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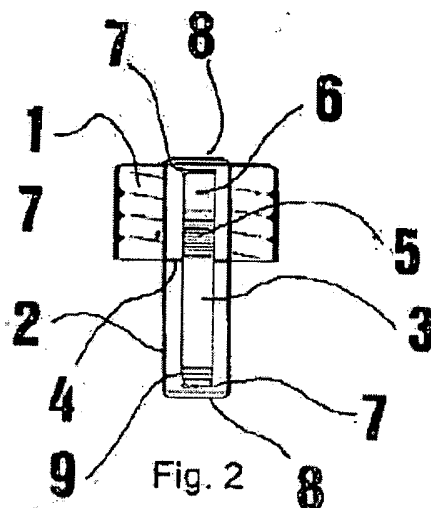
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(54) **Cap with incorporated straw**

(57) Cap (1) with incorporated straw (3) for bottles, which incorporates a small (2) cylinder with two small covers (8) one superior and another inferior, inside it there is a small straw which exercises the sucking func-

tion when sucked up by its upper part, characterized in that the upper part is constituted of a foldable bellows (5) and the lower telescopic (9). A part of the straw can be extracted by the upper cover of the cylinder and the other by its lower part.



Description

OBJECT OF THE INVENTION

[0001] As indicated in the title, the present invention refers to a cap of those used for closing or covering bottles, internally incorporating a telescopic straw for sucking up liquids, making it possible to drink the liquid contents of a bottle in the traditional manner, or sucking it up by means of a straw forming an integral part of the cap.

BACKGROUND OF THE INVENTION

[0002] Currently, soft drink bottle caps lack a system allowing for consuming their contents without needing to tip the bottle, whereby when one desires to drink the contents of a soft drink bottle, or one of any other liquid, by sucking up its contents by means of a straw, something which many children and adults are fond of, this generally cannot be done because the establishments administering these drinks do not usually have straws available to the public, not even for sale.

[0003] There is also the problem that when small children, who are very fond of them, drink soft drinks (preferably bottled, since the excess contents can be saved), they still do not have enough skill to drink the contents without spilling some amount of liquid on themselves. This drawback is solved by using a straw for sucking up the contents of the bottle.

DESCRIPTION OF THE INVENTION

[0004] To solve these drawbacks, the device object of the present invention has been devised, having constructive particularities aimed at allowing the possibility of consuming the contents of soft drink bottles, or of any other type of beverages, by sucking it up by means of a straw incorporated in the cap itself.

[0005] According to the invention, this cap comprises a traditional main body in which the system of fixing it to the bottle is located, whether by threading or by any other means.

[0006] This main body also comprises a cylinder inside, in its central area, being able to be of a longer length than the cap, and once the cap is applied to a bottle, the cylinder remains in its interior, being able to open its two ends by means of two hermetic and sealed covers, of the heat-sealed metal foil type, or of the type constructed of the same material as the cap (in this case, the upper base of the cap has a recess for facilitating its opening and the cover located in this upper base has a cavity in the center of its inner face allowing that, upon opening the cover, the end of the straw projects, thus facilitating its extraction from the inside of the cap), or the like, and one of these openings of the cylinder coinciding with the upper portion of the cap, such that when the cap is applied to the opening of a

bottle, the liquid from inside it would flow through this cylinder.

[0007] Housed inside of this cylinder is a straw, of the type used for sucking up soft drinks.

[0008] This straw is made up of two differentiated and joined portions.

[0009] Arranged in the joining area of these two portions, either in the center of the cylinder or in the end which remains inside the bottle, is a ring, which may be tapered and of a slightly flexible material, joining the outer wall of the straw to the inner wall of the cylinder, such that when the covers of the cylinder are open, communication through the interior of the cylinder is possible only through the straw.

[0010] Of these two differentiated portions of the straw, one is housed inside the segment of the cylinder remaining inside the bottle, whereas the other one is housed in the one projecting to the exterior.

[0011] The section of straw which is inside the cylinder projecting to the exterior of the bottle is constituted of a foldable bellows allowing its length to be increased considerably, allowing that once the bellows is unfolded, this section of the straw comes out of the inside of the cylinder, and therefore of the cap, being able to be used by the user to suck up the contents of the bottle.

[0012] The end of this section is smooth, i.e. without a bellows, allowing a comfortable application of the mouth when sucking up the contents of the bottle.

[0013] This section of the straw ends in a rim to allow the easy extraction of the straw from the inside of the cap.

[0014] The opposite end of the bellows is fitted in the tapered ring in one of its segments of smaller diameter, the straw thus being fixed inside the cap without the possibility of being extracted.

[0015] The section of the straw which is in the segment of the cylinder which is inside the bottle may be rigid or also extendable, in the latter case, being able to be constituted of several segments which, when extended, are joined hermetically, or by any other system allowing an increase and decrease of its length, in any case being extended to the bottom of the bottle, such that all of the liquid therein can be sucked up.

[0016] When this section of the straw is extendable and is at its minimum length, it is completely introduced inside the segment of the cylinder which is inside the bottle.

[0017] This section of the straw can also end in a rim allowing for its easy extraction from the cylinder.

[0018] This section of the straw may or may not be telescopic or extendable, its utility being exactly the same.

DESCRIPTION OF THE FIGURES

[0019] To complement the description being made and for the purpose of aiding to better understand the features of the invention, a set of drawings is attached

to the present specification which, with an illustrative and non-limiting manner, show the following:

- Figures 1 and 2 show respective side views which show, respectively, the cap with an incorporated straw applied to a bottle (both sections of the straw being folded), and the cap with an incorporated straw (being in the folded position), sectioned by a vertical plane, in which the straw, folded and housed inside the cylinder, and the covers thereof, are distinguished.
- Figure 3 shows the cap with an incorporated straw applied to a bottle, the covers of the cylinder being opened and the straw unfolded or extended, on one hand allowing the easy application of the mouth of the user, and on the other, the sucking up of all the contents.
- Figure 4 shows the cap with an incorporated straw sectioned by a vertical plane, in which the straw is seen inside the cylinder, unfolded and projecting at the ends thereof.
- In Figures 2, 3 and 4, the rim finishing the straw at both ends and the ring inside the cylinder isolating the upper and lower portions of the cylinder allowing the liquid to be able to flow only through the inside of the straw, can be seen.
- Figure 5 shows a side view of the cap with an incorporated straw sectioned by a vertical plane, which shows the section of the straw which is introduced inside the bottle, said straw not being telescopic, i.e. without the possibility of being folded and being completely introduced inside the cylinder, and in which the lower end of the cylinder lacks a cover for obvious reasons.
- Figure 6 shows a side view of the cap with an incorporated straw sectioned by a vertical plane, which shows the recess in the upper base of the cap for facilitating the opening of the cover, the cavity in the lower face of the upper cover and the tapered ring inside the cylinder.
- Figure 7 shows a side view of the cap with an incorporated straw sectioned by a vertical plane, which shows the recess in the upper base of the cap for facilitating the opening of the cover and the cavity in the center of the inner face of the upper cover.
- Figure 8 shows an enlarged view of the cover of the upper base of the cap, in which the cavity in the center of its inner face can be seen.

PREFERRED EMBODIMENT OF THE INVENTION

[0020] As can be seen in the indicated figures, the cap with an incorporated straw object of the present invention comprises a main body (1) inside of which there is defined a cylinder (2) with a cover on each end (8) in turn housing a straw (3). Inside or at the end of the cylinder there is a ring (4) joining the inner wall of the cylinder with the outer wall of the straw, this ring being able

to be tapered (4A), being fitted in one of the segments of smaller diameter of the bellows, allowing the fixing of the straw to the cap and preventing its extraction.

[0021] The portion of the straw (3) remaining in the upper portion of the ring (4) is formed by a retractable and extendable bellows (5) allowing the extraction of the straw (3) from the inside of the cap, and by a smooth portion (6) at its end finished in a rim (7) for allowing its easy extraction from the cap.

[0022] At the upper base of the cap there is a recess (10) for facilitating the opening of the cover (8) which hermetically seals. This cover has a cavity (11) in the center of its inner face allowing the housing of the end of the straw.

[0023] The portion of the straw (3) which is housed in the lower segment of the cylinder and therefore remains inside the bottle, can also be extendable, being able to be constituted of several segments (9) hermetically joined, or joined by any other system allowing a considerable increase of its length, such that its end reaches the lower area of the bottle, allowing consumption of the entire contents thereof, also ending in a rim (7) allowing the easy extraction from the inside of the cylinder (2).

[0024] In this preferred embodiment example, it has been provided that the lower section of the straw (3), the one remaining inside the bottle, may be rigid, i.e. not extendable, its utility being the same.

[0025] Having sufficiently described the nature of the invention as well as a preferred embodiment example, it is stated for all effects and purposes that the materials, shape, size and arrangement of the described elements may be modified, as long as this implies no alteration of the essential features of the invention which are claimed below.

Claims

1. A cap with an incorporated straw, **characterized in that** the cap incorporates a cylinder.
2. A cap with an incorporated straw according to the previous claim, **characterized in that** the cap incorporates a straw.
3. A cap with an incorporated straw according to the previous claims, **characterized in that** the straw comes out of the cap.
4. A cap with an incorporated straw according to the previous claims, **characterized in that** the cylinder has a cover on each end.
5. A cap with an incorporated straw according to the previous claims, **characterized in that** the cylinder has a ring or other means preventing the liquid from flowing between the straw and the cylinder.

6. A cap with an incorporated straw according to the previous claims, **characterized in that** the ends of the straw end in a rim for the easy extraction from the cylinder.
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7. A cap with an incorporated straw according to the previous claims, **characterized in that** the upper cover hermetically seals.
8. A cap with an incorporated straw according to the previous claims, **characterized in that** the ring starting from inside the cylinder and joining the latter with the straw is tapered and of a slightly flexible material.
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9. A cap with an incorporated straw according to the previous claims, **characterized in that** the ring starting from inside the cylinder can be located at the end of the cylinder.
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10. A cap with an incorporated straw according to the previous claims, **characterized in that** the section of the straw remaining inside the bottle can be rigid, i.e. not retractable.
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11. A cap with an incorporated straw according to the previous claims, **characterized in that** the upper base of the cap has a recess for facilitating the opening of the cover.
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12. A cap with an incorporated straw according to the previous claims, **characterized in that** the cover of the upper base of the cap has a cavity in the center of its inner face.
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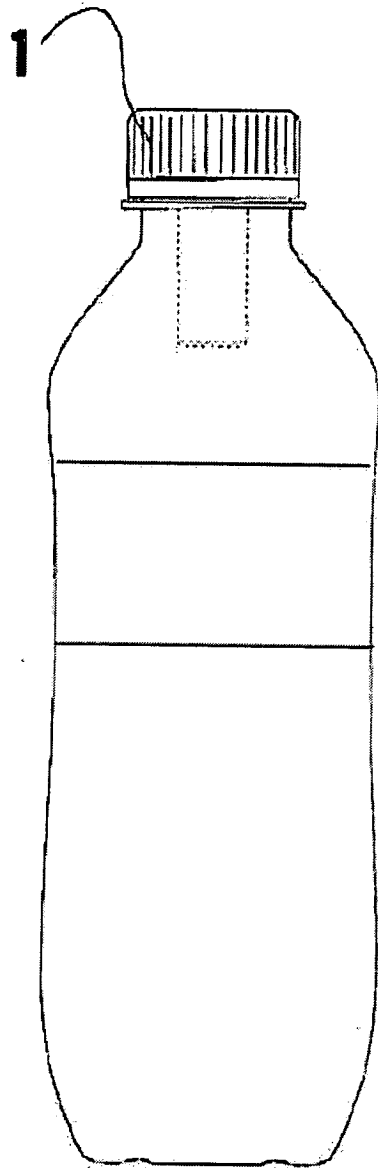


Fig. 1

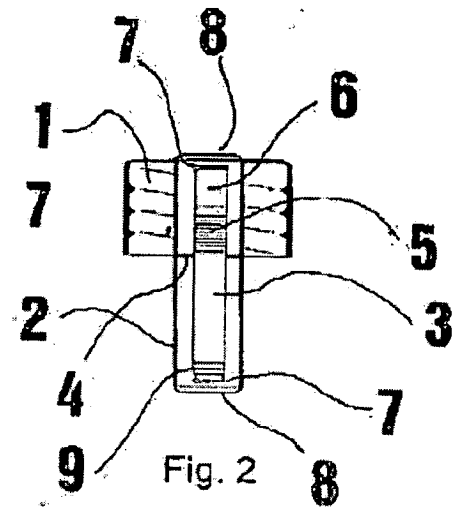


Fig. 2

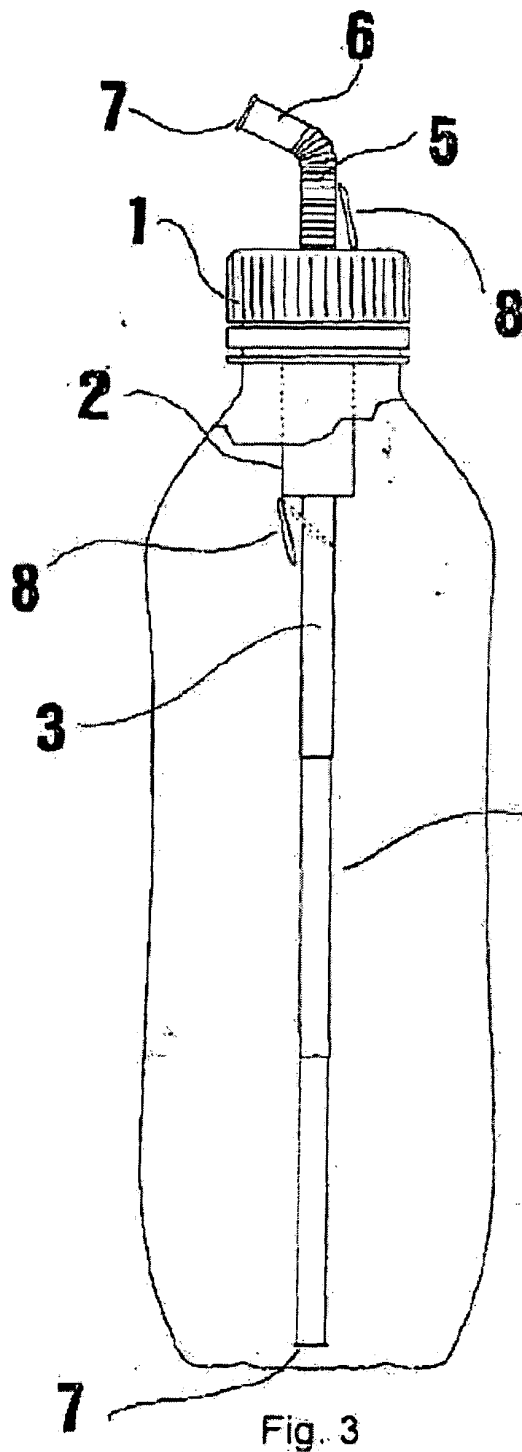


Fig. 3

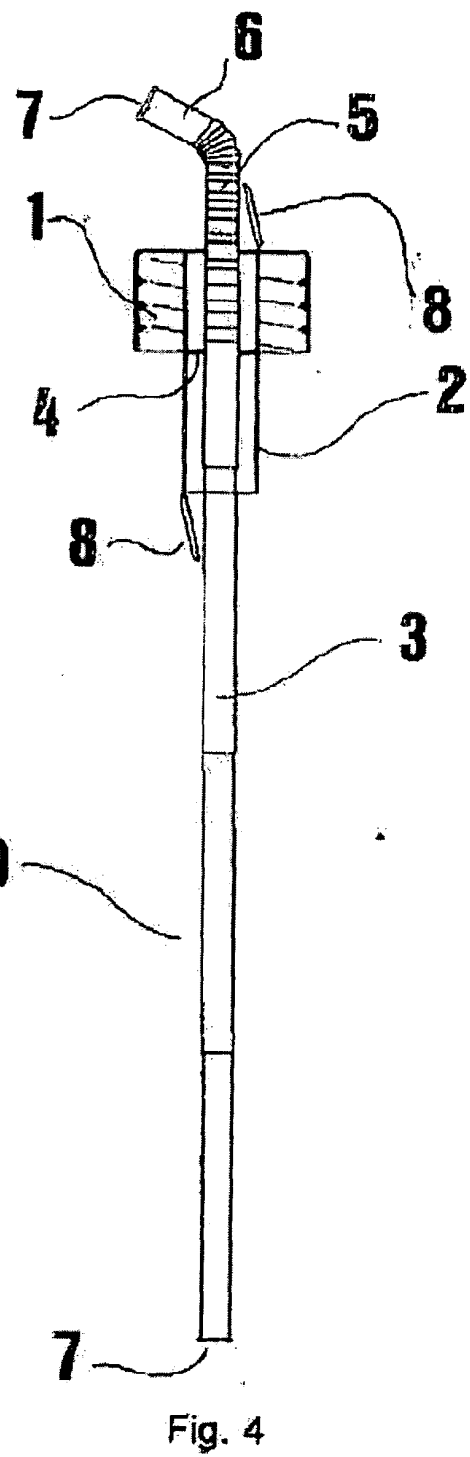


Fig. 4

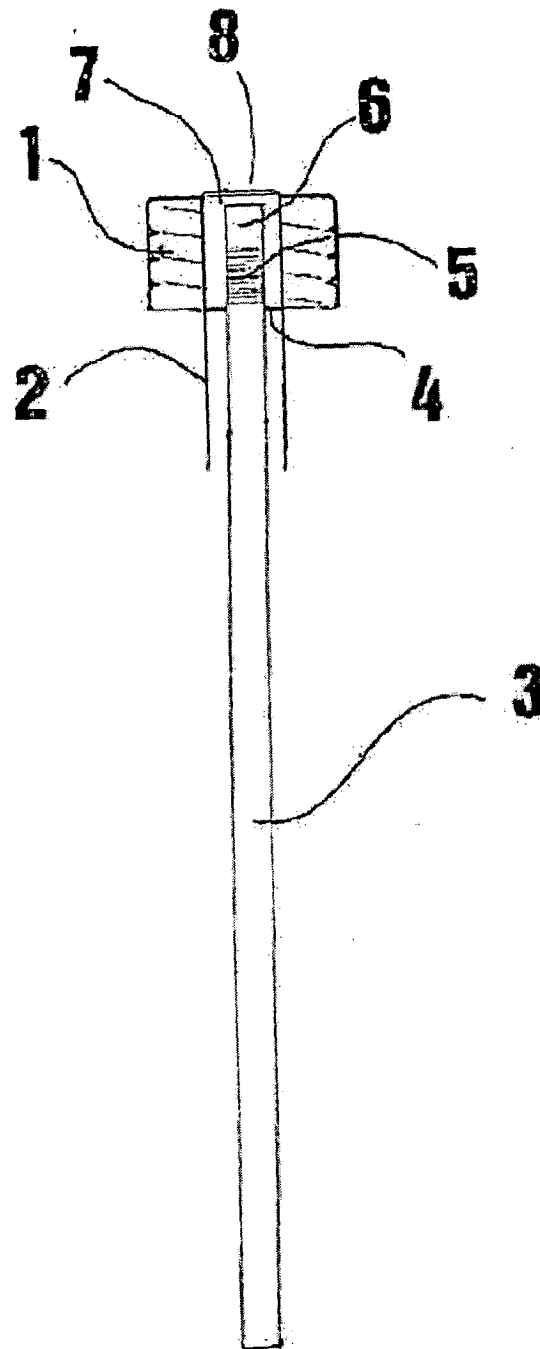


Fig. 5

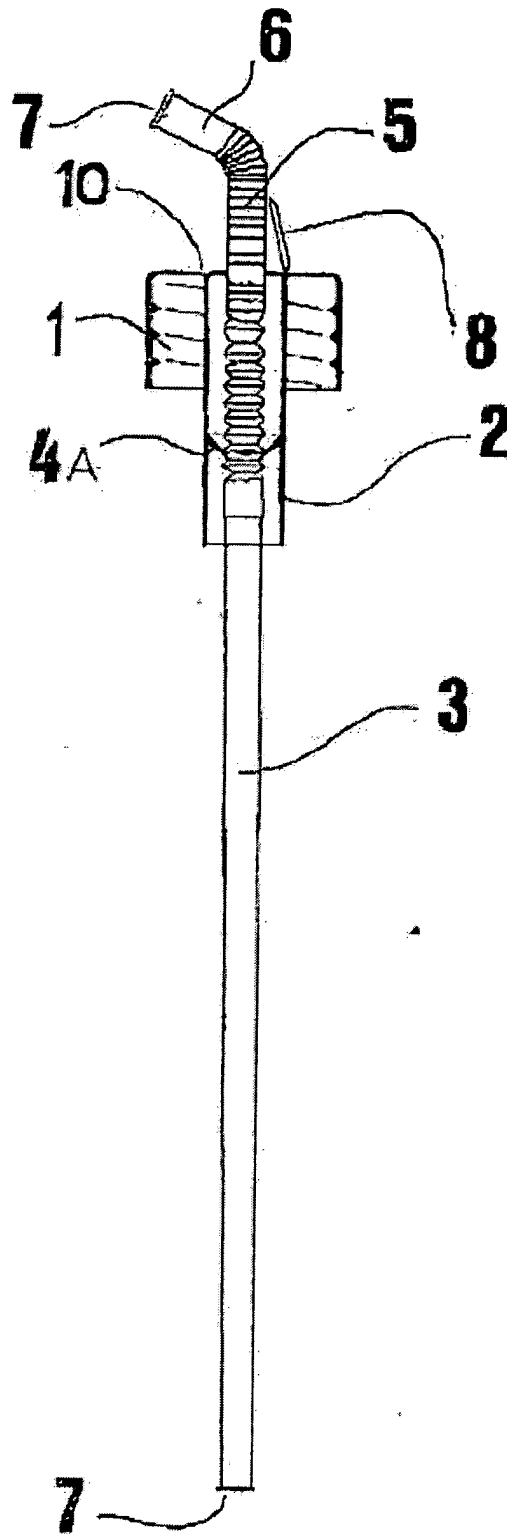
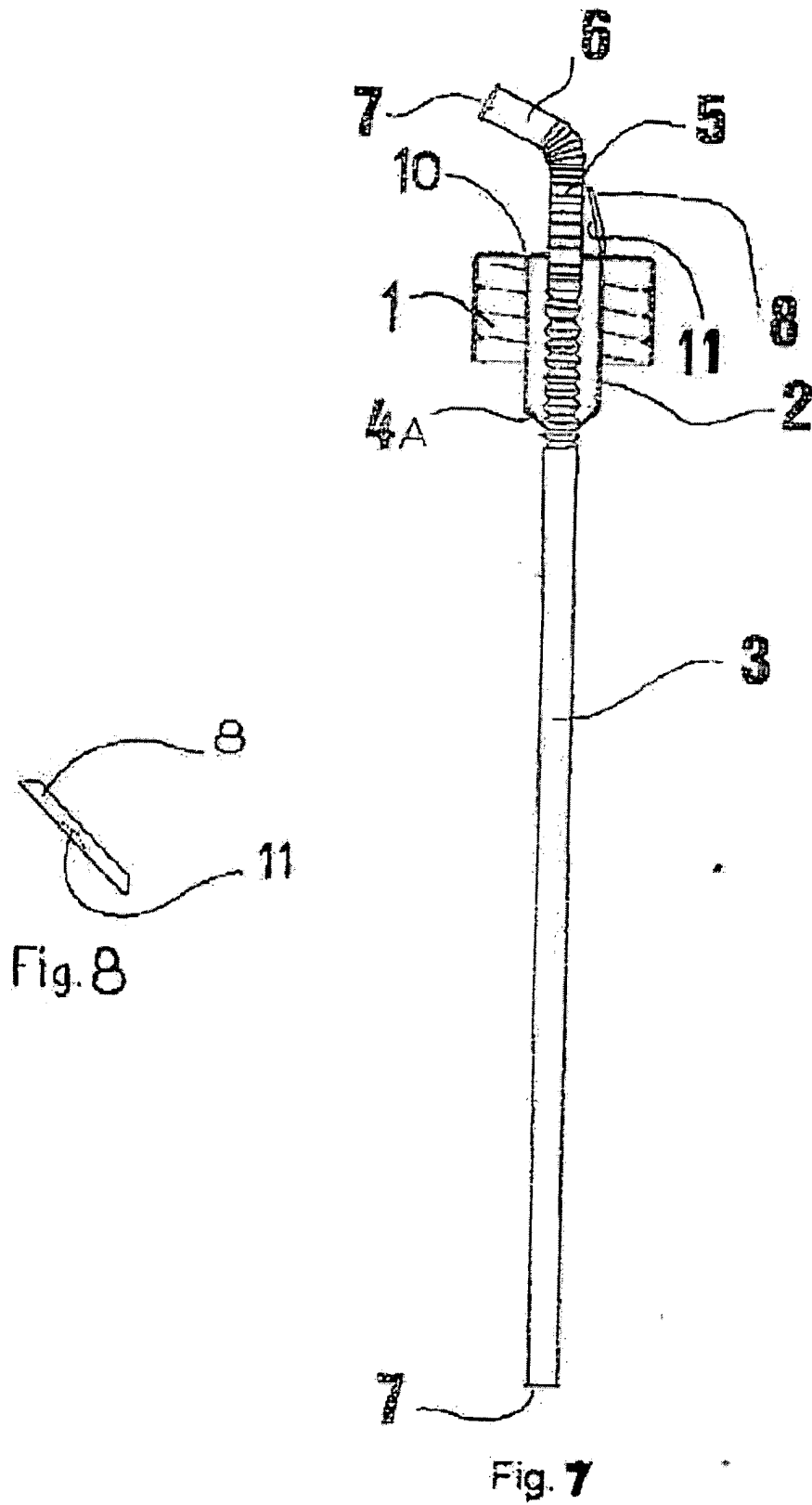


Fig. 6





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Office

EUROPEAN SEARCH REPORT

Application Number
EP 04 38 0278

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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 4 May 2005	Examiner SERRANO GALARRAGA, J
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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