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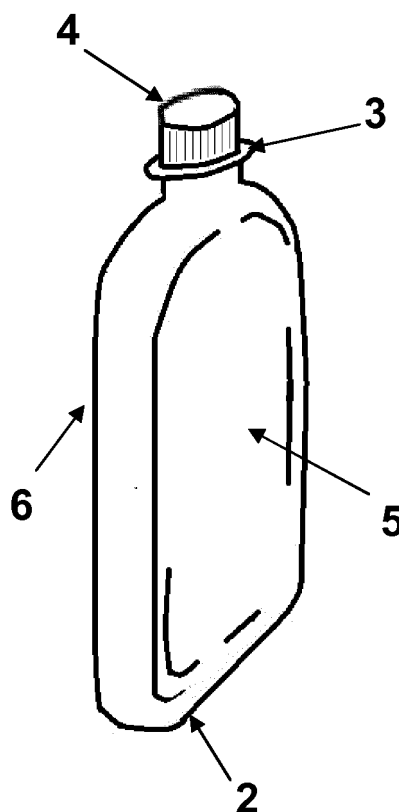
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(54) **INDIVIDUAL DRINKS CONTAINER**

(57) The invention relates to an individual drinks container comprising a volumetrically leveled central body (1) without edges, formed from polymers and resins, said central body (1) comprising front and rear walls (5) having a longer diameter, side walls (6) having a substantially reduced diameter, a flat bottom (2) and an upper part, and a maximum capacity of a liter, said walls (5) and (6) of the central body (1) being substantially straight in all or part of the extension thereof or having a degree of curvature in all or part of the extension thereof, said walls of the central body (1) being of a single-walled, double-walled or multi-layered type, and being in this case O₂-impermeable or CO₂-impermeable.

FIG. 6



Description

[0001] The object of the present invention is an individual drinks container, which by virtue of their conformation, it becomes a single article on the market which significantly improves the state of the art.

[0002] In particular this innovation relates to a single drinks container, of the type for packaging and consumption of water and other refreshing drinks in a maximum preferred of one liter and basically destined for an individual consumption, with a markedly flat conformation that facilitates its location and portability in pockets, wallets, handbags and similar locations.

State of the art

[0003] One of the liquid containers most widely diffused in the market is the bottle or PET plastic container used in the packaging of water, juices and soft drinks. Such bottles have many advantages in the production process, especially for its low cost, easily moldable and be recyclable to recover the plastic used, and their use to be very light in terms of weight, easily refillable and attractive design.

[0004] One of the applications most demanded in the market are bottles of a highly individual character, i.e., with a maximum capacity of one liter is meant appropriate for personal consumption. It is at this point that a specific problem becomes apparent: how to transport these bottles. By capacity, they are small in size but conformation tend to be volumetrically bulging, which means that by placing them inside a bag or a briefcase occupy considerable space also deforms said container, aesthetic considerations and altering its initial configuration sometimes permanently. The same happens when you try to save the bottle in the pocket of a jacket or pants. The garment tends inevitably to deform and is therefore virtually impossible to disguise the bulge.

[0005] It is true that these plastic bottles have evolved technically adding rings around its perimeter which modify its mechanical strength and facilitate their crushing to reduce volume. This feature is very interesting to remove the empty bottles but is logically inapplicable in full bottles.

[0006] The only alternative on the market, according to applicant's knowledge, are flexible packaging, with similar conformation to traditional hot water bottles to warm beds, which can be folded as the liquid is consumed. Of course, these containers are reusable and are not sold in restaurants and supermarkets

[0007] On industrial property are several patents that develop technical improvements in drinks containers. For example, the utility model U 201030211 which has a single-dose container for alcoholic drinks consisting of a flexible plastic bag of reduced dimensions, with a perimeter heat seal closure and opening means by tearing to empty the contents, with a similar structure the aforementioned flexible bottles. WO 20127154713 patent de-

velops a collapsible container with at least one rib which allows a body portion to collapse to a position generally flattened in the absence of the product contained therein. The patent DE10324335 presents an elliptical bottle with a capacity of between 1 and 10 liters designed to be located in side plates of refrigerators, occupying a volumetrically smaller space. The CN201932407U patent develops a prismatic bottle base which affords a greater optical effect when dispersed light incident on the container.

[0008] These contributions and others that may exist do not solve the problem described above: the bottles have a bulging shape which substantially complicates how to transport them in a place easily accessible to a more or less continuous consumption without evidence of its existence or deform the point or zone they are located.

[0009] The applicant believes that there should be a kind of bottle or container with a shape such as to permit their location and / or coupling in pockets, belts, bags or other easily accessible points existing in the clothing and belongings of the consumer, being a bottle or container of minimum volume to avoid damaging or damaging these points.

Description of the invention

[0010] Therefore, the invention presented relates to a single drink container with technical features that define a novel composition and a novel use.

[0011] The new container has a volumetrically planar form, material type polymers and resins: thermoplastic polymers such as polyethylene terephthalate (PET), high density polyethylene HDPE - HDPE, LDPE. LDPE -PEBD, polymethylmethacrylate (PMMA) or the like, thermosets and elastomers, materials that allow the necessary strength and ductility, with a maximum capacity of 1 liter and that its main application is a personal and individual use, and transport associated with the same clothing user: pocket, purse, wallet, etc ..

[0012] Ergonomically, the new individual beverage container comprises a front and rear wall of greater diameter, a low side and a flat bottom, without edges to avoid weakening the container, forming a flattened body volumetrically able to get into, for example, in the pocket of a jacket without deform forming an abnormal bulge and being able to stand upright in perfect stability.

[0013] Individual upper drinks container includes a first extended conformation with a neck associated with a screw cap or a cap with spout.

[0014] In a second conformation, this upper part is substantially planar, no neck and the fluid outlet is associated either to a cap of the type mentioned above or to a hinged or sliding flap indissolubly linked to the same container to prevent loss.

[0015] Individual beverage container as claimed is also defined by a technical and differentiating features in conformation, preferably located in the upper part and/or the

middle/lower part of the same to facilitate gripping and extraction of its location, a quickly, safely and intuitively.

[0016] Nestled in the neck of the central body and located below any of the above caps is inserted at least a sufficiently outstanding and sufficient base ring to allow user's fingers to be accommodated under the same and to grip and pull the single individual drinks.

[0017] A second way to grip is with at least one perimeter groove, preferably located in the middle / bottom of the container, forming a band which also facilitates the accommodation of the user's hand.

[0018] Another way is to hold one or more deformations in the upper part of the container, in particular coinciding with one or both of its side walls, forming a hook that draws a markedly suitable inlet for only one finger to remove the container.

[0019] Other technical features of conformation are providing one or more front hollows in the front and / or rear face of the central body of the individual drinks container, forming at least hollowness or window or at least one through hole in the central body container, preferably at its upper part. Another form of attachment are one or more suitably sized front tabs projecting extending from the flat upper part, in whole or in a segment.

[0020] Finally, note that when the container is formed with substantially flat upper part, this upper part is susceptible deformed and extended with a handle grip.

[0021] All these technical features allow the container claimed, ergonomic and volumetrically flat, fulfills the function for which it has been profiled, which is simply to take up minimal space in locations such as jackets and pants pockets, purses, wallets etc., without deforming said locations or reveal its presence and, of course, providing attachment points to allow rapid, immediate and intuitive by the user extraction.

[0022] Likewise noted that the container can be presented in its conformation one of the described technical features or a combination thereof, all designed and intended to facilitate gripping the container claimed.

[0023] Technically, the following manufacturing processes of new individual drinks container forming characteristics described are contemplated: - Injection-blowing, Co-injection (multi-layer), stretch blow molding (bi-orientation) - Injection; Extrusion blow; Co-extrusion blow; Thermoformed; and other complementary transformation processes such as welding, adhesion, deposition, sintering, etc.

[0024] Also at the technical level it is important to note that individual drinks container, particularly its central body, comprising different constructions of the walls for the liquid to contain and /or conservation needs of that liquid: single-walled (to hold water); double-walled (for better thermal insulation); multi-layered type (with impermeability to O₂ juices and the like to prevent ingress of oxygen that oxidizes the liquid impermeability, and impermeability to CO₂ carbonated beverage to avoid own carbon dioxide output of such liquids).

[0025] Equally important, these walls have, in all or part

of its length, a conformation capable of substantially straight or have a degree of curvature, being possible to combine sections of either conformation.

5 Description of the drawings

[0026] For a better understanding of what is described herein, a set of drawings are attached, which should only be analysed and considered as examples, with no intention to limit or restrict.

Figure 1. Is an elevation view of front or rear of the container

Figure 2. Is a bottom view of the container in front or rear position

Figure 3. Is a lateral view of the container

Figure 4. Is a view of the bottom of the container laterally

Figure 5. Is a plan view of the container

Figure 6. Is a perspective view of the container

Figure 7. Is a front view of the container with perimeter band

Figure 8. Is a perspective view of the container with perimeter band

Figure 9. Is an elevational view of the container with a top gripping hook on one side

Figure 10. Is a perspective view of the container with a superior grip hook on one side

Figure 11. Is a front view of the container with double hook top gripping and perimeter band

Figure 12. Is a perspective view of the container with double hook superior grip and perimeter band

Figure 13. Is a perspective view of the container with a flat upper part, lid in the outlet of liquid and top gripping hook

Figure 14. Is a perspective view of the container with a flat upper part, lid in the outlet of liquid and top gripping hook

Figure 15. Is a perspective view of the container with a top gripping tab

Figure 16. Is a perspective view of the container with a top gripping tab

Figure 17. Is a side view of the container with a superior gripping tab

Figure 18. Is a perspective view of the container with a top gripping tab in a practical application

Figure 19. Is a perspective view of the container front gripping hollowness or window

Figure 20. Is a perspective view of the container with double front gripping hollowness or window

Figure 21. Is a perspective view of the container with a through hole for gripping

Figure 22. Is a lateral view of the container with a through hole for gripping

Figure 23.- Is an elevational view of the container with top gripping handle and screw cap

Figure 24. Is a side view of the container with top gripping handle and screw cap

Figure 25.- Is an elevational view of the container with top gripping handle and lid

Figure 26.- Is an elevational view of the container with top gripping handle and lid

Figure 27.- Is an elevational view of the container with top gripping handle and conformation with rounded walls

Figure 28. Is a perspective view of the container with a top handle grip and conformation with rounded walls

Figure 29. Is a front view of the container with a protruding portion like an earmuff for hooking on a belt or strap

Figure 30. Is a perspective view of the container with a protruding portion like a buckle for hooking on a belt or strap

Description of a preferred embodiment

[0027] In these figures explicitly detailed the conformation of the invention claimed.

[0028] As shown in Figures 1, 2, 3, 4 and 5, the new individual drinks container has a very defined ergonomically shaped, comprising a central body (1) volumetrically flattened, with a front and rear walls (5) larger diameter side walls (6) of substantially smaller diameter and a flat bottom (2), in a basic embodiment comprising a mode than extension neck topped with a screw cap (4) closing the container mouth. Especially in the neck and below the screw cap (4), the container comprising first means to facilitate gripping consisting of a ring (3) sufficiently outstanding and sufficient basis. In Figure 5, a plan view of the container, is clearly drawn to the small volume of the container is claimed and is easy to understand the convenience of manipulation of the container and its location inside a pocket, purse or the like.

[0029] Figure 6 shows a view in perspective of the container, its central body (1), being perfectly visible, with a significantly higher front side (5) of diameter than the side wall (6), forming a flat container volumetrically.

[0030] In Figures 7 and 8 the same volumetrically flat conformation described is shown, pointing to a deformity in the middle / lower part of the central body (1) of the container which draws a perimeter groove (7), direct incidence both side walls (6) of the container, forming a band which allows better gripping of the package.

[0031] In Figures 9 and 10 the same volumetrically planar form described is shown, also showing a deformation in the upper part of the central body (1) of the container, coinciding with one of its side walls (6) and forming a hook (8) draws an inlet (9) sharply pronounced to allow insertion of a finger to remove the container's location.

[0032] In Figures 11 and 12 the same volumetrically planar form already described is shown, showing in one container the distinguishing feature also referenced, that is, the perimeter groove (7), incident on both side walls (6) of the container, formed a band, and the deformation that forms a hook (8) with its corresponding inlet (9), this

deformation being located on both side walls (6) of the central body (1), thereby forming a double attachment point based on hook (8) and inlet (9).

[0033] The container with a traditional shape including a neck with a screw cap closing and opening of the fluid outlet shown in these figures.

[0034] In Figures 13 and 14 a second embodiment of the invention in which the upper part (10) of the central body (1) is substantially flat is shown and has a hole or mouth (12) liquid outlet associated with a lid (11) hinged, sliding or retractable fixedly connected to said central body (1) to prevent accidental misplacement of the same. In this embodiment, the central body (1) of the container is likely to present any or all of the distinguishing features described above and which facilitate gripping thereof. For example, in these figures the hook (8) and the inlet (9) described above are perceived.

[0035] In Figures 15, 16 and 17 the same embodiment of the container with a flat upper part (10) is shown, extending said flat upper part (10) in at least one suitably sized front tab (13) protrusion which facilitates grasping of the container especially when the container is located above inside pockets (A) of jackets, pants and similar items, as shown in figure 18, so that the hand (B) user has a fast, direct and immediate access to the container. This protrusion front tab (13) can be long enough for the entire perimeter of the upper part (10), as shown in these figures, or limited to a segment thereof. And likewise feasible that this technique gripping resolution is translated into two or more smaller protrusion tabs properly positioned length.

[0036] In Figures 19 and 20 the provision of one or more front concavities (14) drawn in the front and/or rear walls (5) of the central body (1) of the container, forming a hollowness or window is displayed. In Figures 21 and 22 shows at least one through hole (15) is drawn on the afore mentioned front and/or rear walls (5) of the central body (1) of the container, preferably at its upper part and traversing said central body (1). In both cases, the front concavities (14) as the through holes (15) are sufficiently sized to admit some fingers of the user and facilitate grasping and removal of container from his pocket, purse, briefcase or site that contains it. As shown in these figures, the concavities (14) and/ or the through holes (15) are compatible with other technical gripping elements already described, as is the case of perimeter groove (7) that affects both side walls (6) of the container, forming a band.

[0037] In Figures 23, 24, 25 and 26 the same container with the central body (1) flat at the upper part is shown, it said top being extended with a grip handle (16) forming part of the same structure of that central body (1) and it tends to occupy two thirds of the aforementioned upper part, so that the remaining third is occupied by the closing means of the outlet channel the liquid, is in screw cap (4) or lid (11) articulated.

[0038] In Figures 27 and 28 the container claimed with the substantially curved walls and prolonged at the upper

part on the handle grips (16) as described in previous figures, also having a particularly short extension neck-like that is associated to the screw cap (4) is shown.

[0039] In Figure 29 and Figure 30 the container presented in its structure is shown, optionally, at least one protrusion that allows connection to a belt or the like in order to bring the container so hanging, without secure it hands. Given its flat volumes, this form of transport allows for easy hiding under a garment, coat, jacket or similar type, allowing the user to have easy and quick access to the above package. In Figure 29, this protruding portion is formed as an earmuff (17) by a deformation of the structure of the container while in Figure 30 is shaped as a buckle (18), forming in each case a through hole in a belt or the like is disposed.

[0040] In view of the above, it is evident the advantages of the new container as claimed. Its central body flattened represents an important innovation in packaging plastic bottle type and intended to be reduced basically personal consumption capacity, maintaining the usual levels of 25cc, 33cc, 50cc or one liter in this type of packaging.

[0041] Special substantially flat shape allows the container to keep things it is not normally possible, especially indoors or jackets pockets without deforming and, above all, without causing uncomfortable bumps and can damage the garment. Similarly, the new containers can be stored in bags and wallets reduced capacity.

[0042] Forming its distinctive features are equally essential to enable the consumer to pick and pull a fast, safe and controlled container, with no hint of doubt or having to maneuver or strange or forced by hand movements. The projecting perimeter ring, the perimeter groove that affects one or both sides of the container forming a band, the deformation that forms a hook with its corresponding inlet, the hollowness or front windows and the through hole points are highly reliable and easy grip access by putting the container in a really interesting use comfort while the flat bottom ensures its stability and balance. Also the alternative of forming flat upper part container the container becomes an extremely compact and accessible item with the outer tab.

[0043] At the production level, the plastic material that forms the container allows easy molding to achieve the aforementioned forms, with similar cost of the current bottles or packaging.

[0044] An important point is the ductility of the walls of the claimed container, derived from the materials involved in their production, since the combination of sections of these walls forming substantially straight or a degree of curvature allows for individual drinks containers adapted to different needs and designs, all of them presenting one or a combination of the technical characteristics described herein and to facilitate the easy grip and the container immediately above. This, coupled with the volumetrically planar form thereof, becomes the new container in a single article in performance as a container pocket.

[0045] The new container, by combining straight sec-

tions forming and/or curved shape, and volume while maintaining a flat shape, resulting in the possibility to conform imitating various forms, for example animal, elements of nature, objects, etc. And of course, the new container, as shown in some exposed herein, it is susceptible to imitate traditional use containers such as a boot wine, a jug, wineskin, etc. Such designs may require, if necessary, a conformation that present a flat face in the front or rear walls of the container and the front or rear walls of the container with a sensible curvature in order to give shape and volume to the object, animal, etc. representing, keeping always the joint volume of the container sufficiently flat.

[0046] All the features set form an individual drinks container differential considerably compared with bottles currently used to package water or soft drinks preferably intended for individual consumption and reduced capacity.

[0047] It is not considered necessary to extend this description for any expert in the art to understand the scope of the invention and the advantages derived thereof. The materials, including the size and shape and the aesthetic design of the container may vary as long as this does not alter the essence of the invention. The terms in which this specification has been drafted should always be interpreted in a broad and non-limiting sense.

Claims

1. Individual drinks container, **characterized by** comprising a volumetrically flattened central body (1) without edges, formed on the basis of polymers and resins, said central body (1) comprising front and rear walls (5) having a longer diameter, side walls (6) having a substantially reduced diameter, a flat bottom (2) and an upper part, and a maximum capacity of a liter.
2. Individual drinks container according to the claim 1, **characterized in that** the polymer is essentially polyethylene terephthalate (PET).
3. Individual drinks container according to the claim 1, essentially **characterized in that** the polymer is high density polyethylene (HDPE - HDPE)
4. Individual drinks container according to the claim 1, essentially **characterized in that** the polymer is low density polyethylene (LDPE -PEBD)
5. Individual drinks container according to the claim 1, essentially **characterized in that** the polymer is polymethylmethacrylate (PMMA)
6. Individual drinks container according to the claim 1, essentially **characterized in that** the walls (5) (6) of the central body (1) are single-walled type.

7. Individual drinks container according to the claim 1, essentially **characterized in that** the walls (5) (6) of the central body (1) are double-walled type.
8. Individual drinks container according to the claim 1, essentially **characterized in that** the walls (5) (6) of the central body (1) are of multi-layered type.
9. Individual drinks container according to the 1st and 8th claims, essentially **characterized in that** the walls (5) (6) of the central body (1) of the multilayer type has impermeability 02.
10. Individual drinks container according to the 1st and 8th claims, essentially **characterized in that** the walls (5) (6) of the central body (1) of the multilayer type has impermeability CO2.
11. Individual drinks container according to the 1st and 6th to 10th claims, essentially **characterized in that** the walls (5) (6) of the central body (1) are substantially straight in all or part of its length.
12. Individual drinks container according to the 1st and 6th to 10th claims, essentially **characterized in that** the walls (5) (6) of the central body (1) have a degree of curvature in all or part of its length.
13. Individual drinks container according to the claim 1, essentially **characterized in that** the upper part of the central body (1) extends into a neck associated with a screw cap (4) or a cap with spout.
14. Individual drinks container according to the 1st and 13th claim, characterized essentially in that under any of the aforementioned caps and located in the neck of the central body (1) comprises at least one ring (3) sufficiently protruding and sufficient basis.
15. Individual drinks container according to the claim 1, essentially **characterized in that** the central body (1) has on its upper part (10) a substantially flat surface in which a hole or mouth (12) liquid outlet is profiled associated with a screw cap (4), a cap with spout or a hinged lid (11) sliding or retractable fixedly connected to said central body (1).
16. Individual drinks container according to the 1st and 15th claims, essentially **characterized in that** the flat upper part (10) in whole or a segment, extends with one or more protruding front tabs (13) properly dimensioned.
17. Individual drinks container according to the claim 1, essentially **characterized in that** the central body (1) has at least one perimeter groove (7), preferably located in the middle / bottom and direct impact on both side walls (6) of the container, forming a band.
18. Individual drinks container according to the claim 1, essentially **characterized in that** the central body (1) has one or more deformations located in its upper part, coinciding with one or both side walls (6) and forming one or two hooks (8) that draw two separate inlets (9) markedly pronounced.
19. Individual drinks container according to the claim 1, essentially **characterized in that** the front and / or rear walls (5) of the central body (1) have one or more concavities (14) suitably dimensioned front forming a hollowness or window.
20. Individual drinks container 20 according to the claim 1, essentially **characterized in that** the front and / or rear walls (5) of the central body (1) have at least a sufficiently large through hole (15) passing through said central body (1), preferably at its upper part.
21. Individual drinks container according to the 1st and 15th claims, essentially **characterized in that** the flat upper part (10) of the central body (1) is extended by a gripping handle (16) forming part of the structure of said central body (1) and tends to occupy two thirds of said flat upper part (10), occupying the remaining third the screw cap (4), the cap with spout or lid (11) articulated.
22. Individual drinks container according to the claim 1, **characterized in that** it comprises essentially at least one protruding part, this being as a earmuff (17) formed by a deformation of the structure of the container or as a buckle (18), forming both a through hole in which a belt or the like is arranged.
23. Individual drinks container according to the 1st, 11th and 12th claims, essentially **characterized in that** its conformation has one face with a front or rear walls (5) straight and another face with front or rear walls (5) with a noticeable curvature that It gives shape and volume, keeping the combined volumetry of the container sufficiently flat.

FIG. 1

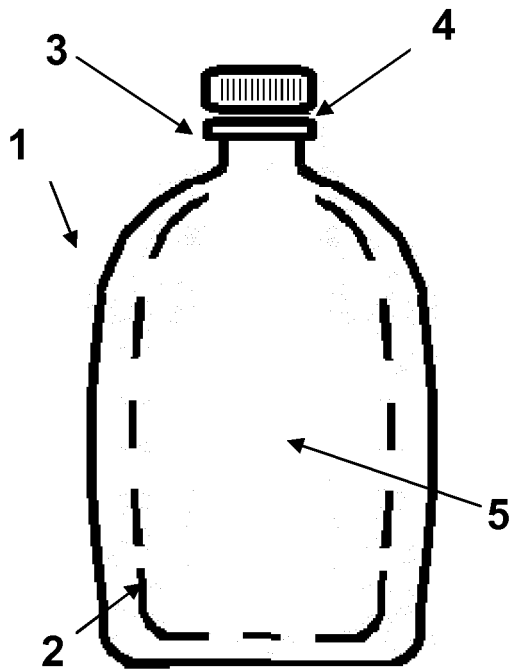


FIG. 2

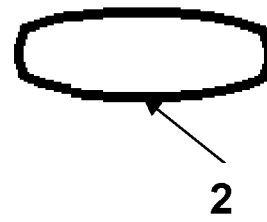


FIG. 4

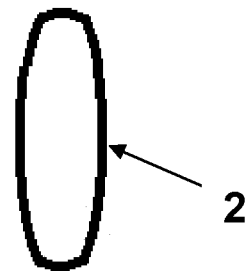


FIG. 3

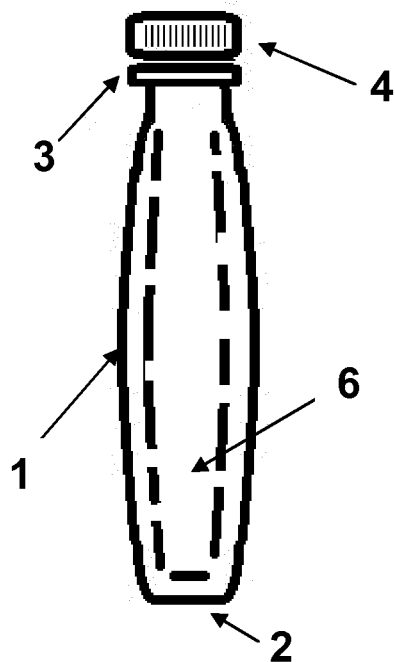


FIG. 5

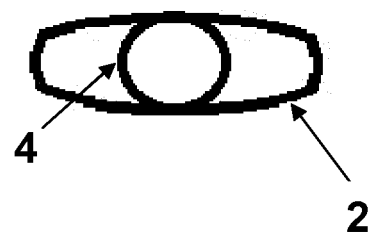


FIG. 6

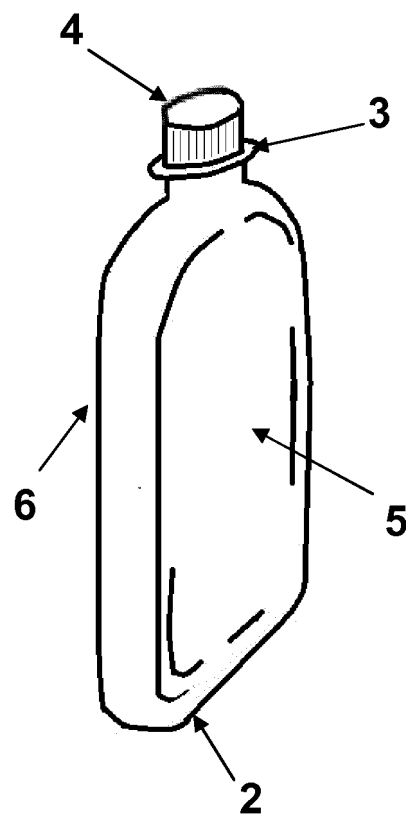


FIG.7

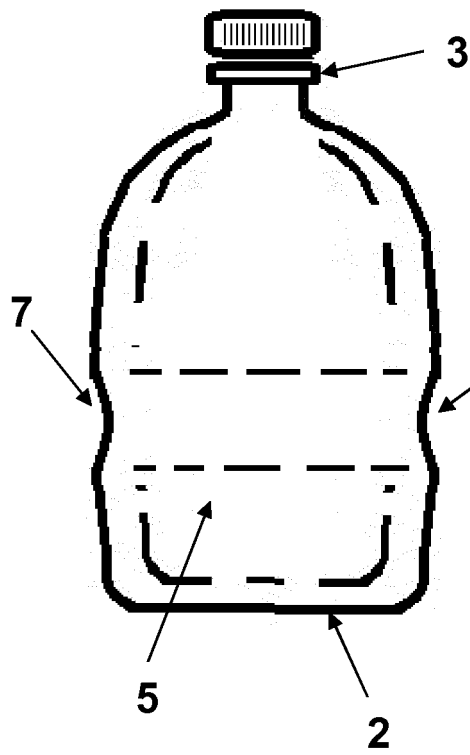


FIG.8

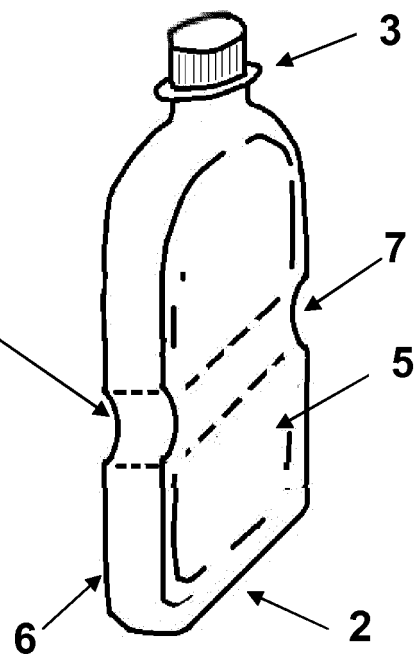


FIG. 9

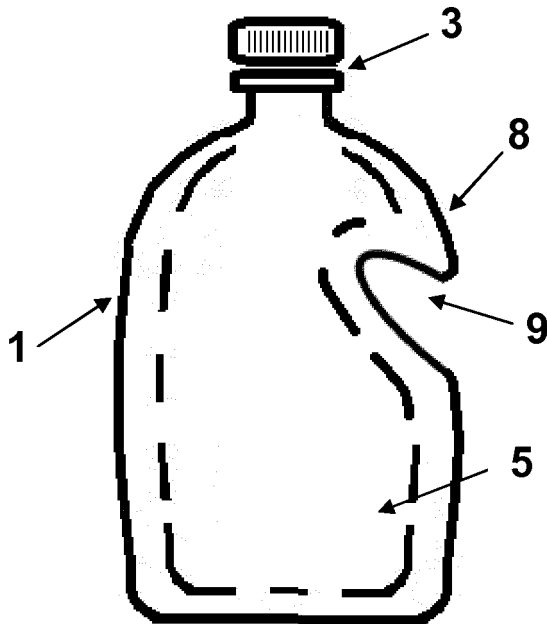


FIG.10

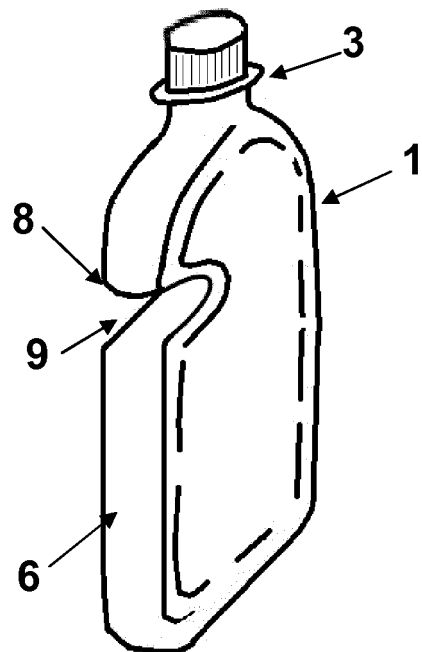


FIG.11

FIG.12

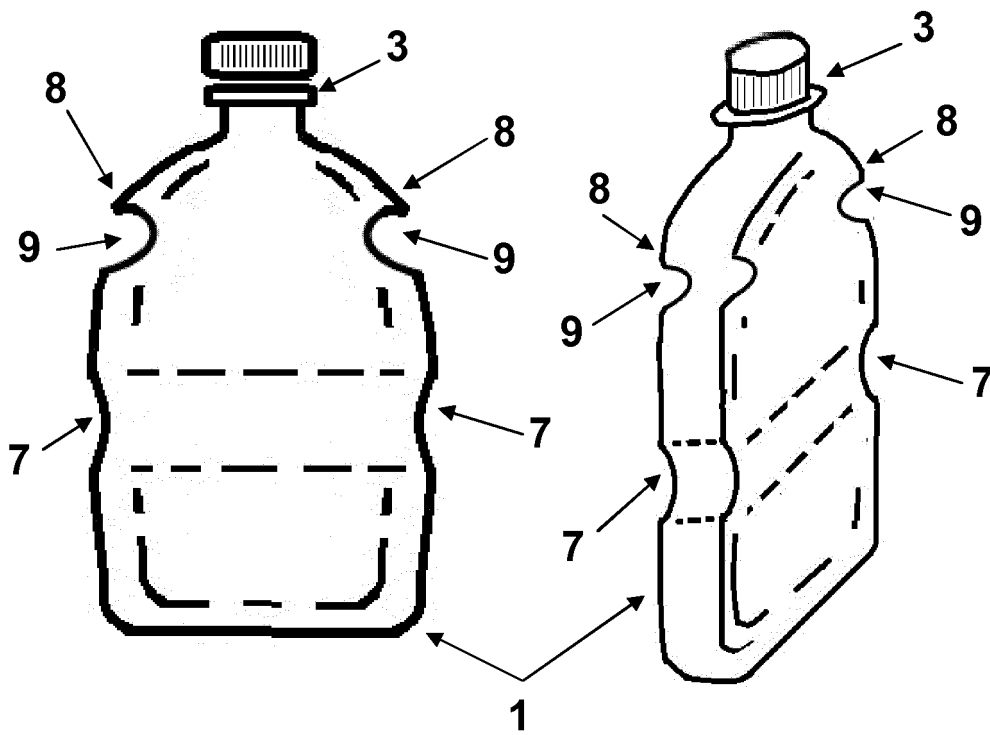


FIG.13

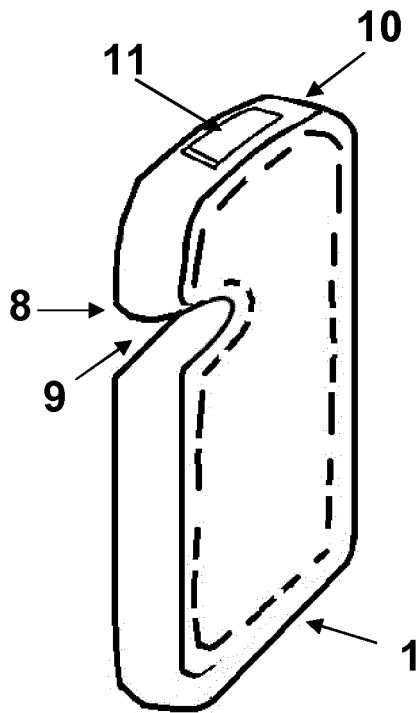


FIG. 14

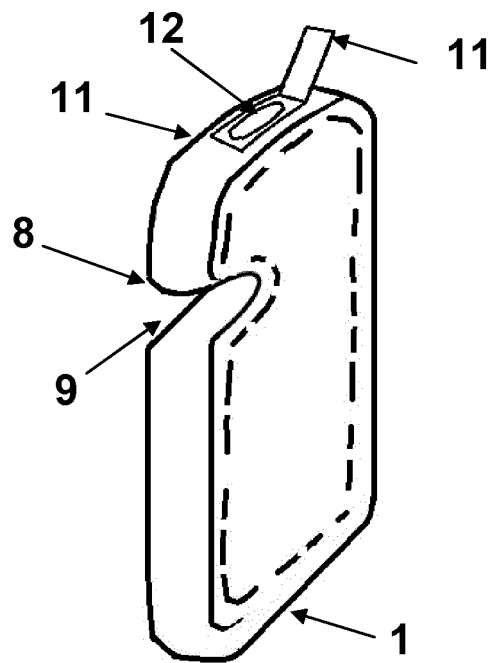


FIG. 15

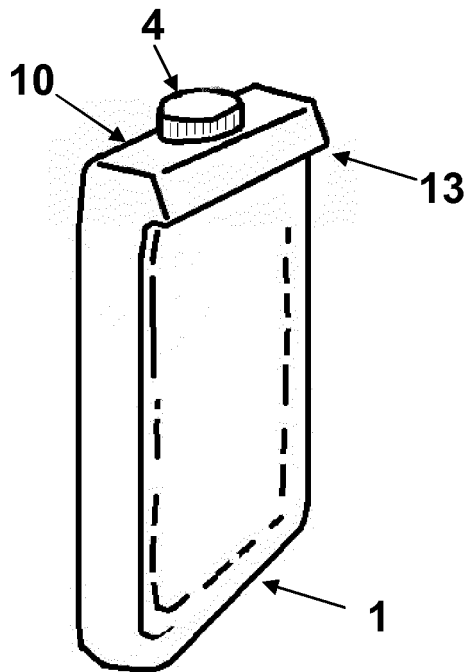


FIG. 16

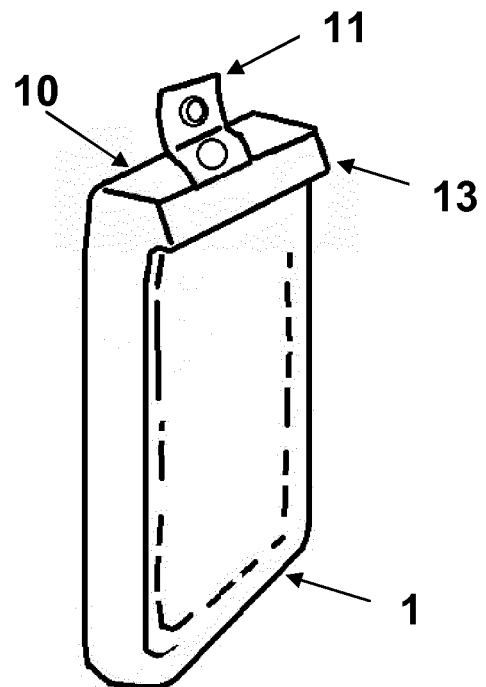


FIG. 17

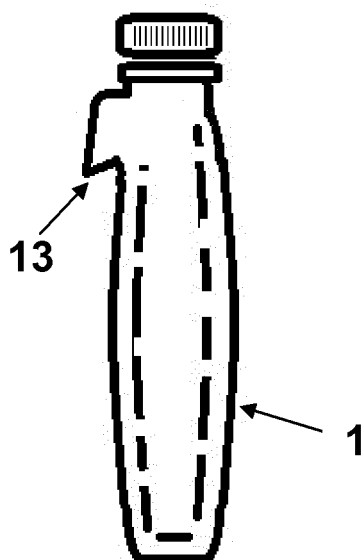


FIG. 18

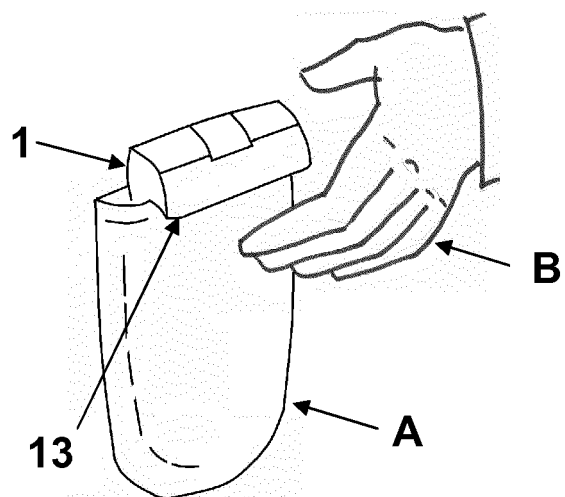


FIG. 19

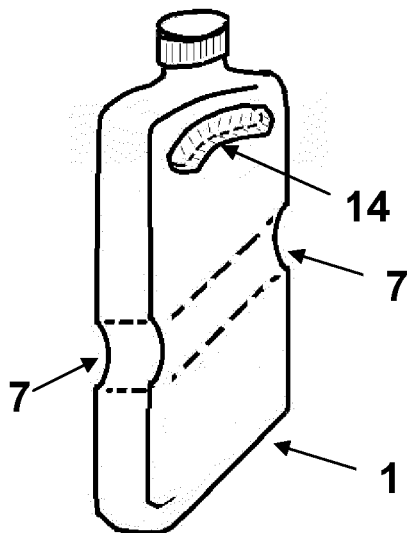


FIG. 20

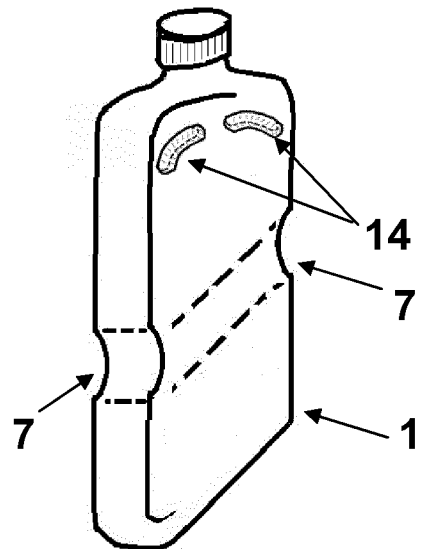


FIG. 21

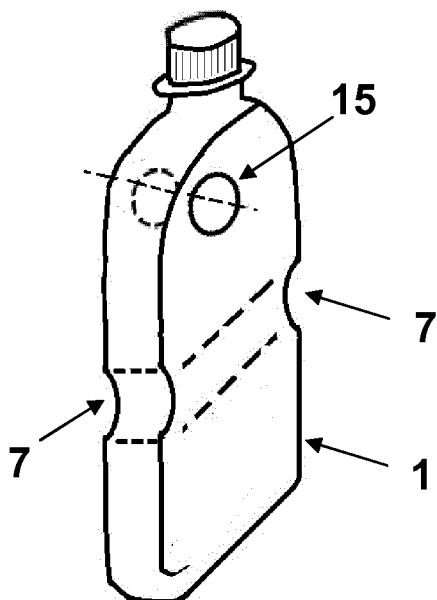


FIG. 22

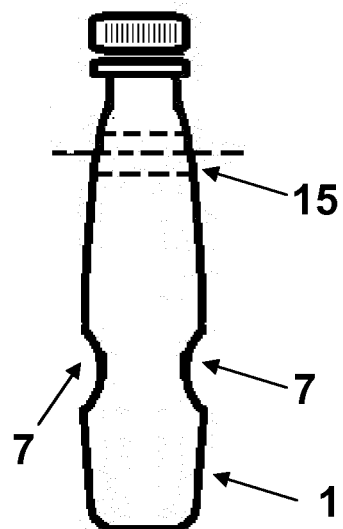


FIG. 23

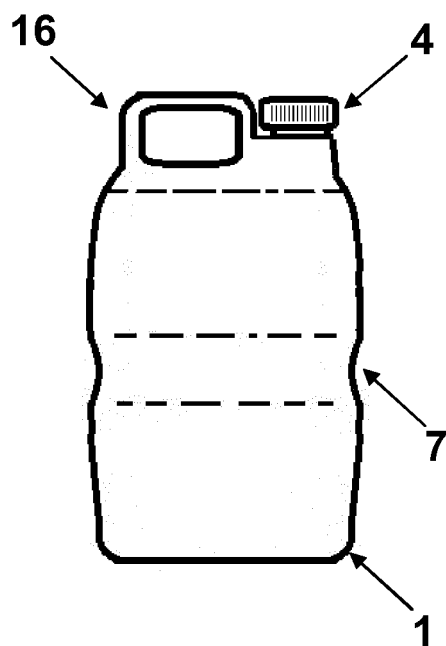


FIG. 24

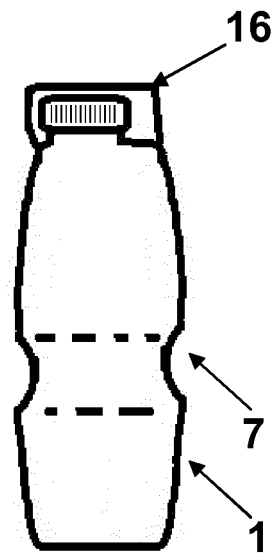


FIG. 25

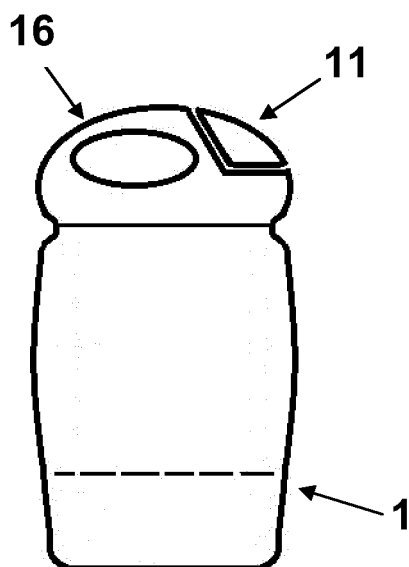


FIG. 26

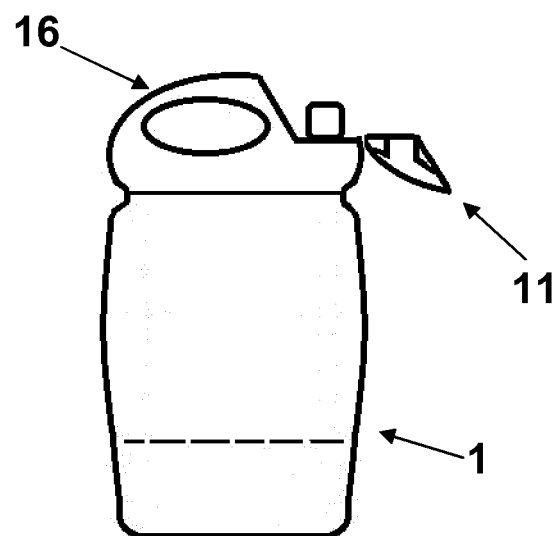


FIG. 27

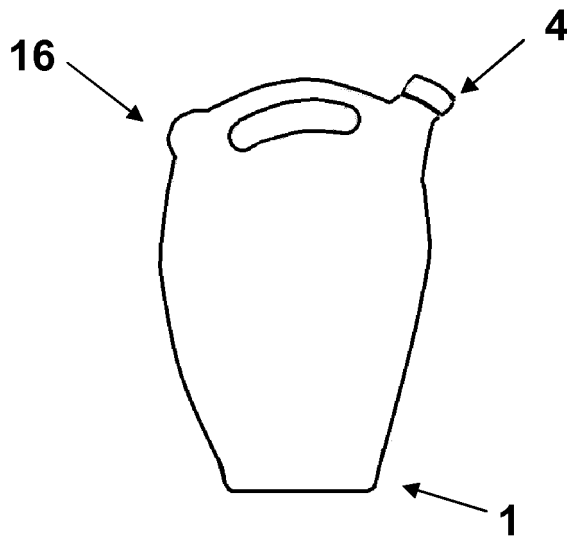


FIG. 28

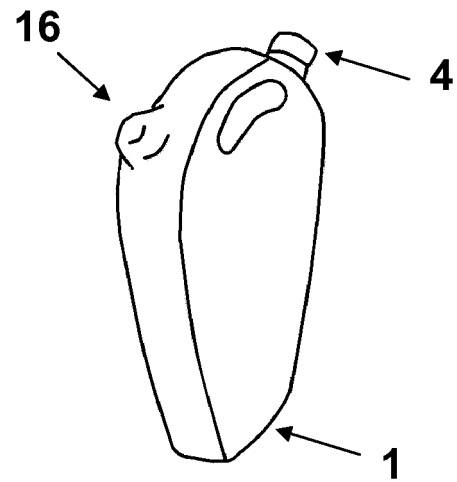


FIG. 29

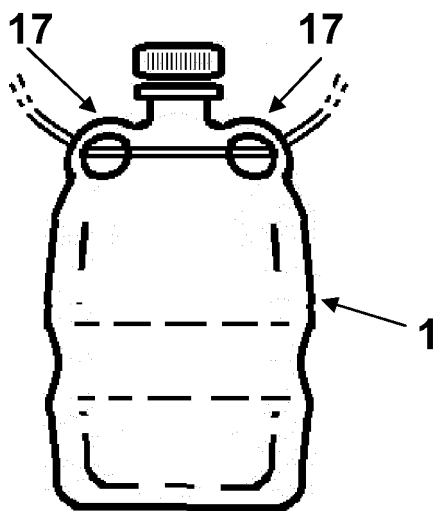
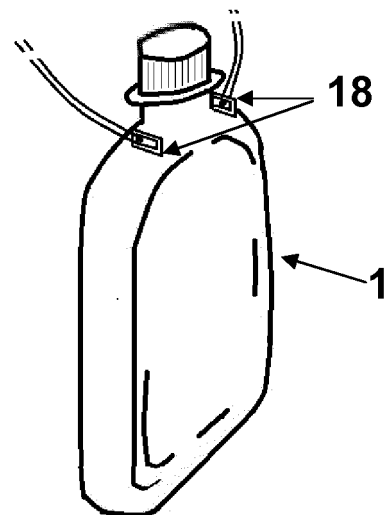


FIG. 30



INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2014/070358

A. CLASSIFICATION OF SUBJECT MATTER

B65D1/00 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, INVENES

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A		15-23
X	BE 460352 A 30/11/0002, the whole document.	1-12,17
X	US 6070753 A (HIRST RICHARD N ET AL.) 06/06/2000, the whole document.	1-13
A		14-23
X	US 2012211520 A1 (CIAVARELLA NICK E ET AL.) 23/08/2012, the whole document.	1-13
A		14-23
X	GB 2440523 A (CONCENTRATED SOLUTIONS LTD) 06/02/2008, the whole document.	1-13
A		14-23

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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Date of the actual completion of the international search

05/06/2014

Date of mailing of the international search report

(06/06/2014)

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2014/070358

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C (continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of documents, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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REFERENCES CITED IN THE DESCRIPTION

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