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

(11) **EP 1 892 196 A1**

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
27.02.2008 Bulletin 2008/09

(51) Int Cl.:
B65D 51/18 *(2006.01)* ***B65D 43/02*** *(2006.01)*

(21) Application number: **07114949.6**

(22) Date of filing: **24.08.2007**

(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 LV MC MT NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK YU

(30) Priority: **24.08.2006 SE 0601736**

(71) Applicant: **Familjen Olssons Kött & Charkuterier AB**
418 78 Göteborg (SE)

(72) Inventor: **Olsson, Uno**
436 44 Göteborg (SE)

(74) Representative: **Valea AB**
Lindholmspiren 5
417 56 Göteborg (SE)

(54) Resealable packaging for sliced foods

(57) The invention relates to a packaging comprising a rigid container (100) formed of a material which is approved for the storage of food products, said container (100) being provided with an edge flange (108) against which a plastic film (110, 310) can be sealed wherein a rigid, removable lid (105, 205, 405, 505) of a material which is approved for the storage of food products is arranged under said plastic film (110, 310), within the container (100). The packaging is suitably intended for sliced delicatessen products, such as sliced sandwich filling or cold-cured meats, but can naturally be used for other food products.

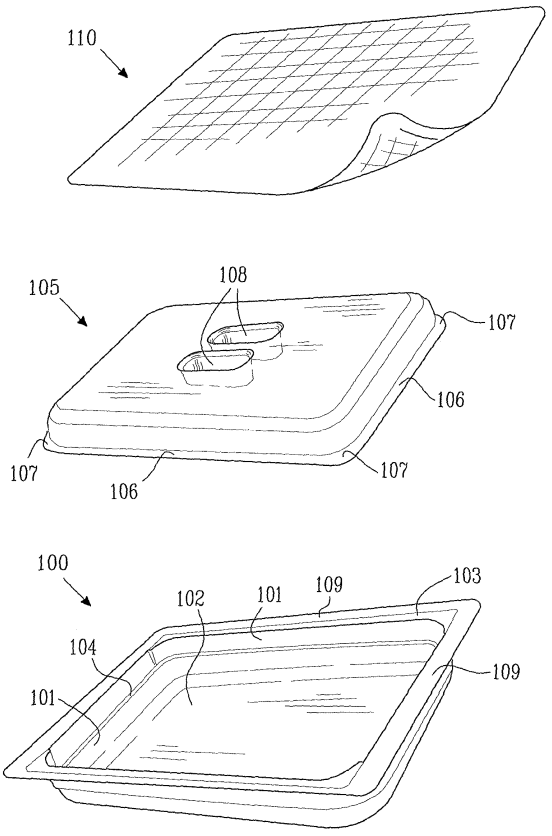

Fig. 1

EP 1 892 196 A1

Description

TECHNICAL FIELD

[0001] The present invention concerns resealable packaging for sliced delicatessen products, such as e.g. sliced sandwich filling or topping, comprising a trough and a sealing plastic film.

BACKGROUND OF THE INVENTION

[0002] The route taken by food products from the producer to the consumer is surrounded by many risks and requirements. The packaging is therefore an important part of the product's design. The packaging should protect against various degradation processes, chemical, biological and climatic effects and not least mechanical damage. It should perform during manufacture, during transport and during handling in storage, shops and the home. The packaging must also live up to a series of environmental requirements, and the norms and laws of various markets.

[0003] There are primarily three different types of packaging for sliced delicatessen products on the market today. The traditional vacuum packaging is a packaging which does not contain anything but the product itself. It does not contain air or any other gas. The so-called "wallet" packaging is a plastic bag which is sealed at both ends and then folded together, often in a triple-fold, and is fastened with a sticker or a piece of tape. The third type, which is becoming more and more common, comprises a plastic trough which is covered by a removable plastic film. In the two latter types, the food product is often packaged with a gas which provides an oxygen-free environment.

[0004] The disadvantage with the above packaging types is that, once the packaging has first been opened, it cannot be sealed again in a satisfactory manner. To maintain product lifetime and prevent the food product drying out until it is consumed, the packaging must be wrapped in yet another sealable packaging, e.g. a plastic bag or a container with a lid. Alternatively, the product can be transferred to a new sealable packaging. Such methods always provide disadvantages, as all handling of food products carries a risk of contamination and reduced lifetime.

[0005] The aim of the present invention is to produce a packaging which can be resealed an unlimited number of times after the long-term sealing has been broken. By providing an accompanying lid in the packaging, the food product can be stored in its original packaging without drying out or losing its freshness until it is consumed.

SUMMARY OF THE INVENTION

[0006] According to the invention, a packaging has now been provided with comprises a removable lid which can be used while storing the food product, and which can then easily be removed when the product is to be served. The packaging comprises a trough which is sealed with a plastic film, under which a loose lid is arranged. The lid has a cupped form which fits on the inside of the trough under the plastic film. Before the product is first used, the sealing plastic film is pulled completely off the edges of the trough. When the plastic film has been removed, the removable curved lid is revealed, which has a shape such that it fits the inside of the trough and simultaneously covers the food product to be stored. The lower edges of the lid lie with their lower edges against the inside/bottom of the trough and thereby completely cover the food product. When the product is to be served, the lid is removed from the trough by suitably gripping two recesses in the lid's upper side which are shaped to provide a good grip to lift the lid. The lid is then lifted up out of the trough. The product can now be served directly from the trough without further handling of the food product or the inside of the trough.

[0007] After serving, and before continued storage, the food product can be re-covered by the lid by gripping the two recesses on the upper side of the lid and placing the lid in the trough. The lower edges of the lid are formed with a flange projecting outwards from the lower edge, which - when the lid is in place in the trough - preferably lie on a inwardly-curved ledge which is provided along the lower portion of the walls, on the inside of the trough. In this way, the flange of the lid and the ledge form a seal against the surroundings. The width of the lid flange is somewhat greater in the corners than along the edges. This means that, when the lid is placed on the ledge, the flange is bent upward somewhat in the corners and in this way, creates resistance against the walls on the inside of the trough so that the lid is locked in place inside the trough and is prevented from coming loose.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] The invention will now be described in more detail using some preferred embodiments, with reference to the enclosed Figures, in which:

Fig. 1 shows the various parts of the packaging;
Fig. 2a shows a magnification of the sealing between the lid flange and the container ledge;
Fig. 2b shows in detail how the flange on the corners of the lid provides a resilient locking of the lid against the inner walls in the corners of the container:
Fig. 3 shows an alternative embodiment of the sealing between the lid and the container;
Fig. 4 shows another embodiment of the sealing between the lid and the container.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0009] According to Figure 1, a preferred embodiment of the packaging is shown, which comprises a rigid con-

tainer 100 which can have the form of a beaker, a trough, a box, a tray or the like. The container 100 preferably has a square, rectangular or polygonal form, but can even be round or oval and is made of plastic, cardboard, polystyrene, laminated plastic, laminated cardboard or similar material which is approved for the storage of food products. Preferably the container 100 is made of a material selected from the group comprising polypropylene, polyethylene, polyester, polystyrene, or mixtures of these materials. The container can also be laminated with material such as plastic or aluminium. For materials which are approved for the storage of food products, reference is made to the statutes of the Swedish National Food Administration (Livsmedelsverket) LIVSFS 2003:2. The space in the container 100 in which the food product is stored is defined by the container's side walls 101, a bottom 102 and the upper edge of the side walls 103. The food product, which is preferably manufactured such that it can be served directly (e.g. sliced, sliced and folded or diced) from the container 100 is intended to be placed on the bottom 102. An inward bend is located along the lower portion of the side walls 101, above the bottom 102, which forms a ledge 104 extending along the entire inside of the container 100.

[0010] A rigid lid 105 is arranged within the container 100. The lid can be made of plastic, cardboard, plastic-coated cardboard, polystyrene or similar material which is approved for the storage of food products (see above). Preferably, the lid 105 is made of a flexible and supple plastic material such as e.g. polypropylene, polyethylene, polyester, polystyrene, or a mixture of these materials. The lid 105 has the same shape (i.e. square, rectangular, polygonal, round or oval) as the container 100, but the size is adjusted so that it fits in the space defined by the inside of the side walls 101, the ledge 104 and the upper edge 103 of the container 100. An outwardly-projecting flange 106 extends from the lower edge of the lid 105. When the lid is arranged in the container 100, the flange 206 of the lid lies on the ledge 204 along the side walls 201 in the container 100 (Figure 2a), and in this way, seals the space under the lid in which the food product is contained. In the corner of the lid, the flange 106 is somewhat wider than along the straight edges, which means that - when the lid is set in place - the flange is bent upwards in the corners due to friction against the wall of the container 100. The upwardly-bent flange in the corners of the lid form locking projections 207 when they press resiliently against the inner walls of the container and thereby keep the lid 205 in place within the container 100 (Figure 2b).

[0011] The upper side of the lid 106 is formed with two recesses 108 which are designed to be readily gripped with two or more fingers so as to lift the lid 105 out of or into the container 100. The plastic in the recesses 108 can optionally be roughened to offer a better grip. The upper side of the lid can be optionally decorated with a relief.

[0012] The container 100 has an edge flange 109 around its opening which extends along the entire circumference of the opening. A plastic film 110 is glued or heat-sealed to this edge flange 109, which covers the opening of the container 100. The plastic film 110 is formed of a material which is approved for the storage of food products, e.g. polyethylene, cellophane. After heat-sealing with the plastic film 110, the packaging is gas-impermeable, which means that the food product is protected against exchange of air with the surroundings. This provides extended lifetime of the product after packaging.

[0013] Figure 3 shows how the covering plastic film 310 can be provided with a corner which has not been heat-sealed entirely out to the edge. This makes opening of the packaging easier. Alternatively, the plastic in one corner of the container 100 can be provided with a special slitted bias, which also makes it easier to remove the plastic film 310.

[0014] Figure 4 shows an alternative embodiment in which the ledge along the side walls 401 of the container 100 comprises instead a bulge in the form of a shelf or a ridge 404. Upon placing the lid 405 in the container 100, the lid is pressed down the side walls 401 on the inside of the container 100, so that the lid flange 406 passes over the ridge 404 and comes to rest on the bottom 402 of the container 100. In this embodiment, the locking projections 407 around the corners of the lid press against the walls in the corners near the bottom of the container 492. As the flange 406 is both locked under the ridge 404 and the locking projections 407 press against the corners, the lid 405 is prevented from coming loose.

[0015] Figure 5 shows another alternative embodiment of the present invention. In this embodiment, the side walls 501 have a recess 504 along the entire inside of the container, near the bottom 502. Upon placing the lid 505 in the container 100, the lid is pressed down along the side walls 501 on the inside of the container 100, so that the lid flange 506 reaches the recess 504 so as to lie on the bottom 502 of the container 100. In this embodiment, the locking projections 507 on the corners of the lid press against the inside of the walls in the corners of the container near the bottom 502 and the lid is prevented from coming loose by the flange 506 being locked in the recess 504 and - at the same time - the locking projections 507 press against the corners in the container 100.

[0016] The embodiments presented in Figures 4 and 5 are advantageously used when the container 100 has a round or oval form in which there are no corners in the inside of the container against which the locking projections 407, 507 can press against. In a round or oval embodiment, the lid flange 406/407, 506/507 is pressed down along the walls on the inside of the container, past the ridge 404 or down to the recess 504. Flange 406/407, 506/507 presses against the walls of the container, along the entire inside of the container and thereby locks the lid 405, 505 against the inside of the container 100.

[0017] The seal which is formed between the flange 106, 206, 406, 506 of the lid and the ledge 104, 204, or the bottom 402, 502 is not a gas-impermeable seal. The seal corresponds to covering a food dish or bowl which has no lid with a plastic film such as Gladpack®. Similarly to plastic films, the lid protects the covered product from dirt, drying-out and contact when it is placed in the packaging according to the invention.

[0018] Upon packaging the product, the food product is placed on the bottom 103 of the container 100. The lid 105 is applied inside the container so that the edge flange 106 of the lid lies on the ledge 104, at the same time as the flange 106 in the corner of the lid squeezes the lid tightly in the correct position by pressing against the corners of the container 100. The plastic film 110 which completely covers the opening of the container is welded and pressed tightly against the edge flange 109 of the container so that a gas-tight packaging is created. Suitably, the inner lid 105 has a height such that it lies level with the upper edge of the trough, which means that the covering plastic film 110 easily presses the lid 105 downwards and thereby holds the lid 105 and the underlying food product in place. To increase the lifetime of the food product, one can replace the air in the packaging with so-called lifetime-preserving gases. When used in combination with cold storage, lifetimes of a number of weeks up to many months can be obtained for "fresh" food products. The gases which are most commonly used are nitrogen (N_2) or carbon dioxide (CO_2).

[0019] The container 100 and the lid 105 are preferably manufactured using vacuum-moulding, injection moulding or any other suitable moulding method for plastics.

[0020] The packaging is suitably intended for sliced delicatessen products, such as sliced sandwich filling or cold-cured meats, but can naturally be used for other food products.

Claims

1. Packaging comprising a rigid container (100) formed of a material which is approved for the storage of food products, said container (100) being provided with an edge flange (108) against which a plastic film (110, 310) can be sealed and a rigid, removable lid (105, 205, 405, 505) of a material which is approved for the storage of food products arranged under said plastic film (110, 310), within the container (100) **characterised in that** the removable lid (105, 205, 405, 505) is formed with a flange (106, 206, 406, 506) projecting outwards from the lower edge thereof, having locking projections (107, 207, 407, 507) in the corners of the lid, wherein the projections (107, 207, 407, 507) are resiliently arranged against the walls in the corners of the inside of the container (100).

2. Packaging according to claim 1, **characterised in that** the rigid container (100) has a square, rectangular, polygonal round or oval form.

3. Packaging according to claim 2, **characterised in that** the rigid lid (105, 205) has the same shape as the rigid container (100).

4. Packaging according to claim 1, **characterised in that** the rigid container (100) is in the form of a beaker, a trough, a box, a tray or the like.

5. Packaging according to claim 1, **characterised in that** the material which is approved for the storage of food products is selected from the group of packaging materials which comprises plastic, laminated plastic, cardboard, plastic-coated cardboard, plastic or cardboard laminated with aluminium or polystyrene.

6. Packaging according to claim 1, **characterised in that** the container (100) is provided with a ledge (104, 204) which extends along the inside of the container (100).

7. Packaging according to claim 6, **characterised in that** - upon locating the lid (105, 205) within the container (100) - the outwardly-projecting flange (106, 206) of the removable lid (105, 205) lies on the ledge (104, 204).

8. Packaging according to claims 1-5, **characterised in that** the container (100) is provided with a ridge (404) which extends along the inside of the container (100).

9. Packaging according to claim 8, **characterised in that** - upon locating the lid (405) in the container (100) - the outwardly-projecting flange (406) of the removable lid (405) is arranged to lie below the ridge (404) on the bottom (403) of the container (100).

10. Packaging according to claim 9, **characterised in that** - upon locking the lid (405) within the container (100) - the locking projection (407) is resiliently arranged against the walls in the corners of the inside of the container (100).

11. Packaging according to claims 1-5, **characterised in that** the container (100) is provided with a recess (504) which extends along the inside of the container (100).

12. Packaging according to claim 11, **characterised in that** - upon locating the lid (505) in the container (100) - the outwardly-projecting flange (406) of the removable lid (505) is arranged to lie in the recess (504) on the bottom (503) of the container (100).

13. Packaging according to claim 12, **characterised in that** - upon locking the lid (505) within the container (100) - the locking projection (507) is resiliently arranged against the walls in the corners of the inside of the container (100).

14. Packaging according to claims 1-12, **characterised in that** the lid (105) is provided with two recesses (108) which are suitable for gripping to lift the lid (105) or for inserting into the container (100).

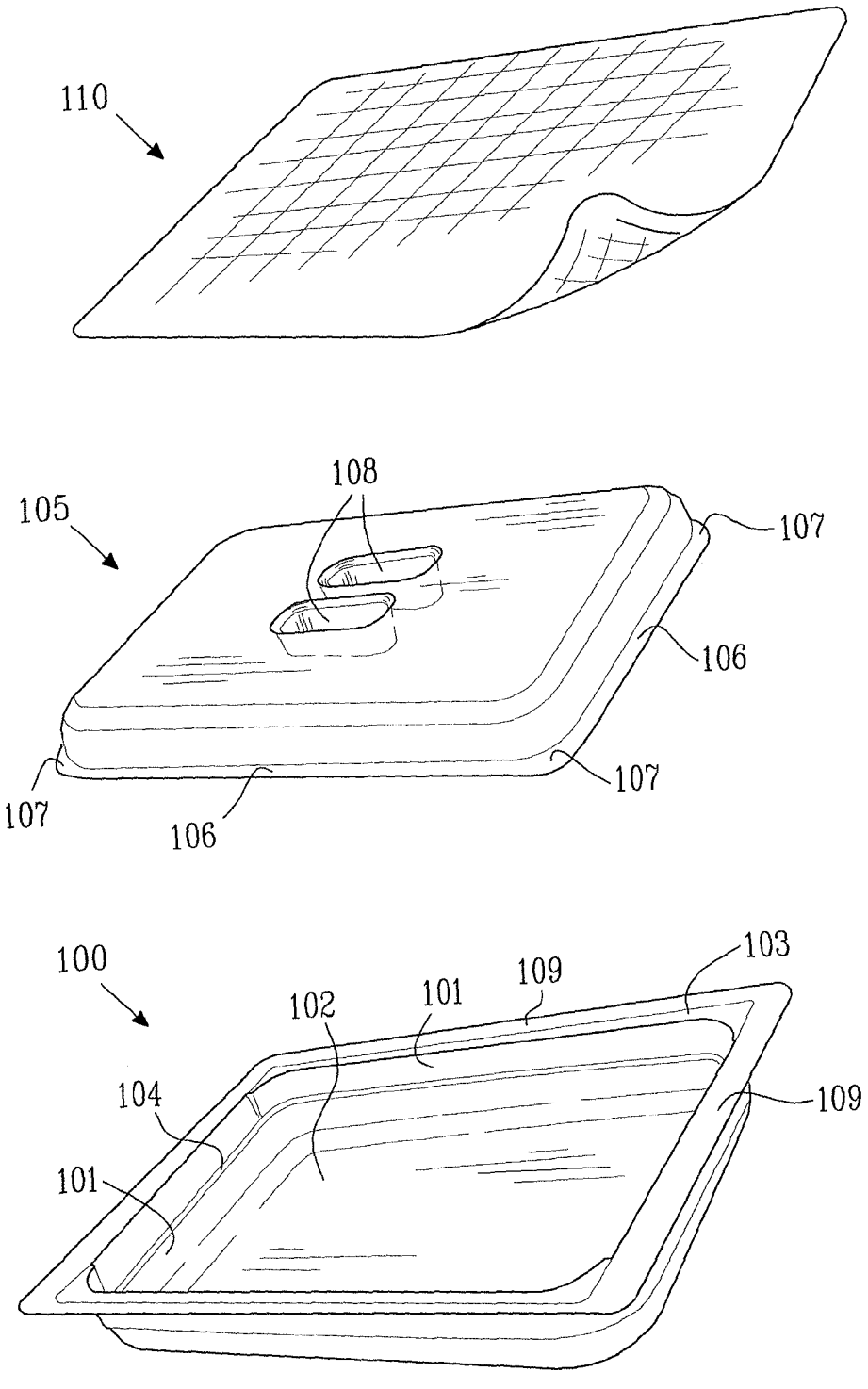

Fig. 1

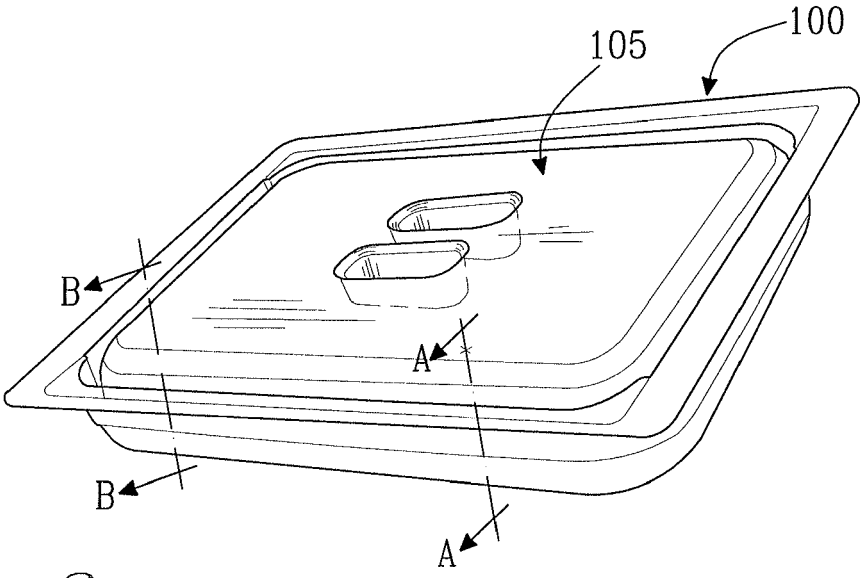

Fig.2

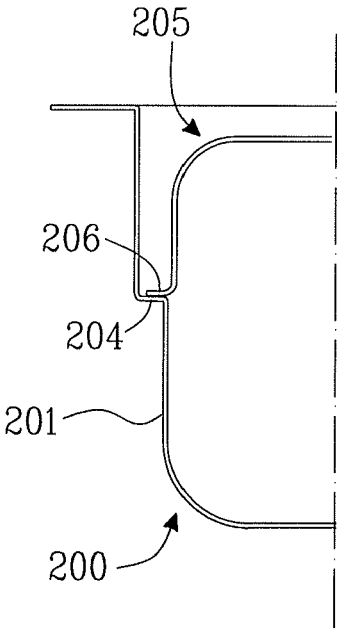

Fig.2A

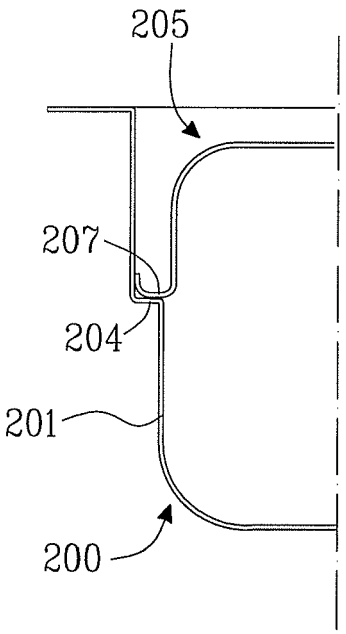

Fig.2B

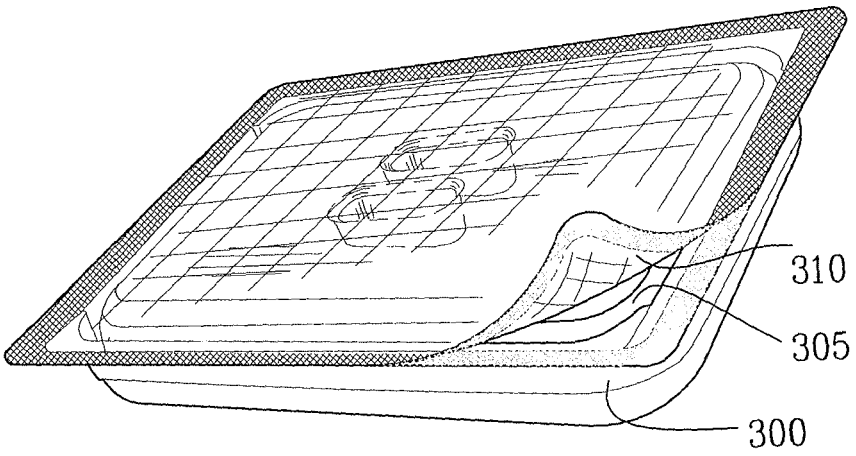

Fig. 3

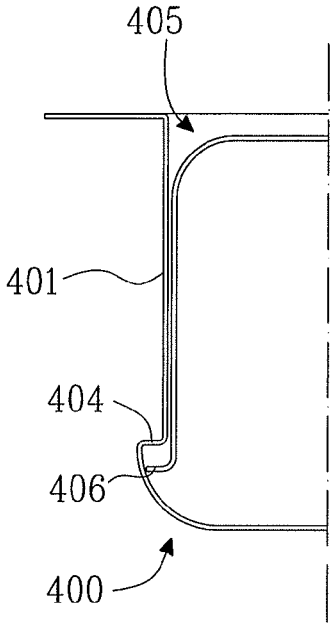

Fig.4A

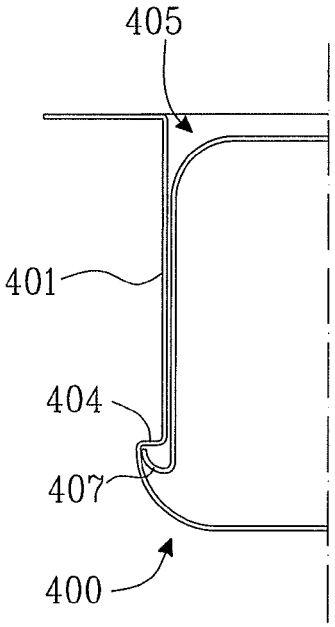

Fig.4B

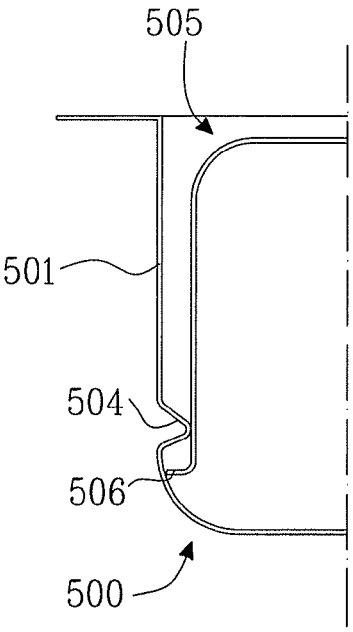

Fig.5A

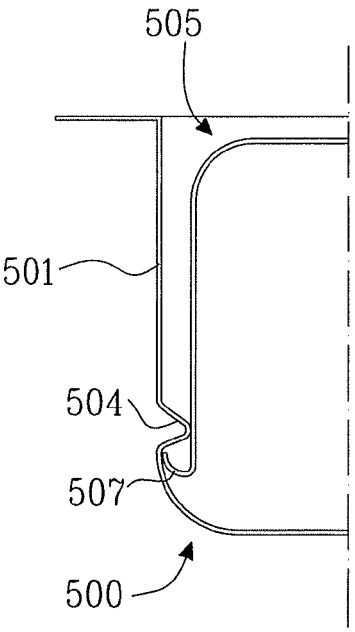

Fig.5B

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 07 11 4949

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	GB 2 350 353 A (POLARCUP LTD [GB]) 29 November 2000 (2000-11-29) * page 5, line 6 - page 7, line 15; figures 1-7 *	1-7, 11-13	INV. B65D51/18 B65D43/02
X	GB 2 125 380 A (BETTERWARE PRODUCTS LIMITED) 7 March 1984 (1984-03-07) * page 1, line 66 - page 2, line 63; figures 1-6 *	1-7, 11-14	
A	EP 0 339 807 A (MB GROUP PLC [GB]) 2 November 1989 (1989-11-02) * column 2, line 36 - column 3, line 14; figures 1-3 *	1-7,14	
A	DE 15 36 078 A1 (HOEFLINGER & KARG) 23 July 1970 (1970-07-23) * the whole document *	1-14	
A	FR 1 499 662 A (HASSIA VERPACKUNGSMASCHINEN G) 27 October 1967 (1967-10-27) * page 2, left-hand column, line 24 - line 55; figures 1-4 *	1-5,14	TECHNICAL FIELDS SEARCHED (IPC) B65D
A	US 3 344 974 A (DONALD BOSTROM JOHN) 3 October 1967 (1967-10-03) * column 7, line 59 - column 8, line 30; figures 1-3,11 *	1-7	
A	EP 1 577 072 A (PREVEX AB OY [FI]) 21 September 2005 (2005-09-21) * abstract; figures 4,5 *	1	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	19 December 2007	Galli, Monia

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 07 11 4949

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.

19-12-2007

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 2350353 A	29-11-2000	NONE	
GB 2125380 A	07-03-1984	NONE	
EP 0339807 A	02-11-1989	DE 68902003 D1	13-08-1992
		DE 68902003 T2	24-12-1992
		ES 2034616 T3	01-04-1993
		GB 2217302 A	25-10-1989
		GR 3005793 T3	07-06-1993
		US 4924048 A	08-05-1990
		ZA 8902367 A	28-02-1990
DE 1536078 A1	23-07-1970	NONE	
FR 1499662 A	27-10-1967	NONE	
US 3344974 A	03-10-1967	BE 685504 A	16-01-1967
		CH 459053 A	30-06-1968
		DE 1536101 A1	14-08-1969
		DK 111873 B	14-10-1968
		GB 1145764 A	19-03-1969
		NL 6611573 A	20-02-1967
		NO 121029 A	
		NO 121029 B	04-01-1971
		SE 315846 B	06-10-1969
EP 1577072 A	21-09-2005	NONE	

EPO FORM P0459

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