(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 4 212 455 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
19.07.2023 Bulletin 2023/29

(21) Application number: **22151743.6**

(22) Date of filing: **17.01.2022**

(51) International Patent Classification (IPC):
B65D 85/812 *(2006.01)*

(52) Cooperative Patent Classification (CPC):
B65D 85/812

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME
Designated Validation States:
KH MA MD TN

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(54) **STEEPING DEVICE FOR PREPARING A BEVERAGE**

(57) Steeping device for preparing a beverage by extracting at least one compound from a beverage preparation material, such as an infusion or steeping process for the preparation of tea or the like, is provided, wherein the steeping device comprises an elongate body having a first end, a second end and an intermediate hook section therebetween arranged to be placed atop a rim of a cup, wherein the elongate body is formed by a first elongate part and a second elongate part, wherein the first elongate part extends from the first end in the direction of the hook section and is provided with a water permeable pouch for containing the beverage preparation material, wherein the second elongate part extends from the second end to the first elongate part, wherein, in a hooking state in which the hook section is placed atop the rim of the cup, the first part and the second part extend respectively into and out of the cup to provide the pouch in the cup.

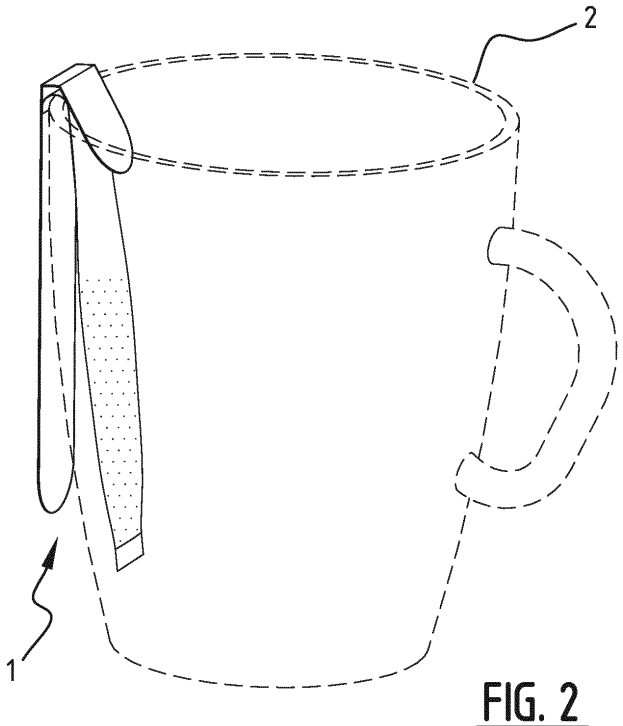

FIG. 2

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Description

[0001] The present invention relates to a steeping device for preparing a beverage by extracting at least one compound from a beverage preparation material, such as an infusion or steeping process for the preparation of tea or the like.

[0002] An example of such a steeping device is a tea bag comprising a porous sealed bag or pouch, typically containing tea leaves or the leaves of other herbs. Tea bags are commonly made of filter paper or food-grade plastic and are produced in large numbers. The bag is immersed in water, usually hot water, to steep and make an infusion. Some tea bags have an attached piece of string that assists in removing the bag. Often, the string accidentally slips into the beverage, causing difficulty and discomfort when removing the bag from the beverage, especially when the beverage is hot.

[0003] As an alternative to tea bags having a string, steeping devices comprising an elongate body provided with a water permeable pouch containing a beverage preparation material have been introduced on the market. By leaning against a rim of a cup containing the beverage, such a steeping device can stand in the cup, due to the elongate shape of its body, thereby preventing the device from fully submerging in the beverage.

[0004] In cups that are too large, however, the standing steeping device may fully submerge, or the elongate steeping device may slip and submerge as a result, causing difficulty and discomfort when removing the steeping device from the beverage, as described above.

[0005] It is therefore an object of the present invention, amongst other objects, to provide an improved and/or cost-efficient steeping device that, wherein at least one of the above mentioned problems is at least partly solve. For instance, an object, is to provide an improved steeping device which, when immersed in water in a cup, partly remains out of the water to be conveniently removable therefrom.

[0006] Thereto, a steeping device according to claim 1 is provided. Specifically, a steeping device is provided for preparing a beverage by extracting at least one compound from a beverage preparation material, such as an infusion or steeping process for the preparation of tea or the like, is provided, wherein the steeping device comprises an elongate body having a first end, a second end and an intermediate hook section therebetween arranged to be placed atop a rim of a cup, wherein the elongate body is formed by a first elongate part and a second elongate part, wherein the first elongate part extends from the first end in the direction of the hook section and is provided with a water permeable pouch for containing the beverage preparation material, wherein the second elongate part extends from the second end to the first elongate part. In a hooking state in which the hook section is placed atop the rim of the cup, the first part and the second part preferably extend respectively into and out of the cup to provide the pouch in the cup. In particular, in the hooking state, the first part extends into a liquid provided in the cup such that beverage preparation material contained by the pouch is in contact with the liquid, which is preferably hot water.

[0007] Accordingly, by arranging an intermediate hook section between the ends to be placed atop a rim of a cup such that the parts extend respectively in respective directions from the rim, the steeping device can be hooked onto the rim. This way, if the cup is too tall for the first end of the steeping device to reach the bottom of the cup, the hook section and the second end remain out of the liquid in the cup such that a user can conveniently remove the first end, immersed in the liquid, therefrom.

[0008] To simplify the manufacturing of the steeping device, the pouch preferably extends over substantially the entire length of the first elongate part. This way, the first elongate part can be formed integrally with the pouch.

[0009] Furthermore, the steeping device may comprise the beverage preparation material, wherein the pouch contains the beverage preparation material. Preferably, the pouch is between half and four-fifths filled with the beverage preparation material. This can simplify the manufacturing of the steeping device while ensuring a sufficient content of beverage preparation material.

[0010] The length of the second elongate part is preferably at least half the length of the first elongate part. In the hooking state, in which the hook section is placed atop the rim of the cup and the first part and the second part extend respectively into and out of the cup to provide the pouch in the cup, the second elongate part is then preferably arranged to counterbalance the first elongate part so as to stabilise the steeping device in the hooking state. This aids to further prevent the hook section and the second end from slipping into the liquid, for instance due to movement of the cup or the liquid therein.

[0011] Preferably, the length of the second elongate part is at least three quarters or more preferably four-fifths the length of the first elongate part. More generally, the longer the second part relative to the first part, the more the second part can counterbalance the first part. If, however, the second part is much longer than four-fifths the length of the first part, the second end may reach the surface the cup stands on when in the hooking state, thereby preventing the first end from reaching the bottom of the cup and/or causing instability of the steeping device in the hooking state. The second elongate part is thus preferably shorter than the first elongate part.

[0012] The hooking section may for instance be located at or near the half of the length of the elongate body. The first part may form or correspond to the first half of the elongate body, wherein the second part may form or correspond to the second half of the elongate body.

[0013] According to a preferred embodiment of the steeping device, the hook section is part of the second elongate part, wherein the second elongate part extends from the second end, over the hook section to the first part. The hook section can then be integrally made with

the second elongate part to simplify the manufacturing of the steeping device. The second part may for instance be formed from paper, carton, a combination thereof or another flexible material.

[0014] According to a further preferred embodiment, the first elongate part comprises a first end portion at the hook section and the second elongate part comprises a second end portion at the hook section, wherein said end portions are interconnected within the hook section. The elongate parts are preferably mutually movable about a bending axis extending through the hook section, wherein the elongate parts extend from the bending axis. By providing elongate parts that are mutually movable in the above manner, the elongate parts can be for instance stored side by side, after which, for use, a user can easily adjust the mutual position of the parts to a specific cup in order to properly place the hook section atop the rim of the cup.

[0015] Preferably, the elongate parts are arranged to move about the bending axis into the hooking state upon placing the hook section atop the rim of the cup, wherein the elongate parts are arranged to clasp said rim in the hooking state.

[0016] In that case, it is preferred if said end portions are bent about the bending axis in the hooking state, wherein one of the bent end portions is an inner end portion fittingly arranged within an outer end portion being the other bent end portion, wherein the bent end portions are mutually attached on either side of the bending axis at respective attachment points. Preferably, the inner end portion is the first end portion fittingly arranged within the second end portion as the outer end portion.

[0017] It is then further preferred if a distance between the attachment points along an outer path along the outer end portion is larger than a distance between the attachment points along an inner path along the inner end portion, wherein the inner end portion is arranged to contract the outer end portion upon placing the inner end portion atop the rim of the cup.

[0018] According to an embodiment of the steeping device, the first elongate part is made from a first material and the second elongate part is made from a second material, wherein the first material has a lower rigidity than the second material. Preferably, the second elongate part comprises a strip made from a paper-based material. Further, the water permeable pouch is preferably an elongate pouch, preferably comprising a cellulose material such as abaca fibre or the like, preferably a water-resistant and water-permeable material, or any other paper-like material.

[0019] Alternatively, the first elongate part and the second elongate part are formed integrally, wherein the hook section is provided with, or by, a sealing arranged to partition the pouch from the second elongate part.

[0020] It is then preferred if the elongate body is formed by an outer layer, perforated in at least the first elongate part, and an inner layer forming the pouch within the outer layer.

[0021] According to a further preferred embodiment of the steeping device, when moving the device out of the hooking state, the pouch is movable onto the second elongate part and arranged to drip onto the second elongate part. This can be further accomplished by providing the second elongate part with a sufficient length relative to the first elongate part, preferably at least half the length of the first elongate part. By moving the pouch to drip onto the second elongate part, liquid dripping from the pouch can be prevented from spilling when a user removes the pouch from the cup.

[0022] To enable the pouch to drip onto, instead of past, the second elongate part as much as possible, the width of the second elongate part is preferably at least the width of the first elongate part. Preferably, the width of the pouch is thus smaller than the width of the second elongate part.

[0023] An embodiment of the steeping device further comprises one or more pressing means slidably arranged around the first elongate part to squeeze the pouch to remove liquid therein upon sliding along the first elongate part from the hook section toward the first end. The one or more pressing means facilitate the controlled removal of liquid from the pouch into the cup in order to prevent the liquid from spilling when a user removes the pouch from the cup. This enhances the user-friendliness of the steeping device. The one or more pressing means may comprise at least one ring slidably arranged around the first elongate part.

[0024] The steeping device is further elucidated on the basis of the attached drawings, wherein:

- figure 1 shows a first embodiment of the steeping device;
- figure 2 shows the first embodiment placed onto the rim of a cup;
- figures 3A-3C show respectively front, side and rear views of the first embodiment;
- figures 4A and 4C again show a steeping device in a front and side view in three different situations after the steeping process;
- figures 5 - 7 show a further example of a steeping device in front view, cross-sectional view and in a hooking state, respectively.

[0025] Figures 1-3C show a first embodiment of a steeping device 1 for preparing tea by an infusion or steeping process. The steeping device 1 comprises an elongate body 100 having a first end 10, a second end 20 and an intermediate hook section 30 therebetween. The hook section 30 is arranged to be placed atop a rim of a cup 2. The elongate body is formed by a first elongate part 11 and a second elongate part 21. The first elongate part 11 is formed by an elongate water permeable pouch 12 for containing a tea preparation material 3. The second elongate part 21 is formed by a paper strip. End portions of the elongate parts 11, 21 are interconnected within the hook section 30. More specifically, the hook section 30

is part of the second elongate part 21, such that the second elongate part 21 extends from the second end 20, over the hook section 30 to the first elongate part 11.

[0026] In a hooking state, as shown in figure 2, the hook section 30 is placed atop the rim of the cup 2 and the first part 11 and the second part 21 extend respectively into and out of the cup to provide the pouch 12 in the cup 2. Thereto, the elongate parts 11, 21 are mutually movable about a bending axis B extending through the hook section 30. The elongate parts 11, 21 are arranged to move about the bending axis B into the hooking state upon placing the hook section 30 atop the rim of the cup 2.

[0027] As illustrated in figure 3B, the interconnected end portions of the elongate parts 11, 21 are bent about the bending axis B. The bent end portion of the first elongate part 11 is fittingly arranged within the bent end portion of the second elongate part 21. The bent end portion of the first elongate part 11 and the bent end portion of the second elongate part 21 are respectively referred to as inner and outer end portions and are mutually attached on either side of the bending axis B at respective attachment points 31, 32.

[0028] As can be seen in the close-up view of the hook section 30 in figure 3B, a distance between the attachment points 31, 32 along an outer path P2 along the outer end portion is larger than a distance between the attachment points 31, 32 along an inner path PI along the inner end portion. This way, the inner end portion is arranged to contract the outer end portion upon placing the inner end portion atop the rim of the cup 2. Consequently, the elongate parts 11, 21 clasp the rim of the cup 2 in the hooking state.

[0029] The length L2 of the second elongate part 21 is substantially equal to the length L1 of the first elongate part 11, as shown in figure 3C. As such, in the hooking state, the second elongate part 21 is arranged to counterbalance the first elongate part 11 so as to stabilise the steeping device 1 in the hooking state (see figure 2). Furthermore, the width W2 of the second elongate part 21 is at least the width W1 of the first elongate part 11. The width of the pouch is preferably smaller than then width of the second elongate part 21, as will be explained in greater detail below.

[0030] Also visible in the example of figures 4a and 4b is the ring-shaped member 40 which is arranged around at least the pouch 11. In this example, the ring 40 is arranged around the first and second elongate parts 11, 21. In the example of figure 4a the ring 40 extends, in the resting position, at the location of and round the hook section 30. Alternatively, the ring 40 is arranged around only the pouch 11 or only around pouch 11 and the second elongate part 21. After the steeping process, the ring can be moved towards the ends of the steeping device 1, indicated with the arrows II in figure 4a. As such, any excess liquid can be drained from the pouch 11

[0031] As explained in releation to figure 3c, the length L1 of the first elongate part 11 is larger than the length L2 of the second elongate part 20. The pouch 12 thus preferably extends from the end of the second elongate part 21. However, to prevent dripping onto a surface after the steeping process, , after moving the device 1 from the hooking state into the state shown in figures 1 and figure 4a, the pouch 12 can be moved (indicated with the arrows I in figure 4a) onto the second elongate part 21. This situation is shown in figure 4c. The pouch 12 can drip onto the second elongate part 21. In this configuration, the pouch 11 does not extend from the second elongate part 21. Also the width W1 of the pouch 12 is preferably smaller than the width of the second elongate part 21, such that also in this direction, the pouch 12 does not extend from the elongate second part 21.

[0032] To facilitate this movement, the hook section 30 is preferably shaped accordingly. In this example, the hook section 30 may have an intermediate section having a width W (see figure 4a) to allow or at least facilitate the retraction of the pouch 12. Also the connection point 31 of the pouch 12 to the second part 21 may be arranged to allow or at least facilitate the retraction of the pouch 12.

[0033] Figures 5 - 7 show a further example of a steeping device 1a for preparing tea by an infusion or steeping process. The steeping device 1a comprises an elongate body 100 having a first end 10, a second end 20 and an intermediate hook section 30 therebetween. The hook section 30 is arranged to be placed atop a rim of a cup (see figure 7). The elongate body is again formed by a first elongate part 11 and a second elongate part 21, wherein the first elongate part 11 and the second elongate part 21 are formed integrally. In this example, lengths L1, L2 of the two parts 11, 21 are equal. With reference to in particular figure 6, the elongate body 100 is formed by an outer layer 5, provided with perforations 50 in at least the first elongate part 11, and an inner layer 6 forming an elongate water permeable pouch 12 with tea 12 within the outer layer 4. The hook section 30 is provided with a sealing arranged to partition a section of the pouch 12 containing a tea preparation material 3 in the first elongate part 11 from the second elongate part 21. The sealing prevents the tea preparation material 3 in the pouch 12 in the first elongate part 11 from entering a section of the pouch in the second elongate part 21.

[0034] By bending the elongate body 100 around the hook section 30, the steeping device 1a can be efficiently placed on a rim of a cup 2, see figure 7.

[0035] The present invention is not limited to the embodiment shown, but extends also to other embodiments falling within the scope of the appended claims.

Claims

1. Steeping device for preparing a beverage by extracting at least one compound from a beverage preparation material, such as an infusion or steeping process for the preparation of tea or the like, wherein the steeping device comprises an elongate body having a first end, a second end and an intermediate hook

section therebetween arranged to be placed atop a rim of a cup, wherein the elongate body is formed by a first elongate part and a second elongate part, wherein the first elongate part extends from the first end in the direction of the hook section and is provided with a water permeable pouch for containing the beverage preparation material, wherein the second elongate part extends from the second end to the first elongate part, wherein the length of the second elongate part is at least half the length of the first elongate part such that in a hooking state, in which the hook section is placed atop the rim of the cup and the first part and the second part extend respectively into and out of the cup to provide the pouch in the cup, the second elongate part is arranged to counterbalance the first elongate part so as to stabilise the steeping device in the hooking state.

2. Steeping device according to claim 1, wherein the hook section is part of the second elongate part, wherein the second elongate part extends from the second end, over the hook section to the first part.

3. Steep device according to claim 1 or 2, wherein the first elongate part comprises a first end portion at the hook section, and wherein the second elongate part comprises a second end portion at the hook section, wherein said end portions are interconnected within the hook section, wherein the elongate parts are mutually movable about a bending axis extending through the hook section, wherein the elongate parts extend from the bending axis.

4. Steeping device according to claim 3, wherein the elongate parts are arranged to move about the bending axis into the hooking state upon placing the hook section atop the rim of the cup, wherein the elongate parts are arranged to clasp said rim in the hooking state.

5. Steeping device according to claim 4, wherein said end portions are bent about the bending axis in the hooking state, wherein one of the bent end portions is an inner end portion fittingly arranged within an outer end portion being the other bent end portion, wherein the bent end portions are mutually attached on either side of the bending axis at respective attachment points.

6. Steeping device according to claim 5, wherein a distance between the attachment points along an outer path along the outer end portion is larger than a distance between the attachment points along an inner path along the inner end portion, wherein the inner end portion is arranged to contract the outer end portion upon placing the inner end portion atop the rim of the cup.

7. Steeping device according to any one of the preceding claims, wherein the first elongate part is made from a first material and the second elongate part is made from a second material, wherein the first material has a lower rigidity than the second material.

8. Steeping device according to any of the preceding claims 1-6, wherein the first elongate part and the second elongate part are formed integrally, wherein the hook section is provided with a sealing arranged to partition the pouch from the second elongate part.

9. Steeping device according to claim 8, wherein the elongate body is formed by an outer layer, perforated in at least the first elongate part, and an inner layer forming the pouch within the outer layer.

10. Steeping device according to any of the preceding claims, wherein the length of the second elongate part is at least four-fifths the length of the first elongate part.

11. Steeping device according to any of the preceding claims, wherein, when moving the device out of the hooking state, the pouch is movable onto the second elongate part and arranged to drip onto the second elongate part.

12. Steeping device according to claim 11, wherein the width of the second elongate part is at least the width of the first elongate part.

13. Steeping device according to any of the preceding claims, further comprising one or more pressing means slidably arranged around the first elongate part to squeeze the pouch to remove liquid therein upon sliding along the first elongate part from the hook section toward the first end.

14. Steeping device according to any of the preceding claims, wherein the pouch extends over substantially the entire length of the first elongate part.

15. Steeping device according to any of the preceding claims, further comprising the beverage preparation material, wherein the pouch contains the beverage preparation material, wherein the pouch is between half and four-fifths filled with the beverage preparation material

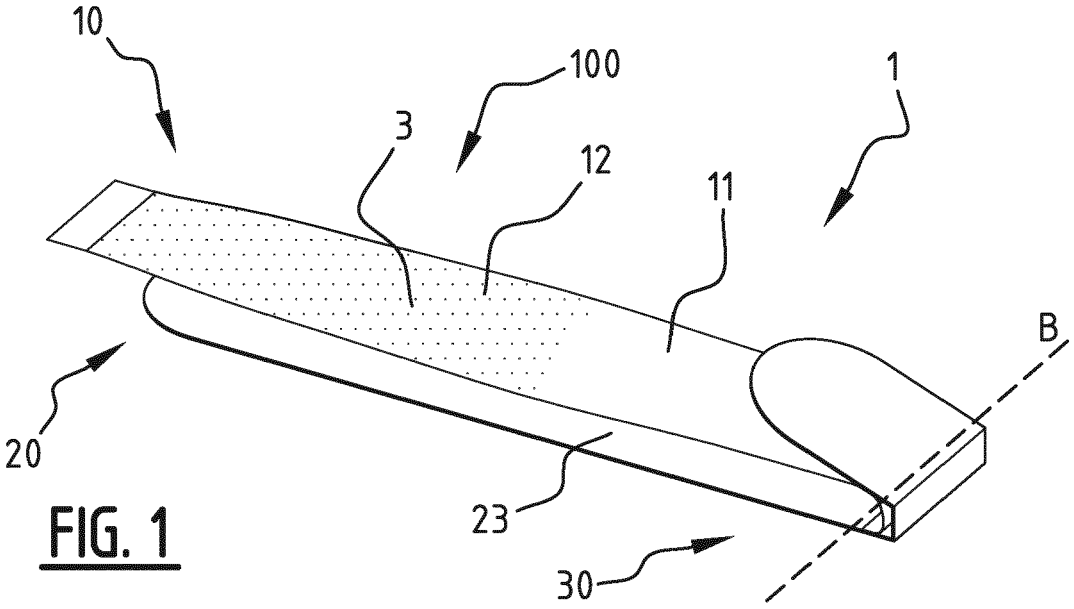

FIG. 1

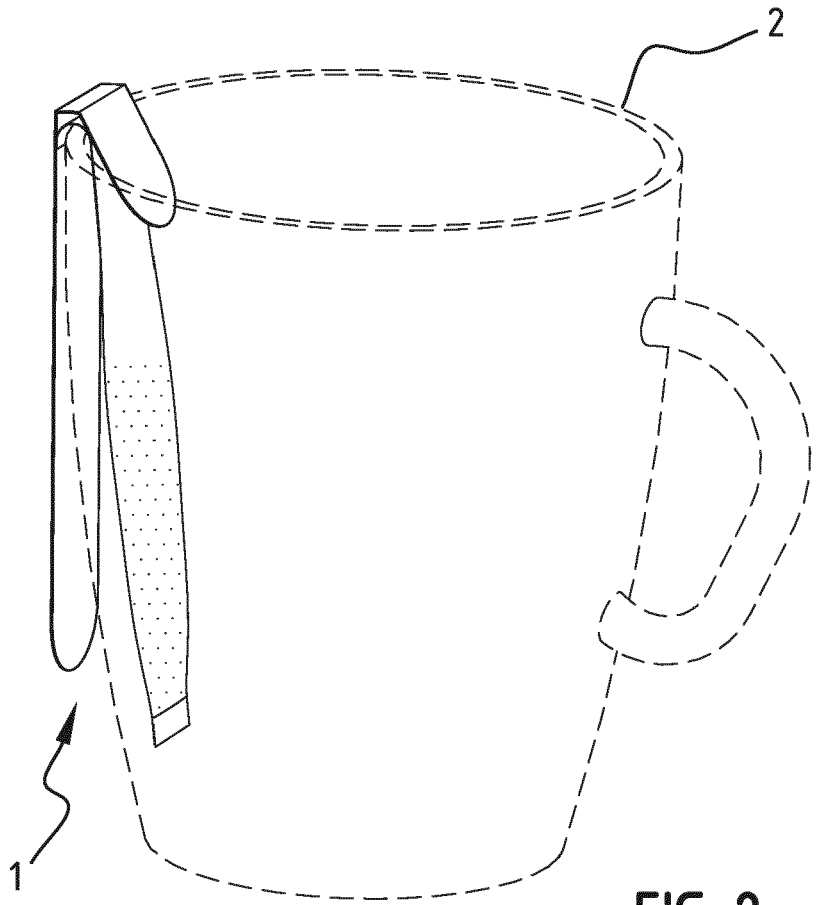

FIG. 2

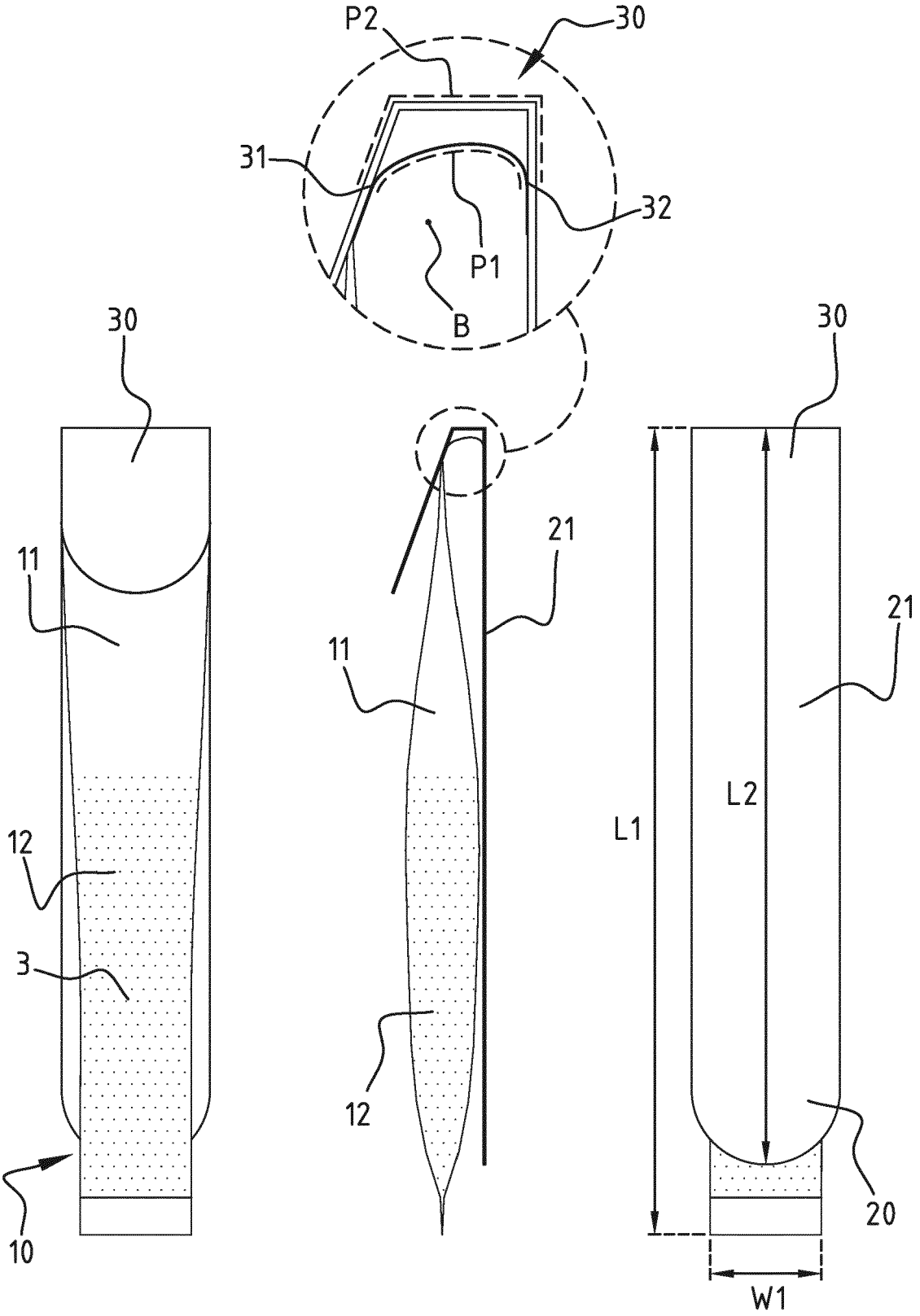

FIG. 3A FIG. 3B FIG. 3C

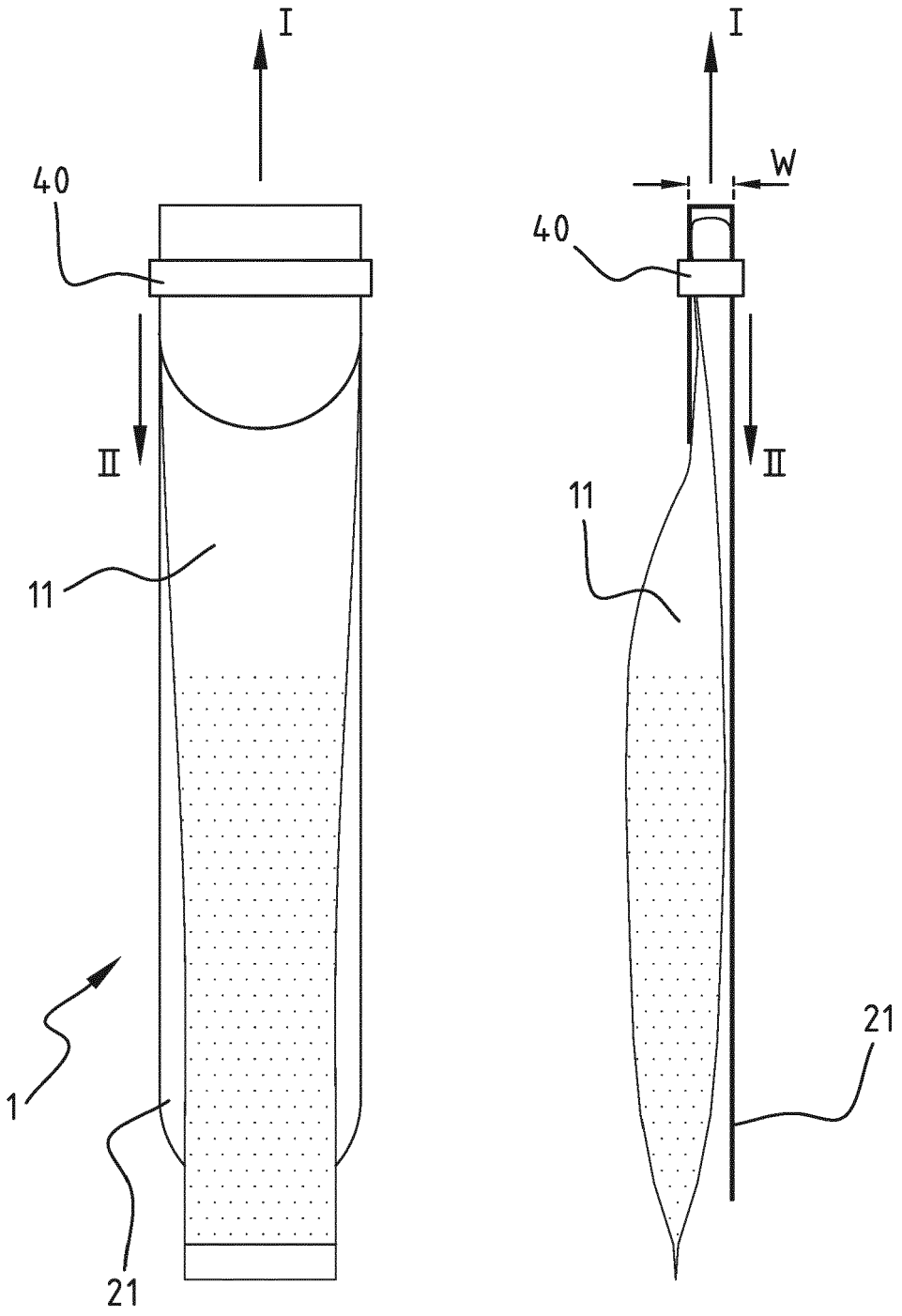

FIG. 4A

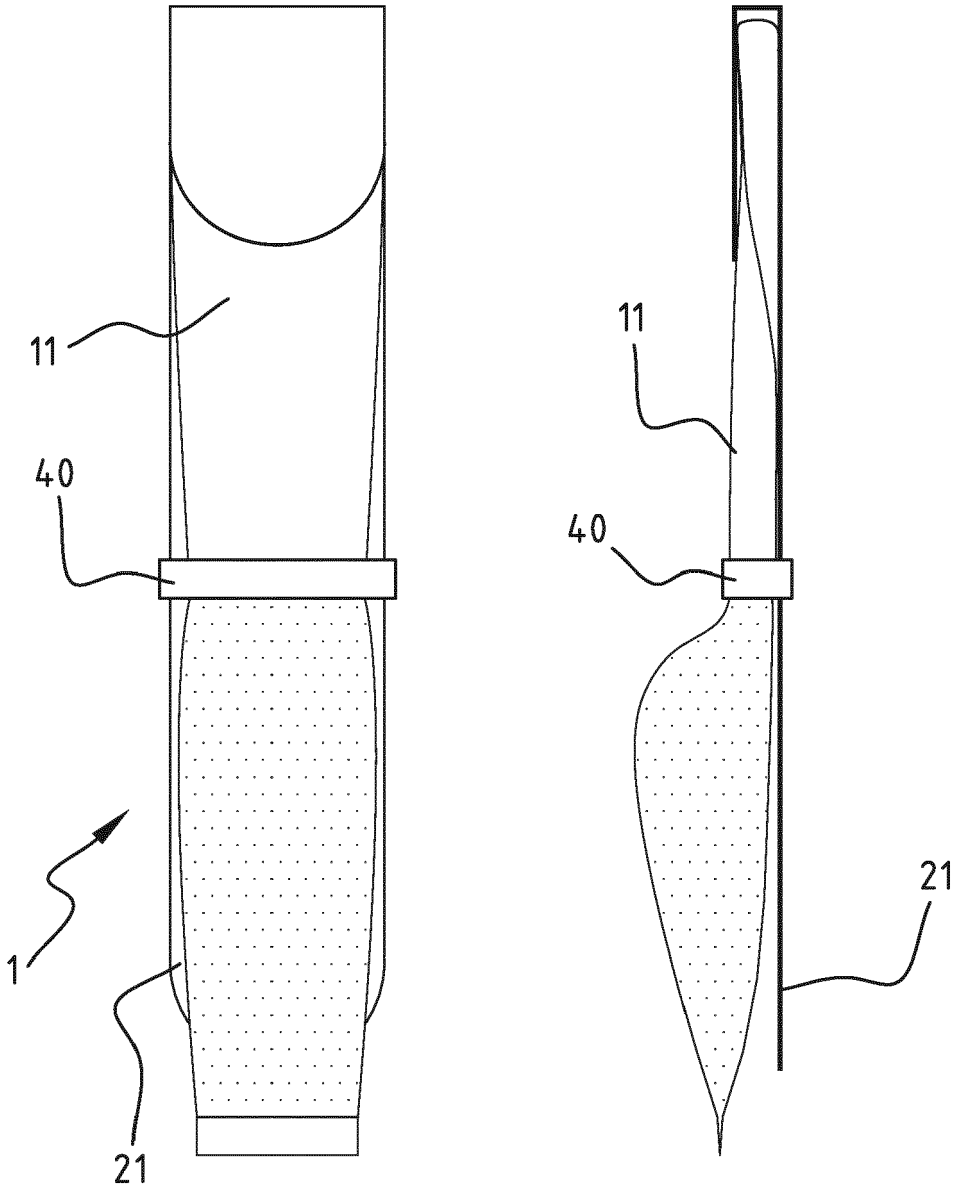

FIG. 4B

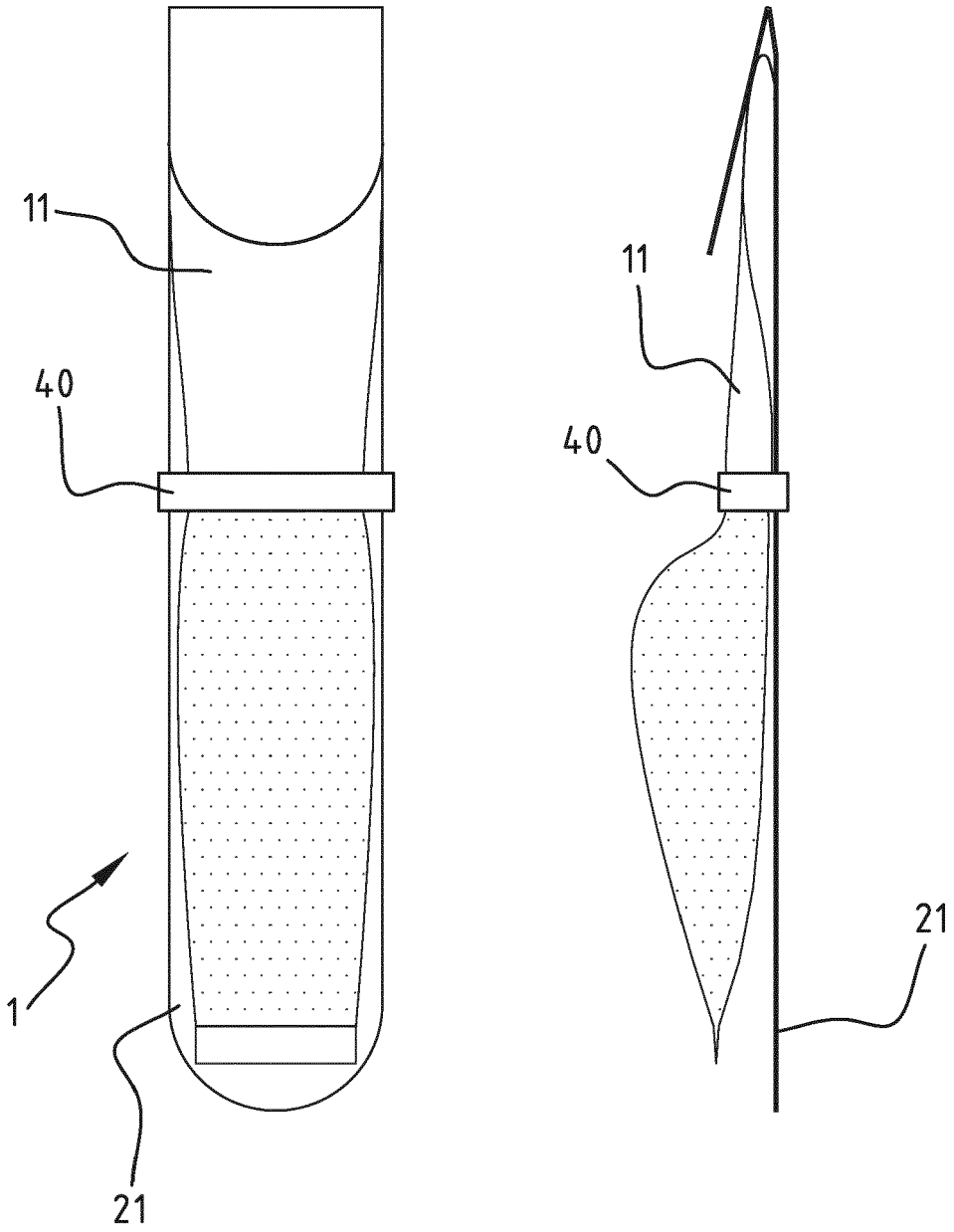

FIG. 4C

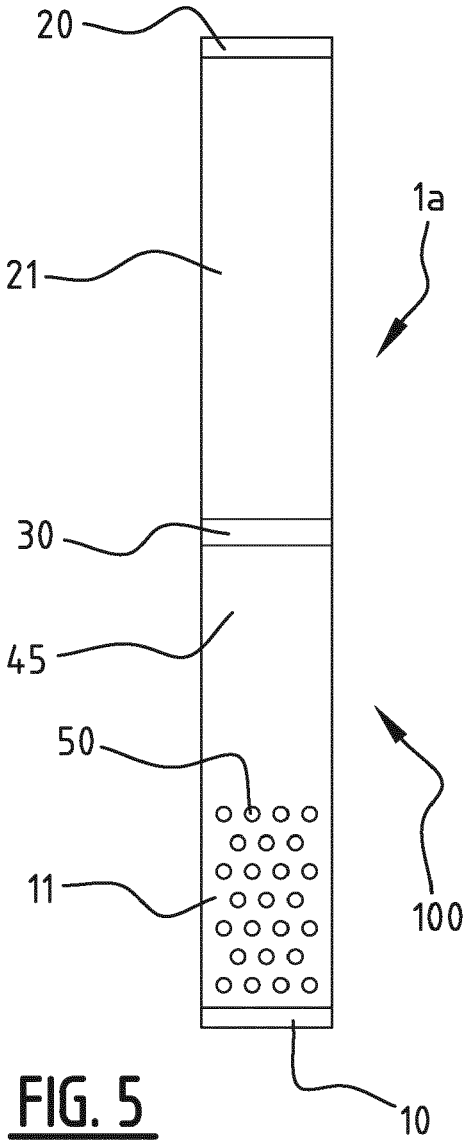

FIG. 5

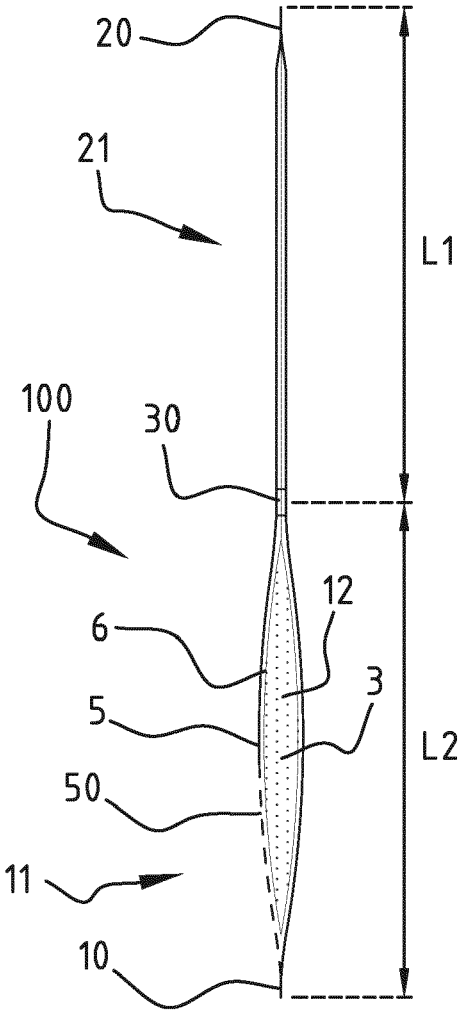

FIG. 6

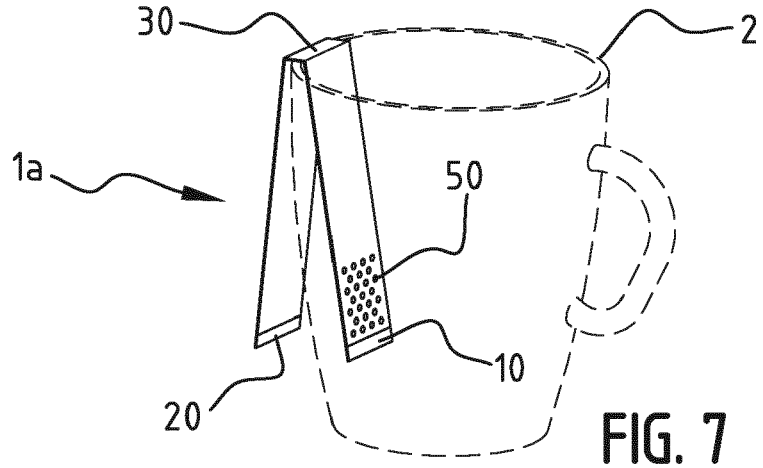

FIG. 7

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EUROPEAN SEARCH REPORT

Application Number
EP 22 15 1743

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	10 June 2022	Jervelund, Niels

CATEGORY OF CITED DOCUMENTS

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 22 15 1743

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