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(54) **CAP FOR CLOSING A BOTTLE AND THE LIKE AND CORRESPONDING CAP COVER**

(57) A cap assembly for closing a bottle or the like comprises a cap body (2) adapted to be screwed onto a threaded bottle (10), wherein the cap body (2) is protected by a corresponding cap cover (6) of the double-walled

type. The cap cover (6) is provided with retention means that comprise a circumferential tab (12) that protrudes from the lower rim of the cap cover (6) and are adapted to retain the cap cover (6) with respect to the cap (1).

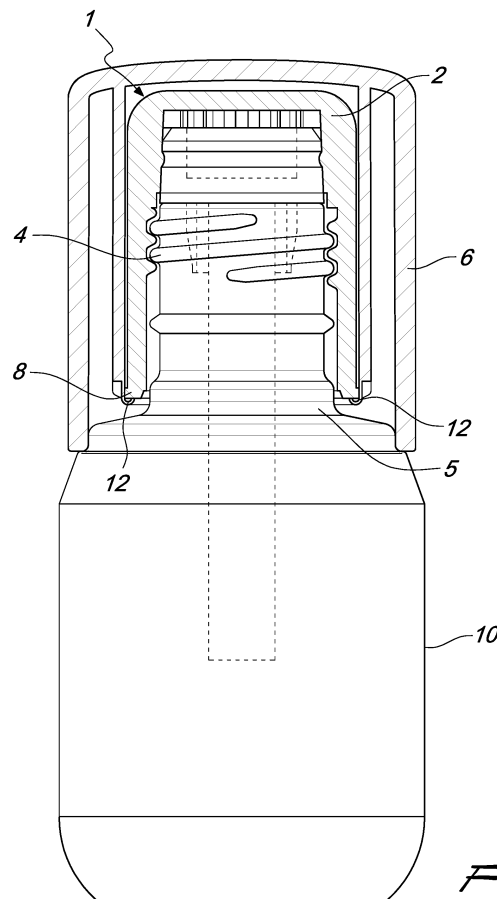


Fig. 6

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Description

[0001] The present invention relates to a cap for closing a bottle or the like and to a corresponding cap cover of the double-walled type. More particularly, the invention relates to a cap adapted to be applied to a bottle, such as for example a bottle of nail polish, with a corresponding cap cover.

[0002] As known, in fact, bottles have a threaded neck on which a likewise threaded cap is usually screwed. The threaded cap can be protected by a cap cover that can have a decorative purpose or anyway, in most cases, has the purpose of closing the cap proper.

[0003] For example, in the case of bottles for nail polish, the threaded cap is the one to which the brush used to apply the polish to the nails is connected.

[0004] In this case there is usually a cap cover that allows to protect the cap that will then be gripped by the user to apply the polish to the nails.

[0005] Cap covers of the known type have a locking that usually can be provided with a coupling by interference between the cap cover and the underlying cap. However, this coupling is not always adequate and the cap cover can disengage from the underlying cap and is thus lost.

[0006] Cap covers are known of the type provided by external injection in which the coupling can be instead provided with an undercut.

[0007] In the case of double-walled cap covers of the internal injection type, the undercut instead cannot be provided, since extraction from the mold would not be possible or would entail such difficulties that it is not conceivable.

[0008] The aim of the present invention is to provide a cap with corresponding cap cover, in which the cap can be coupled conventionally on the neck of a bottle and the cap cover can be applied externally to the cap, with a placement action that prevents its disengagement if not desired by the user.

[0009] Within this aim, an object of the invention is to provide a cap with cap cover in which the cap cover is coupled in a stable manner to the underlying cap.

[0010] Another object of the present invention is to provide a cap with corresponding cap cover that is highly reliable, relatively easy to provide and at competitive costs.

[0011] This aim and these and other objects that will become better apparent hereinafter are achieved by a cap for closing a bottle and the like and a corresponding cap cover of the double-walled type, comprising a cap body adapted to be screwed to a threaded bottle, said cap body being adapted to be protected by a cap cover adapted to be fitted on said cap, characterized in that said cap cover is provided with retention means that comprise a circumferential tab that protrudes from the lower rim of said cap cover and are adapted to retain said cap cover with respect to said cap.

[0012] Further characteristics and advantages of the

invention will become better apparent from the description of preferred but not exclusive embodiments of the cap according to the present invention, illustrated by way of non-limiting example in the accompanying drawings, wherein:

Figure 1 is an exploded sectional view of the cap with cap cover according to the invention for application to the threaded neck of a bottle;

Figure 2 is a perspective view, in phantom lines, of the cap cover and of the cap according to the invention;

Figure 3 is a plan view of the cap cover coupled to the cap, according to the invention;

Figure 4 is an exploded cutaway perspective view of the cap cover and of the cap according to the invention;

Figure 5 is a cutaway perspective view of the cap cover coupled to the cap according to the invention;

Figure 6 is a sectional view of the coupling of the cap and of the cap cover according to the invention to a bottle;

Figure 7 is a sectional view of a second embodiment of the cap cover according to the present invention;

Figure 8 is a bottom plan view of the cap cover of Figure 7.

[0013] With reference to the figures, the threaded cap with corresponding cap cover according to the invention will be described in detail, and in all the figures identical equal reference numerals designate identical elements.

[0014] The cap according to the invention, generally designated by the reference numeral 1, comprises a body 2 adapted to be coupled, preferably screwed by means of an inner thread 3, to a threaded neck 4 of a bottle 10.

[0015] The coupling between the cap and the bottle might also occur by means other than a thread.

[0016] The cap rests on a shoulder 5 of the bottle with threaded neck.

[0017] In order to protect the cap 1 there is a cap cover 6, of the double-walled type, provided by means of internal injection, which comprises a substantially tubular body that is adapted to be fitted over the cap 1 and is provided internally with a plurality of retentions means 7, arranged circumferentially, that allow the snap locking of a cap cover 6 around an end rim 8 of the cap 1.

[0018] The retention means are arranged at an inner circumferential rim of the cap cover, at the end of the cap cover 6 that is designed to be located, once coupling of the cap cover has occurred, proximate to the base of the threaded neck 4 of the bottle 10.

[0019] Substantially, the retention means 7, which can be for example constituted by a plurality of teeth or wings 7, snap around the rim 8 with a sort of "click" effect, thus increasing the tightness of the cap cover 6 on the cap 1.

[0020] The wings 7 are arranged at the inner surface of the lower rim of the cap cover 6, which is designed to be located proximate to the threaded neck of the bottle

10 when the cap cover 6 is fitted on the cap 1.

[0021] The wings 7 are conveniently flexible so that they can snap on the diameter of the threaded cap 1, particularly at the end rim 8.

[0022] This solution allows quick and safe coupling of the cap cover 6 on the threaded cap 1 and a retention action by the wings 7 that prevents the disengagement, as desired, of the cap cover 6 from the threaded cap 1.

[0023] In order to improve the coupling of the cap cover 6 on the threaded cap 1, the cap cover is provided with a tab or fin 12 that protrudes from the inner surface of its lower rim. The tab 12 is therefore arranged so as to protrude circumferentially from the lower rim of the cap cover 6 and is adapted to bend, once the cap cover has been coupled to the threaded cap 1, against the end rim 8 of the threaded cap 1.

[0024] In this manner the tab or fin 12 creates an undercut.

[0025] It is also possible for the tab or fin 12 to be compressed mechanically after coupling between the cup cover 6 and the cap 1.

[0026] The presence of the tab 12 offers a greater retention of the cup cover with respect to the cap.

[0027] The retention means can be constituted by the tab 12 alone, therefore without the wings 7.

[0028] In this case the lower inner rim of the cap cover 6 is smooth instead of being notched due to the presence of the wings 7.

[0029] The retention of the cap cover 6 on the cap 1 is suitably ensured even in the presence of the tab 12 alone.

[0030] Figures 7-8 show a second embodiment of the cap with cap cover according to the invention.

[0031] In this second embodiment the cap cover 6 is provided with a set of grooves 21 defined on its inner surface, the grooves being arranged parallel to the axis of the cap cover.

[0032] The body 2 of the cap 1 is provided externally with a set of grooves 20 arranged in the direction of the longitudinal extension of the cap body 2, thus with the grooves 20 parallel to the axis of the cap.

[0033] The grooves 20 are notches, the depth and number of which can vary according to the requirements.

[0034] The grooves 20 are adapted to couple to the corresponding set of grooves 21 defined at the inner surface of the cap cover 6.

[0035] In particular, the set of grooves 21 of the cap cover 6 can be defined at at least one portion of the inner surface of the cap cover or on all of the inner circumferential surface of the cap cover 6.

[0036] The set of groove s20 combined with the set of grooves 21 allows to orient and align the cap cover 6 without any forcing, in a precise manner, with the cap body 2, before the coupling among the retention means 7, the rim 8 and the tab 12 described above.

[0037] In practice it has been found that the cap with cap cover according to the present invention fully achieves the intended aim and objects, since it allows to be screwed usually on a threaded bottle and to be pro-

ected by the cap cover that is coupled to the below cap by means of the flexible wings cited above, therefore without the use of further threads and above all with a simple and effective action by the user.

[0038] The cap with cap cover thus conceived is susceptible of numerous modifications and variations, all of which are within the scope of the appended claims. All the details may further be replaced with other technically equivalent elements.

[0039] In practice, the materials used, as well as the contingent shapes and dimensions, may be any according to requirements and to state of the art.

[0040] The disclosures in Italian Patent Application no. MI2014A002186, from which this application claims priority, are incorporated herein by reference.

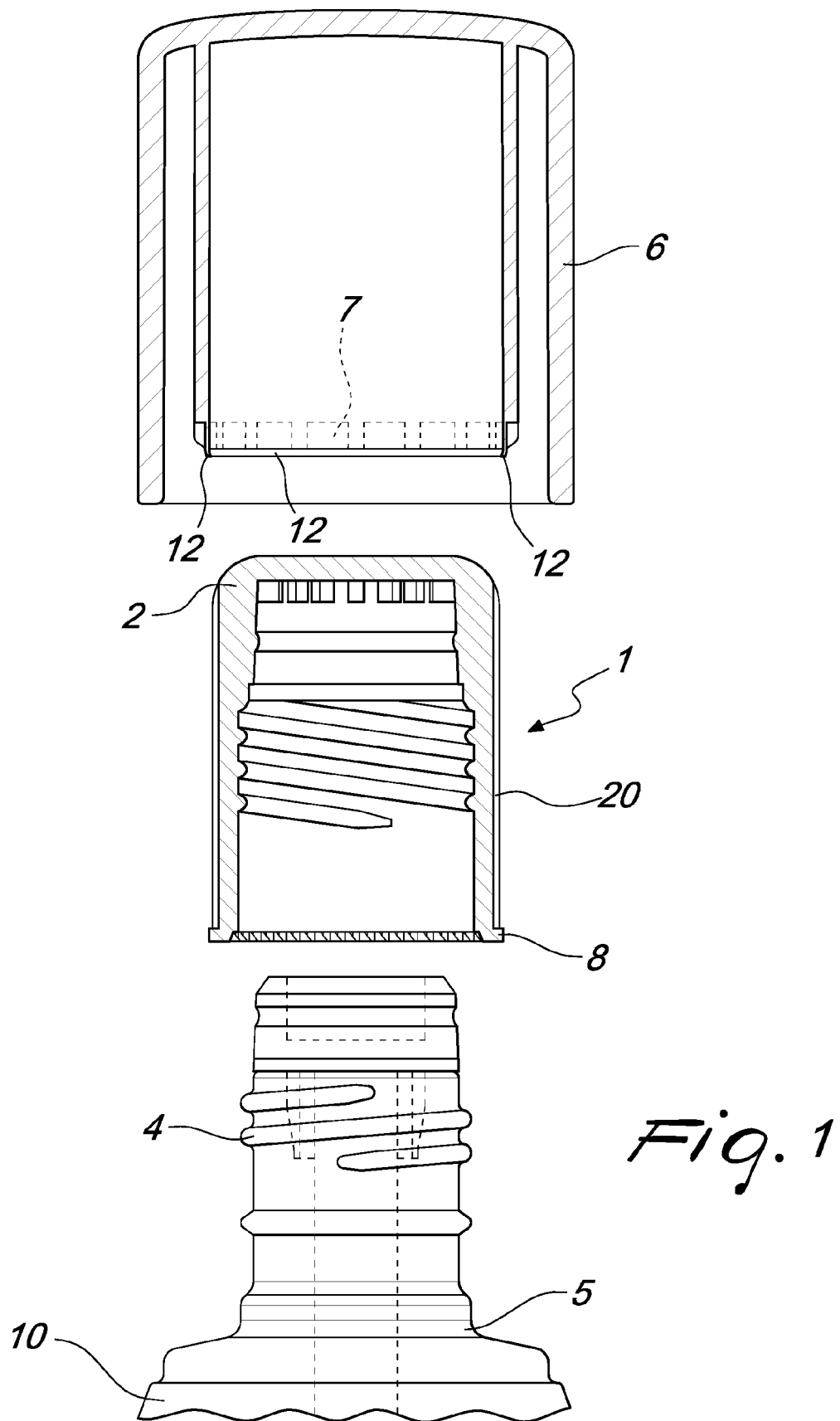
[0041] Where technical features mentioned in any claim are followed by numeral reference and/or signs, those numeral reference and/or signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly such numeral reference and/or signs do not have any limiting effect on the interpretation of each element identified by way of example by such numeral reference and/or signs.

Claims

1. A cap (1) for closing a bottle and the like with a corresponding cap cover (6) of the double-walled type, comprising a cap body adapted to be coupled to a bottle (10), said cap body being adapted to be protected by a cap cover (6) adapted to be fitted on said cap (1), **characterized in that** said cap cover (6) is provided with retention means (7, 12) that comprise a circumferential tab (12) that protrudes from the lower rim of said cap cover (6) and are adapted to retain said cap cover (6) with respect to said cap (1).
2. The cap with corresponding cap cover according to claim 1, **characterized in that** said means (7, 12) for retaining the cap cover comprise further a plurality of wings (7) that are arranged inside the cap cover (6) and are adapted to couple by snap action to an end rim (8) of said cap (1).
3. The cap with corresponding cap cover according to one or more of the preceding claims, **characterized in that** said wings (7) are elastic so as to snap around said rim (8) of said cap.
4. The cap with corresponding cap cover according to one or more of the preceding claims, **characterized in that** said cap cover (6) rests on the outer surface of the bottle (10) to which said cap (1) is applied, with said tab (12) folded around said end rim (8) of said cap (1).
5. The cap with corresponding cap cover according to

one or more of the preceding claims, **characterized in that** said wings (7) are arranged circumferentially at the inner surface of the lower rim of said cap cover (6) that is intended to be located proximate to the threaded neck of said bottle (10) when said cap cover (6) is fitted on said cap (1). 5

6. The cap with corresponding cap cover according to one or more of the preceding claims, **characterized in that** it comprises a set of grooves (20) defined at the outer surface of the cap body (2), said set being adapted to couple with a set of grooves (21) defined at the inner surface of said cap cover (6). 10
7. The cap with corresponding cap cover according to claim 6, **characterized in that** said set of grooves (20) of the outer surface of the cap body (2) is defined along the whole circumferential extension of said cap and is arranged along the axis of said cap. 15
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8. The cap with corresponding cap cover according to one or more of the preceding claims, **characterized in that** said set of grooves (21) defined at the inner surface of the cap cover (6) involves at least one portion of said inner surface. 25
9. The cap according to one or more of the preceding claims, **characterized in that** said set of grooves (21) of the inner surface of said cap cover (6) is arranged along the axis of said cap cover (6). 30
10. A cap cover (6) of the double-walled type, adapted to be fitted on a cap (1) for closing a bottle and the like, **characterized in that** said cap cover (6) is provided with retention means (7, 12) that comprise a circumferential tab (12) that protrudes from the lower rim of said cap cover (6) and are adapted to retain said cap cover (6) with respect to said cap (1). 35
11. The cap cover (6) according to claim 10, **characterized in that** it comprises a set of grooves (21) defined at the inner surface of said cap cover (6). 40
12. The cap cover (6) according to claim 11, **characterized in that** said set of grooves (21) defined at the inner surface of said cap cover (6) involves at least one portion of said inner surface. 45
13. The cap cover (6) according to claim 11, **characterized in that** said set of grooves (21) of the inner surface of said cap cover (6) is arranged along the axis of said cap cover (6). 50
14. A bottle (10), **characterized in that** it comprises a cap (1) with corresponding cap cover (6) according to one or more of claims 1 to 9. 55



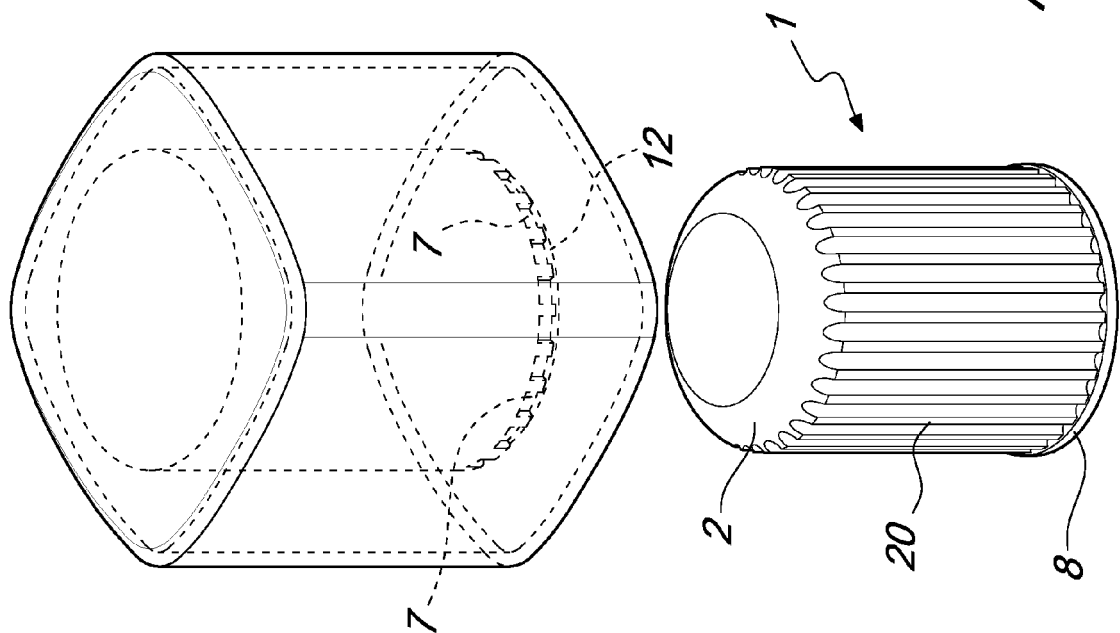


Fig. 2

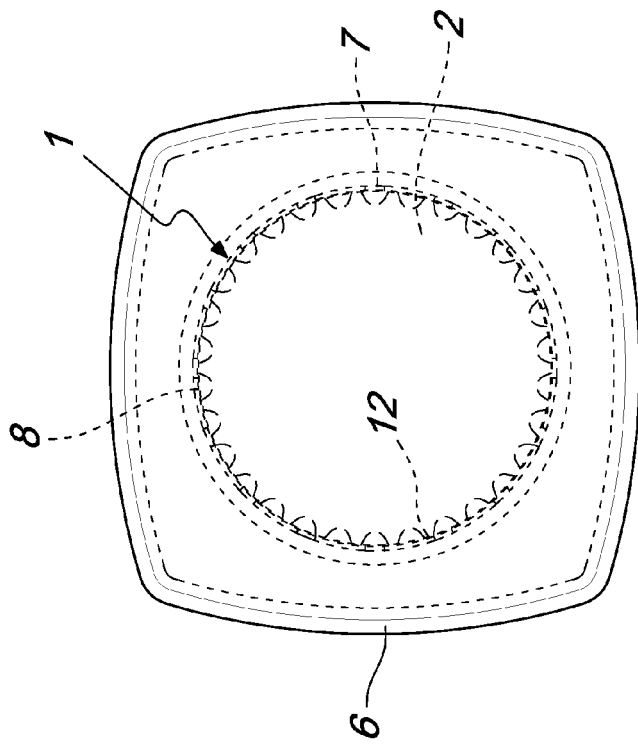


Fig. 3

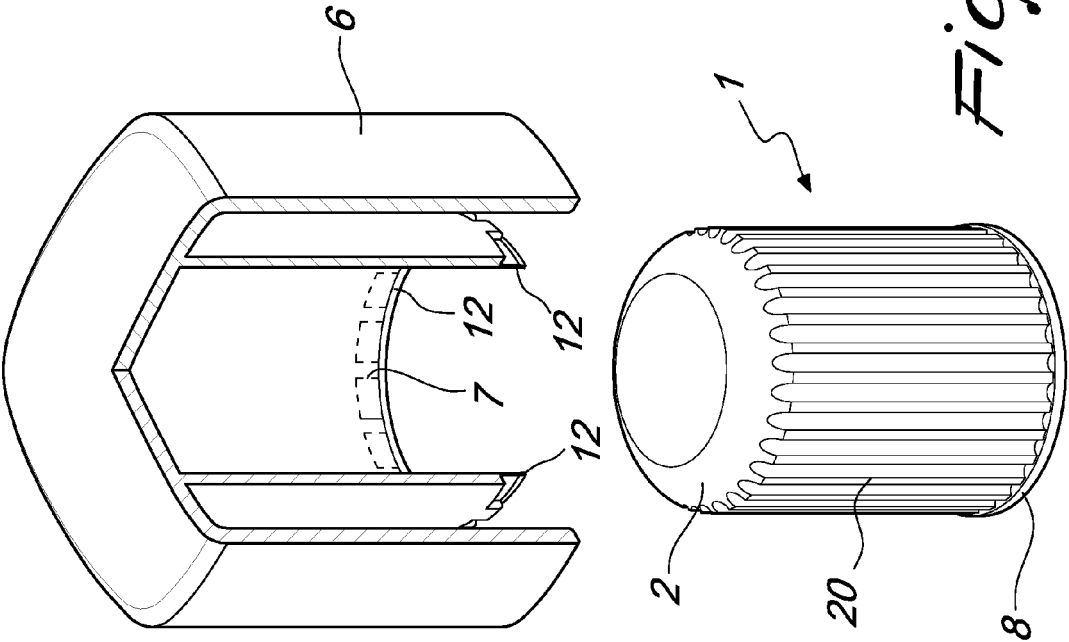


Fig. 4

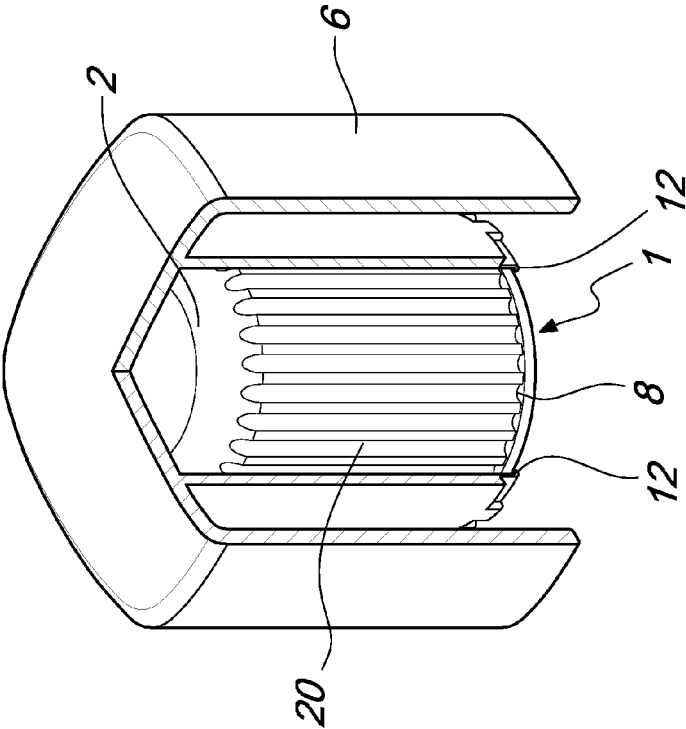
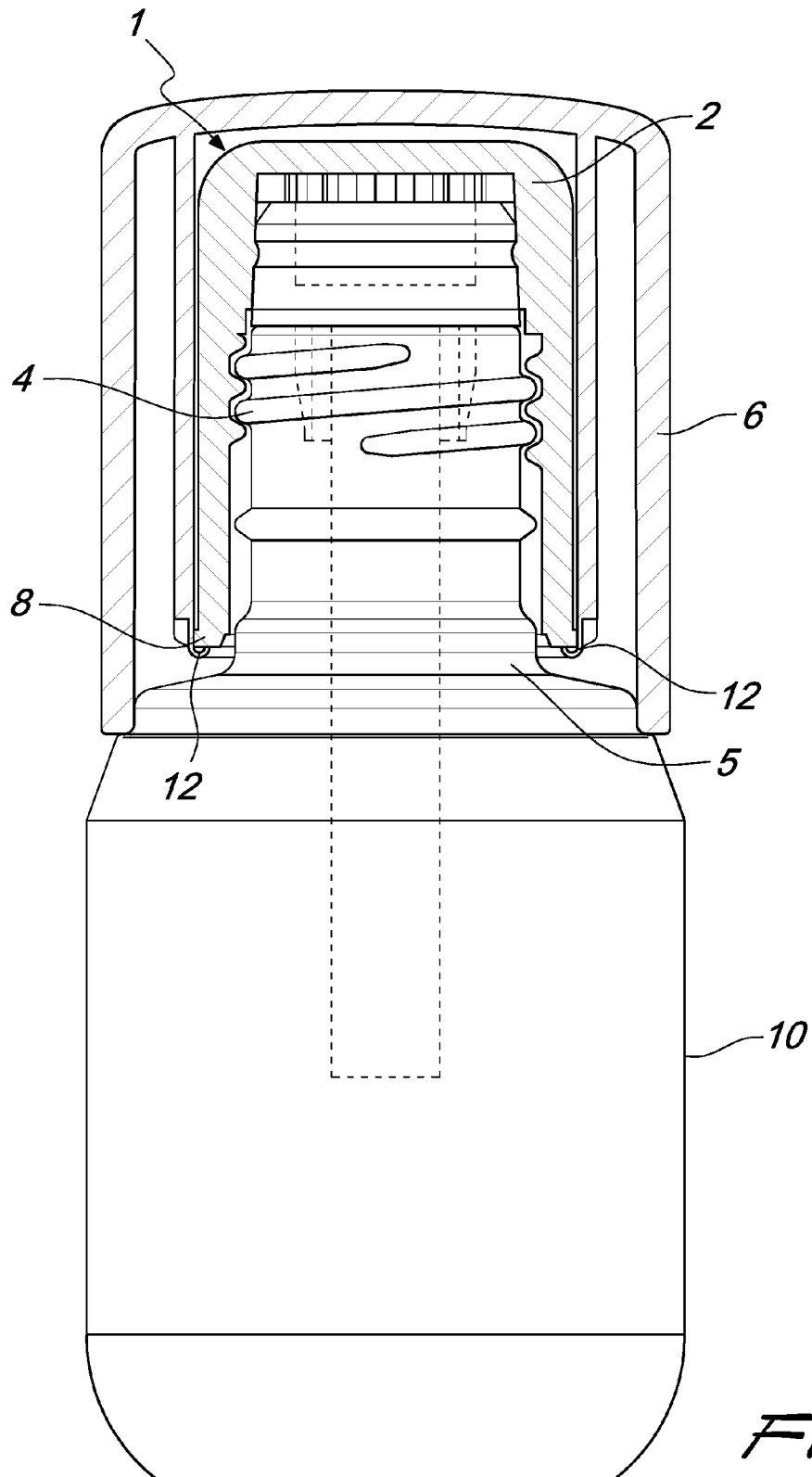


Fig. 5



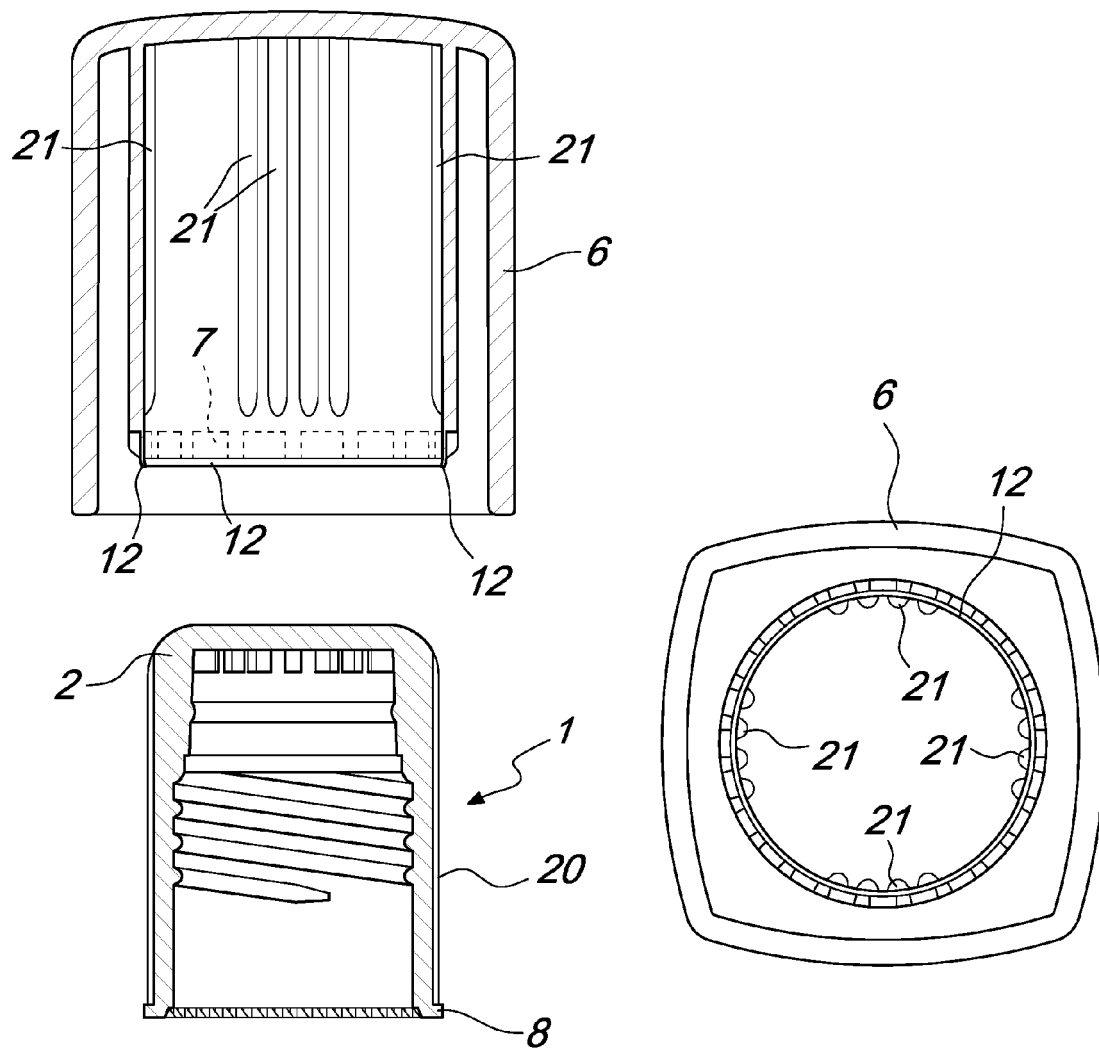


Fig. 8

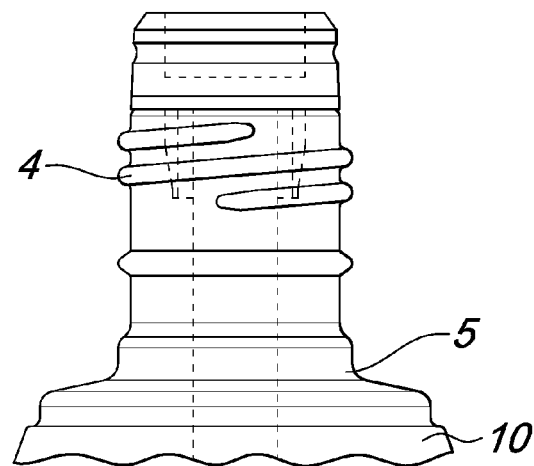


Fig. 7



EUROPEAN SEARCH REPORT

Application Number
EP 15 16 7382

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A	* The protruding tab according to claim 1 is not clearly defined to retain itself the cap cover. The present document has a circumferential tab and retention means in the form of ribs 11 *	2-5	B65D
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Place of search The Hague		Date of completion of the search 11 August 2015	Examiner Dederichs, August
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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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