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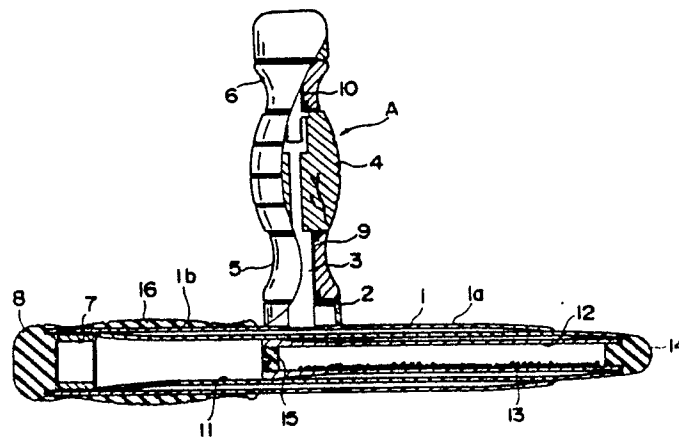
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54 Crosshandled guard baton (B).

57 A crosshandled guard baton which comprises a hollow club (1) and a crosshandle (A) which is branched thereon at a place toward a club end. The inventive guard baton is featured in accommodating at least one slender cylindrical member (11, 12) in the hollow space of the club (1) in retracted form usually, thereby saving in the point of space or length needed to be carried by a user, and in case of need, this retracted member (11, 12) can extend telescopically out of the club end to form a kind of pseudo-sword, hence so convenient to the police or guard personnel.

FIG. 2



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CROSSHANDLED GUARD BATON (B)

This invention relates to a guard baton or police billy or the like. Particularly, this relates to a crosshandled guard baton.

The term "crosshandled guard baton" is intended to indicate a guard baton which has a short handle branchedly secured on a main club body at a biased place or midpoint between an end and a central portion of the club length. A guard baton of this type is described in US Patent 4132409 which has been only the sole conventional art according to the inventor's knowledge.

In this US patent, the handle is axially divided to two portions, stationary and rotatable, and the description therein teaches that the stationary one is put into act when rotating or swinging of the club is intended. However, in view of the fact that it is not determinable whether the crosshandle is gripped by the right hand or the left hand of a baton user, and also probable is a change of gripping this handle from the right hand to left or vice versa. Thus, a device for braking the rotating club should be improved to be more convenient to prepare for gripping by an either hand. This was the start to reach this invention and, in addition thereto, new devices are introduced to the present inventive baton as the description herein will make them apparent in the following.

On the other hand, KARATE, a kind of sports or practice for combat without a hand weapon, has become popular in the world and such a combat practice is sometimes used by an assailant to the police or security personnel and therefore, those who are entitled to wear such a guard property as a baton are desirous that their guard property be improved, in particular, be improved so as to realize KARATE actions in enlarged scale, to which purpose a rotatable crosshandled baton is basically appropriate and improvement in the braking device with a guard baton is found to be suited, because in KARATE techniques wielding of two hands is important, but at the same time, quick stop of a hand action is necessary to make use of the foot to kick or to add an attack by footwork.

In connection with the crosshandled guard batons, patent applications have been filed by the present inventor with the following identifications: EP 89 103 106.4 and EP 0331035.

In contrast to these previous inventions, this invention makes improvement relative to longitudinal extensibility of the guard baton as will be apparent later.

This invention is generally summarized as featuring a crosshandled guard baton which comprises a club having a longitudinal axis and a crosshandle transversely branched on the club at a biased

place toward a club end, wherein the crosshandle (the term "crosshandle" will often be abbreviated to "handle" in the following) has a branching length comparable to a breadth length of a man's hand palm and is typically defined by three portional members of a lower grip, central grip and upper grip which are laid on one another to form an upright stand on a mounting base formed on the club, and the handle is preferred to have an elliptic shape in section, of which major axis is conformed to the club axis.

Turning to internal structures of the handle, a longitudinal shaft, typically connection of a few segments, is secured on the mounting base and is extended to reach through an outer end of the upper grip, and the shaft is rotatably supported with the lower and upper grip members while the central grip is fastened to the shaft such that the club is turnable around the handle with a concurrent motion of the central grip, hence keeping the lower and upper ones in independence of the motion with the club and central grip. Further, the handle is modified to dispense with the rotatable lower grip from the rest of the members defining the handle.

Further, the present invention is particularly directed to the guard batons in equipment of at least one telescopically extensible pipe or cylindrical member which is usually accommodated in a hollow space provided in the club body.

Fig. 1 is a perspective view of an embodiment of the present invention.

Fig. 2 is a front view of the embodiment shown in Fig. 1 with a break to show internal structures.

Figs. 3 to 10 are front views of several embodiments with breaks to show respectively variant internal structures.

Fig. 11 is a perspective view of another embodiment of the present invention featuring in addition of a strap band as is seen.

Figs. 12 to 18 are front views of different embodiments with sections or partial sections (or breaks) to show respectively variant internal structures.

These drawings are presented to illustrate the invention and therefore these should not be construed as limiting the invention. And in the drawings, a like numeral indicates a like part, and a length of the club is sometimes shortened out of scale without a cut mark and such should not be construed to destroy the invention.

With reference to Figs. 1, 2, 11, and 12, the numeral 1 is a club having a longitudinal axis. A is a crosshandle having an axis which is substantially

upright to the club axis or transversely branched on the club 1 at a biased place toward a club end. For convenience, the club length is divided at the place of a base 2 for mounting the handle A into two portions of 1a for long or shank portion and 1b for short or hilt portion. And said handle A has a length comparable to a breadthal length of a man's hand palm and is typically defined by three portional members of a lower grip 5, central grip 4, and upper grip 6 which are laid on one another with inter-slidability to form an upright stand on the mounting base 2 formed on the club 1, and internally of the handle, a longitudinal shaft 3, typically connection of a few segments, is secured on the base 2 and is extended to reach through an outer end of the upper grip 6, and the shaft 3 is rotatably supported with the lower and upper grips 5, 6 while the central grip 4 is fastened to the shaft 3 such that the club 1 is turnable around the handle A with a concurrent motion of the central grip 4, hence keeping the lower and upper ones 5, 6 in independence of a rotary motion of the club and central grip. In this connection, the grip members 5, 6 are sometimes noted "rotatable grip members" in the following.

Reference is added to general explanation of these drawings, the numerals 9, 10 are sleeves inserted between the shaft 3 and inside the grip members 5, 6. And 8 is a plug which seals an end opening of the club at the hilt portion. 16 is a grip cover which is attached on the hilt portion. 1aa, drawn in virtual lines, is an extended portion of the club as will be apparent in later.

In the above, where to place the handle A is meant by a "biased place toward a club end", however, it is recommended to determine it so that the hilt portion 1b may have a length comparable to the longitudinal length of the handle A.

In use of a guard baton as a pseudo-sword with the hilt portion gripped, the handle A may act as a cross guard of a sword.

In Fig. 11, the numeral 34 is a strap band for hitching a user's hand to secure the gripping.

As for material to manufacture the inventive guard batons, any hard material is available; wood, plastic, light metal or iron. Of them, wood or reinforced plastic is most suited.

Turning to explanations of the drawings as a whole, reference to devices accommodated in the club 1 in Fig. 2 is made as follows:

Interior of the club 1 in this instance is one through space, not divided, and in making use of the interior space, accommodated are a plurality of slender cylindrical members 11, 12 in retracted form which are extensible telescopically to form the portion like the one 1aa shown in Fig. 1, wherein the member 11 having a larger diameter than the other member 12 is shaped to be thick at its end placed

to be close to the plug 8 and to be thin at its end placed to be a slightly out of an open end of the club 1 to form a subtle taper forward as a whole, and a base end of the member 11 is abutted at a buffer member 7 located inside the plug 8, and thereinner an inner or core member 12 is so inserted as for its outer periphery of forward end to be fitted tightly with the end of the enclosing outer-member 11, and a forward opening end of the member 12 being plugged with a cap 14, and a base end of the inner member 12 is reinforced by a plug 15.

These retracted members 25, 27 will be extended by action of centrifugal force, when the club is gripped at the club hilt 16 by a user and put into a swing motion, for instance, wherein tight fittings of the member 11 to the member 12 and also of the member 11 to inside face of the club 1, with aid of the tapering as noted, is helpful to form a kind of reduced coupling, hence to avoid an unexpected easy extension or slip-out due to a small force, and therefore adequate tight fittings are necessary.

In Fig. 2, 13 is a weight which is comprised of metallic beads or particles, which will accelerate the centrifugal force.

Note: in the following, new embodiments will be described, but therein, without repeating the same, descriptions will be mainly directed to new other features than those which were already noted in connection with the preceeding drawings.

With reference to Fig. 3, new features are mainly in that the core cylinder 12 has partly a space wherein a weight 13 composed of particles is received.

With reference to Fig. 4, the weight 13 is, instead of beads, a solid metal which is packed in interior of the core cylinder 13, and other features may be regarded as being much the same as in the preceeding example.

With reference to Fig. 5, the core member 13 is made of a kind of metal, that is, the member 13 itself is a weight.

With reference to Fig. 6, the cylindrical members in the preceding example are simplified to be one metal-made member 18 having a partial interior space in which a weight 13 is received.

With reference to Fig. 7, one cylindrical member 12 employed is one having a length comparable to the whole length of the club 1 and having a through space, in which a weight 13 is received.

With reference to Fig. 8, the cylindrical member 11 is shortened to be comparable to a length of the shank portion 1a and the interior of the club 1 is divided to two spaces wherein the hilt space 19 is left as a cavity, which may be used to store personal properties.

With reference to Fig. 9, the arrangement for extensible members is much the same as in Fig. 8, and in the space 19 accommodated is a lightening device, wherein 20 is a battery, 21 is a lamp, 22 is a manual on-off switch.

With reference to Fig. 10, the arrangement for the lightening device in Fig. 9 is replaced to a gas ejecting device, wherein 23 is a gas bomb, 24 is an opening of a pipe for gas ejection, 25 is a ram, 26 is a ram head, 27 is a trigger button, and 28 is a spring to urge the trigger rod.

With reference to Fig. 12, the handle A is secured to the club 1 by screw engagement of a king pin 3a which extends across the club 1 to thread into a tapped bore 29 located at the bottom of the shaft 3, and a hook 33 is added around the base of the handle A to hook the strap band 34.

With reference to Fig. 13, the handle A is structured with two grip members, main grip 4 and upper grip 6 with one rotatable member 6.

With reference to Fig. 14, the cylindrical members 11, 12 are much the same as in Fig. 13, and a new part 36, named a reinforcing member, is introduced which is located in alignment to the king pin 30. the member 36 has a through bore for the pin 30 and also a spring 37 as shown to press the inside of the core cylinder 12 by urging action of the spring so that a let-off of the core cylinder 12 may be controlled, and the spring 37 may be set to be removable by mounting it by means of thread engagement as shown.

Although not shown in a drawing, the spring 37 may be replaced to be a coiled spring having a length comparable to the core member and may be set at the same position to urge the core member so as to reinforce a let-off action thereof.

With reference to Fig. 15, the inner space of the core member 12 is divided to two partitions, one of which is employed to receive a weight 13 and the other 12a is used to receive a spring 37. In applying the spring 37 in a few examples shown in the preceding drawings. inner face of the partition 12a, that is, tip portion of the member 12 is preferable to be contrived to curve open or close so as for the spring 37 to be clamped more strongly.

With reference to Fig. 16, in a similar way, the inner space of the core member 12 is divided to two partitions, one of which is employed to receive a solid metal weight 50, in place of metal particles in the preceding example.

With reference to Fig. 17, the mounting base 2 is transformed to be a concave upward in section to receive the bottom of the main grip 4 and one rotatable grip 6 is incorporated in the handle A, wherein a member 40 is inset in the bottom face of the main grip 4 to tapping engagement 41 for the pin 30 and a member 42 is also inset in the top face of the main grip 4 to receive a shaft 44 with

thread engagement, around which bearings 6a, 6a are mounted for making the grip 6 rotatable.

With reference to the Fig. 18, a gas ejecting device is incorporated in an upper portion of the handle A. Specifically, 45 is a recess to accommodate a gas bomb 46, which is inset therein, 47 is a nozzle for ejection, 48 is a pivotal lever to act as a trigger, and 49 is a hole to let off the gas.

As is understood from the descriptions so far, the inventive guard baton is retractile and thereby so saving in the point of space or length needed to be carried by a user, and in case of need, this can extend to form a kind of pseudo-sword, hence so convenient to the police or guard personnel.

Claims

1. A crosshandled guard baton which comprises:

a club (1) having a hollow cylindrical form;
a crosshandle (A) branched on the club at a biased place toward a club end and having a branching length comparable to a breadthal length of a man's hand palm;

the crosshandle comprising a plurality of portional members which are slidably laid on each other with a slide plane inbetween to form a stand on a mounting base (2) on the club such that the club is turnable around the crosshandle ;

wherein at least one cylindrical slender member (11, 12) is accommodated inside the hollow space of the club as a retracted form to be extended out of an end opening of the club, said cylindrical member is shaped to be thick at its end placed far from the club opening and to be thin at its end placed to be close to the end opening to form a taper toward the club end such that a retracted cylindrical memeber (11, 12) is allowed to extend out of the end opening telescopically.

2. A crosshandled guard baton as defined in claim 1, wherein the crosshandle (A) is comprised of three grip members; lower grip (5), central grip (4), and upper grip (6);

wherein the lower and upper grip members (5, 6) are rotatable to act independently of a rotary action taken by the central grip (4), which is turnable concurrently with the club (1).

3. A crosshandled guard baton as defined in claim 1, wherein the crosshandle (A) is comprised of two grip members; upper grip (6), and main grip (4);

wherein the upper grip member (6) is rotatable to act independently of a rotary action taken by the main grip (4), which is turnable concurrently with the club (1).

4. A crosshandled guard baton as defined in claim 1, wherein the crosshandle (A) is located at a

biased place on the club (1) dividing the club length into two; long and short portions; shank and hilt portions (1a, 1b); said short or hilt portion (1b) which covers the biased place to a club end is comparable to a standing length of the crosshandle (A).

5. A crosshandled guard baton as defined in claim 1, wherein the club (1) is shaped to be thin toward an club end and accommodates at least one slender cylindrical member (11, 12); and wherein said slender cylindrical member, at least one, is composed of two members; a cylindrical member (11), and a core member (12); wherein each member is shaped to be thick at its end placed far from the club opening and to be thin at its end placed to be close to the end opening to form a taper toward the club end such that a retracted cylindrical member (11, 12) is allowed to extend out of the end opening telescopically.

6. A crosshandled guard baton as defined in claim 4 or 5, wherein a cylindrical member (11, 12) has a length comparable to that of the shank portion (1a).

7. A crosshandled guard baton as defined in claim 4 or 5, wherein a cylindrical member has a length comparable to that of a whole length of the club (1).

8. A crosshandled guard baton as defined in claim 4 or 5, wherein a cylindrical member (11, 12) contains a hollow space, wherein a weight (13) in form of particle is received.

9. A crosshandled guard baton as defined in claim 4 or 5, wherein a cylindrical member (11, 12) carries a weight (13) in form of solid metal.

10. A crosshandled guard baton as defined in claim 1, wherein a cylindrical member (11, 12) accommodated in the club (1) has a length of the shank portion (1a); the crosshandle (A) is secured to the club (1) by means of a pin (30) which is driven into a bottom of the crosshandle (A), said pin (30) being set to be across the club (1) in alignment to the crosshandle (A) and being mounted with a spring (37) which is projected toward the accommodated cylindrical member (11, 12) such that the spring (37) presses an inside face of the accommodated cylindrical member (11, 12).

11. A crosshandled guard baton as defined in claim 1, wherein a cylindrical member (11, 12) accommodated in the club (1) has a length of the shank portion (1a); wherein in a hollow space corresponding to the hilt portion (1b), a gas ejecting device is accommodated.

12. A crosshandled guard baton as defined in claim 1, wherein a cylindrical member (11, 12) accommodated in the club (1) has a length of the

shank portion (1a);

wherein in a hollow space corresponding to the hilt portion (1b), a lightening device is accommodated.

13. A crosshandled guard baton as defined in claim 1, wherein an opening at a club end is sealed by a plug (15).

14. A crosshandled guard baton as defined in claim 1, wherein a gas ejecting device is accommodated in the crosshandle (A).

15. A crosshandled guard baton as defined in claim 1, wherein the crosshandle (A) has an elliptic section, of which major axis is conformed to the club axis.

16. A crosshandled guard baton as defined in claim 1, wherein a strap band (34) is mounted around the crosshandle (A).

FIG. 1

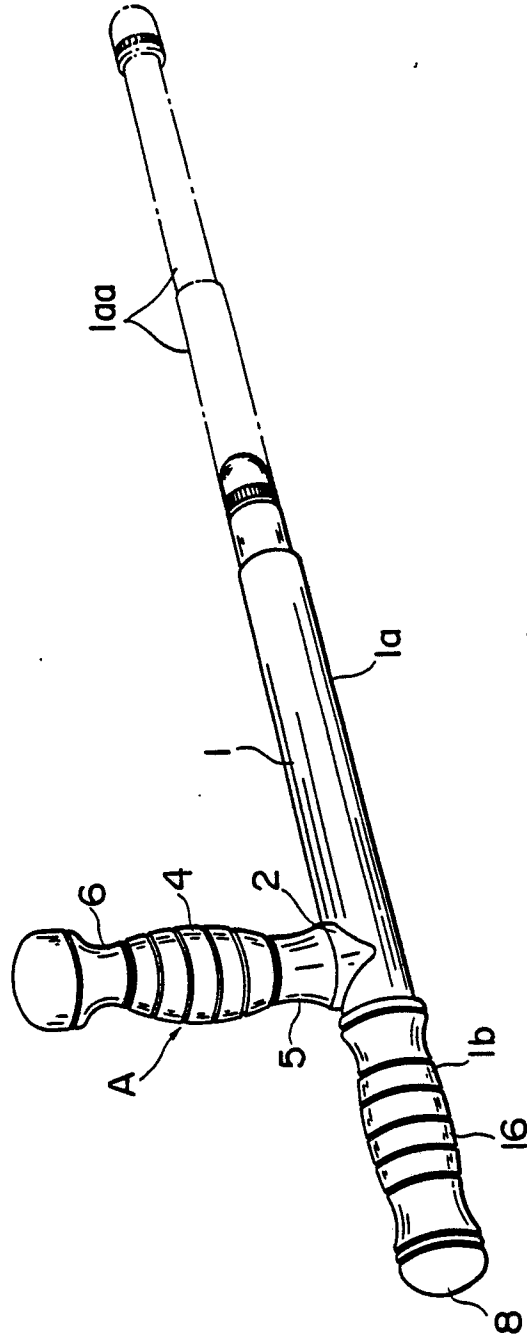


FIG. 2

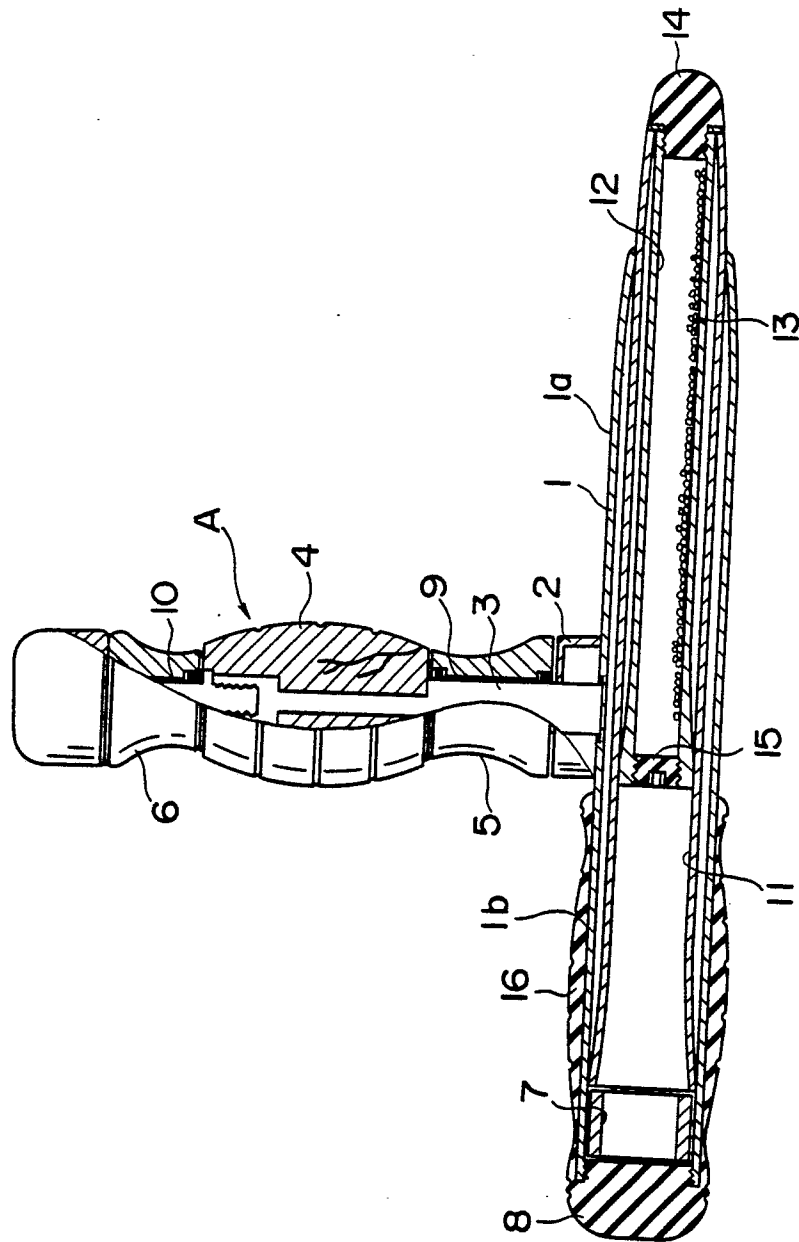


FIG. 3

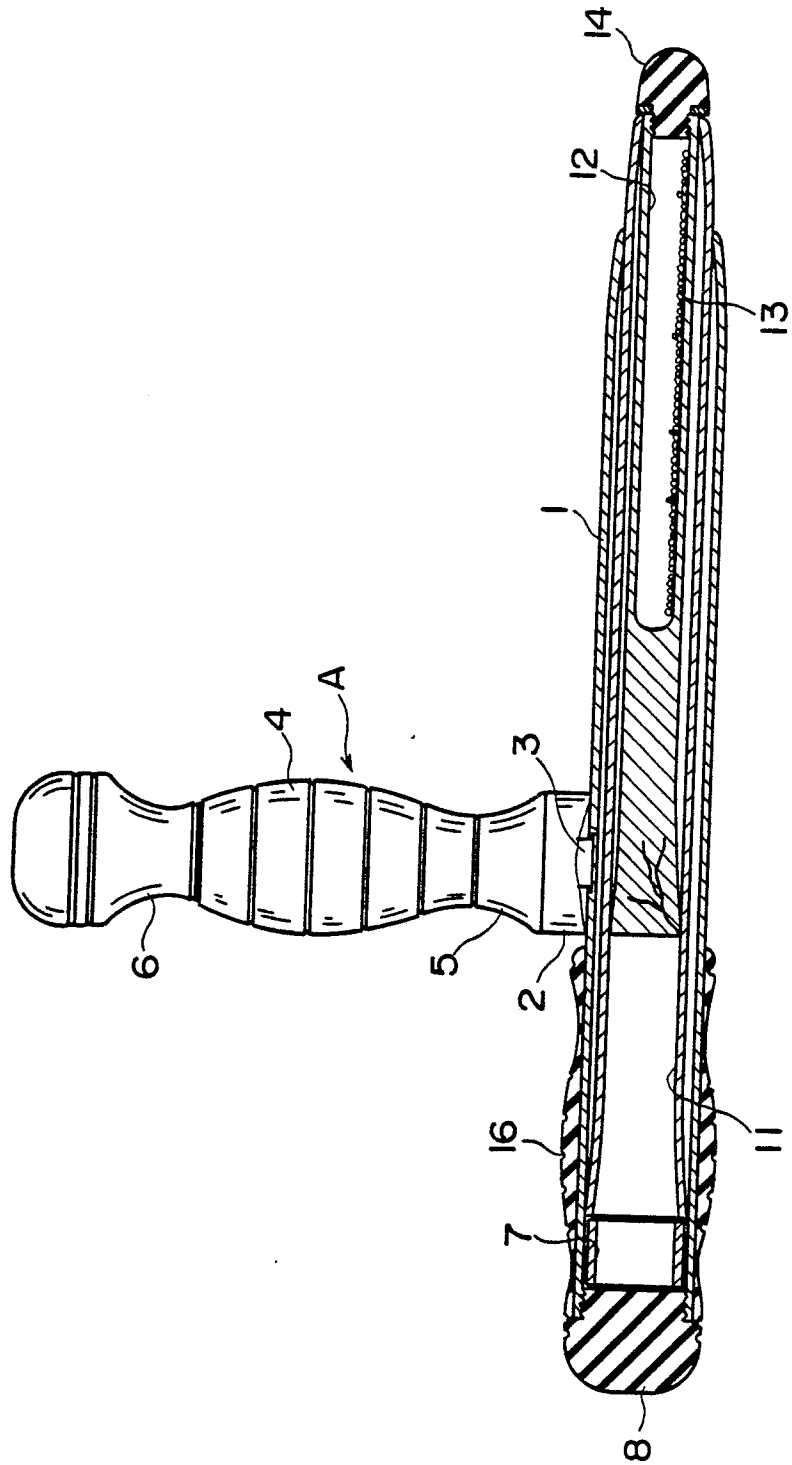


FIG. 4

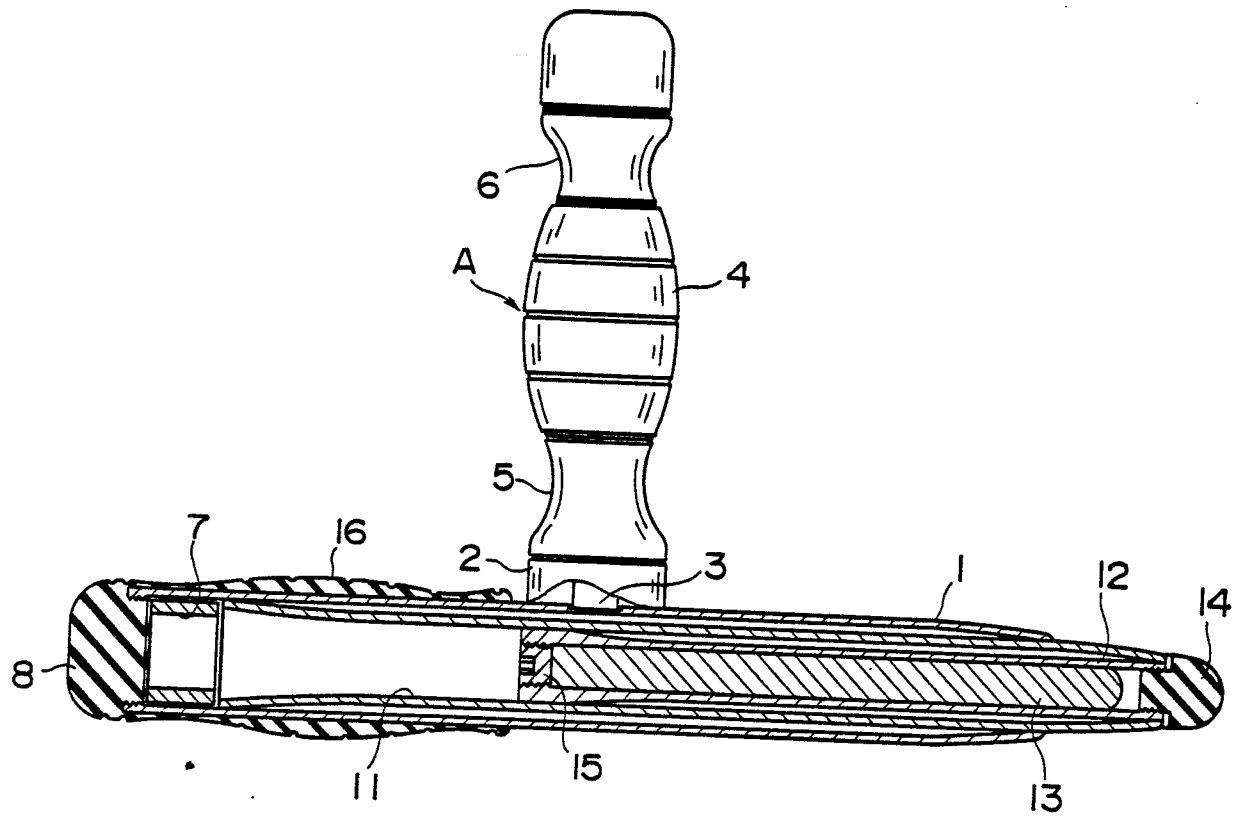


FIG. 5

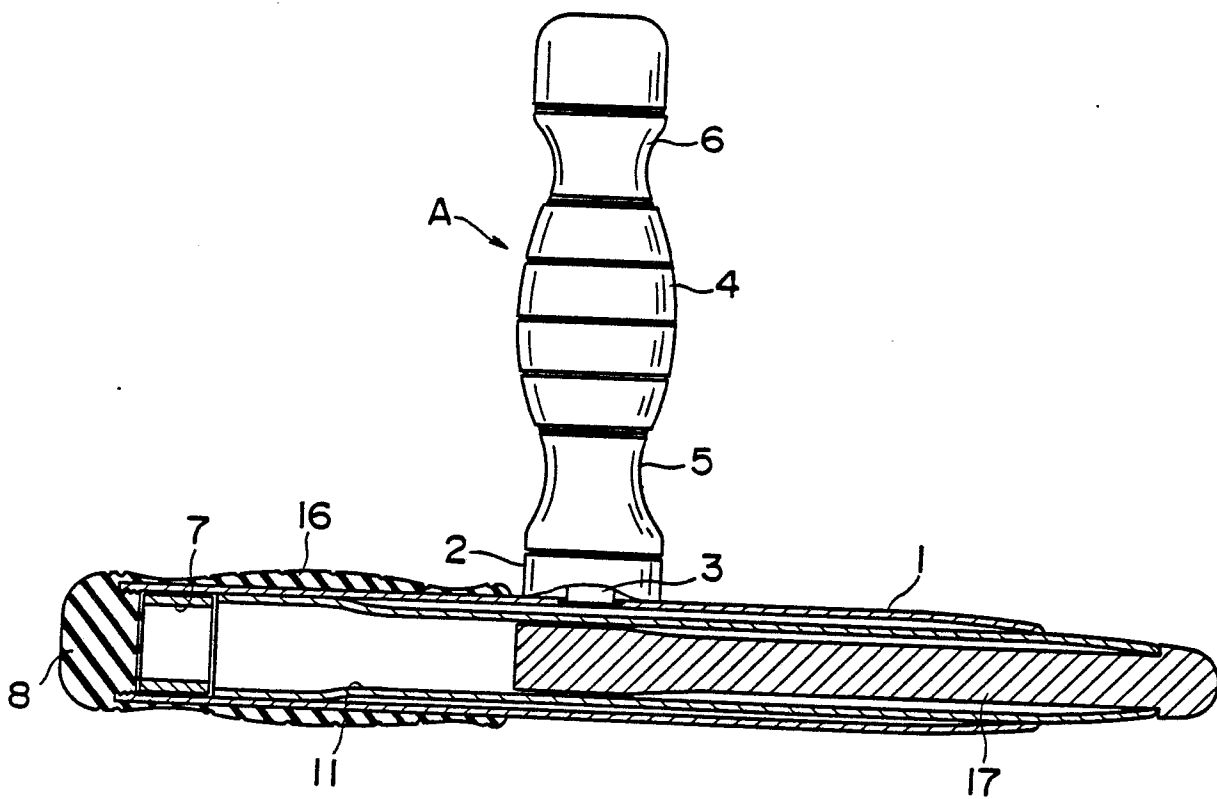


FIG. 7

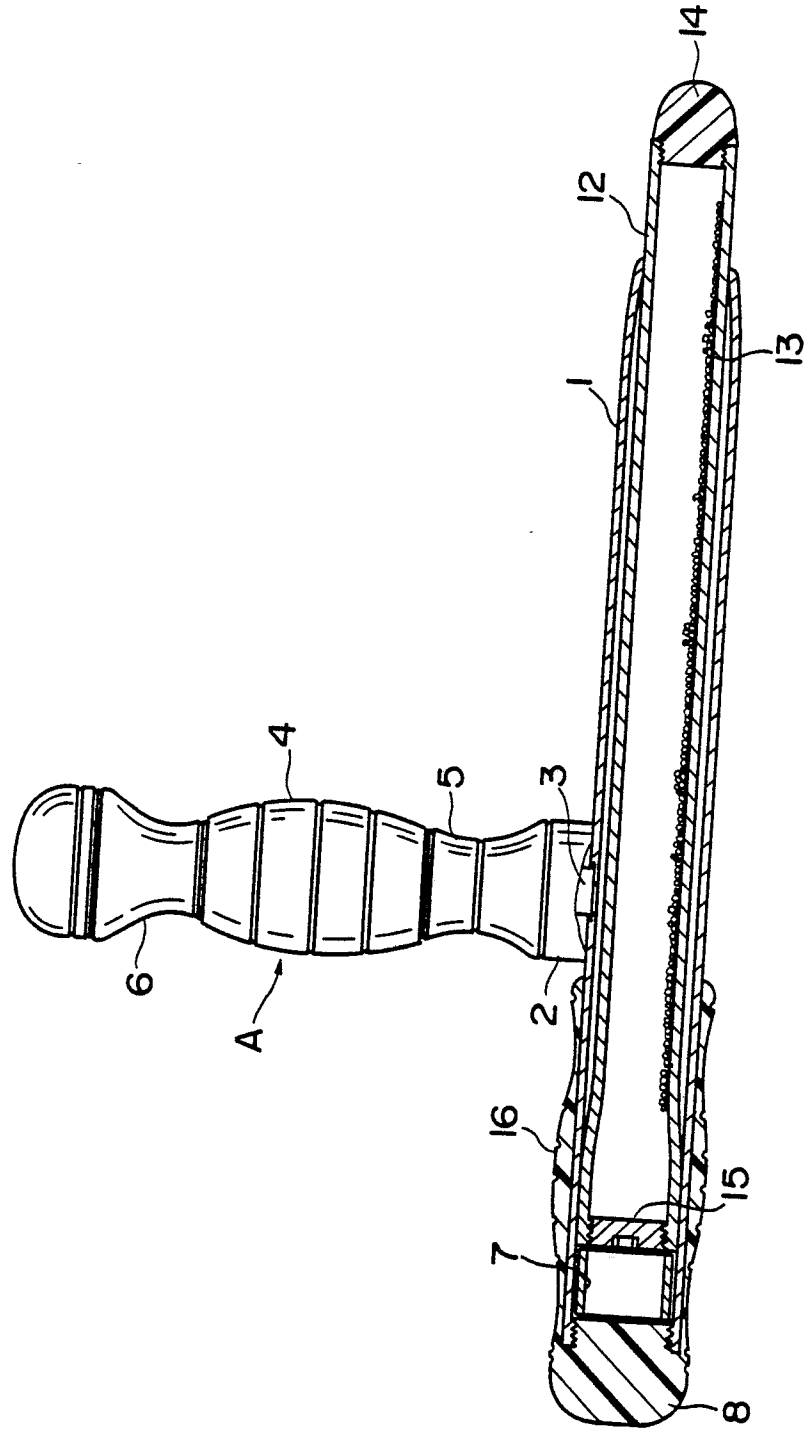


FIG. 8

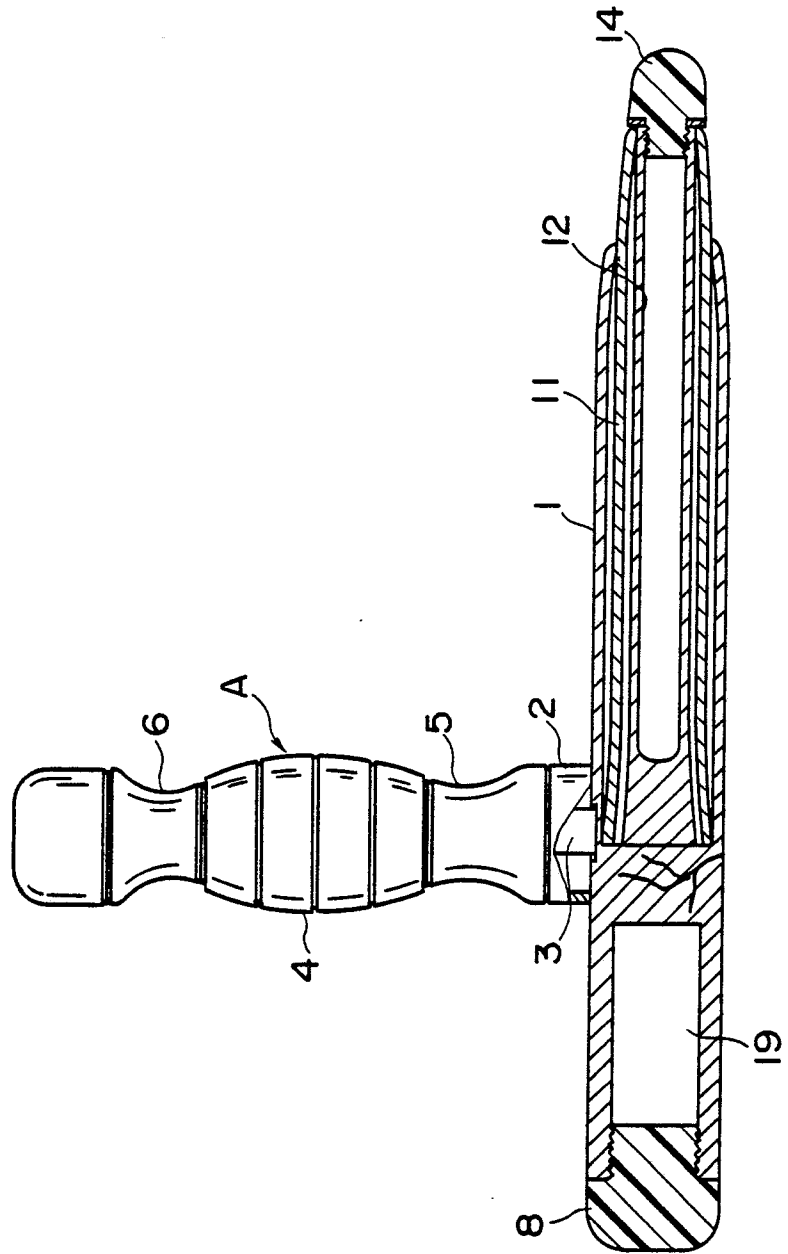


FIG. 9

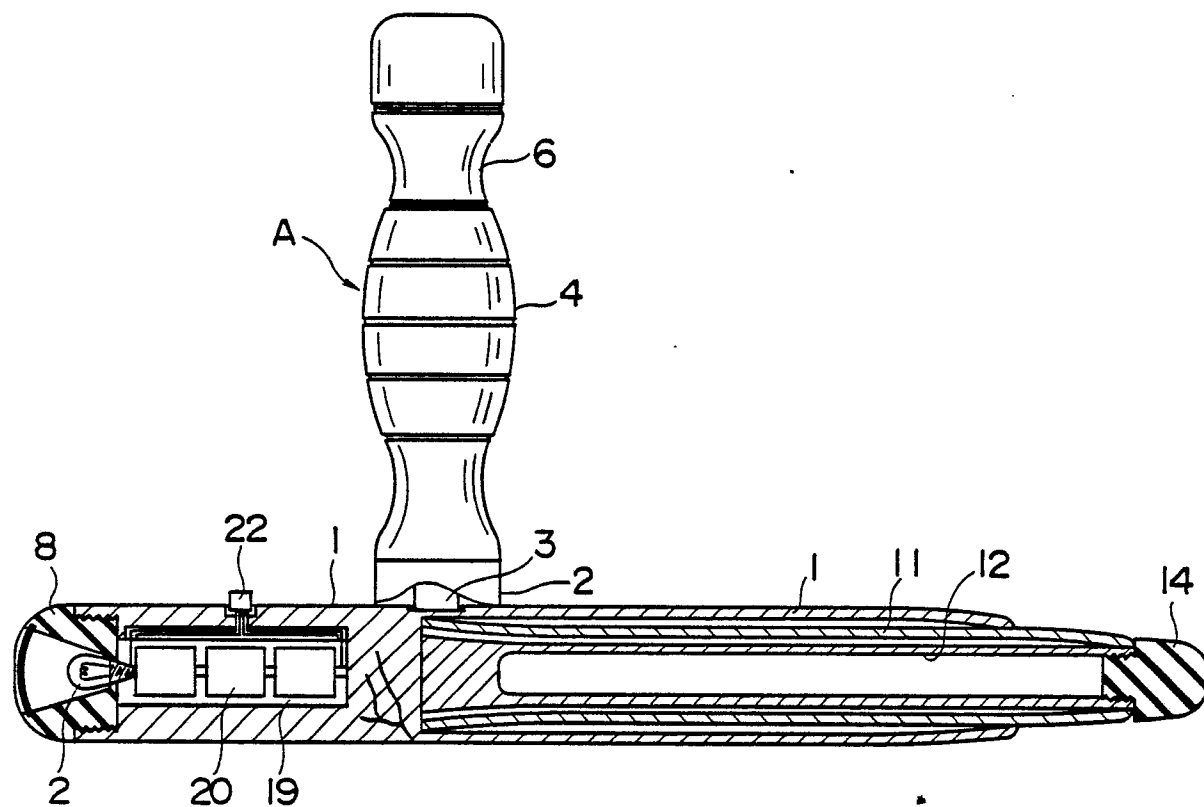


FIG. 10

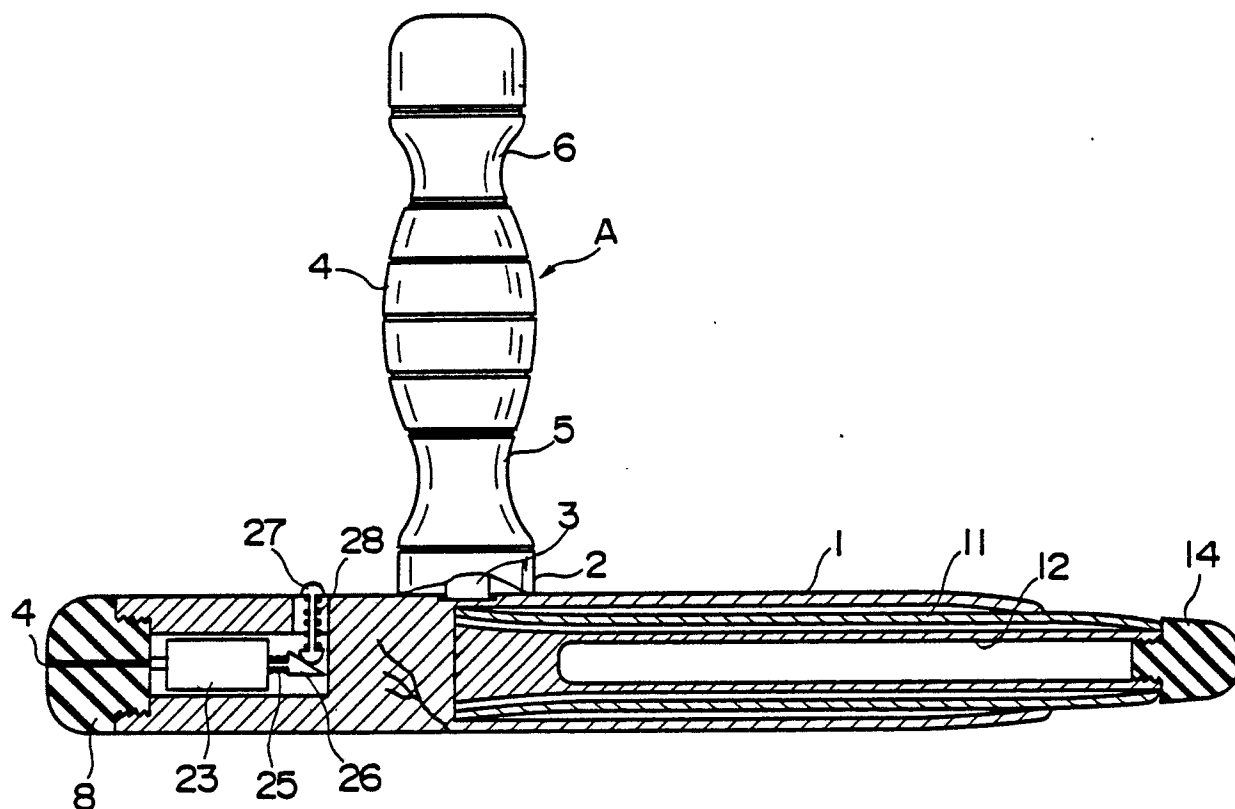


FIG. II

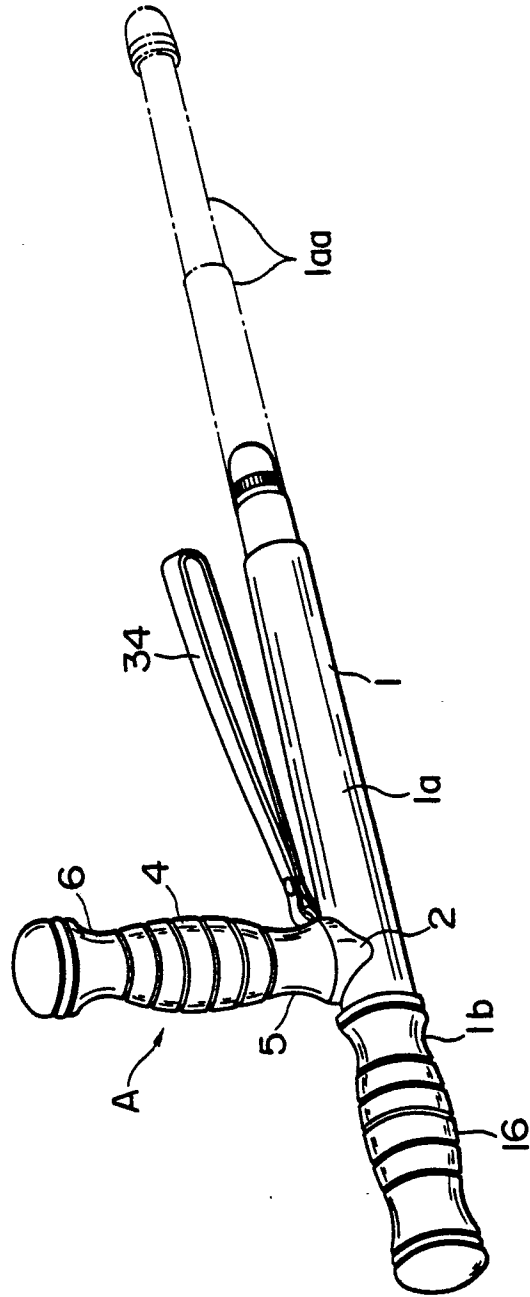


FIG. 13

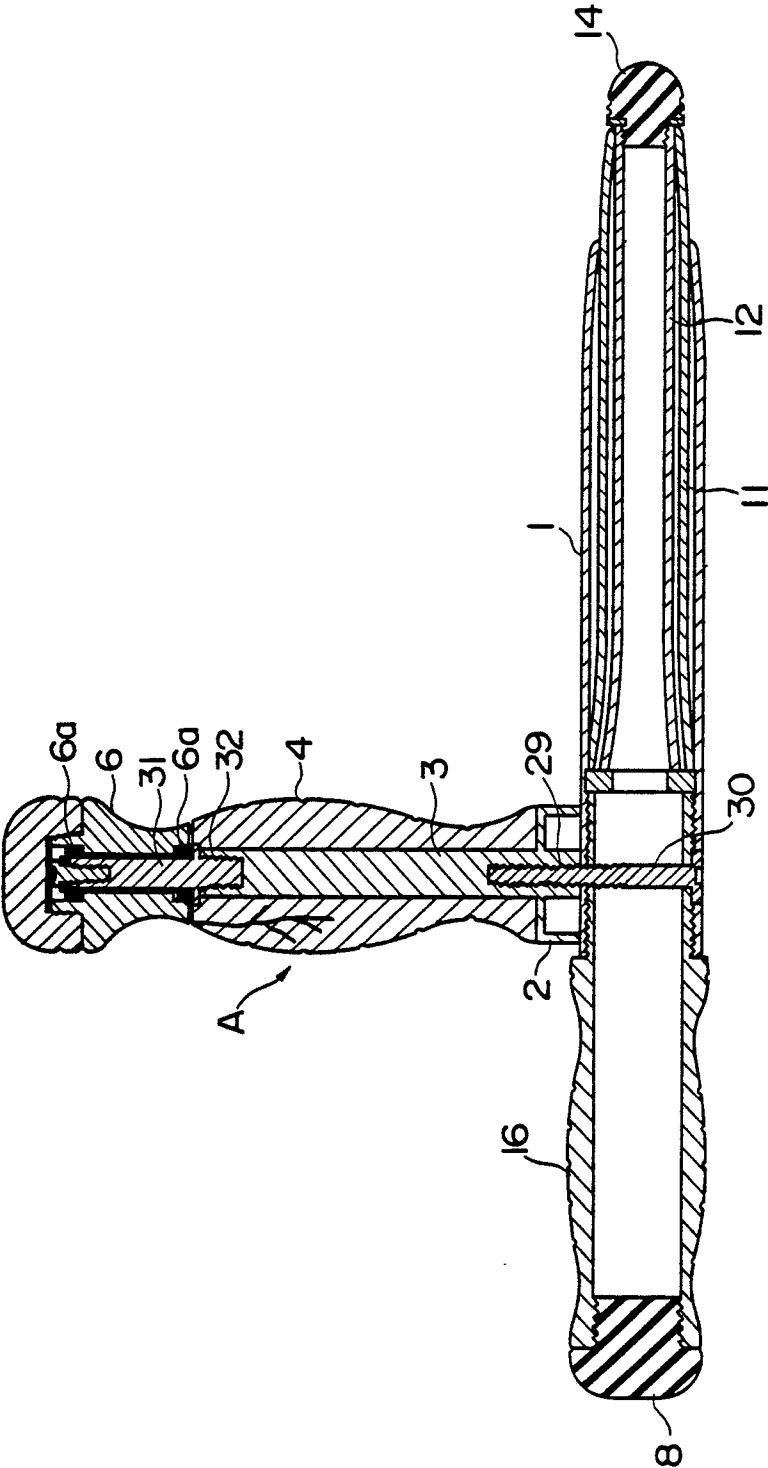


FIG. 14

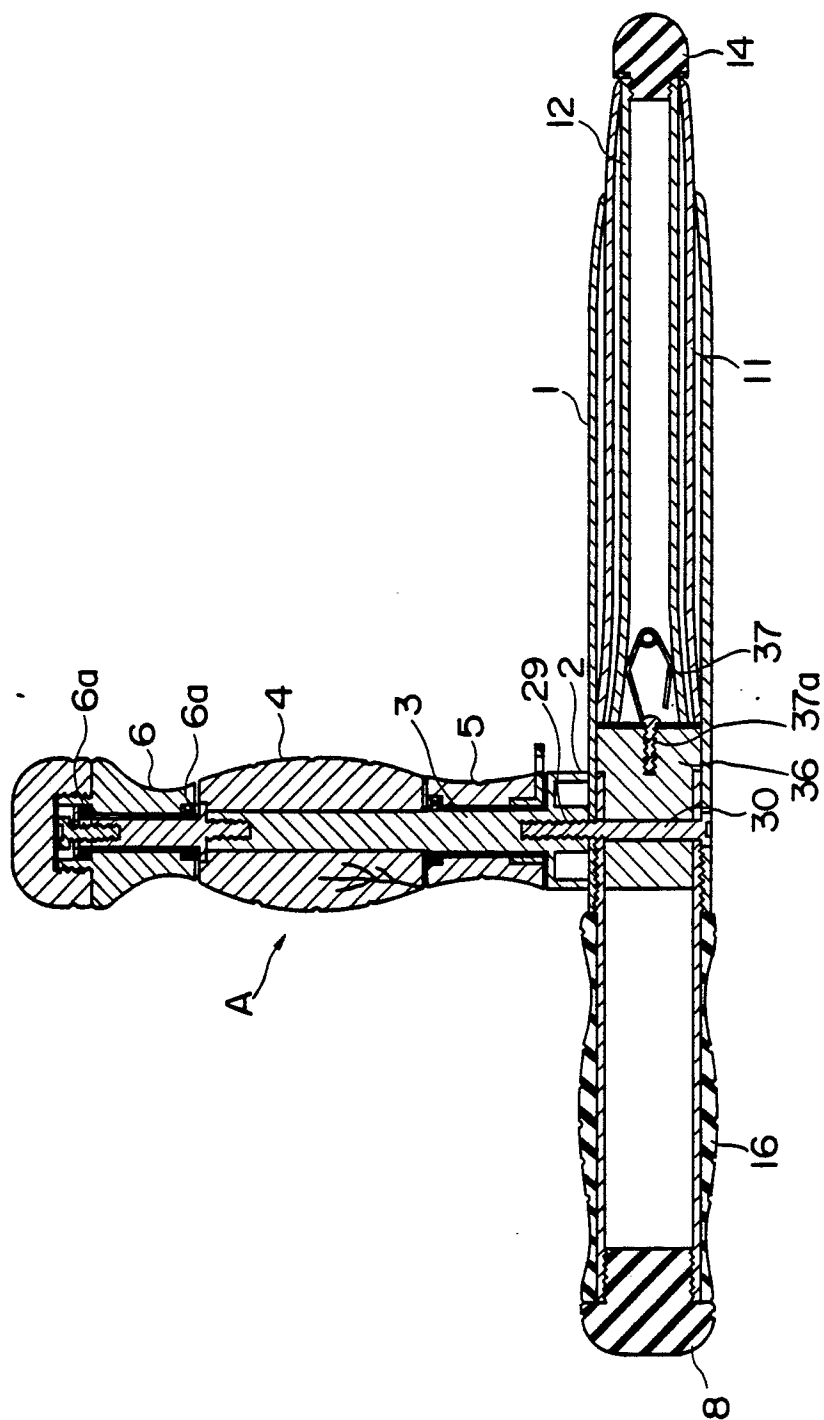


FIG. 15

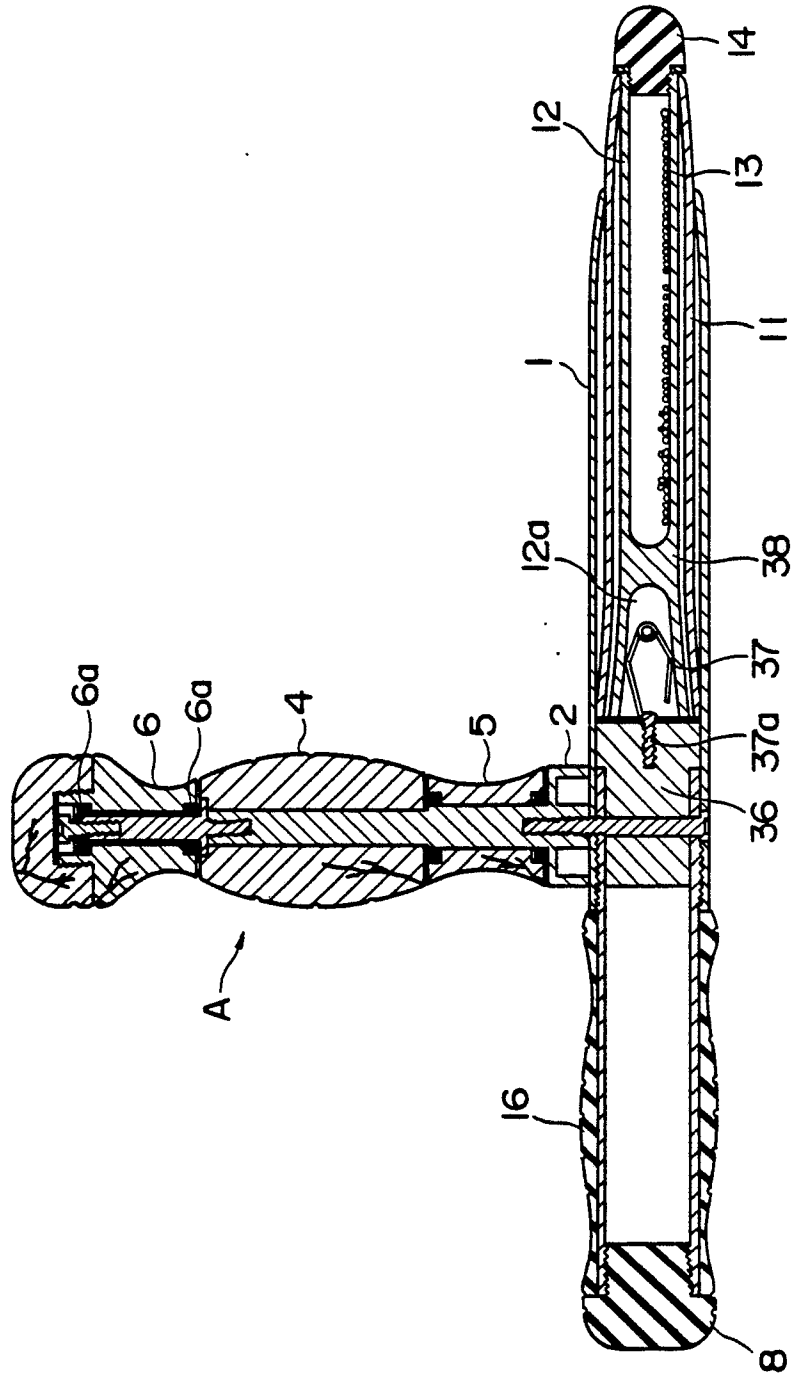


FIG. 16

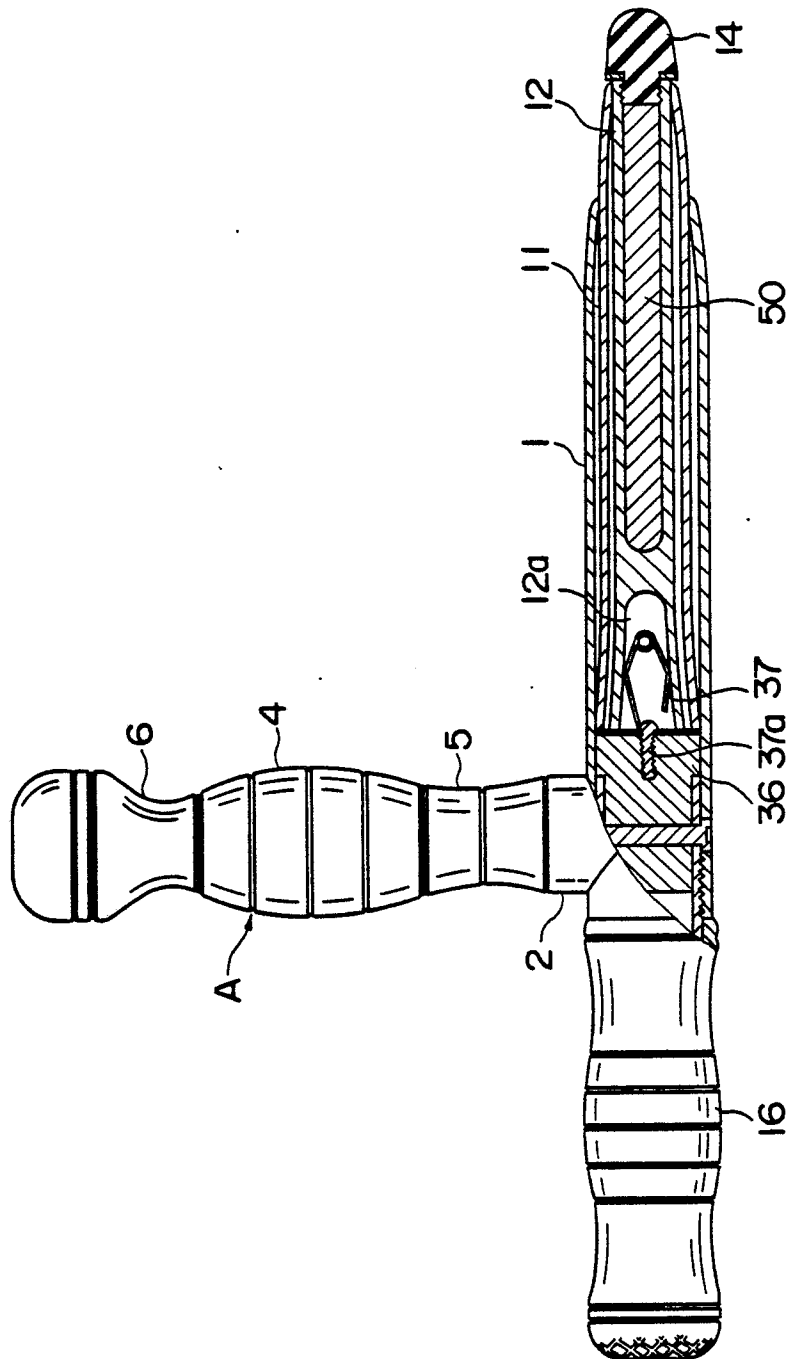


FIG. 17

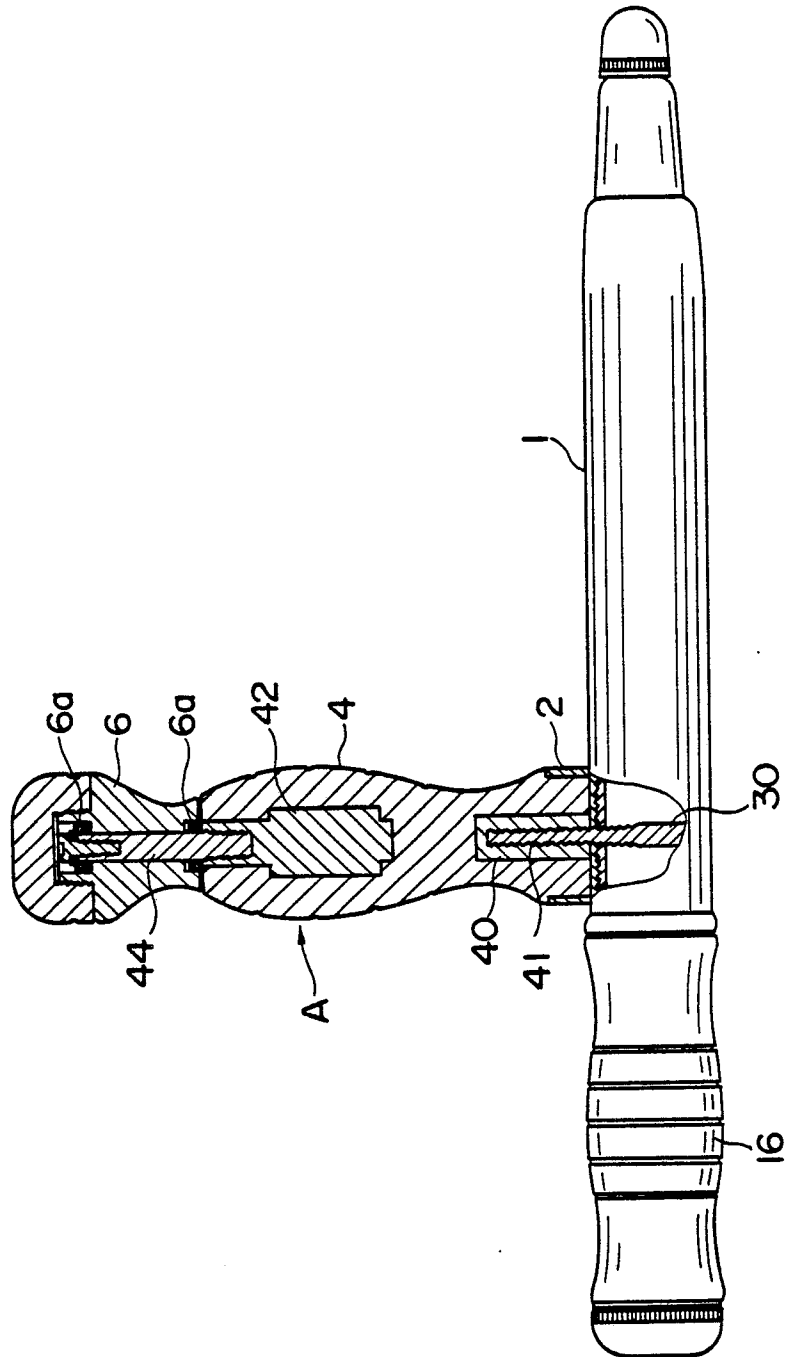
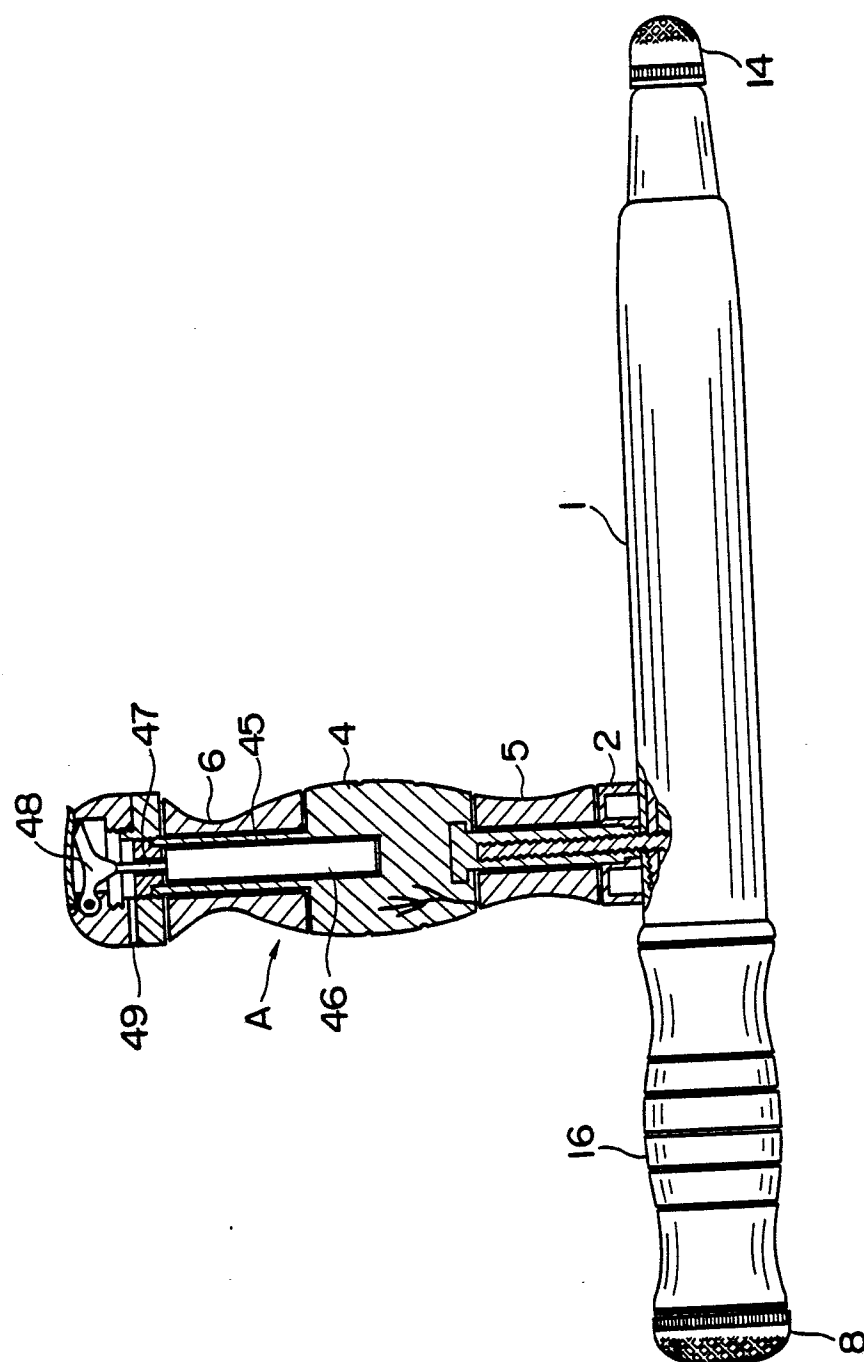


FIG. 18





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	US-A-4 479 171 (MAINS) * Whole document *	1,4,5,7 ,9,10, 12	F 41 B 15/02
A	---	2,3	
Y	US-A-4 752 072 (PARSONS) * Column 2, lines 34-68; column 3, lines 1-52; column 4, lines 1-16; figures 1,2 *	1,4,5,7 ,9,10, 12	
A	---	11	
A	US-A-4 037 839 (NELSON) * Column 1, lines 36-58; figure 1 *	1,5	
A	---	8	
A	US-A-2 391 782 (HUTCHISON) * Page 1, left-hand column, lines 11-15; page 1, right-hand column, lines 38-41; figure 2 *		
A	---	11,12	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
A	US-A-4 739 990 (AGUIRRE) * Column 4, lines 38-61; column 5, lines 41-64; figures 5,8 *		
A	---	13	F 41 B F 41 H
A	FR-A-1 287 775 (POL) * Page 1, left-hand column, paragraph 8; figures 2,4 *		
A	---	14	
A	FR-A-2 142 575 (ABRANSON, PURORGE & CIE) * Page 1, lines 17-37; page 2, lines 1-38; figures 1,2 *		
A	---	3	
A	US-A-4 109 912 (ZENTMYER) * Column 1, lines 55-68; column 2, lines 1-50; figures 1-4 *		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 17-11-1989	Examiner TRIANAPHILLOU P.
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			