



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
07.09.2005 Bulletin 2005/36

(51) Int Cl.7: **B65D 43/16**

(21) Application number: **05003360.4**

(22) Date of filing: **17.02.2005**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR**
Designated Extension States:
AL BA HR LV MK YU

(72) Inventor: **Fransen Filip**
2960 Brecht (BE)

(74) Representative: **Wagner, Carsten**
Leine & Wagner Patentanwälte
Burckhardtstrasse 1
30163 Hannover (DE)

(30) Priority: **18.02.2004 DE 202004002657 U**

(71) Applicant: **DeSter.ACS Holding B.V.**
4824 EH Breda (NL)

(54) **Container for food, in particular for catering purposes**

(57) A container for food, in particular for catering purposes, includes a substantially mug-like lower part (4) of the container (2), said lower part (4) being open to one side. The container furthermore includes a substantially mug-like upper part (6) of the container (2), said upper part (6) being open to one side, said upper part (6) and said lower part (4) being connected to each other by a hinge-like connecting element. The lower part (4) and the upper part (6) of the container are movable

relative to each other between an open position in which the longitudinal axes of the openings of the lower part (4) of the container (2) and of the upper part (6) of the container (2) are substantially parallel or form an acute angle and the container (2) is opened, and a closed position, in which the opening of the lower part (4) of the container (2) is positioned opposite to the opening of the upper part (6) of the container (2) and the container (2) is closed.

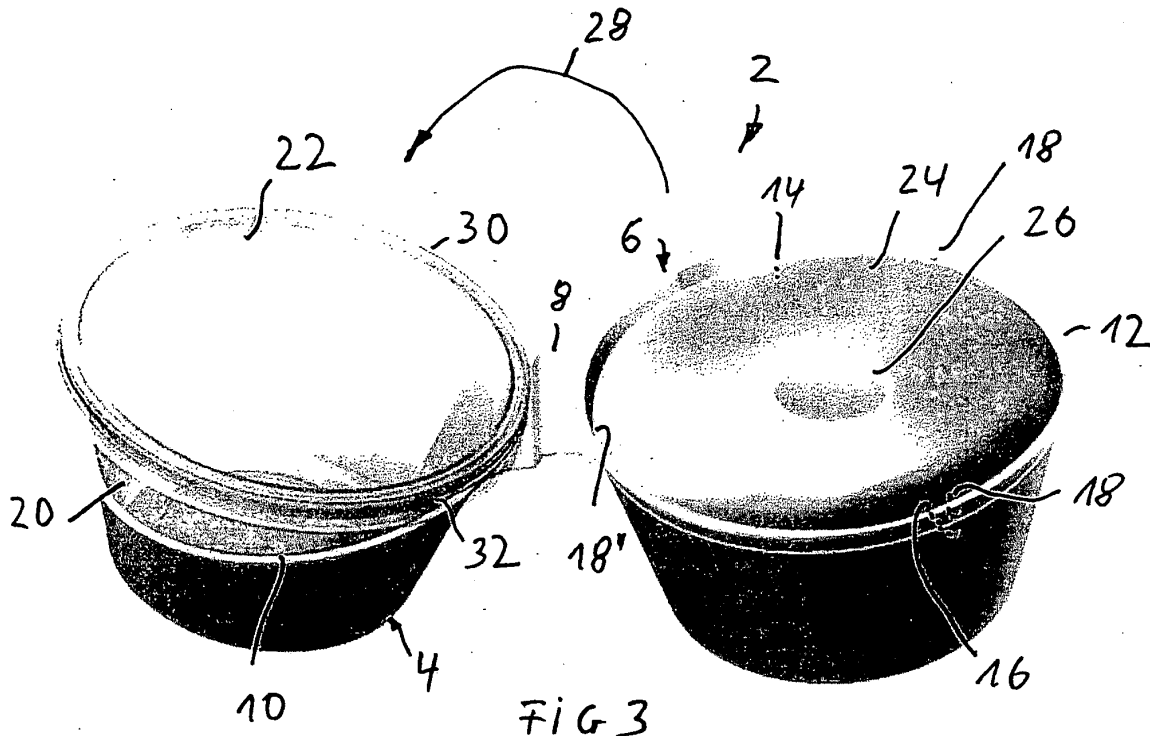


FIG 3

Description

[0001] The invention relates to a container for food, in particular for catering purposes.

[0002] Such containers are well known and are in particular used for catering purposes, e. g. on board aircrafts. The known containers have the purpose to package food in order to serve the food to a consumer or to enable the consumer to take the food away.

[0003] It is an object of the invention to provide a container for food which may be handled in a comfortable manner.

[0004] This object is achieved by the invention defined in claim 1.

[0005] The container according to the invention includes a substantially mug-like lower part of the container which is open to one side and a substantially mug-like upper part of the container which is open to one side, said lower part and said upper part being connected to each other by a hinge-like connecting element. The lower part and the upper part of the container are moveable relative to each other between an open position in which the longitudinal axes of the openings of the lower part and the upper part are substantially parallel or form an acute angle and the container is opened, and a closed position, in which the opening of the lower part is positioned opposite to the opening of the upper part and the container is closed.

[0006] By means of a container according to the invention, food may be packaged in a simple and comfortable manner by inserting the food into the lower and/or upper part and closing the container by hinging the upper part onto the lower part of the container.

[0007] The shape, size and material of the container according to the invention may be chosen within wide ranges.

[0008] The container according to the invention may be manufactured easily at very low costs.

[0009] Basically, the lower part and the upper part of the container as well as the connecting element may be embodied as separate elements which are connected to each other in a suitable manner. In order to simplify the manufacturing of the container according to the invention, in an advantageous embodiment it is provided that the lower part of the container, the upper part of the container and the connecting element are integral with each other.

[0010] According to a particularly advantageous embodiment at least one substantially mug-like insert is detachably insertable into the lower part and/or the upper part of the container, said insert forming an inner container. By means of the insert forming an inner container, the use of the container according to the invention is even more comfortable since food may be pre-packaged in the inner container. If e. g. by means of the container a breakfast is served, e. g. cheese or cold meat may be pre-packaged and cooled in the inner container. When serving the breakfast by means of the container

according to the invention, the inner container is inserted into the lower part of the container while e. g. bread role may be inserted into the upper part of the container. Subsequently, the lower part and the upper part are moved relative to each other into the closed position so that the container is closed. According to the invention it is possible to use an insert into the lower part only. Furthermore, it is possible to use a separate insert into the lower part as well as into the upper part.

[0011] According to a further embodiment with the insert, the outer wall of the insert is shaped substantially complementary to the inner wall of the lower part and/or the upper part of the container respectively, such that the insert is retained in a form-locking manner in the lower part or the upper part of the container respectively. In this embodiment, due to the substantially complementary shape of the insert and the corresponding part of the container, the insert is retained safely and fixedly in the respective part of the container.

[0012] Basically, it is sufficient if the insert is inserted into the corresponding part of the container in a loose manner. However, according to the invention it is possible that the insert is retained in the lower part or the upper part of the container respectively in a force-locking manner. If necessary, the insert may be retained in a form-locking manner in the lower part or the upper part of the container respectively.

[0013] The shape of the upper part of the container, of the lower part of the container and of the insert may be varied within wide ranges. According to a preferred embodiment the lower part and/or the upper part of the container and/or the insert of the container is shaped substantially cylindrical or frustoconical. With this embodiment, the components of the container according to the invention may be manufactured easily at low costs. In particular, the components of the container according to the invention may be manufactured by injection-moulding or deep-drawing.

[0014] A further advantageous embodiment of the invention provides a lid for closing the insert. In this embodiment food or the like may be packaged in the inner container in a particularly comfortable and hygienical manner.

[0015] Basically, it is sufficient if the lower part and the upper part may be moved into the closed position by simply hinging one part onto the other. In order to avoid an undesired movement of the lower part of the container and the upper part of the container relative to each other into the opened position, an especially preferred embodiment provides fixing means for fixing the lower part and the upper part to each other in the closed position in a detachable manner.

[0016] The shape, size and structure of the fixing means may be chosen within wide ranges. The fixing means may e. g. include a separate fixing element, e. g. in the form of a gluestrip.

[0017] According to an especially advantageous embodiment, the fixing means are formed integrally with

the container.

[0018] According to the respective requirements the fixing means may fix the lower part and the upper part of the container in the closed position to each other in a form-locking and/or friction-locking manner.

[0019] In order to obtain a reversible fixing of the lower part of the container on the upper part of the container in a simple and comfortable manner according to a further embodiment snap means for snap-fixing the lower part of the container and the upper part of the container to each other are provided. In particular, snap means may be formed integrally with one of the components of the container according to the invention.

[0020] According to a further embodiment the fixing means include at least one radial protrusion which is formed on an inner wall of the upper part of the container and which in the closed position engages at least one radial protrusion which is formed on the lower part of the container or the insert in a form-locking manner. With this embodiment, the fixing means are very simple and e. g. may be formed integrally with one of the components of the container according to the invention.

[0021] Basically, the or each protrusion associated with the lower part of the container may be formed integrally with the lower part of the container. According to an advantageous embodiment the or each radial protrusion associated with the lower part of the container is formed on the insert or a lid of the insert.

[0022] In the aforementioned embodiment it is possible to provide at least one radial protrusion on the inner wall of the lower part of the container said protrusion engaging a protrusion which is located on the outer wall of the upper part of the container.

[0023] According to another embodiment, the height and the diameter of the insert and/or the lid are chosen such that in the closed position the free rim of the upper part of the container engages the free rim of the insert or the lid respectively in a substantially form-locking manner. In this embodiment, additional fixing means for fixing the lower part of the container on the upper part in the closed position may be provided. However, the fixing means may also be embodied such that the free rim of the upper part of the container and the free rim of the insert or the lid respectively are engaging each other in a force-locking manner such that a certain fixing of the parts of the container to each other is obtained.

[0024] In order to further enhance the functionality of the container according to the invention, an advantageous embodiment provides a separation wall which is insertable into the upper part of the container for closing the upper part substantially completely. In this embodiment, e. g. food received in the upper part of the container is secured in the upper part of the container. It is within the scope of the invention to provide a separation wall also or only on the lower part of the container or to provide a separation wall on the lower part as well as on the upper part.

[0025] Basically, in the aforementioned embodiment

the separation wall may be manufactured from any suitable material, e. g. from plastics. In order to further simplify the container according to the invention and thereby lower the manufacturing costs, according to an advantageous embodiment the separation wall is made from cardboard or the like.

[0026] The separation wall may be retained on the inner wall of the respective container part in any suitable manner, e. g. in a force-locking and/or form-locking manner. According to an advantageous embodiment the separation wall includes an opening through which the separation wall may be engaged for removing the same from the container. By this way, the user may remove the separation wall in a very simple manner.

[0027] In order to assure that the separation wall is retained in a defined position within the respective part of the container, according to an advantageous embodiment the upper part of the container on its inner wall in the area of its free end includes at least one radial projection, in particular a circumferential shoulder for supporting the separation wall.

[0028] In order to simplify the insertion of the separation wall into the upper part of the container as well as the fixing of the separation wall in the desired position and the removal of the separation wall, according to a preferred embodiment means for a detachably snap-fixing the separation wall in the upper part of the container are provided.

[0029] The lower part of the container, the upper part of the container, the insert forming an inner container and the lid of the insert may be manufactured from any suitable material, e. g. from cardboard. In order to manufacture the components of the container according to the invention in a simple and cost-effective and hygienical manner, according to a preferred embodiment the lower part of the container and/or the upper part of the container and/or the insert and/or the lid of the insert are manufactured from plastics. With this embodiment, the components of the container according to the invention may be manufactured by injection-moulding or deep-drawing.

[0030] In the aforementioned embodiment all components of the container may be manufactured from the same plastics. However, according to the respective requirements, the lower part of the container and/or the upper part of the container may be manufactured from a plastics which is different from the plastics from which the insert and/or the lid of the insert is manufactured. According to a further preferred embodiment it is provided that the lower part of the container and the upper part of the container are manufactured from a substantially rigid or foamed plastics. Due to the inherent stability of the lower part and the upper part of the container in this embodiment, the contents of the container, e. g. food received in the container, is prevented from damage.

[0031] Other preferred embodiments provide that the insert and/or the lid are made from a flexible plastics

and/or that the insert and the lid are manufactured from a transparent plastics.

[0032] The invention will now be explained in greater detail with reference to the accompanying drawings wherein all features which are described in the specification or which are shown in the drawings define the subject matter of the invention, either taken alone or in arbitrary combination with each other, regardless of their combination in the claims and the dependency of the claims as well as regardless of the wording used in the specification and the representation used in the drawings.

[0033] In the drawings:

- Fig. 1 is a perspective view of a lower part and an upper part of a container according to an embodiment of the invention shown in the opened position,
- Fig. 2 is a perspective view of the container shown in Fig. 1, wherein an insert forming an inner container including a lid is inserted into the lower part of the container and
- Fig. 3 is a perspective view of the container as shown in Fig. 2, wherein a separation wall is inserted into the upper part of the container.

[0034] In Fig. 1 an embodiment of a container 2 according to the invention is shown which includes a substantially mug-like lower part 4 of the container which is open to one side and a substantially mug-like upper part 6 of the container which is open to one side, said upper part 6 and said lower part 4 being connected to each other by a hinge-like connecting element 8. In the embodiment shown in Fig. 1 the lower part 4 of the container, the upper part 6 of the container and the connecting element 8 are integral and are manufactured from a thin-walled substantially rigid plastics. However, the parts 4, 6, 8 may be manufactured from a foamed material.

[0035] As shown in Fig. 1, the lower part 4 and the upper part 6 of the embodiment shown in Fig. 1 have a frustoconical form. The free rim 10 of the lower part 4 of the container is limited by an imaginary plane which forms an acute angle with the longitudinal axis of the lower part 4 of the container, such that the free rim 10 of the lower part 4 of the container as seen in the plan view has an elliptical shape. The free rim 12 of the upper part 6 of the container is limited by an imaginary plane which is perpendicular to the longitudinal axis of the upper part of the container such that the free rim 12 seen in the plan view has a substantially circular shape.

[0036] For forming a hinge, the material of the connecting element 8 may be weakened in an area between the lower part 4 and the upper part 6 of the container.

[0037] Adjacent to the free rim 12 and in Fig. 1 below the free rim 12, the upper part 6 of the container includes a circumferential shoulder 14 which is formed on an inner wall, said shoulder 14 being arranged for supporting a separation wall which may be inserted into the upper

part 6 in a manner which will be explained in greater detail with reference to Fig. 3. Radial protrusions 16, 16', 16" extend radially inwardly from the shoulder 14 and in Fig. 1 below the shoulder 14. Further protrusions are formed above the shoulder 14 and are aligned in the circumferential direction of the upper part of the container with the protrusions 16, 16', 16".

[0038] Fig. 2 shows the container 2 according to Fig. 1 wherein an insert 20 forming an inner container is inserted into the lower part 4 of the container 2 in a detachable manner. In this embodiment, the insert 20 has a substantially frustoconical form wherein the outer wall of the insert 20 is shaped substantially complementary to the inner wall of the lower part 4 of the container, as shown in Fig. 2. The insert 20 includes a lid 22 which snaps onto the free rim of the insert 20 as it is well known to a person skilled in the art.

[0039] Fig. 3 shows the container 2 according to Fig. 2 wherein a separation wall 24 is inserted into the upper part 6 of the container, said separation wall 24 in this embodiment being manufactured from cardboard. The separation wall 24 abuts against the shoulder 14 wherein its outer circumference has a circular form and is shaped substantially complementary to the inner wall of the upper part 6 of the container in the area of the shoulder 14. The separation wall 24 has a central opening 26 which is arranged for engaging the separation wall 24 for removing the wall 24 from the upper part 6 of the container.

[0040] The container 2 is used as follows: For packaging food into the container 2, the container 2 is in the open position in which the longitudinal axis of the lower part 4 of the container and the longitudinal axis of the upper part 6 of the container are substantially parallel or form an acute angle. In this open position, first the insert 20 closed with the lid 22 is inserted into the lower part 4 of the container. If e. g. a breakfast is served by means of the container 2, the insert 20 may e. g. receive cold meat or cheese or other food.

[0041] Subsequently, e. g. a bread roll and/or cutlery may be inserted into the upper part 6 of the container. Subsequently, the separation wall 24 is inserted by moving it in the drawings downwardly such that the separation wall 24 is elastically deformed by the protrusions 18, 18', 18" such that the separation wall 24 snap-engages the protrusions 18, 18', 18". In this position, the separation wall 24 is fixed in the axial direction of the container 6 between the shoulder 14 and the protrusions 18, 18', 18".

[0042] For closing the container 2, the upper part 6 is hinged onto the lower part 4 of the container as symbolized by an arrow 28 in Fig. 3. Upon hinging the upper part 6 onto the lower part 4, the separation wall 24 prevents the bread roll and the cutlery from falling out of the upper part 6. In a closed position of the container (not shown) the free rim 12 of the upper part 6 of the container engages the free rim 30 of the lid 22 of the insert 20 in a substantially form-locking manner, wherein

the separation wall 24 abuts against the upper surface of the lid 22. For snap-fixing the upper part 6 to the insert 20 and thereby to the lower part 4, the upper part 6 may have a groove that snaps onto the insert 20. In this closed position, the opening of the lower part 4 of the container 2 is facing the opening of the upper part 6 of the container 2 wherein the longitudinal axis of the openings are substantially coincident.

[0043] In order to fix the upper part 6 on the lower part 4 in the closed position, according to the invention fixing means may be provided. In the embodiment shown in the drawings the fixing means may e. g. be formed by a circumferential groove 32 which is formed on the outer circumference of the lid 30. When the lower part 4 is hinged onto the upper part 6 of the container 4, the free rim 30 of the lid 22 is deformed in an elastical manner until the protrusions 18, 18', 18" snap into the groove 32 and thereby fix the upper part 6 on the lower part 4. Accordingly, in this embodiment the fixing means are snap-fixing means.

[0044] The fixing means may be embodied in a different manner. E. g., the lid 22 may be arranged such that in the closed position of the container 2 it is retained in a friction-locking manner on the upper end of the inner wall of the upper part 6 of the container. However, the fixing means may further be embodied in a different manner. In particular, e. g. separate fixing elements, e. g. in the form of a gluestrip, may be provided.

[0045] For taking the food out of the container 2 the user detaches the fixing means and moves the container 2 into the opened position shown in the drawing. In the opened position, the user may first detach the separation wall 24 by engaging the same through the opening 26 and may subsequently take the bread roll and the cutlery out of the upper part 6 of the container. Subsequently, the user may detach the lid 22 from the insert 20 and may take the food out of the insert 20.

[0046] By means of the container 2 according to the invention it is possible to package food, in particular for catering purposes, in a simple and comfortable manner. Furthermore, the container 2 according to the invention may be handled in a very simple manner.

Claims

1. A container for food, in particular for catering purposes, including a substantially mug-like lower part (4) of the container (2), said lower part (4) being open to one side and a substantially mug-like upper part (6) of the container (2), said upper part (6) being open to one side, said upper part (6) and said lower part (4) being connected to each other by a hinge-like connecting element (8), wherein the lower part (4) and the upper part (6) of the container (2) are movable relative to each other between an open position in which the longitudinal

axes of the openings of the lower part (4) of the container (2) and of the upper part (6) of the container (2) are substantially parallel or form an acute angle and the container (2) is opened, and a closed position, in which the opening of the lower part (4) of the container (2) is positioned opposite to the opening of the upper part (6) of the container (2) and the container (2) is closed.

2. Container as claimed in claim 1, **characterized in that** the lower part (4) of the container (2), the upper part (6) of the container (2) and the connecting element are integral with each other.

3. Container as claimed in claim 1 or 2, **characterized in that** at least one substantially mug-like insert (20) is detachably insertable into the lower part (4) and/or the upper part (6) of the container (2).

4. Container as claimed in claim 3, **characterized in that** the outer wall of the insert (20) is shaped substantially complementary to the inner wall of the lower part (4) and/or the upper part (6) of the container (2) respectively, such that the insert (20) is retained in a form-locking manner in the lower part (4) or the upper part (6) of the container (2) respectively.

5. Container as claimed in claim 2 or 4, **characterized in that** the insert (20) is retained in the lower part (4) or in the upper part (6) of the container (2) respectively, in a friction-locking manner.

6. Container as claimed in any of the preceding claims **characterized in that** the lower part (4) of the container (2) and/or the upper part (6) of the container (2) and/or the insert (20) is shaped substantially cylindrical or frusto-conical.

7. Container as claimed in any of claims 3 to 6, **characterized by** a lid (22) for closing insert (20).

8. Container as claimed in any of the preceding claims, **characterized by** fixing means for fixing the lower part (4) and the upper part (6) of the container (2) to each other in the closed position.

9. Container as claimed in claim 8, **characterized in that** in the closed position the fixing means may fix the lower part (4) and the upper part (6) of the container (2) to each other in a form-locking manner.

10. Container as claimed in claim 8 or 9, **characterized in that** in the closed position the fixing means are fixing the lower part (4) and the upper part (6) of the container to each other in a friction-locking manner.

11. Container as claimed in any of claims 8 to 10, **char-**

- acterized in that** the fixing means include snap means for snap-fixing the lower part (4) of the container and the upper part (6) of the container to each other in the closed position.
12. Container as claimed in any of claims 8 to 11, **characterized in that** the fixing means include at least one radial protrusion which is formed on an inner wall of the upper part (6) of the container (2) and which in the closed position engages at least one radial protrusion which is formed on the lower part (4) of the container or the insert (20) in a form-locking manner.
13. Container as claimed in claim 12, **characterized in that** the or each protrusion associated with the lower part (6) is formed on the insert (20) or the lid (22) of the insert (20).
14. Container as claimed in any of claims 8 to 13, **characterized in that** the height and the diameter of the insert (20) and/or the lid (22) are chosen such that in the closed position the free rim (12) of the upper part (6) of the container engages the free rim of the insert (20) or the lid (22) in a substantially form-locking manner.
15. Container as claimed in any of the preceding claims **characterized by** a separation wall (24) which is insertable into the upper part (6) of the container for closing the upper part (6) substantially completely.
16. Container as claimed in claim 15, **characterized in that** the separation wall (24) is made from cardboard or the like.
17. Container as claimed in claim 15 or 16, **characterized in that** the separation wall (24) includes an opening (26) through which the separation wall (24) may be engaged for removing the same from the container (2).
18. Container as claimed in any of claims 15 to 17, **characterized in that** the upper part (6) of the container (2) on its inner wall in the area of its free rim include at least one radial protrusion, in particular a circumferential shoulder (14) for supporting the separation wall (24).
19. Container as claimed in any of claims 15 to 18, **characterized by** snap means for detachably snap-fixing the separation wall (24) in the upper part (6) of the container.
20. Container as claimed in any preceding claim, **characterized in that** the lower part (4) and/or the upper part (6) of the container (2) and/or the insert (20) and/or the lid (22) of the insert (20) are manufactured from plastics.
21. Container as claimed in claim 20, **characterized in that** the lower part (4) and/or the upper part (6) of the container are manufactured from a plastics which is different from the plastics from which the insert (20) and/or the lid (22) of the insert (20) is manufactured.
22. Container as claimed in claim 20 or 21, **characterized in that** the lower part (4) and/or the upper part (6) of the container are manufactured from a substantially rigid or foamed plastics.
23. Container as claimed in any of claims 20 to 22, **characterized in that** the insert (20) and/or the lid (22) is manufactured from a thin-walled, flexible plastics.
24. Container as claimed in one of claims 20 to 23, **characterized in that** the insert (20) and/or the lid (22) is manufactured from a transparent plastics.
25. Container as claimed in any of claims 10 to 24, **characterized in that** the fixing means are integral with the container (2) or a component of the container (2) .

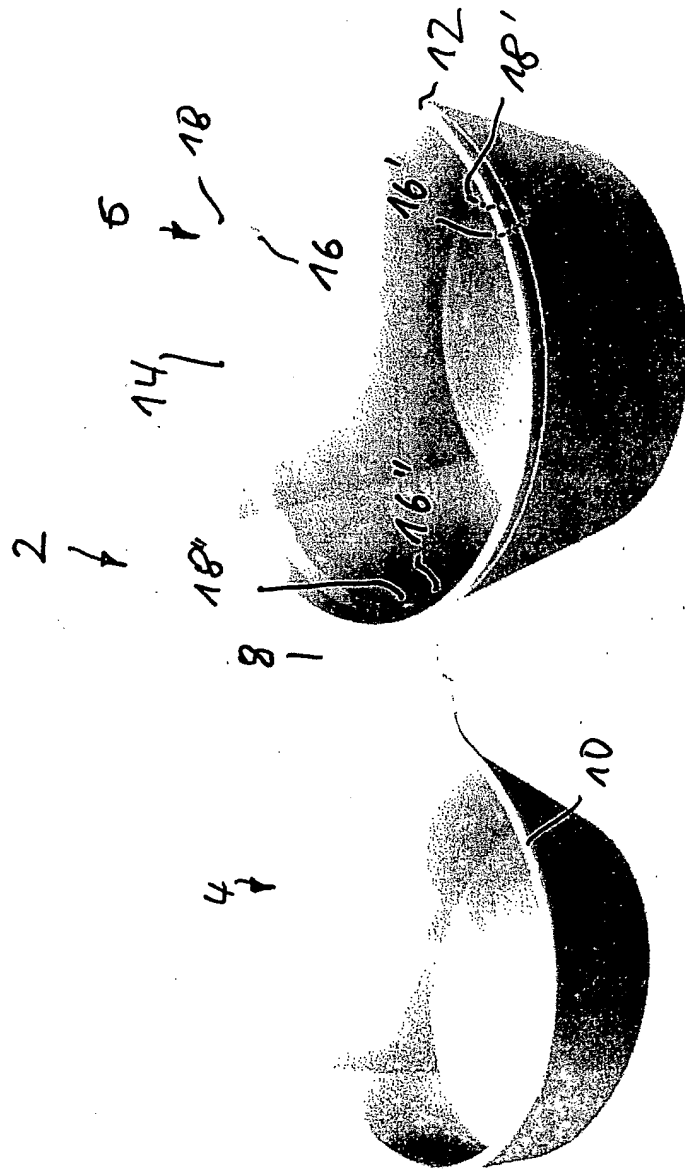


FIG. 1

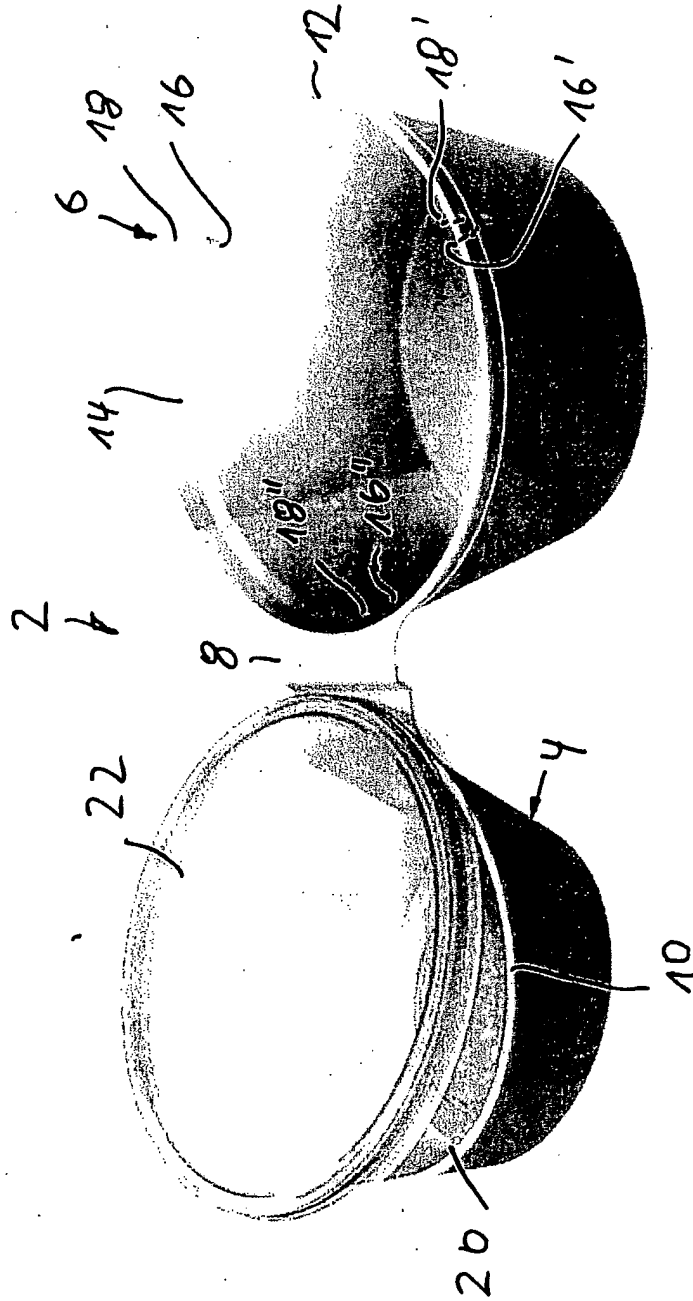
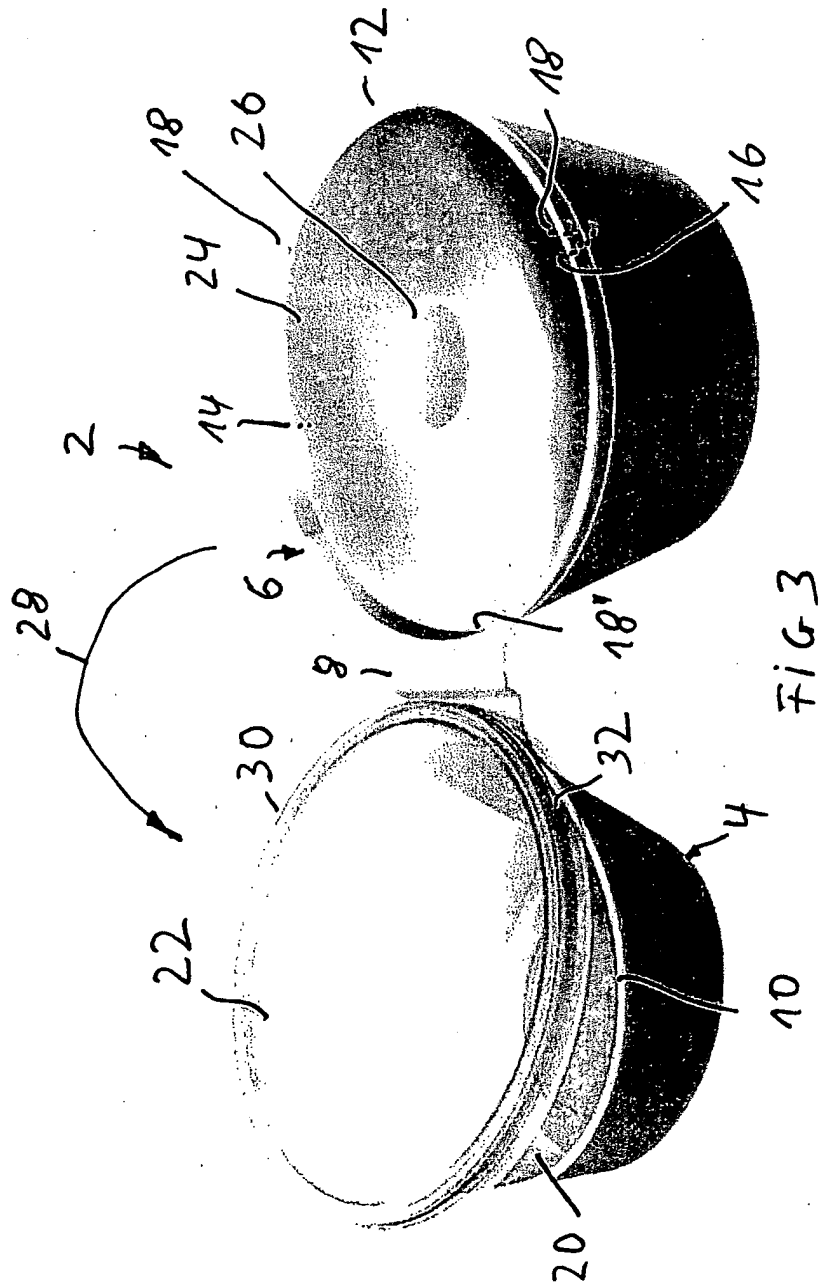


FIG. 2





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.7)
X	GB 1 368 359 A (LIN PAC PLASTICS LTD) 25 September 1974 (1974-09-25)	1-6, 8-12, 20-25	B65D43/16
Y A	* page 1, line 42 - page 2, line 5 * * figures 1,2 *	7,13 14	
X	US 4 811 846 A (BOTTEGA ET AL) 14 March 1989 (1989-03-14) * column 2, line 18 - line 68 * * figures 1,2,6,8 *	1,2,6, 8-12, 15-25	
Y	US 4 091 953 A (DAENEN ET AL) 30 May 1978 (1978-05-30) * page 2, line 1 - line 67 * * figures 1,3,4 *	7	
Y	US 5 875 918 A (SHEFFLER ET AL) 2 March 1999 (1999-03-02) * column 8, line 13 - line 51 * * figures 12-14 *	13	
X	EP 1 151 933 A (DESTER. ACS HOLDING B.V) 7 November 2001 (2001-11-07) * paragraph [0010] - paragraph [0023] * * figures 5,6 *	1,2, 20-25	TECHNICAL FIELDS SEARCHED (Int.Cl.7) B65D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 13 July 2005	Examiner Rodriguez Gombau, F
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	

3
EPO FORM 1503 03.82 (P/4C01)

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

EP 05 00 3360

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.

13-07-2005

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 1368359	A	25-09-1974	NONE

US 4811846	A	14-03-1989	NONE

US 4091953	A	30-05-1978	AR 209370 A1 15-04-1977
		AT 357288 B	25-06-1980
		AT 674576 A	15-11-1979
		AU 1503976 A	22-12-1977
		BE 843022 A1	18-10-1976
		BR 7604615 A	02-08-1977
		CA 1053180 A1	24-04-1979
		CH 605297 A5	29-09-1978
		DE 2629254 A1	24-03-1977
		DK 406276 A	11-03-1977
		ES 223246 Y	16-05-1977
		FI 762561 A ,B,	11-03-1977
		FR 2323588 A1	08-04-1977
		GR 59921 A1	20-03-1978
		IT 1065480 B	25-02-1985
		JP 52037167 A	22-03-1977
		LU 75187 A1	26-01-1977
		NL 7609147 A	14-03-1977
		NO 762330 A ,B,	11-03-1977
		PH 14739 A	20-11-1981
		PL 111063 B1	30-08-1980
		PT 65288 A ,B	01-07-1976
		SE 436828 B	28-01-1985
		SE 7609980 A	11-03-1977
		ZA 7603608 A	25-05-1977

US 5875918	A	02-03-1999	AT 265369 T 15-05-2004
		AU 6329698 A	09-09-1998
		CN 1089710 C	28-08-2002
		DE 69823552 D1	03-06-2004
		EP 1042182 A1	11-10-2000
		JP 2001522337 T	13-11-2001
		WO 9836985 A1	27-08-1998

EP 1151933	A	07-11-2001	US 6572909 B1 03-06-2003
		EP 1151933 A2	07-11-2001
