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(54) **Food container**

(57) The present invention relates to a food container (1) comprising a tray (3) suitable to house a food item and which comprises a perimetric edge (7), a lid (2) suitable to cover this tray (3) and means (5) for removably connecting the tray (3) to the lid (2).

The connecting means (5) comprise a seat (10) formed in the lid (2), which is suitable to be reversibly engaged by the edge (7), and comprises diametrically opposite deformable engaging portions (27) alternating with deforming portions (28) such that, when a pressure force is applied at the level of said deforming portions (28), that causes the same to approach each other, the engaging portions (27) are consequently deformed by moving away from each other, thereby allowing said edge (7) to be disengaged.

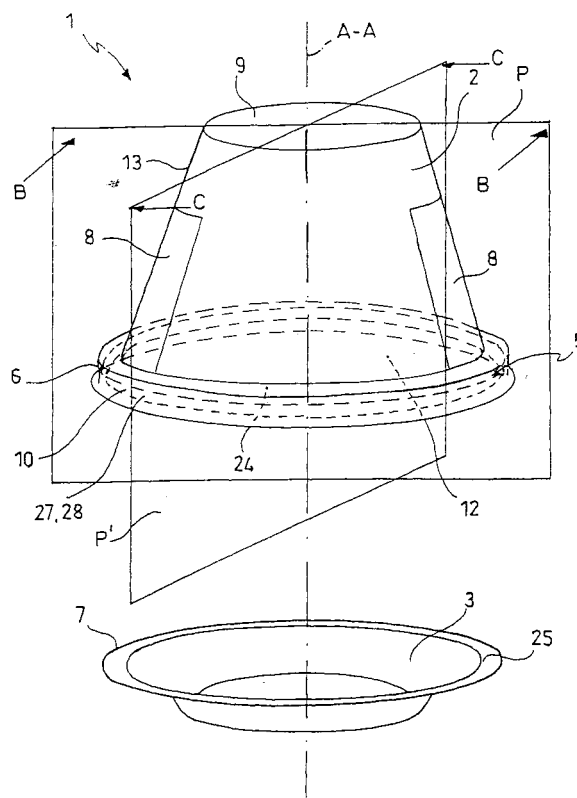


FIG.1

Description

[0001] The object of the present invention is a food container and, more particularly, items of gastronomy, ice-cream, or confectionery such as puffs, ice-creams or the like.

[0002] Known food containers generally comprise a tray having varying shapes, the food item being accommodated thereon, and a lid that is often transparent such that the food item is visible and thus more inviting to the user-consumer.

[0003] These prior art containers are shaped such that a stable contact is ensured between the tray and the lid in the closed position (i.e. when the container is closed) while allowing the consumer to mutually unfasten and fasten them (i.e. to open and close the container).

[0004] The stable contact between tray and lid is typically provided by connecting means providing a form coupling throughout a contact perimeter. The tray, in fact, comprises a relief extending all around the perimeter thereof, which in the cross-section keeps substantially a constant shape all around this perimeter and is housed in a corresponding perimetric seat that is comprised within the lid and also has, in the cross-section thereof, a substantially constant shape all around the perimeter thereof, which is substantially complementary to the relief of the tray, such as to prevent said relief from coming off said seat (i.e. avoiding that the container may be inadvertently opened) when the container is in the closed position.

[0005] Furthermore, the lid is provided with pre-cut or weakened portions such as to facilitate the breakage thereof and open the container thus allowing access to the product.

[0006] Although this opening is simple and substantially effective, yet it is not suitable for small sized products, such as pastries, cakes or little pies. In fact, it has been observed that a sudden movement of the container is easily caused upon breaking said portions, which results in that the product violently hits the walls thereof or overturns, thus deteriorating.

[0007] Alternatively, containers exist which are provided with tubs engaging purposely-made lids. These containers, however, do not allow using the commonly used food trays.

[0008] The technical problem at the heart of the present invention is thus to provide a container that can be opened without causing deterioration to the products contained therein, mainly in the event of small-sized food products, and that allows using conventional trays.

[0009] This problem is solved by a food container comprising an opening system that does not require sudden movements of the container and that can use conventional trays for food, such as covered by the annexed main claim.

[0010] In order to better understand the invention and appreciate the advantages thereof, some embodiments will be described herein below, with reference to the an-

nexed figures, in which:

[0011] - Fig. 1 is a schematic, exploded, perspective view of the container according to an embodiment of the invention;

[0012] - Fig. 2a and 2b are two schematic, sectional views of the container from Fig. 1 in two different planes, respectively;

[0013] - Fig. 3 is a schematic top view of a detail of the container from Fig. 2a and 2b in a first condition of use;

[0014] - Fig. 4 is a schematic top view similar to that of Fig. 2 of the container in a second condition of use;

[0015] - Fig. 5 is a perspective view of the assembled container.

[0016] With reference to the figures, a food container is generally designated with numeral 1. The container 1 comprises a lid 2 and a tray 3. Particularly, said lid 2 comprises a side wall 13 and a bottom wall 9 defining a blind cavity 12 suitable to accommodate the tray 3 and a food item (not shown in the figures).

[0017] The container 1 comprises means 5 for removably connecting the lid 2 and the tray 3, which are shaped such as to ensure a stable coupling in the closed position and an easy uncoupling upon opening.

Said connecting means 5 comprise a seat 10 formed in said lid 2 which is suitable to releasably engage said edge 7, said seat 10 comprising diametrically opposite deformable engaging portions 27 alternating with deforming portions 28 such that when a pressure force is applied to said deforming portions 28 that causes the same to approach each other, the engaging portions 27 are consequently deformed by moving away from each other, thereby allowing said edge 7 to be disengaged. Particularly, the seat 10 is formed on an inner surface of the side wall 13 of the lid 2 and extends throughout the perimeter thereof, whereas the edge 7 is formed in the tray 3 and extends throughout the perimeter thereof.

[0018] In accordance with an embodiment of the invention, the lid 2 is substantially shaped as a truncated cone extending along an axis A-A, which is preferably tapered towards the bottom wall 9. The side wall 13 has an undulated development due to a plurality of waves 16 (Fig. 5), whereas the bottom wall 9 is substantially plane.

[0019] The wall 13 preferably has a projecting perimetric ring 6 at the free end thereof. This perimetric ring 6 forms, inside the lid 2, an abutment surface 24 that is substantially plane and faces said free end. Furthermore, said ring 6 comprises the seat 10.

[0020] The seat 10, having a substantially circular, preferably substantially elliptical shape having almost overlapped foci, comprises two engaging portions 27 that are curved and diametrically opposite relative to the axis A-A of the lid 2 and connected to two deforming portions 28, which are also curved and diametrically opposite relative to said axis A-A. Preferably, the engaging portions 27 comprise an undercut suitable for snap-receiving the edge 7 of the tray 3, such as will be detailed below, and a prompt surface 30 for inserting said edge 7 (Fig. 2b). The deforming portions 28 comprise, on the other hand,

a substantially plane, preferably flared surface 29.

[0021] From the ring 6 there starts an annular rim 18 extending away from the axis A-A. Due to this annular rim 18, the lid 2 or, if required, the whole assembled container 1 can be stably placed on a support surface.

[0022] Further advantageously, the lid 2 is either transparent or opaque, such that the food item contained therein is visible from the outside.

[0023] The side wall 13 advantageously comprises pressure regions 8 such that, when pressure forces are applied thereto, deformations are induced on the lid 2 that allow, starting from the closed position, uncoupling said lid 2 and said tray 3, as will be detailed below.

[0024] Preferably, the pressure regions 8 are formed by two portions 23 of the side wall 13 having a substantially plane outer surface. Furthermore, said portions 23 are preferably positioned in diametrically opposite positions.

[0025] Advantageously, said pressure region 8 comprise alphanumeric markers 17 such that the region on which the pressure forces must be applied is visible to the user. An example of alphanumeric marker is the wording "PUSH".

[0026] The tray 3 has a generally plane and circular shape, on which food items are rested. Said tray 3 comprises the edge 7 for said engagement with the seat 10 of the lid 2 and advantageously a perimetric abutment surface 25 that, by abutting against the abutment surface 24 of the ring 6 of the lid 2, avoids that the tray 3 may axially move upwards when the container is closed. Preferably, the tray 3 is substantially shaped as a flat truncated cone having a blind cavity 4 that is defined by a side wall 19 and a bottom wall 20. Preferably, particularly, its height is dimensionally lower than its width. Said cavity 4 acts as the housing for the food item.

[0027] Advantageously, the side wall 19 has a substantially stepped development.

[0028] Further advantageously, the bottom wall 20 comprises an elevation 21 on which the food item can be placed. Preferably, this elevation 21 has an knurled upper surface, in order to ensure a suitable friction with the food item and avoid that the same may undesirably move.

[0029] In accordance with a further embodiment of the invention, the edge 7 of the tray 3 comprises decorative petals 22, on which there is formed a corner 11. The tray 3 comprising said decorative petals 22 can be substantially inscribed in a circle (not shown in Fig. 5).

[0030] In accordance with a further embodiment, the tray 3 is covered on top with a layer of material capable of reflecting the light, for example a layer of gilded material.

[0031] The operation of the container will be now described with reference to the figures.

[0032] Opening and closing the container according to the invention are very simple operations. To close the container 1, it is sufficient to place the lid 2 on the tray 3, approximately coaxially thereto, and apply a slight pres-

sure on the lid 2, for example on the bottom surface 9. Following said pressure, the edge 7 is constrained by the prompt surface 30 until it overcomes the same and is snap-expanded into the substantially diametrically opposite engaging portions 27 comprised within the seat 10 which form the undercut. Due to the provision of the undercut, the tray 3 can't come off the lid 2 in the absence of forces applied by the user.

[0033] To open the container 2, a slight pressure force must be applied at the pressure regions 8, where the alphanumeric markers 17 suitable to identify them are provided. This operation of opening the container 1 can also be easily carried out with only two fingers of a hand. The result of applying these pressure forces is that the seat 10 deforms thereby releasing the edge 7 from the engagement within the engaging portions 27. The coming off of the tray 3 is facilitated by the fact that the seat 10, in addition to the engaging portions 27 comprises the deforming portions 28 forming a substantially plane deformable wall 26, which thus favours the coming off of the tray 3.

[0034] In accordance with an embodiment of the invention, the wall 26 of the deforming portions 28 has a flared profile suitable to generate downward thrusts on the tray 3 that further facilitate the same to come off.

[0035] In order to better understand the uncoupling system of the lid 2 and tray 3, reference should be made to Fig. 2a and 2b, in which a particular embodiment of the invention is reported by way of non-limiting example.

[0036] The Fig. 2a shows a sectional view of the lid 2 and the tray 3 in a plane P represented in Fig. 1, passing through the pressure regions 8 (section B-B), which are symmetrical relative to an axis A substantially perpendicular to the surface of the bottom wall 9. Fig. 2b shows a sectional view of the lid 2 and tray 3 in a plane P' also represented in Fig. 1, which forms a certain angle with the plane P, for example a right angle (section C-C).

[0037] Inserting the tray 3 in the lid 2 is carried out by engaging the edge 7 of the tray 3 within the seat 10 of the lid 2.

[0038] Advantageously, the edge 7 comprises the corner 11 that identifies a radial dimension D5.

[0039] Further advantageously, the seat 10 comprises a corner 15 identifying a radial dimension of a different size in the two planes of section B-B and C-C, particularly a size D1 in the plane of section B-B and a dimension D3 in the plane of section C-C.

[0040] In accordance with a preferred embodiment, moving along the axis A in the coming off direction of the tray 3 from the lid 2, the seat 10 has, in the cross-section, a profile with a varying radial dimension. Particularly, in the plane of section B-B the radial dimension changes from the dimension D1 to the dimension D2, whereas in the plane of section C-C, the radial dimension changes from a dimension D3, generally different from D1, to a dimension D4, generally different from D2.

[0041] The undeformed condition of the lid 2 will be considered, i.e. the condition in which no external force

is applied to the lid 2. This condition occurs in the closing position and opening position, whereas it does not occur when the container 1 is being opened by the user.

[0042] The dimension D3 is greater than the dimension D4, such that the projecting edge 7 of the tray 5, after it has been inserted in the seat 10, is not able to come off. The profile of the seat 10 in this region thus has a converging development in the coming off direction of the tray 3 from the lid 2, thereby forming said undercut.

[0043] By passing from the dimension D1 to the dimension D2, the seat 10 forms the substantially plane wall 26. The dimension D2 is preferably greater, or at least, equal to the dimension D1, thereby providing a profile of the seat 10 with a diverging or at least radially constant development in the coming off direction of the tray 3 from the lid 2.

[0044] Preferably, the dimension D1 is greater than the dimension D3.

[0045] Advantageously, the dimension D5 is substantially equal to the dimension D3 and consequently greater than the dimension D4, such that a stable coupling is ensured between the lid 2 and the tray 3 when the edge 7 is engaged within the seat 10.

[0046] The action of opening the container 1 will be now considered. This operation is made possible by applying external pressure forces to the pressure regions 8.

[0047] By applying said forces, the wall 13 of the lid 2, which is advantageously made with a small thickness, preferably of plastic material, will be deformed. Consequently, several among the above-mentioned radial dimensions will be sensibly modified.

[0048] The dimension D5 is not subjected to considerable changes, since no significant force is applied to the tray 3 from the outside.

[0049] The dimensions subjected to the greatest changes are the dimensions D1, D2, D3 and D4. By applying said forces, due to the deformations induced on the perimeter of the lid 2, the dimension D3 and the dimension D4 tend to increase. Particularly, the dimension D3, which in the undeformed condition was substantially equal to D5, if the forces applied are sufficiently strong, though still being of small entity, will increase until it exceeds the dimension D5, thereby disengaging in this region the edge 7 of the tray 3 from the seat 10 of the lid 2.

[0050] Vice versa, the dimension D1, which in the undeformed condition was greater than D5, after said forces have been applied, tends to become equal to D5, possibly until it becomes lower than D5 when the applied forces are sufficiently strong and the initial ratio of D1 to D5 is not excessively high, as is preferred. If this is the case, a thrust is originated in this region which has a direct component parallel to the axis A that tends to cause the tray 3 to come off the lid 2. This coming off movement is further facilitated by the preferred provision of the tapering diverging in the coming off direction of the tray 3 of the profile of the seat 10 in the plane of section B-B, i.e. by the fact that the dimension D2, even in a deformed condition, is greater than the dimension D1.

[0051] with "deformation profile" will be designated the transversal profile of the seat 10 of the lid 2 with the characteristics described with reference to the section B-B (Fig. 2a), and with "engaging profile" will be designated the transversal profile of the seat 10 of the lid 2, with the characteristics described with reference to the section C-C (Fig. 2b).

[0052] The configurations of the seat 10 with deformation profile and engaging profile, described above with reference to the two planes of section B-B and C-C for convenience, are not only limited to discrete and point regions of the perimeter of the container 1, rather they involve variously extended portions thereof. Particularly, the seat 10 comprises engaging portions 27 substantially diametrically opposite and alternating with deforming portions 28.

[0053] In accordance with an embodiment of the invention, the container comprises two deforming portions 28, in which the seat 10 is shaped with a deforming profile.

[0054] The edge 7 of the tray 3 and the seat 10 of the lid 2 advantageously form perimeters with different shapes from each other.

[0055] In accordance with an embodiment of the invention, the corner 11 of the edge 7 of the tray 3 forms a perimeter with a substantially circular shape having a diameter functionally coincident with the radial dimension designated above with D5 (Fig. 3). The corner 15 of the seat 10 of the lid 2 in undeformed conditions, on the other hand, forms a perimeter with a substantially elliptical shape having the greater diameter functionally coincident with the radial dimension designated above with D1 and the lower diameter functionally coincident with the radial dimension designated above with D3. The lower edge of the seat 10 also forms a substantially elliptical perimeter (dotted line) having the greater diameter functionally coincident with the radial dimension designated above with D2 and the lower diameter functionally coincident with the radial dimension designated above with D4.

[0056] According to what has been described above, in the undeformed condition, the diameter D5 of the circle representing the corner 11 of the tray 3 is substantially equal to the lower diameter D3 of the ellipse representing the corner 15 of the lid 2 and lower than the greater diameter D1 of the same ellipse. In the engaging portions 27, in which the seat 10 is shaped with an engaging profile, there occurs in the undeformed condition the engagement of the circular edge 7 within the elliptical seat 10.

[0057] In the undeformed condition, the shape of the seat 10 thus interferes with the shape of the edge 7, thereby ensuring the stable coupling between the lid 2 and tray 3.

[0058] The two perimeter portions in which the seat 10 is shaped with a deformation profile can be identified by as many angles α and β having the vertex in the center C of the ellipse.

[0059] Advantageously, said angles α and β have a

substantially equal width.

[0060] Further advantageously, said angles α and β are symmetrical relative to the greater dimension D1 of the ellipse, with a width preferably lower than 180° , more preferably ranging between $80-90^\circ$.

[0061] In accordance with an embodiment of the invention, the pressure regions 8 formed on a side surface 14 of the lid 2, to which the pressure forces are applied by the user, which are required for opening the container, are in angular positions identified by said angles α and β .

[0062] By applying pressure forces F1 and F2 to the pressure regions 8, the ellipse representing the corner 15 of the seat 10 of the lid 2 is deformed (Fig. 4), such that the dimensions designated in Fig. 3 with D1 and D2 are reduced to a dimension D1' lower than D1 and a dimension D2' lower than D2, respectively, whereas the dimensions designated in Fig. 3 with D3 and D4 increase to a dimension D3' greater than D3 and a dimension D4' greater than D4, respectively. The angles α and β will be changed due to the deformations in the angles α' and β' , respectively. Thereby, the perimetric portion 7 and the seat 10 tend to be disengaged in those perimetric portions of the ellipses where the seat 10 is shaped with an engaging profile, i.e. in the engaging portions 27, as it happened in the undeformed condition, but engage with each other in those perimetric portions of the ellipse where the seat 10 is shaped with a deformation profile, i.e. in the deformation portions 28. By increasing the intensity of the forces F1 and F2, D1' tends to be further reduced, such that, according to what has been explained above, thrusts can be originated which tend to cause the tray 3 to come off the lid 2.

[0063] In the deformed configuration, the seat 10 has thus a greater extension than the edge 7. Particularly, due to the fact that the diameters of the lid 2 identifying the engaging portions 27 are greater than the diameter of the tray 2 the interference of the seat 10 with the edge 7 existing in the deformed condition is eliminated, thus allowing the container 1 to be opened.

[0064] From the above description, those skilled in the art will appreciate how the food container according to the invention resolves the main problems of the prior art containers, which have been discussed in the initial part of the present description.

[0065] Those skilled in the art will particularly appreciate how the food container according to the invention eliminates the problem of the undesired movements made by the tray when the container is being opened, and how the opening system thereof allows the user to use only one hand.

[0066] The food container according to the invention further ensures that the product stored therein is suitably protected from the surrounding environment. Particularly, the food is protected from odours, such as emanating from other foods being stored in the same fridge. Furthermore, the container according to the invention ensures that the food stored therein is constantly maintained in suitable hygienic conditions, for example also

in dusty or crowded rooms.

[0067] Furthermore, due to its shape, the container can be easily reached and grasped by the user, which facilitates its withdrawal from a refrigerator counter, where it is stored together with a number of other food items.

[0068] To the preferred embodiment of the food container such as described above, those skilled in the art, aiming at satisfying contingent and specific requirements, may carry out a number of modifications, adaptations and replacements of elements with functionally equivalent ones, without however departing from the scope of the claims below.

[0069] For example, the materials used can be conventional plastic materials for food having a suitable thickness as required or preferred. Alternatively, other materials can be provided, such as rubber, which are endowed with elastic characteristics.

[0070] Colours and shapes can vary according to particular requirements or preferences, without departing from the main function as described above.

Claims

1. A food container (1) comprising:

- a tray (3) suitable to house a food item and comprising a perimetric edge (7);
- a lid (2) suitable to cover said tray (3);
- means (5) for removably connecting said tray (3) and said lid (2);

characterized in that said connecting means (5) comprise a seat (10) formed in said lid (2), which is suitable to reversibly engage said edge (7), said seat (10) comprising diametrically opposite deformable engaging portions (27) alternating with deforming portions (28) such that, when a pressure force is applied at the level of said deforming portions (28), that causes the same to approach each other, the engaging portions (27) are consequently deformed by moving away from each other, thereby allowing said edge (7) to be disengaged.

2. The container (1) according to the preceding claim, wherein in the undeformed condition, the shape of said seat (10) interferes with the shape of said edge (7) and wherein in the deformed configuration said seat (10) has a greater extension than that of said edge (7).

3. The container (1) according to claim 1 or 2, wherein said seat (10) is formed on an inner surface of a side wall (13) of said lid (2) and extends all around the perimeter of the latter; said edge (7) is formed in said tray (3) and extends all around the perimeter of the latter; and said edge (7) of the tray (3) and said seat (10) of the lid (2) form perimeters having shapes dif-

ferent from each other.

4. The container (1) according to any preceding claim, wherein said lid (2) comprises pressure regions (8) suitable to be subjected to pressure forces (F1, F2) to deform said seat (10).
5. The container (1) according to claim 3 or 4, wherein said wall (13) has, at the free end thereof, a projecting perimetric ring (6) comprising the seat (10); said perimetric ring (6) forms, inside the lid (2), a substantially plane abutment surface (24) facing said free end; and said tray (3) comprises an abutment surface (25) suitable to abut against said abutment surface (24) in the ring (6) of the lid (2).
6. The container (1) according to any preceding claim, wherein in the deforming portions (28) said seat (10) comprises a substantially plane surface (29) formed in a deformable wall (26) which has a radially diverging or at least constant development that passes from a radial dimension (D1), which is identified by a corner (15), to a dimension (D2) either greater than or equal to the latter, and wherein in the engaging portions (27) said seat (10) forms a prompt surface (30) having a radially converging development that passes from a radial dimension (D3), which is identified by said corner (15), to a lower dimension (D4) than the latter, thereby forming an undercut.
7. The container (1) according to the preceding claim, wherein the radial dimension (D1) which is identified by the corner (15) in the deforming portions (28) is dimensionally greater than the radial dimension (D3) which is identified by the corner (15) in the engaging portions (27).
8. The container (1) according to claim 6 or 7, wherein said tray (3) comprises a corner (11) which identifies a radial dimension (D5) that is dimensionally substantially equal to the radial dimension (D3) identified by the corner (15) of the seat (10) in the engaging portions (27).
9. The container (1) according to the preceding claim, wherein the corner (11) of the tray (3) forms a substantially circular perimeter, having as the diameter thereof said radial dimension (D5), and the corner (15) of the seat (10) of the lid (2) forms a substantially elliptical perimeter having as the greater diameter said radial dimension (D1) and as the lower diameter said radial dimension (D3).
10. The container (1) according to the preceding claim, wherein said lid (2) comprises two deforming portions (28) being identified by two angles (α, β), respectively, which have a center coincident with the center (C) of said ellipse.

11. The container (1) according to the preceding claim, wherein said angles (α, β) are substantially equal, preferably symmetrical relative to the greater diameter (D1) of said ellipse.
12. The container (1) according to the preceding claim, wherein said angles (α, β) have a width ranging between 80-90°.
13. The container (1) according to the preceding claim, wherein said pressure regions (8) are two, which are formed on a side surface (14) of the lid (2) in angular positions that are identified by said angles (α, β).
14. The container (1) according to any preceding claim, wherein said lid (2) substantially has the shape of a truncated cone extending along an axis (A-A) and preferably tapering towards a substantially plane bottom wall (9).
15. The container (1) according to the preceding claim, wherein said side wall (13) has an undulated development due to a plurality of waves (16).
16. The container (1) according to claim 14 or 15, wherein said lid (2) comprises an annular rim (18) starting from said perimetric ring (6) away from the axis (A-A).
17. The container (1) according to any preceding claim, wherein said lid (2) is made of plastic material, either transparent or opaque, **characterized by** a small thickness.
18. The container (1) according to any preceding claim, wherein said pressure regions (8) are formed by portions (23) of the side wall (13) of the lid (2) having a substantially plane outer surface.
19. The container (1) according to any preceding claim, wherein said pressure regions (8) comprise alphanumeric markers (17), such as the "PUSH" marker.
20. The container (1) according to any preceding claim, wherein said tray (3) substantially has the shape of a flat truncated cone having a blind cavity (4) being defined by a side wall (19) and a bottom wall (20), preferably **characterized by** a height that is dimensionally lower than its width.
21. The container (1) according to the preceding claim, wherein said side wall (19) has a substantially stepped development.
22. The container (1) according to claim 20 or 21, wherein said bottom wall (20) comprises an elevation (21), which preferably has a knurled upper surface.
23. The container (1) according to any preceding claim,

wherein said edge (7) of the tray (3) comprises decorative petals (22), on which there is formed the corner (11), the tray (3) being substantially capable of being inscribed in a circle.

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- 24.** The container (1) according to any preceding claim, wherein said tray (3) is covered on top with a layer of material capable of reflecting the light, such as a layer of gilded material.

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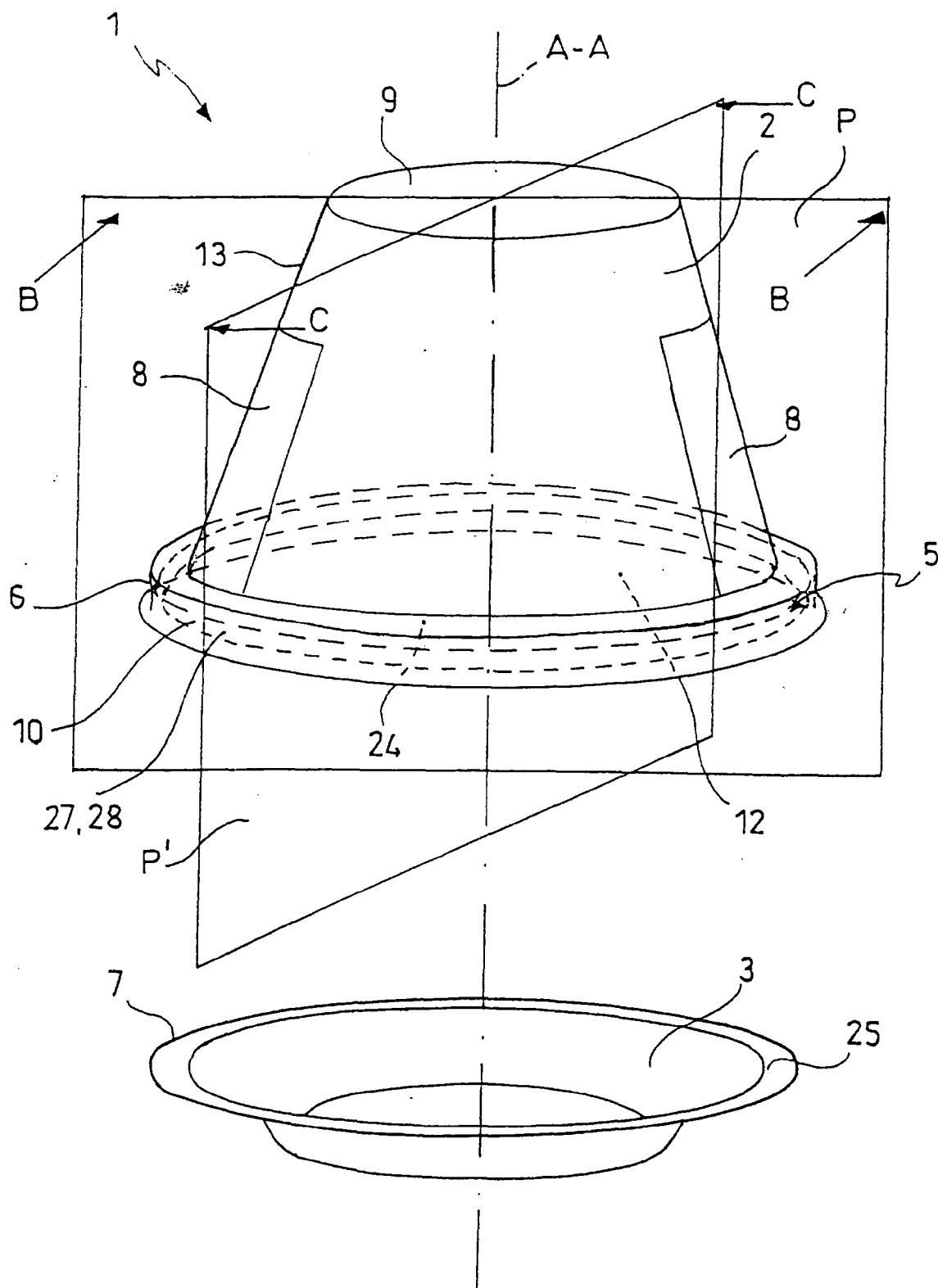
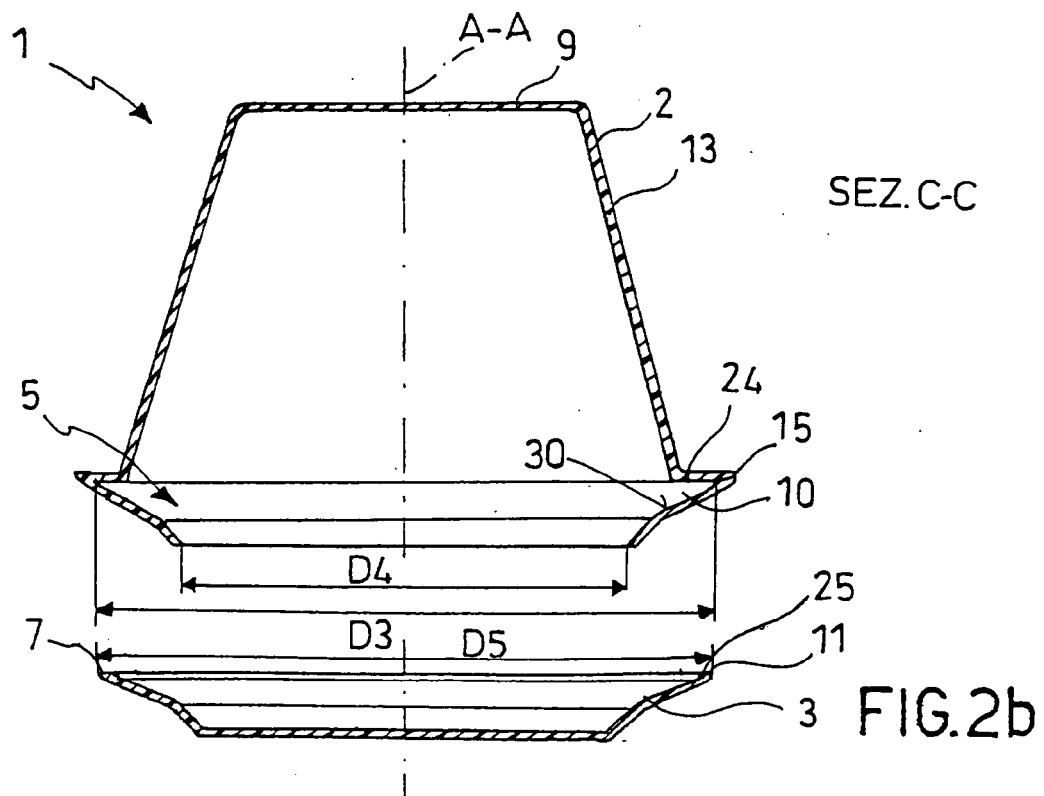
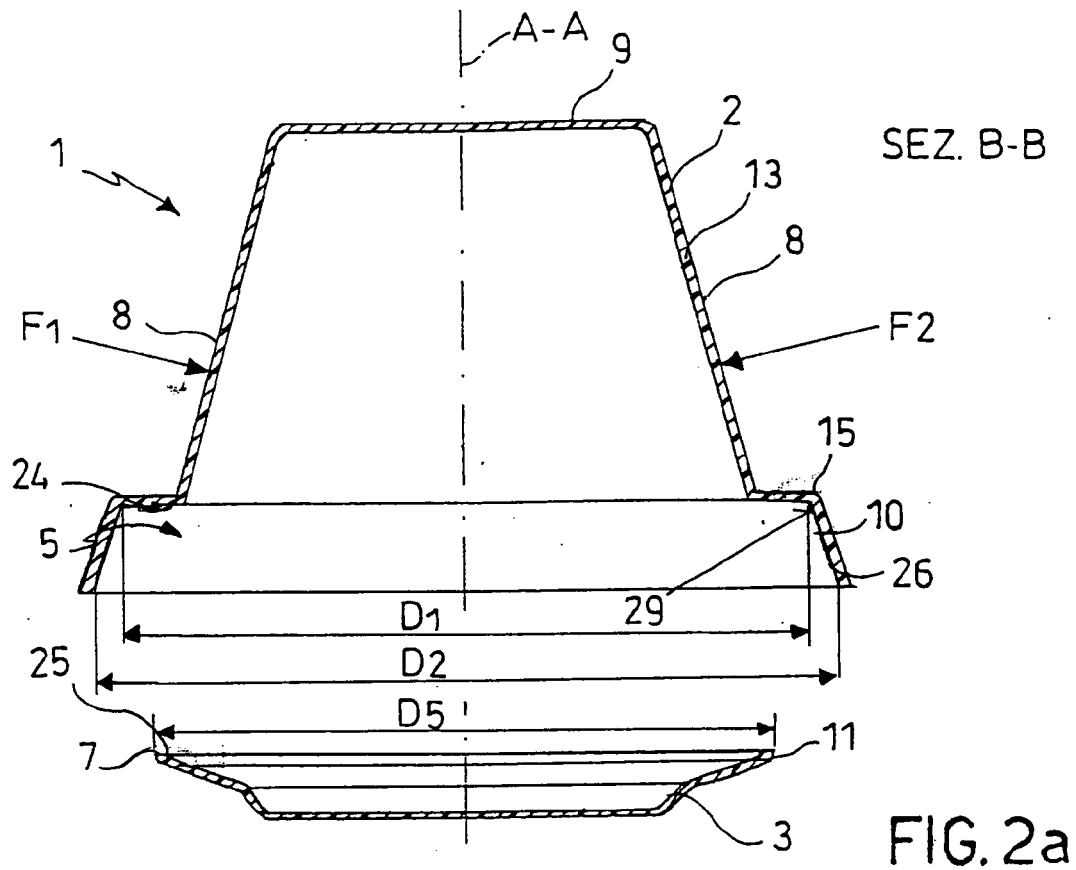


FIG.1



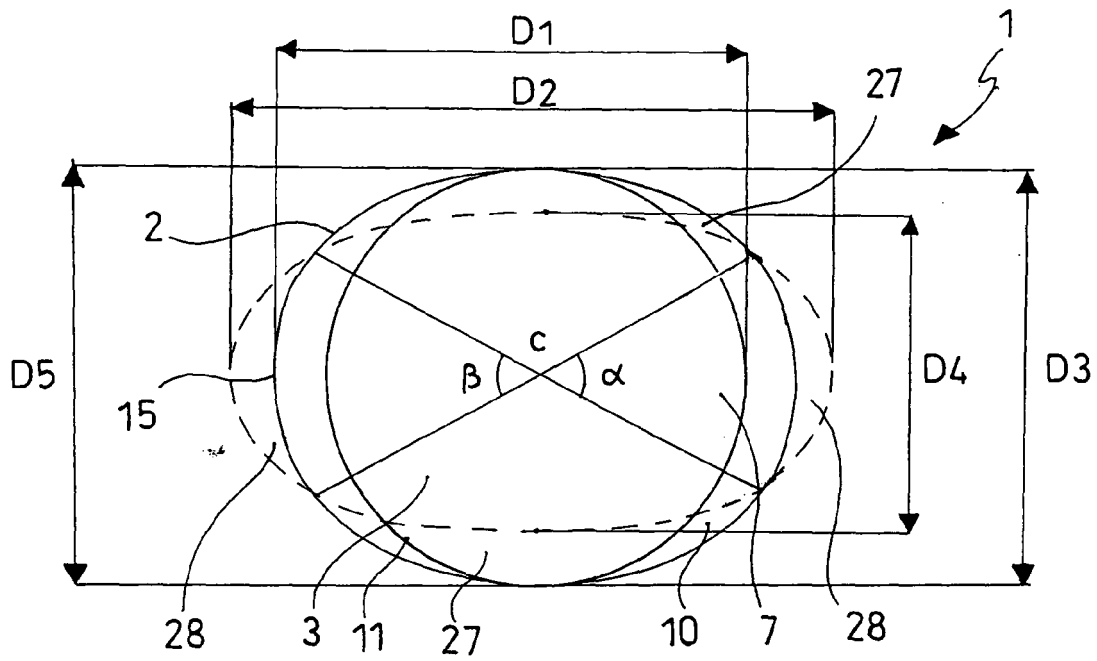


FIG. 3

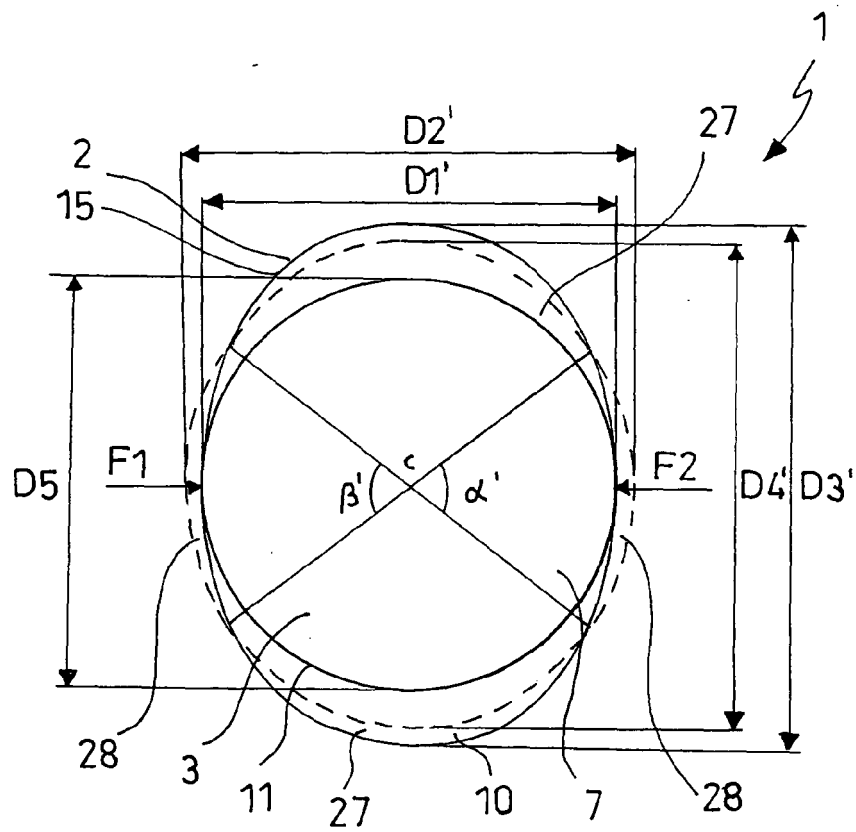


FIG. 4

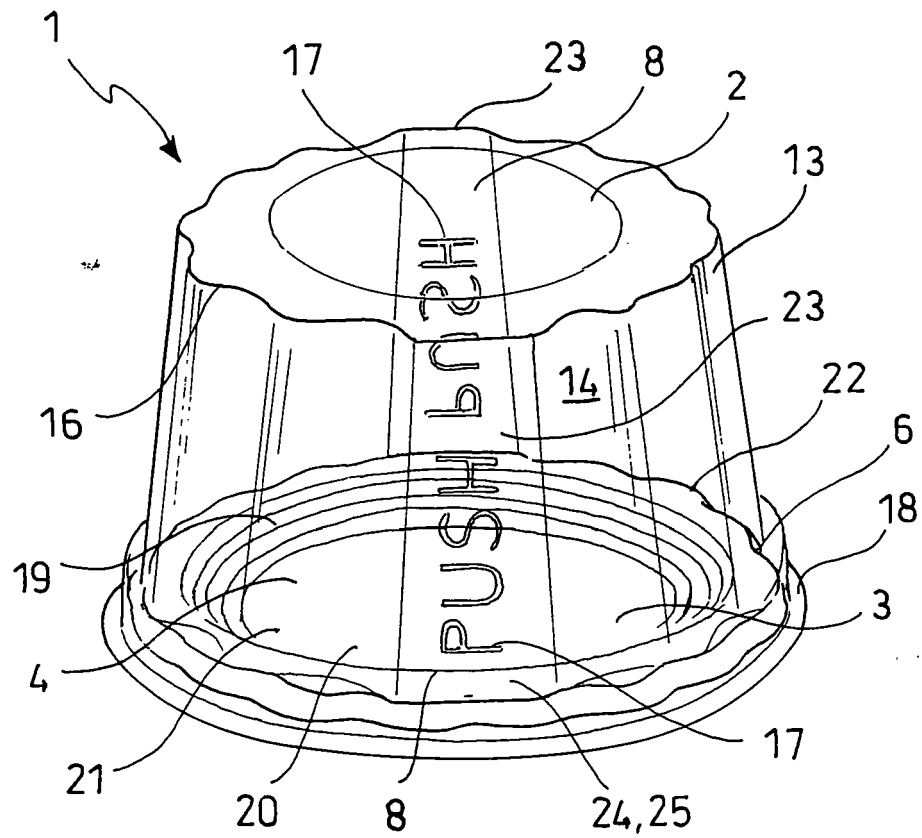


FIG. 5



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 06 42 5190

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 24 July 2006	Examiner Cazacu, C
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			

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EPO FORM 1503 03.82 (P04C01)

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

EP 06 42 5190

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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