have to be mixed at the time of intake or not, can all be achieved, largely surpassing the mixing containers known from the state of the art in terms of applicability.

[0012] Next, in order to achieve a better understanding of this specification and being an integral part thereof, certain figures, in which the object of the invention is presented, by way of illustration and not by way of limitation, accompany this specification.

BRIEF DESCRIPTION OF THE FIGURES

[0013]

Figure 1.- Is a perspective view of a food container made according to a first embodiment of the invention, said container having its lid in an open arrangement.

Figure 2.- Is an elevational view, sectioned according to a diametral plane of the container of the previous figure 1, but with the aforementioned lid being closed.

Figure 3.- Is a sectional view of the container's lid of the previous figures in conjunction with another part of the container with which it forms a monopiece body, with the lid being in an open arrangement regarding said other part.

Figure 4.- Is a section of the previous figure 3 according to the E-E cutting line as shown in said figure 3.

Figure 5.- Is a section of the previous figure 3 according to the F-F cutting line as shown in said figure 3.

Figure 6.- Is an elevational view of the lid with the rest of the monopiece body exhibited in figure 3, but with the lid in a closed arrangement and turned in such a way as to show another contour of a sharp element existing in this body.

Figure 7.- Is a perspective view of the container of the previous figure, similar to the previous figure 6, but with the lid in a closed arrangement.

DESCRIPTION OF AT LEAST ONE EXAMPLE OF AN EMBODIMENT OF

THE INVENTION

[0014] A description of an example of the invention is made below, alluding to the references of the figures.

[0015] In the first place, a list of said references is provided:

- 1: Main body
- 2: Screw cap
- 3: Container
- 4: Internal ring-shaped base
- 5: Lid
- 6: Sharp element
- 7: Separation distance between the sharp element 6 and the internal wall of the main body 1
- 8: Safety seal flange
- 9: Safety seal
- 10: Partition wall of base 4
- 11: End tip of sharp element 6
- 12: End closure opposite to screw cap 2
- 13: Mouthpiece of screw cap 2 to pour the packed material.

[0016] Thus, as it can be observed in the figures, the container 3 in this example has a cylindrical main body 1 opened at two opposite ends, one of them being permanently closed with an end closure 12, which is airtight and allows retaining part of the objects incorporated inside container 3, in this example the aforementioned end closure 12 is made up by a snap-fit cover to form a permanent airtight space approximately in the middle of the container 3, as can be observed in figure 2.

[0017] In addition, container 3 comprises a screw cap 2 provided with a lid 5 blocking a pouring mouthpiece 13, as can be observed in figures 1, 2 and 3.

[0018] The screw cap 2 is a threaded cap which eases the displacement of a sharp element 6 so as to act on the rippable partition wall 10, that is placed on an internal ring-shaped base 4 belonging to the main body 1; the aforementioned partition wall 10 is fixed to this ring-shaped base either by sticking, by means of an extension of the plastic material making up the main body 1, or by means of an auxiliary body made up by an easily breakable material forming at least one wall by connecting it to the aforementioned ring-shaped base 4.

[0019] In the present example of the invention, the sharp element 6 of the screw cap 2 has a length of at least half of the cylindrical body 1, so that the partition in relation to the internal walls of the aforementioned cylindrical body 1 consist in a distance 7 which, in any of the sharp element 6 arrangements, is larger than the maximum width of the non-through part of the ring-shaped base 4, that is to say, a distance 7 such that it will allow to operate by means of puncturing and tearing the partition wall 10 after removing a safety seal 9, whose removal is carried out by the flange 8, observed in figure 2. Thus, once this seal 9 is removed, the screw cap 2 can break the partition wall 10 by driving the sharp element 6 to penetrate further.

[0020] On the other hand, the lid 5 forming a single body together with the screw cap 2 and the main body 1, constitute a plastic monopiece body. Another plastic monopiece body in this example of embodiment is the main body 1 along with the ring-shaped base 4.

[0021] Moreover, the lid 5 has an internal configuration allowing the lid to block a pouring mouthpiece 13.

[0022] Another characteristic of the present example of the invention consists in that the sharp element 6 has two waving cutting edges between which there is an end sharp tip 11, greatly facilitating the puncturing and subsequent tearing of the partition wall 10.

[0023] Thus, with two or more mixable objects, the container of the present example can form a food container, a pill holder, a baby bottle, a toy, a candy wrapper, and other bodies with functional possibilities for the packing of diverse objects.

[0024] However, in other embodiments of the invention, the aforementioned partition wall may be double, triple or with another dimensioning; so that the delimited holders can be made with other types of tightness or without them; and the puncture elements and outlet ele-

ments of the corresponding mix can be made with spouts, tubes and ripping, tearing, puncturing, cutting and other tools that have not been shown in this example but would not require any inventive effort since the possibilities of the invention are well reflected with the example that has been already described. 5

the previous claims, **characterized in that** the main body (1) together with the aforementioned partition wall (4) is a plastic monopiece body.

Claims

- 10
1. **FOOD CONTAINER**, of the type having at least two compartments for different products, having the possibility of mixing said products when used; **characterized in that** said container (3) is formed by a main body (1) which is selected from prismatic, of revolution and irregular; in which at least two spaces from said main body (1) are divided by means of at least one partition wall (4); in this main body (1) there are two opposite ends, provided with respective closure bodies (2, 12) whose contours to fix the closure are circular, and whereby at least one of them has one or more sharp elements (6) with functions selected from: pricking, cutting, tearing, ripping and any combination thereof; whose length is such that it can be introduced inside the container up to said partition wall (4) and also with one safety seal (9) existing in at least one of the aforementioned opposite ends. 15 20 25
2. **FOOD CONTAINER** according to claim 1, **characterized in that** the aforementioned partition wall (4) is shaped by an internal ring-shaped base in relation to the external surface of the main body (1); being occluded, at least one through area of said partition wall (4), by a body selected from: prickable, cuttable, tearable, rippable and any combination thereof (10). 30 35
3. **FOOD CONTAINER**, according to one or more of the previous claims, **characterized in that** one of the aforementioned closure bodies (2) is a screw cap, threaded in its internal lateral wall; being this threading in correspondence with an external end wall of the main body (1); a safety seal (9) is provided in this closure body (2) with an aperture flange (8) and a lid (5) blocking a pouring mouthpiece (13). 40 45
4. **FOOD CONTAINER**, according to one or more of the previous claims, **characterized in that** one of the aforementioned closure bodies (12), being opposite to a screw cap (2) and constituting the other of said bodies, is fixed by means of an airtight closure with a snap-fit. 50
5. **FOOD CONTAINER**, according to claim 1, **characterized in that** the sharp element (6) includes at least two waving cutting edges, among which there is an end sharp tip (11). 55
6. **FOOD CONTAINER**, according to one or more of

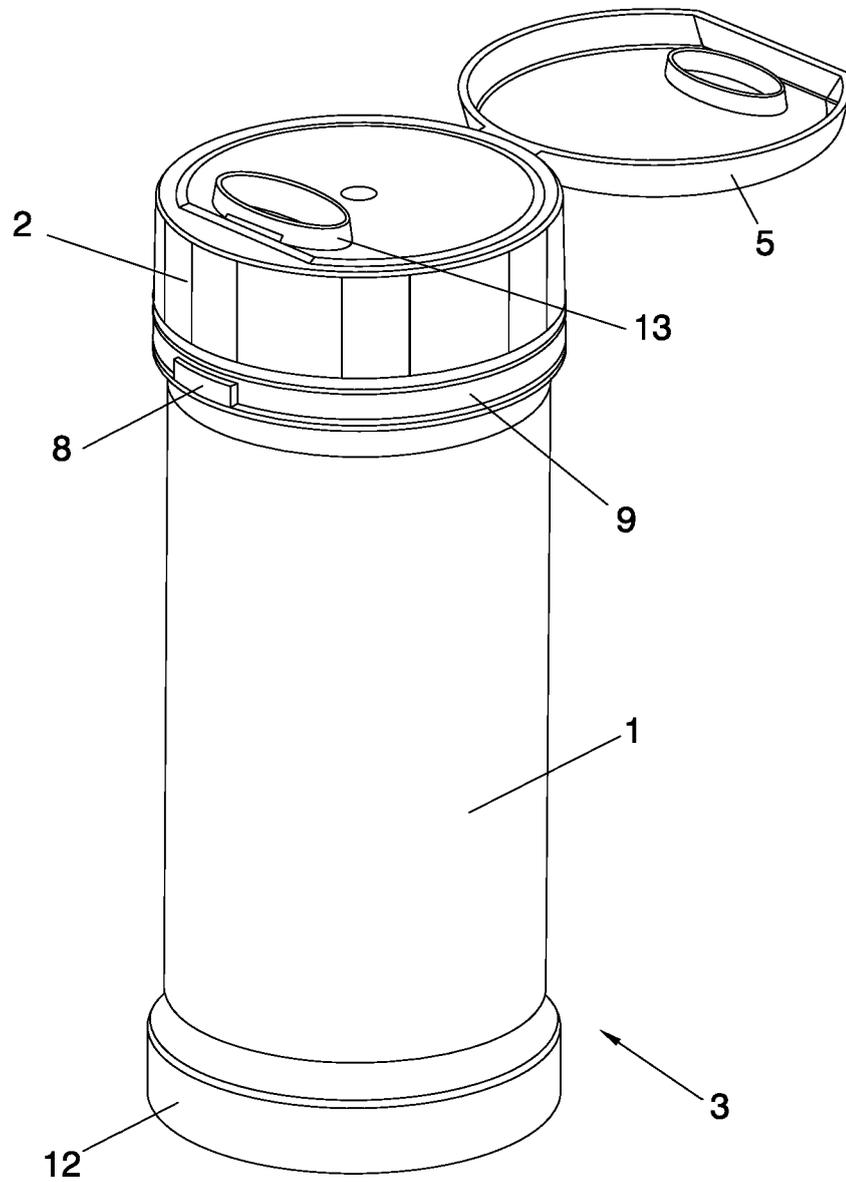


FIG. 1

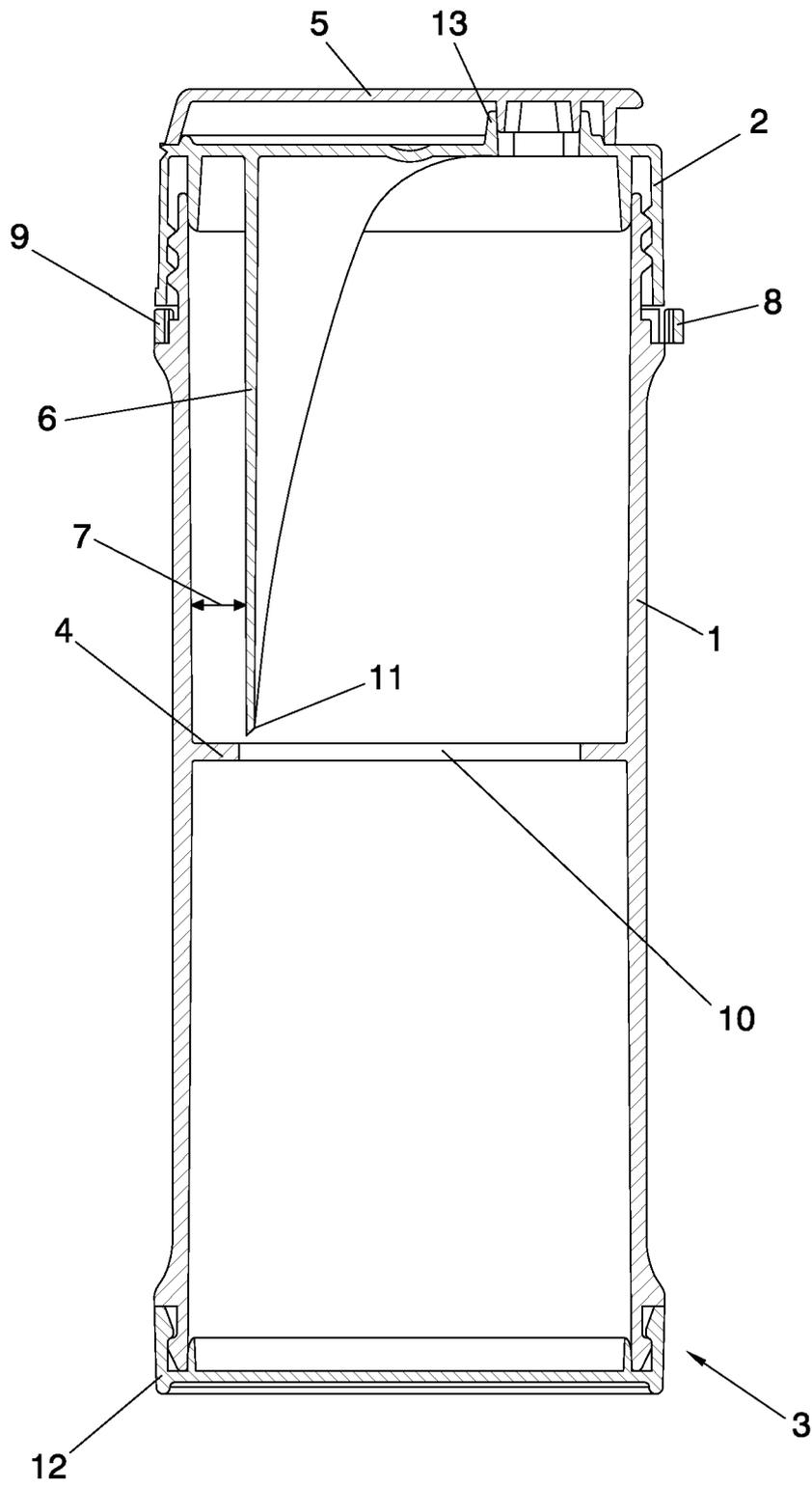


FIG. 2

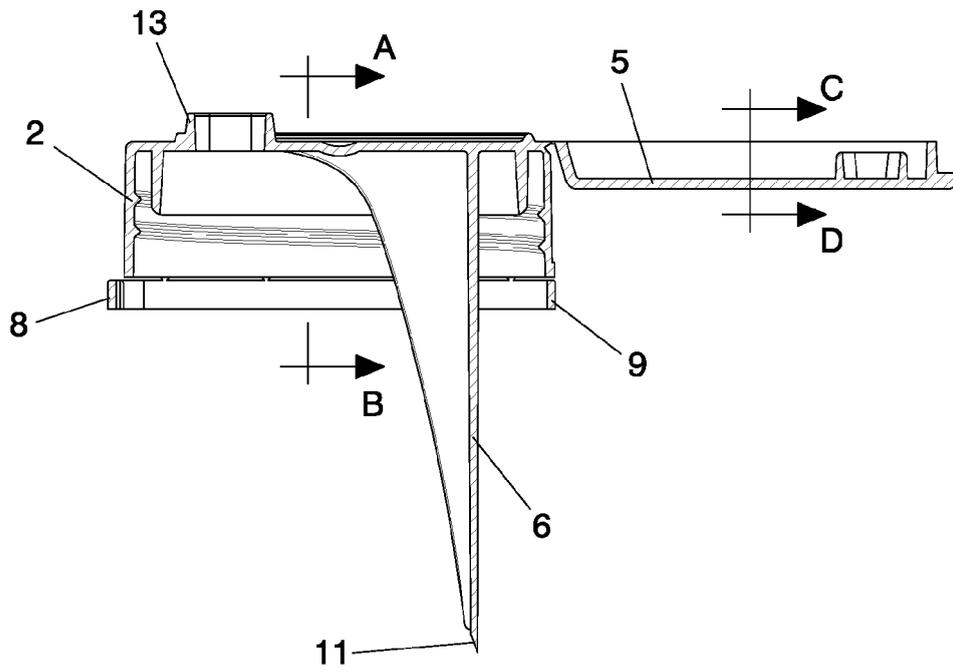


FIG. 3

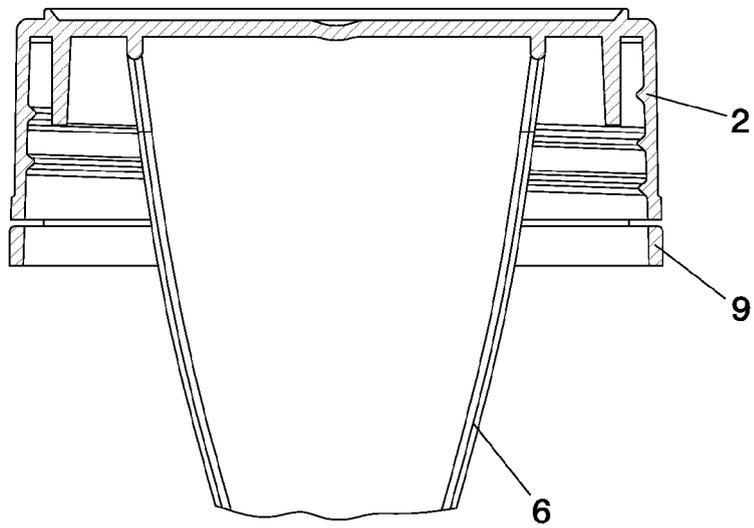


FIG. 4

A-B

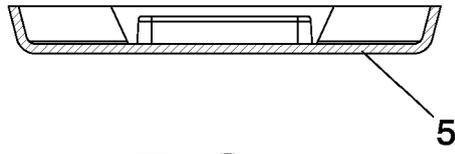


FIG. 5

C-D

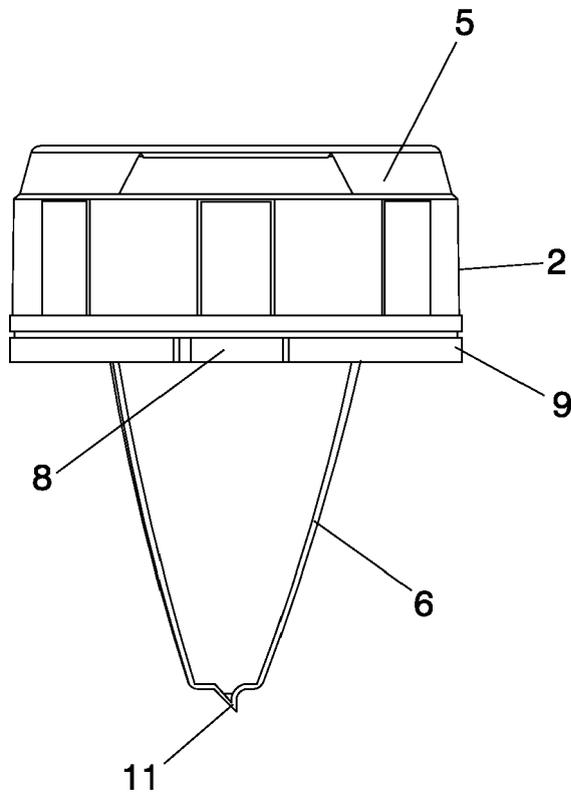


FIG. 6

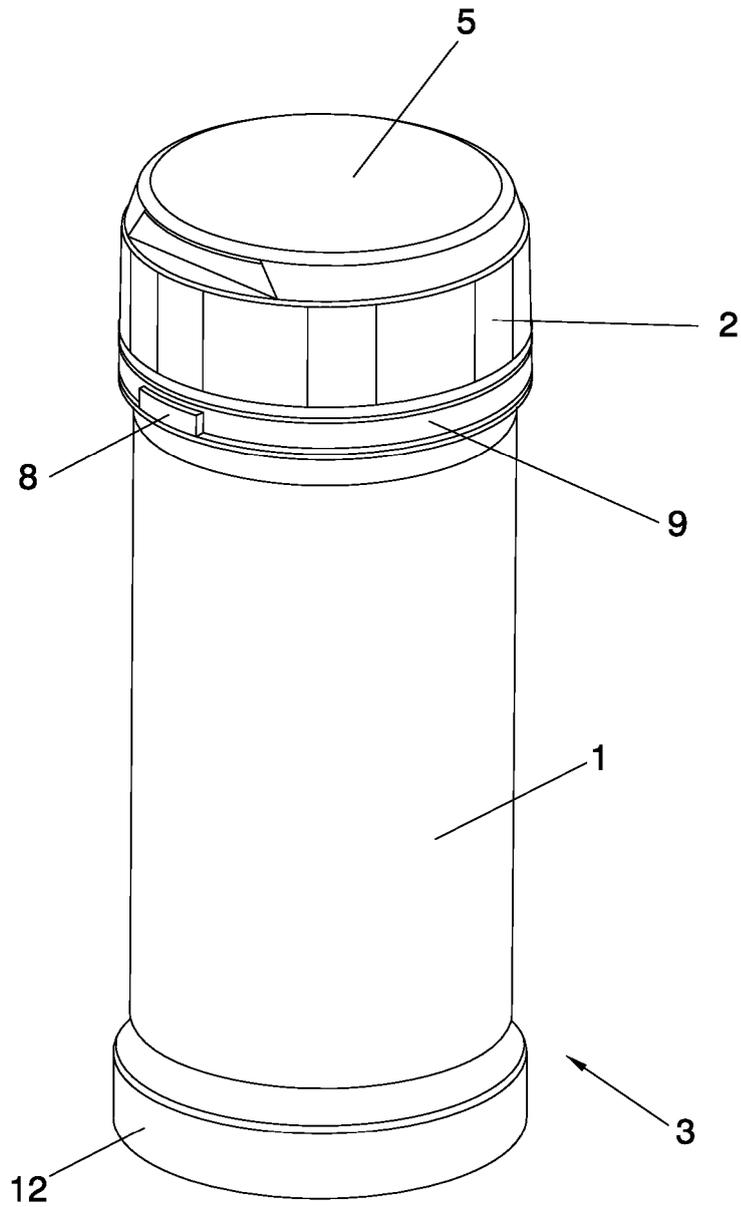


FIG. 7



EUROPEAN SEARCH REPORT

Application Number
EP 12 16 5911

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	GB 2 211 479 A (PRICE E J [GB]) 5 July 1989 (1989-07-05) * page 1, lines 14-15 * * page 2, lines 10-16 * * page 3, lines 22-31 * * page 4, lines 21-29; figures 1-4 *	1,5	INV. B65D1/04 B65D1/06 B65D47/08 B65D81/32 B65D51/22
X	JP 11 227844 A (NISSHO KK) 24 August 1999 (1999-08-24) * abstract; figure 2 *	1	
Y	US 2008/179334 A1 (ABRAMSON NELSON [US] ET AL) 31 July 2008 (2008-07-31) * paragraphs [0026] - [0077]; figures 1-4 *	1,2,4,6	
Y	US 2010/094243 A1 (WIGGINS ROBIN P [US] ET AL) 15 April 2010 (2010-04-15) * paragraphs [0039] - [0045]; figures 5-7 *	1,2,4,6	
A	US 2006/138169 A1 (CAFFERTY PHIL [US]) 29 June 2006 (2006-06-29) * the whole document *	1,3,4	TECHNICAL FIELDS SEARCHED (IPC) B65D
A	DE 10 2006 033121 A1 (OEZKAN BEYHAN [DE]) 24 January 2008 (2008-01-24) * the whole document *	1,3	
A	NL 7 512 070 A (HENKEL & CIE GMBH HENKEL KGAA) 3 May 1976 (1976-05-03) * the whole document *	1	
1 The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 10 August 2012	Examiner Leijten, René
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 12 16 5911

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

10-08-2012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 2211479	A	05-07-1989	NONE
JP 11227844	A	24-08-1999	NONE
US 2008179334	A1	31-07-2008	US 2008179334 A1 WO 2008094983 A2
US 2010094243	A1	15-04-2010	CA 2738646 A1 CN 102186739 A EP 2340213 A1 TW 201014762 A US 2010094243 A1 WO 2010044806 A1
US 2006138169	A1	29-06-2006	NONE
DE 102006033121	A1	24-01-2008	NONE
NL 7512070	A	03-05-1976	CH 605298 A5 FR 2289407 A1 GB 1533552 A IT 1054344 B NL 7512070 A

EPO FORM P0489

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- AU 2009267370 [0002]
- US D628479 S [0002]
- WO 2010093639 A [0002]