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(54) **Correction tape**

(57) A correction tape is constructed to include a housing formed of a bottom cover shell (22) and a top cover shell (21), a tape reel (23) mounted on an upright axle (222) in the housing, the tape reel having an upper reel portion (232) and a lower reel portion (233), a nose wheel (25) mounted in a peripheral opening of the housing, ratchet means (223), which limits the direction of rotation of the tape reel on the upright axle, a tape of correction material (24) wound round the upper reel portion and lower reel portion of the tape reel and extended through the nose wheel, and fastening means adapted for securing the correction tape to a writing implement.

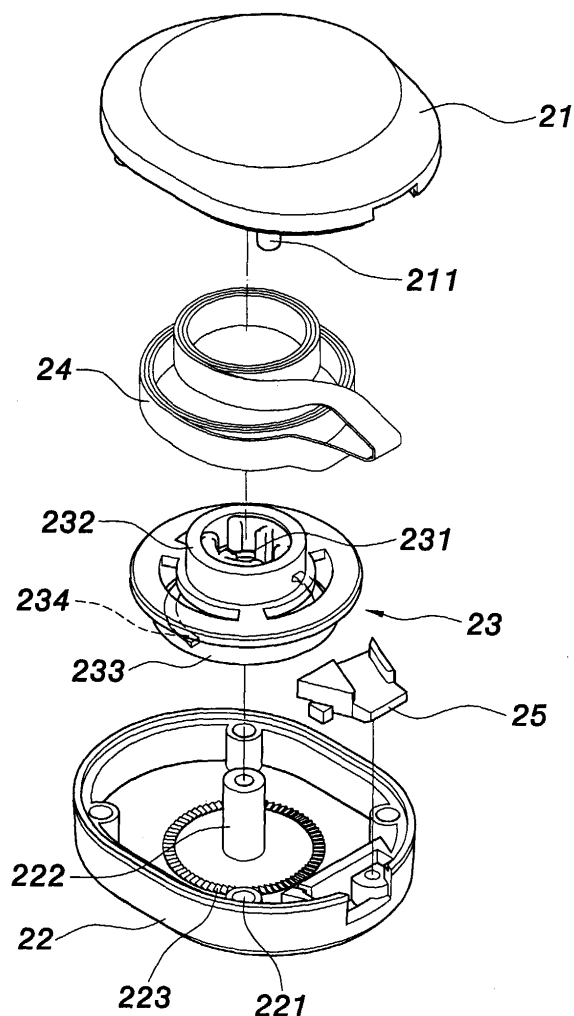


FIG. 2

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Description

BACKGROUND OF THE INVENTION

1. Field of the Invention:

[0001] The present invention relates to a correction tape and, more specifically, to a simple structure of correction tape, which has means for securing to a writing implement.

2. Description of the Related Art:

[0002] FIG. 1 shows a correction tape according to the prior art. The correction tape comprises a housing 10, a big wheel 11, a small wheel 12, a big gear wheel 15, a small gear wheel 16, a nose wheel 13, and a tape of correction material 14. The casing 10 comprises two axles 101 and a ratchet 102. The big wheel 11 and the small wheel 12 are respectively mounted on the axles 101. The big gear wheel 15 and the small gear wheel 16 are respectively connected to the big wheel 11 and the small wheel 12 at the bottom side. The big gear wheel 15 has a top pawl 151 engaged with the ratchet 102 to limit the direction of one-way rotation of the big wheel 11 and the small wheel 12. The tape of correction material 14 is mounted on the big wheel 11 and the small wheel 12 and extended through the nose wheel 13. When in use, the nose wheel 13 is pressed on the writing area to be corrected and moved over the writing area to be corrected to turn the tape of correction material 14, causing the correction material of the tape of correction material 14 to be covered on the writing area to be corrected. This structure of correction tape is still not satisfactory in function because of the following drawbacks:

1. Because a big wheel 11, a small wheel 12, a big gear wheel 15, and a small gear wheel 16 are used to achieve correction tape applying and recycling operation, the structure of the correction tape is complicated.
2. The complicated gear transmission structure of the correction tape fits only one tape of correction material.
3. The correction tape is an independent device not mountable to a writing apparatus or the like.

SUMMARY OF THE INVENTION

[0003] The present invention has been accomplished under the circumstances in view. It is one object of the present invention to provide a correction tape, which has a simple structure. It is another object of the present invention to provide a correction tape, which is mountable to a writing implement (ball pen, fountain pen, etc.). It is still another object of the present invention to provide a correction tape, which fits multiple tapes of correction material. To achieve these and other objects of the

present invention, the correction tape comprises a housing formed of a bottom cover shell and a top cover shell, a tape reel mounted on an upright axle in the housing, the tape reel having an upper reel portion and a lower reel portion, a nose wheel mounted in a peripheral opening of the housing, ratchet means, which limits the direction of rotation of the tape reel on the upright axle, and a tape of correction material wound round the upper reel portion and lower reel portion of the tape reel and extended through the nose wheel. According to another aspect of the present invention, fastening means is provided at one of the cover shells and adapted for securing the correction tape to a writing implement. As alternate forms of the present invention, multiple tape reels are provided inside the housing to hold a respective tape of correction material over a respective nose wheel for application.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004]

FIG. 1 is a sectional view of a correction tape according to the prior art.

FIG. 2 is an exploded view of a correction tape according to a first embodiment of the present invention.

FIG. 3 is an assembly view of the correction tape according to the first embodiment of the present invention before closing of the top cover shell.

FIG. 4 is an elevational view of the correction tape according to the first embodiment of the present invention.

FIG. 5 is a sectional view of the correction tape according to the first embodiment of the present invention.

FIG. 6 is a schematic drawing showing the correction tape of the first embodiment of the present invention coupled to a writing implement.

FIG. 7 is an exploded view of a correction tape according to a second embodiment of the present invention.

FIG. 8 illustrates the correction tape of the second embodiment of the present invention coupled to a writing implement.

FIG. 9 is a sectional view of a correction tape according to a third embodiment of the present invention.

FIG. 10 is a sectional view of a correction tape according to a fourth embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0005] Referring to FIGS. from 2 through 5, a correction tape in accordance with a first embodiment of the present invention is shown comprised of a top cover

shell **21**, a bottom cover shell **22**, a tape reel **23**, a tape of correction material **24**, and a nose wheel **25**.

[0006] The bottom cover shell **22** comprises a plurality of plugholes **221** disposed on the inside around the border, an upright axle **222** vertically disposed on the inside at the center, and a ratchet **223** disposed on the inside at the bottom around the upright axle **222**. The top cover shell **21** is marked with a trade name or trademark, having a plurality of bottom plug rods **211** corresponding to the plugholes **221** in the bottom cover shell **22**. The top cover shell **21** is closed on the bottom cover shell **22** by plugging the plug rods **211** into the respective plugholes **221** (see FIG. 4). The tape reel **23** is mounted on the upright axle **222** inside the bottom cover shell **22** for rotation in one direction, comprising an upper reel portion **232** and a bottom reel portion **233** aligned at different elevations, a center axle hole **231** extended through the center of the upper reel portion **232** and the center of the bottom reel portion **233** and coupled to the upright axle **222** for enabling the tape reel **23** to be rotated on the upright axle **222** to move the tape of correction material **24** over the nose wheel **25** for application (see FIG. 3), and a bottom pawl **234** protruded from the lower reel portion **233** and engaged with the ratchet **223** of the bottom cover shell **22** to limit the direction of rotation of the tape reel **23** on the upright axle **222**. The nose wheel **25** is mounted in a peripheral opening of the bottom cover shell **22** to support and guide movement of the tape of correction material **24** for application (see FIGS. 4 and 5). The tape of correction material **24** is of the known art and not within the scope of the present invention. Nor further detail description on the nature of the correction material of the tape of correction material **24** is necessary. The tape of correction material **24** has one end fixedly fastened to and wound round the upper reel portion **232** of the tape reel **23**, and the other end extended through the nose wheel **25** and then fixedly connected to and wound round the lower reel portion **233** of the tape reel **23**.

[0007] Referring to FIG. 6, the top cover shell **21** (or bottom cover shell **22**) is provided with a screw rod **31** for connection to a writing implement **30**.

[0008] FIG. 7 shows an alternate form of the present invention. According to this alternate form, comprises a bottom cover shell **22**, the bottom cover shell **22** having two upright axles **222** and two ratchets **223** (not shown), and a plurality of plugholes **221**, a top cover shell **21** covered on the bottom cover shell **22**, the top cover shell **21** having a plurality of bottom plug rods **211** respectively plugged into the plugholes **221** of the bottom cover shell **22**, two tape reels **23** are respectively mounted on a respective upright axles **222** inside the bottom cover shell **22**, two nose wheels **25** respectively mounted in two opposite peripheral openings of the bottom cover shell **22**, and two tapes of correction material **24** respectively mounted in the tape reels **23** and respectively extended through the nose wheels **25**.

[0009] Referring to FIG. 8, the bottom cover shell **22**

is provided with a clamp **32** adapted for securing the correction tape to a writing implement **30**.

[0010] FIG. 9 shows still another alternate form of the present invention. According to this alternate form, three tape reels **23** are provided in the triangular cover shells **21;22** (the bottom cover shell **22** is not shown) to hold a respective tape of correction material **24** for application.

[0011] FIG. 10 shows still another alternate form of the present invention. According to this alternate form, six tape reels **23** are provided in the circular cover shells **21;22** (the bottom cover shell **22** is not shown) to hold a respective tape of correction material for application.

[0012] A prototype of correction tape has been constructed with the features of the annexed drawings of FIGS. 2~10. The correction tape functions smoothly to provide all of the features discussed earlier.

[0013] Although particular embodiments of the invention have been described in detail for purposes of illustration, various modifications and enhancements may be made without departing from the spirit and scope of the invention. Accordingly, the invention is not to be limited except as by the appended claims.

Claims

1. A correction tape comprising:

a top cover shell, said top cover shell having a plurality of plug rods inside around a edge thereof ;
a bottom cover shell, said bottom cover shell comprising a plurality of plugholes respectively corresponding to the plug rods, at least one upright axle, and at least one ratchet respectively disposed on the inside around said upright axles;
at least one tape reel respectively mounted on said at least one upright axle inside said bottom cover shell for rotation in one direction, said at least one tape reel each comprising an upper reel portion, a lower reel portion, and pawl means protruded from said lower reel portion and engaged with said at least one ratchet to limit the direction of rotation of the respective tape reel;
at least one nose wheel respectively mounted in said bottom cover shell and partially extended out of said bottom cover shell; and
at least one tape of correction material respectively mounted on said at least one tape reel and respectively extended through said at least one nose wheel.

2. The correction tape as claimed in claim 1, wherein said top cover shell is marked with a sign.

3. The correction tape as claimed in claim 1, further comprising fastening means provided in one of said top cover shell and said bottom cover shell for securing the correction tape to a writing implement.

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4. The correction tape as claimed in claim 3, wherein said fastening means is a screw member.

5. The correction tape as claimed in claim 3, wherein said fastening means is a clamp.

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6. The correction tape as claimed in claim 3, wherein said writing implement is a pen.

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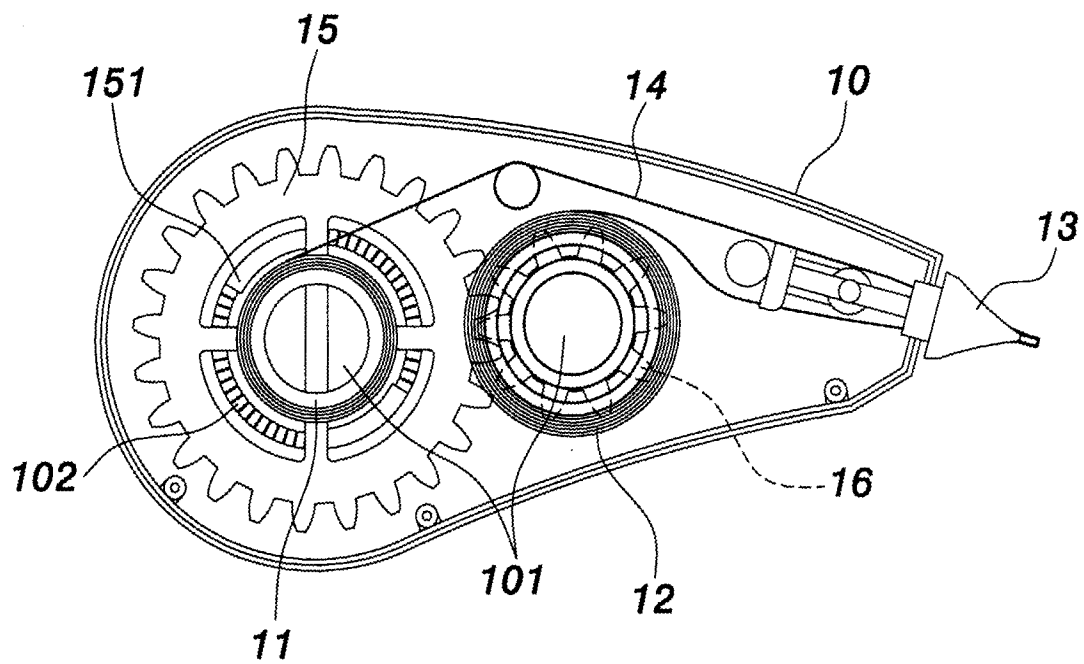


FIG. 1
PRIOR ART

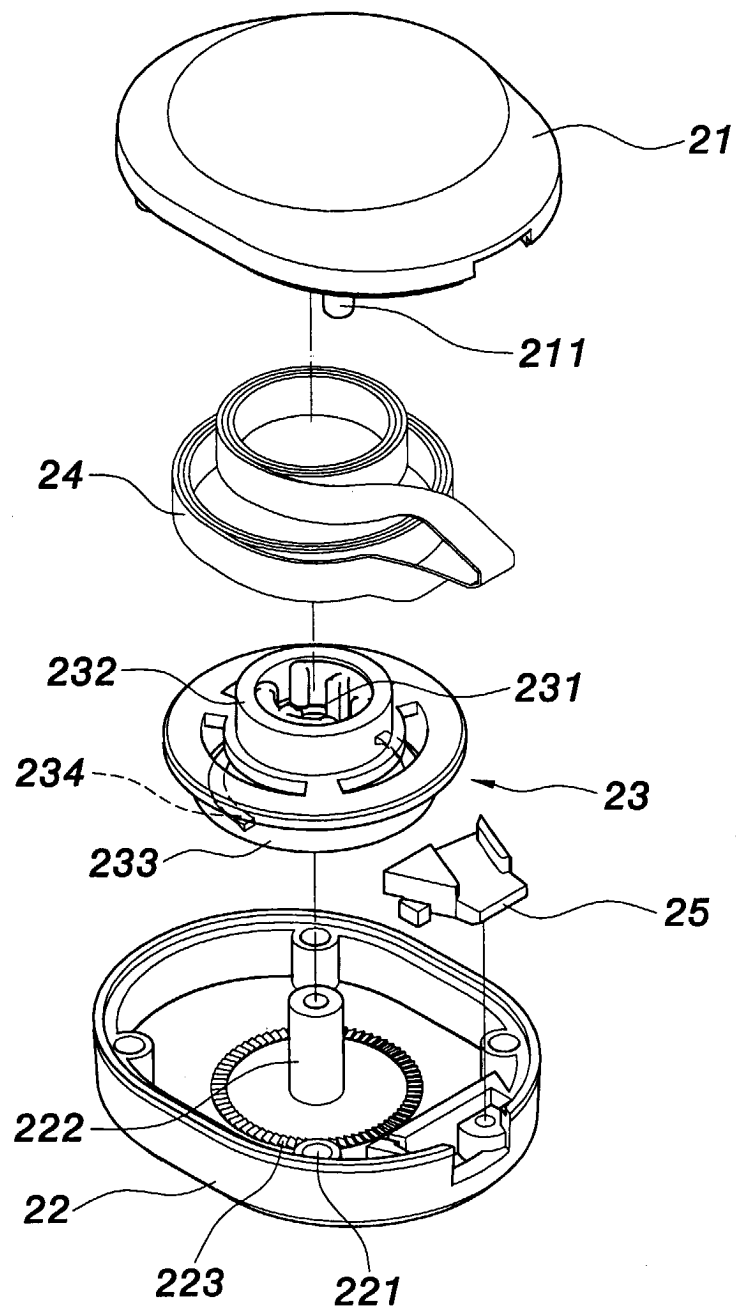


FIG. 2

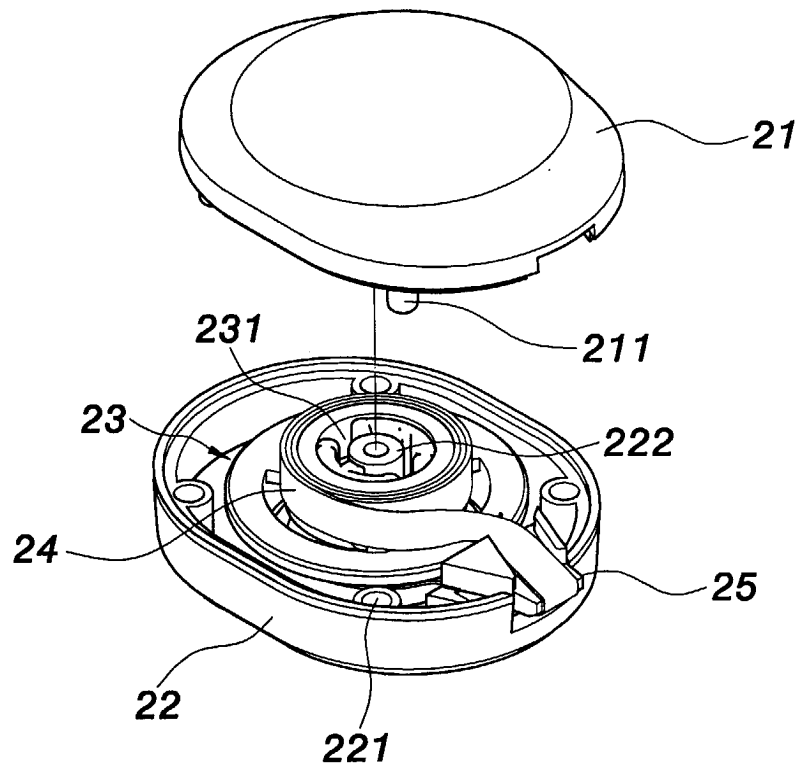


FIG. 3

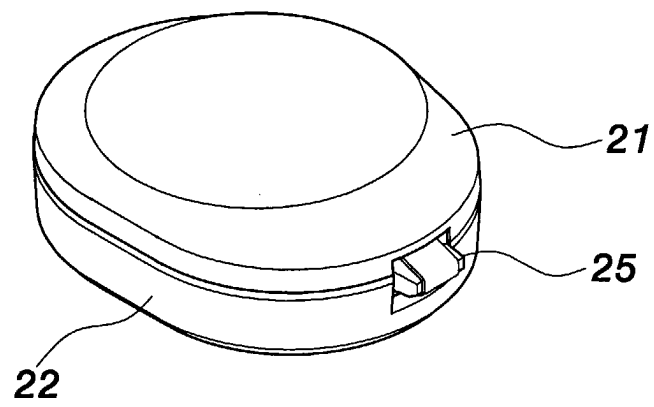


FIG. 4

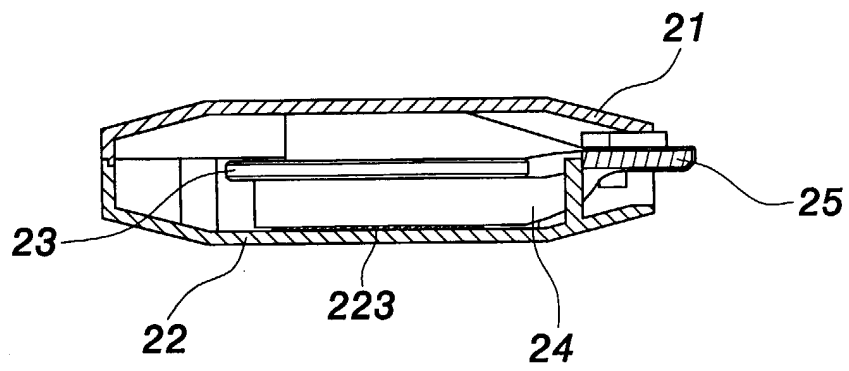


FIG. 5

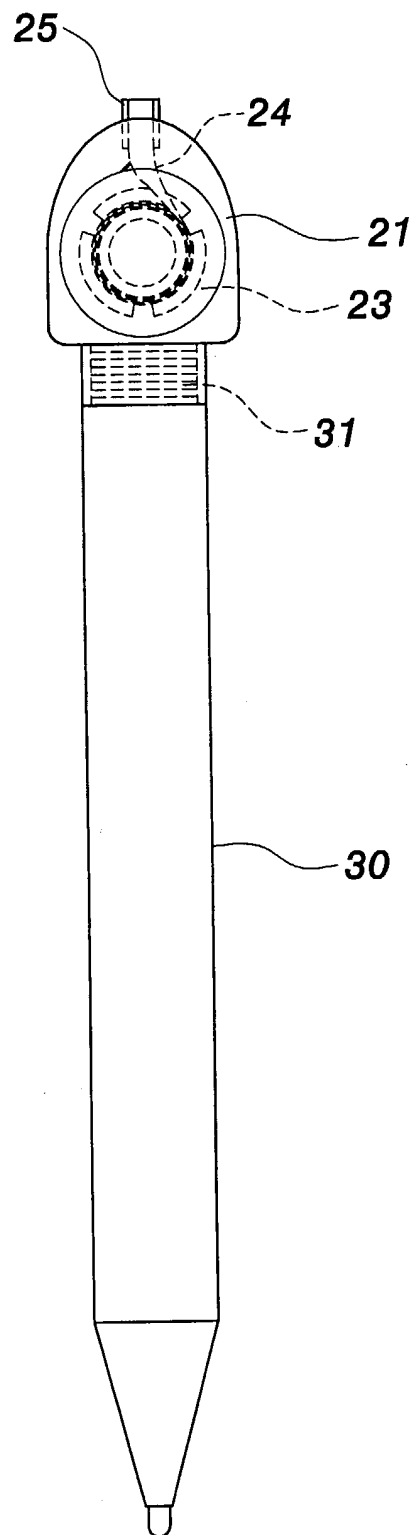


FIG. 6

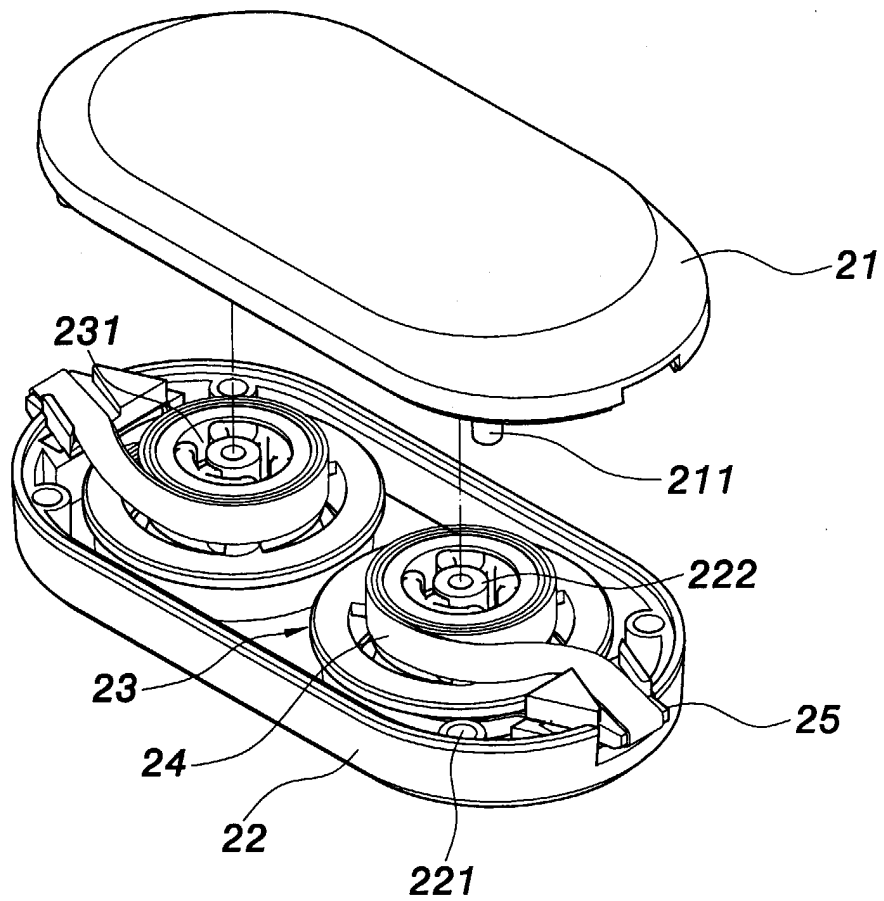


FIG. 7

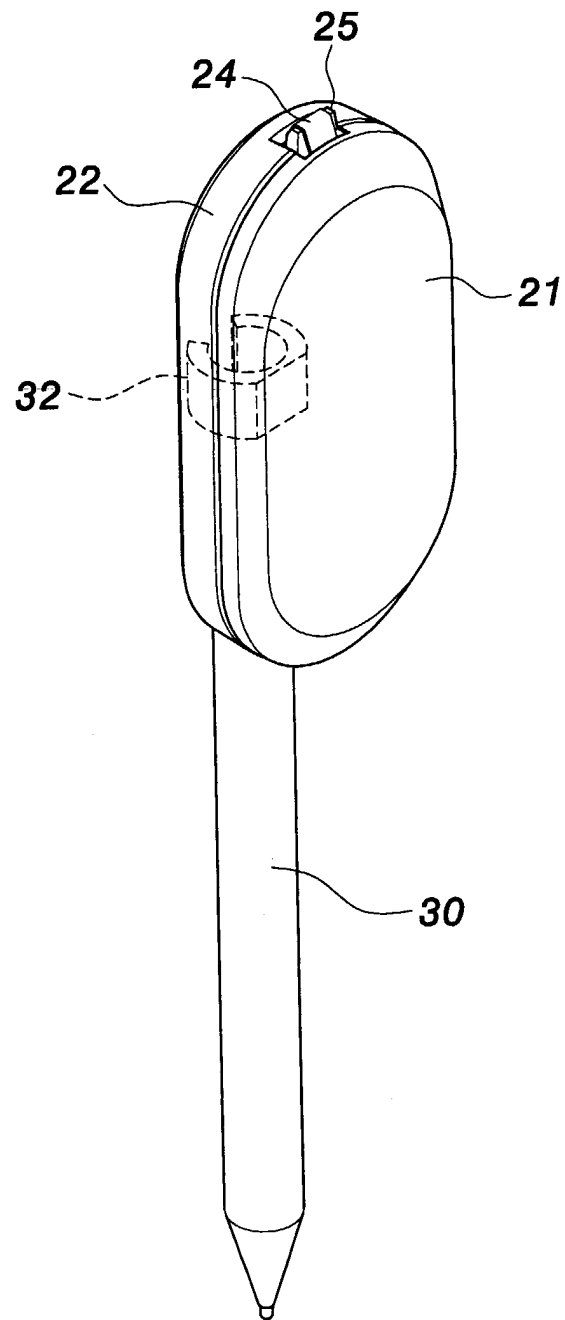


FIG. 8

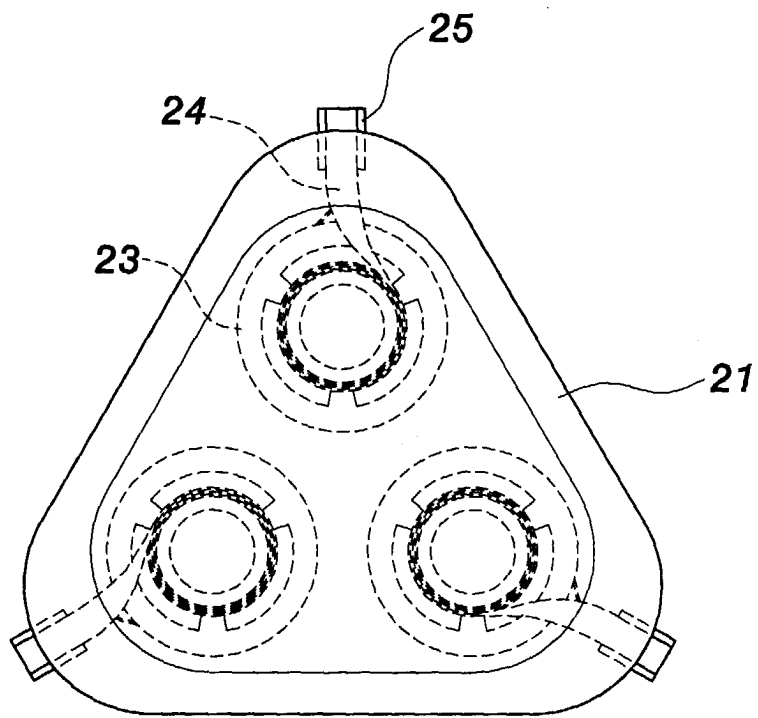


FIG. 9

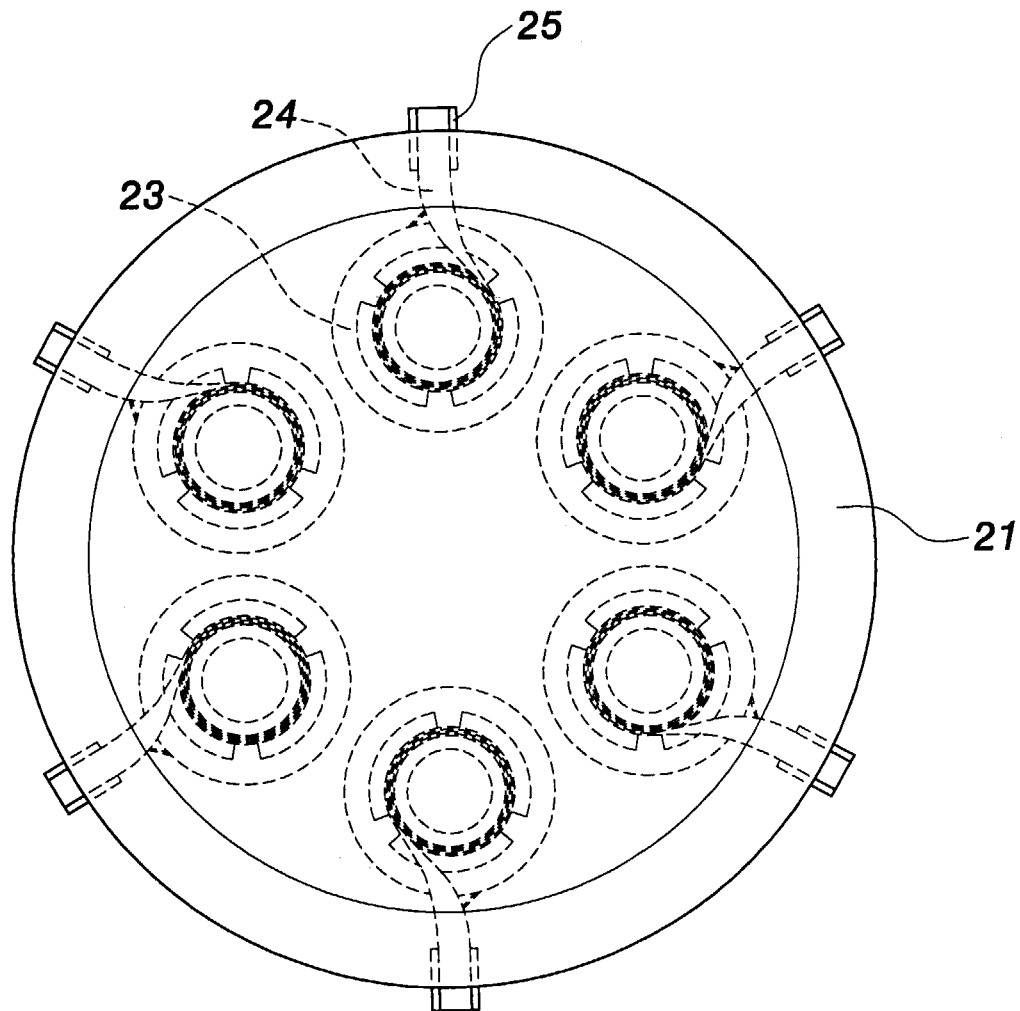


FIG. 10



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 03 01 0214

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Place of search MUNICH		Date of completion of the search 7 October 2003	Examiner D'Incecco, R
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
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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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