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(54) **FLASK CLOSURE WITH HINGED LID AND TAMPER INDICATING ELEMENT**

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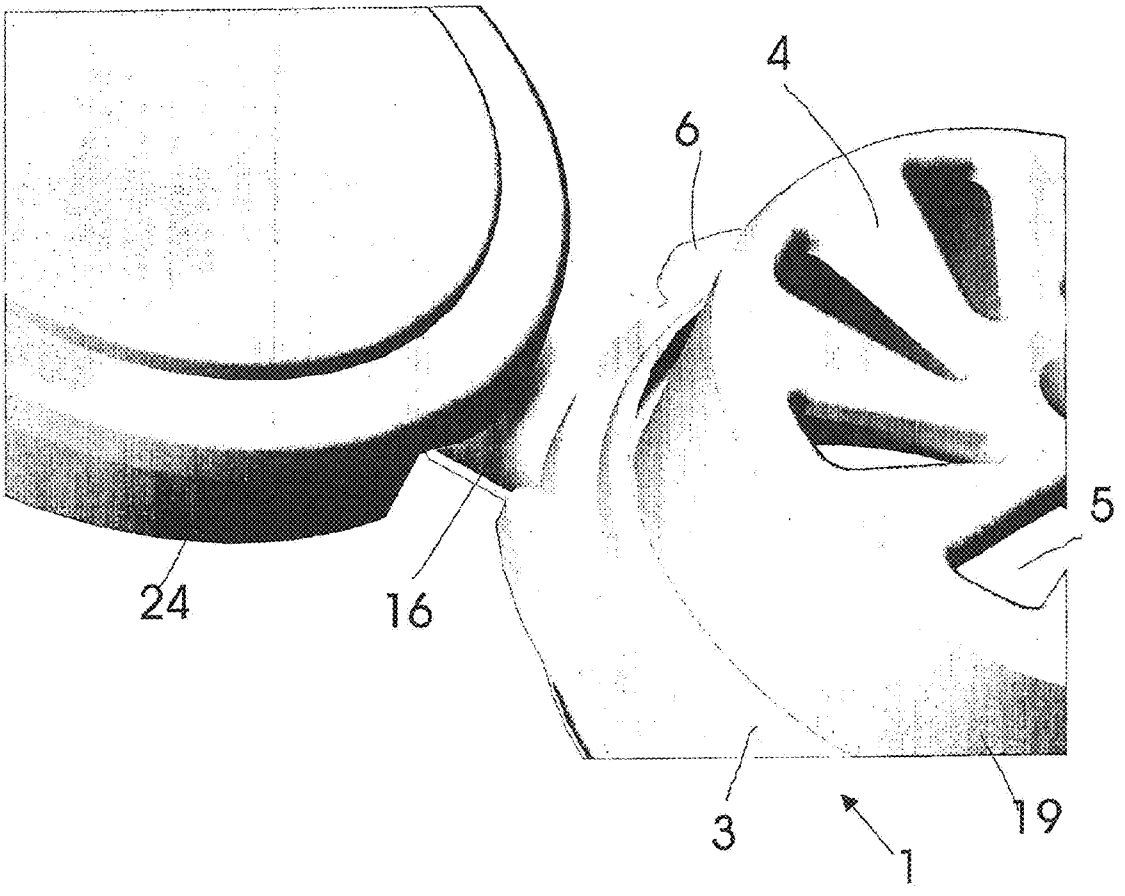
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(57) **ABSTRACT**

A closure for a flask (G) with a spout (**19**) and a hinged lid (**2**) has a tamper indicating element (**7**,**8**). The tamper indicating element (**7**,**8**) consists of a part (**7**), which is fixed to the flask (G) and a tearable strip (**8**). Only when the strip (**8**) is removed, the hinged lid (**2**) can be lifted from the spout **19**).



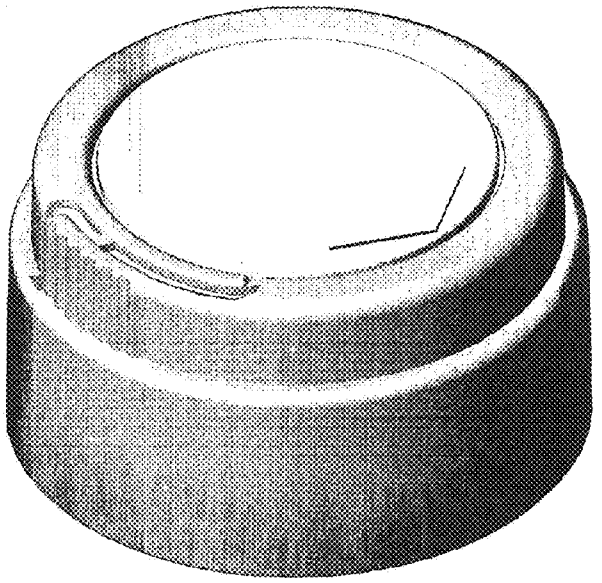


Fig. 01

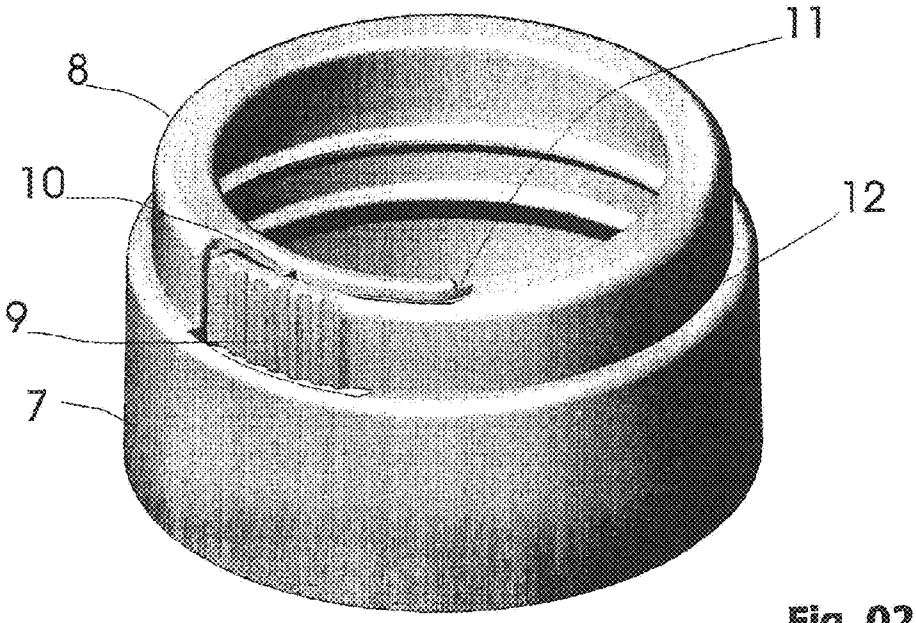


Fig. 02

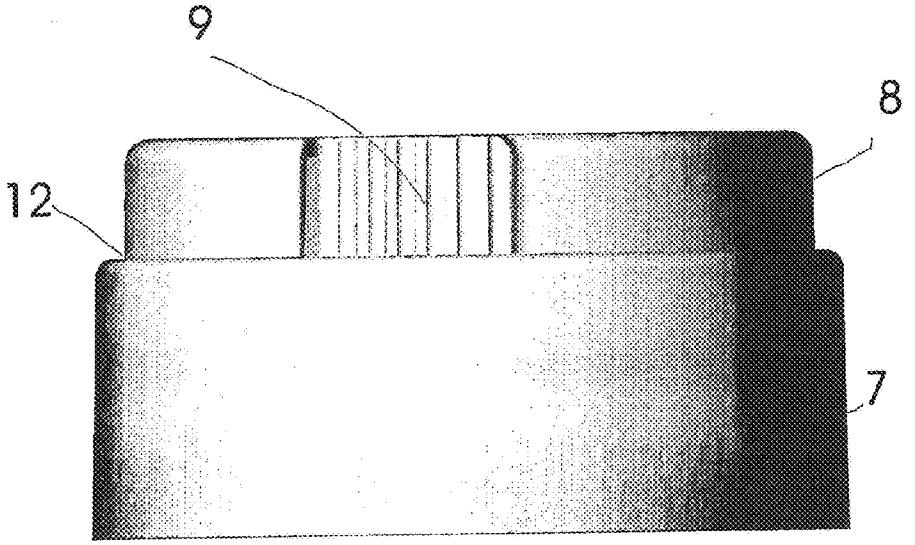


Fig. 03

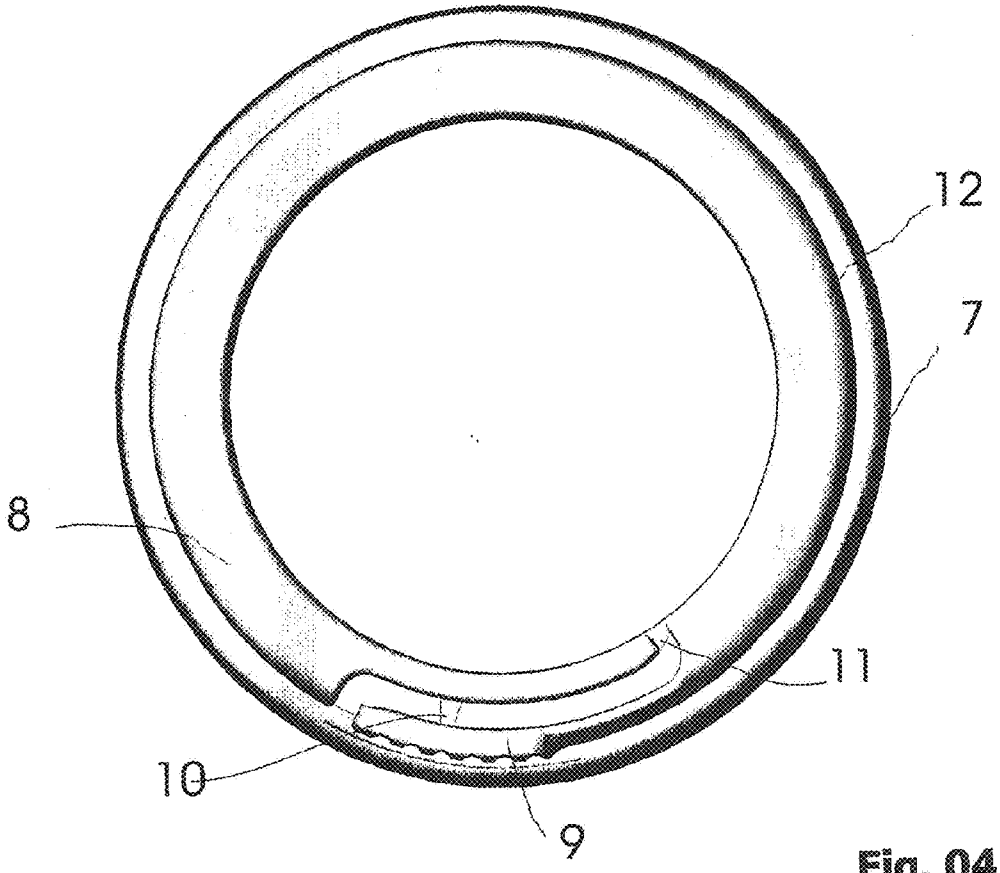


Fig. 04

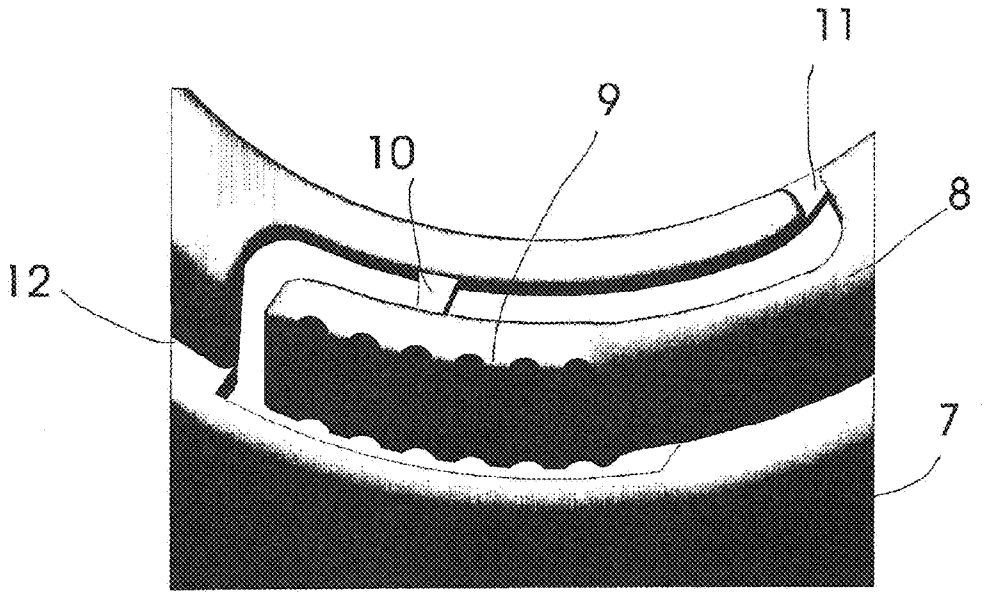


Fig. 05

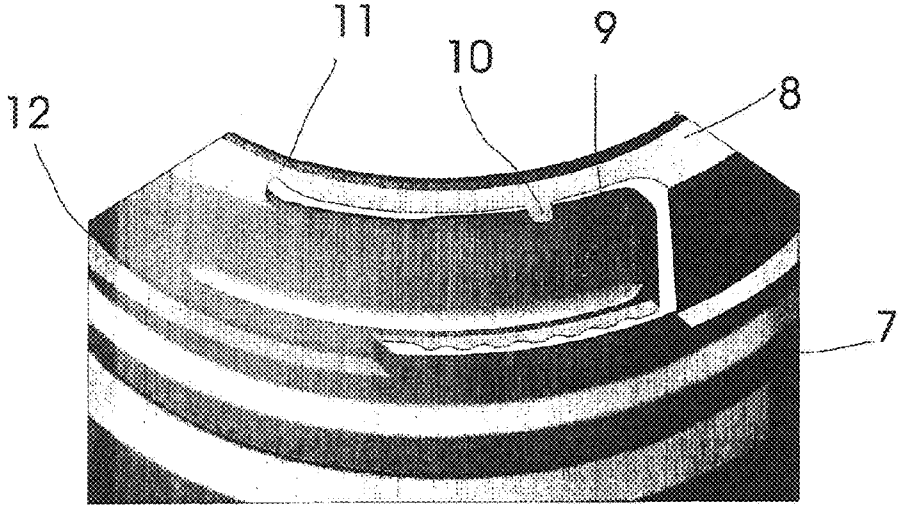


Fig. 06

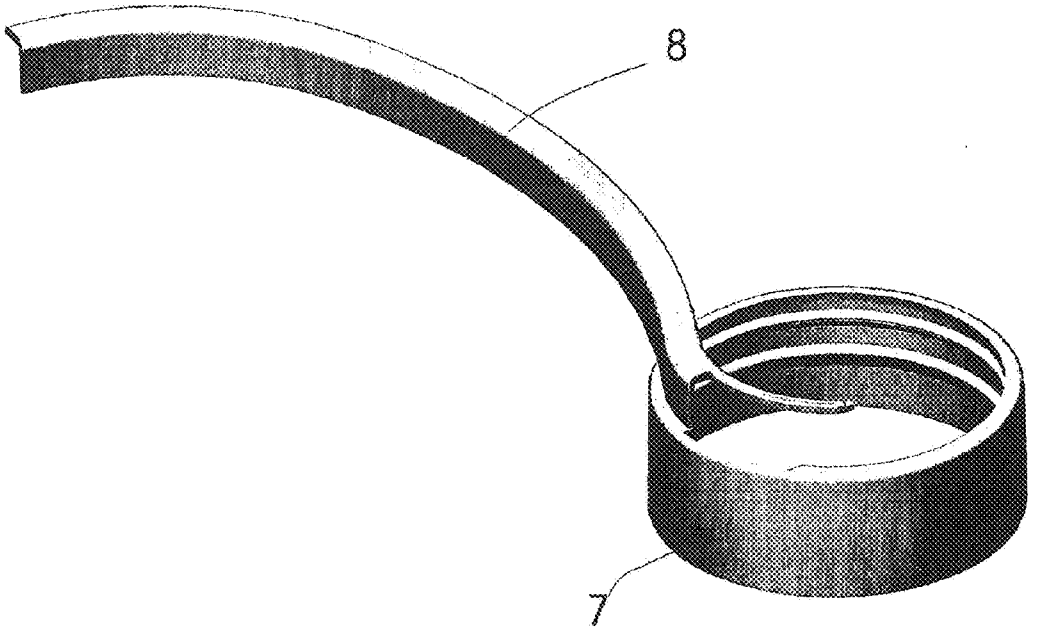


Fig. 07

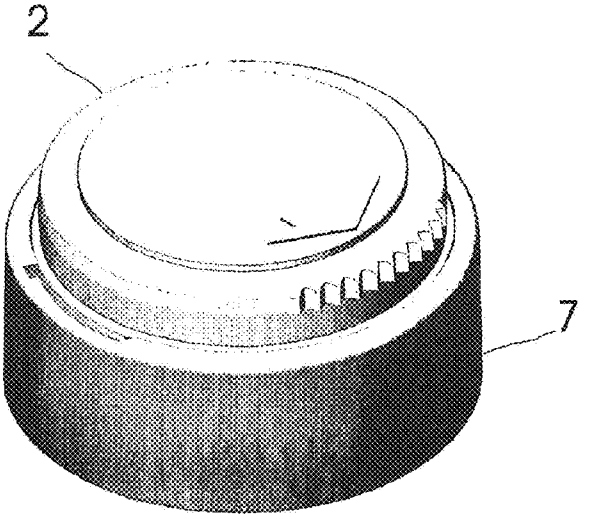


Fig. 08

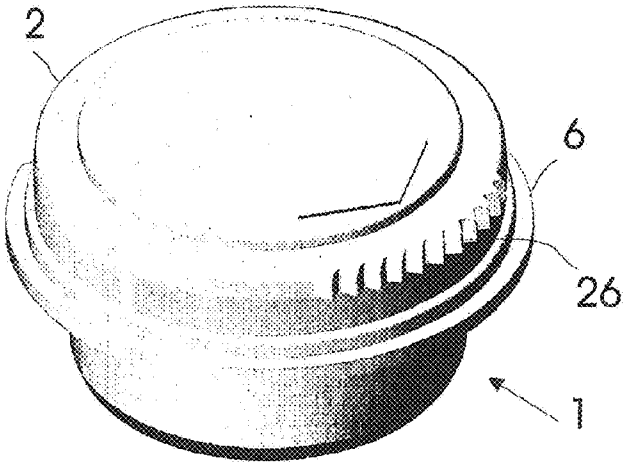


Fig. 09

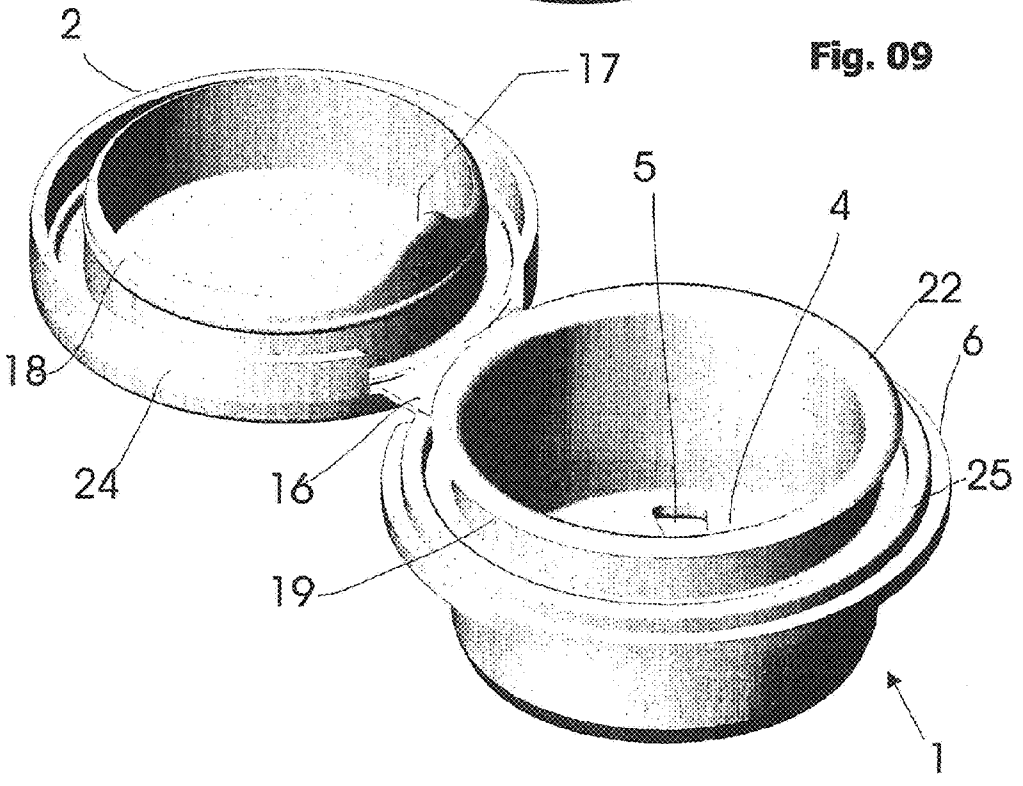


Fig. 10

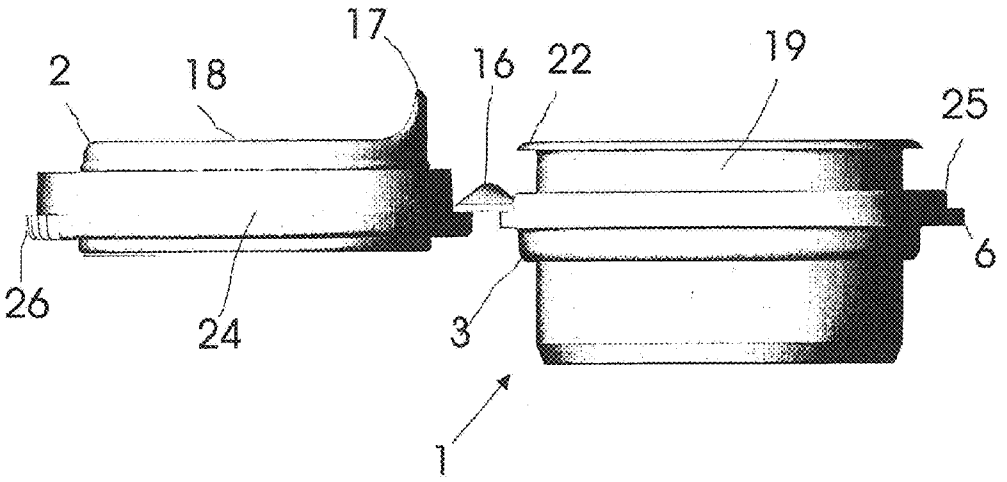


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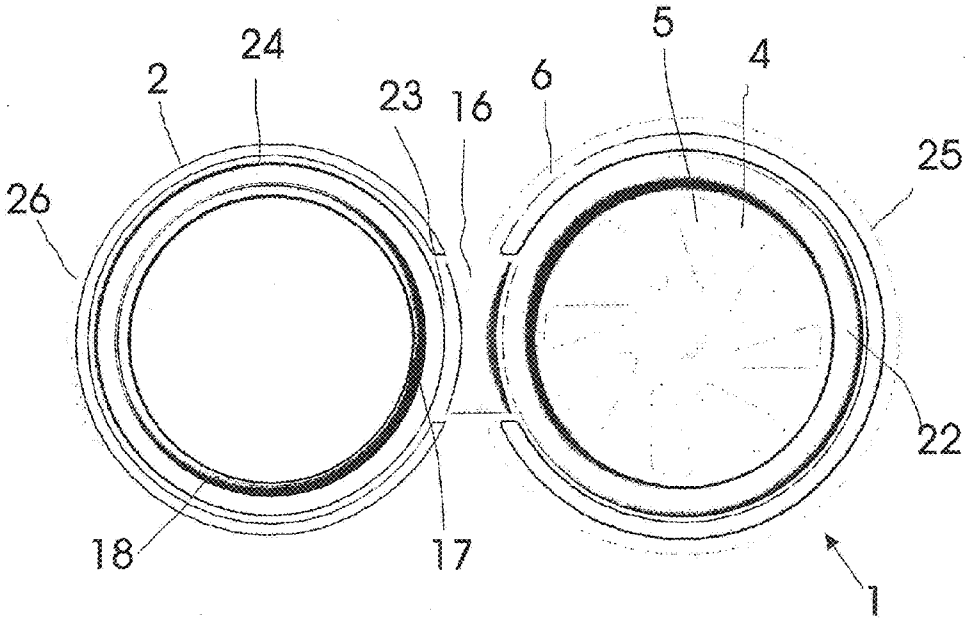


Fig. 12

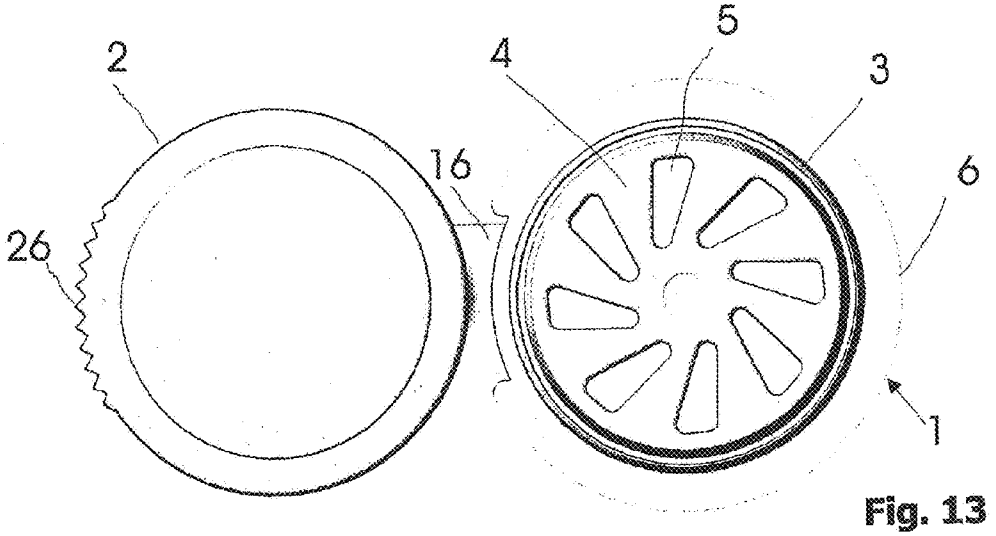


Fig. 13

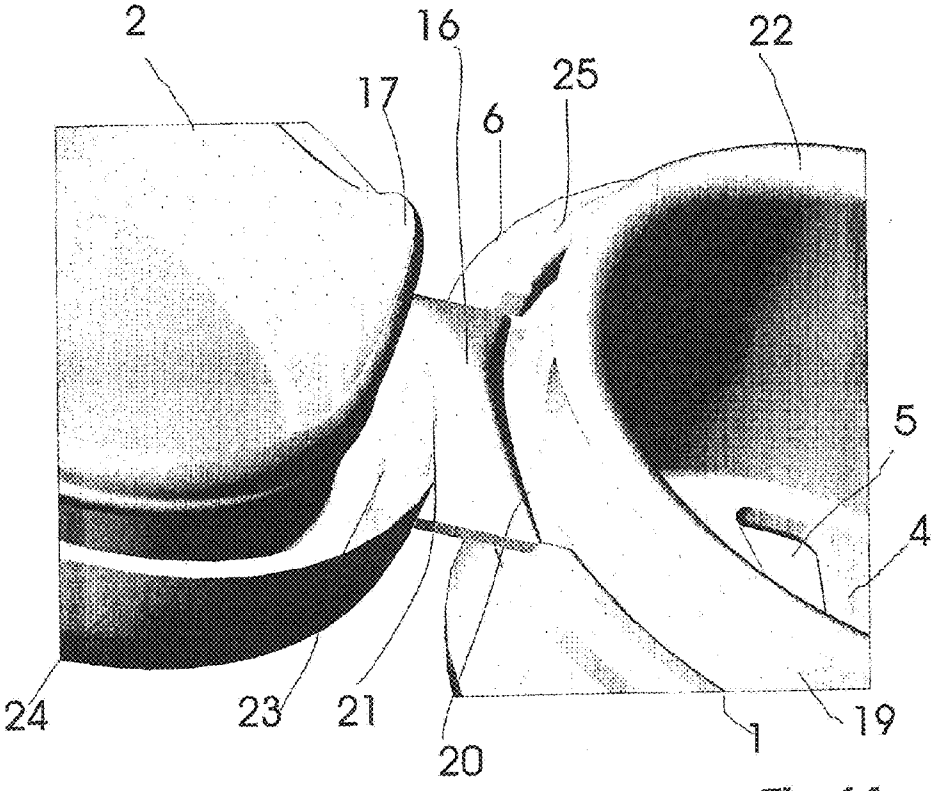


Fig. 14

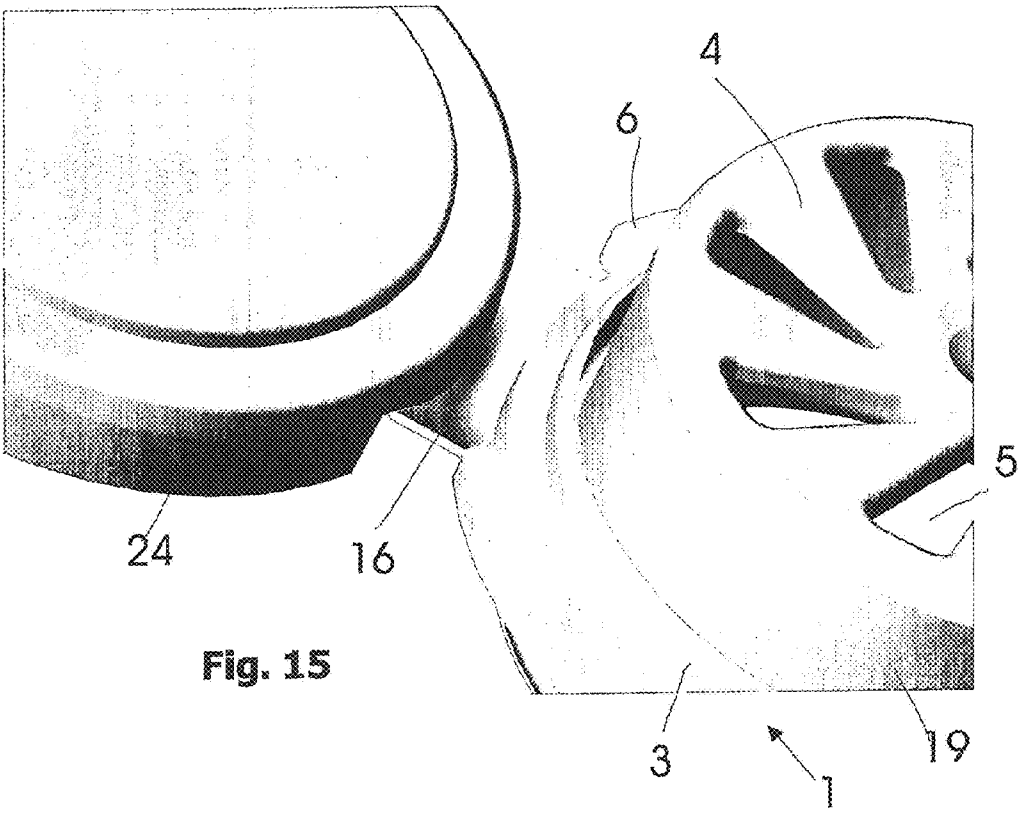


Fig. 15

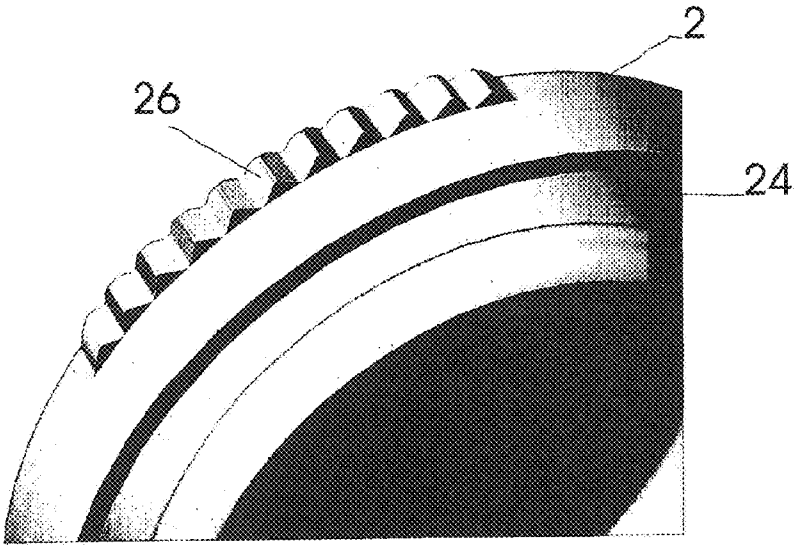


Fig. 16

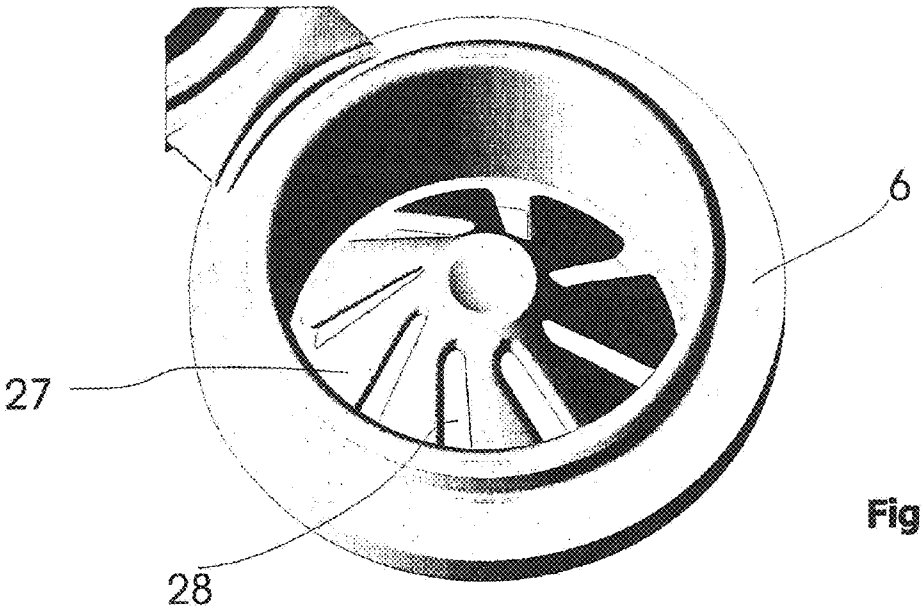


Fig. 17

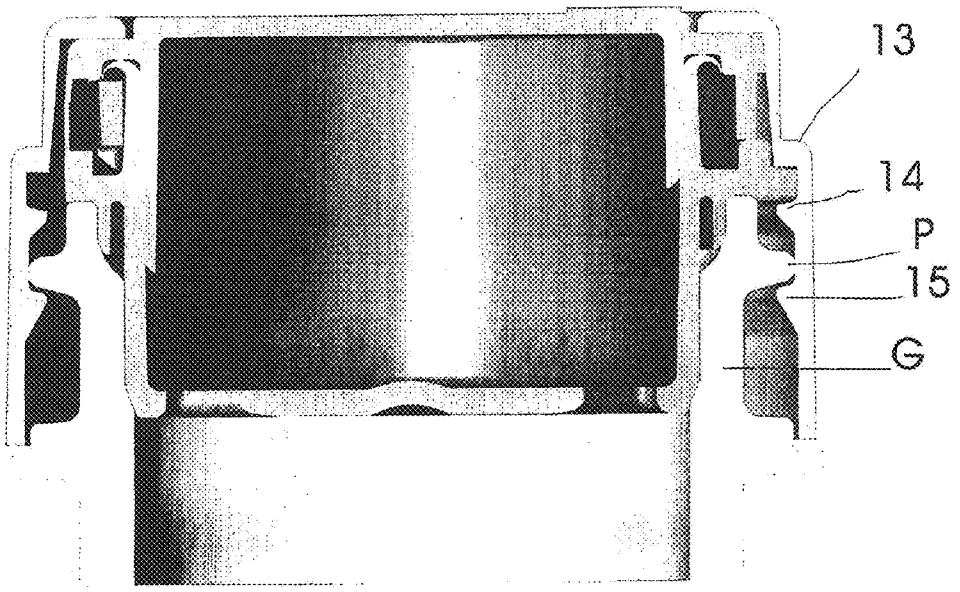


Fig. 18

FLASK CLOSURE WITH HINGED LID AND TAMPER INDICATING ELEMENT

[0001] This specification refers to a CONSTRUCTING ARRANGEMENT INTRODUCED IN A LID, which will be used in flasks in general, and more specifically in flasks containing edible oil, and which is provided with means for detecting tampering of its opening, thus assuring total integrity of its contents.

BACKGROUND OF THE ART

[0002] Various types of lids incorporating means capable of identifying its tampering are already known in the prior art, and this is usually obtained by the use of low resistance lines or small frangible rods, which will break when opening the lid; however, all of them present as the main inconvenience the fact that the breaking elements can be, in some cases regenerated, most of the times even in a quite simple way, thus allowing fraud practice against the user.

[0003] On the other hand, the currently known lids in the prior art which incorporate more effective means through seals formed from removable strips; however such lids present as a disadvantage the fact that, after removing the seal, when opening the lid, it is found there are no means left which can help the retention of the lower outer portion of the lid against the outer edge of the neck, since that, in most of the times, this removable strip which constitutes the seal is applied exactly on the lower part of the lid.

FUNDAMENTS OF THE MODEL

[0004] With the aim of overcoming all the inconvenience due to the current techniques a CONSTRUCTING ARRANGEMENT INTRODUCED IN A LID has been idealized, which comprises of a cylindrical body, provided with a articulated over-lid, said body being inserted under pressure, in the inner part of the flask neck, where it will be retained by the action of a annular spigot, provided in the lower part of said body, which provides an area of interference with the surface of the inner edge of said neck, being also aided by the action of the element which constitutes the bottom of said lid, which is presented in the form of a plane disk, on the surface of which trapezoidal slits will be made, which will be arranged in a circumferential way, having sides slightly inclined with each other, said lid is provided, immediately above the spigot, with a circumferential flap, which acts as a stop for the higher edge of the neck, being also provided a skit, which will cover externally the superior portion of the neck, having aggregated to it, in a removable way, the breakable strip which comprises the seal of the lid, said skirt will remain, even after the removal of the seal, helping to retain the lid over the neck, due to its inner interference points, which will interact with the higher and lower surfaces of the circumferential flap of said lid and with an outer radial protuberance of the neck, the closure of said lid will be carried out through an over-lid, by means of a plane hinge, articulated with the aid of the appendix which is formed on the back portion of the inner circumferential ring of the lower surface of said over-lid, which, besides guiding the insertion of the circumferential ring into the interior in the higher edge of the lid, to promote the waterproofing of the assembly, will also promote the flexibility of said plane hinge, which will happen in two stages, on the first stage the hinge will be displaced in relation to the its joining line the over-lid, the retention of the over-lid, when of its closure, is reached by the action of the ferrule provided on the higher edge of said lid, which will interact with the circumferential bead provided on the lower surface of the over-lid, which will be arranged between the inner circumferential ring of its lower surface and its outer circumferential flap, which, when of the closure of the assembly, will circumscribe a circumferential bead provided on the higher surface of the circumferential flap of said lid, being that for the opening of said lid, it is provided a plurality of triangular shoulders, provided in line, at the higher portion of a frontal peripheral segment of the over-lid, which is orthogonally projected, in relation with the periphery thereof.

[0005] The CONSTRUCTING ARRANGEMENT INTRODUCED IN A LID, currently proposed, can still provide, in a constructing variant, the adoption of the element which constitutes the bottom of said lid in the form of a conical disk, on the surface of which there will be made inclined slits, arranged in a circumferential way.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] In order to better understand the CONSTRUCTING ARRANGEMENT INTRODUCED IN A LID, references to the drawings attached herein will be made, wherein:

[0007] FIG. **1**—a perspective view of the assembly of the lid set;

[0008] FIG. **2**—a perspective view of the set comprising the skirt and the seal of the lid;

[0009] FIG. **3**—a side view of the set comprising the skirt and the seal of the lid;

[0010] FIG. **5**—an outer perspective view, in an extended detail, of the lug element and the breaking points of the seal of the lid;

[0011] FIG. **6**—an inner perspective view, in an extended detail, of the lug element and the breaking points of the seal of the lid;

[0012] FIG. **7**—a perspective view of the rupture of the seal of the lid;

[0013] FIG. **8**—a perspective view of the set of the lid without the seal;

[0014] FIG. **9**—a perspective view of the set of the lid and over-lid on its closing position;

[0015] FIG. **10**—a perspective view of the set of the lid and over-lid on its opening position;

[0016] FIG. **11**—a side view of the set of lid and over-lid on its opening position;

[0017] FIG. **12**—a higher view of the set of lid and over-lid on its opening position;

[0018] FIG. **13**—a lower view of the set of lid and over-lid on its opening position;

[0019] FIG. **14**—a higher perspective view, in an extended detail, of the articulating hinge on the over-lid;

[0020] FIG. **15**—a lower perspective view, in an extended detail, of the articulating hinge on the over-lid;

[0021] FIG. **16**—a lower perspective view, in an extended detail, of the lug elements on the over-lid;

[0022] FIG. **17**—a higher perspective view, in an extended detail, of the constructing variant of the bottom element of the lid;

PREFERRED CONSTRUCTIVENESS OF THE MODEL

[0023] According to what has been shown on the attached figures, the CONSTRUCTING ARRANGEMENT INTRO-

DUCED IN A LID, currently proposed, comprises a cylindrical body (**1**), provided with an articulated over-lid (**2**), said body being inserted, under pressure, on the lower part of the neck (G) of the flask, and will be retained by the action of an annular spigot (**3**), provided on the lower part of said body, which provides an area of interference with the surface of the inner edge of said neck, being also helped by the action of the element which constitutes the bottom of said lid, which is presented in the form of a plane disk (**4**), on the surface of which trapezoidal slits (**5**) are made, which are arranged in a circumferential way, having the sides slightly inclined with each other, said lid is provided, immediately above the spigot, with a circumferential flap (**6**), which acts as a stop for the higher edge of the neck, being also provided a skirt (**7**), which will cover externally the higher portion of the neck, having aggregated to it, in a removable way, the breakable strip (**8**) which constitutes the seal of the lid, and the removal of which is effected by means of a lug element (**9**), which when pulled, promotes first the rupture of the points (**10**) and (**11**), and after that, its rupture in relation to said skirt, which will happen along the low resistance line (**12**), which joins the seal to the skirt, such said skirt will remain, even after the removal of said seal, in order to retain said lid over the neck, and is aided by its inner points of interference (**13**), (**14**) and (**15**), which will interact with the higher and lower surfaces, of said circumferential flap of the lid, and with the outer hinge (**16**), which is articulated with the help of an appendix (**17**), formed on the back part of the inner circumferential ring (**18**) of the lower surface of the over-lid, which, besides helping to insert said circumferential ring into the interior in the higher edge (**19**) of the lid, in order to obtain waterproofing of the set, also promotes the flexibility of said plane hinge, which will happen in two stages, on the first stage the hinge will be displaced in relation to the its joining line (**20**) with the circumferential flap of said lid, and on the second stage it will be displaced in relation to its joining line (**21**) with the lower surface of the over-lid, the retention of the over-lid, when of its closure, is reached by the action of the ferrule (**22**) provided in the higher edge of said lid, which will interact with the circumferential bead (**23**) provided on the lower surface of the over-lid, which is arranged between the inner circumferential ring of its lower surface and its outer circumferential flap (**24**), which, when of the closure, will bear on the circumferential bead (**25**), provided on the higher surface of the circumferential flap of the lid, being that for the opening of lid, it is provided a plurality of triangular shoulders (**26**), provided in line, at the higher portion of a frontal peripheral segment of the over-lid, which is orthogonally projected, in relation to the periphery thereof.

[0024] The CONSTRUCTING ARRANGEMENT INTRODUCED IN A LID, currently proposed, can also provide, in a constructing variant, the adoption of the element which constitutes the bottom of said lid in the form of a conical disk (**27**), on the surface of which there are made inclined slits (**28**), arranged in a circumferential way.

1.-**2**. (canceled)

3. A lid, comprising: cylindrical body having an articulated over-lid;

an annular spigot provided in a lower external part of said body so as to form an area of interference with a surface of an inner edge of a flask neck;

a bottom provided within the cylindrical body and shaped as a disk containing slits arranged circumferentially;

a circumferential flap arranged above the spigot to form a stop for an upper edge of the neck;

a skirt configured to externally cover a superior portion of the neck;

a breakable strip removably aggregated to the skirt along a resistance line and forming a seal for the lid, the breakable strip having a lug element that when pulled, first, ruptures break points which permit the lug element to be pulled away from the skirt and, second, ruptures the resistance line so that the strip is removed from the skirt, the skirt having inner interference points that interact with higher and lower surfaces of the circumferential flap and with an outer protuberance of the neck to hold the lid over the neck;

the over-lid being articulated to the body by a hinge, an appendage being formed on a back portion of an inner circumferential ring on a lower surface of the over-lid so as to guide insertion of the inner circumferential ring into an interior of an upper edge of the body and form a water-tight seat, the appendage further promoting flexibility of the hinge,

wherein the hinge joins the circumferential flap along a first joining line and joins the lower surface of the over-lid along a second joining line, the hinge, during articulation of the over-lid, is firstly displaced along the first joining line and secondly along the second joining line;

a ferrule provided on an end of the upper edge of the body so as to interact with a circumferential bead on the lower surface of the over-lid when the over-lid is closed on the body, the circumferential bead being arranged between the inner circumferential ring and an outer circumferential flap that bears on a circumferential bead on an upper surface of the circumferential flap of the body; and

a plurality of triangular shoulders provided along a frontal peripheral edge of the over-lid so as to project orthogonally from the edge and facilitate opening of the over-lid from the body.

4. The lid according to claim **3**, wherein the bottom is formed as a planar disk and the slits have sides that are inclined relative to one another.

5. The lid according to claim **3**, wherein the bottom is formed as a conical disk having inclined slits arranged circumferentially.

* * * * *