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(54) **Double bottom container**

(57) A container (10) comprising a first wall (11) and a second bottom wall (12), is characterised in that it comprises a first closing member (4) located internally to said container (10) and apt to define a partition into

two volumes not communicating thereamong in said container (10), and means (5,6) for opening one of said two volumes obtained on said first wall (11) of said container (10).

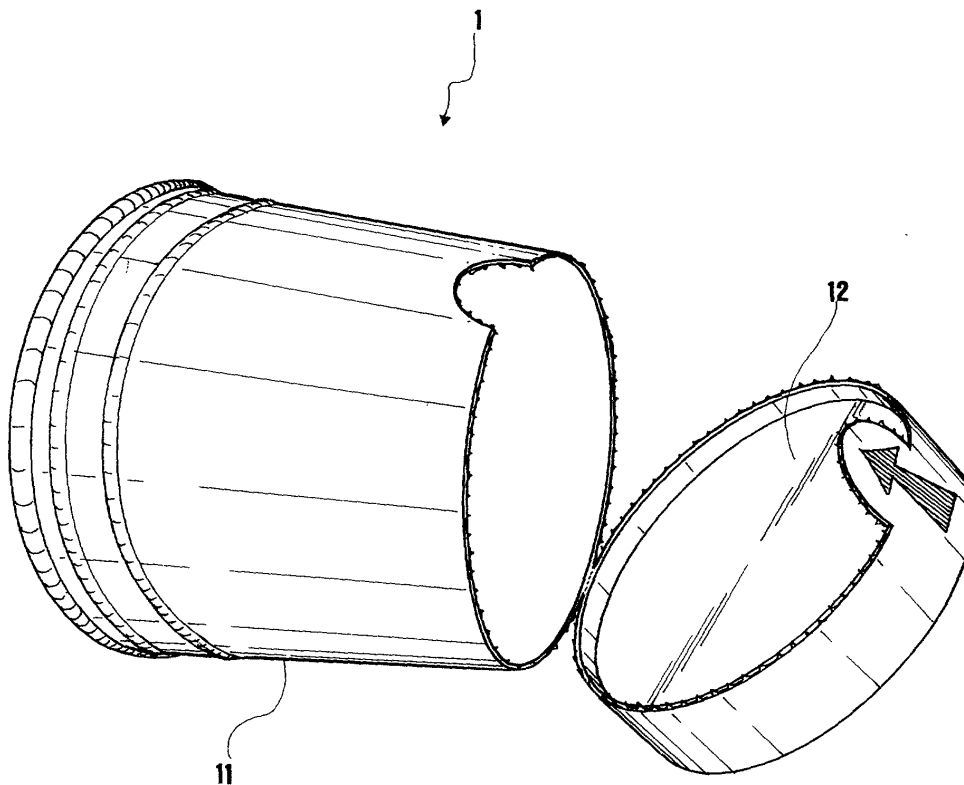


FIG.4

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Description

[0001] The present invention refers to a container for food of a type having a double bottom wall so as to define two containing regions, closed and separate therebetween.

[0002] To date, various types of double bottom containers for food are known. According to a first type of double bottom container, the same comprises a first cylinder-shaped body provided with a bottom wall to which a second container, of same diameter and it also having a bottom wall, is removably coupled. Typically, the two containers can be made of alike or of different materials, and their connection generates a single container provided with two volumes separate therebetween. This type of container is widely employed for foods envisaging the consumption of several ingredients originally distinct thereamong.

[0003] However, this type of two-volume container entails a drawback in that it consists of plural components or bodies separate thereamong, making it scarcely practical from the viewpoint of the post-use disposal, as well as of the environmental impact thereof.

[0004] Moreover, according to another type of two-volume container, disclosed in the Italian Patent Application RM91U00214 of the same applicant, advantageously the same provides a single body apt to contain a partitioning member therein, so as to generate, upon being assembled, a container with two volumes separate therebetween. The separation of the two volumes occurs by tearing a container region according to preferential weakening lines obtained onto the container wall.

[0005] Also this type of container, though conveniently made of a single material, only partially overcomes the disposal-related problems, failing to solve the practical problem. In fact, for the separation of the two volumes, various pieces detached thereamong are anyhow generated, like a material strip and a pair of containers, thereby making it difficult for a user, above all for a younger user, to handle the various pieces, as well as to subsequently dispose them, with regard to the environmental impact.

[0006] Hence, object of the present invention is to overcome the above drawbacks providing a double bottom container offering the optional access to the content in the two separate volumes with no need to separate the container body into plural detached parts.

[0007] Another object of the present invention is to provide a two-volume and double bottom container having an opening of the two volumes which is eased to the utmost and being highly practical from the viewpoint of the post-use disposal, as well as of the environmental impact thereof.

[0008] Hence, the present invention provides a container comprising a first wall and a second bottom wall, characterised in that it comprises a first closing member located internally thereto and apt to define

therein a partition into two volumes not communicating therebetween, and means for opening one of said two volumes obtained on said first wall of said container.

[0009] Hereinafter, a detailed description of a preferred embodiment of the container of the present invention, given by way of a non-limiting example, will be provided, making reference to the attached drawings, wherein:

Figure 1 is a plan view of a blank making the container of the present invention;

Figure 2 is a sectional elevation view partially showing the container of the present invention;

Figure 3 is a partially sectional elevation view showing a member of the container of the present invention; and

Figure 4 is a perspective view showing the container of the present invention in an opened condition.

[0010] With reference now to Figure 1, a plane blank 1 that, upon being assembled, will make a container 10 according to the present invention, is illustrated.

[0011] Typically, the blank is arc-shaped, with a height equivalent to that of the container 10 to be made therefrom upon assembling. At the top edge region thereof, there are obtained a first and a second creasing 2 and 3, respectively. The first creasing 2 serves as means for engaging a first closing member 4 apt to define an inner partition of the container 10, thereby defining two volumes separate therebetween. The second creasing 3 is apt to serve as means for engaging a second removable closing member 4 that is apt to close the top opening of the container 10 (not shown in the figure and better illustrated hereinafter).

[0012] Moreover, the blank 1 has, at the bottom edge region thereof, a preferential tearing line 5 extending along almost the full length of the blank 1. Furthermore, the preferential tearing line has a region 6 cooperating with a user's finger so as to promote the opening of the bottom region of the container 1 once assembled (better illustrated hereinafter).

[0013] With reference now to Figure 2, the container 10 of the present invention is illustrated. As it is apparent from the figure, the invention provides that upon assembling the blank 1 the container 10 be generated, having a side wall 11 and a bottom wall 12 applied during the forming thereof. The container 10 thus generated is substantially frustocone-shaped and it has a bottom wall, in a manner *per se* already known in the art.

[0014] Inside of the container 10 thus obtained it is housed the first closing member 4, substantially cup-shaped and with a projecting edge. The shape of the closing member is such that its edge is apt to engage in a fixed manner onto the creasing 2 obtained onto the wall 11 and to rest thereon by virtue of the taper of the wall 11.

[0015] With particular reference to Figure 3, it has to be pointed out that the taper of the member 4 is inten-

tionally gauged to that of the wall 11, so as to provide the seal thereof onto the wall 11 upon being located thereon. The member 4, when mounted onto the wall 11, partitions the container 10 so as to generate two volumes, separate and not communicating therebetween, rendering the latter apt to house two distinct products in a safe and sealed manner.

[0016] On the other hand, with reference to Figure 2, the second creasing 3 is apt to removably lock a second closing member 7 that is apt to close the top region of the container 10. The closing member 7 is substantially disc-shaped in order to be easily removable by pulling a projecting section 8 thereof as *per se* already known.

[0017] With reference now to Figure 4, the container 10 is illustrated in an opened condition. More precisely, after applying a tearing force onto the preferential tearing line region 6, by a mere pressure exerted by a user's finger, the region 6 yields and comes off the wall 11, thereby creating a port wherein a wall section 11 can be gripped and the detached, by tearing along the preferential tearing line 5. The specific arrangement of the preferential tearing line 5 along the wall 11 is such as to allow a separation of the sections, yet not a total detaching thereof. Thus, the practicality of use is remarkably improved and the opening of the two volumes is eased to the utmost. Moreover, keeping adjoined the distinct sections, the problem of its disposal is solved and also the environmental impact thereof is lessened.

[0018] It has to be pointed out that the present invention is not limited to the hereto described preferred embodiment, encompassing all the alternative embodiments concerning materials and shapes, related to the employ of the container of the present invention.

Claims

1. A container (10) comprising a first wall (11) and a second bottom wall (12),
characterised in that it comprises a first closing member (4) located internally to said container (10) and apt to define therein a partition into two volumes not communicating therebetween, and means (5,6) for opening one of said two volumes obtained onto said first wall (11) of said container (10).
2. The container (1) according to claim 1, wherein said first wall (11) has first removable means (3) for engaging a second closing member (7) of said container (10), the arrangement being such that said second closing member (7) is apt to be removed by a pulling action causing the disengaging thereof from said engaging removable means (3).
3. The container according to the preceding claim, wherein said first removable means for engaging is a creasing (3) perimetrically obtained onto said first

wall (11) of said container (10).

4. The container (10) according to any one of the preceding claims, wherein said first wall (11) has second means (2) for engaging said first closing member (4) onto said container (10).
5. The container (10) according to the preceding claim, wherein said second means for engaging is a creasing (2) perimetrically obtained on said first wall (11) of said container (10).
6. The container (10) according to any one of the preceding claims, wherein said first closing member (4) has a cup-like shape comprising an edge region for the engaging to said second engaging means (2) onto said first wall (11).
7. The container (10) according to any one of the preceding claims, wherein said opening means are a preferential tearing line (5) obtained onto said first wall (11), and apt to provide to said container (10) a preferential opening region (5).
8. The container (10) according to the preceding claim, wherein said preferential tearing line (5) extends onto said first wall (11) for a length shorter than the perimeter thereof, the arrangement being such that after the tearing of said preferential tearing line (5) a partial separation of said first wall (11) is carried out, so as to give the container (10) keep an integral configuration.
9. The container (10) according to the preceding claim, wherein said preferential tearing line (5) has a region (6) apt to cooperate with a user's finger in order to promote the separation of said first wall (11) starting from said region (6).
10. A plane blank (1) for making the container (10) according to the preceding claims, the blank being arc-shaped with a height defined by the height of said container (10), and wherein a first and a second creasing (2; 3), extending along the full length of the blank (1), and a preferential tearing line (5) also extending along almost the full length of the blank (1), are obtained, the preferential tearing line (5) further having a region (6) for the cooperation with a user's finger.

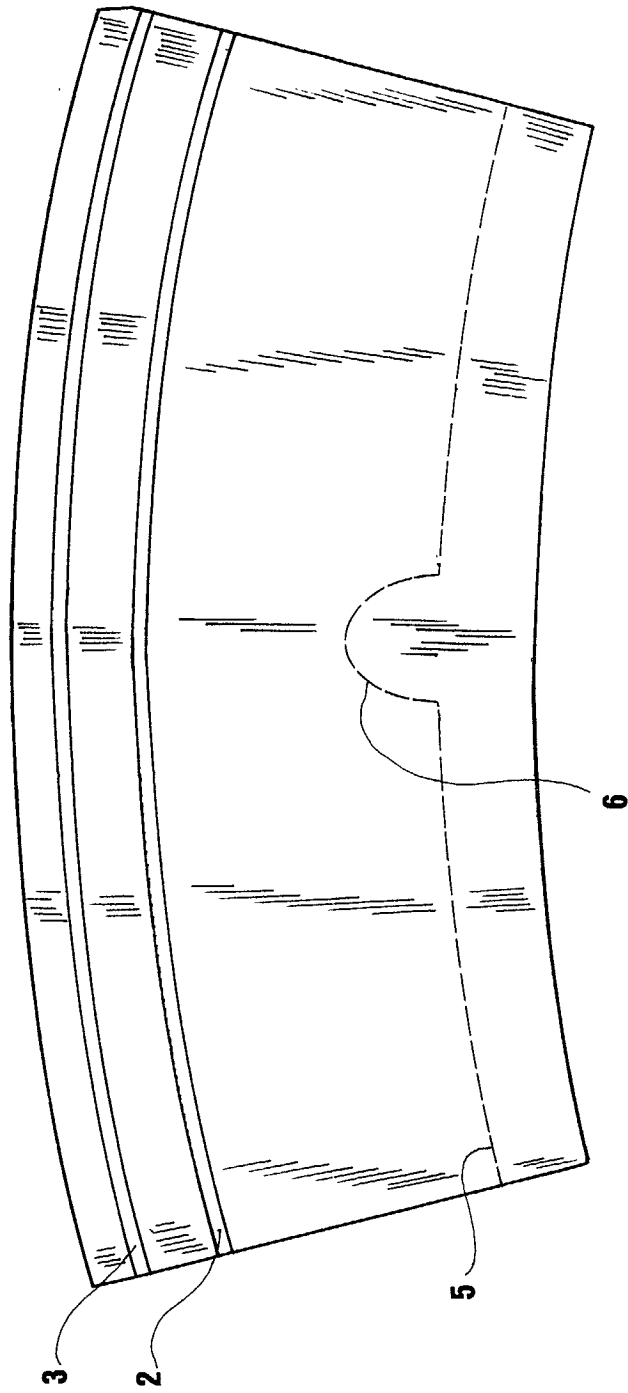


FIG.1

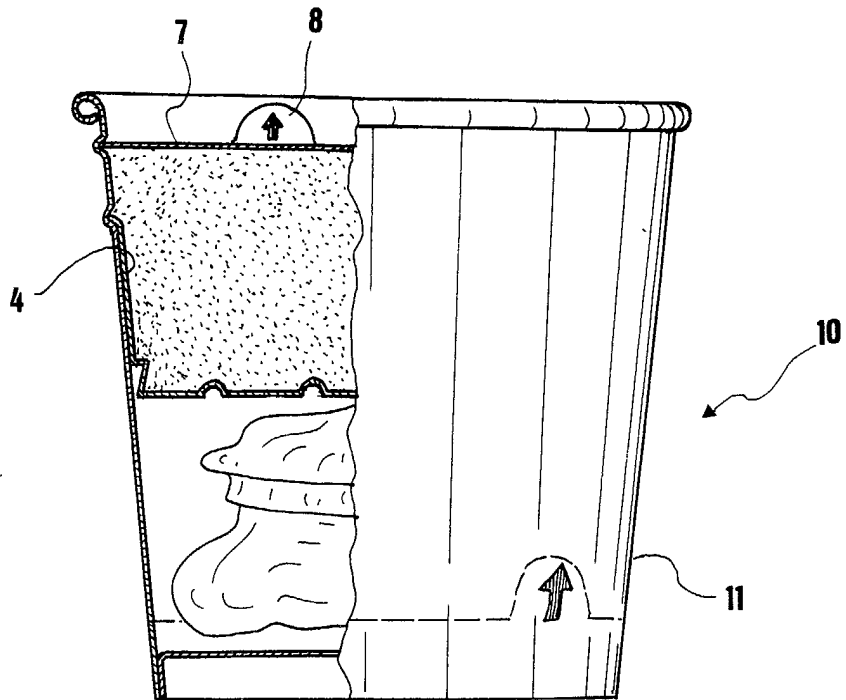


FIG. 2

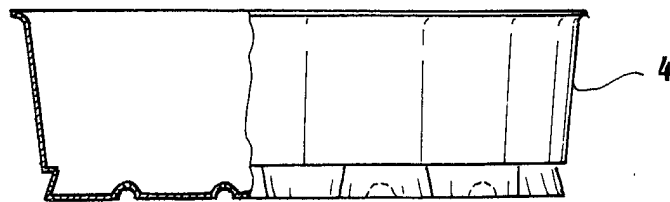


FIG. 3

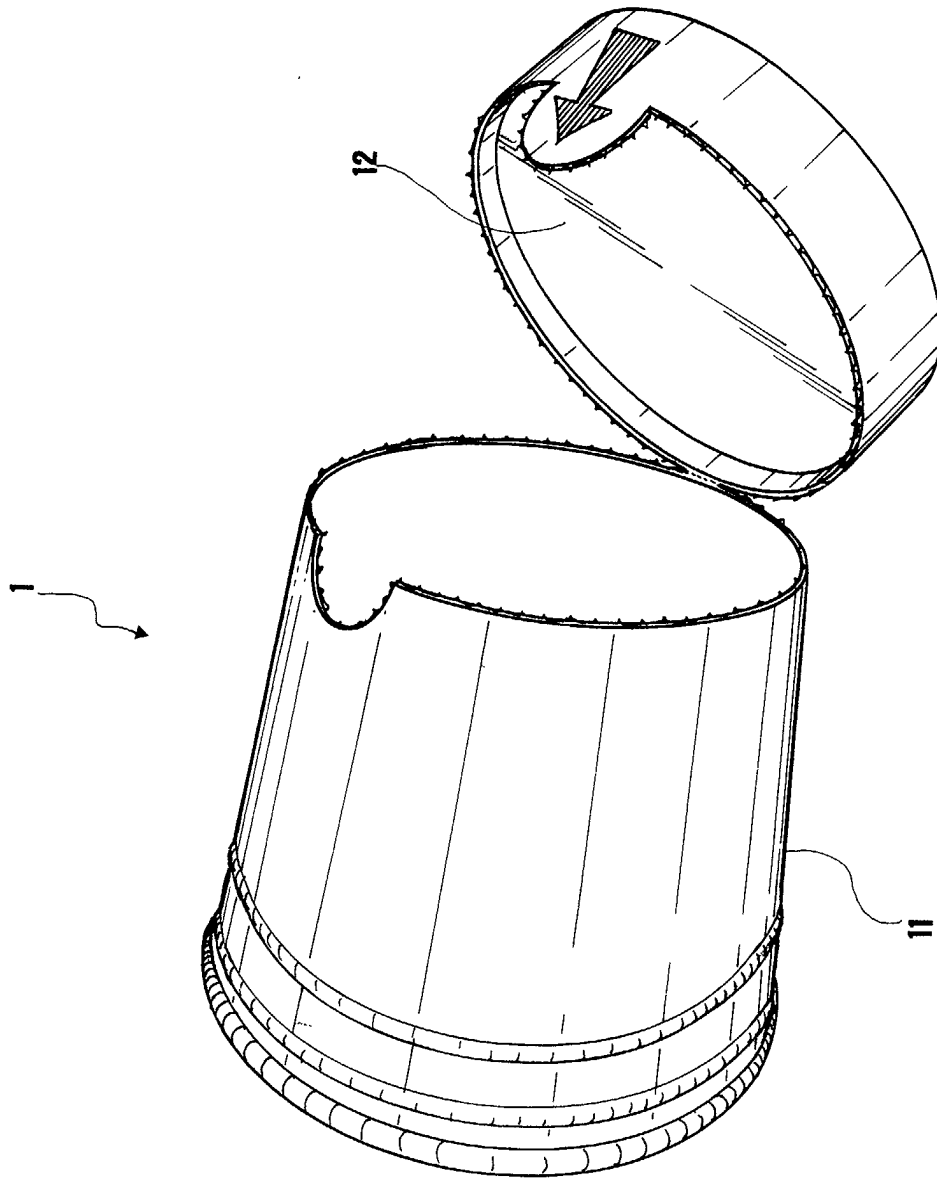


FIG.4



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EUROPEAN SEARCH REPORT

Application Number
EP 02 42 5203

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 10 September 2002	Examiner Reichhardt, O
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 (F04C01)



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EUROPEAN SEARCH REPORT

Application Number
EP 02 42 5203

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
Place of search	Date of completion of the search	Examiner	
MUNICH	10 September 2002	Reichhardt, 0	
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

EPO FORM 1503 03/82 (P04/C01)



CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):

- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-9

A double bottom container

2. Claim : 10

A plane blank for making a container

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

EP 02 42 5203

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.

10-09-2002

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