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(54) **A PART FOR SUPPORTING ITEMS, IN PARTICULAR BOTTLES OR CONTAINERS IN GENERAL**

TEIL ZUM TRAGEN VON GEGENSTÄNDEN, INSBESONDERE FLASCHEN ODER BEHÄLTER IM ALLGEMEINEN

PIECE DE SUPPORT D'ARTICLES, EN PARTICULIER DE BOUTEILLES OU DE RECIPIENTS EN GENERAL

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Description

[0001] The present invention relates to a part for supporting items according to the preamble of claim 1.

[0002] Said items to be supported are, in particular, containers and preferably consist of bottles, made of a plastic material or another type of material.

Background Art

[0003] The use of disposable bottles for marketing liquids, as much in the foodstuffs sector as in other sectors, leads to the production of containers with a relatively large capacity, to contain production costs and ecological contraindications.

[0004] The consequent weight of such containers led them to be equipped with lifting and handling grips, consisting of rings made of a plastic material with inner teeth and outer reclining handles, designed to be inserted in the neck of the bottle but resisting removal from it, so that, when the handle is grasped, they can be used to lift the container.

[0005] Such prior art grip structures have the disadvantage of limited adaptability to different types of bottles.

[0006] They also require a relatively high level of pressure to insert them in place.

[0007] Moreover, these known grip structures have complex shapes, requiring the use of a large amount of material and their dimensions and cost are excessive.

[0008] In addition, the asymmetry of the prior art structures necessitates special stratagems for relative orientation and positioning in the automatic handling and insertion devices.

[0009] DE 10319000 discloses a U-shaped carry-handle for a bottle having a circular clip with tabs fitting under the bottle cap and in which the handle is linked to the clip via a hinge

Disclosure of the Invention

[0010] The above problems are solved by a part comprising the features of claim 1.

[0011] Other advantageous aspects of the present supporting part are described in the other claims and the relative advantages can easily be deduced from the description which follows.

Brief Description of the Drawings

[0012] The technical features of the invention and its advantages are more evident in the detailed description which follows, with reference to the accompanying drawings, which illustrate embodiments by way of example only and without limiting the scope of the invention, in which:

- Figure 1 is a perspective view of a first preferred embodiment of the present invention;
- Figures 2 to 5 inclusive are side views of a neck of a bottle with as many respective operating positions, of the first preferred embodiment of the present invention;
- Figure 6 is a perspective view of an alternative or variant of the first preferred embodiment of the present invention;
- Figure 7 is a perspective view of a second preferred embodiment of the present invention;
- Figure 8 is a cross-section of the second preferred embodiment of the present invention, seen according to the line VIII-VIII illustrated in Figure 7;
- Figures 9 to 12 inclusive are side views of a neck of a bottle with as many respective operating positions, of the second preferred embodiment of the present invention;
- Figure 13 is a perspective view of the fourth preferred embodiment of the supporting part according to the present invention;
- Figure 14 is a perspective view of a fourth embodiment of the supporting part according to the present invention;
- Figure 15 is a top view of a fifth preferred embodiment of a supporting part according to the present invention;
- Figure 16 is a top view of a sixth preferred embodiment of a supporting part according to the present invention;
- Figure 17 is a top view of a seventh preferred embodiment of a supporting part according to the present invention;
- Figure 18 is a schematic vertical section of a first arrangement of the supporting part according to the present invention;
- Figure 19 is a schematic vertical section similar to that in Figure 18 illustrating a third arrangement of the supporting part according to the present invention;
- Figure 20 is a schematic vertical section of a second arrangement of the supporting part according to the present invention;
- Figure 21 is a schematic vertical section of a fourth preferred arrangement of the supporting part according to the present invention;
- Figure 22 is a schematic vertical section of a fifth preferred arrangement of the supporting part according to the present invention.

Detailed Description of the Preferred Embodiments of the Invention

[0013] With reference to the accompanying drawings, and in particular with reference to Figure 1, the numeral 10 denotes a first preferred embodiment of a part for supporting items, in particular containers, especially bottles.

[0014] As illustrated, the supporting part 10 consists of a body forming means 2 for retaining the item and of means 4, 4 for pick up by the user, as described more

clearly below.

[0015] In particular, as is more clearly indicated below, the pick up means 4, 4 may be moved, or displaced, between a home position and an operating position in which they are gripped by the user.

[0016] In particular, the numeral 1 in the accompanying drawings denotes a ring made of plastic material, of any type suitable for the purpose, in the particular case illustrated by way of example having a "H" shaped cross-section (see also Figure 2), all in one piece with a plurality of coplanar radial tabs 2, having a trapezoidal shape, radiating internally.

[0017] Each of the tabs 2 has a pair of opposite grooves 3 which thin the material of which they are made on the two faces, at the root where they are connected to the ring 1, from where the tab extends radially inwards.

[0018] The ring 1 expands externally in a pair of band-shaped handles 4 which mirror one another symmetrically, their thickness equal to the ring 1 and connected to the ring by bridges 5, in a single piece with the ring and the handles. In particular there is a first bridge and a second bridge 5, 5, diametrically opposed, which extend radially and draw near the ring 1 in a position orthogonal to the diameter, where the handles may have breakable small bridges, not illustrated, for assembly on the ring 1, forming a four-lobed figure in plan view.

[0019] In Figures 2 to 5, the numeral 6 denotes a bottle, schematically illustrated, which is - for example - of the usual type made of a plastic material for foodstuffs and comprises, in the conventional way, a circular ridge 7 at the top of the neck, where a screw cap 8 stops.

[0020] In the variant of this first embodiment illustrated in Figure 6, the other features of the structure remaining the same, the radial tabs 2 lie, inserted between one another, in two planes, as becomes clearer below.

[0021] As may be seen from the accompanying drawings, the ring 1 may be forced, manually or mechanically, using an automatic applicator suitable for the purpose, to insert itself around the neck of the bottle 6, as illustrated in Figure 2.

[0022] Upon making contact with the cap 8 the radial tabs 2 bend upwards at the root, allowing the shape of the cap 8 and the circumferential bead 7 below to pass through. When the latter has also passed through (see Figure 3), the tabs 2 remain locked by the shape of the neck of the bottle 6 in the shared bent configuration taken on, pointing upwards, but the relative elastic memory prevents their further reciprocal spreading apart, such that they remain with their tips pointing toward the lower projecting face of the bead 7, not allowing ring 1 removal.

[0023] This arrangement taken on by the tabs 2, 2 allows the supporting part to be grasped by displacing the handles 4 which mirror one another symmetrically (see Figure 4), from the plane in which they lie coplanar with the ring 1, to a corresponding bent position, in which the handles are paired or coupled up, by breaking the breakable retaining elements if necessary, to form a configuration with twinned profiles (see Figure 5), allowing them to be gripped in a middle position by a user's hand, and, therefore, easy transport of the container.

[0024] Such operation of the present supporting part is repeatedly reproduced for a plurality of degrees of bending of the tabs 2, that is to say, for a plurality of diameter sizes of bottle 6 necks, forced to penetrate between them, which is the same as saying that it is a versatile device which can be used for a wide range of bottles 6, said versatility depending on the length of the tabs 2 and the stiffness of the material.

[0025] In the variant illustrated in Figure 6, system operation is the same, except the angle of the tabs 2 during the operating step of opposing removal under the bead 7 is differentiated between the tabs lying in one plane and the tabs lying in the other plane.

[0026] However, it should be understood that the tabs may have any other shape suitable for the purpose. They may have lightening holes and/or stiffening ribs. Moreover, the shape of the cross-section of the ring may alternatively be any suitable for the purpose and even the handles may be shaped around the ring in any other shape suitable for the purpose and different to the four-lobed shape given to them in the preferred embodiment illustrated. Moreover, the ring 1 may have a circular shape or alternatively may be polygonal.

[0027] The containers to be lifted may also be different to the above-mentioned bottles, provided that they have a neck, or another part, suitable for engaging the grip.

[0028] However that may be, as indicated above and illustrated in the accompanying drawings, it is clear that the retaining means comprise at least one element 2 for connecting to or engaging with the item to be supported, extending according to a radial axis R (see Figure 1).

[0029] In particular, there is a plurality of radial elements 2 for connecting to or engaging with the item, said radial elements, as illustrated, being distributed circumferentially, or distributed in such a way that they are equidistant from one another.

[0030] Advantageously, there are means 4, 4 for picking up the supporting part, which, in the home position substantially lie or extend in the same plane as the radial connecting elements 2.

[0031] In this way, it is possible to obtain a supporting part which does not require the use of a large amount of material and whose dimensions and cost are contained.

[0032] As illustrated, the radial elements consist of corresponding trapezoidal tabs 2, having a flat shape and with their respective lateral edges converging towards the free end and terminating with a transversal or perpendicular surface 12 which engages with the item and exercises a retaining action, as illustrated in Figure 5. As illustrated, this transversale surface 12 has a curved shape, with the concave part towards the inside of the supporting part.

[0033] In particular the pick up means comprise a first handle and a second handle 4 that the user can grip, said handles, in the home position, surround the outside of the corresponding portion of the item to be supported

and, in particular, surround the retaining means 2.

[0034] As illustrated, the body of the supporting part comprises supporting means 1 for the pick up means 4, 4 and for the retaining means 2, 2.

[0035] As illustrated, these supporting means are formed by a ring-shaped element 1, suitable for surrounding a corresponding portion, in particular the neck 6, of the item to be supported.

[0036] As illustrated, the ring-shaped element 1 has, both on its upper surface and on its lower surface, an inner circumferential groove 13 and 14 respectively, between concentric circumferential walls 15 and 16 projecting perpendicularly from a ring-shaped connecting portion which extends radially 17.

[0037] In this way, a ring-shaped element 1 is obtained, having a particularly lightened but relatively stiff shape.

[0038] Moreover, according to another aspect, the pick up means or handles 4, 4 are connected to the respective ring-shaped supporting means 1, by connecting means 5 forming a kind of plastic hinge, which allows rotation - in a direction perpendicular to the plane in which the body 1 lies - of the pick up means 4, 4, towards an upper position in which they can be gripped by the user, illustrated in Figure 5.

[0039] As illustrated in the accompanying drawings, the first and the second pick up handles 4, 4 consist of extended and shaped elements, extending, circumferentially, one on the extension of the other.

[0040] This provides an ample pick up surface for the user.

[0041] Moreover, as illustrated, the first and the second pick up handles 4, 4 extend from corresponding connecting and rotating pins 5, 5 at diametrically opposed sides or points of the supporting means 1.

[0042] Moreover, each pick up handle 4, 4 extends with a profile that has an intermediate section 17 which, in the home position, extends close to the body to which it is attached.

[0043] In this way, the supporting part obtained is not too long and bulky.

[0044] Moreover, each pick up handle 4, 4 extends with a profile that has a first end section and a second end section 18, 19 which, in the home condition, extend in such a way that they are distanced from the body 1 to which the handle is attached.

[0045] As illustrated, said intermediate section 17 and said end sections 18, 19 are joined to one another by a respective oblique joining section 178 and respectively 179.

[0046] The end sections 18, 19 are, in turn, joined to the pin points 5, 5, by an oblique joining section 185, 195, with an angle opposite to that of the joining sections 178, 179.

[0047] In conclusion, each pick up handle 4, 4 extends with an undulating profile, suitable for guaranteeing, during use, an ergonomic grip for the user's fingers, as may be seen for example in Figure 5.

[0048] The accompanying drawings clearly show that the means 2, 2 for retaining the item have a home position, illustrated in Figure 1, and an operating position in which they engage with and retain the item, illustrated for example in Figures 4 and 5.

[0049] In particular, in the home position the means 2, 2 for retaining the item extend in the plane in which the part extends, with the engagement tabs 2 coplanar with one another.

[0050] As illustrated, in the operating position, the means 2 for retaining the item extend in a direction transversal to or raised relative to the plane in which the supporting part extends, forming an angle to this virtual plane of development or extension of the present part.

[0051] In particular, an example of the virtual plane of extension of the present supporting part is indicated by a dashed and dotted line labelled "O" in Figure 2 and is substantially formed by the vertical centre line of the ring-shaped supporting part.

[0052] Moreover, as indicated, the radial retaining means 2 extend internally from the inner edge or inner circumferential surface (1') of the ring-shaped element 1.

[0053] As illustrated, in the home condition, the engagement tabs 2 are also substantially coplanar with the ring-shaped element, and in the home condition the pick up means 4, 4 are substantially coplanar with the ring-shaped element 1. This provides a part configuration that is particularly flat in the home condition.

[0054] According to another aspect, in the home position the handles 4, 4 extend in directions which are opposite to one another, whilst in the operating position the handles 4, 4 extend in such a way that they are paired up, in particular extending, in this operating position, in a substantially vertical direction. This gives more balanced support and better distribution of stresses in the part, improving support safety, and on the user's hand, improving support comfort.

[0055] The bent operating position of the pick up means 4, 4 is induced by the user pulling the pick up means upwards.

[0056] As illustrated, the present supporting part is made in a single piece from a plastic material, obtained by means of moulding.

[0057] A second preferred embodiment is illustrated with reference to the subsequent Figures 7 to 12.

[0058] With reference to said Figures, and in particular Figure 7, the numeral 1A denotes as a whole a ring made of plastic material, of any type suitable for the purpose, in the particular case illustrated having a "H" shaped cross-section (see also Figure 8), all in one piece with two fronts or pluralities of opposite coplanar radial tabs 2A and 2B, radiating internally.

[0059] In the embodiment illustrated, each front, or plurality, of tabs consists of three tabs 2A, 2B and 2B, of which the middle tabs 2A have a rectangular shape and the lateral tabs 2B and 2B have an irregular pentagon shape, so that, as a whole, they form at their tips, or at the respective free end, respective linear engagement segments, lying on two parallel chords.

[0060] Each of the tabs 2A, 2B and 2B has a pair of opposite grooves 3 which thin the material of which they are made, on the two faces, at the root or the end where they are connected to the ring 1A, from where the respective tab projects or extends radially towards the inside of the ring 1A.

[0061] The ring 1A has, along its length, four notches 1B, which thin the material of which it is made, or prefold notches, forming two opposite arcs 1C, 1C, on the portions of the relative length which do not support the tabs 2A, 2B, the arcs 1C, 1C being able to bend upwards as illustrated in Figure 12.

[0062] The ring 1A expands externally in a pair of band-shaped handles 4 which mirror one another symmetrically, of equal thickness and connected to the arcs 1C, 1C which can be bent, by bridges 5 of material used to make the part, located at diametrically opposed points. Starting from the bridges 5, the handles expand then draw near the ring 1A again in a position orthogonal to the diameter, where there may be breakable small assembly bridges not illustrated, providing a four-lobed configuration in plan view.

[0063] In Figures 9 to 12, the numeral 6 denotes a bottle, schematically illustrated, which is, for example, of the conventional type, made of a plastic material for foodstuffs and comprises, in the conventional way, a circular ridge 7 at the top of the neck, where a screw cap 8 stops.

[0064] The ring 1A may be forced, manually or mechanically, using an automatic applicator suitable for the purpose, to insert itself around the neck of the bottle 6, as illustrated in Figure 9.

[0065] After engaging against the cap 8, the radial tabs 2A and 2B bend upwards at the root, allowing the shape of the cap 8 and the circumferential bead 7 below to pass through, as illustrated in Figure 10.

[0066] When the latter has also passed through (see Figure 10), the tabs 2A and 2B remain locked by the shape of the neck of the bottle 6 in the shared bent shape taken on, but the relative elastic memory prevents their further reciprocal spreading apart, such that they remain with their tips pointing edgeways toward the lower projecting face of the bead 7, not allowing ring 1A removal.

[0067] This single-direction or non-return type operation allows the structure to be grasped by displacing the handles 4 which mirror one another symmetrically (see Figures 10 and 11), from the plane in which they lie coplanar with the ring 1A, to a corresponding bent position, in which the handles are paired or coupled up, by breaking the breakable retaining elements if necessary, to form a configuration with twinned profiles (see Figure 12), allowing them to be gripped in a middle position by a user's hand, and, therefore, easy transport of the container.

[0068] The traction applied on the part by the handles 4, 4, against the resistance of the tabs 2A, 2B and 2B, which point under the bead 7, causes deformation of the ring 1A, whose bendable arcs 1C, to which the handles 4 are directly connected, bend upwards from the prebending notches 1B, until they make contact with the neck of the bottle 6 and/or the relative cap 8, thus clamping it and preventing the tabs 2A and 2B from losing their arrangement and hold.

[0069] Thus, gripping the handles 4 in the middle position allows the container 6 to be lifted and transported with ease.

[0070] Such operation is repeatedly reproduced for a plurality of degrees of bending of the tabs 2A and 2B, that is to say, for a plurality of diameter sizes of bottle necks 6, forced to penetrate between them, which is the same as saying that it is a versatile device which can be used for a wide range of bottles, said versatility depending on the length of the tabs and the relative stiffness.

[0071] However that may be, as indicated above and illustrated in the accompanying drawings, it is clear that, unlike the first preferred embodiment, in this second embodiment there are engagement tabs 1A, 1A, 2A, 2A, 2A, 2A, extending from opposite sides of the body of the part.

[0072] Moreover, the tabs 2A, 2B and 2B have the respective free ends 2'A, 2'B, 2'B, positioned in such a way that they substantially form a single continuous engagement surface.

[0073] Moreover, the circumferential engagement tabs comprise opposite first and second sets of tabs. Each set of tabs has a central tab 2A and lateral tabs 2B, 2B, extending, from the ring-shaped element 1A, from points which are circumferentially distanced from the point at which the central tab 2A extends.

[0074] It may also be seen that the supporting means 1A of this second embodiment of the supporting part are deformable relative to the plane in which the part extends in the home condition. In particular, the supporting means are elastically deformable relative to the plane in which the part extends in the home condition.

[0075] In more detail, the supporting means 1A have weakening means 1B, 1B, suitable for allowing relative rotations of corresponding parts 1D, 1D, and 1C, 1C, respectively, connected to the pick up means 4, 4 and to the retaining means 2A, 2B, 2B.

[0076] In particular, the weakening means 1B, 1B consist of thinned areas of the ring-shaped supporting element 1A, formed by clefts 1'B and 1"B in the concentric circumferential walls 15, 16 of the ring-shaped element 1A, both above and below the horizontal wall which connects them. The corresponding clefts 1'B and 1"B in the concentric walls 15 and 16, connected by the horizontal wall 17, of the ring-shaped element are aligned with one another according to a suitable direction, not radial to the ring-shaped element 1A.

[0077] Advantageously, the weakening means 1B, 1B are designed to allow torsion relative to the corresponding portions 1C, 1C of the ring-shaped supporting element, with respect to the other portions 1D, 1D of the ring-shaped element 1A, as illustrated in Figures 11 and 12.

[0078] In particular, there is a first weakening zone and a second weakening zone 1B, 1B, delimiting a respective zone 1C, 1C for extension of a corresponding attachment

and rotation portion 5, 5 of the corresponding handle 4, 4, in such a way as to allow this portion to be lifted when the handles 4, 4 are pulled upwards.

[0079] According to another aspect, in the ring 1A grooves there are corresponding filling portions 17', 17', which stiffen the grooved ring 1A. In particular, the filling portions 17' 17' are present at diametrically opposed points, where the lifting handles 4, 4 are attached. However, there may be other filling portions, as required, along the circumference of the ring 1A.

[0080] However, it should be understood that, in this second preferred embodiment, the tabs may again have any other shape suitable for the purpose. They may have lightening holes and/or stiffening ribs. Moreover, the shape of the cross-section of the ring may alternatively be any suitable for the purpose and even the handles may be shaped around the ring in any other shape suitable for the purpose and different to the four-lobed shape given to them in the example embodiment described. Moreover, the ring may have a circular shape or alternatively may be polygonal.

[0081] Obviously, the containers to be lifted may also be different to what is customarily defined as a bottle, provided that they have a neck for engaging the grip.

[0082] Figure 13 illustrates a third preferred embodiment of a supporting part according to the present invention.

[0083] The supporting part of this third preferred embodiment is labelled 50 as a whole and is substantially similar to that of the first preferred embodiment illustrated. To avoid making this description too long, the components of this third embodiment of the supporting part 50 Which are similar to those of the first preferred embodiment, are not described again.

[0084] This third preferred embodiment is distinguished from the first preferred embodiment by the fact that the engagement tabs 52 have a trapezoidal through-hole 53 at the front end of the tab 52. This trapezoidal hole 53 has lateral edges converging towards the front part and forms an advantageous lightening hole, which makes the front part of the tab 52 more flexible.

[0085] As illustrated in Figure 13, as well as preparation of said lightening openings 53 in the radial engagement elements 52, this third preferred embodiment has, at the handle 54 attachment and rotation points 55, in particular at the sides of these rotation points 55, small connecting pins 56 of the breakable type.

[0086] Moreover, labelled 57, there are similar elements or breakable small pins for retaining the handles 52 on the supporting body 51, also located at the outer circumferential surface of the ring-shaped supporting body 51, between this outer ring-shaped surface 51' and the inner surface 54' of the handles in the home condition. In particular, these breakable elements 57, 57 are located along a diameter, which is oriented at an angle of substantially 90° to the diameter joining the handle 54, 54 rotation pins 55, 55. The breakable connecting means 56, 57 have a profile which narrows at the point where they are joined to the pick up means 54.

[0087] The small breakable pins 56, 57 are particularly, advantageous. Indeed, these small pins 56, 57 allow easy removal of the part from the mould, which does not deform and therefore does not prevent this operation, and at the same time they are easily broken, in particular at the thinnest zone, that is to say, at the point where these pins 56, 57 are joined to the corresponding inner surface of the handle 54', when the handles 54, 54 are lifted into the erect container or item transport position.

[0088] As illustrated, these pins 56, 57 are much thinner than the height of the ring-shaped supporting element 51 and the corresponding handle 54, whilst in a top view they have a general triangular shape, narrowing from the outer surface 51' of the ring-shaped element 51, reaching a minimum width at the point where the pin 56, 57 is joined to the inner surface 54' of the handle.

[0089] Figure 14 illustrates a fourth preferred embodiment of the supporting part 80, substantially similar to the second embodiment, having, like the third preferred embodiment of the supporting part, the breakable pins 56, 57 for retaining the handle on the supporting body 81.

[0090] As illustrated, in this fourth preferred embodiment 80, the lateral tabs 2B, 2B of the two sets of opposite retaining tabs have pairs of lightening holes 83a, 83b, radially aligned with one another, with suitable dimensions and shape, in particular a shape which follows the outer profile of the lateral edges of the lateral tabs 2B, 2B, that is to say, a provide converging towards the point at which they are attached to the inner face of the ring-shaped element 81.

[0091] In particular, said openings 83a, 83b have a general trapezoidal profile with the sides converging towards the point at which the tab 2B, 2B is attached to the ring-shaped supporting element 81. However, other shapes for the aligned lightening holes may be imagined.

[0092] As is evident from the detailed description above of preferred embodiments, the above embodiments of the supporting part according to the present invention combine an effective, practical and economical structure to allow easy and firm grasping of bottles, especially those with larger dimensions, made of a food-safe plastic material, versatile and for use for a wide range of neck 11 sizes.

[0093] The relative features also allow its particularly easy mechanical handling, that is to say, application and fitting by automatic machines, since said parts can easily be fed in any way to the application device.

[0094] As can be seen with reference to the subsequent drawings, in other embodiments, the present supporting part is integral with, that is to say in a single body, with a portion of the item, in particular in a single body with the cap used to close the item.

[0095] In particular, as illustrated in Figure 15, relative to a fifth preferred embodiment of the supporting part, the supporting part 200 comprises a first and a second handle 204, 204, which extend from opposite sides and surround the cap 208 along its entire circumference. The

handles are connected to the cap 208 by portions 205, 205 which extend radially, on diametrically opposed sides of the cap 8.

[0096] As illustrated, the present supporting part has handles 204, 204 which remain very close to the outer surface 208' of the cap, having a broken line profile, of which end linear portions 204a, 204b and intermediate linear portions 204c, 204d may be recognised, and in which each of the linear portions is at an obtuse angle to the adjacent linear portion.

[0097] Figure 16 illustrates a sixth embodiment of the supporting part, comprising a single handle 304 completely surrounding the cap 308, to which it is attached, and which has a single portion 305 for connection to the cap, extending radially at a respective end or side of the circumferential handle.

[0098] As is evident in Figure 16, the supporting part 300 extends with a circular profile, remaining very close to the outer circumferential surface 308' of the cap 308.

[0099] A seventh preferred embodiment of the supporting part 400 is illustrated in Figure 17. Like the previous sixth embodiment, the supporting part 400 of this seventh embodiment has a single pin or radial extending element 405 connecting it to the corresponding cap 408.

[0100] This seventh preferred embodiment of the supporting part 400 has a handle having the general shape of a polygon, in particular a triangle. The handle 404 has a first branch 404a at the pin 405 attaching it to the outer surface of the cap 408, and a second branch and a third branch 404b, 404c, converging in a corresponding rounded joining zone or section 406, on the opposite side to that where the attachment pin 405 extends, the rounded joining portion 406, between the linear branches 404b and 404c of the handle, forming convenient pick up means for a user. The user is of course inclined to engage a finger on the rounded inner surface 406' of the joining portion 406, with the handle 404, obviously, in the raised position, substantially vertical.

[0101] As illustrated, like the previous embodiments, this supporting part 400 therefore has handle portions which are positioned particularly close to the outer circumferential surface 408' of the cap 408, with portions extending a greater distance from cap.

[0102] In particular, with reference to each branch 404a, 404b, 404c, it may be seen how a central portion of said sections extends close to the outer surface of the cap 408, whilst the end portions of each branch are further from the outer surface of the cap, facilitating any insertion of a user's finger for an improved initial grip on the supporting part 400.

[0103] As can be seen with reference to the subsequent drawings, in other embodiments, the present supporting part is integral with, that is to say in a single body, with a portion, in particular with the cap used to close the item, in corresponding and preferred positions.

[0104] As illustrated in Figure 18, the supporting part 500 may be attached to the cap 508 at the lower edge 508" of the cap, in particular in a position above the ring 509 used to fix the cap to the bottle.

[0105] Moreover, as illustrated in Figure 19, the supporting part 600 may be attached to the cap 608 at the upper edge 608" of the cap.

[0106] Moreover, as illustrated in Figure 20, the supporting part 700 may be attached to the cap 708 close to the upper edge of the cap, just below the zone 708" where the cap narrows upwards.

[0107] Moreover, as illustrated in Figure 21, the supporting part 800 may be attached to the cap 808 at the lower ring 809 used to fix the cap to the bottle. In particular, the supporting part 800 is fixed at the upper edge 809" of the ring 809 used to fix the cap to the bottle.

[0108] Moreover, as illustrated in Figure 22, the supporting part 900 may be attached to the cap 908 at the lower ring 909 used to fix the cap to the bottle. In particular, the supporting part 900 is fixed at the lower edge 909" of the ring 909 used to fix the cap to the bottle.

[0109] The invention described may be subject to modifications and variations without thereby departing from the scope of the inventive concept. Moreover, all details of the invention may be substituted by technically equivalent elements. In particular, it shall be understood that the handles of the present supporting part may have any suitable shape.

Claims

1. A part (10) for supporting items, in particular items in the form of containers, especially bottles; the part consisting of a body forming means (2) for retaining the item and means (4, 4) for pick up by the user: in which the pick up means can be moved between a home position and an operating position in which they are gripped by the user; the body having means (1) for supporting the retaining means (2, 2) comprising a ring-shaped element (1) surrounding a corresponding portion, in particular the neck (6), of the item to be supported; said supporting means (1) defining also means for supporting the pick up means (4, 4); the retaining means comprising a plurality of coplanar radial tabs (2) for connection to the item, extending according to a radial axis (R) and having each a free end forming a transversal surface which engages with and retains the item, the means (2, 2) for retaining the item have a home position and an operating position in which they engage with and retain the item, in the home position, the means (2, 2) for retaining the item extend in the plane (O) in which the part extends, in the operating position, the means (2, 2) for retaining the item extend in a direction transversal to or raised relative to the plane (O) in which the part extends, **characterised in that** each of the tabs (2) have a pair of opposite grooves (3) which thin the material of which they are made on the two faces, at the root where they are connected to the ring element (1), from where the tab extends radially

inwards.

2. The part according to claim 1, **characterised in that** the pick up means comprise at least one handle (4) which can be gripped by the user.

3. The part according to claim 2, **characterised in that** the pick up means comprise a second handle (4) which can be gripped by the user.

4. The part according to any of the foregoing claims, **characterised in that**, in the home position, the pick up means (4, 4) surround the corresponding neck (6) of the item to be supported.

5. The part according to any of the foregoing claims, **characterised in that**, in the home position, the pick up means (4, 4) surround the retaining means (2).

6. The part according to any of the foregoing claims, **characterised in that**, in the home position, the pick up means (4, 4) surround the supporting means (1).

7. The part according to any of the foregoing claims, **characterised in that** the ring-shaped element has an inner circumferential groove (13, 14) between raised circumferential walls (15, 17).

8. The part according to any of the foregoing claims, **characterised in that** the pick up means (4, 4) are connected to the respective supporting means (1) by connecting means (5) relative to which the pick up means can rotate.

9. The part according to any of the foregoing claims, **characterised in that** the first and the second pick up handles consist of a respective extended element, there being one, circumferentially, on the extension of the other.

10. The part according to any of the foregoing claims, **characterised in that** the first and the second pick up handles extend from points of rotation that substantially correspond with one another.

11. The part according to any of the foregoing claims, **characterised in that** the pick up handle (4, 4) extends from corresponding points of rotation (5, 5), the latter being on opposite sides of the respective supporting means (1).

12. The part according to any of the foregoing claims, **characterised in that** the pick up handle (4, 4) extends with a profile that has an intermediate section (17) which, in the home position, extends close to the body (1) to which it is attached.

13. The part according to any of the foregoing claims, **characterised in that** the pick up handle (4, 4) extends with a profile that has a first end section and a second end section (18, 19) which, in the home position, extend in such a way that they are distanced from the body to which the handle is attached.

14. The part according to any of the foregoing claims, **characterised in that** the pick up handle (4, 4) extends with an undulating profile.

15. The part according to any of the foregoing claims, **characterised in that** the pick up means (54, 54) are connected to the respective supporting means (1) by breakable connecting means (56, 57).

16. The part according to claim 15, **characterised in that** the breakable connecting means (56) are located close to the point of rotation (55).

17. The part according to claim 15 or 16, **characterised in that** the breakable connecting means are located along a diameter, which is orientated at an angle relative to the diameter joining the rotation pins (55, 55) of the pick up means (54, 54), with respect to the supporting means (51).

18. The part according to any of the foregoing claims from 15 to 17, **characterised in that** the breakable connecting means (56, 57) are thinner than the height of the ring-shaped supporting element (51) and the corresponding handle (54).

19. The part according to any of the foregoing claims from 15 to 18, **characterised in that** the breakable connecting means (56, 57) have a profile which narrows at the point where they are joined to the pick up means (54).

20. The part according to any of the foregoing claims, **characterised in that** the retaining tabs (2, 2) are circumferentially equidistant.

21. The part according to any of the foregoing claims, **characterised in that** the retaining means (2A, 2B, 2B) extend from opposite sides of the body of the supporting part (1).

22. The part according to claim 21, **characterised in that** the retaining means consist of opposite first (2A, 2B, 2B) and second (2A, 2B, 2B) sets of tabs.

23. The part according to any of the foregoing claims, **characterised in that** the tabs (2A, 2B, 2B) have free ends forming a substantially aligned surface.

24. The part according to claim 22 or 23, **characterised in that** each set of tabs has a central tab (2A) and lateral tabs (2B), extending from points which are

circumferentially distanced from one another.

25. The part according to any of the foregoing claims, **characterised in that**, in the home position, the handles (4, 4) extend in opposite directions.

26. The part according to any of the foregoing claims, **characterised in that**, in the operating position, the handles (4, 4) extend in such a way that they are paired up.

27. The part according to any of the foregoing claims, **characterised in that**, in the operating position, the pick up means (4, 4) extend in a vertical direction.

28. The part according to any of the foregoing claims, **characterised in that** the operating position of the pick up means (4, 4) is induced by the user pulling the pick up means (4, 4) upwards.

29. The part according to any of the foregoing claims, **characterised in that** the part supporting means are deformable relative to the plane (O) in which the part extends in the home position.

30. The part according to any of the foregoing claims, **characterised in that** the supporting means have weakening means (1B, 1B), suitable for allowing relative rotations of corresponding portions (1C, 1C, 1D, 1D), respectively, connected to the pick up means (4, 4) and to the retaining means (2).

31. The part according to claim 30, **characterised in that** the weakening means (1B, 1B) consist of thinned areas of the ring-shaped supporting element.

32. The part according to claim 30 or 31, **characterised in that** the weakening means (1B, 1B) are designed to allow a torsion relative to the corresponding portions (1C, 1C 1D, 1D) of the supporting means (1).

33. The part according to any of the foregoing claims from 30 to 32, **characterised in that** there is a first weakening zone and a second weakening zone (1B, 1B), delimiting a zone (1C, 1C) for extension of an attachment and rotation portion of the corresponding handle (4, 4).

34. The part according to any of the foregoing claims, **characterised in that** the engagement tabs (52) have a through-hole.

35. The part according to claim 34, **characterised in that** the engagement tabs have at least a first hole and a second hole (83a, 83b) which are radially aligned with one another.

36. The part according to any of the foregoing claims from 9 to 35 , **characterised in that** in the grooves of the ring (1A) there are corresponding filling portions (17', 17').

37. The part according to claim 36, **characterised in that** the filling portions (17', 17') are located in diametrically opposed points, where the supporting handles are connected.

38. The part according to any of the foregoing claims, **characterised in that** it is made in a single piece.

39. The part according to any of the foregoing claims, **characterised in that** it is made of a plastic material.

40. The part according to any of the foregoing claims, **characterised in that** it is made in a single piece with the bottle cap.

41. The part according to claim 40, **characterised in that** the supporting part (200) has at least one handle (204, 204), which remains very close to the outer surface of the cap to which it is attached.

42. The part according to claim 41, **characterised in that** the supporting part (200) has at least one handle (204, 204), having a broken line profile.

43. The part according to any of the foregoing claims from 40 to 42, **characterised in that** the supporting part comprises a single handle (304), surrounding the corresponding outer surface of the component of the item to which it is attached.

44. The part according to any of the foregoing claims from 40 to 43, **characterised in that** the supporting part comprises a single radial element (305) for connection to the component of the item to which it is attached.

45. The part according to any of the foregoing claims from 40 to 44, **characterised in that** the supporting part has a handle with a substantially circular profile.

46. The part according to any of the foregoing claims from 40 to 45, **characterised in that** the supporting part has a handle having the general shape of a polygon, in particular a triangle.

47. The part according to any of the foregoing claims from 40 to 46, **characterised in that** the handle (404) has a pair of branches (404b, 404c) converging in a corresponding rounded joining zone or section (406), forming pick up means for the user.

48. The part according to any of the foregoing claims from 40 to 47, **characterised in that** the supporting

part (500) is attached to the cap (508) at the lower edge of the cap.

49. The part according to any of the foregoing claims from 40 to 47 **characterised in that** the supporting part (500) is attached to the cap (508) in a position above the ring (509) used to fix the cap to the bottle.

50. The part according to any of the foregoing claims from 40 to 47 **characterised in that** the supporting part (600) is attached to the cap (608) at the upper edge of the cap.

51. The part according to any of the foregoing claims from 40 to 47, **characterised in that** the supporting part (700) is attached to the cap (708) close to the upper edge of the cap, just below the start of the zone where the cap narrows upwards.

52. The part according to any of the foregoing claims from 40 to 47, **characterised in that** the supporting part (800) is attached to the cap (808) at the lower ring (809) used to fix the cap to the bottle.

53. The part according to any of the foregoing claims from 40 to 47, **characterised in that** the supporting part (800) is attached to the cap (808) at the upper edge of the ring (809) used to fix the cap to the bottle.

54. The part according to any of the foregoing claims from 40 to 47, **characterised in that** the supporting part (900) is attached to the cap (908) at the lower edge of the ring (909) used to fix the cap to the bottle.

Patentansprüche

1. Teil (10) zum Tragen von Gegenständen, insbesondere Gegenstände in Form von Behältern und im Besonderen Flaschen; wobei das Teil aus einen Körper bildenden Mitteln (2) zum Halten des Gegenstandes und Mitteln (4, 4) zum Aufnehmen durch den Benutzer besteht; worin die Aufnahmemittel beweglich sind zwischen einer Ausgangsstellung und einer Gebrauchsstellung, in der sie vom Benutzer ergriffen werden; wobei der Körper Mittel (1) zum Tragen der Haltemittel (2, 2) aufweist, die ein ringförmiges Element (1) beinhalten, das einen entsprechenden Abschnitt, insbesondere den Hals (6) des zu tragenden Gegenstandes umgibt; wobei die Trägermittel (1) auch Mittel zum Tragen der Aufnahmemittel (4, 4) bilden; wobei die Haltemittel mehrere koplanare radiale Laschen (2) für die Verbindung mit dem Gegenstand beinhalten, die sich entlang einer radialen Achse (R) erstrecken und jeweils ein freies Ende aufweisen, das eine quergerichtete Fläche bildet, die in Eingriff mit dem Gegenstand tritt und diesen festhält, wobei die Mittel (2, 2) zum Halten des Gegenstandes eine Ausgangsstellung aufweisen und eine Gebrauchsstellung, in der sie in Eingriff mit dem Gegenstand sind und diesen festhalten; wobei in der Ausgangsstellung die Mittel (2, 2) zum Halten des Gegenstandes auf der Ebene (O) liegen, in der sich das Teil erstreckt, und sich in der Gebrauchsstellung die Mittel (2, 2) zum Halten des Gegenstandes in einer Richtung erstrecken, die quer oder erhöht relativ zu Ebene (O) verläuft, in der sich das Teil erstreckt; wobei das Teil **dadurch gekennzeichnet ist, dass** jede der Laschen (2) ein Paar einander gegenüberliegender Rillen (3) aufweist, durch die das Material, aus dem sie bestehen, auf beiden Seiten am Ursprungspunkt verdünnt wird, an dem sie mit dem Ringelement (1) verbunden sind, von dem aus die Lasche radial nach innen ragt.

2. Teil nach Anspruch 1, **dadurch gekennzeichnet, dass** die Aufnahmemittel zumindest einen Griff (4) beinhalten, der vom Benutzer ergriffen werden kann.

3. Teil nach Anspruch 2, **dadurch gekennzeichnet, dass** die Aufnahmemittel einen zweiten Griff (4) beinhalten, der vom Benutzer ergriffen werden kann.

4. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass**, in der Ausgangsstellung, die Aufnahmemittel (4, 4) den entsprechenden Hals (6) des zu tragenden Gegenstandes umgeben.

5. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass**, in der Ausgangsstellung, die Aufnahmemittel (4, 4) die Haltemittel (2) umgeben.

6. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass**, in der Ausgangsstellung, die Aufnahmemittel (4, 4) die Trägermittel (1) umgeben.

7. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** das ringförmige Element eine innere umlaufende Rille (13, 14) zwischen erhöhten Umfangswänden (15, 17) aufweist.

8. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Aufnahmemittel (4, 4) mit den entsprechenden Trägermitteln (1) über Verbindungsmittel (5), relativ zu denen die Aufnahmemittel drehen können, verbunden sind.

9. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** der erste und der zweite Aufnahmegriff aus einem entsprechenden verlängerten Element bestehen, von denen sich eines, entlang des Umfangs, auf der Verlängerungslinie des anderen befindet.

10. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** der erste und der zweite Aufnahmegriff sich von Drehpunkten aus erstrecken, die im Wesentlichen einander entsprechen.

11. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** sich die Aufnahmegriffe (4, 4) von entsprechenden Drehpunkten (5, 5) aus erstrecken, sie sich jeweils auf entgegengesetzten Seiten der entsprechenden Trägermittel (1) befinden.

12. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** sich der Aufnahmegriff (4, 4) mit einem Profil erstreckt, das einen Zwischenabschnitt (17) aufweist, der sich, in der Ausgangsstellung, nahe des Körpers (1) erstreckt, an dem er befestigt ist.

13. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** sich der Aufnahmegriff (4, 4) mit einem Profil erstreckt, das einen ersten Endabschnitt und einen zweiten Endabschnitt (18, 19) aufweist, welche sich, in der Ausgangsstellung, derart erstrecken, dass sie von dem Körper beabstandet sind, an dem der Griff befestigt ist.

14. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** sich der Aufnahmegriff (4, 4) mit einem wellenförmigen Profil erstreckt.

15. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Aufnahmemittel (54, 54) mit den entsprechenden Trägermitteln (1) über zerbrechliche Verbindungsmittel (56, 57) verbunden sind.

16. Teil nach Anspruch 15, **dadurch gekennzeichnet, dass** die zerbrechlichen Verbindungsmittel (56) in der Nähe des Drehpunktes (55) angeordnet sind.

17. Teil nach Anspruch 15 oder 16, **dadurch gekennzeichnet, dass** die zerbrechlichen Verbindungsmittel entlang eines Durchmessers angeordnet sind, der, bezogen auf die Trägermittel (51), in einem Winkel relativ zu dem Durchmesser ausgerichtet ist, der die Drehstifte (55, 55) der Aufnahmemittel (54, 54) miteinander verbindet.

18. Teil nach einem der vorhergehenden Ansprüche von 15 bis 17, **dadurch gekennzeichnet, dass** die zerbrechlichen Verbindungsmittel (56, 57) dünner sind als die Höhe des ringförmigen Trägerelementes (51) und des entsprechenden Griffes (54).

19. Teil nach einem der vorhergehenden Ansprüche von 15 bis 18, **dadurch gekennzeichnet, dass** die zerbrechlichen Verbindungsmittel (56, 57) ein Profil aufweisen, das sich an dem Punkt verengt, an dem sie an den Aufnahmemitteln (54) befestigt sind.

20. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Haltelaschen (2, 2) entlang des Umfangs in gleichem Abstand voneinander angeordnet sind.

21. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** sich die Haltemittel (2A, 2B, 2B) von einander gegenüberliegenden Seiten des Körpers des Trägerteils (1) aus erstrekken.

22. Teil nach Anspruch 21, **dadurch gekennzeichnet, dass** die Haltemittel aus einander gegenüberliegenden ersten (2A, 2B, 2B) und zweiten (2A, 2B, 2B) Gruppen von Laschen bestehen.

23. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Laschen (2A, 2B, 2B) freie Enden aufweisen, die eine im Wesentlichen miteinander ausgerichtete Fläche bilden.

24. Teil nach Anspruch 22 oder 23, **dadurch gekennzeichnet, dass** jede Gruppe von Laschen eine mittlere Lasche (2A) und seitliche Laschen (2B) aufweist, die sich von Punkten aus erstrecken, die entlang des Umfangs voneinander beabstandet sind.

25. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** sich, in der Ausgangsstellung, die Griffe (4, 4) in einander entgegengesetzte Richtungen erstrecken.

26. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** sich, in der Gebrauchsstellung, die Griffe (4, 4) derart erstrecken, dass sie paarweise nach oben gerichtet sind.

27. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** sich, in der Gebrauchsstellung, die Aufnahmemittel (4, 4) in einer vertikalen Richtung erstrecken.

28. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Gebrauchsstellung der Aufnahmemittel (4, 4) durch den Benutzer herbeigeführt wird, indem dieser die Aufnahmemittel (4, 4) nach oben zieht.

29. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Trägermittel des Teils relativ zu der Ebene (O), in der sich das Teil in der Ausgangsstellung erstreckt, verformbar sind.

30. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Trägermittel Schwächungsmittel (1B, 1B) aufweisen, die dafür ausgelegt sind, relative Drehungen entsprechender Abschnitte (1C, 1C, 1D, 1D) zu ermöglichen, die jeweils mit den Aufnahmemitteln (4, 4) und mit den Haltemitteln (2) verbunden sind.

31. Teil nach Anspruch 30, **dadurch gekennzeichnet, dass** die Schwächungsmittel (1B, 1B) aus verdünnten Bereichen des ringförmigen Trägerelementes bestehen.

32. Teil nach Anspruch 30 oder 31, **dadurch gekennzeichnet, dass** die Schwächungsmittel (1B, 1B) dafür ausgelegt sind, eine Torsionsbewegung relativ zu den entsprechenden Abschnitten (1C, 1C 1D, 1D) der Trägermittel (1) zu ermöglichen.

33. Teil nach einem der vorhergehenden Ansprüche von 30 bis 32, **dadurch gekennzeichnet, dass** es einen ersten Schwächungsbereich und einen zweiten Schwächungsbereich (1B, 1B) aufweist, die einen Bereich (1C, 1C) zur Verlängerung eines Anhangs und Drehabschnittes des entsprechenden Griffes (4, 4) begrenzen.

34. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Eingriffslaschen (52) ein Durchgangsloch aufweisen.

35. Teil nach Anspruch 34, **dadurch gekennzeichnet, dass** die Eingriffslaschen zumindest ein erstes Loch und ein zweites Loch (83a, 83b) aufweisen, die radial miteinander ausgerichtet sind.

36. Teil nach einem der vorhergehenden Ansprüche von 9 bis 35, **dadurch gekennzeichnet, dass** die Rillen des Ringes (1A) entsprechende Füllabschnitte (17', 17') aufweisen.

37. Teil nach Anspruch 36, **dadurch gekennzeichnet, dass** die Füllabschnitte (17', 17') an diametral einander gegenüberliegenden Punkten angeordnet sind, an denen die Tragegriffe befestigt sind.

38. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** es einteilig ausgeführt ist.

39. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** es aus Kunststoff hergestellt ist.

40. Teil nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** es einteilig mit dem Flaschenverschluss ausgeführt ist.

41. Teil nach Anspruch 40, **dadurch gekennzeichnet, dass** das Trägerteil (200) zumindest einen Griff (204, 204) aufweist, der sich sehr nahe an der Außenoberfläche des Verschlusses befindet, an dem er befestigt ist.

42. Teil nach Anspruch 41, **dadurch gekennzeichnet, dass** das Trägerteil (200) zumindest einen Griff (204, 204) aufweist, der ein Profil mit unterbrochener Linie aufweist.

43. Teil nach einem der vorhergehenden Ansprüche von 40 bis 42, **dadurch gekennzeichnet, dass** das Trägerteil einen einzigen Griff (304) beinhaltet, der die entsprechende Außenoberfläche der Komponente des Gegenstandes, an dem er befestigt ist, umgibt.

44. Teil nach einem der vorhergehenden Ansprüche von 40 bis 43, **dadurch gekennzeichnet, dass** das Trägerteil ein einziges radiales Element (305) zur Verbindung mit der Komponente des Gegenstandes, an dem er befestigt ist, beinhaltet.

45. Teil nach einem der vorhergehenden Ansprüche von 40 bis 44, **dadurch gekennzeichnet, dass** das Trägerteil einen Griff mit einem im Wesentlichen kreisförmigen Profil aufweist.

46. Teil nach einem der vorhergehenden Ansprüche von 40 bis 45, **dadurch gekennzeichnet, dass** das Trägerteil einen Griff aufweist, der im Allgemeinen die Form eines Polygons und im Besonderen die eines Dreiecks aufweist.

47. Teil nach einem der vorhergehenden Ansprüche von 40 bis 46, **dadurch gekennzeichnet, dass** der Griff (404) ein Paar Zweigabschnitte (404b, 404c) aufweist, die in einem entsprechenden abgerundeten Verbindungsbereich oder -abschnitt (406) zusammenlaufen, der die Aufnahmemittel für den Benutzer bildet.

48. Teil nach einem der vorhergehenden Ansprüche von 40 bis 47, **dadurch gekennzeichnet, dass** das Trägerteil (500) an dem Verschluss (508) an der unteren Kante des Verschlusses befestigt ist.

49. Teil nach einem der vorhergehenden Ansprüche von 40 bis 47, **dadurch gekennzeichnet, dass** das Trägerteil (500) an dem Verschluss (508) in einer Position oberhalb des Ringes (509) befestigt ist, der zur Befestigung des Verschlusses an der Flasche dient.

50. Teil nach einem der vorhergehenden Ansprüche von 40 bis 47, **dadurch gekennzeichnet, dass** das Trägerteil (600) an dem Verschluss (608) an der oberen Kante des Verschlusses befestigt ist.

51. Teil nach einem der vorhergehenden Ansprüche von 40 bis 47, **dadurch gekennzeichnet, dass** das Trägerteil (700) an dem Verschluss (708) nahe an der oberen Kante des Verschlusses befestigt ist, knapp unterhalb vom Anfang des Bereichs, an dem sich der Verschluss nach oben hin verengt.

52. Teil nach einem der vorhergehenden Ansprüche von 40 bis 47, **dadurch gekennzeichnet, dass** das Trägerteil (800) an dem Verschluss (808) an dem unteren Ring (809) befestigt ist, der zur Befestigung des Verschlusses an der Flasche dient.

53. Teil nach einem der vorhergehenden Ansprüche von 40 bis 47, **dadurch gekennzeichnet, dass** das Trägerteil (800) an dem Verschluss (808) an der oberen Kante des Ringes (809) befestigt ist, der zur Befestigung des Verschlusses an der Flasche dient.

54. Teil nach einem der vorhergehenden Ansprüche von 40 bis 47, **dadurch gekennzeichnet, dass** das Trägerteil (900) an dem Verschluss (908) an der unteren Kante des Ringes (909) befestigt ist, der zur Befestigung des Verschlusses an der Flasche dient.

Revendications

1. Une pièce (10) de support d'articles, en particulier d'articles sous forme de récipients, notamment de bouteilles ; la pièce consistant en un corps définissant des moyens (2) de retenue de l'article et en des moyens (4, 4) de prise par l'utilisateur ; où les moyens de prise peuvent être déplacés entre une position de repos et une position opérationnelle dans laquelle ils sont saisis par l'utilisateur ; ledit corps ayant des moyens (1) de support des moyens de retenue (2, 2) comprenant un élément annulaire (1) entourant une partie correspondante, en particulier le col (6), de l'article à supporter ; lesdits moyens de support (1) définissant aussi des moyens destinés à supporter les moyens de prise (4, 4) ; les moyens de retenue comprenant une pluralité de languettes radiales (2), coplanaires, pour l'accouplement avec l'article, s'étendant selon un axe radial (R) et ayant chacune une extrémité libre formant une surface transversale qui assujettit et retient l'article, les moyens (2, 2) de retenue de l'article ont une position de repos et une position opérationnelle dans laquelle ils assujettissent et retiennent l'article, dans la position de repos, les moyens (2, 2) de retenue de l'article s'étendent dans la plan (O) de développement de la pièce, dans la position opérationnelle, les moyens (2, 2) de retenue de l'article s'étendent dans une direction transversale à ou surélevée par rapport au plan (O) de développement de la pièce, ladite pièce étant **caractérisée en ce que** les languettes (2) ont, chacune, une paire de rainures (3) opposées qui amincissent le matériau dans lequel elles sont réalisées sur les deux faces, au niveau de la racine où elles sont raccordées à l'élément annulaire (1), d'où la languette elle-même s'étend radialement vers l'intérieur.

2. La pièce selon la revendication 1, **caractérisée en ce que** les moyens de prise comprennent au moins une poignée (4) qui peut être saisie par l'utilisateur.

3. La pièce selon la revendication 2, **caractérisée en ce que** les moyens de prise comprennent une deuxième poignée (4) qui peut être saisie par l'utilisateur.

4. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que**, dans la position de repos, les moyens de prise (4, 4) entourent le col (6) correspondant de l'article à supporter.

5. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que**, dans la position de repos, les moyens de prise (4, 4) entourent les moyens de retenue (2).

6. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que**, dans la position de repos, les moyens de prise (4, 4) entourent les moyens de support (1).

7. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** l'élément annulaire a une rainure circonférentielle intérieure (13, 14) située entre des parois circonférentielles surélevées (15, 17).

8. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** les moyens de prise (4, 4) sont associés aux moyens de support (1) respectifs par des moyens d'accouplement (5) par rapport auxquels les moyens de prise eux-mêmes peuvent tourner.

9. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** les première et deuxième poignées de prise consistent en un élément étendu respectif, l'un étant situé, circonférentiellement, sur l'extension de l'autre.

10. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** les première et deuxième poignées de prise s'étendent à partir de points de rotation qui coïncident essentiellement l'un avec l'autre.

11. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** la poignée de prise (4, 4) s'étend à partir de points de rotation (5,

5) correspondants, ces derniers étant situés sur des côtés opposés des moyens de support (1) respectifs.

12. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** la poignée de prise (4, 4) s'étend selon un profil qui a une section intermédiaire (17) qui, dans la position de repos, s'étend à proximité du corps (1) auquel elle est associée.

13. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** la poignée de prise (4, 4) s'étend selon un profil qui a une première section d'extrémité et une deuxième section d'extrémité (18, 19) qui, dans la position de repos, s'étendent de manière à être éloignées du corps auquel la poignée est associée.

14. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** la poignée de prise (4, 4) s'étend selon un profil onduleux.

15. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** les moyens de prise (54, 54) sont associés aux moyens de support (1) respectifs par des moyens d'accouplement rupturables (56, 57).

16. La pièce selon la revendication 15, **caractérisée en ce que** les moyens d'accouplement rupturables (56) sont situés à proximité du point de rotation (55).

17. La pièce selon la revendication 15 ou 16, **caractérisée en ce que** les moyens d'accouplement rupturables sont situés le long d'un diamètre, qui est orienté de biais par rapport au diamètre joignant les pivots de rotation (55, 55) des moyens de prise (54, 54), par rapport aux moyens de support (51).

18. La pièce selon l'une quelconque des revendications précédentes de 15 à 17, **caractérisée en ce que** les moyens d'accouplement rupturables (56, 57) sont plus fins que la hauteur de l'élément annulaire de support (51) et de la poignée (54) correspondante.

19. La pièce selon l'une quelconque des revendications précédentes de 15 à 18, **caractérisée en ce que** les moyens d'accouplement rupturables (56, 57) ont un profil qui s'amincit au niveau de leur point de jonction avec les moyens de prise (54).

20. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** les languettes de retenue (2, 2) sont équidistantes circonférentiellement.

21. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** les moyens de retenue (2A, 2B, 2B) s'étendent à partir de côtés opposés du corps de la pièce de support (1).

22. La pièce selon la revendication 21, **caractérisée en ce que** les moyens de retenue consistent en un premier (2A, 2B, 2B) et un deuxième (2A, 2B, 2B) ensembles opposés de languettes.

23. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** les languettes (2A, 2B, 2B) ont des extrémités libres qui forment une surface essentiellement alignée.

24. La pièce selon la revendication 22 ou 23, **caractérisée en ce que** chaque ensemble de languettes a une languette centrale (2A) et des languettes latérales (2B), s'étendant à partir de points qui sont circonférentiellement espacés les uns des autres.

25. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que**, dans la position de repos, les poignées (4, 4) s'étendent dans des directions opposées.

26. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que**, dans la position opérationnelle, les poignées (4, 4) s'étendent de manière à être mises ensemble.

27. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que**, dans la position opérationnelle, les moyens de prise (4, 4) s'étendent dans une direction verticale.

28. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** la position opérationnelle des moyens de prise (4, 4) est déterminée par l'utilisateur qui lève lesdits moyens de prise (4, 4) vers le haut.

29. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** les moyens de support de la pièce sont déformables par rapport au plan (O) de développement de ladite pièce dans la position de repos.

30. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** les moyens de support ont des moyens d'affaiblissement (1B, 1B), destinés à permettre des rotations relatives des portions (1C, 1C, 1D, 1D) correspondantes, associées, respectivement, aux moyens de prise (4, 4) et aux moyens de retenue (2).

31. La pièce selon la revendication 30, **caractérisée en ce que** les moyens d'affaiblissement (1B, 1B) consistent en des zones amincies de l'élément annulaire

de support.

32. La pièce selon la revendication 30 ou 31, **caractérisée en ce que** les moyens d'affaiblissement (1B, 1B) sont destinés à permettre une torsion par rapport aux portions (1C, 1C, 1D, 1D) correspondantes des moyens de support (1).

33. La pièce selon l'une quelconque des revendications précédentes de 30 à 32, **caractérisée en ce qu'**il y a une première zone d'affaiblissement et une deuxième zone d'affaiblissement (1B, 1B), délimitant une zone (1C, 1C) servant de prolongement d'une portion d'accouplement et de rotation de la poignée (4, 4) correspondante.

34. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce que** les languettes (52) d'assujettissement ont un trou débouchant.

35. La pièce selon la revendication 34, **caractérisée en ce que** les languettes d'assujettissement ont au moins un premier trou et un deuxième trou (83a, 83b) qui sont radialement alignés l'un par rapport à l'autre.

36. La pièce selon l'une quelconque des revendications précédentes de 9 à 35, **caractérisée en ce qu'**il y a, dans les rainures de l'anneau (1A), des portions de remplissage (17', 17') correspondantes.

37. La pièce selon la revendication 36, **caractérisée en ce que** les portions de remplissage (17', 17') sont situées en des points diamétralement opposés, où sont associées les poignées de support.

38. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce qu'**elle est réalisée d'une seule pièce.

39. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce qu'**elle est réalisée en matière plastique.

40. La pièce selon l'une quelconque des revendications précédentes, **caractérisée en ce qu'**elle est réalisée d'une seule pièce avec la capsule de la bouteille.

41. La pièce selon la revendication 40, **caractérisée en ce que** la pièce de support (200) a au moins une poignée (204, 204) qui reste tout près de la surface extérieure de la capsule à laquelle elle est associée.

42. La pièce selon la revendication 41, **caractérisée en ce que** la pièce de support (200) a au moins une poignée (204, 204) ayant un profil à ligne brisée.

43. La pièce selon l'une quelconque des revendications précédentes de 40 à 42, **caractérisée en ce que** la pièce de support comprend une seule poignée (304), entourant la surface extérieure correspondante de l'élément de l'article auquel elle est associée.

44. La pièce selon l'une quelconque des revendications précédentes de 40 à 43, **caractérisée en ce que** la pièce de support comprend un seul élément radial (305) pour l'accouplement avec l'élément de l'article auquel il est associé.

45. La pièce selon l'une quelconque des revendications précédentes de 40 à 44, **caractérisée en ce que** la pièce de support a une poignée ayant un profil essentiellement circulaire.

46. La pièce selon l'une quelconque des revendications précédentes de 40 à 45, **caractérisée en ce que** la pièce de support a une poignée ayant la forme générale d'un polygone, en particulier d'un triangle.

47. La pièce selon l'une quelconque des revendications précédentes de 40 à 46, **caractérisée en ce que** la poignée (404) a une paire de branches (404b, 404c) qui convergent au niveau d'une zone ou section arrondie de jonction (406) correspondante, définissant des moyens de prise pour l'utilisateur.

48. La pièce selon l'une quelconque des revendications précédentes de 40 à 47, **caractérisée en ce que** la pièce de support (500) est associée à la capsule (508) au niveau du bord inférieur de cette même capsule.

49. La pièce selon l'une quelconque des revendications précédentes de 40 à 47, **caractérisée en ce que** la pièce de support (500) est associée à la capsule (508) dans une position située au-dessus de l'anneau (509) utilisé pour fixer la capsule à la bouteille.

50. La pièce selon l'une quelconque des revendications précédentes de 40 à 47, **caractérisée en ce que** la pièce de support (600) est associée à la capsule (608) au niveau du bord supérieur de cette même capsule.

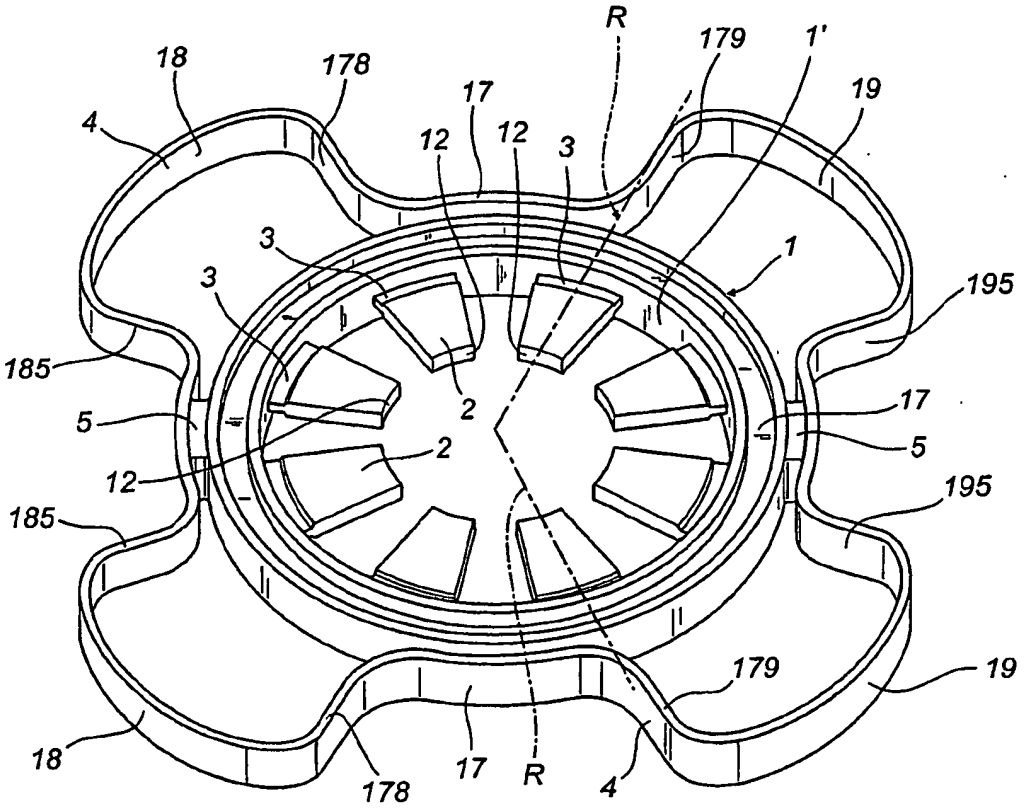
51. La pièce selon l'une quelconque des revendications précédentes de 40 à 47, **caractérisée en ce que** la pièce de support (700) est associée à la capsule (708) à proximité du bord supérieur de la capsule, juste en dessous de la zone où la capsule commence à s'amincir vers le haut.

52. La pièce selon l'une quelconque des revendications précédentes de 40 à 47, **caractérisée en ce que** la pièce de support (800) est associée à la capsule (808) au niveau de l'anneau inférieur (809) utilisé pour fixer la capsule à la bouteille.

53. La pièce selon l'une quelconque des revendications précédentes de 40 à 47, **caractérisée en ce que** la pièce de support (800) est associée à la capsule (808) au niveau du bord supérieur de l'anneau (809) utilisé pour fixer la capsule à la bouteille.

54. La pièce selon l'une quelconque des revendications précédentes de 40 à 47, **caractérisée en ce que** la pièce de support (900) est associée à la capsule (908) au niveau du bord inférieur de l'anneau (909) utilisé pour fixer la capsule à la bouteille.

FIG. 1


R
179
1'
18
178
17
19
4
12
12
3
3
3
1
195
185
2
17
5
5
2
12
195
185
179
19
18
178
17
R
4

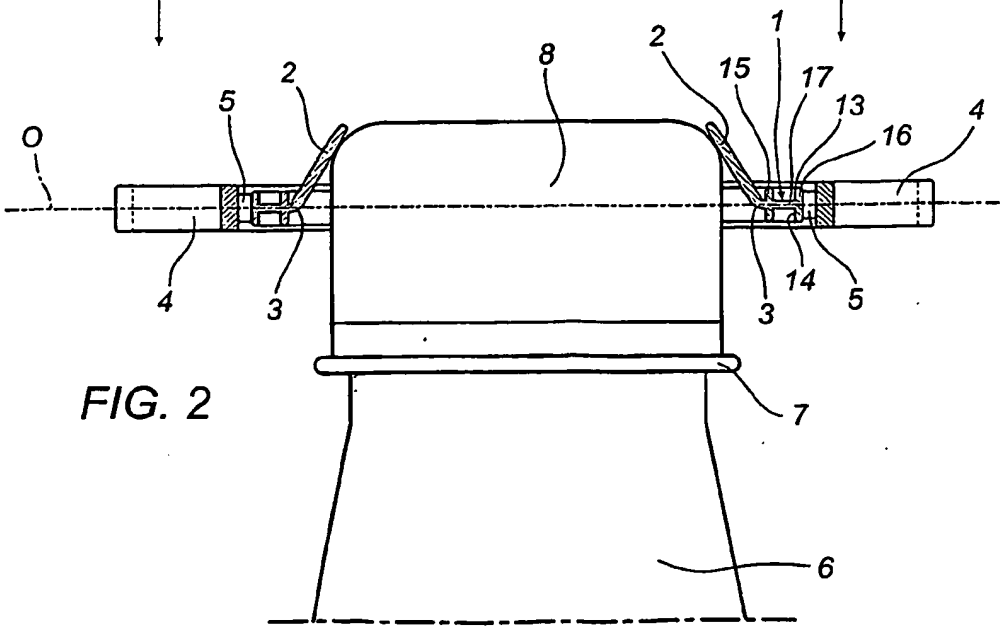

1
2
8
2
15
17
13
16
4
O
5
2
4
3
3
14
5
7
6

FIG. 2

FIG. 3

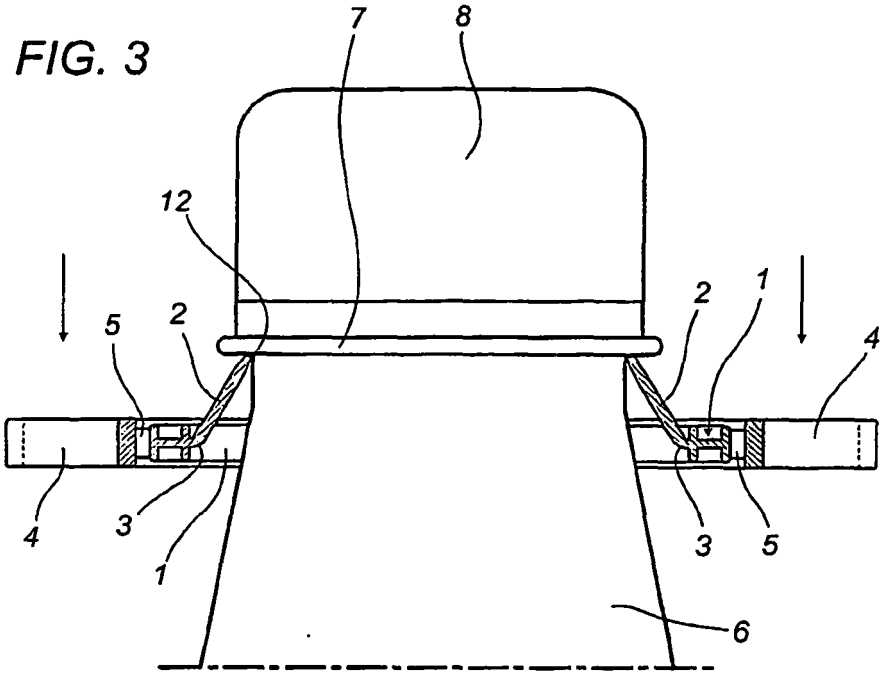


FIG. 4

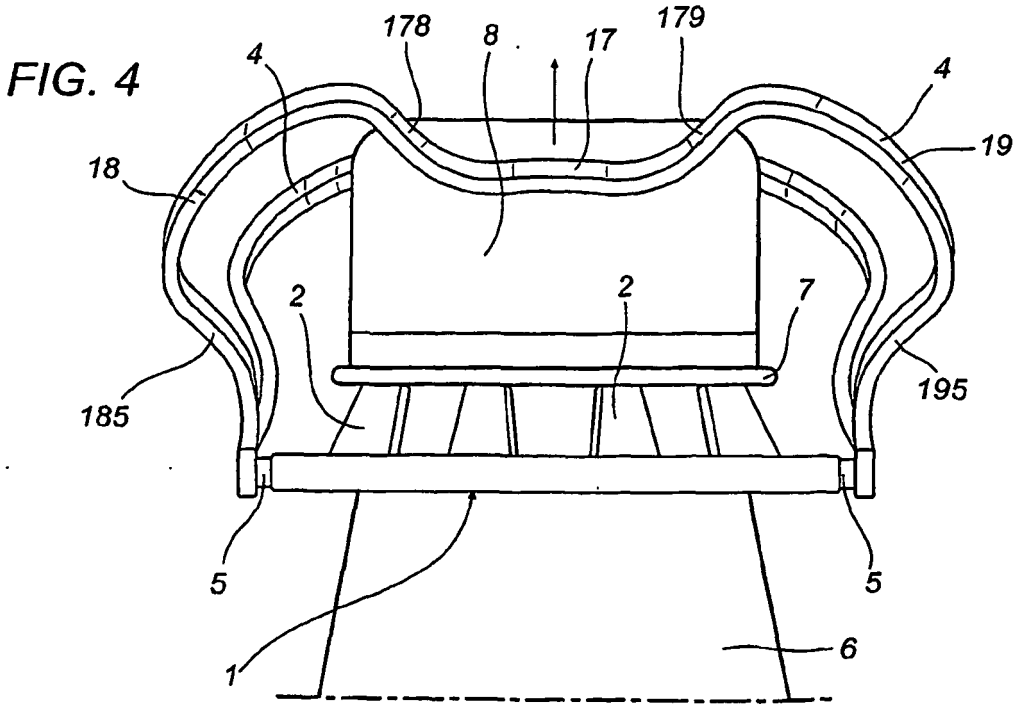


FIG. 5

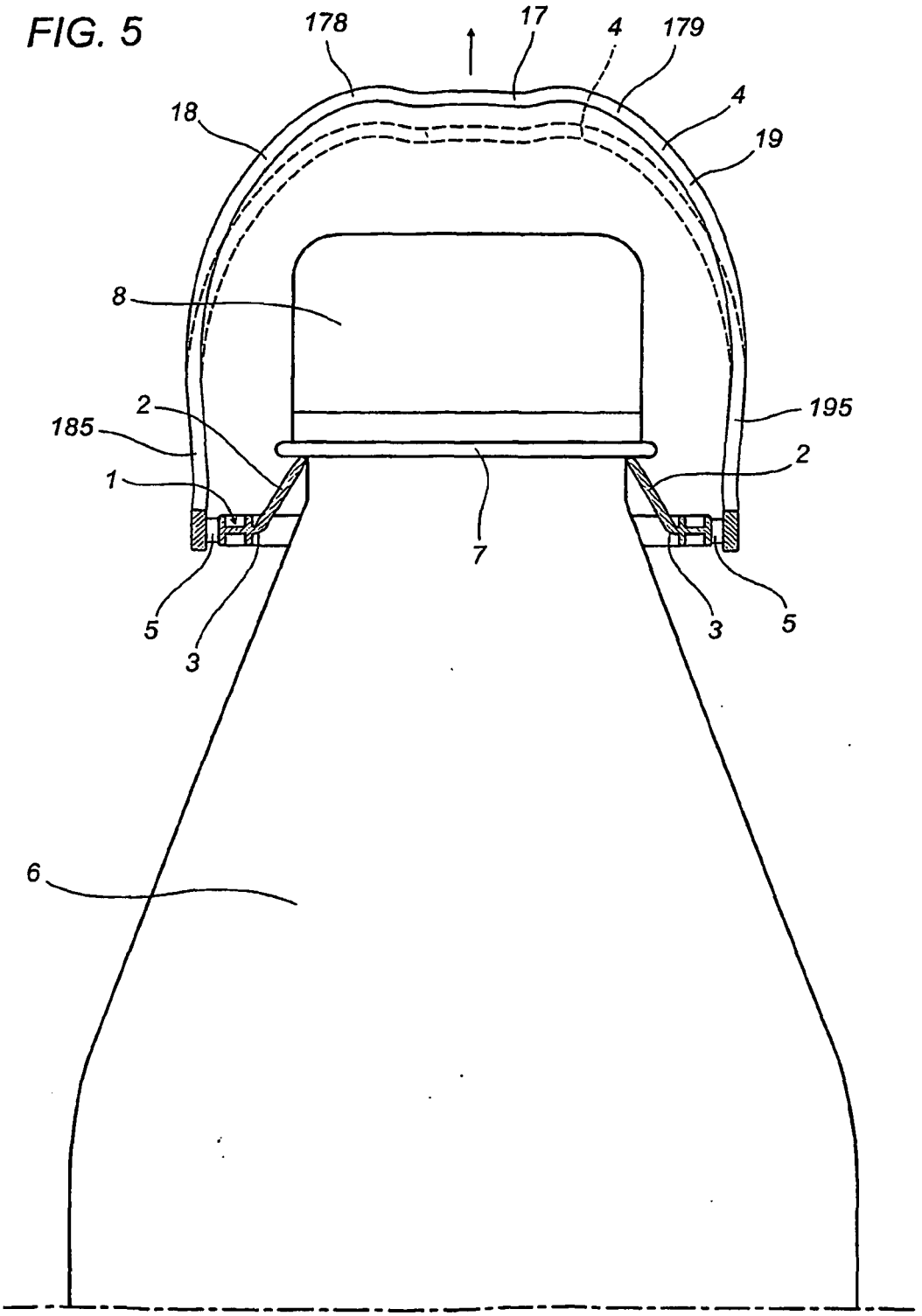


FIG. 6

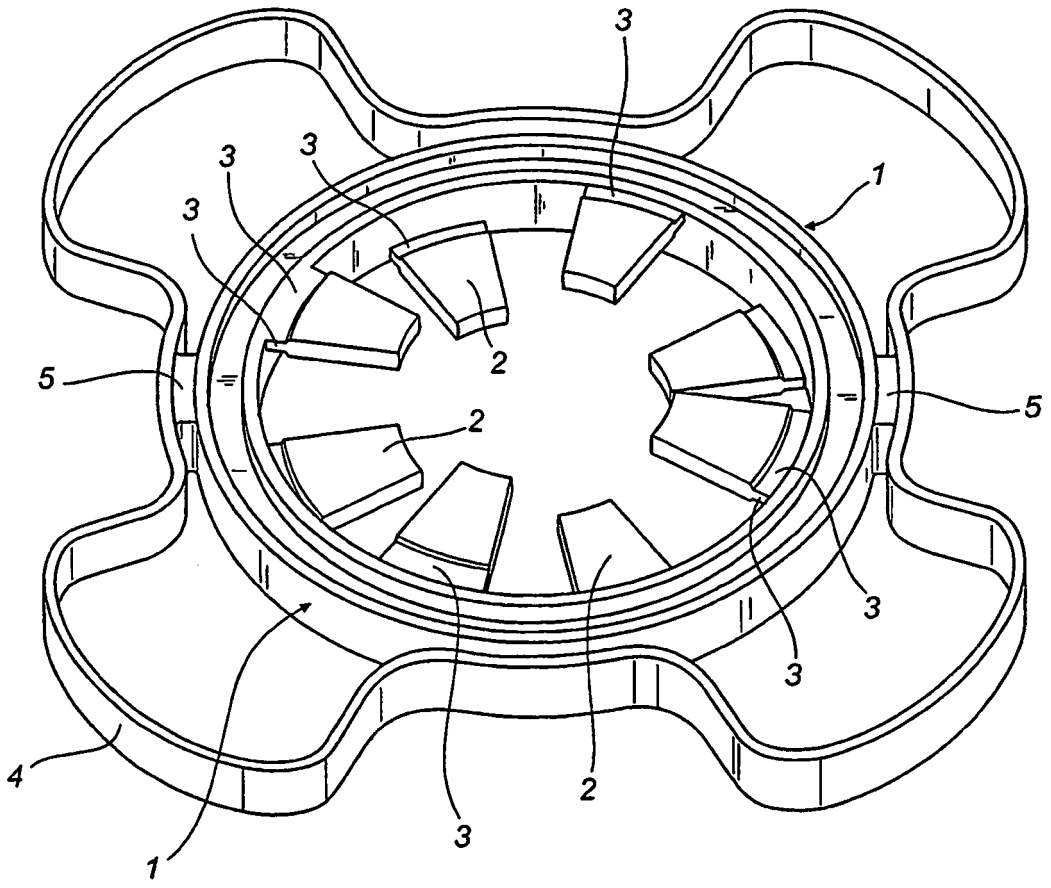


FIG. 7

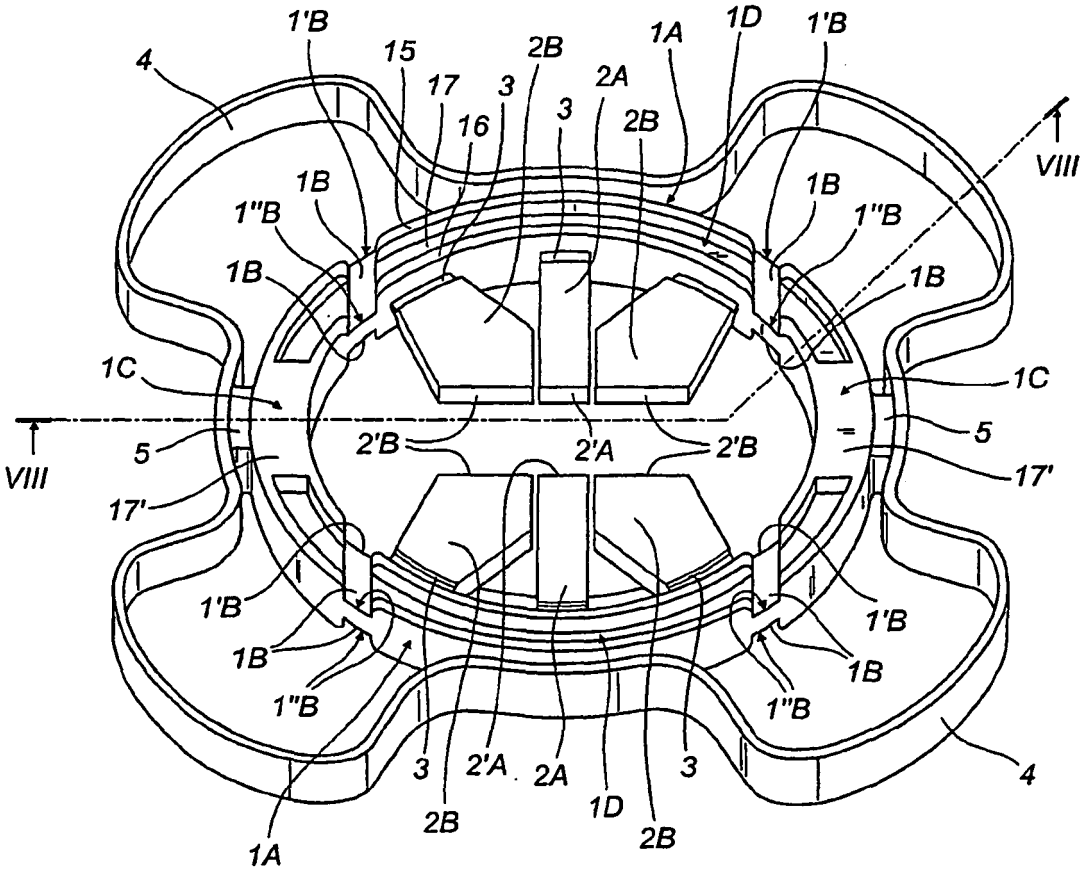

1'B
15
2B
1A
1D
1'B
4
17
3
2A
16
3
2B
VIII
1B
1"B
1B
1B
1"B
1B
1C
1C
5
2'B
2'A
2'B
5
17'
VIII
17'
1'B
1'B
1B
1B
1"B
1"B
3
2'A
2A
1D
3
4
2B
2B
1A

FIG. 8

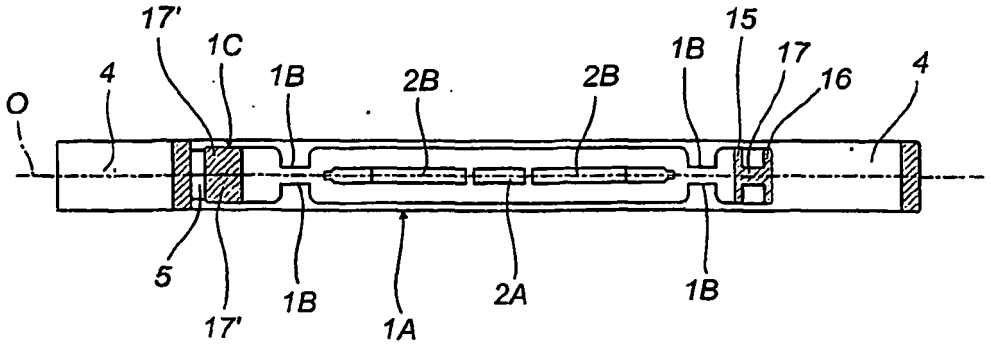

17'
1C
15
1B
4
1B
2B
2B
17
16
4
O
5
17'
1B
1A
2A
1B

FIG. 9

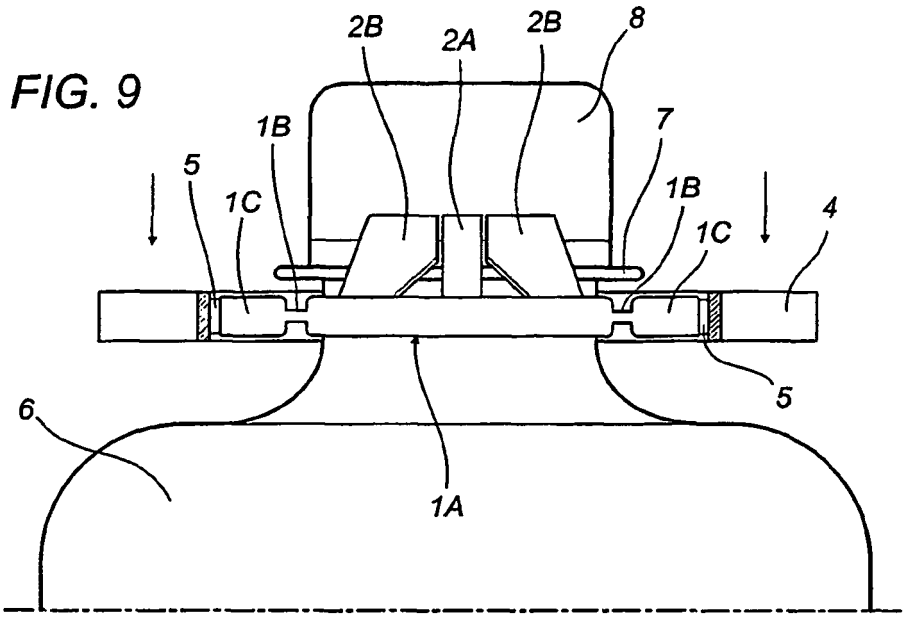


FIG. 10

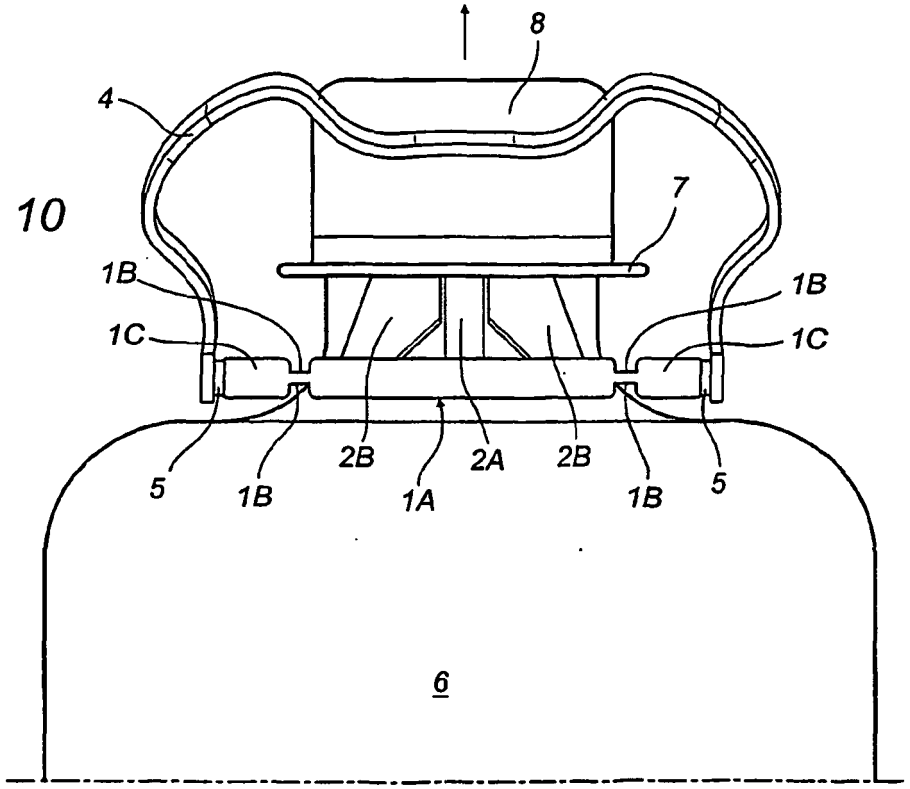


FIG. 11

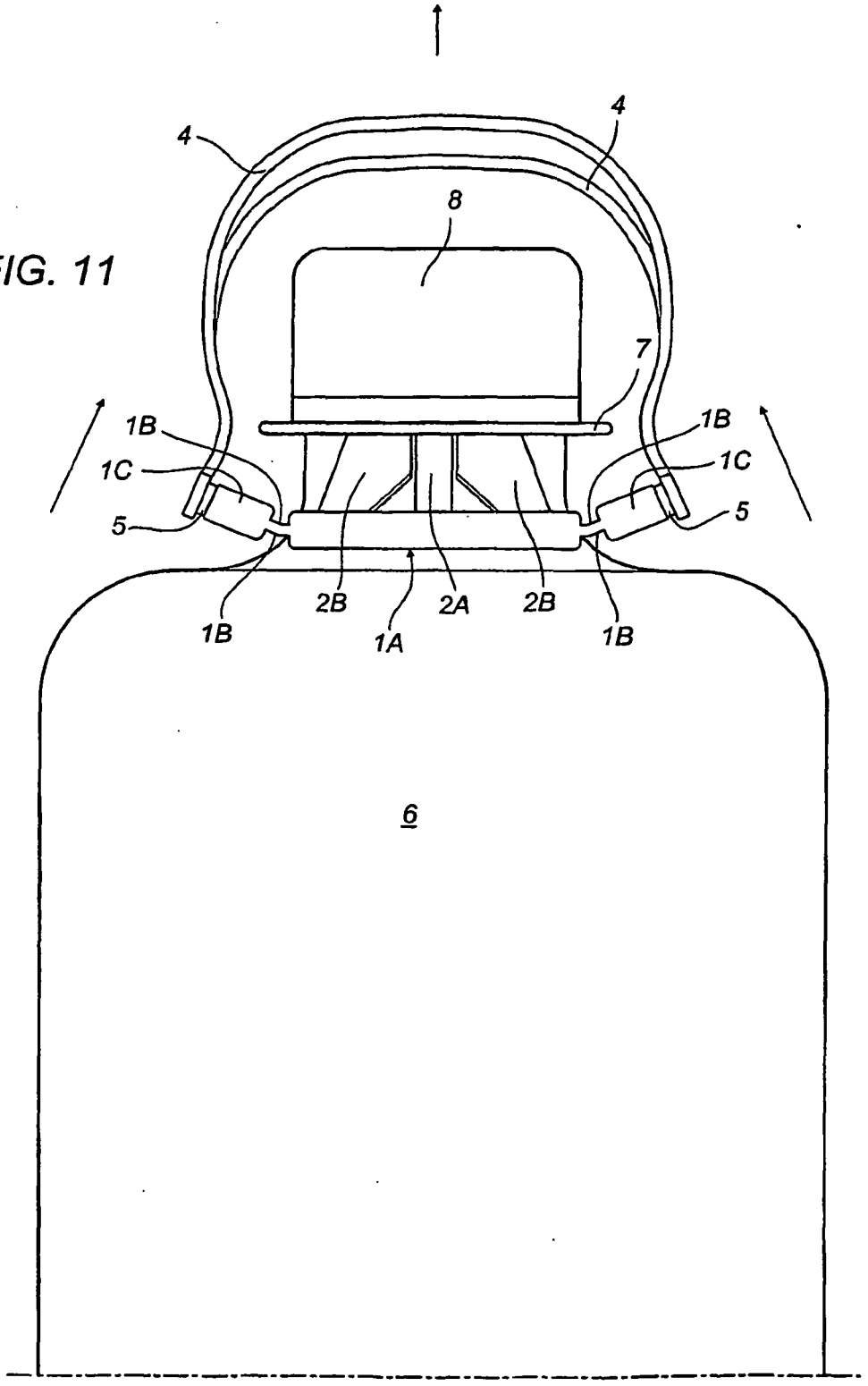


FIG. 12

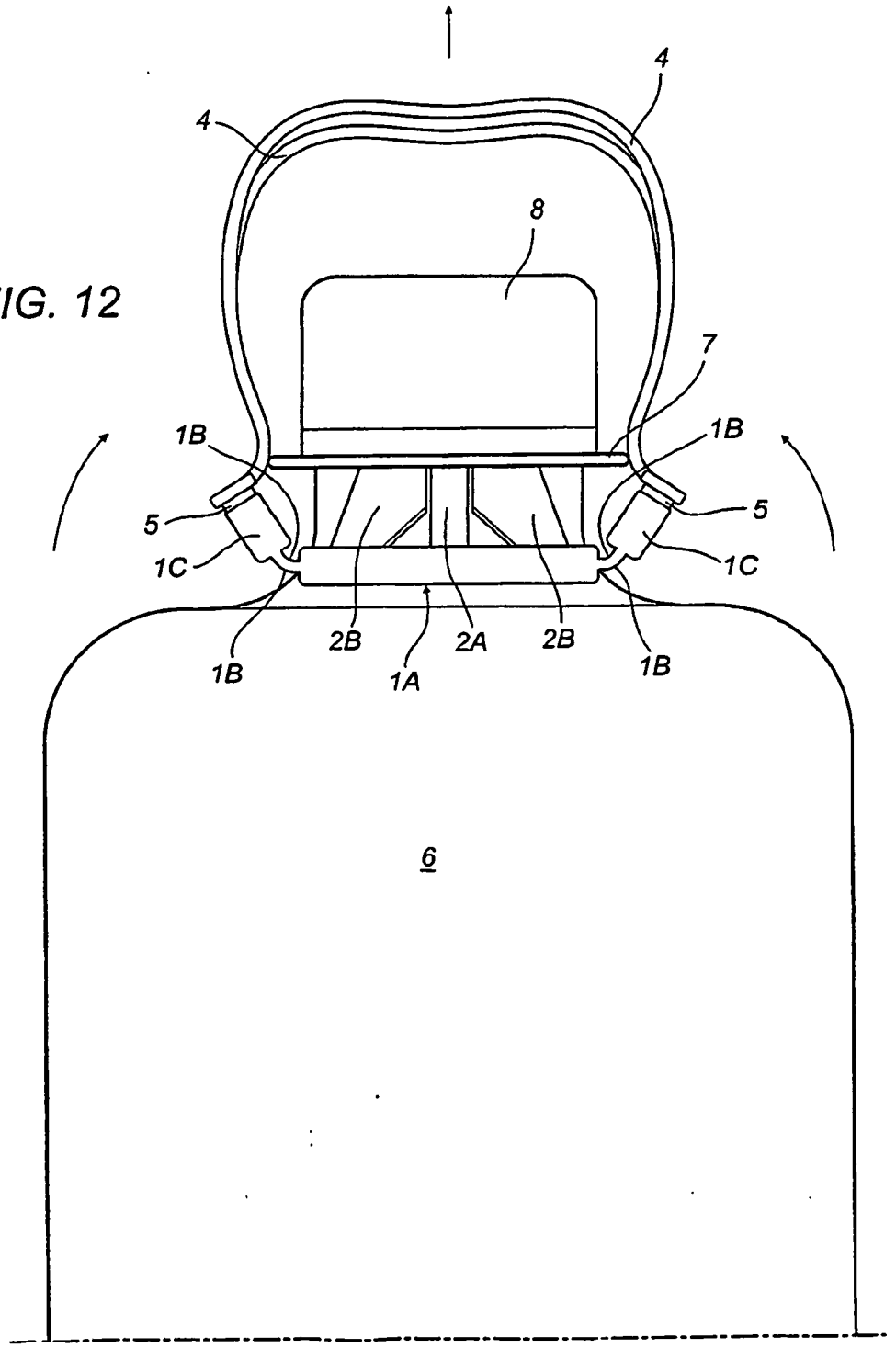


FIG. 13

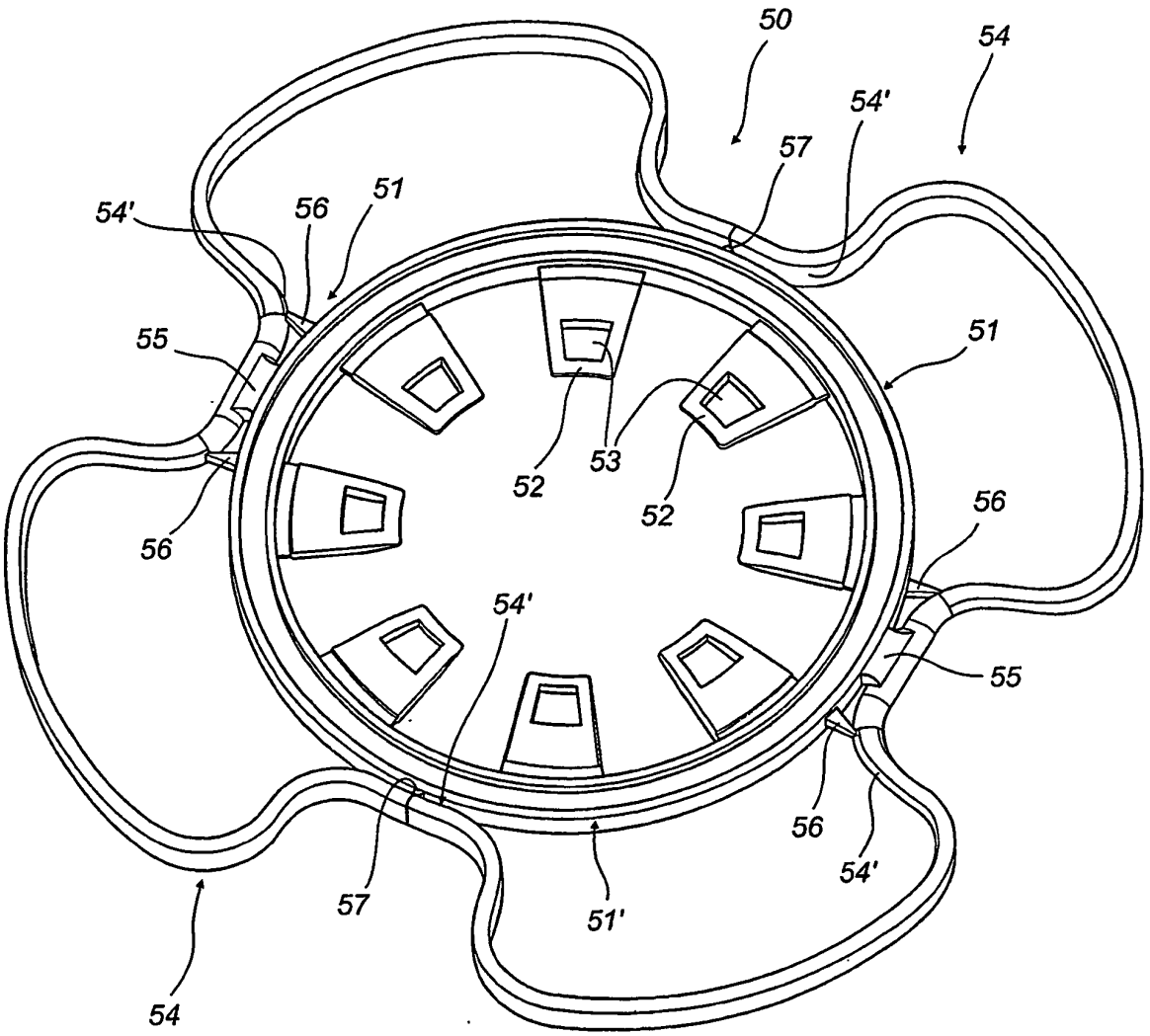


FIG. 14

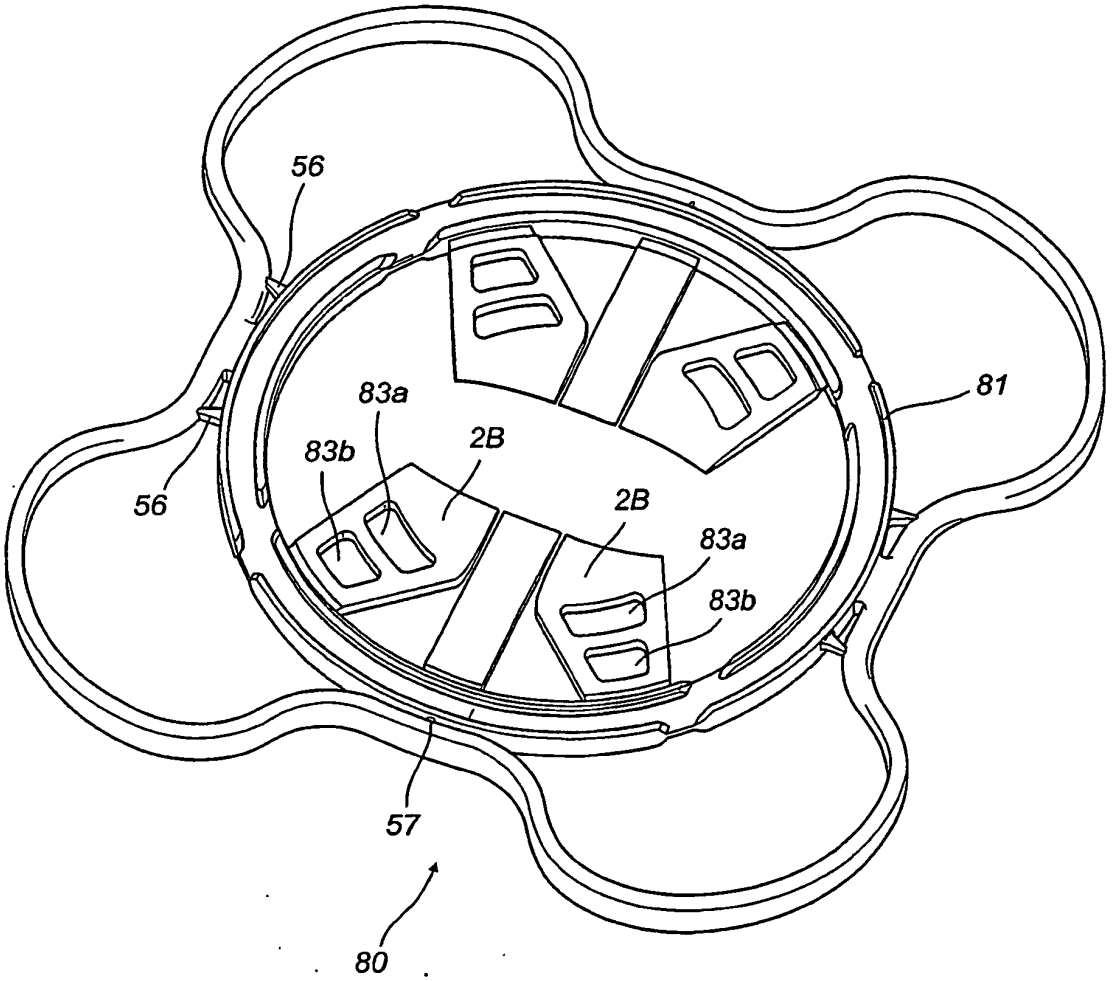


FIG. 15

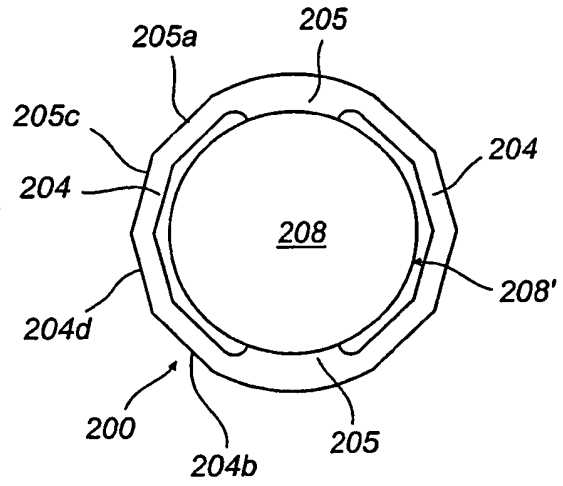


FIG. 16

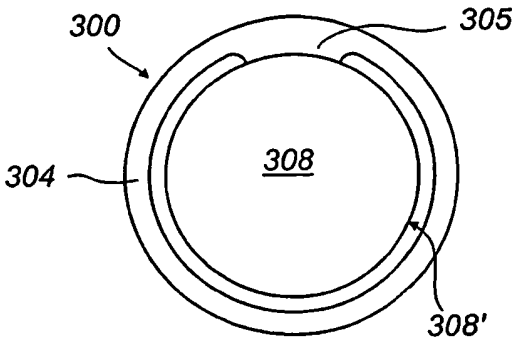


FIG. 17

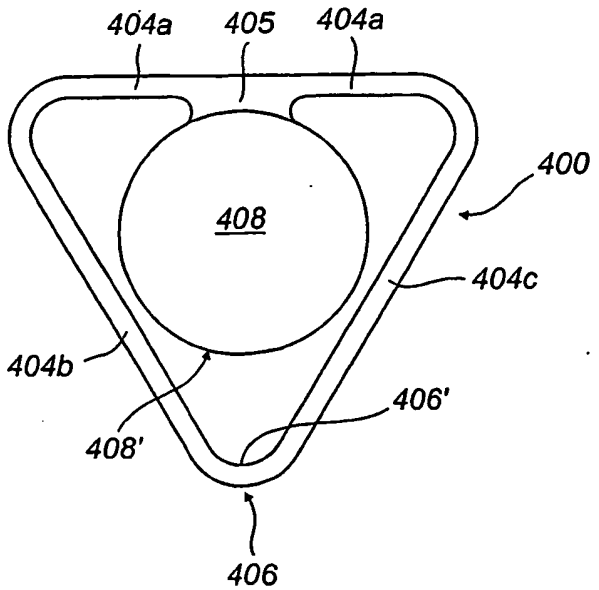


FIG. 18

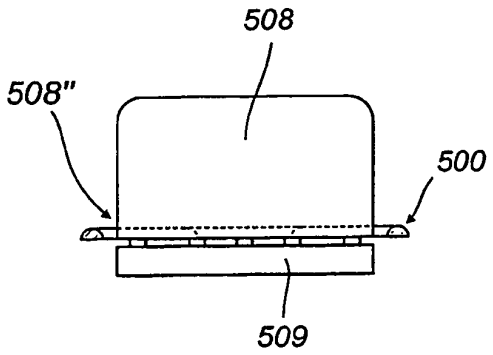
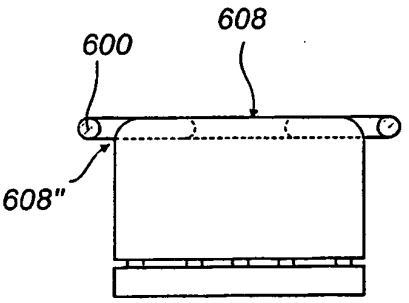


FIG. 19



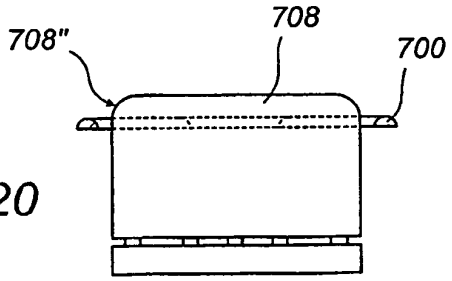


FIG. 20

FIG. 21

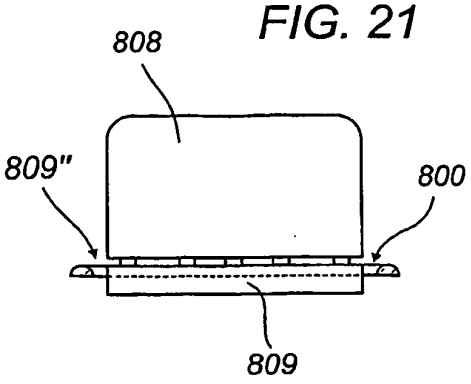
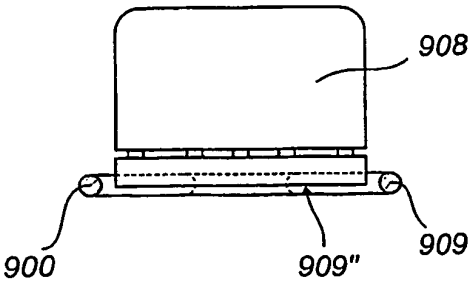


FIG. 22



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