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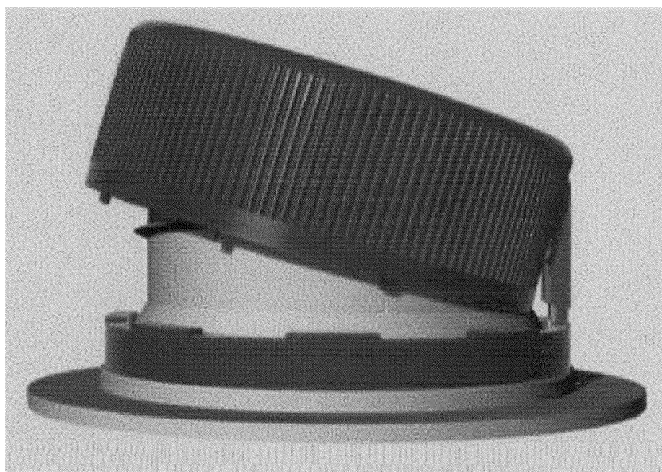
(54) **CAP WITH RETENTION RING**

(57) This invention is a screw cap, which is used as an accessory for multilayer cardboard packagings, which in turn are used for the packaging of dairy products, juices and non-carbonated drinks. The invention includes a cap, which remains attached to a plastic ring located around the packaging mouth after opening the packaging and is

not detached from it. As the cap is rotated in order to open the package, the retaining ring remains attached to the neck of the package mouth, while the cap begins to be removed from the package.

This invention can have two different forms.

FIG. 1



Description

[0001] This invention is a screw cap, which is used as an accessory for multilayer cardboard packagings, which in turn are used for the packaging of dairy products, juices and non-carbonated drinks (**Plan 1, Plan 2**), without this cap being detached from the plastic ring, which is located around the mouth of the package.

[0002] Until today, conventional cardboard packaging has screw caps, which are attached to the plastic ring around the mouth of the package but this connection is very loose and the user can detach the lid from the ring with a simple pull. In other cases, the paper package has a cap on

its mouth, which is not attached to a plastic ring around the mouth. In both cases the cap is often lost after opening and as a result the user, who does not want to consume the contents of the package immediately and in its entirety, has to deal with the problem of the safe sealing of the package and the preservation of its content in good condition while at the same time there is the issue of environmental pollution from the discarded or lost package caps.

[0003] In this case, this invention includes a cap, which remains attached to the plastic ring around the packaging mouth after opening the packaging (**Plan 1, A, Plan 3, A**) and is not detached from it (**Plan B, Plan 3, B**). As the cap is rotated in the present invention, in order to open the package (**Plan 3, A**), the retaining ring remains attached to the neck of the package mouth (**Plan 3, B**), while the cap begins to be removed from the package. As the cap is lifted, the ring is fully unfolded until the package mouth is fully opened. In this way, the cap is never completely removed from the rest packaging and this ensures that it is not going to be lost or thrown away separately from the rest of the packaging at the risk of polluting the environment.

[0004] This invention can have two different forms. In the first of them, the cap (**Plan 1, A, Plan 3, A**) is connected to the packaging mouth ring (**Plan 1, B, Plan 3, B**) with a round plastic part that has the same diameter as the ring. In the second of them, the cap (**Plan 4, A**) is connected to the ring on the mouth of the packaging through a plastic cable in a zigzagged shape (**Plan 4, B**). The differentiation has to do with the connection points of the cap with the ring of the mouth and the length of the cable, with which the cap remains connected to the ring (**Plan 5**).

to open the package (**Plan 3, A**), the retaining ring remains attached to the neck of the package mouth (**Plan 3, B**), while the cap begins to be removed from the package.

3. This invention can have two different forms. In the second of them, the cap (**Plan 4, A**) is connected to the ring on the mouth of the packaging through a plastic cable in a zigzagged shape (**Plan 4, B**).
4. The differentiation has to do with the connection points of the cap with the ring of the mouth and the length of the cable, with which the cap remains connected to the ring (**Plan 5**).

Claims

1. This invention includes a cap, which remains attached to the plastic ring around the packaging mouth after opening the packaging (**Plan 1, A, Plan 3, A**) and is not detached from it (**Plan B, Plan 3, B**).
2. As the cap is rotated in the present invention, in order

FIG. 1

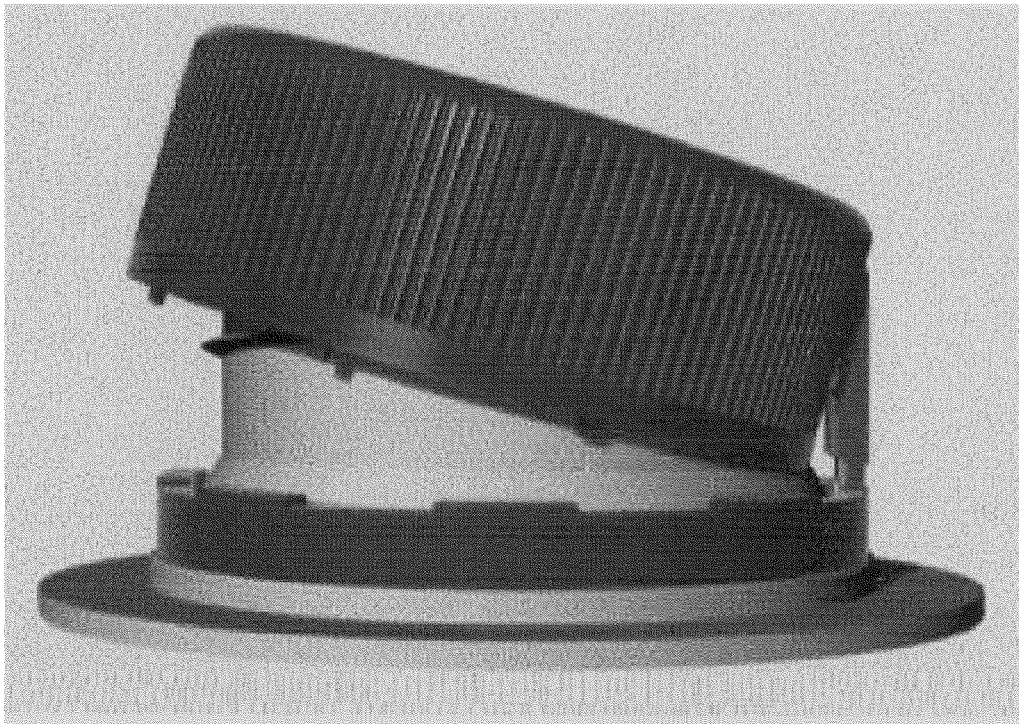


FIG. 2

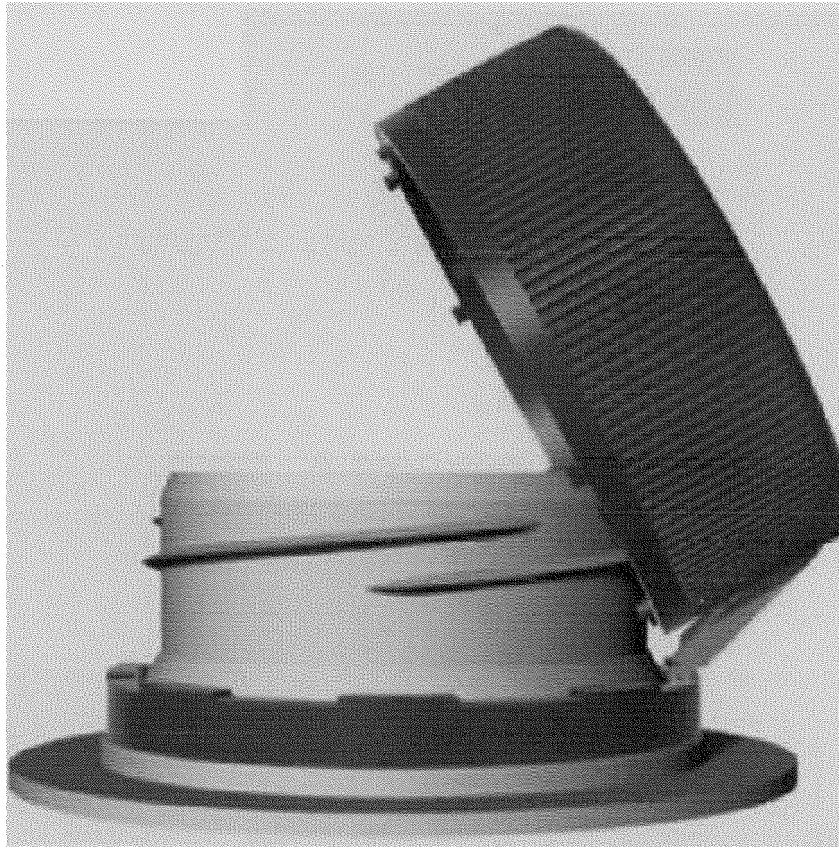


FIG. 3

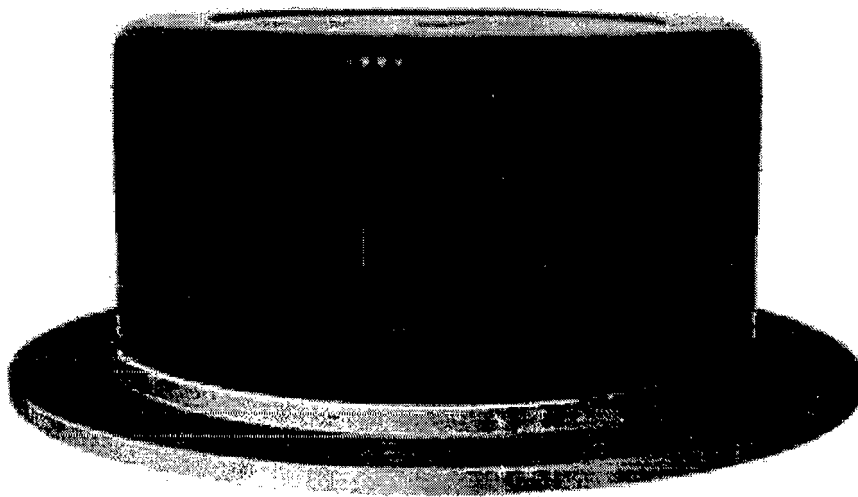


FIG. 4

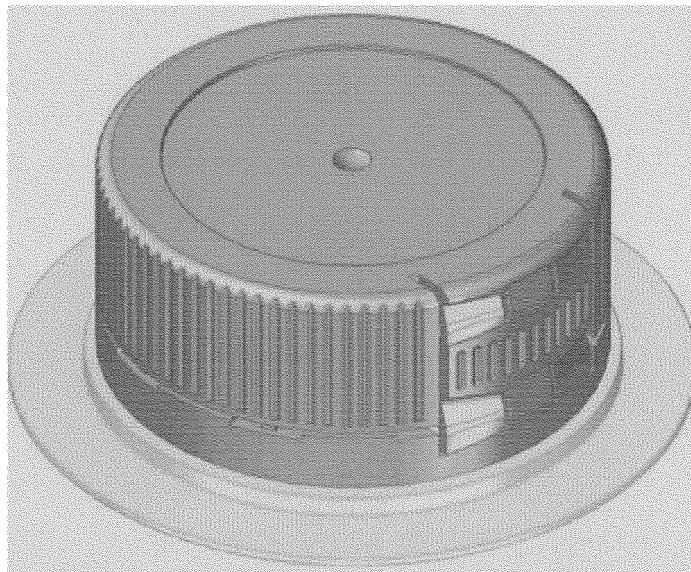
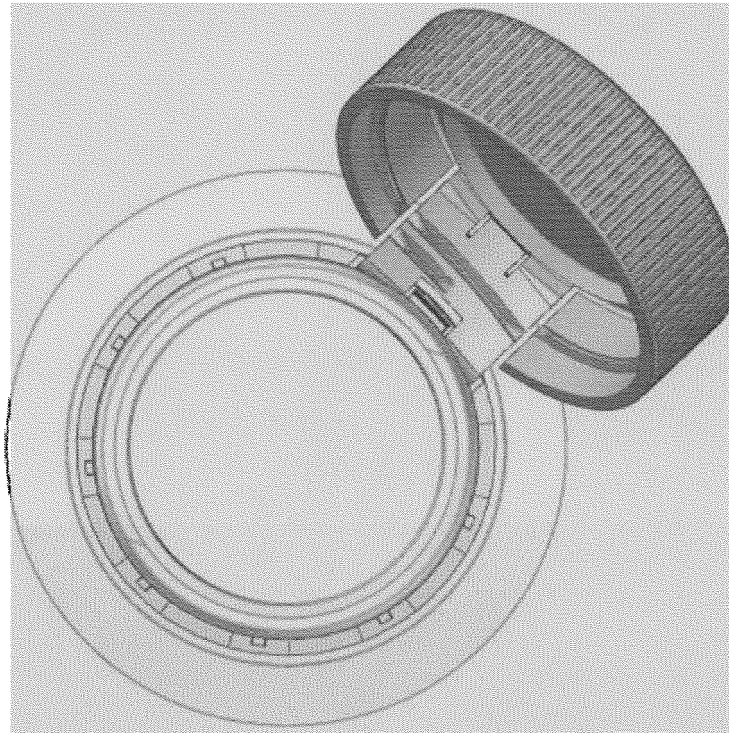


FIG. 5





EUROPEAN SEARCH REPORT

 Application Number
 EP 20 38 6050

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2019/344933 A1 (KIM SUNGSUK STEVE [US]) 14 November 2019 (2019-11-14) * paragraphs [0001], [0046]; figures *	1-4	INV. B65D41/34 B65D55/16
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			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 29 April 2021	Examiner Serrano Galarraga, J
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 20 38 6050

5 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
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29-04-2021

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