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

(11) Publication number : **0 517 676 A1**

(12) EUROPEAN PATENT APPLICATION

(21) Application number : **92830273.6**

(51) Int. Cl.[5] : **B65D 41/08**

(22) Date of filing : **28.05.92**

(30) Priority : **06.06.91 IT PS910026 U**

(43) Date of publication of application :
09.12.92 Bulletin 92/50

(84) Designated Contracting States :
AT BE CH DE DK ES FR GB GR IT LI LU NL PT SE

(71) Applicant : **Buonsanti, Gianluigi**
Viale Giorgia di Leontini, 260
I-00124 Roma (IT)

(72) Inventor : **Buonsanti, Gianluigi**
Viale Giorgia di Leontini, 260
I-00124 Roma (IT)

(74) Representative : **Lanzoni, Luciano**
c/o Bugnion S.p.A. Piazza dei Re di Roma, 21
I-00183 Roma (IT)

(54) A hermetic closure for foodstuff containers.

(57) The invention concerns a hermetic closing device for drinking glasses or in general containers for foodstuffs, comprising a threaded ring (3) fitted on the body of a container (1) and striking against the said container (1) upper end (10), the ring (3) is substantially cylindrical and positioned to engage with a cover (5) for the hermetic closing of the container (1) ; the ring (3) is being removable from the container (1) by sliding or by being broken, permitting the container (1) to be used for various purposes.

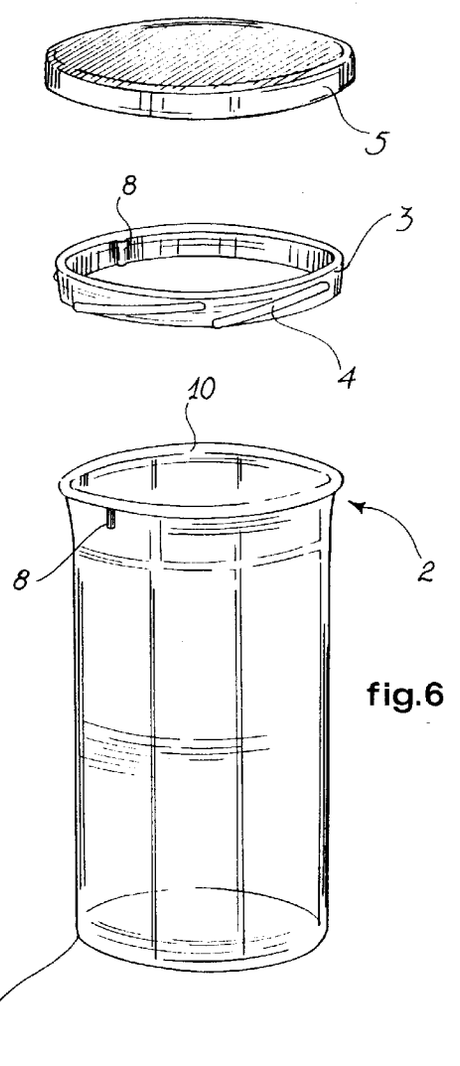


fig.6

EP 0 517 676 A1

The invention relates to a hermetic closing device for drinking glasses or in general containers for foodstuffs, which device is removable and detachable to permit the application of a cover, of known type, and the hermetic closing of the container and, after the product has been finished, to permit a wider and easier use of the container as a recipient for different applications.

Food products which must be conserved hermetically, such as for example jams, honey, products contained in oil or vinegar, preserved foods, etc, are usually sold in glass or similar containers, having their upper end shaped to offer a thread, or a partial thread, or similar, onto which a metallic top is screwed or twisted, said top generally being equipped with a gasket to effect a hermetic sealing of the container.

Ways of using these containers after the product has been finished is evidently limited to uses which are similar to the original ones, that is, as containers with closing caps. A different use, for example as a drinking glass or cup or similar, is conditioned and limited, both aesthetically and practically, by the said shaping of the upper end; for this reason a large percentage of the containers, and their relative caps, are thrown away when empty since are redundant to what is needed for preserves and similar uses in the normal household.

Only glass containers containing product such as, for example, cocoa, soy lecithin, emulsifiers and so on, can be equipped with a light cap, for example made of plastic, and can therefore have different shapes without necessarily offering the said shaped upper ends, which renders them more easily re-utilisable.

The aim of the present invention is to realise an adequate hermetic closure of differently-shaped containers, such as glasses, bowls, cups, which containers do not exhibit any special shaping of the upper end for the gripping of a cover, which containers, after the product contained in them has been finished, can be advantageously re-utilised domestically for other uses permitted by the conformation of the said containers.

The invention relates therefore to a removable hermetic closure device consisting in an externally threaded ring which is positioned around the container, being slid on from the bottom upwards and forced against a superior edge of the said container when the hermetic cover is screwed on to it.

These and other aims of the invention are attained by a hermetic closure device for drinking glasses or containers in general for foodstuffs which, from a general point of view, is characterised by the fact that it comprises a ring externally equipped with a thread or partial thread, coaxially and removably inserted from the bottom towards the top, on the body of a container up to a position where it is in contact against a perimetral lip exhibited by the upper end of the substantially cylindrical-developping container: in the said position the said ring will removably couple by screwing with the cover of the container, and by the action of the screwing of the cover the said ring, becoming forced by traction against the said lip, hermetic closure of the container will be achieved.

Further characteristics and advantages of the invention will better emerge from the detailed description that follows, made with reference to the accompanying drawings, which represent a preferred but non-limiting embodiment of the invention, and in which:

- Figure 1 shows a side-view of the sectioned container, with ring and cover detached;
- Figure 2 shows a view from above of the ring;
- Figure 3 shows a side view of the container hermetically closed;
- Figure 4 shows an enlarged particular of the upper part of the closed container, with the projecting lip, the ring and the sectioned cover;
- Figure 5 shows the metal cover, of known type, seen from below;
- Figure 6 shows an exploded perspective view of the invention.

With reference to the figures, a container 1 is shown which can obviously have various shapes, such as drinking glass shape (as in the figures), bowl shape, cup shape, etc. In the figures, 2 denotes a perimetral lip of the upper end 10, which perimetral lip 2 develops substantially cylindrically, and 3 denotes a ring exhibiting externally and in relief a thread, or preferably a partial thread 4. A metal cover 5 of known type is destined to be screwed on to the thread 4 of the ring 3.

The ring 3 is preferably made of plastic material, for example polypropylene, phertene, nylon etc.

In order to effect the hermetic closure of the container 1, according to the invention, the ring 3 is inserted coaxially from the bottom upwards towards the top of the container 1, up until a position of contact with the said perimetral lip 2: then the metal cover 5 is screwed on and pulls the said ring 3 upwards by traction, causing the forced adherence of the said ring 3 against the upper end 10 of the container 1, thus realising the hermetic closure of the said container 1 as figure 4 shows.

To free the container 1, when it is empty, it is sufficient to remove the metal cover 5 and slide the ring 3 out bottomwards. If so desired, the ring 3 could instead be cut away using a pair of scissors.

Advantageously on the ring 3 one or more throats or incisions can be made to invite the fracturing of the ring 3, to simplify its removal from the container 1.

The said perimetral lip 2, in the simplest form illustrated in figure 1, is realised by means of a flare 21, substantially conical and directed externally from the upper end 10 of the container 1, thus bringing the said ring 3 into a tight fit coupling.

According to a different embodiment, the said perimetral lip 2 is realised by means of a perimetral projection 22 against which the said ring 3 strikes (figure 4). Advantageously, in proximity to the said perimetral projection 22, the upper end 10 of the container 1 can be further conically flared outwardly and thus constrain the said ring 3 also by means of a tight fit coupling (figure 4).

If considered advantageous, between the ring 3 and the perimetral lip 2 of the container 1 a sealing gasket 7 (figure 4) can be inserted to obtain a better hermetic closure.

To prevent any eventual drag-rotation of the ring 3 during the screwing-on of the metal cover 5, the said upper end 10 of the container 1 and the internal surface of the said ring 3 are equipped with reliefs and respective housings 8 preventing the rotation of the ring 3 on the body of the container 1 during the screwing or unscrewing phases of the said metal cover 5 (figure 6).

Claims

1. A hermetic closing device for drinking glasses or in general containers for foodstuffs, of the type comprising a metal cover (5) equipped with means for screwing on to a thread or partial thread, characterised by the fact of comprising a ring (3) externally equipped with a thread or partial thread, coaxially and removably inserted from the bottom towards the top, on the body of a container (1) up to a position where it is in contact against a perimetral lip (2) exhibited by the upper end (10) of the substantially cylindrically-developping container (1): in the said position the said ring (3) will removably engage by screwing with the said containercover (5), and by the action of the screwing of the cover (5) the said ring (3), becoming forced by traction against the said lip (2), hermetic closure of the container (1) will be achieved.

2. A device as in claim 1, characterised by the fact that the said perimetral lip (2) is realised by means of a flare (21), substantially conical and directed externally from the upper end (10) of the container (1), said perimetral lip (2) being aimed at bringing the said ring (3) into a tight fit coupling.

3. A device as in claim 1, characterised by the fact that the said perimetral lip (2) is realised by means of a perimetral projection (22) against which the said ring (3) strikes.

4. A device as in claim 3, characterised by the fact that in proximity to the said perimetral projection (22), the upper end (10) of the container (1) can be further conically flared outwardly and thus constrain the said ring (3) also by means of a tight fit coupling.

5. A device as in claim 1, characterised by the fact that the said ring (3) is removable from the said container (1) by means of forced sliding from top downwards to the bottom of the said container (1).

6. A device as in claim 1, characterised by the fact that on the said ring (3) one or more throats or incisions can be made to invite the fracturing of the ring (3), to simplify its removal from the container (1).

7. A device as in claim 1, characterised by the fact that a sealing gasket (7) is interpositioned between the container (1) and the said ring (3) striking against the said perimetral lip (2).

8. A device as in claim 1, characterised by the fact that the said upper end (10) of the container (1) and the internal surface of the said ring (3) are equipped with reliefs and respective housings (8) preventing the rotation of the the ring (3) on the body of the container (1) during the screwing or unscrewing phases of the said metal cover (5).

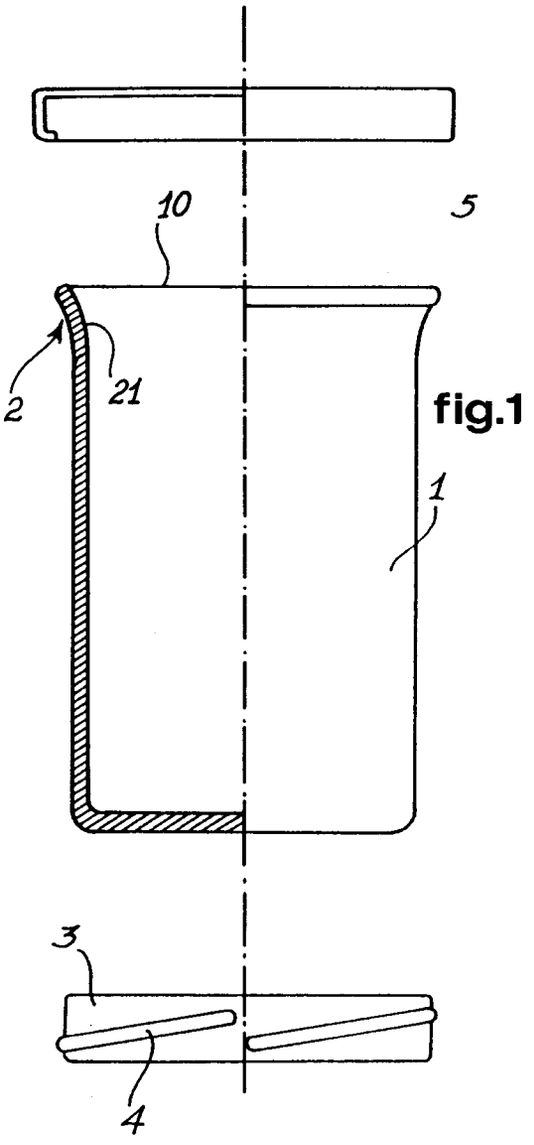


fig.1

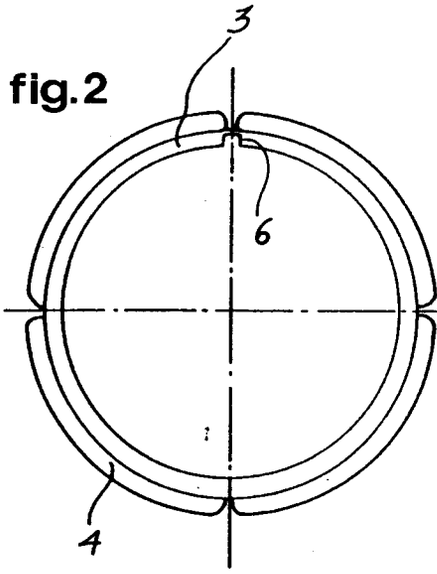
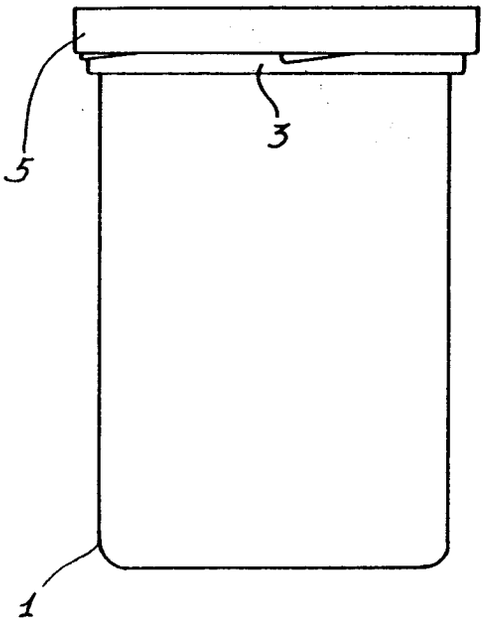


fig.2

fig.3



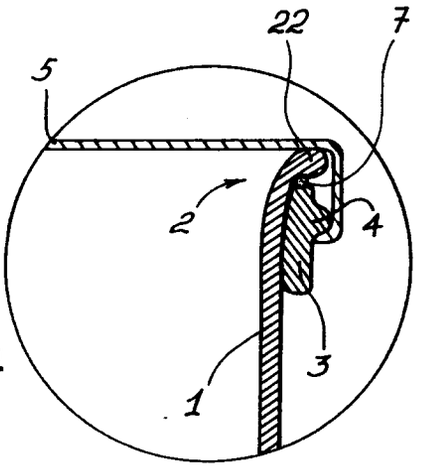


fig.4

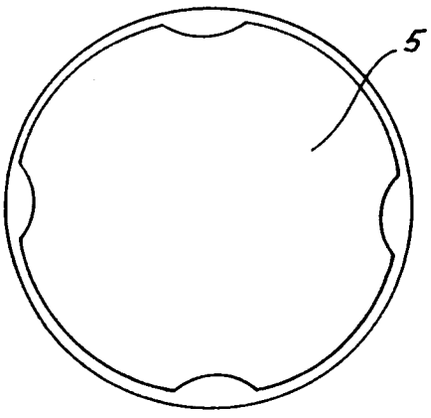


fig.5

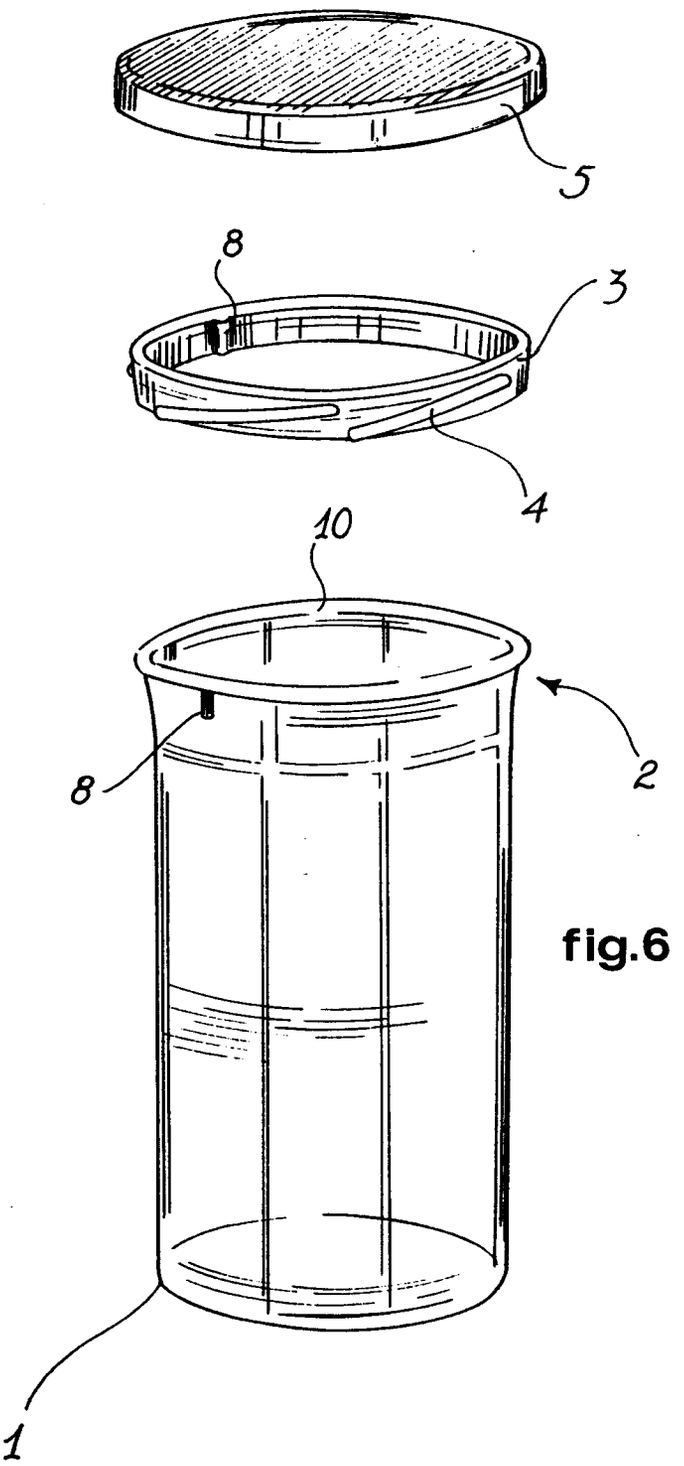


fig.6

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 92 83 0273

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X A	DE-C-628 520 (G. WIEGAND) * page 1, line 68 - page 2, line 41 * * figure 2 *	1-5 7	B65D41/08
X A	FR-A-2 646 831 (M. SOREAU) * the whole document *	1,3,5,8 7	
X A	NL-A-6 913 888 (E. ZILVER) * page 3, line 27 - page 4, line 6 * * figures 1,2 *	1,3,5 6	
X	FR-A-1 039 970 (H.-C. RIGOLOT) * page 1, right column, line 3 - page 2, left column, line 40 * * page 2, right column, line 29 - line 38; figures 1-8 *	1,5,6	
X	FR-A-1 014 646 (J. BOYER-LOMBARD) * the whole document *	1,5	

TECHNICAL FIELDS SEARCHED (Int. Cl.5)

B65D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	23 SEPTEMBER 1992	SMOLDERS R.C.H.

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 (P0401)