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(54) **DEVICE FOR SUCKING UP BEVERAGES**

(57) Device for sucking up beverages, which comprises a tubular body (1) with open ends (2, 3), the lower end (2) of which is inserted into a beverage contained in a vessel, while the user's mouth is placed over the upper end (3) so as to suck up the beverage; it is characterized in that the outer surface of a section of the lower end of the tubular body (1) comprises at least one longitudinal lateral extension (4, 4', 4") that can be used to stir, break up, separate, scrape out, scrape up, mix, churn and as a spoon. The lateral extension may be hollow or solid and have, on the upper and lower surface thereof, a groove (7, 7a, 7b) for retaining components with a lower density than the beverage, to facilitate drinking. The longitudinal edge (10) of the lateral extension (4, 4', 4") may be used for cutting and scraping. For use in all kinds of beverages, especially milkshakes and the like.

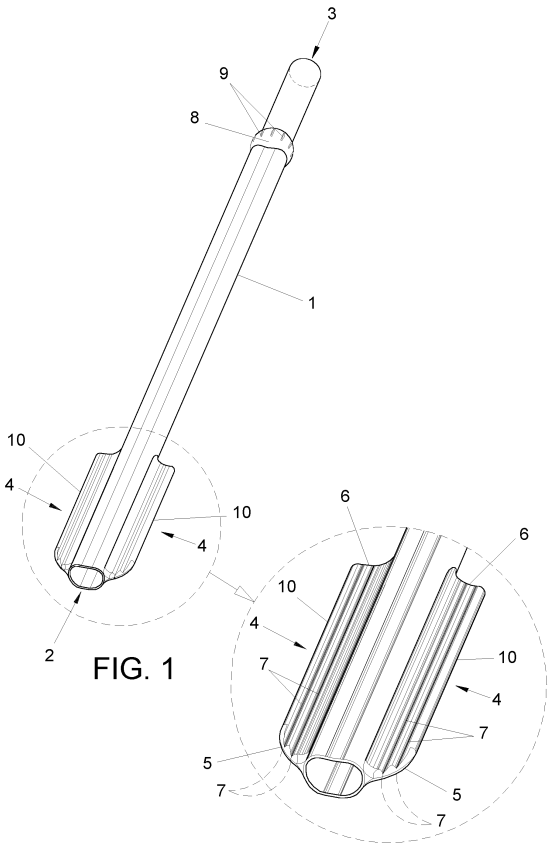

FIG. 1

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Description

OBJECT OF THE INVENTION

[0001] The invention relates to a device which is provided for enabling beverages to be sucked up by means of a tubular body with open ends, such that the lower end thereof is inserted into a beverage contained in a vessel, while the user's mouth is placed over the upper end so as when suction is applied the beverage contained in the vessel is absorbed. The object of the invention consists of fitting the device with at least one lower longitudinal lateral extension which provides new functionalities, aside from the sucking up of the beverage contained in a vessel, such as allowing the device to be used as a stirrer, scraper, churner and as a spoon for collecting and/or eating to which end the lower end of the tubular body comprises at least one lateral extension which allows the mentioned functionalities to be carried out.

[0002] Another object of the invention is to provide a device in which the at least one longitudinal extension extends longitudinally along the entire surface of the tubular body, such that the device can be manufactured continuously with large lengths and subsequently cut to the length required as a function of the needs required, for example as a function of the height of the vessel which contains the beverage to be consumed or to the wishes of the users. The new configuration allows its manufacture by both extrusion, reducing cost, and by injection.

[0003] In general, the invention is applicable for sucking up any beverage and more specifically, to drink sucking in, stirring, breaking up, separating, scraping out, scraping up, mixing, churning and as a spoon for collecting and/or eating those parts of the beverage having different densities such as foam (milkshakes - ice creams with milk, smoothies - blended fruits with ice, coffees with foamed milk - cappuccino, etc.), creams, syrups, toppings, etc.

BACKGROUND OF THE INVENTION

[0004] In the prior art, it is known to use devices for ingesting beverages by sucking up, using a device known as a straw which is constituted by a tubular body with open ends for allowing suction of beverages. A type of sucking-up device is known, the tubular body of which presents a series of folds which allow an upper section to be articulated, forming an angle with respect to the longitudinal axis of the tubular body, allowing the angle of the upper section to be varied with respect to the axis of the straw, facilitating the use of the straw by the users.

[0005] The situation arises where on many occasions, the beverages must be stirred to be homogenized, such as for example in the case of milkshakes, coffees, etc., to which end the user moves the tubular body in different directions to try to homogenize the beverage, which is not achieved to the extent required, as the device does not have a surface sufficient for allowing the beverage to be stirred. In addition, the traditional tubular body has a good hydrodynamic profile which reduces its efficiency when it is used to stir, mix or homogenize a beverage.

[0006] Furthermore, the situation arises where many of the users, for example in the case of milkshakes, like to first ingest the part of the cream which decorates the beverage or scrape out the excess foam once the liquid has been sucked up. In one case, this is achieved by introducing and dragging one end of the tubular body in the cream so as to then ingest it; in another case, the outer surface of the tubular body is slid on the inner surface of the vessel to collect the foam. In both cases the functions are not carried out adequately as the tubular body is not especially designed for these purposes.

DESCRIPTION OF THE INVENTION

[0007] In order to achieve the objects and resolve the drawbacks indicated above, the invention has developed a new device for sucking up beverages, which, as with the devices envisaged in the prior art, comprises a body with open ends, the lower end thereof is introduced into a beverage located in the interior of a vessel, such that the user's mouth can be placed over the upper end in order to suck up the beverage contained in the vessel.

[0008] The principal novelty of the invention is the fact that the outer surface of a section of the lower end of the tubular body comprises at least one longitudinal lateral extension that permits new functions such as stirring, breaking up, separating, scraping out, scraping up, mixing, churning and as a spoon.

[0009] In one preferred embodiment of the invention, the at least one longitudinal lateral extension extends along the entire outer surface of the tubular body that can be used for stirring, breaking up, separating, scraping out, scraping up, mixing, churning and as a spoon. Therefore in this case, the lateral extension, instead of occupying a section of the lower end of the tubular body, occupies its entire length.

[0010] This configuration has the advantage that the device can be manufactured continuously with a pre-defined length and then cut into sections to obtain a plurality of devices of a certain length which are adapted to the height of the vessel which contains the beverage desired to be consumed, or to the wishes of the users. This configuration simplifies and makes the manufacture of the device cheaper. Furthermore, the configuration described provides a large surface for placing messages or advertising regarding the qualities and/or properties of the beverage which is enjoyed or may constitute an excellent advertising medium for any brand. Furthermore, this profile may be manufactured by plastics extrusion which notably reduces the cost of manufacture and thus its final sales price. It can also be manufactured by injection.

[0011] The invention envisages that in any of the embodiments of the invention, the at least one longitudinal lateral extension may be solid or hollow. In the case in

which it is hollow, the quantity of raw material needed for the manufacture of the device is reduced, and therefore its cost.

[0012] The at least one longitudinal lateral extension comprises a substantially rectangular contour, the lower edge of which is convex curved such that in the preferred embodiment of the invention the lower edge is leveled with the lower end of the tubular body. Furthermore, the upper edge of the longitudinal lateral extension has a concave curved contour which may also be convex curved. The upper and lower edges are joined by means of a longitudinal edge for cutting and scrapping out. This configuration provides new functionalities such as allowing cutting, such as for example an ice cream included in the beverage may be and scraped out by means of said longitudinal edge. This configuration provides a pleasant feel when introducing the device into the mouth.

[0013] In one embodiment of the invention, the longitudinal lateral extension with substantially rectangular contour has a circular cross section. This configuration also allows the device to be used for cutting substances which may be included in the beverage such as for example an ice cream.

[0014] In the case in which the longitudinal lateral extension is of hollow configuration, it comprises an upper wall and a lower wall with convex curved surfaces which are joined, forming the longitudinal edge for cutting, for example an ice cream contained in the beverage, and scraping out the beverage, both walls defining a blind tube with a triangular cross section with concave curved sides closed by the upper edge. The upper edge may also be open to avoid its floatability in the beverage.

[0015] In any of the embodiments of the invention, the longitudinal edge of the hollow and solid configuration is envisaged with a convex curved cross section with small radius to allow the cutting and scraping out to take place. Furthermore, this configuration is ergonomically adapted to the form of the mouth and/or lips when closed and provides a pleasant feeling.

[0016] Both in the case of the longitudinal lateral extension being solid and in the case it is hollow, its upper and lower surfaces comprise longitudinal grooves for retaining components with a lower density than the beverage, such as for example foam, which facilitates its ingestion.

[0017] In the case that the at least one lateral extension has a circular cross section, it is envisage that in the area of the joining with the tubular body, a longitudinal groove is defined which forms a small slot in the manner of a valley which avoids the denser substances slipping (foamed milk, cream, etc.) facilitating its consumption.

[0018] In another embodiment of the invention, the grooves are arranged as undulations, where those on the upper and lower surface are preferably opposing. This configuration facilitates the collection of the denser substances while at the same time also allowing the substances which may be included in the beverage to be cut.

[0019] In the case in which the lower section of the tubular body comprises the at least one longitudinal lateral extension, said tubular body has a cross section different to the rest of the tubular body. In the preferred embodiment of the invention, the tubular body has a circular cross section, which, in the area corresponding to the longitudinal lateral extension, may become a rectangular cross section with smaller curved sides. The invention envisages that this approximately rectangular cross section of the tubular body may be extended above the at least one longitudinal lateral extension.

[0020] The invention, in addition, includes the characteristic that both in the embodiment of the at least one hollow and solid longitudinal lateral extension, the upper area of the tubular body may include an annular protuberance to facilitate the application of a movement of rotation of the tubular body about its axis, churning the beverage. The upper annular protuberance of the tubular body comprises a transverse section which defines a circular sector, the surface of which comprises grooves. The configuration described has the advantage of facilitating the churning of the beverage by means of the device. This embodiment is preferably applicable in the case where the at least one longitudinal lateral extension occupies a section of the lower end of the tubular body, in which case the approximately rectangular cross section of the tubular body extends to the beginning of said annular protuberance.

[0021] In another embodiment of the invention, it is envisaged that the section of the lower end of the tubular body which comprises the at least one longitudinal lateral extension may be detachable from the rest of the tubular body, to which end said detachable section of the lower end of the tubular body comprising the at least one longitudinal lateral extension includes in its upper end a cylindrical prolongation, which following a narrowing continues according to a cylindrical section with a diameter complementary to the inner diameter of the tubular body, to enclose them under pressure. This configuration has the advantage that the section of the lower end of the tubular body comprising the at least one longitudinal lateral extension may be manufactured by injection and the rest of the tubular body by extrusion, which reduces its cost. In this embodiment, it is envisaged that the inner diameter of the tubular body of the detachable section comes to have a configuration with an elliptical cross section which provides an expansion of the lower end from the beginning of said cylindrical prolongation towards said lower end to facilitate sucking up the beverage. It is also envisaged that the lateral extensions originate from the sides with cylindrical prolongation and include the grooves previously described.

[0022] In the preferred embodiment of the invention, for all of the cases previously described, the incorporation of at least two opposed longitudinal lateral extensions is envisaged, instead of one, which facilitates carrying out the functionalities previously mentioned. Obviously a variable number of longitudinal lateral extension may be used.

[0023] In the case of incorporating two opposed longitudinal lateral extensions, the lower convex curved edge of the diametrical longitudinal lateral extensions, together with the lower end of the tubular body form a semi-circular configuration of the lower edge of the device which provides a pleasant feel when the device is introduced into the mouth and also adapts better to the bottom of the vessel with the aim of being able to suction all the beverage.

[0024] In any of the embodiments and more particularly in the embodiment in which the at least one longitudinal lateral extension or the at least two opposed longitudinal lateral extensions are extended along the entire outer surface of the tubular body, it is envisaged that the outer surface of the tubular body has an elliptical cross section which determines that the cross section of the device is wider than taller, in the form of a spindle. This configuration facilitates its adaption to the lips of the user and therefore provides better ergonomy. In this case, the at least one lateral extension is arranged corresponding to one of the ends of the ellipse.

[0025] The invention also envisages that the outer surface of the tubular body may have a circular cross section, however, it may also be any other cross section which is desired.

[0026] In any of the cases, the inner surface of the tubular body may have an elliptical or also circular cross section and even any other configuration which is required.

[0027] In the embodiment in which the at least one longitudinal lateral extension extends along the entire outer surface of the longitudinal tubular body or comprises two opposed longitudinal lateral extensions which extend along the entire outer surface of the longitudinal tubular body, once manufactured the device is cut into sections to obtain a plurality of devices such that said cut may be regular or irregular. In turn, the regular cut may be straight or curved in a concave or convex configuration. Ultimately, the cut may have any other configuration which is required. Considering the functionality and final use of the device, both ends may be cut on the basis of the same or different forms which gives rise as a result in each case to a symmetrical or asymmetrical final device. In the preferred embodiment of the invention, the cut is carried out such that the lower edge of the opposed longitudinal lateral extensions, together with the lower end of the tubular body, form a semi-circular configuration of the ends of the device, which provides a pleasant feel when the device is introduced into the mouth and also adapts better to the bottom of the vessel with the aim of being able to suction all the beverage.

[0028] In order to facilitating a better understanding of this specification and as an integral part of the same, a series of figures accompany below in which the object of the invention is represented in an illustrative and non-limiting manner.

BRIEF DESCRIPTION OF THE FIGURES

[0029]

Figure 1 shows a perspective view of an exemplary embodiment of the device according to the invention, which comprises longitudinal lateral extensions which are solid and are provided in a section of the lower end of the tubular body. It also shows a detail of the configuration of the longitudinal lateral extensions.

Figure 2 shows a perspective view of another embodiment of the invention in which the longitudinal lateral extensions are hollow and are provided in a section of the lower end of the tubular body. It also shows a detail of the configuration of the longitudinal lateral extensions.

Figure 3 shows a perspective view of another possible exemplary embodiment of the device according to the invention, in which the longitudinal lateral extensions extend along the entire outer surface of the longitudinal tubular body and have a circular section.

Figure 4 shows a perspective view of another exemplary embodiment of the invention, in which the longitudinal lateral extensions extend along the entire outer surface of the longitudinal tubular body and have a rectangular contour with upper and lower surface affected by undulation which define a groove.

Figure 5 shows a perspective exploded view of another exemplary embodiment of the invention, in which the section of the lower end of the tubular body comprising the at least one longitudinal lateral extension, is detachable from the rest of the tubular body which is partially represented.

Figure 6 shows a frontal view of the section of the lower end of the tubular body which comprises the at least one longitudinal lateral extension, in which an enlargement of the inner diameter of the tubular body towards the lower end can be seen.

Figure 7 shows a perspective view of the exemplary embodiment of the previous figure, in which the section of the lower end of the tubular body which comprises the at least one longitudinal lateral extension has been mounted on the rest of the tubular body.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0030] A description of the invention based on the previously mentioned figures will be given below.

[0031] The device according to the invention is constituted by a tubular body 1 with open ends 2 and 3 such that by introducing the lower end 2 into a beverage contained in a vessel, for example a glass (not shown) and then placing the mouth on the upper end 3, the beverage can be sucked up.

[0032] The main novelty of the invention is in the characteristic that a lower section of the tubular body 1 comprises at least one longitudinal lateral extension 4, in the

form of a wing or palette to carry out functions of stirring, breaking up, separating, scraping out, scraping up, mixing, churning and used as a spoon for collecting and/or eating those parts of the beverage with different densities such as foam (milkshakes - ice creams with milk, smoothies - blended fruits with ice, coffees with foamed milk - cappuccino, etc.), creams, syrups, toppings, etc. In the preferred embodiment of the invention, two diametrical longitudinal lateral extensions 4 are included in the form of wings or palettes to facilitate the functionality of stirrer, scraper, churner and/or spoon. The invention is therefore applicable to ingesting any beverage and more specifically beverages containing parts with different densities such as foam (milkshakes - ice creams with milk, smoothies - blended fruits with ice, coffees with foamed milk - cappuccinos, etc.).

[0033] In figure 1, a first exemplary embodiment of the invention is represented in which the longitudinal lateral extensions 4 have a solid configuration. The lower edge 5 of the longitudinal lateral extensions 4 have a convex curved configuration and all of which in such a way that said lower edge 5 is leveled with the lower end 2 of the tubular body 1. The lower end 2 of the tubular body 1 is also convex curved, in such a way that said lower end 2, together with the lower edges of the longitudinal lateral extensions define a lower edge of the semi-circular device which feels pleasant when the device is used as a spoon.

[0034] The upper edge 6 of the longitudinal lateral extensions 4 is concave curved, in such a way that they also feel pleasant when the device is used as a spoon, aside from having an advanced and ergonomic design.

[0035] This configuration also enables the device to have a more comfortable and smooth feeling when used as a spoon, when the lower end of the device is introduced into the mouth. The lips adapt and slide longitudinally removing, for example the foam.

[0036] The upper and lower surfaces of the longitudinal lateral extensions 4 are fitted with grooves 7 which stop the sliding of the foam (milkshake, coffee, etc.) which the beverage may contain, since the density and the structure of the foam per se are stopped when they have reached the grooves 7, which provides the device with the function of a spoon since it enables the foam to be ingested. The grooves 7 lack edges to make them feel smooth.

[0037] The previous configuration defines a longitudinal edge 10 of the longitudinal extensions 4 with a convex curved contour with a small radius, for example 1.40 mm, such that said longitudinal edge 10 may be used to cut, for example a piece of ice cream included in the beverage. This longitudinal edge 10 also facilitates the scraping out of the foam from the beverage.

[0038] The upper part of the tubular body 1 comprises an annular protuberance 8 to allow the application of a movement of rotation of the tubular body 1 about its axis by means of the index finger and the thumb, facilitating stirring and enabling the churning of the beverage. Furthermore, the surface of the annular protuberance 8 includes a groove 9 to facilitate the holding and churning of the device, avoiding it slipping. This configuration even allows the annular protuberance 8 to be arranged between the palms of the hands of the user to churn the beverage.

[0039] The annular protuberance 8 of the tubular body 1 has a transverse section which defines a circular sector in the form of a "ball" to facilitate the previously indicated functionality.

[0040] In figure 2, another possible embodiment of the invention is shown, similar to that in figure 1, however in this case the longitudinal lateral extensions 4 have a hollow configuration such that the raw material required for manufacturing the device is reduced and the cost is consequently reduced. In order to obtain the hollow configuration, an upper wall 4a and a lower wall 4b with convex curved surfaces are envisaged which are joined, forming the longitudinal edge 10 for cutting and scraping out the foam from the beverage, defining a blind tube 11 with a triangular section with concave curved walls, closed by the upper edge 6.

[0041] In this embodiment, the upper wall 4a and the lower wall 4b also include the grooves 7 and the tubular body 1 includes the protuberance 8 to carry out the functions already indicated in the previous example.

[0042] The invention has different design aspects in figures 1 and 2. In this regard in figure 1, the tubular body 1 has a circular section from the upper end 3 to the annular protuberance 8, from which it continues according to an approximately rectangular section of the smaller convex curved sides to the lower end 2. Whereas, in the example in figure 2 the tubular body has a circular section from the upper end to the longitudinal lateral extension 4, where it comes to have a rectangular section with smaller curved sides.

[0043] In figure 3, another exemplary embodiment is shown in which the tubular body 1 comprises at least one longitudinal lateral extension 4', in the form of a wing or palette, which runs along the entire length of the tubular body 1 to carry out the functions of stirrer, scraper, spoon and/or churner. In the preferred embodiment of the invention there are included two opposed longitudinal lateral extensions 4' in the form of wings or palettes to facilitate the functionality of stirrer, separator, scraper, slicer, churner, mixer and spoon.

[0044] This configuration allows the device to be manufactured continuously with a pre-defined length and then cut into sections to obtain different devices of suitable length according to the required needs of the consumer.

[0045] In figure 3, an example is represented in which the outer surface of the tubular body 1 has an elliptical section, at the ends of which the longitudinal lateral extensions 4' are incorporated which have a circular section, the curved surface of which allows the cutting of the substances contained in the beverage to be carried out, such as for example an ice cream or similar and furthermore it allows the vessel to be scraped, while facilitating

its adaptation to the lips of the user. In this way, a more plane and functional configuration is obtained.

[0046] In the joining area between the at least one lateral extension 4' and the tubular body 1, a small groove or longitudinal slot 7a is defined in the form of a valley which avoids slippage of the denser substances (foamed milk, cream, etc.) since the density and structure of the foam per se is stopped when it has reached the longitudinal slot 7a which allows the device to be used as a spoon as it enables the foam to be ingested.

[0047] In figure 4, another embodiment of the invention is shown in which the tubular body 1 also has an elliptical section, at the ends of which two lateral extensions 4" are incorporated which have a rectangular contour with an upper and lower surface fitted with undulations 7b in the form of grooves, provided to facilitate the collection of the denser substances which, since they lack edges, feel smooth. In this case, the longitudinal edge 10 of the at least one lateral extension 4" has a convex curved surface to allow the cutting and scraping to be carried out, as in the example in figure 3.

[0048] In the embodiments described in figures 3 and 4, the inner surface of the tubular body 1 has an elliptical section, however, the possibility also exists for it to have a circular section or any other configuration that is required.

[0049] The cutting of the device in figures 3 and 4 to the required length is carried out in such a way that the upper and lower ends thereof are convex curved. It is thus envisaged that in the embodiments described this cut takes place such that said ends of the device form a semi-circular configuration, which provides a pleasant feel when the device is introduced into the mouth and furthermore adapts better to the bottom of the vessel with the aim of being able to suction all the beverage.

[0050] It is also envisaged that the cut may be straight or any regular cut such as for example parabolic, hyperbolic or even an irregular cut.

[0051] The embodiments in said figures 3 and 4 provide a profile which may be manufactured either by extrusion or by injection.

[0052] Obviously any combination of the characteristics described in the different embodiments forms part of the invention.

[0053] The embodiments of the invention, aside from allow drinking, provide new functionalities such as stirring, breaking up, churning, separating, collecting, scraping out, scraping up, mixing, eating and even playing with the beverage.

[0054] In figures 5, 6 and 7, another embodiment of the invention is shown in which it is envisaged that the section of the lower end of the tubular body 1 comprising two longitudinal lateral extensions 4 is detachable from the rest of the tubular body 1 to which end said detachable section includes in its upper end a cylindrical prolongation 12 which, following a narrowing, continues according to a cylindrical section 13 of a diameter complementary to the cylindrical inner diameter of the tubular body 1 to enclose them under pressure, as shown in figure 7. In order to facilitate the coupling under pressure, it is envisaged that the surface of the cylindrical section 13 includes a groove 14 which reduces the frictional surface during the coupling under pressure. In this example, as shown in figure 6, the inner diameter of the tubular body of the detachable section comes to have a configuration with an elliptical section which provides an expansion of the lower end 2 from the beginning of the cylindrical prolongation 12 towards said lower end 2 to facilitate sucking up the beverage. In this example the lateral extensions 4 originate from the sides with cylindrical prolongation 12 and include the grooves 7 previously described.

[0055] The configuration in the figures 5, 6 and 7 has the advantage that the detachable section may be manufactured by injection and the rest of the tubular body 1 by extrusion, which reduces its cost.

Claims

1. Device for sucking up beverages, which comprises a tubular body (1) with open ends (2, 3), the lower end (2) thereof is inserted into a beverage contained in a vessel, while the user's mouth is placed over the upper end (3) so as to suck up the beverage; **characterized in that** the outer surface of a section of the lower end of the tubular body (1) comprises at least one longitudinal lateral extension (4, 4', 4") that can be used to stir, break up, separate, scrape out, scrape up, mix, churn and as a spoon.

2. Device for sucking up beverages according to Claim 1, **characterized in that** the at least one longitudinal lateral extension (4, 4', 4") extends along the entire outer surface of the tubular body (1).

3. Device for sucking up beverages according to Claim 1 or 2, **characterized in that** the at least one longitudinal lateral extension (4, 4', 4") is selected from among a hollow lateral extension and a solid lateral extension.

4. Device for sucking up beverages according to Claim 3, **characterized in that** the at least one longitudinal lateral extension (4, 4', 4") comprises a substantially rectangular contour, the lower edge (5) of which is convex curved, its upper edge (6) is selected from among a concave curve and a convex curve; and said lower edge (5) and upper edge (6) are joined by means of a longitudinal edge (10) for cutting and scraping.

5. Device for sucking up beverages according to Claim 4, **characterized in that** the at least one lateral extension (4') has a circular cross section.

6. Device for sucking up beverages according to Claim

4, **characterized in that** the at least one longitudinal lateral extension (4, 4', 4") with hollow configuration comprises an upper wall (4a) and a lower wall (4b) with convex curved surfaces which are joined, forming the longitudinal edge (10) for cutting and scraping, defining a blind tube (11) with a triangular section with concave curved sides and closed by the upper edge (6).

7. Device for sucking up beverages according to any one of Claims 4, 5 or 6, **characterized in that** the longitudinal edge (10) of the configuration selected from among hollow and solid configuration has a convex curved cross section.

8. Device for sucking up beverages according to any one of Claims 4, 5 or 6, **characterized in that** the upper and lower surface of the at least one lateral extension (4, 4', 4") comprises longitudinal grooves (7, 7a, 7b) for retaining components with a lower density than the beverage.

9. Device for sucking up beverages according to any one of Claims 4 or 5, **characterized in that** the section of the lower end of the tubular body (1) which comprises at least one longitudinal lateral extension (4), has a cross section different to the rest of the tubular body (1); where the tubular body (1) has a circular cross section which, in the area corresponding to the longitudinal lateral extension (4), comes to have a rectangular cross section with smaller curved sides.

10. Device for sucking up beverages according to Claim 2, **characterized in that** the device has a pre-established continuous length which is cut into sections to obtain a plurality of devices.

11. Device for sucking up beverages according to Claim 10, **characterized in that** the cut to the tubular body (1) is selected from among a regular and irregular cut, where the regular cut is selected from among straight and curved and where the curved cut is selected from among concave and convex.

12. Device for sucking up beverages according to Claim 1, **characterized in that** the section of the lower end of the tubular body (1) comprising the at least one longitudinal lateral extension (4, 4', 4") is detachable from the rest of the tubular body (1).

13. Device for sucking up beverages according to Claim 12, **characterized in that** the detachable section of the lower end of the tubular body (1) comprising the at least one longitudinal lateral extension (4, 4', 4") includes, at its upper end, a cylindrical prolongation which following a narrowing continues according to a cylindrical section with a diameter complementary to the inner diameter of the tubular body (1) to enclose them under pressure.

14. Device for sucking up beverages according to Claim 1, **characterized in that** the upper area of the tubular body (1) comprises an annular protuberance (8) with a transverse section which defines a circular sector, the surface of which comprises grooves (9) to facilitate the application of a movement of rotation of the tubular body (1) about its axis, to churn the beverage.

15. Device for sucking up beverages according to any one of Claims 1 to 14, **characterized in that** it comprises at least two opposed longitudinal lateral extension (4, 4', 4").

16. Device for sucking up beverages according to Claim 15, **characterized in that** the lower convex curved edge (5) of the at least two opposed longitudinal lateral extension (4, 4', 4"), together with the lower end of the tubular body (1) form a semi-circular configuration of the lower edge (5) of the device.

17. Device for sucking up beverages according to Claims 2 or 15, **characterized in that** the outer surface of the tubular body (1) has a cross section selected from among elliptical and circular; where when the cross section of the outer surface of the tubular body (1) is elliptical, the at least one lateral extension is provided at one of its ends and the two longitudinal extensions are provided at both ends of the ellipse; and where the inner surface of the tubular body (1) has a cross section selected from among circular and elliptical.

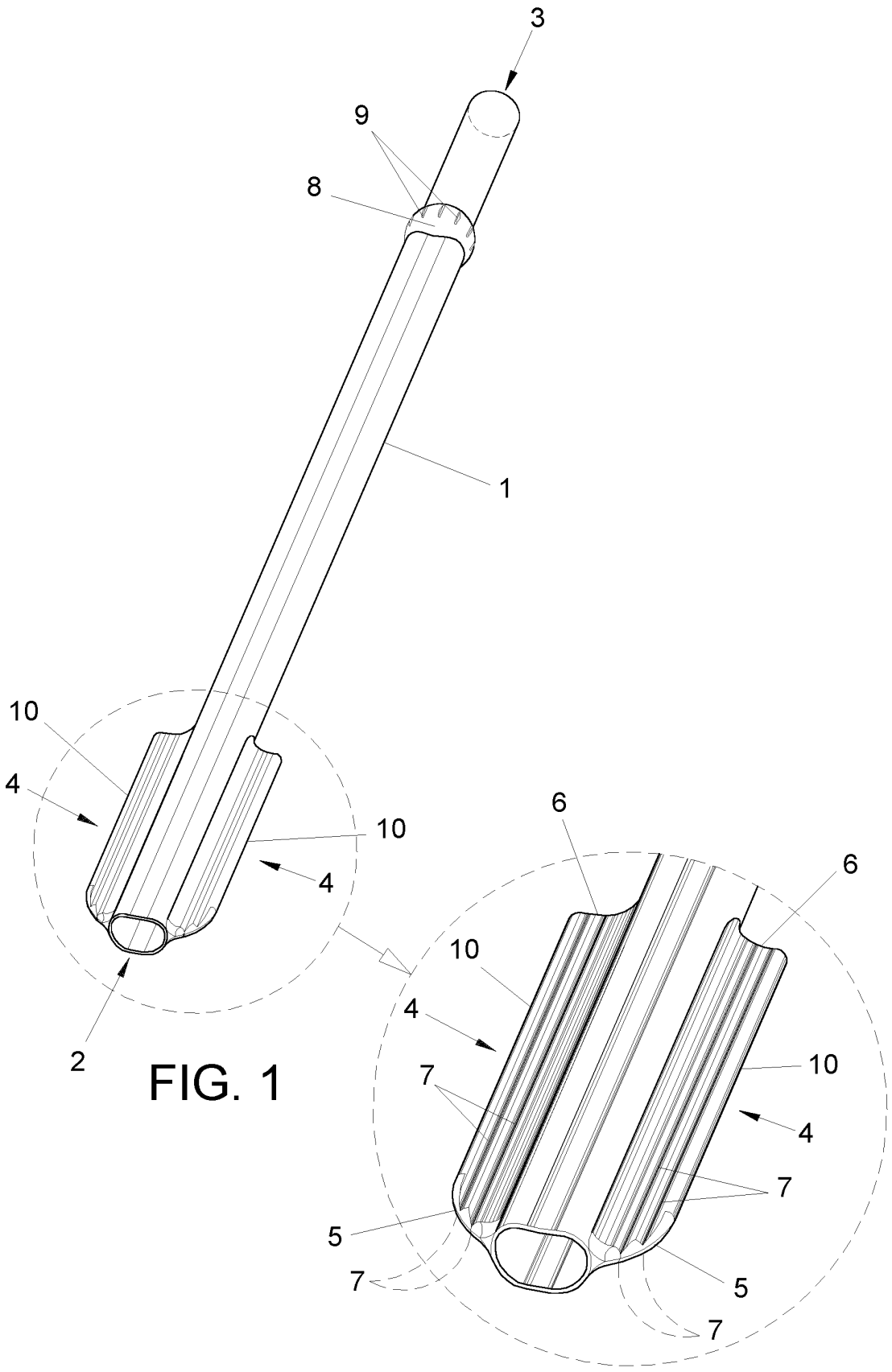

FIG. 1

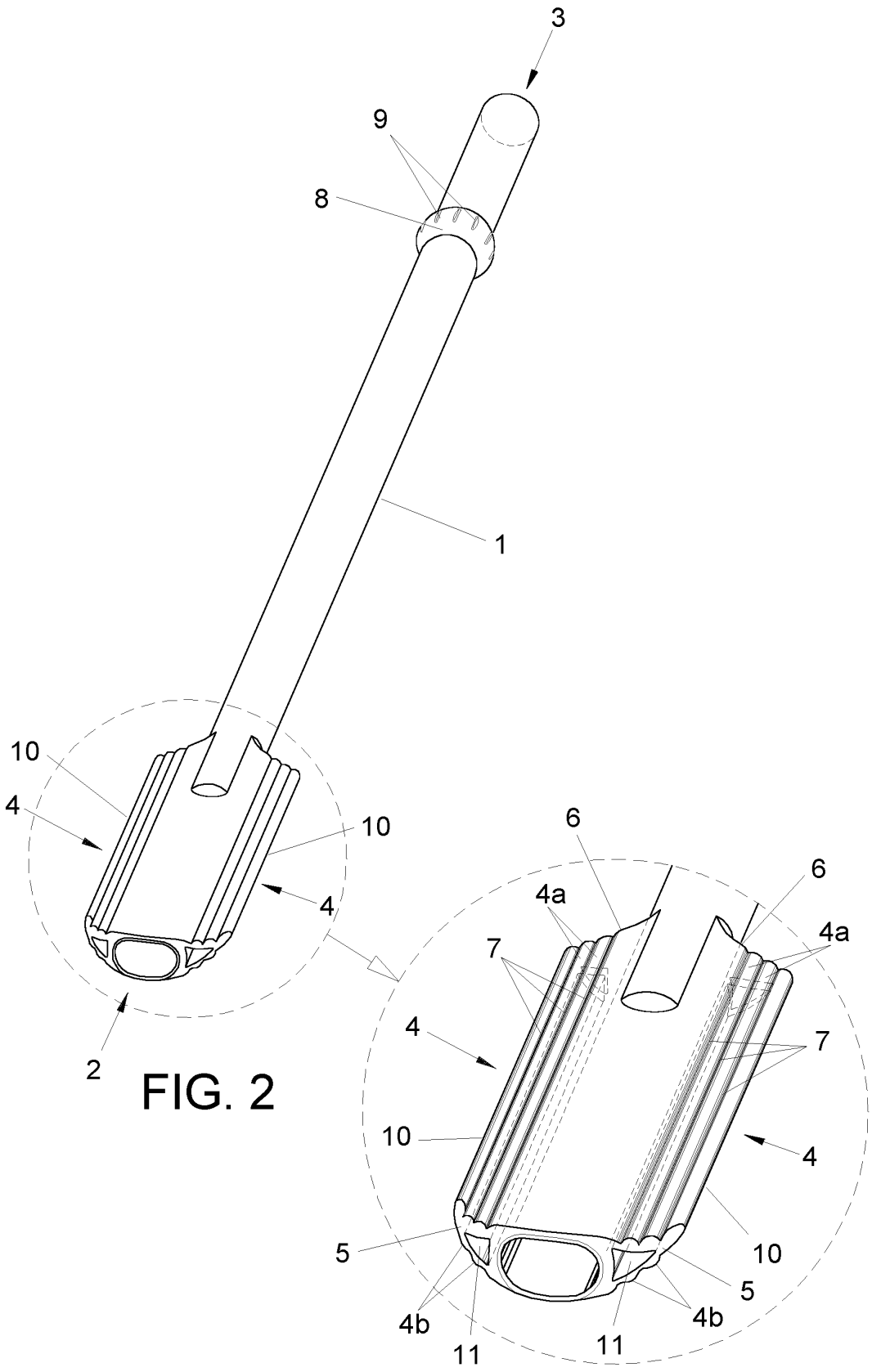

FIG. 2

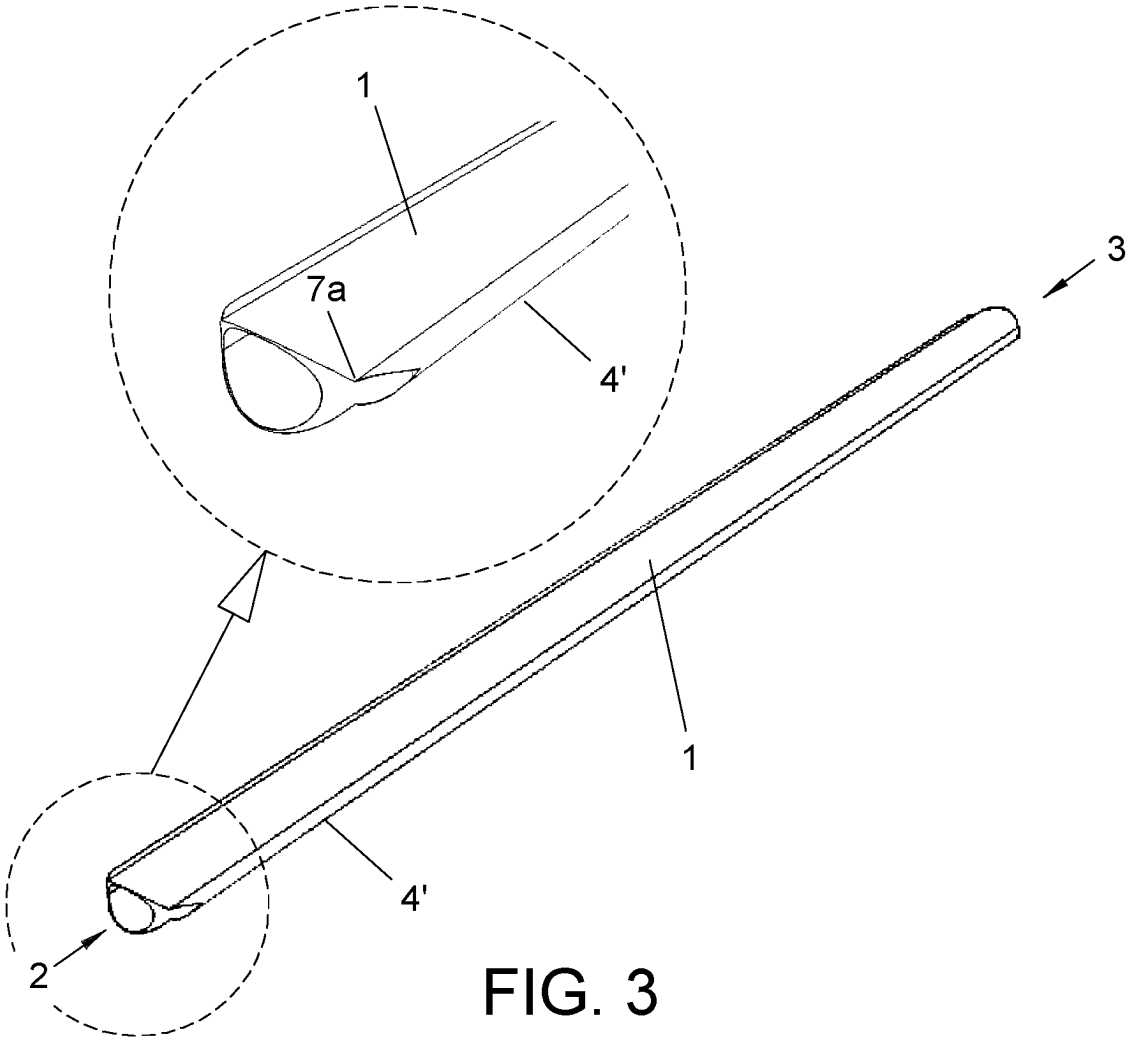

FIG. 3

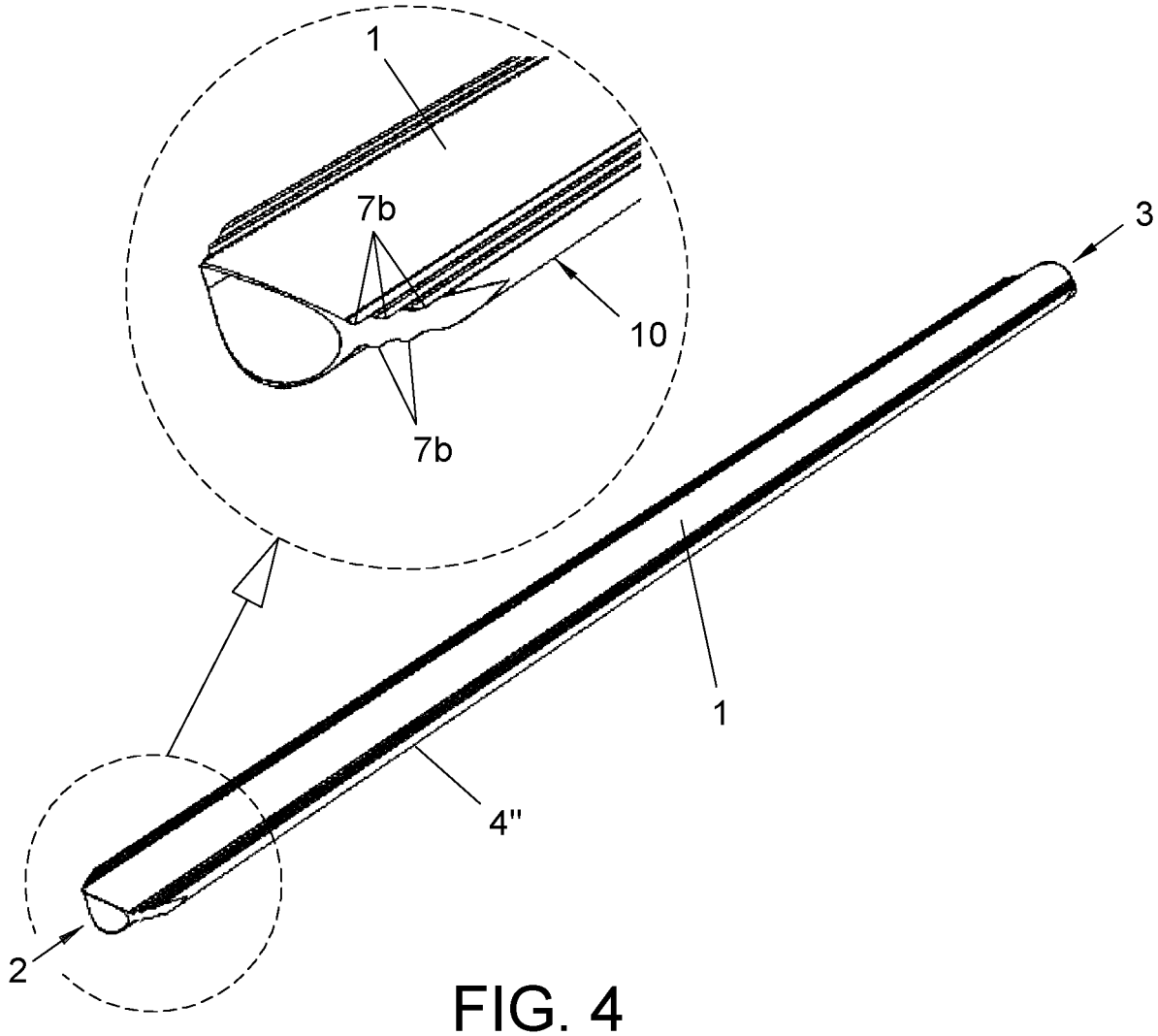

FIG. 4

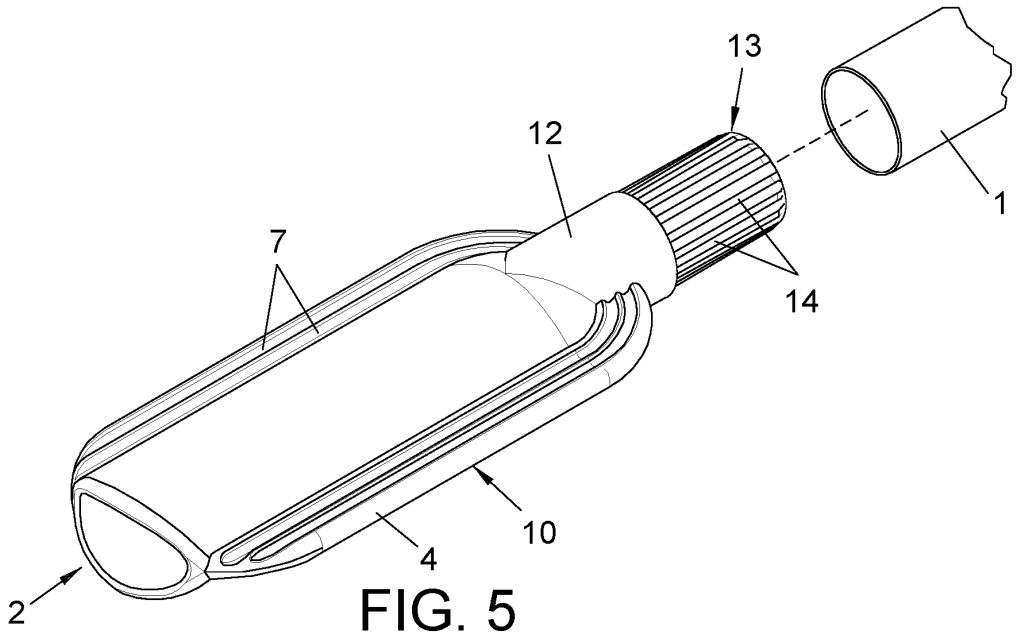

FIG. 5

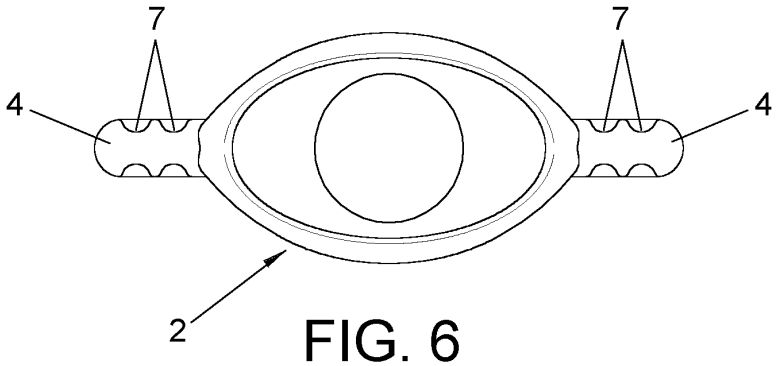

FIG. 6

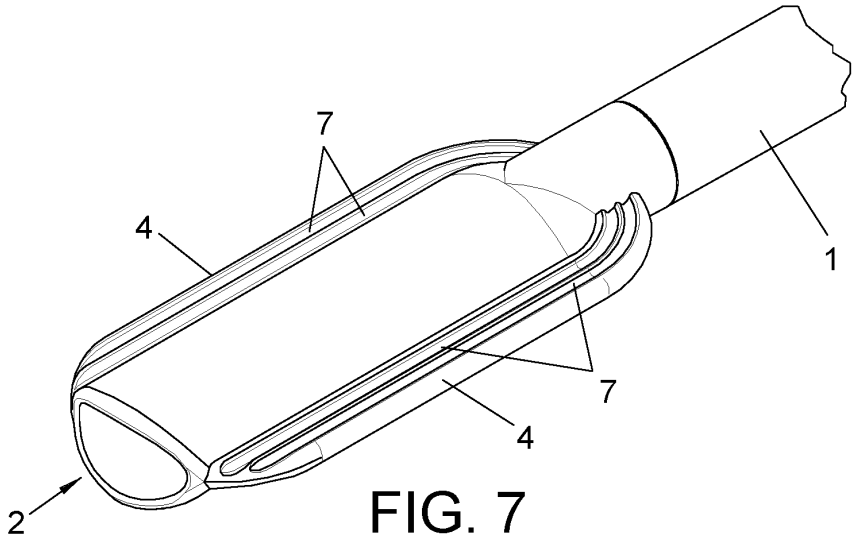

FIG. 7

INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2013/070485

A. CLASSIFICATION OF SUBJECT MATTER

A47G21/18 (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)
A47G

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, WPI

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004076074 A1 (SHUBECK DANIEL W) 22/04/2004, Paragraphs [0005], [0008], [0018] and [0020] and figures 1 and 4.	1
X	US 3038256 A (MAYER JOSEPH S) 12/06/1962, column 1, lines 15-20 and 58-60.	1
X	US 3648369 A (FRODSHAM VAUGHN D) 14/03/1972, column 1, lines 36-40 and 70-75; column 2, lines 1-4.	1
X	US 2004045169 A1 (BOETTNER ERIC M ET AL.) 11/03/2004, Paragraphs [0002], [0024], [0028] and figures 10A, 11A, 11B, 12A and 13A.	1
X	US 2859515 A (HAROLD KINMAN ALBERT) 11/11/1958, column 1, lines 31-39.	1, 12, 13

☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:
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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
14/10/2013	**(18.10.2013)**
Name and mailing address of the ISA/ OFICINA ESPAÑOLA DE PATENTES Y MARCAS Paseo de la Castellana, 75 - 28071 Madrid (España) Facsimile No.: 91 349 53 04	Authorized officer S. González Peñalba Telephone No. 91 3493025

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2013/070485

C (continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of documents, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004237311 A1 (BROWN KIRK ET AL.) 02/12/2004, Paragraphs [0001], [0014], [0017] and [0018]; figures 1 and 2.	1-17

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/ES2013/070485

Patent document cited in the search report	Publication date	Patent family member(s)	Publication date
US2004076074 A1	22.04.2004	NONE	
US3038256 A	12.06.1962	NONE	
US3648369 A	14.03.1972	NONE	
US2004045169 A1	11.03.2004	NONE	
US2859515 A	11.11.1958	NONE	
US2004237311 A1	02.12.2004	NONE	

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