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(54) **SUNSCREEN DOSING DEVICE AND SUNSCREEN BOTTLE**

SONNENSCHUTZDOSIERVORRICHTUNG UND SONNENSCHUTZFLASCHE

DISPOSITIF DE DOSAGE D'ÉCRAN SOLAIRE ET BOUTEILLE D'ÉCRAN SOLAIRE

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(56) References cited:

EP-A1- 2 937 674 CA-A1- 2 326 064

DE-B3- 102013 109 658 DE-U1- 202020 102 372

US-A1- 2018 222 645 US-B1- 6 283 346

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Description

TECHNICAL FIELD

[0001] This disclosure relates a sunscreen dosing device with which a sufficient amount of sunscreen can be applied to a human body. Additionally, the disclosure relates to a sunscreen bottle with an attached sunscreen dosing device.

BACKGROUND

[0002] The US-Patent US 10,463,133 B2 relates to a portable sunscreen applying apparatus and a sunscreen application reminding method. The portable sunscreen applying apparatus includes an ultraviolet processing device to which a sunscreen accommodating device is connected. The sunscreen accommodating device is configured for accommodating sunscreens of different protection levels. The ultraviolet processing device includes an ultraviolet detecting unit, for detecting current ultraviolet and obtaining an intensity of the current ultraviolet. A sunscreen application reminding unit is as well a part of the ultraviolet processing device. The ultraviolet processing device and the sunscreen accommodating device are provided together, the intensity of the current ultraviolet is detected by the ultraviolet detecting unit in the ultraviolet processing device, and the user is reminded to use the appropriate sunscreen. The apparatus is of complicated construction and does not allow to measure a certain amount of sunscreen to be applied to the skin of a human body.

[0003] The German Patent DE 10 2013 109 658 B3 relates to a dosing device for a sunscreen for application to the skin of a human body. The device comprises a base in or on which is formed: a first container for a quantity of sunscreen for application to an arm of the body, and at least one second container for an amount of sunscreen for application to one leg of the body. The volume of the second container is essentially twice as large as the volume of the first container. Furthermore, a trunk container and a head container can be provided, which together form a pictogram of a human body. The base can be connected to a hinged cover. The dosing device is complicated in design and cannot be attached to a sunscreen bottle and is not easy to use.

[0004] The US-Patent US 9,816,857 B2 relates to a device with a processor which is configured to instruct an image sensor to capture first image data of a patch applied to a user's skin unprotected against an ultraviolet spectrum of radiation. The patch has a reflection coefficient in the ultraviolet spectrum. The processor is configured to instruct the image sensor to capture second image data of the user's skin after application of a sunscreen. A portion of a label on a bottle of the sunscreen lotion is a separable filter which is representative of the SBL level of the sunscreen lotion. The filter can be attached to the bottle by hanging around the bottle neck

or releasable attaching the filter to the bottle. The device does not allow a doing of a correct amount of sunscreen.

[0005] EP 2 937 674 A1 provides an adjustable scoop comprising a sheet of flexible material having a periphery configured so that the sheet may be bent from a flat configuration to form a scoop having a curved body, two handles, a base and a cross member, wherein the cross member may be secured to the body at one of a plurality of locations so that the body, base and cross member form a receptacle having one of a plurality of volumetric capacities for particulate material. The scoop can be used in dispensing particulate material, particularly but not exclusively pellets or pieces of animal food-stuff, especially pet food for dogs, cats, rodents, fish or other animals.

[0006] US 2018/222645 A1 provides a collapsible dispenser utensil for dispensing a material held within a container comprising a collapsible cup portion and a handle attached to the collapsible cup portion.

[0007] Numerous persons have a problem using the correct amount of sunscreen. An inadequate amount of sunscreen doesn't fully protect as it should.

SUMMARY

[0008] It is an object of the invention to come up with a sunscreen dosing device which is easy to use, inexpensive and simple of construction.

[0009] The present invention relates to a sunscreen dosing device according to claim 1. Advantageous embodiments are set forth in the dependent claims.

[0010] The sunscreen dosing device comprises a cup with a structured elongation. The cup is defined by an upper rim, a bottom and a side wall, connection the upper rim and the bottom. The structured elongation is an integral part of the cup. Furthermore, a first ear with a through hole is an integral part of the cup. A second ear with a through hole is an integral part of the cup and formed oppositely to the first ear of the structured elongation. The second ear is an integral part of the structured elongation. A free end of the structured elongation is insertable in the through hole of the first ear or the second ear.

[0011] The advantage of the sunscreen dosing device is that it is of one piece construction and can be produced in a simple and inexpensive way. Additionally, the sunscreen dosing device is easy to handle and to store.

[0012] In addition to manually fix or attach the sunscreen dosing device to a body part of other devices a free end of the structured elongation is insertable in the through hole of the first ear or the second ear.

[0013] In order to allow a fixation or attachment of the sunscreen dosing device to the body part of another device, the structured elongation exhibits a plurality of sub-structures which are arranged periodically along a longitudinal axis of the structured elongation. Each sub-structure has a maximal width and a minimal width, wherein the maximal width is larger than a width of the

though holes formed in the first ear or second ear.

[0014] The sunscreen dosing device is made from a thermoplastic elastomer or an elastomer and the sunscreen dosing device is of a one piece construction. The sunscreen dosing can be made by an injection molding process. The flexibility of the material of the sunscreen dosing device allows easy attachment other parts and avoids damage or breakage of the sunscreen dosing device.

[0015] According to a further embodiment, the sunscreen dosing device is formed with at least one radial reduction in thickness is formed in the sidewall of the cup. The reduction in thickness and the reversible flexibility of the material of the sunscreen dosing device enable a collapsibility of the cup (reduction in height).

[0016] According to one embodiment, at least one mark for a defined amount of sunscreen is provided close to the upper rim at an inner surface of the sidewall of the cup. The advantage of the mark is a calibrated sunscreen dosing or measuring device.

[0017] It is a further object of the invention to come up with a sunscreen bottle which has a holds a device for measuring a defined amount of sunscreen which should be applied to a human body.

[0018] According to one possible embodiment of the invention is that a sunscreen dosing device is attached by a form and force fit to a body of a sunscreen bottle.

[0019] The advantage is that a measuring device for the correct amount of sunscreen is always available and ready to use.

[0020] In order to mount or attach the sunscreen dosing device to the sunscreen bottle, the sunscreen dosing device has formed a structured elongation. The structured elongation is flexible and can be wrapped around the body of the sunscreen bottle. For mounting purposes a free end of the structured elongation of the sunscreen dosing device is inserted into a through hole of a first ear or a second ear of a cup of the sunscreen dosing device.

[0021] In order to support or fix the sunscreen dosing device to the sunscreen bottle a plurality of sub-structures of the structured elongation are arranged periodically along a longitudinal axis of the structured elongation. Once the sunscreen dosing device is in form and force fit with the body of the sunscreen bottle one sub-structures, which has a maximal width larger than a width of the though holes of the first ear or the second ear, cooperates with the hole of the first ear or the second ear. This cooperation allows a secure fixation of the sunscreen dosing device to the body or body part of the sunscreen bottle.

[0022] The sunscreen dosing is made from a thermoplastic elastomer or an elastomer.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023] For a better understanding of the various described implementations, reference should be made to the Detailed Description below, in conjunction with the

following drawings.

Figure 1 shows a perspective view of the sunscreen dosing device.

Figure 2 shows a top view of the sunscreen dosing device.

Figure 3 shows a side view of the sunscreen dosing device.

Figure 4 shows a side view of a cup of the sunscreen dosing device.

Figure 5 shows a cross-sectional view the cup of the sunscreen dosing device.

Figure 6 shows an enlarged view of an inner wall portion of the cup of the sunscreen dosing device.

Figure 7 shows an enlarged view of an inner wall portion of the cup of the sunscreen dosing device.

Figure 8 shows a perspective view of one possible embodiment to use the structured elongation of the sunscreen dosing device.

Figure 9 shows a perspective view of another possible embodiment to use the structured elongation of the sunscreen dosing device.

Figure 10 shows a perspective view of the embodiment shown in Fig. 9, wherein the structured elongation is pulled tight.

Figure 11 shows a perspective view of a further embodiment, wherein the structured elongation is pulled tight.

Figure 12 shows a perspective view of a further possible embodiment to use the structured elongation of the sunscreen dosing device, wherein the cup is collapsed.

Figure 13 shows a perspective view of the sunscreen dosing device fixed to a body of a sunscreen bottle.

[0024] Like reference numerals refer to corresponding parts throughout the drawings and specification.

DETAILED DESCRIPTION

[0025] Reference will now be made in detail to various embodiments, examples of which are illustrated in the accompanying drawings. In the following detailed description, numerous specific details are set forth in order to provide a thorough understanding of the various described embodiments. However, it will be apparent to one

of ordinary skill in the art that the various described embodiments may be practiced without these specific details. In other instances, well-known methods, procedure and components, have not been described in detail so as not to unnecessarily obscure aspects of the embodiments.

[0026] Figure 1 shows a perspective view of the sunscreen dosing device 1. The sunscreen dosing device 1 composes of a cup 2 for receiving the sunscreen and a structured elongation 3 which is integrally formed with the cup 2. The structured elongation 3 has a length L3 and a free end 6. Preferably, the sunscreen dosing device 1 is fabricated by an injection molding process from a material which exhibit a certain flexibility. The material of the dosing device 1 could be a thermoplastic elastomer or an elastomer. Thermoplastic elastomers (TPE), sometimes referred to as thermoplastic rubbers, are a class of copolymers or a physical mix of polymers (usually a plastic and a rubber) that consist of materials with both thermoplastic and elastomeric properties. While most elastomers are thermosets, thermoplastics are in contrast relatively easy to use in manufacturing, for example, by injection molding. Thermoplastic elastomers show advantages typical of both rubbery materials and plastic materials. The benefit of using thermoplastic elastomers is the ability to stretch to moderate elongations and return to its near original shape creating a longer life and better physical range than other materials. The principal difference between thermoset elastomers and thermoplastic elastomers is the type of cross-linking bond in their structures. In fact, crosslinking is a critical structural factor which imparts high elastic properties.

[0027] Figure 2 shows a top view of the sunscreen dosing device 1. The cup 2 of the sunscreen dosing device 1 is open at an upper rim 9 and closed at the opposite end by a bottom 10. A surrounding sidewall 11 (see Figure 3) connects the upper rim 9 and the bottom 10. A first ear 4 and a second ear 5, which is formed oppositely to the first ear 4, are integral parts of the cup 2. In addition, the second ear 5 is an integral part of the structured elongation 3 and arranged opposite to the free end 6 of the structured elongation 3. Both, the first ear 4 and the second ear 5 have a through hole 7, having a width W7. The structured elongation 3 exhibits a plurality of sub-structures 8, which are arranged periodically along the longitudinal axis A of the structured elongation 3. Each sub-structure 8 has a length L8 which is smaller than the length L3 of the structured elongation 3. Each sub-structure 8 maximal width $W3_{Max}$ and a minimal width $W3_{Min}$. The maximal width $W3_{Max}$ is larger than the width W7 of the through holes 7. With the free end 6 the structured elongation 3 can be inserted into the through hole 7 of the first ear 4 or the second ear 5. The mechanical cooperation of the portion of one of the sub-structures 8 having the maximal width $W3_{Max}$ with the through hole 7 of the first ear 4 or the second ear 5 enables the fixation of the sunscreen dosing device 1 for example to a sunscreen bottle X (see Fig. 7)

[0028] Figure 3 shows a side view of the sunscreen dosing device 1. The first ear 4 and the second ear 5 with the structured elongation 3 and its sub-structures 8 are flush with an upper rim 9 of the cup 2. Opposite to the upper rim 9 the cup 2 is closed by a bottom 10. The sidewall 11 is designed such that the cup 2 has a conical shape.

[0029] Figure 4 shows a side view of a cup 2 of the sunscreen dosing device 1. The present view is on the outer surface 12_O of the sidewall 11 of the cup 2 at which the first ear 4 is formed. The cup 2 has an outer diameter D_{O2} of the upper rim 9 and an overall height H2. The cup 2 has a structured sidewall 11. In the embodiment shown here the structured outer surface 12_O of the sidewall 11 defines three distinct sections 22. The number of sections 22 should not be regarded as a limiting factor of the invention. It is clear for anybody skilled in the art that number of sections 22 vary due to the design of the cup 2.

[0030] Figure 5 shows a cross-sectional view of the cup 2 of the sunscreen dosing device 1 as shown in Figure 4. The cup 2 has an inner diameter D9 at the upper rim 9. From the upper rim 9 to the bottom 10 the inner diameters are decreasing. In the embodiment shown here, an inner diameter D_{122} of the first section 22, following the upper rim 9, is smaller than the inner diameter D9 at the upper rim 9. An inner diameter D_{222} of the second section 22, following the upper rim 9, is smaller than the inner diameter D_{122} of the first section 22. An inner diameter D_{322} of the third section 22, following the upper rim 9, is smaller than the inner diameter D_{222} of the second section 22. An inner surface 12_I of sidewall 11 of the cup 2 has a rounded shape 13 at the transition from the inner surface 12_I of sidewall 11 to the bottom 10. The rounded shape 13 has the advantage, that one can easily get out all the sunscreen from the cup 1. The bottom 10 of the cup 2 has a defined thickness T10.

[0031] Figure 6 shows the construction of the sidewall 11 of the cup 2 of the sunscreen dosing device 1. The sidewall 11 which stretches from the upper rim 9 to the bottom 10 has formed at least one radial reduction 14 in the sidewall 11 thickness T11. The reduction 14 supports the collapsibility of the cup 2. The at least one reduction 14 is correlated with the distinct sections 22 (see figure 4) of the cup 2. In the possible embodiment shown here, the cup 2 has two radial reductions 14 in the sidewall 11.

[0032] Figure 7 shows an enlarged view of a portion of inner surface 12_I of the sidewall 11 of the cup 2. Close to the upper rim 9 the inner surface 12_I of the sidewall 11 at least one mark 15 is provided. The at least one mark 15 is stamped at the inner surface 12_I of the sidewall 11. The volume unit 18, written on the inner surface 12_I of the sidewall 11 should not be regarded as a limitation of the invention. It is evident for a person skilled in the art, that the cup 2 can show the volume unit 18 in the International System of Units (SI) or the in US customary units (USC).

[0033] Figure 8 shows a perspective view of one possible embodiment for using the structured elongation 3 of the sunscreen dosing device 1. The free end 6 of the

structured elongation 3 is inserted from the bottom up 25 into the through hole 7 of the first ear 4 of the cup 2.

[0034] Figure 9 shows a perspective view of one further embodiment for using the structured elongation 3 of the sunscreen dosing device 1. The free end 6 of the structured elongation 3 is inserted from above 26 into the through hole 7 of the first ear 4 of the cup 2.

[0035] Figure 10 shows a perspective view of the embodiment shown in Fig. 9, wherein the structured elongation 3 is pulled tight. The structured elongation 3 is pulled with the free end 6 through the through hole 7 of the first ear 4. The structured elongation 3 comes close to the upper rim 9 of the cup 2, so that the sunscreen dosing device 1 can be removably fixed to an article (not shown). As shown in Figure 2 the maximal width W_{3Max} of a sub-structure 8 is cooperates with the smaller width W_7 of the through holes 7. This cooperation holds the structured elongation 3 in place at the first ear 4.

[0036] Figure 11 shows a perspective view of a further embodiment, wherein the structured elongation 3 is pulled tight. The structured elongation 3 is pulled with the free end 6 through the through hole 7 of the second ear 5. The structured elongation 3 comes close to the second ear 5 of the cup 2, so that the sunscreen dosing device 1 can be removably fixed to an article (not shown). As shown in Figure 2 the maximal width W_{3Max} of a sub-structure 8 is cooperates with the smaller width W_7 of the through holes 7. This cooperation holds the structured elongation 3 in place at the second ear 5.

[0037] Figure 12 shows a perspective view of a further possible embodiment to use the structured elongation 3 of the sunscreen dosing device 1. Here the cup 2 of the sunscreen dosing device is collapsed (the height H_2 of the cup 2 is reduced, compared to the height H_2 of the cup 2 in the not collapsed state (see Figure 4)). The free end 6 of the structured elongation 3 is inserted from above 26 into the through hole 7 of the first ear 4 of the cup 2.

[0038] Figure 13 shows a perspective view of the sunscreen dosing device 1 fixed to a body 30 of a sunscreen bottle 32. Here the body 30 of the sunscreen bottle 32 is implied by a plurality of broken lines. The sunscreen dosing device 1 is attached to the body 30 of the sunscreen bottle 32 in that the collapsed cup 2 and the structured elongation 3 are in contact with the body 30 of the sunscreen bottle 32. It is noted here that the sunscreen dosing device 1 be attached to the body 30 of the sunscreen bottle 32 as well with a not collapse cup 2. It is to be noted that the sunscreen dosing device 1 can be attached as well to the neck (not shown) of a sunscreen bottle 32. The expression body encompasses all parts of a sunscreen bottle 32.

[0039] The foregoing description, for purpose of explanation, has been described with reference to specific embodiments. However, the illustrative discussions above are not intended to be exhaustive or to limit the scope of the claims to the precise forms disclosed. Many modifications and variations are possible in view of the above teachings. The embodiments were chosen in or-

der to best explain the principles underlying the claims and their practical applications, to thereby enable others skilled in the art to best use the embodiments with various modifications as are suited to the particular uses contemplated.

Reference Numerals

[0040]

1	Sunscreen dosing device
2	Cup
3	Structured elongation
4	First ear
5	Second ear
6	Free end
7	Through hole
8	Sub-structures
9	Upper rim
10	Bottom
11	Side wall
12I	Inner surface
12O	Outer surface
13	Rounded shape
14	Reduction
15	mark
18	volume unit
22	Distinct sections
25	From the bottom up
26	From above
30	Body of sunscreen bottle
32	Sunscreen bottle
A	Longitudinal axis
D_{O2}	outer diameter
35	D_9 inner diameter
	D_{122} inner diameter
	D_{222} inner diameter
	D_{322} inner diameter
	H_2 height
40	L_3 length
	L_8 length
	T_{10} Thickness
	T_{11} Thickness
	W_{3Max} Maximal width
45	W_{3Min} Minimal width
	W_7 Width

Claims

- 50 1. A sunscreen dosing device (1), comprising :
- a cup (2) defined by an upper rim (9), a bottom (10) and a sidewall (11), connecting the upper rim (9) and the bottom (10);
 - a structured elongation (3), which is an integral part of the cup (2);
 - a first ear (4) with a through hole (7) being an integral part of the cup (2);

- a second ear (5) with a through hole (7) being an integral part of the cup (2) and formed oppositely to the first ear (4), wherein the second ear (5) is an integral part of the structured elongation (3); 5
 - wherein the structured elongation (3) exhibits a plurality of sub-structures (8) arranged periodically along a longitudinal axis (A) of the structured elongation (3) and each sub-structure (8) has a maximal width ($W_{3_{Max}}$) and a minimal width ($W_{3_{Min}}$), wherein the maximal width ($W_{3_{Max}}$) is larger than a width (W7) of the through holes (7); and 10
 - wherein a free end (6) of the structured elongation (3) is insertable in the through hole (7) of the first ear (4) or the second ear (5). 15
2. The sunscreen dosing device (1) of claim 1, wherein the sunscreen dosing device (1) is made of a reversible, flexible material. 20
 3. The sunscreen dosing device (1) of claim 2, wherein the reversible, flexible material is a thermoplastic elastomer or an elastomer. 25
 4. The sunscreen dosing device (1) of any one of the preceding claims, wherein at least one radial reduction in thickness is formed in the sidewall (11) of the cup (2). 30
 5. The sunscreen dosing device (1) of claim 4, wherein the at least one radial reduction in thickness of the sidewall (11) makes the cup (2) collapsible in height. 35
 6. The sunscreen dosing device (1) of any one of the preceding claims, wherein at least one mark for a defined amount of sunscreen is provided close to the upper rim (9) at an inner surface of the sidewall (11) of the cup (2). 40
- Patentansprüche**
1. Eine Sonnenschutzdosier Vorrichtung (1), umfassend: 45
 - einen Becher (2), der durch einen oberen Rand (9), einen Boden (10) und eine Seitenwand (11), die den oberen Rand (9) und den Boden (10) verbindet, definiert ist; 50
 - eine strukturierte Verlängerung (3), die ein integraler Bestandteil des Bechers (2) ist;
 - eine erste Lasche (4) mit einem Durchgangsloch (7), die ein integraler Bestandteil des Bechers (2) ist; 55
 - eine zweite Lasche (5) mit einem Durchgangsloch (7), die ein integraler Bestandteil des Bechers (2) ist und der ersten Lasche (4) gegenüberliegend ausgebildet ist, wobei die zweite Lasche (5) ein integraler Bestandteil der strukturierten Verlängerung (3) ist;
 - wobei die strukturierte Verlängerung (3) eine Vielzahl von Unterstrukturen (8) aufweist, die periodisch entlang einer Längsachse (A) der strukturierten Verlängerung (3) angeordnet sind, und jede Unterstruktur (8) eine maximale Breite ($W_{3_{Max}}$) und eine minimale Breite ($W_{3_{Min}}$) aufweist, wobei die maximale Breite ($W_{3_{Max}}$) größer ist als eine Breite (W7) der Durchgangslöcher (7); und
 - wobei ein freies Ende (6) der strukturierten Verlängerung (3) in das Durchgangsloch (7) der ersten Lasche (4) oder der zweiten Lasche (5) einführbar ist.
 2. Die Sonnenschutzdosier Vorrichtung (1) nach Anspruch 1, wobei die Sonnenschutzdosier Vorrichtung (1) aus einem reversiblen, flexiblen Material besteht.
 3. Die Sonnenschutzdosier Vorrichtung (1) nach Anspruch 2, wobei das reversible, flexible Material ein thermoplastisches Elastomer oder ein Elastomer ist.
 4. Die Sonnenschutzdosier Vorrichtung (1) nach einem der vorstehenden Ansprüche, wobei in der Seitenwand (11) des Bechers (2) mindestens eine radiale Dickenverringering ausgebildet ist.
 5. Die Sonnenschutzdosier Vorrichtung (1) nach Anspruch 4, wobei die mindestens eine radiale Dickenverringering der Seitenwand (11) den Becher (2) in der Höhe zusammenklappbar macht.
 6. Die Sonnenschutzdosier Vorrichtung (1) nach einem der vorstehenden Ansprüche, wobei mindestens eine Markierung für eine definierte Menge an Sonnenschutzmittel nahe dem oberen Rand (9) an einer Innenfläche der Seitenwand (11) des Bechers (2) vorgesehen ist.

Revendications

1. Un dispositif de dosage d'écran solaire (1), comprenant :
 - une tasse (2) définie par un rebord supérieur (9), un fond (10) et une paroi latérale (11) reliant le rebord supérieur (9) et le fond (10) ;
 - un allongement structuré (3), qui fait partie intégrante de la tasse (2) ;
 - une première oreille (4) avec un trou traversant (7) faisant partie intégrante de la tasse (2) ;
 - une deuxième oreille (5) comportant un trou traversant (7), faisant partie intégrante de la

- tasse (2) et formée à l'opposé de la première oreille (4), la deuxième oreille (5) faisant partie intégrante de l'allongement structuré (3) ;
- dans lequel l'allongement structuré (3) présente une pluralité de sous-structures (8) disposées périodiquement le long d'un axe longitudinal (A) de l'allongement structuré (3) et chaque sous-structure (8) a une largeur maximale ($W3_{Max}$) et une largeur minimale ($W3_{Min}$), la largeur maximale ($W3_{Max}$) étant supérieure à une largeur (W7) des trous traversants (7) ; et
 - dans lequel une extrémité libre (6) de l'allongement structuré (3) peut être insérée dans le trou traversant (7) de la première oreille (4) ou de la deuxième oreille (5).
2. Le dispositif de dosage d'écran solaire (1) selon la revendication 1, dans lequel le dispositif de dosage d'écran solaire (1) est réalisée en un matériau réversible et souple.
3. Le dispositif de dosage d'écran solaire (1) selon la revendication 2, dans lequel le matériau réversible et flexible est un élastomère thermoplastique ou un élastomère.
4. Le dispositif de dosage d'écran solaire (1) selon l'une quelconque des revendications précédentes, dans lequel au moins une réduction radiale d'épaisseur est formée dans la paroi latérale (11) de la tasse (2).
5. Le dispositif de dosage d'écran solaire (1) selon la revendication 4, dans lequel la au moins une réduction radiale de l'épaisseur de la paroi latérale (11) rend la tasse (2) repliable en hauteur.
6. Le dispositif de dosage d'écran solaire (1) selon l'une quelconque des revendications précédentes, dans lequel au moins un marquage correspondant à une quantité définie de crème solaire est prévu à proximité du bord supérieur (9) sur une surface intérieure de la paroi latérale (11) de la tasse (2).

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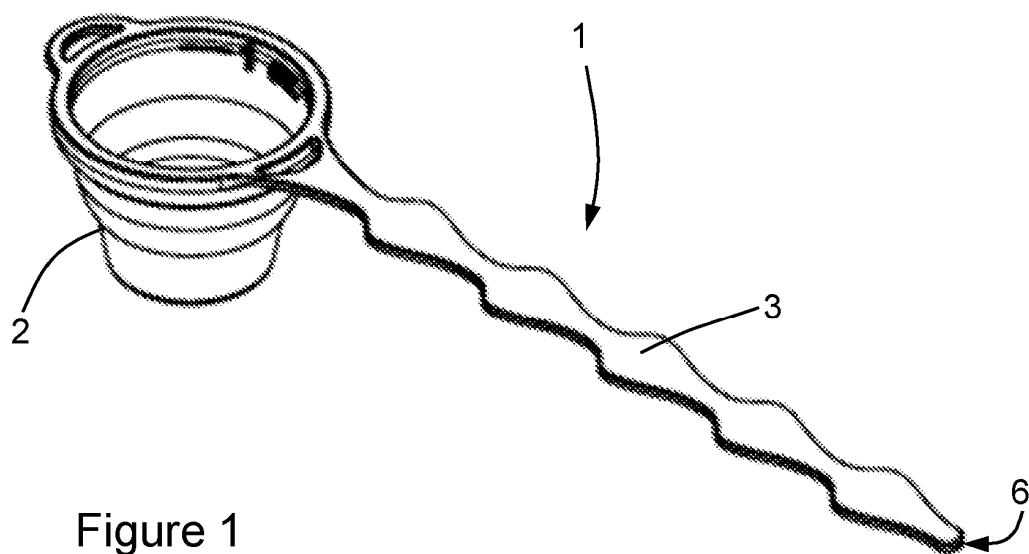


Figure 1

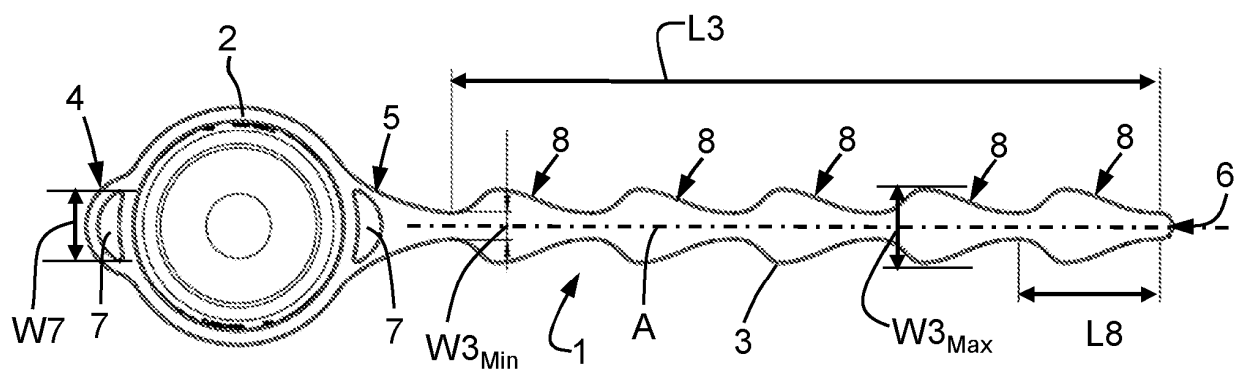


Figure 2

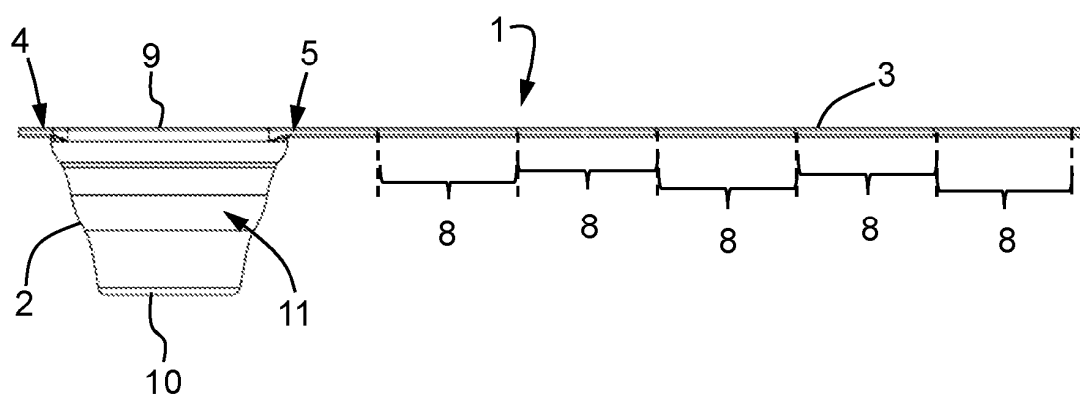


Figure 3

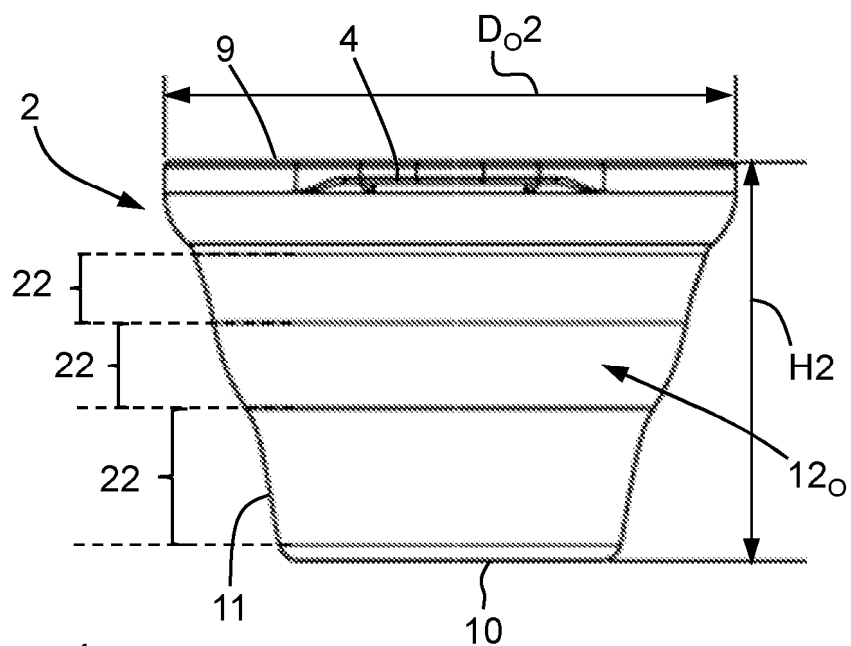


Figure 4

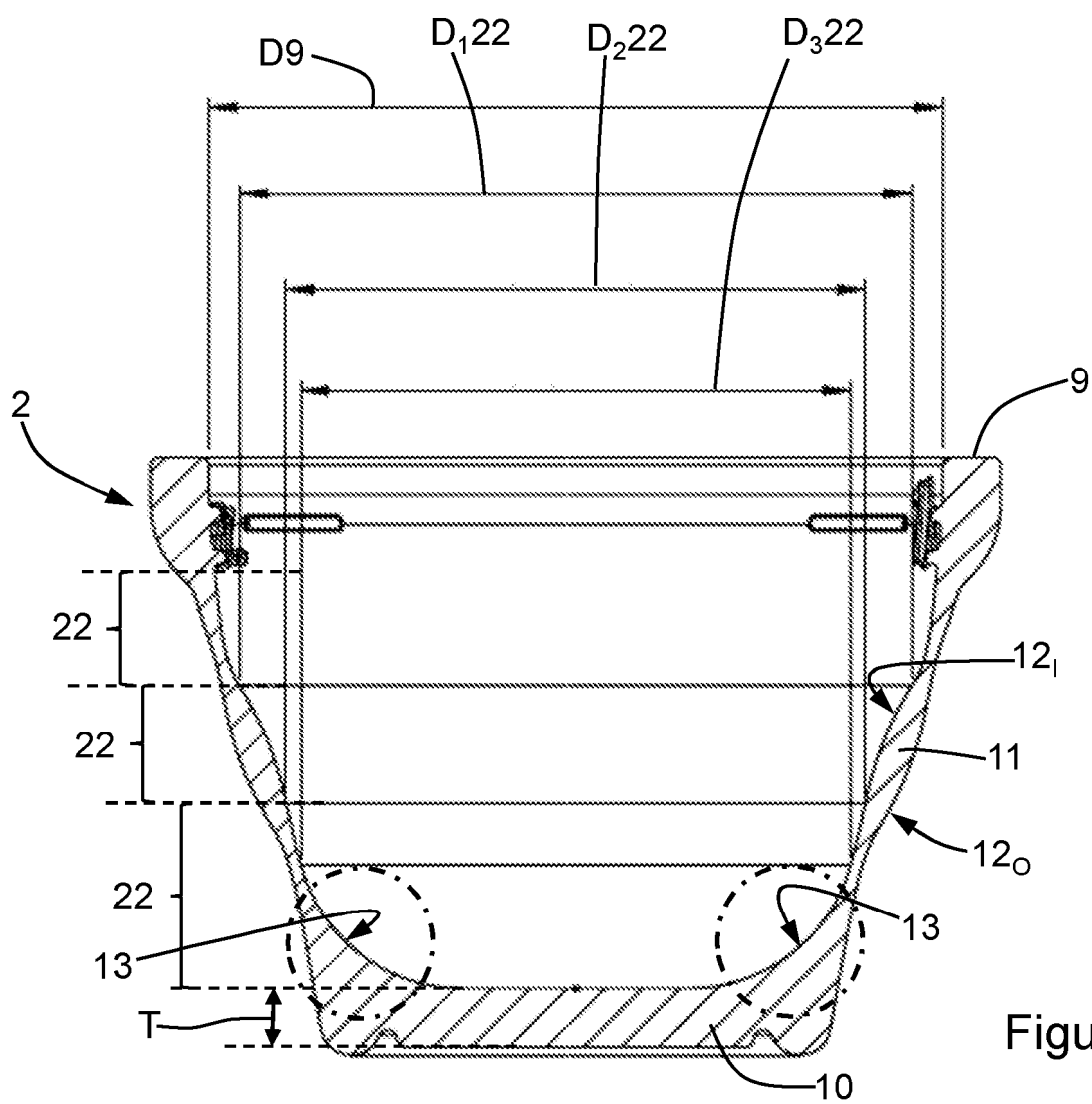


Figure 5

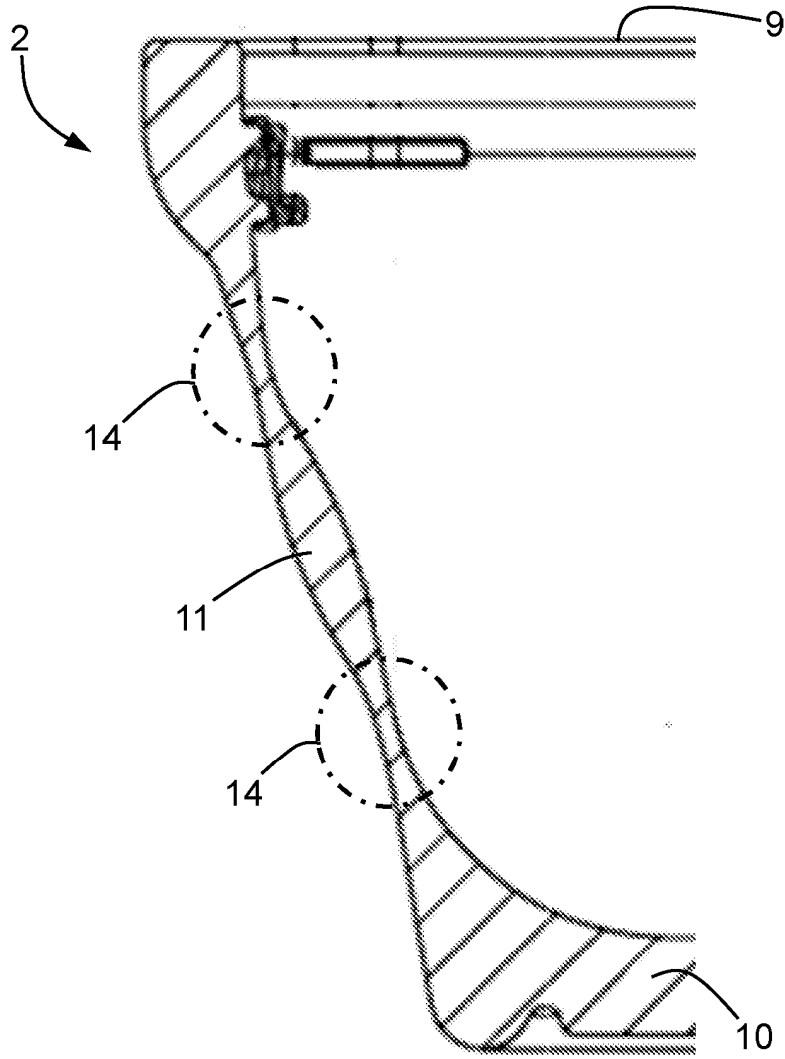


Figure 6

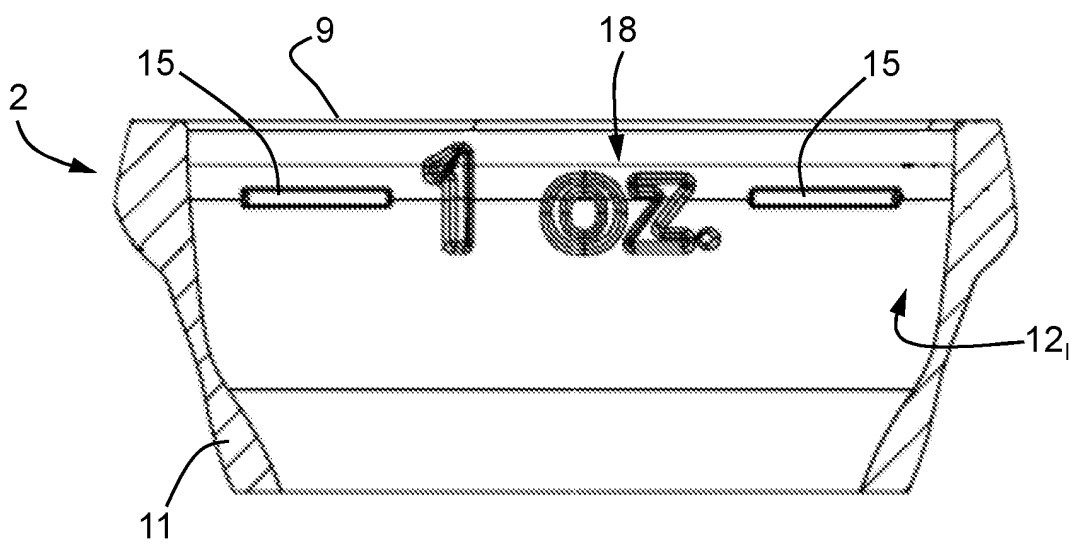


Figure 7

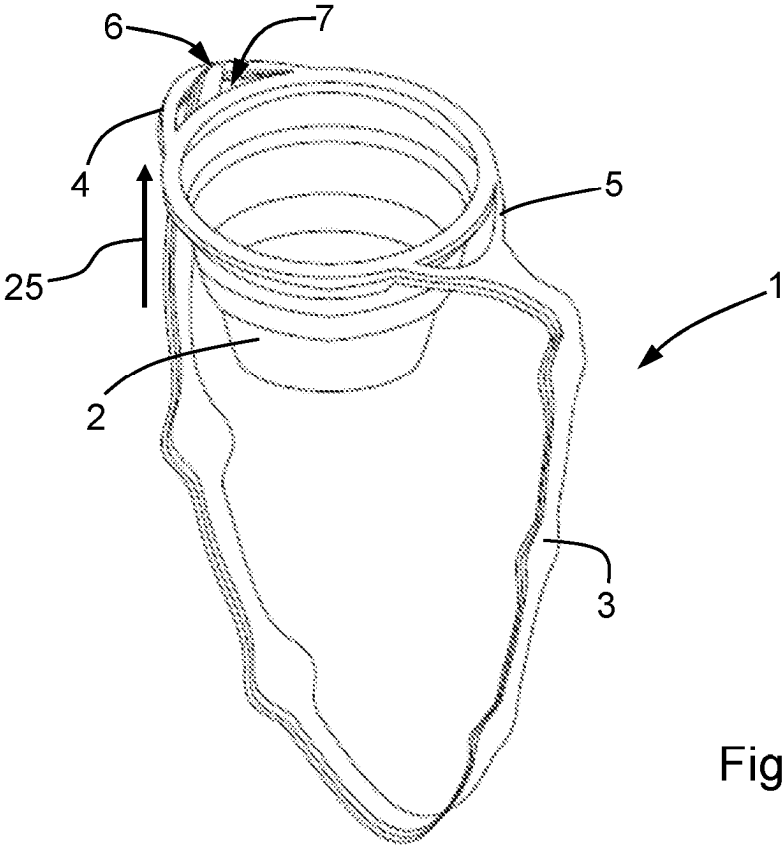


Figure 8

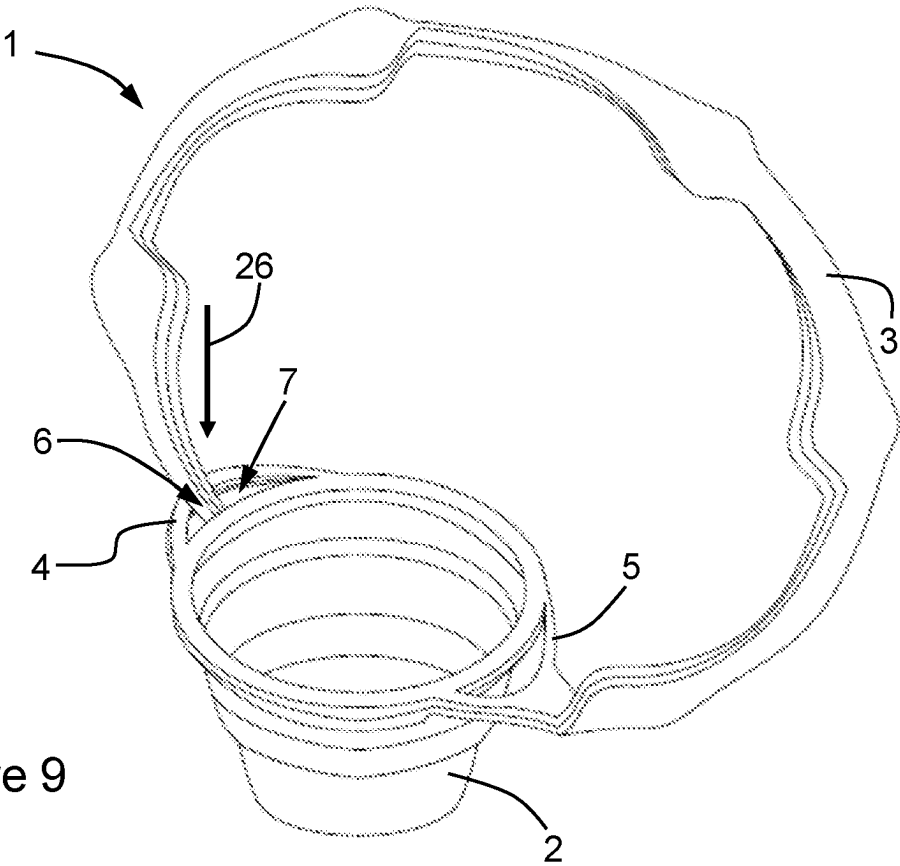


Figure 9

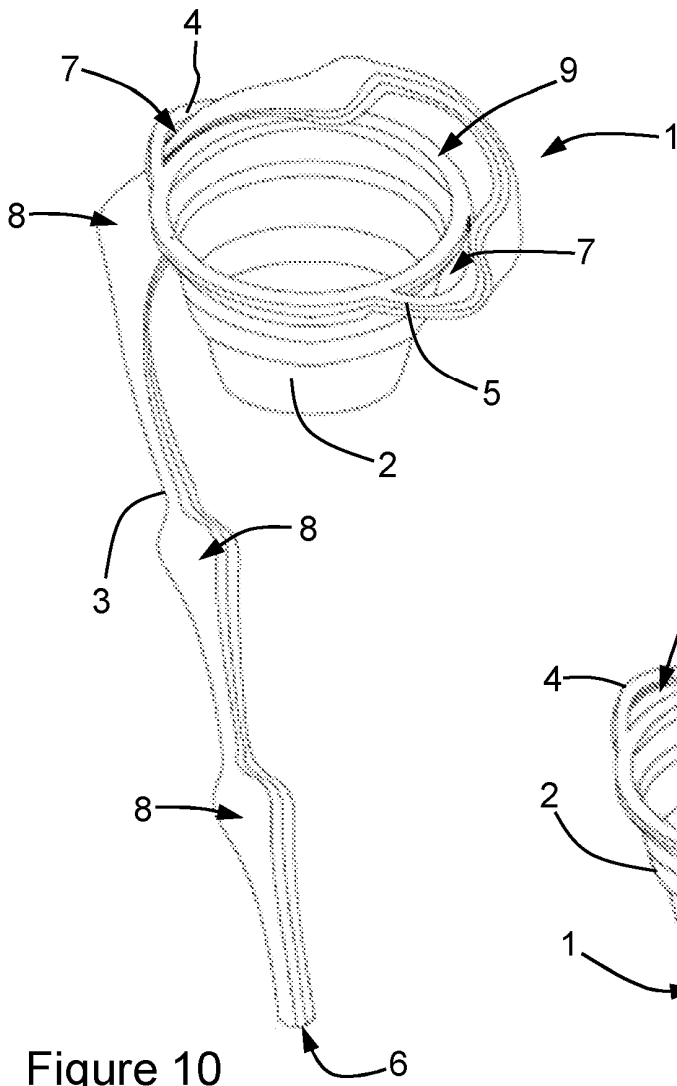


Figure 10

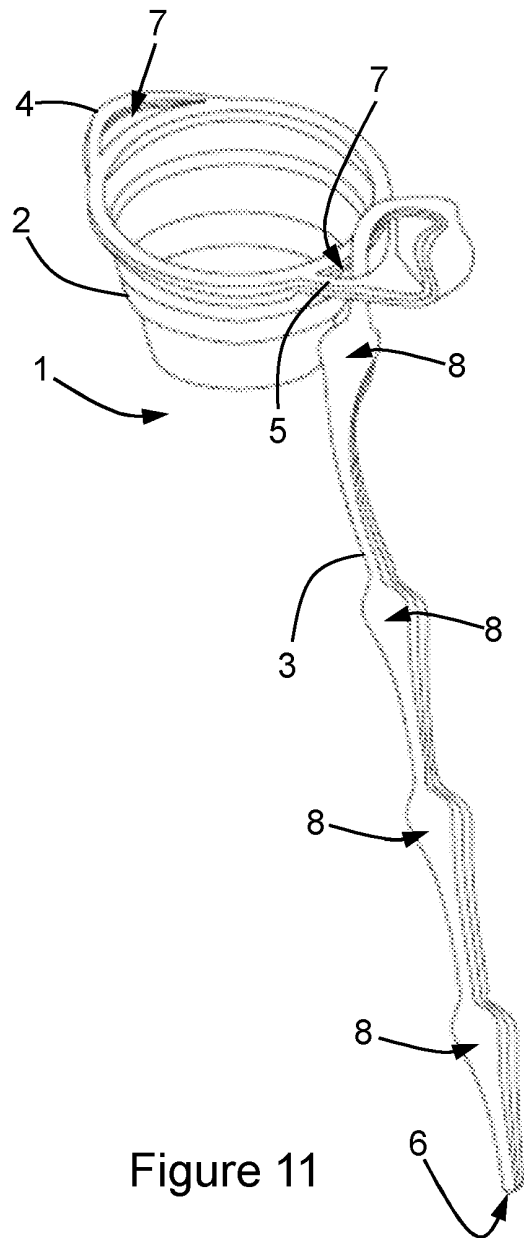


Figure 11

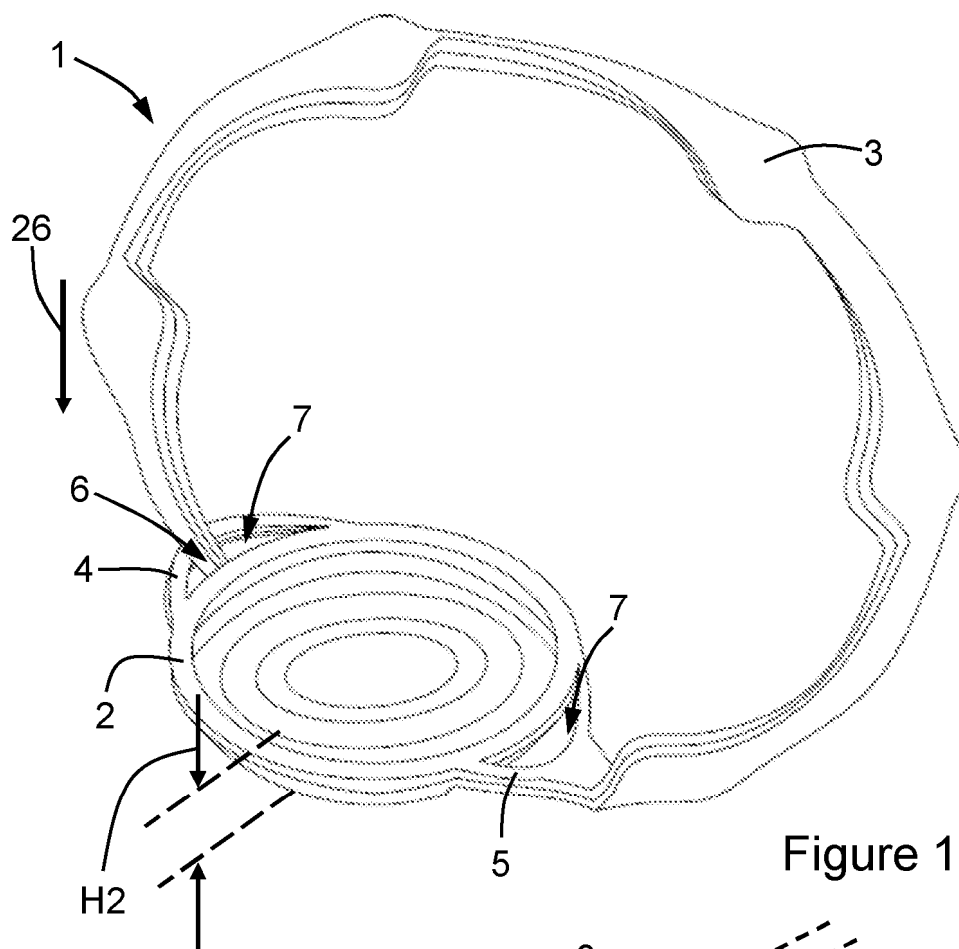


Figure 12

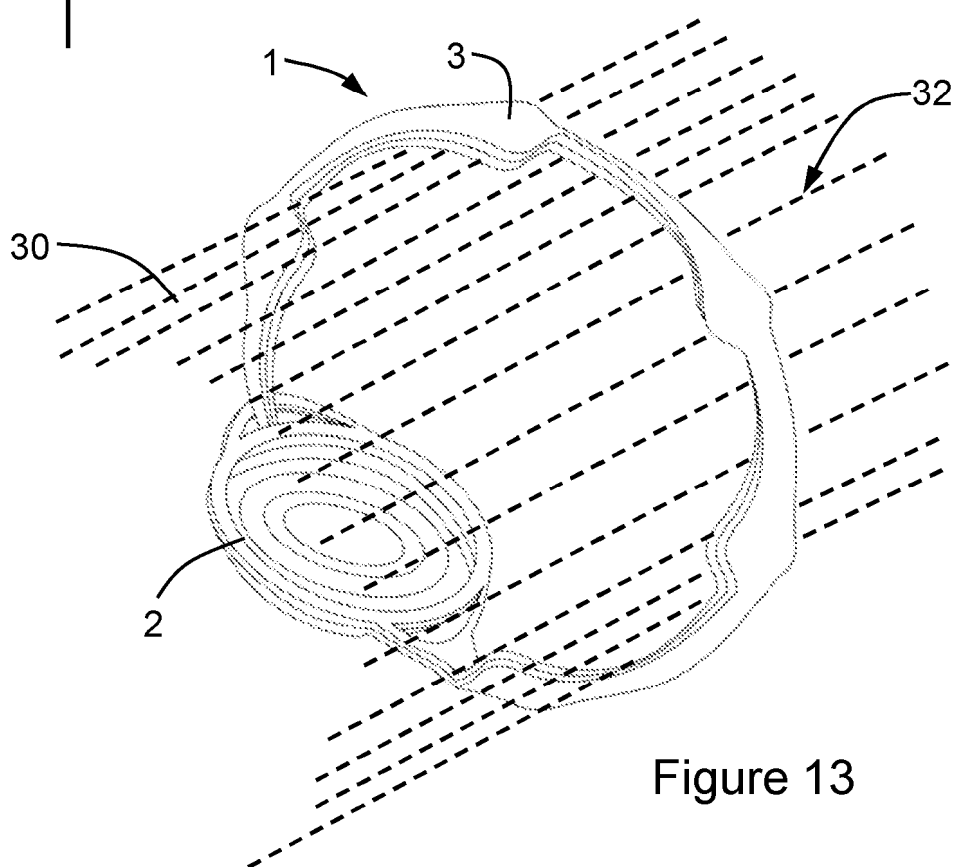


Figure 13

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- US 10463133 B2 [0002]
- DE 102013109658 B3 [0003]
- US 9816857 B2 [0004]
- EP 2937674 A1 [0005]
- US 2018222645 A1 [0006]