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(71) Applicant: **Société BIC**
92110 Clichy (FR)

(72) Inventor: **MICHENAUD, Etienne**
92611 CLICHY (FR)

(74) Representative: **Cabinet Beau de Loménie**
158, rue de l'Université
75340 Paris Cedex 07 (FR)

(54) **BOX FOR WRITING INSTRUMENT AND A PLURALITY OF REFILLS AND KIT COMPRISING SAID BOX**

(57) A box (10) configured to receive a single refillable writing instrument (20) and a plurality of refills (30) for the refillable writing instrument (20), the box (10) extending along a main geometrical axis (X) and comprising a main inner casing (16) configured to receive the refill-

able writing instrument (20) and a plurality of secondary inner casings (18) each configured to receive a single refill (30), the main inner casing (16) being central and the secondary inner casings (18) being disposed around the main inner casing (16).

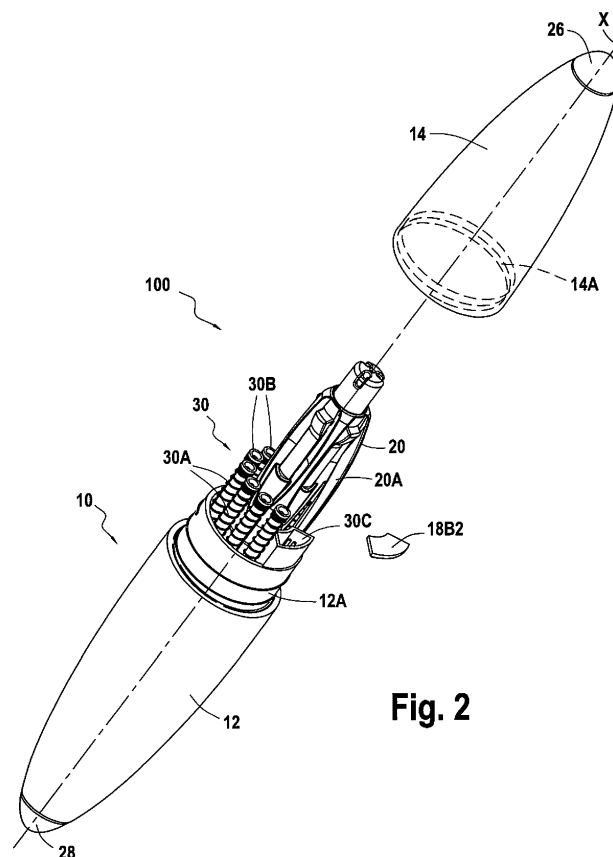


Fig. 2

Description

TECHNICAL FIELD

[0001] The present disclosure relates to a box configured to receive a single refillable writing instrument and a plurality of refills for the refillable writing instrument and a kit comprising said box, a single refillable writing instrument and a plurality of refills for the refillable writing instrument.

BACKGROUND

[0002] Traditional writing instruments, multifunction or not, provide a very limited number of tools (i.e. pen, mechanical pencil, marker, etc.). One solution would be to implement several different writing instruments in order to have a variety of different tools, but this is cumbersome. Another solution would be to have interchangeable tools in the frame of a refillable writing instrument, multifunction or not, but the refills/interchangeable tools are very often lost or damaged when not mounted into the writing instrument. Therefore, a need exists to find a user friendly solution.

SUMMARY

[0003] An embodiment relates to a box configured to receive a single refillable writing instrument and a plurality of refills for the refillable writing instrument, the box extending along a main geometrical axis and comprising a main inner casing configured to receive the refillable writing instrument and a plurality of secondary inner casings each configured to receive a single refill, the main inner casing being central and the secondary inner casings being disposed around the main inner casing.

[0004] The main inner casing is central with regard to the secondary inner casings. In others words, the secondary inner casings are peripheral with regard to the main inner casing. For example, the secondary inner casings may be disposed around the main geometrical axis. For example, the secondary inner casings may be disposed along a circle or a closed line around the main inner casing, the main inner casing being inside the circle or the closed line.

[0005] The main inner casing may receive a refillable writing instrument, multifunction or not, while the secondary inner casings may receive a variety of different tools (i.e. pen, mechanical pencil, marker, etc.), one per secondary inner casing. The writing instrument as well as the tools may thus be stored in the box (i.e. in a single box), thereby protecting all the tools and the writing instrument, avoiding the loss of any of them, and rendering them easily available for the user.

[0006] In some embodiments, the box may comprise a removable lid.

[0007] In some embodiments, the removable lid may be screwable or snap-fittable onto a bottom of the box.

[0008] In some embodiments, the box may comprise a bottom, the bottom comprising an outer shell and a single partitioning element delimiting the main inner casing and the secondary inner casings.

[0009] In some embodiments, the box may have a first distal end and a second distal end opposed to the first distal end along the main geometrical axis, the first distal end and/or the second distal end being provided with an eraser or a friction body.

[0010] For example an eraser may be configured to remove mark produced by a lead while a friction body may be configured to produce heat by friction, in order to change the colour of a mark produced by a thermochromics ink.

[0011] In some embodiments, the box may have a symmetrical shape of revolution about said main geometrical axis

[0012] In some embodiments, the box may have an ellipsoid shape.

[0013] An embodiment relates to a kit comprising a box according to any one of the embodiments of the present disclosure, a single refillable writing instrument, and a plurality of refills for the refillable writing instrument.

[0014] In some embodiments, the refillable writing instrument may be a refillable multifunction writing instrument.

[0015] A multifunction writing instrument is a writing instrument having a plurality of tools, each of the tools being configured to be selectively used.

[0016] In some embodiments, the refills may comprise at least one among an ink cartridge, a mechanical pencil cartridge and a set of leads for mechanical pencil. The set of leads may comprise a single lead or several leads.

[0017] Such a box/kit comprising such a box may improve the ease of use while preventing the loss and/or damage of the tools.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] The invention and its advantages can be better understood by reading the detailed description of various embodiments of the invention given as non-limiting examples. The description refers to the accompanying sheets of figures, in which:

- Figure 1 shows a kit, the box being closed,
- Figure 2 shows the kit of figure 1, the box being open,
- Figure 3 shows the box of figures 1 and 2 in exploded view, the detailed view A being a view from the arrow F.

DETAILED DESCRIPTION

[0019] A kit and a box according to the present disclosure are described in reference to figures 1 to 3.

[0020] A kit 100 may comprise box 10, a single refillable multifunction writing instrument 20, and a plurality of refills 30 for the multifunction writing instrument 20. The

refills 30 may comprise ink cartridges 30A, mechanical pencil cartridges 30B, and a set of leads for mechanical pencil 30C. The set of leads may comprise a single lead 30C or several leads 30C.

[0021] The box 10 extends along a main geometrical axis X and has a symmetrical shape of revolution about said geometrical axis X.

[0022] The box 10 may comprise a bottom 12 and a removable lid 14. In figure 1, the lid 14 is assembled with the bottom 12 while in figure 2 the lid 14 is separated from the bottom 12. In other words, in figure 1 the box is closed while in figure 2 the box is open. The lid 14 may be screwable onto the bottom 12. For example, the bottom 14 and the lid 12 may have complementary filets 12A and 14A.

[0023] In the closed configuration, when the lid 14 is assembled with the bottom 12, the box 10 may have an ellipsoid shape. The main geometrical axis X may form the major axis of the ellipsoid.

[0024] The box 10 is configured to receive a single refillable instrument and a plurality of refills. The bottom 12 may comprise a main inner casing 16 configured to receive the refillable writing instrument 20 and a plurality of secondary inner casings 18 each configured to receive a single refill 30. The secondary inner casings 18 may be identical or not. In the present example, there are nine (9) secondary inner casings 18A of a first type configured to receive a single ink cartridge 30A or a single mechanical pencil cartridge 30B, and one (1) secondary inner casing 18B of a second type configured to receive one or several leads 30C (i.e. a set of leads). The secondary inner casings 18A may have a shape of a sheath. The secondary inner casings 18B may have a shape of a box having a removable cap 18B2. The secondary inner casings 18 may comprise one or several secondary inner casings of the first type, one or several secondary inner casings of the second type, one or several secondary inner casings of a third type, etc.

[0025] The main inner casing 16 is central. For example the main inner casing 16 may be coaxial with the main geometrical axis X. The secondary inner casings 18 being disposed around the main inner casing 16. In other words, the secondary inner casings 18 are disposed around the periphery of the main inner casing 16.

[0026] For example, the main inner casing 16 and the secondary inner casing 18 may be formed in a single partitioning element 13A, the partitioning element 13A forming with an outer shell 13B the bottom 12. A space 21 configured to receive at least a part of a clip 20A of the writing instrument may be provided, for example between two adjacent secondary inner casings 18.

[0027] The partitioning element 13A may be snap fitted with the outer shell 13B. A snap fitting system may comprise annular grooves/ribs 23A/23B. A system of ribs/grooves 22A/22B extending parallel to the main geometrical axis X may help to prevent relative rotation between the partitioning element 13A and outer shell 13B when screwing/unscrewing the lid 14 with/from the bot-

tom 12.

[0028] The box 10 comprises a first and a second distal end along the main geometrical axis X, while these distal ends may be provided with an eraser 26 and/or a friction body 28.

[0029] Although the present invention is described with reference to specific examples, it is clear that modifications and changes may be made to these examples without going beyond the general scope of the invention as defined by the claims. In particular, individual characteristics of the various embodiments shown and/or mentioned may be combined in additional embodiments. Consequently, the description and the drawings should be considered in a sense that is illustrative rather than restrictive.

[0030] For example the ink cartridges and the mechanical pencil cartridges shown in figure 2 do not have an actuating button, but they may be provided with such an actuating button.

Claims

1. A box (10) configured to receive a single refillable writing instrument (20) and a plurality of refills (30) for the refillable writing instrument (20), the box (10) extending along a main geometrical axis (X) and comprising a main inner casing (16) configured to receive the refillable writing instrument (20) and a plurality of secondary inner casings (18) each configured to receive a single refill (30), the main inner casing (16) being central and the secondary inner casings (18) being disposed around the main inner casing (16).
2. The box (10) according to claim 1, comprising a removable lid (14).
3. The box (10) according to claim 2, wherein the removable lid (14) is screwable or snap-fittable onto a bottom (12) of the box (10).
4. The box (10) according to any one of claims 1 to 3, comprising a bottom (12), the bottom (12) comprising an outer shell (13B) and a single partitioning element (13A) delimiting the main inner casing (16) and the secondary inner casings (18).
5. The box (10) according to any one of claims 1 to 4, having a first distal end and a second distal end opposed to the first distal end along the main geometrical axis (X), the first distal end and/or the second distal end being provided with an eraser (26) or a friction body (28).
6. The box according to any one of claims 1 to 5, having a symmetrical shape of revolution about said main geometrical axis (X),

7. The box (10) according to claim 6 , having an ellipsoid shape.
8. A kit (100) comprising the box (10) according to any one of claims 1 to 7, a single refillable writing instrument (20), and a plurality of refills (30) for the refillable writing instrument (20). 5
9. The kit (100) according to claim 8, wherein the refillable writing instrument is a refillable multifunction writing instrument (20). 10
10. The kit (100) according to claim 8 or 9, wherein the refills (30) comprise at least one among an ink cartridge (30A), a mechanical pencil cartridge (30B) and a set of leads for mechanical pencil (30C) . 15

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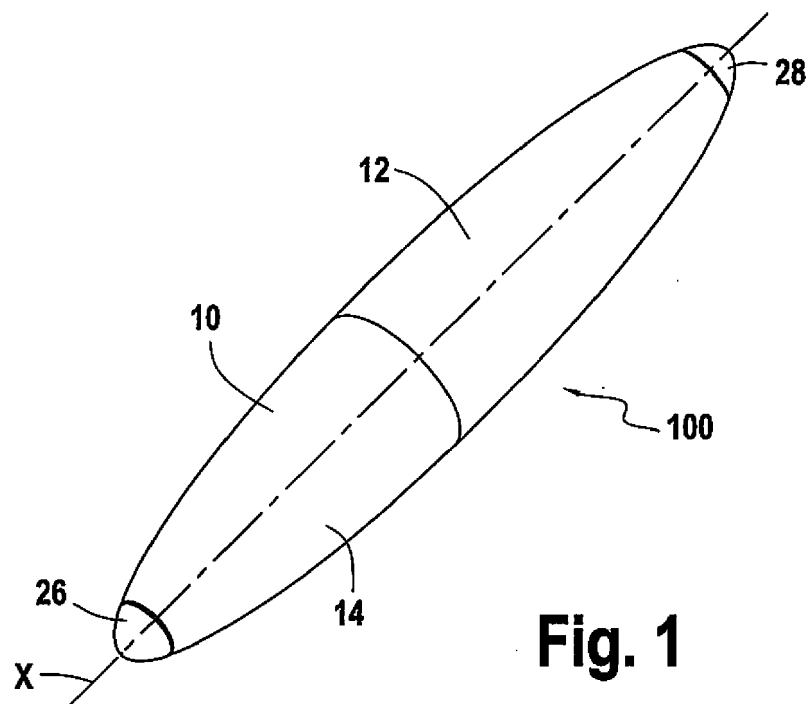
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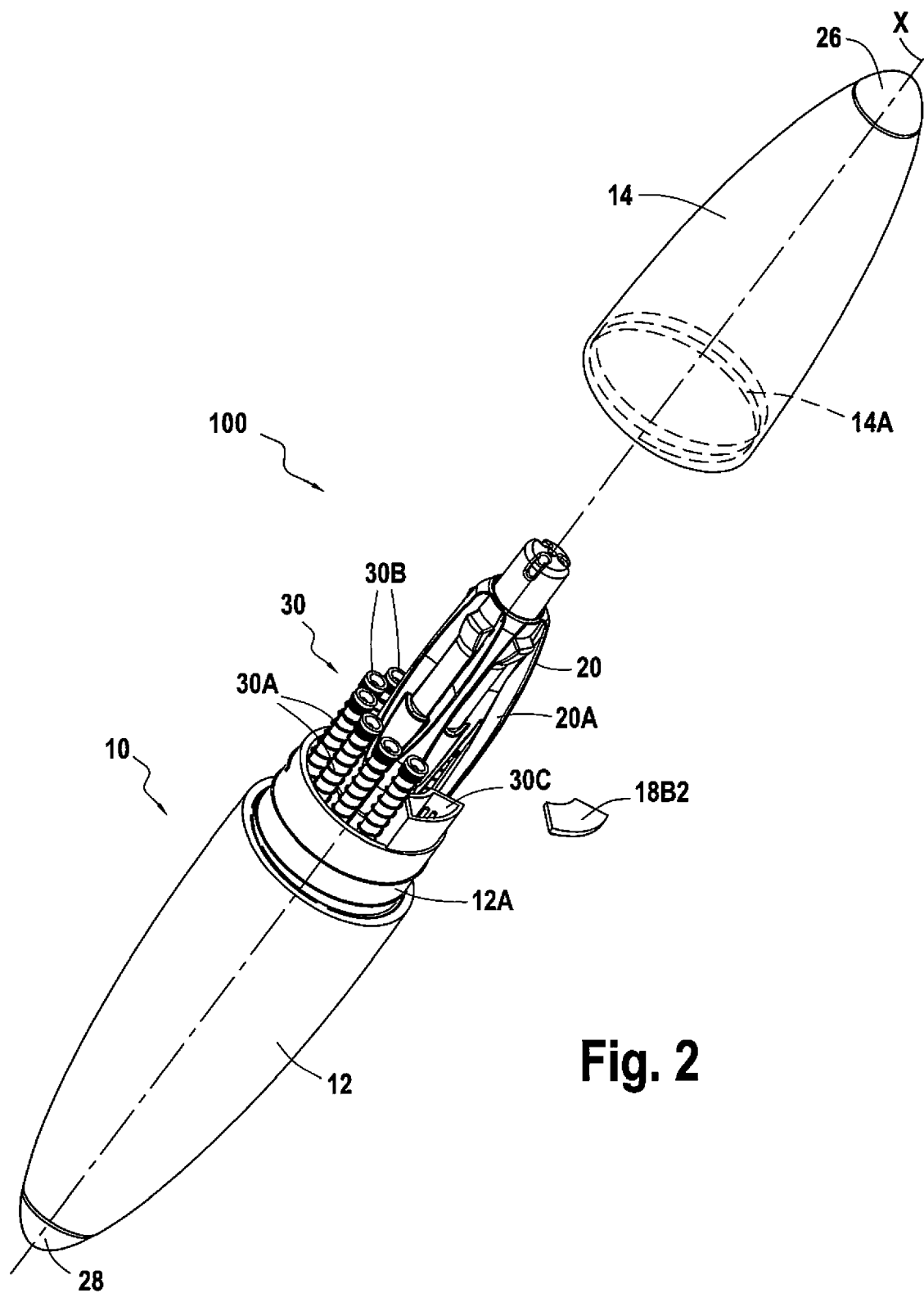
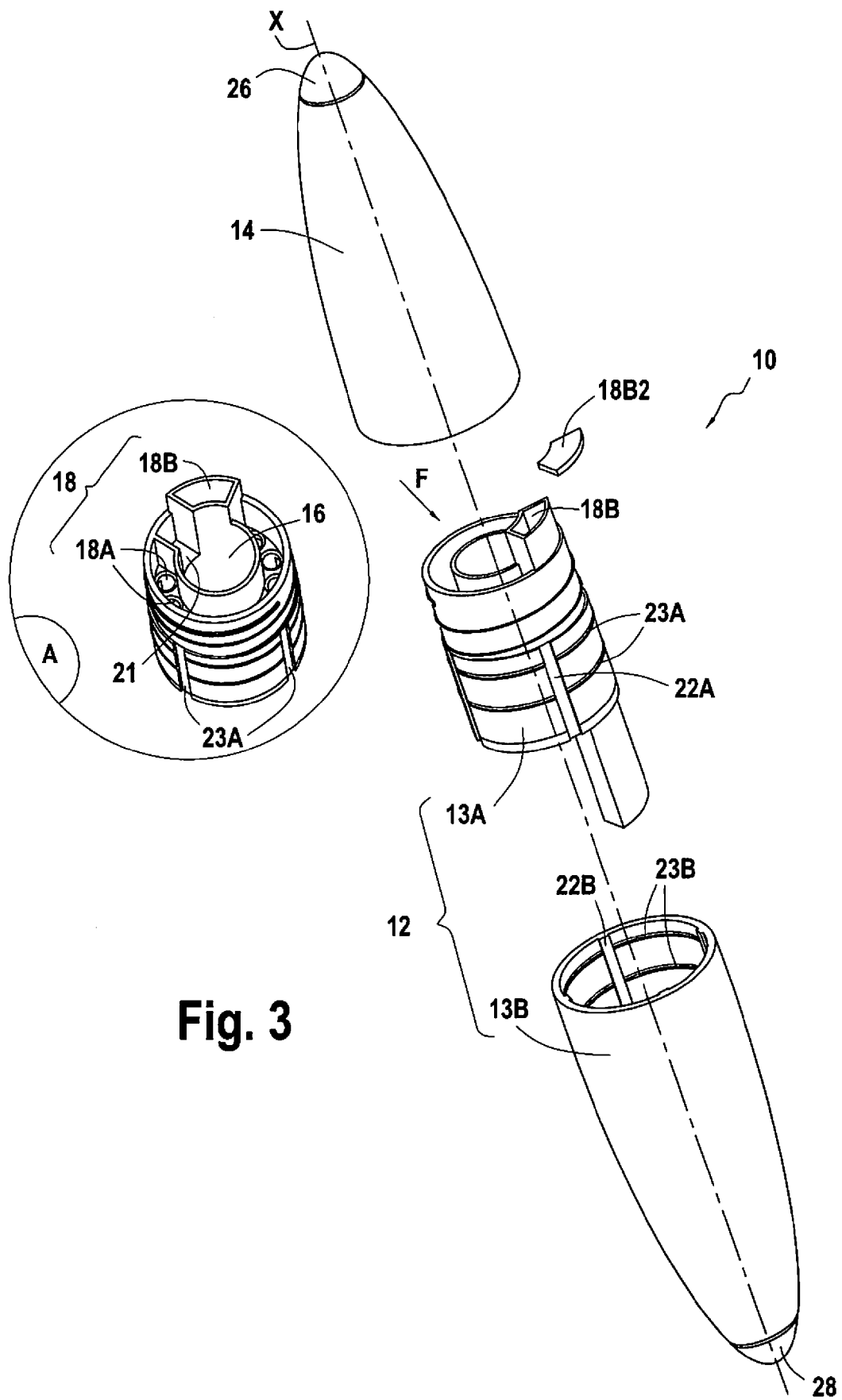


Fig. 2





EUROPEAN SEARCH REPORT

Application Number
EP 19 30 5932

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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X	Sherry LeoNerdos: "Pierre Cardin President fountain pen", YouTube 1 April 2016 (2016-04-01), XP054980122, Retrieved from the Internet: URL:https://www.youtube.com/watch?v=uabqBHvuhBo [retrieved on 2020-01-10] * the whole document *	1-10	
			TECHNICAL FIELDS SEARCHED (IPC)
			B43K A45F A45C B43M
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 10 January 2020	Examiner Kelliher, Cormac
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
ON EUROPEAN PATENT APPLICATION NO.**

EP 19 30 5932

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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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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82