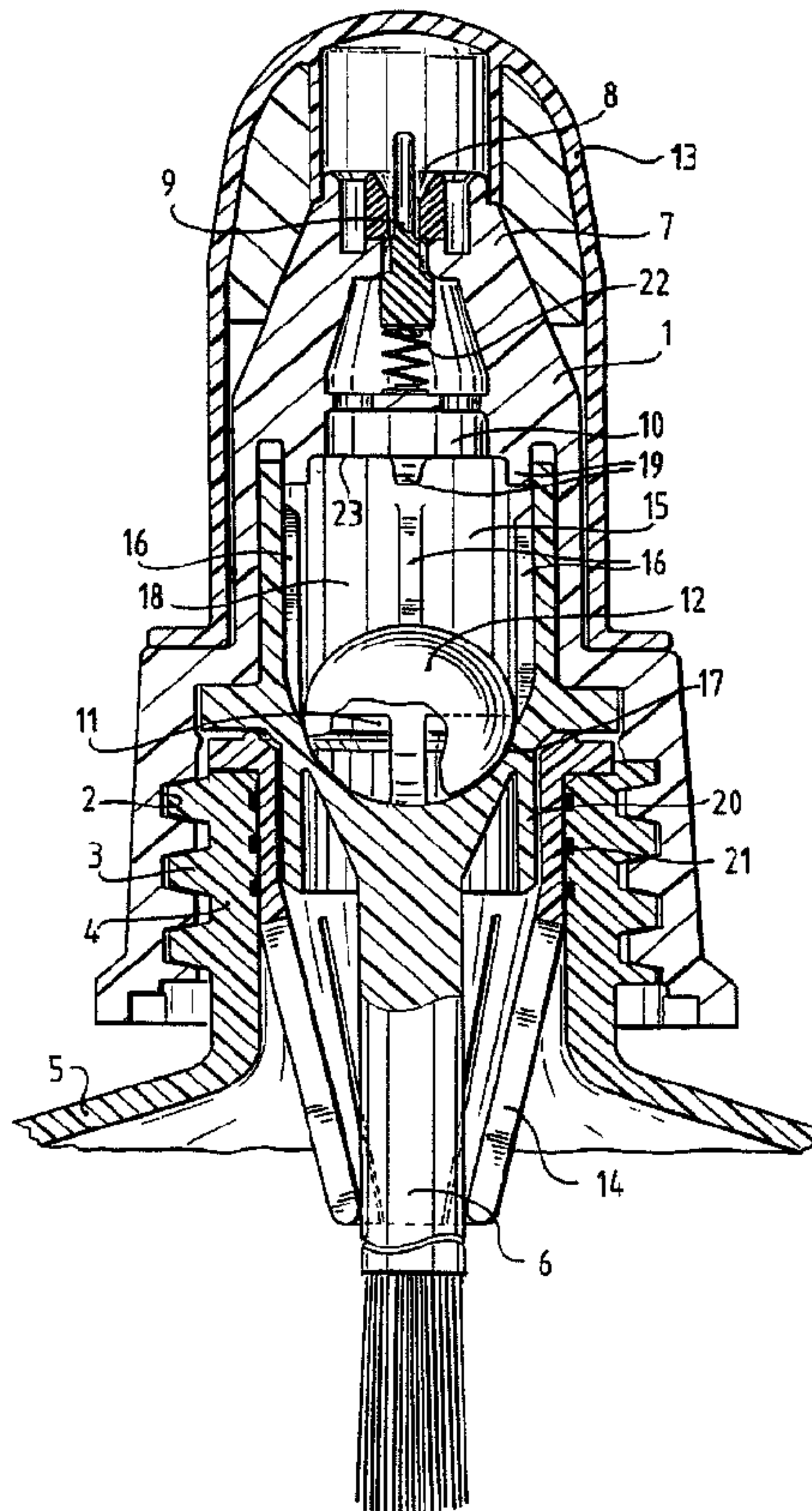




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(54) Titre : CAPUCHON DISTRIBUTEUR POUR UN RECIPIENT CONTENANT UN LIQUIDE
 (54) Title: DISPENSING CAP FOR A LIQUID CONTAINER



(57) **Abrégé/Abstract:**

The invention relates to a dispensing cap (1) for a liquid container (5) provided with an applicator means (6) fixed thereto and for insertion into an opening of the liquid container, wherein the dispensing cap (1) has a closable outlet opening (8) in its outer end located opposite the applicator means (6), which opening is connected along a channel (10) running through the dispensing cap to a feed aperture arranged in the vicinity of the applicator means, and a closing member (12) co-acting with the feed aperture. The invention likewise relates to a liquid container provided with a dispensing cap of the above described type.



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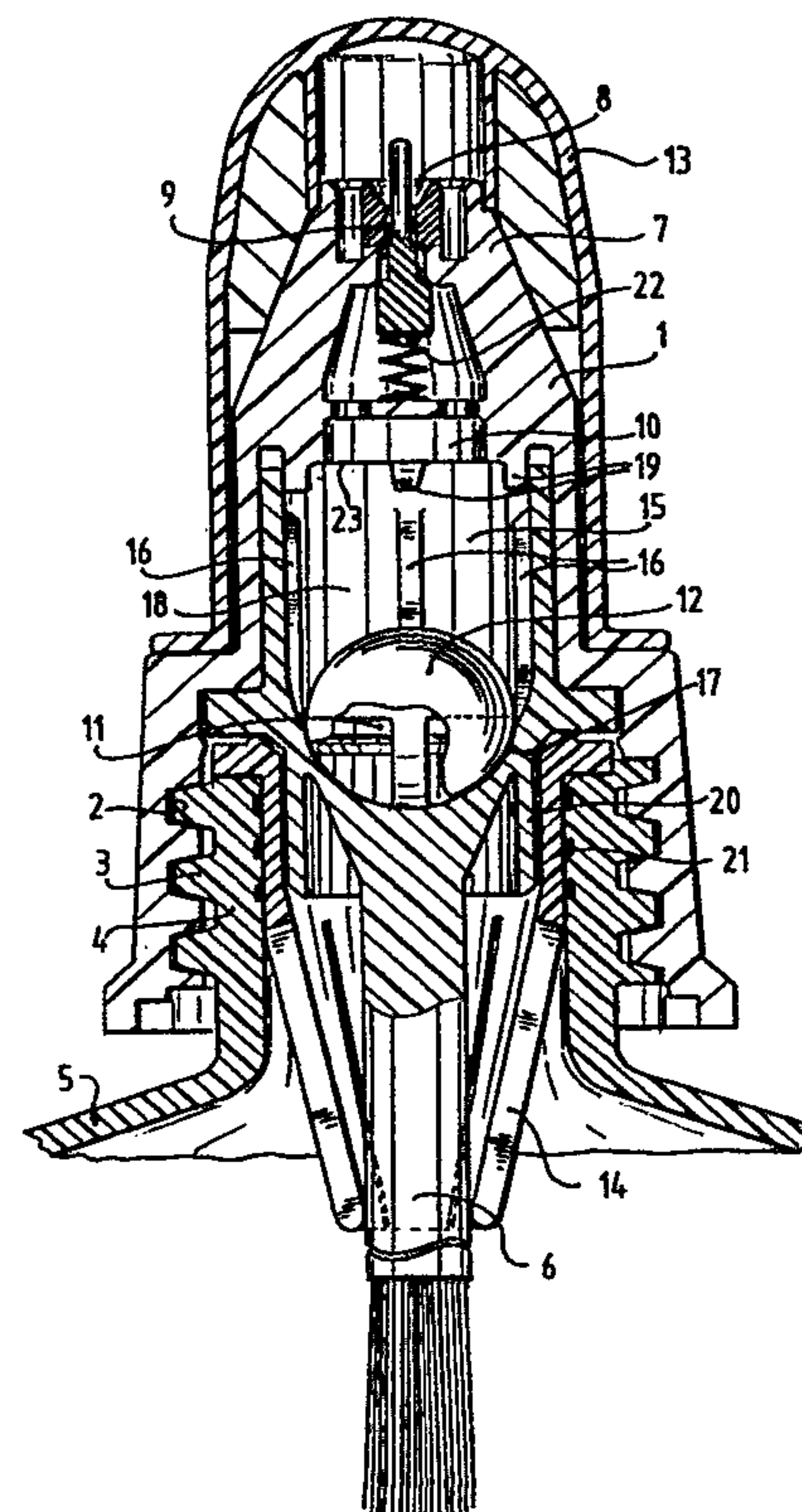
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<p>(21) International Application Number: PCT/NL96/00443</p> <p>(22) International Filing Date: 11 November 1996 (11.11.96)</p> <p>(30) Priority Data: 1001626 10 November 1995 (10.11.95) NL</p> <p>(71) Applicant (for all designated States except US): HENKEL RAYCAP PRODUKTIE B.V. [NL/NL]; Stationsingel 110, NL-5371 BB Ravenstein (NL).</p> <p>(72) Inventors; and (75) Inventors/Applicants (for US only): KELDERS, Johannes, Hubertus, Jozef, Maria [NL/NL]; Eendekooi 22, NL-5151 RL Drunen (NL). BROUWER, Markus, Franciskus [NL/NL]; Krabbehoek 13, NL-5348 MS Heesch (NL).</p> <p>(74) Agent: BARTELDS, Erik; Arnold & Siedsma, Sweelinckplein 1, NL-2517 GK The Hague (NL).</p>	<p>(81) Designated States: CA, JP, US, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Published With international search report. In English translation (filed in Dutch).</p>	

(54) Title: DISPENSING CAP FOR A LIQUID CONTAINER

(57) Abstract

The invention relates to a dispensing cap (1) for a liquid container (5) provided with an applicator means (6) fixed thereto and for insertion into an opening of the liquid container, wherein the dispensing cap (1) has a closable outlet opening (8) in its outer end located opposite the applicator means (6), which opening is connected along a channel (10) running through the dispensing cap to a feed aperture arranged in the vicinity of the applicator means, and a closing member (12) co-acting with the feed aperture. The invention likewise relates to a liquid container provided with a dispensing cap of the above described type.



Dispensing cap for a liquid container

The invention relates to a dispensing cap for a liquid container provided with an applicator means fixed thereto and for insertion into an opening of the liquid container, wherein the dispensing cap has a closable outlet opening in its outer end located opposite the applicator means, which opening is connected along a channel running through the dispensing cap to at least one feed aperture arranged in the vicinity of the applicator means.

Such a dispensing cap is known from EP-A-0 398 936. The known cap is intended for a bottle with correction fluid and is provided with a brush for placing in the neck of the bottle with which the correction fluid can be applied and spread when larger areas have to be corrected, and a pin tip with which smaller quantities of correction fluid can be dispensed.

The known dispensing cap has the drawback that, after the use of the pin tip, correction fluid can remain behind in the channel which, when the brush is subsequently used, can then run out along the handle thereof whereby an unintentionally large amount of correction fluid is spread onto the error for correcting. There is therefore the danger of for instance a part of a text round an error also being smeared with correction fluid. In addition, an excess dose of correction fluid results in a comparatively long drying time, while in this manner the content of the bottle is also consumed too quickly.

The invention therefore has for its object to provide an improved dispensing cap of the above described type wherein these drawbacks do not occur. This is achieved according to the invention by a closing member co-acting with the feed aperture. Due to such a closing member unused liquid is retained in the channel between

the feed aperture and the outlet opening and can therefore not leak out.

Preferred embodiments of the cap according to the invention are described in the dependent claims.

5 The invention also relates to a liquid container provided with a dispensing cap as described above.

The invention is elucidated with reference to the annexed drawing, in which:

10 fig. 1 shows a longitudinal section of a dispensing cap according to the invention arranged on a liquid container in its rest position,

15 fig. 2 shows a section corresponding with fig. 1 of the liquid container with dispensing cap during use, and

fig. 3 is a section corresponding with fig. 1 and 2 of the dispensing cap per se.

20 A dispensing cap 1 (fig. 1) is provided with an internal screw thread 2 with which it can be screwed onto a neck 4 of a container 5 likewise provided with screw thread 3. An applicator means 6, in the example shown a brush, is fixed in the dispensing cap 1. With brush 6 a liquid arranged in container 5, for instance correction fluid, can be applied in dosed manner to a surface such as a sheet of paper which has been written on. A comparatively large amount of liquid is herein dispensed.

25 In order to also enable dispensing of more finely spread liquid the dispensing cap 1 is provided on its outer end 7 located opposite brush 6 with an outlet opening 8 which is closable by means of a needle valve 9. This needle valve 9 is movable in the outlet opening 8 and is biased by a pressure spring 22 connected to cap 1 to a rest position closing the opening 8. Valve 9 is pressed inward counter to the biasing force of spring 22 and thus leaves the opening 8 clear when it is pressed onto a surface (fig. 2). The outlet opening 8 is connected via a channel 10 running through dispensing cap 1 to a plurality of radially directed feed apertures 11

which are arranged round the upper part of the brush 6 and which communicate with the interior of liquid container 5.

5 In order to prevent liquid which may have collected in channel 10 from leaking out through apertures 11 during the use of brush 6, the dispensing cap 1 according to the invention is provided with a closing member, in the example shown a ball 12. The ball 12 is movable in a widened portion 15 of channel 10
10 between a plurality of guide ribs 16 arranged distributed along the walls of the widened channel portion 15. Formed between these guide ribs 16 are bypass channels 18 whereby the liquid can pass along the closing ball 12 when dispensing cap 1 is pressed with its outlet opening
15 8 onto a surface. The end portion 17 of channel 10 directed toward brush 6 in which the feed apertures 11 debouch herein takes a spherical segment-shaped form such that the ball 12 can be received sealingly therein. On the top side the channel 10 is provided with a plurality
20 of spacer members 19 whereby the ball 12 is held clear of the edge 23 of the narrowed upper portion of channel 10, thus ensuring an uninterrupted liquid flow from container 5 through the outlet opening 8 of cap 1.

In addition to the needle valve 9 a closing cap
25 13 is also arranged over outlet opening 8 so as to prevent drying and/or leakage. An annular sealing member or apron 20 is further arranged round brush 6. This sealing member 20 is received close-fittingly in a cylindrical part 21 of a wiping member 14 which is in
30 turn received close-fittingly in the neck 4 of container 5. Leakage round the brush 6 is thus prevented when dispensing cap 1 is pressed with the outlet opening 8 onto a surface while possibly not being screwed completely into place on container 5.

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CLAIMS:

1. Dispensing cap (1) for a liquid container (5) provided with an applicator means (6) fixed thereto and for insertion into an opening (4) of the liquid container (5),
5 wherein the dispensing cap (1) has a closable outlet opening (8) in its outer end located opposite the applicator means (6), which opening is connected along a channel (10) running through the dispensing cap to at least one feed aperture (11) arranged in the vicinity of the applicator means (6),
10 characterized by a closing member (12) co-acting with the feed aperture (11).

2. Dispensing cap (1) as claimed in claim 1, characterized in that the closing member (12) is movable in the channel (10) between a first position closing the feed
15 aperture (11) and a second position leaving clear the feed aperture (11).

3. Dispensing cap (1) as claimed in claim 2, characterized in that the channel (10) has a first portion (17) in which the feed aperture (11) is situated and the
20 dimensions of which correspond substantially with those of the closing member (12), in addition to a widened portion (15), the dimensions of which are larger than those of the closing member (12).

4. Dispensing cap (1) as claimed in claim 3,
25 characterized in that the closing member (12) is ball-shaped and the first portion (17) of the channel (10) takes the form of a spherical segment.

5. Dispensing cap (1) as claimed in claim 3 or 4, characterized by guide members (16) protruding from side
30 walls of the widened portion (15) of the channel (10).

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6. Dispensing cap (1) as claimed in claims 3-5, characterized by spacer members (19) protruding from an end wall of the channel (10).

7. Dispensing cap (1) as claimed in any one of claims 1 to 6, characterized by an annular sealing member (14) arranged round the applicator means (6) and for inserting close-fittingly into the opening (4) of the liquid container (5).

8. Dispensing cap (1) as claimed in claim 7, characterized by a wiping member (14) arranged between the opening (4) and the sealing member (20).

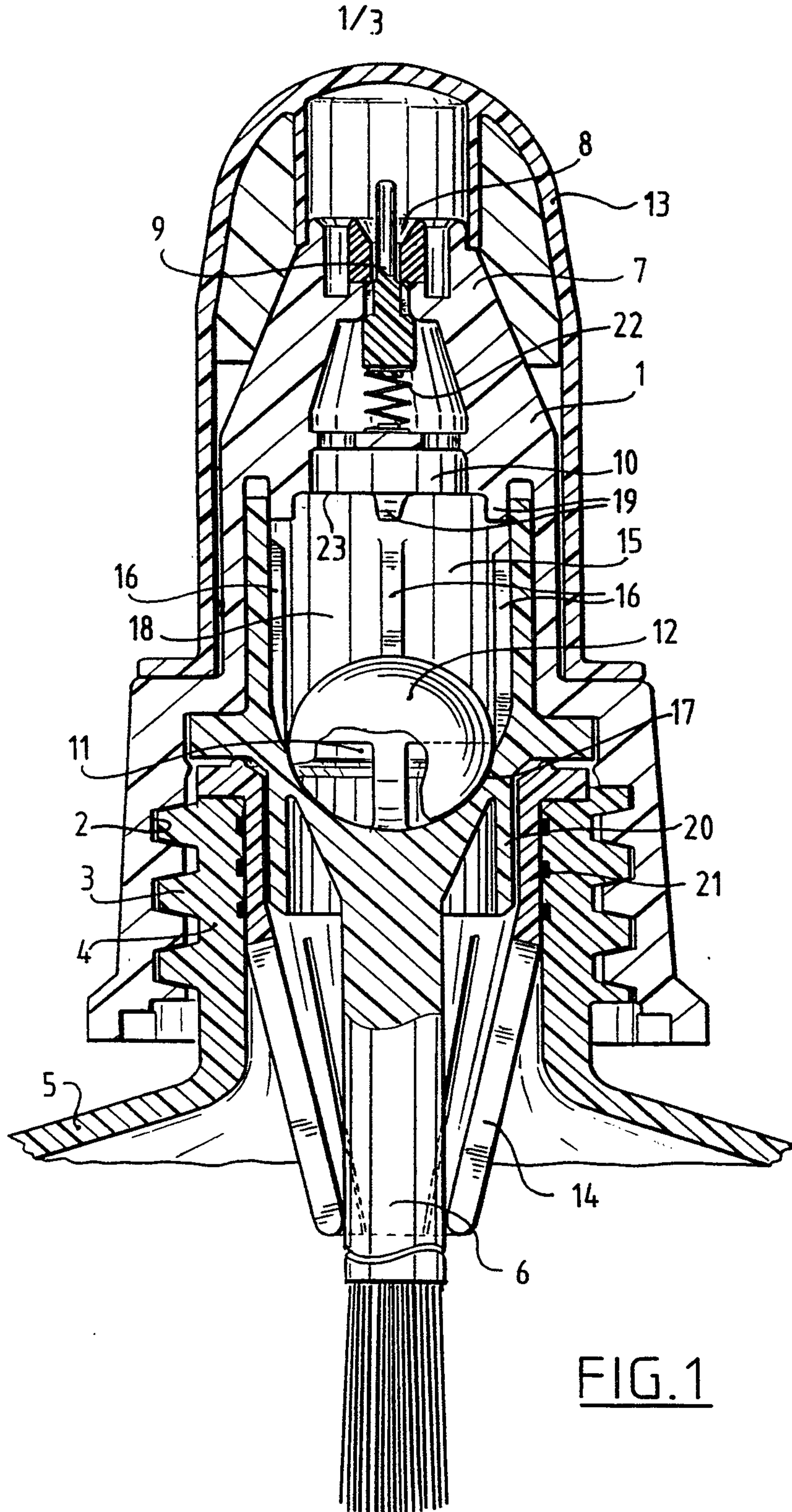
9. Dispensing cap (1) as claimed in claim 8, characterized in that the wiping member (14) has a cylindrical wall part (21) co-acting with the sealing member (20).

10. Liquid container (5) provided with a dispensing cap (1) as claimed in any one of claims 1 to 9.

FETHERSTONHAUGH & CO.

PATENT AGENTS

OTTAWA, CANADA



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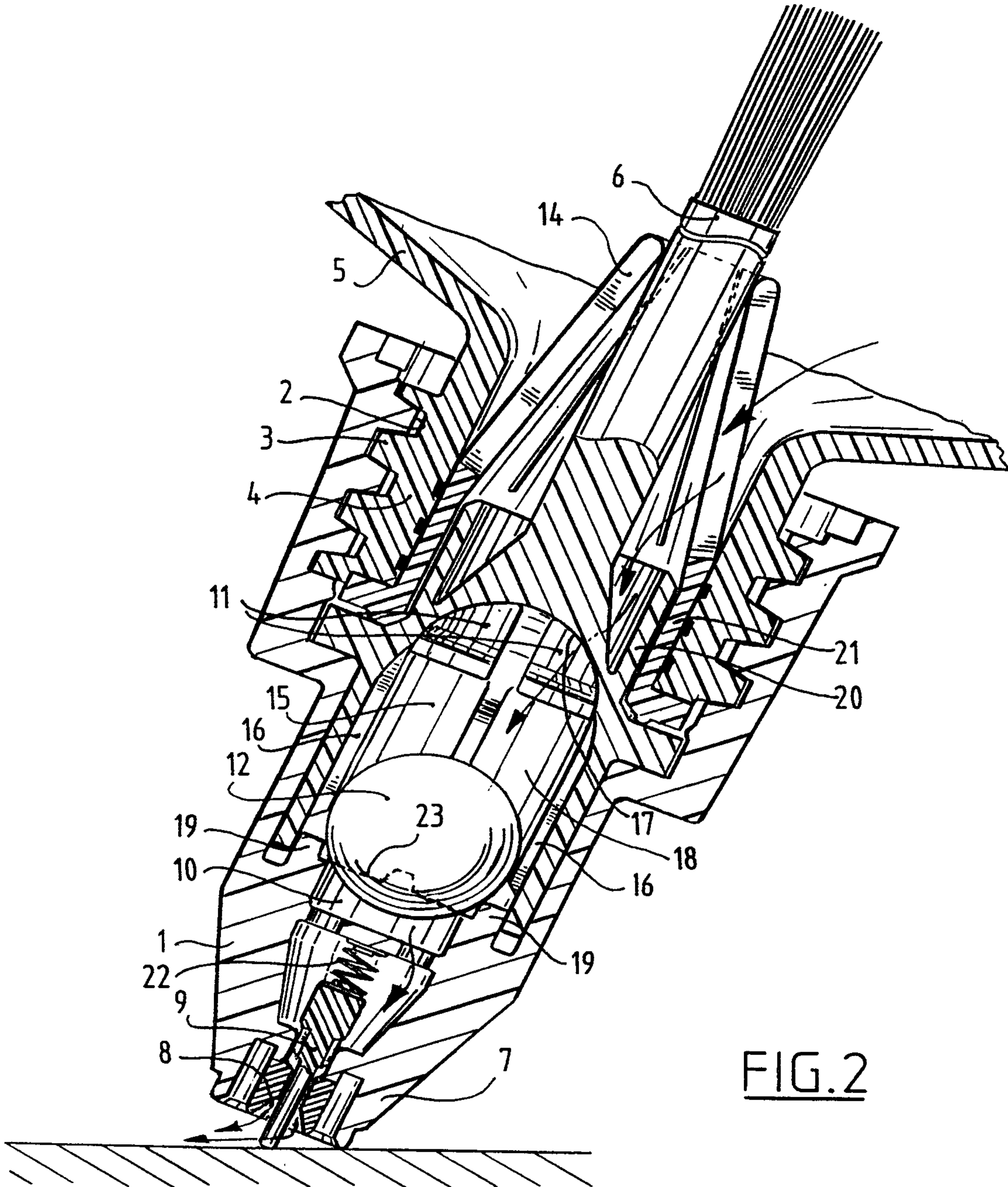


FIG. 2

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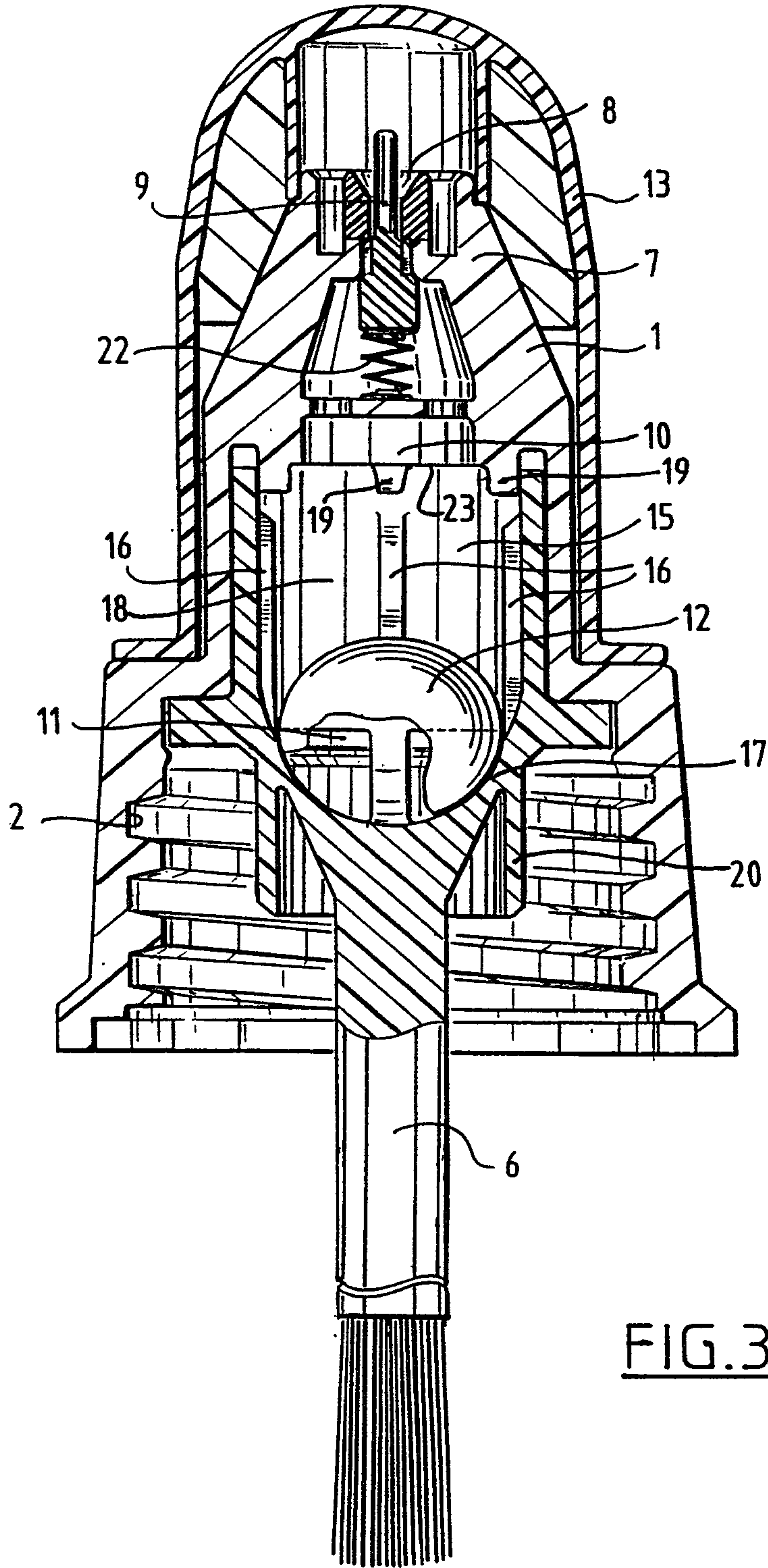


FIG. 3

