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(54) **COSMETIC PENCIL**

(57) It is provided a cosmetic pencil (1) defining a longitudinal axis (1a) and comprising a tracing element (2) including a cosmetic product, and a body (3) extending mainly along the longitudinal axis (1a), configured to constrain the tracing element (2) and including a tubular element (4) defined by a plurality of paper tapes (40) mutually constrained and superimposed around the longitudinal axis (1a).

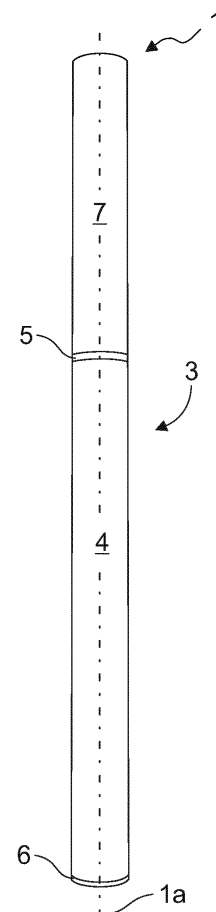


Fig. 1

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Description

[0001] The present invention relates to a cosmetic pencil of the type specified in the preamble of the first claim.

[0002] In particular, the present invention relates to a pencil containing at least one lead consisting of a solid or semi-solid cosmetic product, for example of the kohl or kajal type, and capable of allowing the make-up of portions of the body including the eyes. As known, there are various types of pencils.

[0003] Among them, refillable eye pencils and non-refillable pencils stand out.

[0004] Non-refillable pencils are substantially similar to common writing pencils and have a substantially tapered structure defining one or more points.

[0005] The structure includes a slender body or stem generally made of wood and defining at least one cavity, preferably centred along the central axis, inside which a consumable lead is housed.

[0006] In order to use the whole pencil, generally, it is foreseen the use of a sharpener able to tick, from time to time, the tip of the pencil in such a way as to always bring out the lead consisting of a cosmetic product.

[0007] Refillable pencils, on the other hand, comprise a slender body, generally made of polymeric material, and a removable tip, also made of polymeric material, inside which the lead consisting of a cosmetic product is arranged.

[0008] An extraction mechanism is also housed inside the body.

[0009] The extraction mechanism is operatively connected, or connectable, to the removable tip, in such a way as to push the lead outwards on command and allow the lead to always emerge from the tip.

[0010] Regardless of the type of pencil, the pencil can consist of various types of cosmetic product.

[0011] For example, the cosmetic product can be kajal or kohl or other and can be formulated in such a way as to guarantee specific characteristics. For example, the cosmetic product can be waterproof or long lasting.

[0012] Furthermore, it can be solid or semi-solid or even pasty.

[0013] The known technique described comprises some important drawbacks.

[0014] In particular, both refillable and non-refillable pencils are disposed of in the environment. Although some packaging for cosmetic products are designed to allow continuous or cyclical use thanks to the substitutability of some parts, packaging, as well as pencils, are products subject to mass consumption and often subject to total replacement.

[0015] Therefore, an important drawback is given by the fact that the wood degrades autonomously over a long time, for example years. This drawback, as is well known, is considerably amplified when the pencils include polymeric materials.

[0016] Furthermore, even if the degradation of the material can be satisfactory, the processing costs are rather

high and require special machinery suitable for preforming, for example, the slender body that houses the cosmetic lead.

[0017] In this situation, the technical task underlying the present invention is to devise a cosmetic pencil capable of substantially obviating at least part of the aforementioned drawbacks.

[0018] Within the scope of said technical task, an important object of the invention is to obtain a cosmetic pencil which allows, at least in part, to improve the degradation of the components that compose it, in order to improve their disposal.

[0019] Another important object of the invention is to produce a cosmetic pencil which, in the face of improvements in terms of disposal, maintains a solid and efficient structure.

[0020] In addition, a further task of the invention is to provide a cosmetic pencil which is easily workable and whose components are easily adaptable to components already present on the market.

[0021] The technical task and the specified aims are achieved by a cosmetic pencil as claimed in the annexed claim 1.

[0022] Preferred technical solutions are highlighted in the dependent claims.

[0023] The characteristics and advantages of the invention are clarified below by the detailed description of preferred embodiments of the invention, with reference to the accompanying figures, in which:

the **Fig. 1** shows a longitudinal view of a cosmetic pencil according to the invention in its closed configuration;

the **Fig. 2** illustrates a longitudinal view of a cosmetic pencil according to the invention in the open configuration; and

the **Fig. 3** is an exploded view of a cosmetic pencil according to the invention; and

the **Fig. 4** is a simplified diagram of the overlap phase of the tapes defining the tubular element of a cosmetic pencil according to the invention.

[0024] In the present document, the measurements, values, shapes and geometric references (such as perpendicularity and parallelism), when associated with words like "about" or other similar terms such as "approximately" or "substantially", are to be considered as except for measurement errors or inaccuracies due to production and/or manufacturing errors, and, above all, except for a slight divergence from the value, measurements, shape, or geometric reference with which it is associated. For instance, these terms, if associated with a value, preferably indicate a divergence of not more than 10% of the value.

[0025] Moreover, when used, terms such as "first", "second", "higher", "lower", "main" and "secondary" do not necessarily identify an order, a priority of relationship or a relative position, but can simply be used to clearly

distinguish between their different components.

[0026] The measurements and data reported in this text are to be considered, unless otherwise indicated, as performed in the International Standard Atmosphere ICAO (ISO 2533:1975).

[0027] With reference to the Figures, the cosmetic pencil according to the invention is globally indicated with the number 1.

[0028] The pencil 1 is substantially a tapered, or rather, slender object. Therefore, preferably, it defines a longitudinal axis 1a. The longitudinal axis 1a preferably coincides with the prevailing development axis of the pencil 1 or part of the pencil 1. The pencil 1 is, in any case, preferably capable of allowing the arrangement of a cosmetic product in a part of the body, for example for example the eyes, and generally to allow a precise and controlled disposition of the said cosmetic product. The pencil 1, therefore, includes at least one tracing element 2.

[0029] The tracing element 2, or writing element, is substantially the part of the pencil 1 capable of allowing the release on the skin or on a surface of the cosmetic product. The tracing element 2 therefore includes the cosmetic element itself. Preferably, the tracing element 2 is actually constituted by the cosmetic element.

[0030] Furthermore, the tracer element 2 substantially defines the "lead" of pencil 1. It can be solid, semi-solid or even pasty depending on the effects to be achieved with pencil 1.

[0031] The pencil 1 also comprises a body 3.

[0032] The body 3 mainly extends along the longitudinal axis 1a. Furthermore, it is configured to constrain the tracing element 2.

[0033] In particular, advantageously, the body 3 comprises at least one tubular element 4. The tubular element 4 preferably has a substantially hollow cylindrical shape.

[0034] The tubular element 4 can directly constrain the tracing element 2, or it can be constrained to the tracing element 2 by means of another element, as specified below.

[0035] In any case, preferably, the tubular element 4 is defined by a plurality of tapes 40. The tapes 40 are substantially flat and thin sheets which extend continuously along a predetermined direction.

[0036] Preferably, the tapes 40 are of paper. Furthermore, they are mutually constrained and superimposed about the longitudinal axis 1a.

[0037] The constraint is preferably made by gluing means. Such gluing could include the adoption of layers of glues or adhesive layers on one or more surfaces defined by the tapes 40, compatibly with the number and configuration of the tapes 40.

[0038] Among the various possible configurations, the tubular element 4 can include at least a first tape 40a and a second tape 40b.

[0039] Preferably, the tubular element 4 comprises at least three tapes 40 and, therefore, it also comprises a third tape 40c.

[0040] The tapes 40a, 40b, 40c are substantially all tapes 40 and therefore define similar or even identical characteristics.

5 **[0041]** In a preferred embodiment, including three tapes 40a, 40b, 40c, the second tape 40b is preferably arranged between the first tape 40a and the third tape 40c.

10 **[0042]** In particular, in order to constrain the tapes 40a, 40b, 40c, it is possible to deposit a layer of glue at least on the first tape 40a and on the third tape 40c, subsequently orienting the layers of glue in such a way that they are interposed between the first tape 40a and second tape 40b and second tape 40b and third tape 40c.

15 **[0043]** Thus, made tubular element 4 is rigid and cannot be peeled off. In joined tapes they are no longer mutually separable.

[0044] The pencil 1 can also comprise other additional elements.

[0045] Preferably, the body 3 also comprises a tip 5.

20 **[0046]** The tip 5, as already mentioned, is preferably configured to mutually constrain the tracing element 2 and the body 3.

[0047] Therefore, it preferably comprises a housing portion 50 and a mechanism 51.

25 **[0048]** The housing portion 50 defines a cavity configured to house at least part of the tracing element 2.

30 **[0049]** The mechanism 51 is preferably an extraction mechanism configured to be integrally constrained to the tubular element 4, for example by interlocking, and able to push the tracing element 2 out of the cavity. In particular, the mechanism 51 pushes the tracing element 2 when it is moved with respect to the housing portion 50.

35 **[0050]** Mechanisms of this type are well known in the current state of the art and are not particular object of the present description.

[0051] The tip 5, however, could also not comprise any mechanism 51 and could only include the housing portion 50.

40 **[0052]** The body 3 further comprises also a closing element 6.

[0053] The closing element 6 is preferably configured to plug a free end of the tubular element 4. Substantially, therefore, the closing element 6 is a sort of cap able to be at least partially housed in the tubular element 4.

45 **[0054]** The pencil 1 may also include a cap 7.

[0055] The cap 7 is preferably removably connectable to the body 3.

[0056] In particular, if the body 3 comprises a tip 5, the cap 7 is preferably detachable constraint to the head 5.

50 **[0057]** Preferably, the cap 7 can be fastened to the body 3 so as to provide at least one closing configuration in which the tracing element 2 is not accessible and an opening configuration in which the tracing element 2 is accessible.

55 **[0058]** The invention comprises a new method for made the pencil 1.

[0059] In particular, the method comprises at least depositing, overlapping, removing, cutting and binding

phases.

[0060] In the deposition phase, preferably, a layer of glue is deposited on at least one surface of at least the first tape 40a.

[0061] Furthermore, if the tubular element 4 comprises more than two tapes 40, in the deposition phase a layer of glue is also deposited on at least one surface of the third tape 40c.

[0062] Even more conveniently, but not necessarily, in the deposition phase two layers of glue can also be deposited on two opposite surfaces of the second tape 40b.

[0063] In the overlapping phase, at least the second tape 40b and the first tape 40a are mutually superimposed on a rotating cylindrical surface.

[0064] The rotating cylindrical surface substantially defines a temporary core around which the tubular element 4 is formed.

[0065] The cylindrical rotating surface therefore rotates around an axis which then, subsequently, substantially coincides with the main axis 1a.

[0066] The first and second tapes 40a, 40b are therefore superimposed in such a way that the layer of glue is arranged between the tapes 40a, 40b and that the tapes 40a, 40b are mutually skewed and rolled around the main axis 1a.

[0067] If there are more than two tapes 40, then the third tape 40c is also superimposed on the second tape 40b in such a way that the layer of glue is arranged between the tapes 40b, 40c and that the tapes 40b, 40c are mutually skewed and rolled around the main axis 1a.

[0068] In the removal phase, preferably, the tapes 40 present on the rotating cylindrical surface are removed. In this way the tubular element 4 is defined.

[0069] The latter is then finished in the cutting phase, in which the tubular element 4 is cut in correspondence with a section perpendicular to the longitudinal axis 1a in such a way as to define part of the body 3.

[0070] Therefore, in the constraint phase the tracing element 2 can be constrained to the body 3. The body 3 can also consist of only the tubular element 4.

[0071] However, preferably, in the constraint phase the tracing element 2 is constrained on the tip 5 and the tip 5 is constrained to the tubular element 4.

[0072] If the mechanism 51 is present, the tip 5 is constrained to the tubular element 4 in such a way that the mechanism 51 is rigidly constrained to the tubular element 4 and that the housing portion 50 is rigidly constrained to the tracing element 2 and movable with respect to the mechanism 51.

[0073] The cosmetic pencil 1 according to the invention achieves important advantages. In fact, the pencil 1 allows, at least in part, to improve the degradation of the components that compose it.

[0074] The tubular element 4 is in fact easily disposable.

[0075] However, due to its construction, the tubular element 4 maintains a high structural efficiency.

[0076] In addition, the making process of the tubular

element 4 is very simple and economical. Furthermore, the structure of the tubular element 4 is so simple as to allow the use of any cosmetic tips already present on the market.

[0077] The invention is susceptible of variants falling within the scope of the inventive concept defined by the claims.

[0078] In this context, all the details can be replaced by equivalent elements and the materials, shapes and dimensions can be any.

Claims

1. Cosmetic pencil (1) defining a longitudinal axis (1a) and comprising:
 - a tracing element (2) including a cosmetic product,
 - a body (3) extending mainly along said longitudinal axis (1a) and configured to constrain said tracing element (2),
 - and **characterized by** that
 - said body (3) includes a tubular element (4) defined by a plurality of paper tapes (40) mutually constrained and superimposed around said longitudinal axis (1a).
2. Pencil (1) according to claim 1, wherein said tubular element (4) comprises a first tape (40a), a second tape (40b) and a third tape (40c), said second tape (40b) being disposed between said first tape (40a) and said third tape (40c).
3. Pencil (1) according to any one of the preceding claims, wherein said tapes (40) are mutually constrained by gluing.
4. Pencil (1) according to any one of the preceding claims, wherein said body (3) comprises a tip (5) including at least a housing portion (50) defining a cavity configured to house at least part of said tracing element (2) and an extraction mechanism (51) configured to be integrally constrained to said tubular element (4) and capable of pushing, when moved with respect to said housing portion (50), said tracing element (2) out of said cavity.
5. Pencil (1) according to any one of the preceding claims, wherein said body (3) comprises a closing element (6) configured to plug a free end of said tubular element (4).
6. Pencil (1) according to any one of the preceding claims, comprising a cap (7) which can be removably constrained to said body (3) in such a way as to achieve at least one closure configuration wherein said tracing element (2) is not accessible and an

opening configuration wherein said tracing element (2) is accessible.

7. Process for making a pencil (1) according to any one of the preceding claims comprising:

- depositing a layer of glue on at least one surface of at least said first tape (40a),
- superimposing at least said second tape (40b) on said first tape (40a) on a cylindrical surface rotating around said main axis (1a) in such a way that said layer of glue is arranged between said tapes (40a, 40b) and that said tapes (40a, 40b) are skewed to each other and rolled around said main axis (1a),
- removing said tapes (40a, 40b) from said rotating cylindrical surface in such a way as to define said tubular element (4),
- cutting said tubular element (4) in correspondence with a section perpendicular to said longitudinal axis (1a) in such a way as to define part of said body (3),
- constraining said tracing element (2) to said body (3).

8. Process according to the preceding claim in which in said deposition step a layer of glue is also deposited on at least one surface of said third tape (40c) and, in said overlapping phase, said third tape (40c) is superimposed on said second tape (40b) in such a way that said layer of glue is arranged between said tapes (40b, 40c) and that said tapes (40b, 40c) are mutually skewed and rolled around said main axis (1a).

9. Process according to claim 8, in which in said deposition phase two layers of glue are also deposited on two opposite surfaces of said second tape (40b).

10. Process according to claim 8, wherein in said binding step said tracing element (2) is constrained on said tip and said tip (5) is constrained to said tubular element (4).

Amended claims in accordance with Rule 137(2) EPC.

1. Process for making a cosmetic pencil (1), said cosmetic pencil (1) defining a longitudinal axis (1a) and comprising:

- a tracing element (2) including a cosmetic product,
- a body (3) extending mainly along said longitudinal axis (1a) and configured to constrain said tracing element (2),
- said body (3) including a tubular element (4)

defined by a plurality of paper tapes (40) mutually constrained and superimposed around said longitudinal axis (1a) and comprising a first tape (40a), a second tape (40b) and a third tape (40c), said second tape (40b) being disposed between said first tape (40a) and said third tape (40c), said body (3) comprising a tip (5) including at least a housing portion (50) defining a cavity configured to house at least part of said tracing element (2)

- said process comprising:

- depositing a layer of glue on at least one surface of at least said first tape (40a),
- superimposing at least said second tape (40b) on said first tape (40a) on a cylindrical surface rotating around said main axis (1a) in such a way that said layer of glue is arranged between said tapes (40a, 40b) and that said tapes (40a, 40b) are skewed to each other and rolled around said main axis (1a),
- removing said tapes (40a, 40b) from said rotating cylindrical surface in such a way as to define said tubular element (4),
- cutting said tubular element (4) in correspondence with a section perpendicular to said longitudinal axis (1a) in such a way as to define part of said body (3),
- constraining said tracing element (2) to said tip (5) and said tip (5) is constrained to said tubular element (4).

2. Process according to the preceding claim in which in said deposition step a layer of glue is also deposited on at least one surface of said third tape (40c) and, in said overlapping phase, said third tape (40c) is superimposed on said second tape (40b) in such a way that said layer of glue is arranged between said tapes (40b, 40c) and that said tapes (40b, 40c) are mutually skewed and rolled around said main axis (1a).

3. Process according to claim 2, in which in said deposition phase two layers of glue are also deposited on two opposite surfaces of said second tape (40b).

4. Process according to any one of the preceding claims, wherein said body (3) comprises a closing element (6) configured to plug a free end of said tubular element (4).

5. Process according to any one of the preceding claims, wherein said pencil (1) comprising a cap (7) which can be removably constrained to said body (3) in such a way as to achieve at least one closure configuration wherein said tracing element (2) is not accessible and an opening configuration wherein

said tracing element (2) is accessible.

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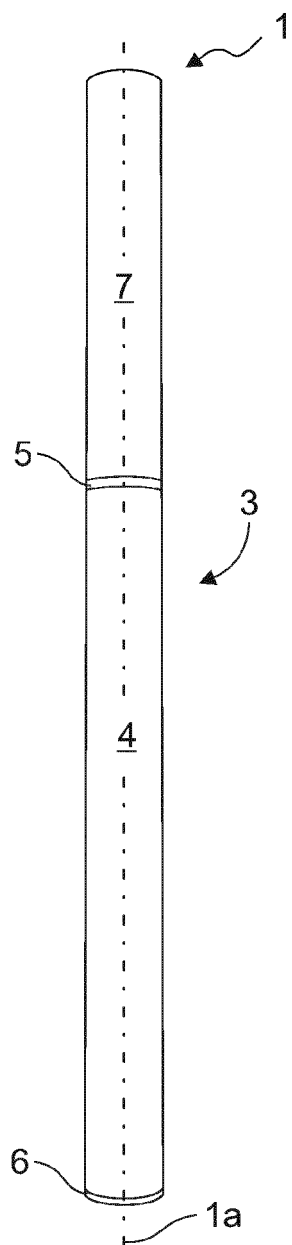


Fig. 1

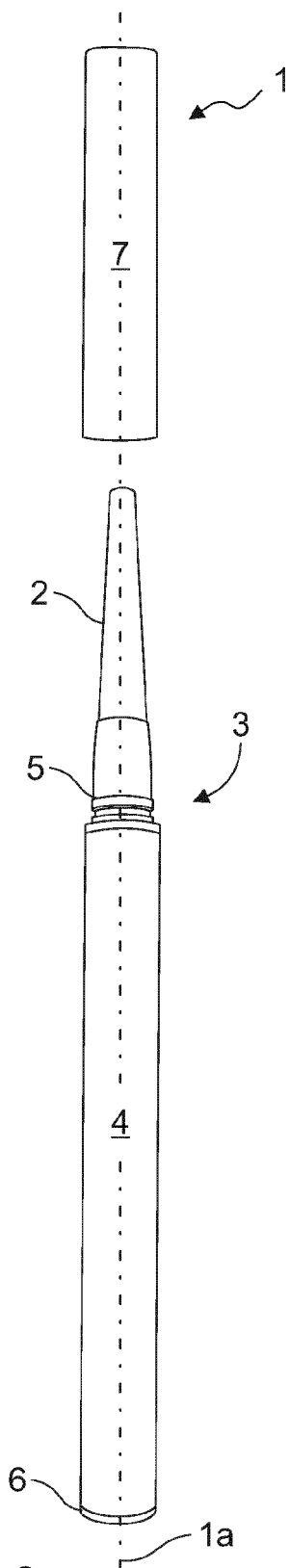


Fig. 2

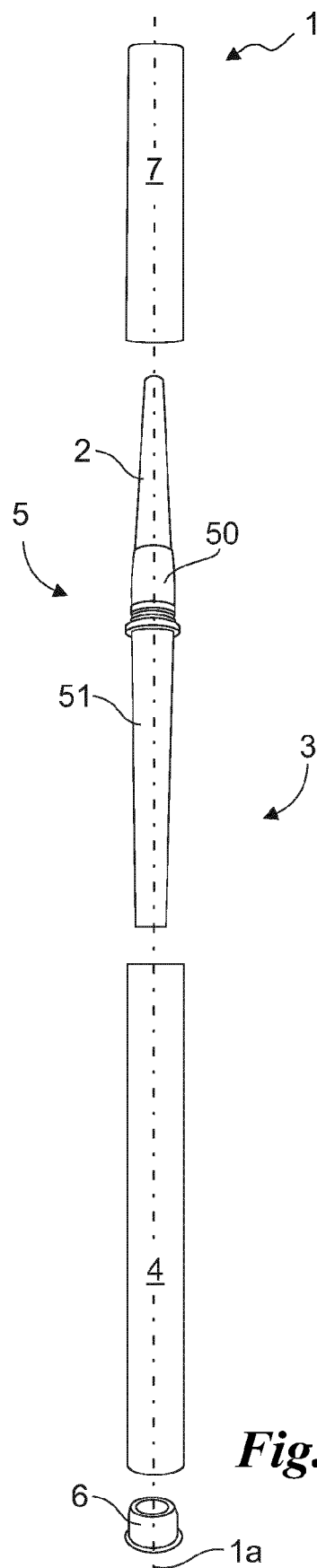


Fig. 3

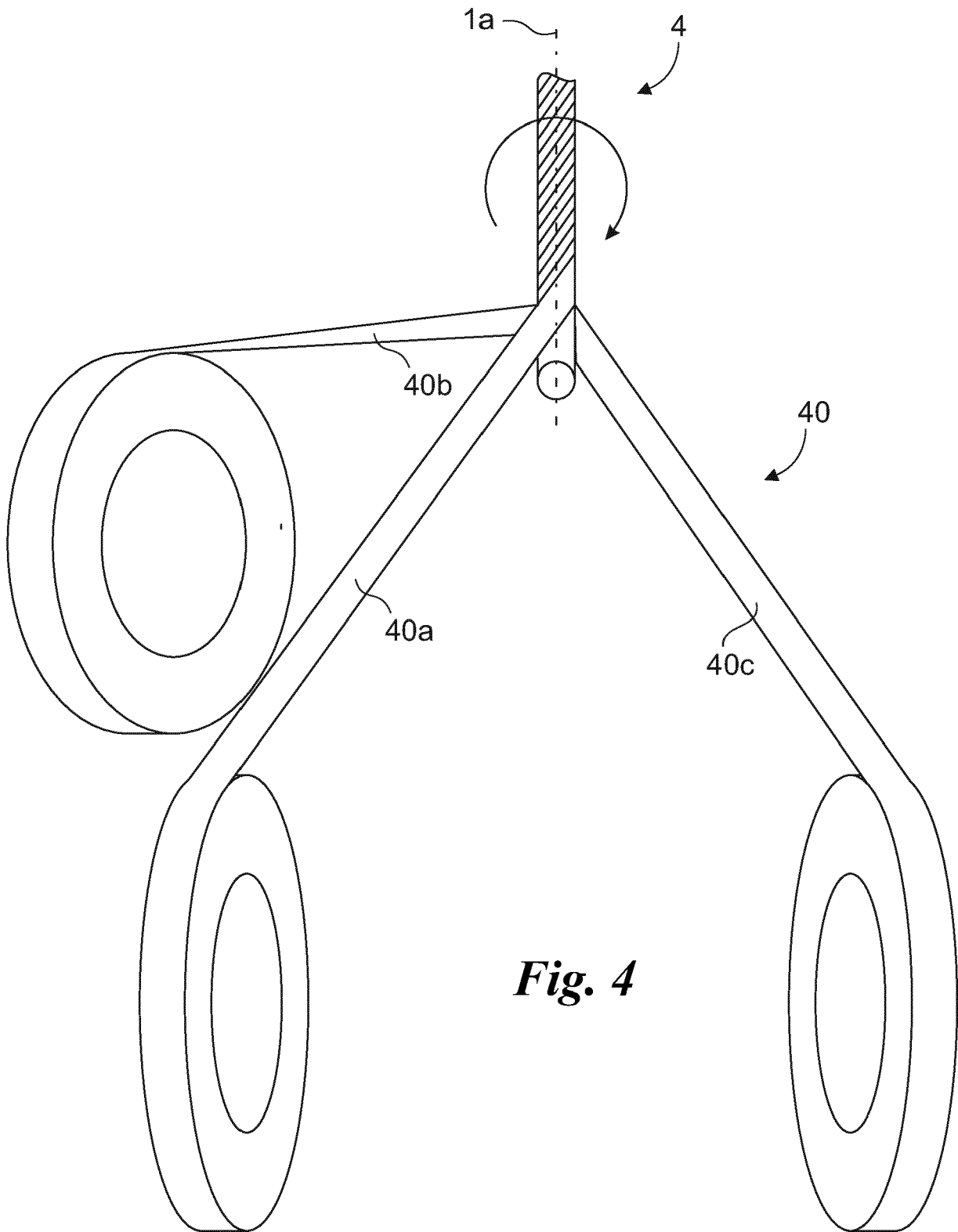


Fig. 4



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Place of search The Hague		Date of completion of the search 27 August 2021	Examiner Zetzsche, Brigitta
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	

**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.
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