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(54) Lid for a mug or the like

(57) A lid for a mug or the like container for beverages includes a base body (4), wherein the base body (4) includes at least one recess (10) which is defined by a sidewall (8) and a bottom wall (9), said recess (10) forming a receiving space for food or the like. According to the invention the bottom wall is located in the axial direction of the base body (4) in a plane defined by the lower rim (25) of the base body (4) or in a plane spaced apart from the plane defined by the lower rim (25) towards the upper rim of the base body (4), such that the bottom wall (9) does not protrude over the lower rim (25) of the base body (4).

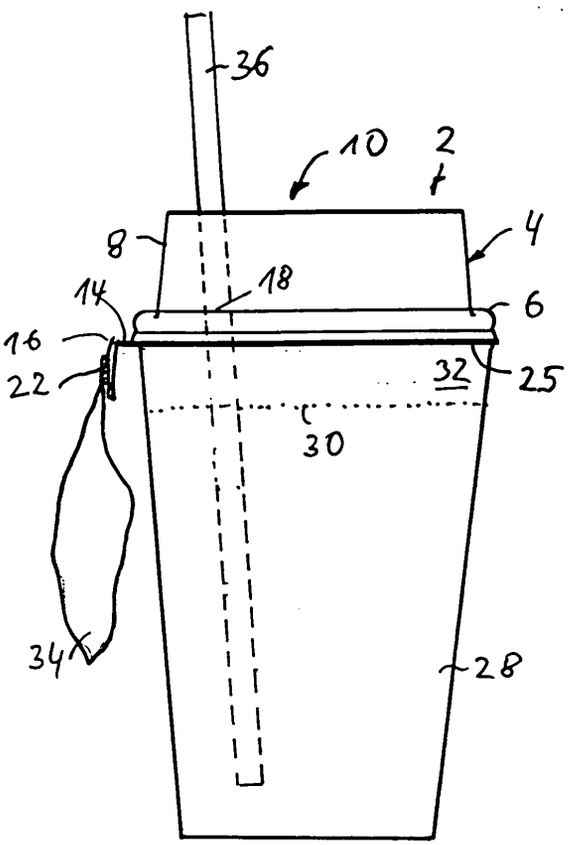

FIG. 6

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Description

[0001] The invention relates to a lid as defined in the preamble of claim 1 for a mug or the like container for beverages.

[0002] The containers in question are well-known and are e. g. used for serving softdrinks or coffee. The known containers may be manufactured from plastics or cardboard and have a substantially cylindrical or frusto-conical shape with a bottom and an opening on their upper side.

[0003] In order to prevent the user from pouring the beverage which is received in the container it is known to use a lid for sealing the container. The known lids are manufactured from cardboard or plastics. For fixing the lid on the container fixing means are provided. The fixing means may e. g. be formed by a circular groove on the lid into which the upper rim of the container fits thereby fixing the lid on the container.

[0004] The known lids are provided with an opening through which a straw may be introduced into the container such that the beverage may be consumed by means of said straw.

[0005] A lid as defined in the preamble of claim 1 is known from WO 02/05691 A2. The known lid includes a base body, wherein the base body includes at least one recess which is defined by a sidewall and a bottom wall, said recess forming a receiving space for food or the like.

[0006] Similar lids are known from US 2003/0054078 A1, US 2002/0192338 A1 and US 2003/0157224 A1.

[0007] EP 0 965 539 A1 discloses a reusable device for the separate carrying and combined consumption of foodstuffs.

[0008] WO 03/106292 A1 discloses a drink container for combining a powder with a liquid.

[0009] US 4 183 444 discloses a lid having an integral hanger.

[0010] EP 1 371 309 A1 discloses a method for detachably fastening a snack to a glass.

[0011] It is an object of the present invention to provide a lid as defined in the preamble of claim 1 which with respect to the known lids is improved.

[0012] This object is achieved by a lid as defined in claim 1.

[0013] The lid according to the invention provides a receiving space for food or the like on the lid. For this purpose, the base body includes a recess which is defined by a sidewall and a bottom wall, said recess forming a receiving space for food or the like. With the lid according to the invention the user may place food, e. g. peanuts, sweets or fast food in the receiving space of the lid such that he may carry the beverage and the food simultaneously by one hand. Therefore the handling of the beverage and food is convenient. According to the invention the bottom wall is located in the axial direction of the base body in a plane defined by the lower rim of the base body or in a plane spaced apart from the lower rim towards the upper rim of the base body, such that the bottom wall does not protrude over the lower rim of the base body. Since the lower wall of the recess does not protrude over the lower rim of the base body, it does not come in contact with liquid received in the base body. Consequently, liquid received in the base body does not adhere to the lid when the lid is removed from the base body. This allows for a more hygienic and more comfortable handling of the lid.

[0014] The material, size and shape of the lid according to the invention may be varied within wide ranges.

[0015] In order to obtain a simple structure, it is preferred that the base body includes a flange for positioning the lid on the rim of a container to be sealed by the lid. In this embodiment, the flange may include a circular groove into which in the sealing position, in which the container is sealed by the lid the upper rim of the container fits.

[0016] According to a preferred embodiment the base body includes a preferably continuous circumferentinal sidewall which extends upwardly from the flange up to an upper rim of the base body from which the recess extends downwardly.

[0017] According to a further preferred embodiment the recess extends along a substantial part of the diameter of the container. Thereby, the receiving space is further enlarged.

[0018] Furthermore, in order to obtain an enlarged receiving space defined by the recess it is preferred that the recess extends along at least approximately 50 per cent, preferably approximately 75 per cent of the diameter of the container and/or that the depth of the recess corresponds to at least approximately 20 per cent, preferably at least approximately 50 per cent, in particular at least approximately 70 per cent of its diameter.

[0019] According to a further preferred embodiment the receiving space is substantially symmetrical with respect to rotation wherein preferably the receiving space has a substantially cylindrical shape or has a substantially conical or frusto-conical shape.

[0020] According to an extraordinarily advantageous embodiment, the base body includes retaining means for retaining a food packaging, in particular a small plastics bag or the like. In this embodiment, the food packaging may be retained on the lid. E. g., if the food packaging is a small plastics bag containing a snack product, e. g. chips, first the unopened plastics bag may be attached to the container by means of the retaining means until the consumer wishes to consume the chips. Then, the user opens the plastics bag and starts to consume the chips. Simultaneously, the receiving space may contain e. g. a dip, a sauce or the like to be consumed together with the chips.

[0021] With the before-mentioned embodiment, preferably the retaining means are arranged for retaining the food packaging in a detachable manner.

[0022] The structure of the retaining means may be varied within wide ranges. According to one preferred

embodiment, the retaining means include clamping means.

[0023] According to a further preferred embodiment, the retaining means include glue means. With this embodiment, the retaining means may be manufactured at very low costs.

[0024] According to a further embodiment, the glue means may include at least one gluestrip.

[0025] The position of the retaining means on the lid may be varied within wide ranges. According to a further embodiment which is easy to use and which may be manufactured at low costs, the retaining means are located on the retaining part which is connected to the base body in a hinge-like manner.

[0026] According to a further embodiment which may be manufactured at very low costs, the base body is manufactured from plastics or the like.

[0027] If a hot beverage, e. g. coffee or tea, is received within the container, it is preferred that the base body of the lid is at least partially manufactured from a thermo-insulating material. With this embodiment, the thermo-insulation is improved so that in use the hot beverage is kept warm as long as possible.

[0028] According to a further preferred embodiment, the base body is composed of at least two parts.

[0029] In the embodiment with the thermo-insulating material and the two-part structured base body it is preferred that at least one of the parts is made from a thermo-insulating material.

[0030] According to a further preferred embodiment the base body includes an inner part and an outer part which are shaped substantially complementary to each other such that one of the parts may be inserted into the other.

[0031] According to yet a further embodiment, the inner part is made from a thermo-insulating material.

[0032] A mug or the like container for beverages according to the invention is defined in claim 22.

[0033] The invention will be explained in greater detail with reference to the accompanying drawings which show an embodiment of the invention 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 the combination in the claims and the dependency of the claims as well as regardless of the wording used in the specification and the representations used in the drawings.

[0034] In the drawings:

Fig. 1 shows a first side view of a lid according to an embodiment of the invention,

Fig. 2 shows a further side view of the lid according to Fig. 1,

Fig. 3 shows a top plan view of the lid according to Fig. 1,

Fig. 4 shows a sectional view along a line A-A in Fig. 2,

Fig. 5 shows a perspective view of the lid according to Fig. 1 and

Fig. 6 shows the lid according to Fig. 1 sealing a mug.

[0035] Fig. 1 shows an embodiment of a lid according to the invention for a mug or the like container for beverages. The lid 2 includes a base body 4 which includes a substantially circular flange 6 for positioning the lid 2 on the rim of a container to be sealed by the lid 2 as it will be explained in greater detail below with reference to Fig. 5.

[0036] In this embodiment, the lid 2 is made from thin transparent plastics. The base body 4 includes a continuous circumferential sidewall 8 which seen in the plan view (see Fig. 3) has a substantially circular shape and which in combination with a bottom wall 9 defines a recess 10 which forms a receiving space for food or the like.

[0037] Furthermore, the lid 2 includes retaining means for retaining a food packaging on the lid, in particular a small plastics bag or the like. In this embodiment, the retaining means are located on a strip-like retaining part 14 which is integral with the base body 4 and which is connected to the base body 4 in a hinge-like manner. In order to form a hinge 16, the flange 6 the material of the retaining part 14 is weakened adjacent to the flange 6.

[0038] Fig. 2 shows a further side view of the lid 2. In order to consume a beverage which is received in a container (not shown in Fig. 2) which is sealed by the lid 2, the lid 2 includes an opening 18 through which a straw may be introduced into the container.

[0039] Fig. 3 shows a top plan view of the lid 2. As can be seen in Fig. 3, the sidewall 8 and the recess 10 have a substantially circular shape when seen in the plan view. As furthermore can be seen in Fig. 3, the opening 18 is positioned adjacent to the rim of the base body 4 wherein the wall 8 has an inwardly directed indentation 20 adjacent to the opening 18. As furthermore can be seen from Fig. 3, the retaining part 14 has the shape of a substantially rectangular flat strip. In this embodiment, the retaining means include glue means in the form of a single gluestrip 22 which is positioned on the upper side of the retaining part 14.

[0040] The base body 4 furthermore includes an upwardly directed circular indentation 24 which defines a groove into which in the sealing position in which the lid 2 seals a container, the rim of the container fits.

[0041] Fig. 4 shows a sectional view along a line A-A in Fig. 2. As can be seen in Fig. 4, the recess 10 is substantially dome-shaped and extends downwardly from the upper rim 12 of the wall 8. According to the invention the bottom wall 9 of the recess 10 is located in the axial direction of the base body 4 in a plane-spaced apart from a plane defined by a lower rim 25 of the base body 4 towards the upper rim of the base body 4 such that the bottom wall 9 does not protrude over the lower rim 25 of the base body 4 as can be seen in Fig. 4. However,

according to the invention the bottom wall 9 may be located in a plane defined by the lower rim 25 of the base body 4. In the terms of the invention the lower rim 25 of the base body 4 is the rim of the base body 4 which faces the container if the lid 2 is mounted on a container.

[0042] In this embodiment, the receiving space defined by the recess 10 is substantially symmetrical with respect to a rotation axis 26 and has a slightly frusto-conical, almost cylindrical shape. As can be seen in Fig. 4, in the area between the flange 6 and the upper rim 12 the wall 8 is a double wall defined by an outer wall portion 8' and an inner wall portion 8''. As can be seen from Fig. 4, in this embodiment the base body 4 of the lid 2 has a two-part structure including an outer part 4' and an inner part 4". In this embodiment the outer part 4' is made from a thin-walled transparent plastics while the inner part 4" is made from a foamed, thermo-isulating plastics. As furthermore can be seen from Fig. 4, the inner wall of the outer part 4 is shaped substantially complementary to the outer wall of the inner part 4".

[0043] Fig. 5 shows a perspective view of the lid 2.

[0044] Fig. 6 shows a side view of the lid 2 in a sealing position in which the lid 2 seals a container 28 in which a cold beverage, e. g. a softdrink, or a hot beverage, e. g. coffee or tea, is received. In Fig. 6, a dotted line 30 designates a level up to which the container 28 is filled with the beverage. For sealing the container 28 by the lid 2, the lid 2 is positioned on the upper rim of the container 28 wherein the upper rim of the container 28 fits into the groove defined by the upwardly directed indentation 24 such that the lid 2 is fixed on the container 28 in a force-locking manner. As can be seen from Fig. 6, in the sealing position the lower wall 9 and therefore the recess 10 does not protrude over the lower rim 25 of the base body 4 such that a contact between liquid received in the container 28 and the lid 2 is avoided.

[0045] In use, the retaining means formed by the gluestrip 22 may be used to retain a food package on the lid 2. In this embodiment, a small plastics bag 34 containing chips has been glued to the lid 2 by the user of the container 28. In order to glue the plastics bag 34 to the lid, the user first removes a cover of the gluestrip, e. g. a strip of paper, from the gluestrip 24 and then brings the plastics bag 34 in contact with the gluestrip 22 to which it adheres. In this retaining position, the plastics bag 34 is retained on the lid 2 so that the user may carry the container 28 and the plastics bag 34 by one hand.

[0046] When the user wishes to consume the chips, he opens the plastics bag 34. Simultaneously, the receiving space may contain a dip, a sauce or the like to be consumed with the chips. Accordingly, the user may carry the beverage, the chips and the sauce by one hand in a very comfortable manner. The user may take the chips out of the plastics bag and dip them into the sauce and may consume the beverage by means of a straw 36.

[0047] In the embodiment shown in the drawings, the largest diameter D1 (see Fig. 1) of the recess corresponds to approximately 75 per cent of the inner diameter of the container such that in the embodiment the recess extends along at least approximately 75 per cent of the diameter of the container. Furthermore, the depth (D2) of the recess corresponds to approximately 75 per cent of its largest diameter (D1). Therefore, a large receiving space for food is defined by the recess 10.

[0048] If a hot beverage is received in the container 28 it is preferred that the base body 4 of the lid 2 is at least partially manufactured from a thermo-insulating material. In particular, the base body 4 may include an inner part 4' and an outer part 4" which at least partially are shaped substantially complementary to each other as it has been described with reference to Fig. 4. The outer part may be embodied as it has been described above for the base body 4 which in case of a two-part-structure may form the outer part. In addition, an inner part may be provided which is shaped substantially complementary to the outer part and which may be manufactured from a thermo-insulating material, e.g. a foamed polystyrene. In use, the inner part is received between the outer part and the container 28 thereby thermo-insulating the lid 2.

Claims

1. Lid for a mug or the like container for beverages, including a base body (4),
   wherein the base body (4) includes at least one recess (10) which is defined by a sidewall (8) and a bottom wall (9), said recess (10) forming a receiving space for food or the like,
   characterized in that
   the bottom wall (9) is located in the axial direction of the base body (4) in a plane defined by the lower rim (25) of the base body (4) or in a plane spaced apart from the plane defined by the lower rim (25) towards the upper rim of the base body (4), such that the bottom wall (9) does not protrude over the lower rim (25) of the base body (4).

2. Lid as claimed in claim 1, **characterized in that** the base body (4) includes a flange (6) for positioning the lid (2) on the rim of a container (28) to be sealed by the lid (2).

3. Lid as claimed in claim 1 or 2, **characterized in that** the base body (4) includes a preferably continuous circumferential sidewall (8) which extends upwardly from the flange (6) up to an upper rim (12) of the base body (4) from which the recess (10) extends downwardly.

4. Lid as claimed in any of the preceding claims, **characterized in that** the recess (10) extends along a substantial part of the diameter of the container (28) to be sealed by the lid (2).

5. Lid as claimed in any of the preceding claims, **characterized in that** the recess (10) extends along at least approximately 50 per cent, preferably approximately 75 per cent of the diameter of the container (28) to be sealed by the lid (2).

6. Lid as claimed in any of the preceding claims, **characterized in that** the depth (D2) of the recess (10) corresponds to at least approximately 20 per cent, preferably at least approximately 50 per cent, in particular at least approximately 70 per cent of its diameter (D1).

7. Lid as claimed in any of the preceding claims, **characerized in that** the receiving space is substantially symmetrical with respect to rotation.

8. Lid as claimed in claim 7, **characterized in that** the receiving space has a substantially cylindrical shape.

9. Lid as claimed in claim 7 or 8, **characterized in that** the receiving space has a substantially conical or frusto-conical shape.

10. Lid as claimed in any of the preceding claims, **characterized in that** the base body (4) includes retaining means for retaining a food packaging on the lid, in particular a small plastics bag or the like.

11. Lid as claimed in claim 10, **characterized in that** the retaining means are arranged for retaining the food packaging in a detachable manner.

12. Lid as claimed in claim 10 or 11, **characterized in that** the retaining means include clamping means.

13. Lid as claimed in any of the preceding claims 10 to 12, **characterized in that** the retaining means include glue means.

14. Lid as claimed in claim 13, **characterized in that** the glue means include at least one gluestrip (22).

15. Lid as claimed in any of the preceding claims 10 to 14, **characterized in that** the retaining means are located on a retaining part (14) which is connected to the base body (4) in a hinge-like manner.

16. Lid as claimed in any of the preceding claims, **characterized in that** the base body (4) is manufactured from plastics or the like.

17. Lid as claimed in any of the preceding claims, **characterized in that** the base body (4) is at least partially manufactured from a thermo-insulating material.

18. Lid as claimed in any of the preceding claims, **characterized in that** the base body (4) is composed of at least two parts.

19. Lid as claimed in claim 17 and 18, **characterized in that** at least one of the parts is manufactured from a thermo-insulating material.

20. Lid as claimed in claim 17, **characterized in that** the base body (4) includes an inner part (4") and an outer part (4') which at least partially are shaped substantially complementary to each other such that one of the parts (4") may be inserted into the other (4').

21. Lid as claimed in claims 17 and 20, **characterized in that** the inner part (4") is made from a thermo-insulating material.

22. Mug or the like container for beverages, **characterized in that** it includes a lid (2) as claimed in any of the preceding claims.

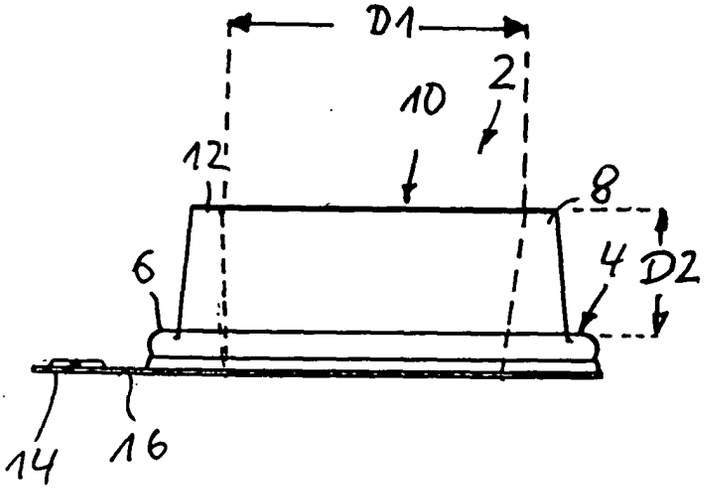

FIG. 1

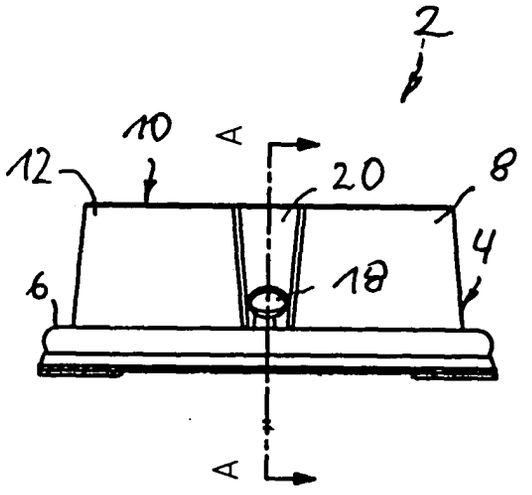

FIG. 2

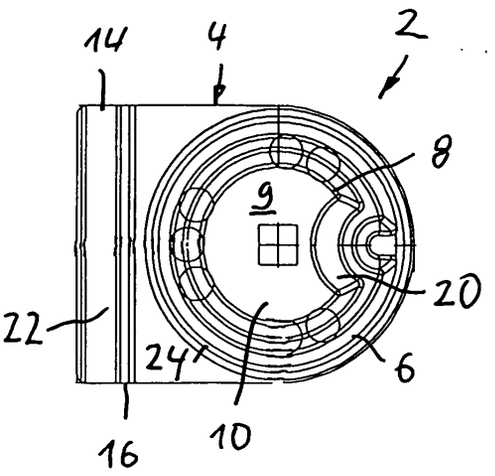

FIG. 3

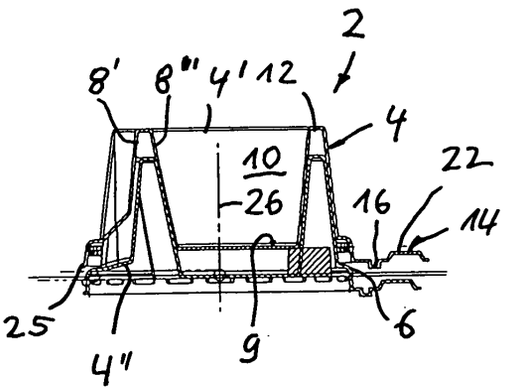

FIG. 4

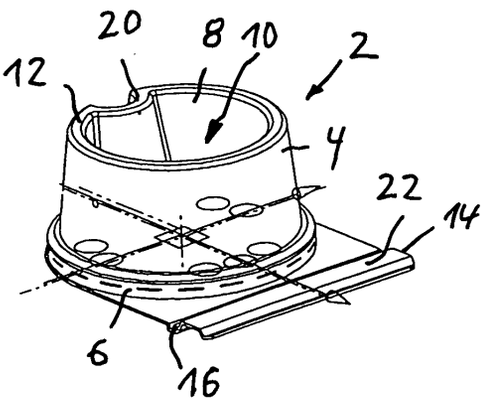

FIG. 5

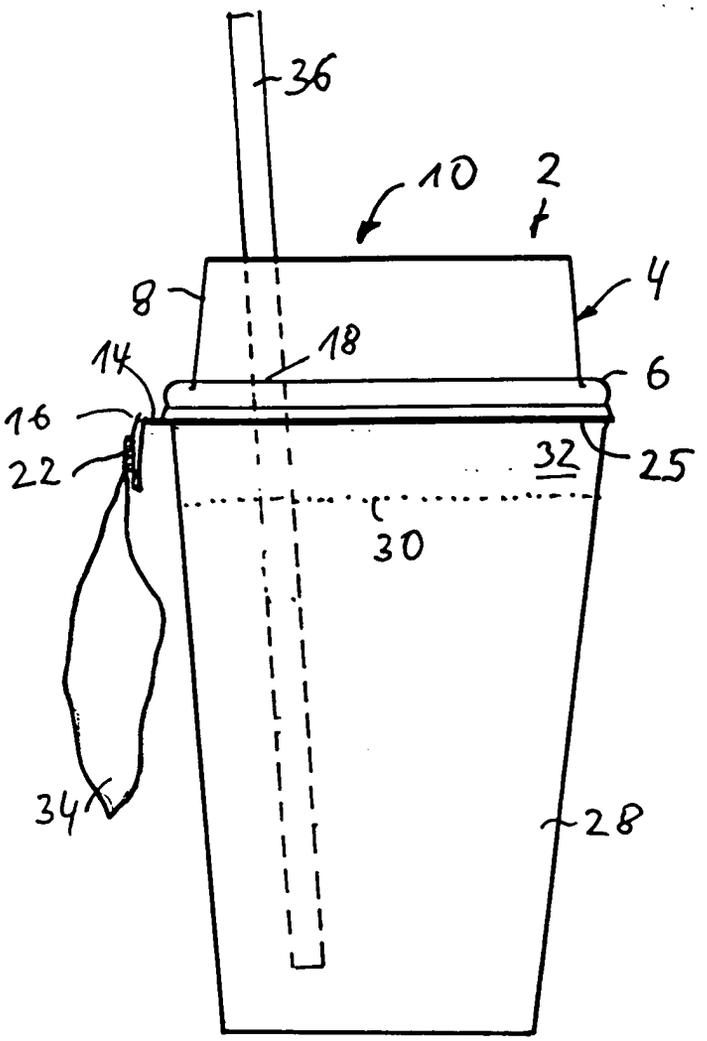

FIG. 6

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EUROPEAN SEARCH REPORT

Application Number
EP 05 00 3361

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	US 3 598 271 A (DANFORTH HOLLEY) 10 August 1971 (1971-08-10) * column 2, line 3 - line 71; figures *	1-22	B65D51/28 B65D81/32 A47G19/22
X	GB 2 291 864 A (* SENOBLE S.A) 7 February 1996 (1996-02-07) * page 3, line 4 - line 24; figures *	1-22	
X	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 03, 27 February 1998 (1998-02-27) & JP 09 295663 A (TOKAN KOGYO CO LTD), 18 November 1997 (1997-11-18) * abstract *	1-22	
A	WO 03/106292 A (GANNON GLEN CHARLES ; SMITH ADAM (AU)) 24 December 2003 (2003-12-24) * page 10, line 6 - page 15, line 28; figures 1-4 *	1-22	
D,A	US 4 183 444 A (ENGLISH IRENE F ET AL) 15 January 1980 (1980-01-15) * column 3, line 23 - column 4, line 43; figures *	10-15	TECHNICAL FIELDS SEARCHED (Int.Cl.7) B65D A47G
D,A	EP 1 371 309 A (BELGIAN CATERING SYSTEMS N V) 17 December 2003 (2003-12-17) * the whole document *	10-15	
D,A	US 2003/054078 A1 (RICHMOND MIKE ET AL) 20 March 2003 (2003-03-20) * column 3, paragraph 3 - column 5, paragraph 3; figures *		

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	21 June 2005	Vistisen, L

CATEGORY OF CITED DOCUMENTS

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EUROPEAN SEARCH REPORT

Application Number
EP 05 00 3361

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)
D,A	US 2003/157224 A1 (WESTERHOF DAVID J ET AL) 21 August 2003 (2003-08-21) * column 5, paragraph 2 - column 4, paragraph 2; figures 1-11 *		
A	US 5 180 079 A (JENG ET AL) 19 January 1993 (1993-01-19) * column 1, line 67 - column 2, line 64; figures *	16-22	

TECHNICAL FIELDS SEARCHED (Int.Cl.7)

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	21 June 2005	Vistisen, L

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21-06-2005

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 3598271 A	10-08-1971	NONE	
GB 2291864 A	07-02-1996	FR 2723074 A1	02-02-1996
		IT RM950500 A1	29-01-1996
JP 09295663 A	18-11-1997	NONE	
WO 03106292 A	24-12-2003	WO 03106292 A1	24-12-2003
		AU 2003233257 A1	31-12-2003
US 4183444 A	15-01-1980	NONE	
EP 1371309 A	17-12-2003	NL 1020828 C1	15-12-2003
		EP 1371309 A1	17-12-2003
US 2003054078 A1	20-03-2003	US 6528105 B1	04-03-2003
		AU 7367801 A	30-01-2002
		CA 2403487 A1	24-01-2002
		EP 1301111 A2	16-04-2003
		MX PA02009446 A	12-02-2003
		WO 0205691 A2	24-01-2002
		US 2003157224 A1	21-08-2003
US 2003157224 A1	21-08-2003	US 6528105 B1	04-03-2003
		AU 7367801 A	30-01-2002
		CA 2403487 A1	24-01-2002
		EP 1301111 A2	16-04-2003
		MX PA02009446 A	12-02-2003
		WO 0205691 A2	24-01-2002
		US 2003054078 A1	20-03-2003
US 5180079 A	19-01-1993	NONE	

EPO FORM P0459

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