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(71) Applicant: **Yara International ASA**
0277 Oslo (NO)

(72) Inventors:
- **Linnet Thomsen, Kristoffer**
  7000 Fredericia (DK)
- **Christiansen, Anders**
  4180 Sorø (DK)
- **Majdall Petersen, Martin**
  8660 Skanderbor (DK)
- **Søndergaard, Martin**
  8210 Aarhus V (DK)

(74) Representative: **De Clercq & Partners**
Edgard Gevaertdreef 10a
9830 Sint-Martens-Latem (BE)

(54) **BIG BAG KNIFE**

(57) The present application relates to a big bag knife, comprising a back part and a front part, each comprising a back end and a front end and each having a certain length, wherein the back part extends around at least part of the length of the front part, a blade provided at the front end of the front part, and a sliding mechanism that attaches the front part to the back part in a sliding way, and that enables the front part to be slid in view of the back part between a retracted position of the knife in which the blade is sheathed by the back part and is inaccessible to the user of the knife, and an extended position of the knife in which the blade is situated outside the back part and enables the user to cut the big bag.

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Description

Technical field

[0001] The present application relates to a big bag knife.

Background

[0002] A big bag, also called an FIBC (flexible intermediate bulk container), bulk bag or super sack, is an industrial container made of a flexible fabric that is designed for storing and transporting dry, solid products such as fertilizer. Despite the many advantages these have, there is one main problem when working with such big bags, i.e; being how to cut open these heavy-weight bags without the contents spilling over the person that needs to open them when they are for example hanging from a conveyor and contain bulk material.

[0003] In US 2015/0298324, a utility knife is disclosed that has a knife housing and a blade carried by a blade support which can be moved between a safety position wherein the blade is recessed in the housing, inaccessible to the user of the knife, and a cutting position, wherein the blade projects out of the housing, through a housing opening.

[0004] The disadvantage of this utility knife is that the length of 1 meter is a length which is unhandy to walk around with. It furthermore takes a lot of space to be stored.

[0005] It is a goal of the present application to create a knife for opening a big bag that guarantees great safety, at the same time is easy to handle and is compact to be stored and to be walk around with.

Summary

[0006] According to a first aspect of the present application, a big bag knife is disclosed comprising

- a back part and a front part, each comprising a back end and a front end and each having a certain length, wherein the back part extends around the front part over at least part of the length of the front part,
- a blade provided at the front end of the front part,
- a sliding mechanism that attaches the front part to the back part in a sliding way, and that enables the front part to be slid in view of the back part between a retracted position of the big bag knife in which the blade is sheathed by the back part and is inaccessible to a user of the big bag knife, and an extended position in which the blade is situated outside the back part and enables the user to cut the big bag.

[0007] Since the knife is movable between a retracted position and an extended position, there is the possibility to

- provide a safe knife since in the retracted position of the big bag knife, the blade is sheathed by the back part through which it is inaccessible to the user of the big bag knife, and in the extended position, the big bag knife can be made sufficiently long such that neither the content of the big bag nor the blade comes into contact with the user when the big bag is cut, through which the user will not be hurt during use or during storage of the big bag knife; and
- provide a compact and easy to handle big bag knife since in the retracted position, the length of the big bag knife can be such that it is comfortable to carry and requires a limited storage space.

[0008] Another disadvantage of the utility knife as disclosed in US 2015/0298324 is that the blade that is used is straight and slim like the ones that are applied with a hobby knife. These kind of knifes break off very easily and are not ideal to pierce into and cut open big bags that are filled with a weight of 750 kg up to 1.500 kg.

[0009] This problem is solved by a big bag knife according to the application as disclosed above, in which the top end of the blade has a hook shape with a sharp end. More in particular, the end of the blade has a gut hook shape with a sharp end. The gut hook shaped end of the blade more in particular is arranged with a sharpened semicircle that is ground in the end of the blade and that allows an easy cutting of the big bag. The blade's sharp end allows it to easily pierce a big bag while its hook-like shape ensures that the blade does not readily fall out of the big bag after it has been pierced.

[0010] According to an embodiment of a big bag knife according to the application, the back part extends around the complete length of the front part in the retracted position of the knife. This allows the big bag knife to be compact such that it is comfortable to carry and to store away.

[0011] In an embodiment of a big bag knife according to the application, a front handle is mounted on the front part in the vicinity of the back end thereof, that is designed to be gripped by a hand of the user of the big bag knife and to slide the front part in and out of the back part between the retracted and the extended position of the big bag knife.

[0012] In a possible embodiment of a big bag knife according to the application, the sliding mechanism comprises a longitudinal slot like opening provided in the back part into which a sliding element provided on the front part is slideably arranged.

[0013] In an embodiment of a big bag knife according to the application, a back handle is mounted on the back part in the vicinity of the back end thereof, this back handle being designed to be gripped by means of the other hand of the user of the big bag knife.

[0014] In a possible embodiment of a big bag knife according to the application, the back handle and the front handle are abutting each other when the big bag knife is in its retracted position.

[0015] In an embodiment of a big bag knife according to the application, the big bag knife comprises a locking mechanism to lock the movement of the front part when the knife is in its retracted and/or in its extended position.

[0016] In an embodiment of a big bag knife according to the application, the locking mechanism comprises

- a first hole that is arranged in the vicinity of the back end of the back part;
- a second hole that is arranged in the vicinity of the front end of the back part; and
- a resilient element that is attached to the front part, that comprises a bulge that is arranged to fit into the first hole in the retracted position of the big bag knife and the second hole in the extended position of the big bag knife to lock the movement of the front part, and that is designed to be bent to move the bulge out of the first hole in case the big bag knife is to be moved out of its retracted position, and to move the bulge out of the second hole in case the big bag knife is to be moved out of its extended position.

In order to unlock the big bag knife out of its retracted position, the user needs to push the front handle forth with a force that enables the resilient element to bend such that the bulge moves out of the first hole. In order to unlock the big bag knife out of its extended position, the user needs to pull the front handle towards itself or towards the hand holding the back part of the big bag knife with a force that enable the resilient element to bend such that the bulge moves out of the second hole. This kind of locking system ensures that there is a locking position in the retracted as well as in the extended position of the big bag knife, preventing that the big bag knife would move unintentionally out of its extended as well as out of its retracted position.

[0017] In an embodiment of a big bag knife according to the application, when the big bag knife is in use, the front part and the back part each comprise a top side and a bottom side, wherein the resilient element is attached to the bottom side, respectively the top side of the front part, and the first and second holes are arranged in the top side, respectively the bottom side of the back part.

[0018] In a possible embodiment of a big bag knife according to the present application, a button is provided that is connected to the front handle and that is arranged to operate the locking mechanism in such a way that the button pushes the resilient element out of the first hole in the retracted position of the big bag knife, respectively out of the second hole in the extended position of the big bag knife. This ensures that both hands are in a position on a handle away from the blade during the opening from the big bag knife, enlarging the safety of the big bag knife.

[0019] In a possible embodiment of a big bag knife according to the present application, the locking mechanism comprises a pin extending in the back part of the big bag knife and a resilient element attached to the front part of the big bag knife and being designed to slide in view of the pin and to hook behind the pin. This provides in a locking position in the retracted position of the big bag knife, preventing that the big bag knife would move unintentionally out of its retracted position. The pin is more in particular attached to the back handle. The resilient element more in particular is provided with a bulge that is designed in view of and hook behind the pin.

[0020] In an embodiment of a big bag knife according to the present application, the resilient element is a bendable leafspring.

[0021] In an optional embodiment of a big bag knife according to the present application, a friction pad is provided between the back part and the front part. This takes care that the movement of the front part in view of the back part is controllable and there is a certain force necessary to enable movement of the front part versus the back part.

[0022] In a possible embodiment of a big bag knife according to the application, the knife has an overall length of approximately 0,6 m in the retracted position thereof and a length of approximately 1,0 m in the extended position thereof.

Description of the figures

[0023] The following description of the figures of specific embodiments of the invention is only given by way of example and is not intended to limit the present explanation, its application or use. In the figures, identical reference numerals refer to the same or similar parts and features.

- FIG. 1 shows a perspective view of an embodiment of a big bag knife in the retracted position thereof;
- FIG. 2 shows a perspective view of the embodiment of the big bag knife as shown in FIG. 1 in an extended position thereof;
- FIG. 3 shows a vertical cross-section of the big bag knife as shown in FIG. 1 with a first embodiment of a locking mechanism;
- FIG. 4 shows a vertical cross-section of the big bag knife as shown in FIG. 2 with the first embodiment of a locking mechanism as shown in FIG. 3;
- FIG. 5 shows a detail of the front and the back handle as mounted on the front, respectively the back part of the big bag knife as shown in FIG. 3;
- FIG. 6 shows a detail of the front and back handle as mounted on the front, respectively the back part of the big bag knife as shown in FIG. 4;
- FIG. 7 shows a vertical cross-section of the big bag knife as shown in FIG. 1 with a second embodiment of a locking mechanism;
- FIG. 8 shows a top view of the big bag knife as shown in FIG. 1 with a second embodiment of a locking mechanism as shown in FIG. 7;
- FIG. 9 shows a vertical cross-section of the big bag knife as shown in FIG. 2 with the second embodiment of a locking mechanism as shown in FIG. 5;

- FIG. 10 shows a detail of the front and the back handle as mounted on the front, respectively the back part of the big bag knife as shown in FIG. 7;
- FIG. 11 shows a horizontal cross-sectional detail of the front and the back handle as mounted on the front, respectively the back part of the big bag knife as shown in FIG. 7;
- FIG. 12 shows a detail of the front and the back handle as mounted on the front, respectively the back part of the big bag knife as shown in FIG. 9 ;
- FIG. 13 shows a perspective view of an embodiment of a big bag knife in the retracted position thereof with a button to operate the locking mechanism of the big bag knife as shown in FIGs. 3 to 6;
- FIG. 14 shows a perspective view of the embodiment of the big bag knife as shown in FIG. 13 in an extended position thereof;
- FIG. 15 shows a vertical cross-section of the big bag knife as shown in FIG. 13;
- FIG. 16 shows a vertical cross-section of the big bag knife as shown in FIG. 14;
- FIG. 17 shows a detail of the front and the back handle as mounted on the front, respectively the back part of the big bag knife as shown in FIG. 15;
- FIG. 18 shows a detail of the front and the back handle as mounted on the front, respectively the back part of the big bag knife as shown in FIG. 16;

Detailed description

[0024] As can be seen in FIGs. 1 and 2, an embodiment of a big bag knife (1) according to the present application comprises a back part (2) and a front part (3) that partially extends in the back part (2) in a retracted, compact or storage position (see FIG. 1) as well as in an extended or use position (see FIG. 2). In an embodiment, in the retracted position of the big bag knife (1) as shown in FIG. 1, the back part (2) extends completely around the front part (3). As can be seen in FIG. 2, the front part (3) is arranged with a blade (6) at the front thereof. As can be seen in FIG. 1, this blade (6) is sheathed by the back part (2) in the retracted position of the big bag knife (1). As can be seen in FIG. 2, the front part (3) is arranged with a longitudinal slot like opening (12) which forms part of a sliding mechanism enabling the front part (3) to slide in view of the back part (2), and more in particular in and out of the back part (2) between the retracted (or the compact position) and the extended position (or the use position) of the big bag knife (1). As further can be seen in FIGs. 1 and 2, the back part (2) is provided with a back handle (4) and the front part (3) is provided with a front handle (5). During the sliding movement of the front part (3) out of the back part (2), the front handle (5) moves away from the back handle (4), while during the sliding movement of the front part (3) into the back part, the front handle (5) moves towards the back handle (4). Both handles (4, 5) are arranged to be gripped by one of the hands of a user of the big bag knife (1). The sliding movement of the front part (3) versus the back part (2) is then operable by the hands of the user. The back part (2) and the front part (3) are attached to each other in a slideable way. In the retracted position, the blade (6) is sheathed by the back part (2) and the blade (6) is inaccessible to the user, while in the extended or use position, the blade (6) is freed from the back part (2), or in other words situated outside the back part (2) and can be used to pierce into and cut a big bag. The blade (6) thus moves out of the back part (2) by sliding the front part (3) in view of and out of the back part (2). In an embodiment, as can be seen in FIGs. 3, 5, 7, 10, 15 and 17, the front handle (5) is mounted on the front part (3) in such a way that in the retracted position, the front handle (5) abuts against the back handle (4).

[0025] As can be seen in FIGs. 3 and 4, the back part (2) has an outer circumferential wall (2a) extending along a longitudinal direction (X) and having a certain first length (L_1). In an embodiment, the outer circumferential wall (2a) has an elongated cylindrical shape and more in particular a cylindrical shape with an oval base. The back part (2) further has a back end (21) and a front end (22). The outer circumferential wall (2a) surrounds an inner space (2b). In an embodiment, as can be seen in FIGs 1 and 2, this inner space (2b) is open at the back end (21) thereof in order to allow fertilizer that is in the inner space (2b) to get out of this inner space (2b). The inner space (2b) further comprises a top side (23) and a bottom side (24).

[0026] Furthermore, a front part (3) is provided that is arranged at least partially inside the back part (2) in the retracted as well as in the extended position of the big bag knife (1), and more in particular that is arranged completely inside the back part (2) in the retracted position thereof. The front part (3) has an outer circumferential wall (3a) extending along the longitudinal direction (X) and having a certain second length (L_2). In an embodiment, also the front part (3) has an elongated cylindrical shape and more in particular with an oval base. The front part (3) has a back end (31) and a front end (32). The outer circumferential wall (3a) surrounds an inner space (3b). The inner space (3b) comprises a top side (33) and a bottom side (34).

[0027] In an embodiment, as is viewable in FIGs. 3, 7 and 15, the first length (L_1) equals the second length (L_2) including the part of the blade (6) that extends out of the front part (3).

[0028] The blade (6) that is used to pierce and to cut open a big bag is more in particular mounted at the back end (31) of the front part (3). As can be seen on FIGs 1, 3, 4, 7, 9, 14, 15 and 16, the blade (6) more in particular has a hook shape with a sharp end, more in particular a gut hook shape with a sharp end.

[0029] In an embodiment, as can be seen in FIG. 8, the blade (6) may be flat (or in other words have a narrow width) and in that way is leaving part of the front end (31) of the front part (3) open. As a result, the content of the big bag such as fertilizer could enter the inner space (3b)

via this open front end (31), which is not desired. Therefore, a plug (30), for instance in aluminum, could be provided to close off the front end (31) of the inner space (3b) of the front part (3) to avoid the content of the big bag to enter the inner space (3b) of the front part (3).

[0030] The back handle (4) is more in particular mounted at the height of the back end (21) of the back part (2), while the front handle (5) is mounted in the vicinity of the back end (31) of the front part (3).

[0031] In an embodiment of a big bag knife (1) according to the application, both the back and the front handle (4, 5) have an outer circumferential wall (4a, 5a), in particular having an elongated cylindrical shape, and more in particular a cylindrical shape with an oval base, extending along a longitudinal direction (X) over part of the first length (L_1) of the back part (2), respectively the second length (L_2) of the front part (3). In an embodiment, the back handle (4) as well as the front handle (5) have an inner side that defines a shape corresponding the shape of the outer circumferential wall (2a) of the back part (2). More in particular, the inner side of both handles (4, 5) are arranged with transverse extending ribs (5b) that define an elongated cylinder, more in particular a cylinder with an oval base. In an embodiment, the back and front handle (4, 5) are formed out of two parts, more in particular two similar parts, that can be connected to each other, for instance by a clicking or screwing mechanism.

[0032] In order to prevent that a hand holding the back handle (4) would slip off of the back handle (4), for instance when sliding the front part (3) out of the back part (2) and when pulling the big back cutting knife (1) towards the user during the cutting operation of the big bag, the outer circumferential wall (4b) may be provided with an end part (4c) having a larger diameter then the diameter of the outer circumferential wall (4b). Likewise, the front handle (5) may be provided with an end part (5c) having a larger diameter then the diameter of the outer circumferential wall (5b) to prevent that the other hand of the user could easily slip off of the front handle (5) when for instance the user pulls at the front handle (5) to move the front part (3) out of the back part (2).

[0033] As can be seen in FIGs. 2, 8 and 14, the sliding mechanism comprises further to the longitudinal slot like opening (12) a sliding element (11) which is movable back and forth into this longitudinal slot like opening (12).

[0034] In a possible embodiment, as shown in FIG. 8, the longitudinal slot like opening (12) extends over at least part of the first length (L1) of the back part (2). More in particular, this longitudinal slot like opening (12) starts inside the front handle (5) when the big bag knife (1) is in its retracted position at the height of the end (11a) of the sliding element (11) situated closest to the back end (21) of the back part (2), and ends inside the front handle (5) when the big bag knife (1) is in its extended or use position at the height of the end (11b) of the sliding element (11) situated closest to the front end (22) of the back part (2). The longitudinal slot like opening (12) is thus bounded (closed off) at both longitudinal ends thereof and the sliding element (11) has such a form that it cannot move out of the longitudinal slot like opening (12) or in others words, the movement of the sliding element (11) in longitudinal slot like opening (12) is limited by both longitudinal ends (12a, 12b) of the longitudinal slot like opening (12), having as a consequence that also the movement of the front part (3) in view of the back part (2) is limited. This prevents that the front part (3) could be released from the back part (2). More in particular, the longitudinal slot like opening (12) is provided in the bottom side (24) of the back part (2).

[0035] The sliding element (11) has such a form that it is not able to leave the longitudinal slot like opening (12) when the big bag knife (1) is assembled. More in particular, the sliding element (11) is arranged on or connected to the front part (3). Furthermore, in an embodiment, the sliding element (11) fits in a hole (5c) (see FIGs. 5, 10 and 17) provided in the inside of the front handle (5). In an embodiment, the sliding element (11) can be in the form of a strong bent metal wire or an aluminum or plastic beam or cube.

[0036] In an embodiment, as can be seen in FIGs. 2 and 14, a longitudinal groove (10) can be provided that extends along at least part of the second length (L_2) of the front part (3). More in particular, the longitudinal groove (10) has an open top end, a closed bottom end and closed longitudinal side ends. More in particular, the groove (10) extends over the full second length (L_2) of the front part (3). This groove (10) ensures the strength of the profile of the front part (3).

[0037] To prevent that the front part (3) could move unintentionally in view of the back part (2), a locking mechanism can be provided that takes care that the movement of the front part (3) in view of the back part (2) is locked in the retracted position, and/or in the extended position.

[0038] In a first possible embodiment of a locking mechanism according to the present application, as shown in FIGs. 3 to 6, the locking mechanism comprises a resilient element (7) that is arranged inside the space (3b) of the front part (3). This resilient element (7) is at one end provided with a bulge (7a). The other end of the resilient element (7) is designed as an attachment end (7b) to attach the resilient element (7) to the front part (3), more in particular to the bottom side (3b) of the front part (3). The resilient element (7) can be in the form of a bendable leafspring that is more in particular made out of rustfree spring steel.

[0039] The locking mechanism furthermore comprises

- a first hole (8) that is arranged to fit the bulge (7a) in it in a releasable way, meaning that the bulge (7a) can be moved in and out of this first hole (8), that is situated in the vicinity of the back end (21) of the back part (2), more in particular before the back handle (4), and is provided to lock the movement of the front part (3) in view of the back part (2) in a direction

towards the extended position when the big bag knife (1) is in the retracted position, and

- a second hole (9) that is arranged to fit the bulge (7a) in it in a releasable way, that is situated in the vicinity of the front end (22) of the back part (2) and that is provided to block the movement of the front part (3) in view of the back part (2) in a direction towards the retracted position when the big bag knife (1) is in the extended position. In the extended position, the hole is surrounded by the inner circumferential wall (5a) from the front handle (5).

[0040] It is remarked that the resilient element (7) can also be attached to the top side (33) of the front part (3). In case the resilient element (7) is attached with its attachment end (7b) to the bottom side (34) of the front part (3), then the first and second hole (8, 9) are arranged in the top side (23) of the back part (2), while when the resilient element (7) is attached with its attachment end (7b) to the top side (33) of the front part (3), then the first and second hole (8, 9) are arranged in the bottom side (24) of the back part (2).

[0041] In the locking position of the locking mechanism as shown in FIGs. 3 to 6, or in other words in the retracted position of the big bag knife (1), the bulge (7a) of the resilient element (7) is situated in the first hole (8) provided in the back part (3) near the back handle (4). In order to enable the front part (3) to move in view of the back part (2), the bulge (7a) of the resilient element (7) needs to be released out of this first hole (8). This is done by pushing the front handle (5) in view of the back handle (4) with a sufficient force enabling the bulge (7a) to move out of the first hole (8). The front part (3) is then slid in view of the back part (2) until it reaches its maximum extended position, through which also the big bag knife (1) will be in its extended position. In this extended position, the bulge (7a) will move into the second hole (9). To close the big bag knife (1) again, or in other words to bring the big bag knife (1) back from its extended to its retracted position, the front handle (5) needs to be pulled towards the back handle (4) through which the bulge (7a) will move out of the second hole (9) and the front part (3) will move towards the back part (2) until the fully retracted position is reached, in which case the bulge (7a) will move in the first hole (8). This first embodiment ensures that there is a locking position as well in the retracted as in the extended position of the big bag knife (1).

[0042] As can be seen in FIGs. 13 to 18, a push button (16) can be arranged on the front handle (5) that can be used to push the bulge (7a) downwards out of the first hole (8) in its retracted position and out of the second hole (9) in its extended position. In that case, a hole (17) (see FIG. 4) is provided into the front handle (5) in which the push button (16) is inserted.

[0043] In a second embodiment of a locking mechanism according to the present application, as shown in FIGs. 7 to 12, a resilient element (13) is provided that is attached to the front part (3) of the big bag knife (1). More in particular, the resilient element (13) is mounted on the back end (31) of the front part (3). In an embodiment, the resilient element (13) is arranged with a bulge (13a) that is able to hook below a pin (14). This pin (14) is more in particular attached to the back part (2) of the big bag knife (1). More in particular, the pin (14) is attached to the back handle (4) that is mounted on the back part (2). The pin (14) is more in particular located in the vicinity of the back end (21) of the back part (2). The resilient element (13) can be in the form of a bendable leafspring that is more in particular made out of rustfree spring steel.

[0044] In the locking position of this second embodiment of a locking mechanism as shown in FIGs. 7 to 12, or in other words in the retracted position of the big bag knife (1), the bulge (13a) is hooked below the pin (14). In order to enable the front part (3) to move in view of the back part (2) to bring the big bag knife (1) to its extended position, the front handle (5) is pushed away from the back handle (4) enabling the bulge (13a) to slide under the pin (14) such that the bulge (13a) is released from the pin (14). When the big bag knife (1) is then brought back from its extended to its retracted position, or by pulling the front handle (5) towards the back handle (4), at the moment that the resilient element (13) comes into contact with the pin (14), the bulge (13a) of the resilient element (13) is pulled under the pin (14) and consequently slides under the pin (14) and hook behind it, through which the big bag knife (1) is locked in its retracted position. This ensures that there is a locked position in the retracted position of the big bag knife (1).

[0045] It is remarked that the resilient element (13) could also be arranged such that it hooks over the pin (14) instead of beneath the pin (14). In that case, the bulge (13a) would be oriented upwards inside of downwards. In that case, all movements of the bulge (13a) would be opposite of the movements as described in the previous paragraph.

[0046] Furthermore, as can be seen in FIGs. 7, 10, 11 and 12, a friction pad (15) can be provided between the front part (3) and the back part (2). This friction pad more in particular is a pin (15a) around which a spring (15b) is wound. This friction pad (15) extends more in particular in the inner space (3b) of the front part (3) and is on the one hand connected to the outer circumferential wall (3a) of the front part (3) and on the other hand connected to the outer circumferential wall (2a) of the back part (2). This friction pad (15) creates a resistance such that there needs to be a certain force to move the front part (3) in view of the back part (4).

[0047] In an embodiment, the big bag knife (1) according to the present application has an overall length of approximately 0,6 m in the retracted position thereof and a length of approximately 1,0 m in the extended position thereof.

[0048] When a user wants to use the big bag knife (1) to cut a big bag (not shown on the FIGs), the user places himself / herself at a distance of approximately one meter from the big bag. Then the user takes the back handle

(4) in one hand and the front handle (5) in the other hand. Thereafter, the user pushes on the front handle (5) to slide the front part (3) out of the back part (2) until the big bag knife (1) reaches its full length and is accordingly in the extend or use position. To be able to pierce and to cut the underside of a big bag, the tip of the hook shape of the blade (6) needs to be oriented upwards. The user can then pierce the big bag in the underside thereof pull the big bag knife towards himself / herself making an incision in the underside of the big bag, enabling emptying of the content of the big bag. Since the user is at a distance of about 1 meter from the cutting blade (6), the user will be in a safe position not to come into contact with the contents of the big bag and not to hurt him/herself by means of the cutting blade. After use, the user needs to pull at the front handle (5) such that the bulge (7a) of the resilient element (7) leaves the second hole (8), then pull the front handle (5) towards the back handle (4), in that way sliding the front part (3) in the back part (2) until the retracted position is reached, in which position the bulge (7a) of the resilient element (7) enters the first hole (8) again. The big bag knife (1) can then be taken along by the user and stored in a safe way.

Claims

1. A big bag knife, comprising

- a back part and a front part, each comprising a back end and a front end and each having a certain length, wherein the back part extends around at least part of the length of the front part,
- a blade provided at the front end of the front part,
- a sliding mechanism that attaches the front part to the back part in a sliding way, and that enables the front part to be slid in view of the back part between a retracted position of the knife in which the blade is sheathed by the back part and is inaccessible to the user of the knife, and an extended position of the knife in which the blade is situated outside the back part and enables the user to cut the big bag.

2. A big bag knife according to claim 1, wherein the blade has a top end with a hook shape with a sharp end, more in particular a gut hook shape with a sharp end.

3. A big bag knife according to claim 1 or 2, wherein the back part extends around the complete length of the front part in the retracted position of the big bag knife.

4. A big bag knife according to any one of claims 1 to 3, wherein a front handle is mounted on the front part in the vicinity of the back end thereof, that is designed to be gripped by a hand of a user of the big bag knife and to slide the front part in and out of the back part between the retracted and the extended position of the big bag knife.

5. A big bag knife according to any one of claims 1 to 4, wherein the sliding mechanism comprises a longitudinal slot like opening provided in the back part into which a sliding element provided on the front part is slideably arranged.

6. A big bag knife according to any one of claims 4 to 5, wherein a back handle is mounted on the back part in the vicinity of the back end thereof, this back handle being designed to be gripped by means of the other hand of the user of the big bag knife.

7. A big bag knife according to any one of claims 4 to 6, wherein the back and the front handle are abutting each other when the big bag knife is in its retracted position.

8. A big bag knife according to any one of claims 1 to 7, wherein the big bag knife comprises a locking mechanism to lock movement of the front part when the knife is in its retracted and/or in its extended position.

9. A big bag knife according to claim 8, wherein the locking mechanism comprises

- a first hole that is arranged in the vicinity of the back end of the back part;
- a second hole that is arranged in the vicinity of the front end of the back part; and
- a resilient element that is attached to the front part, that comprises a bulge that is arranged to fit into the first hole in the retracted position of the big bag knife and the second hole in the extended position of the big bag knife to lock the movement of the front part, and that is designed to be bent to move the bulge out of the first hole in case the big bag knife is to be moved out of its retracted position, and to move the bulge out of the second hole in case the big bag knife is to be moved out of its extended position.

10. A big bag knife according to claim 9, wherein, when the big bag knife is in its use position, the front part and the back part each comprise a top side and a bottom side, wherein the resilient element is attached to the bottom side, respectively the top side of the front part, and the first and second holes are arranged in the top side, respectively the bottom side of the back part.

11. A big bag knife according to any one of claims 4 to 10, wherein a button is provided that is connected

to the front handle and that is arranged to operate the locking mechanism in such a way that the button pushes the resilient element out of the first hole in the retracted position of the big bag knife, respectively out of the second hole in the extended position of the big bag knife.

12. A big bag knife according to claim 8, wherein the locking mechanism comprises

- a pin extending in the back part of the big bag knife, more in particular attached to the back handle;
- a resilient element attached to the front part of the big bag knife and being designed to slide in view of the pin and to hook behind the pin, more in particular comprising a bulge that is designed to slide in view of and hook behind the pin.

13. A big bag knife according to any one of claims 9 to 13, wherein the resilient element is a bendable leaf-spring.

14. A big bag according to any one of the preceding claims, wherein a friction pad is provided between the back part and the front part.

15. A big bag knife according to any one of the preceding claims, wherein the big bag knife has an overall length of approximately 0,6 m in the retracted position thereof and a length of approximately 1,0 m in the extended position thereof.

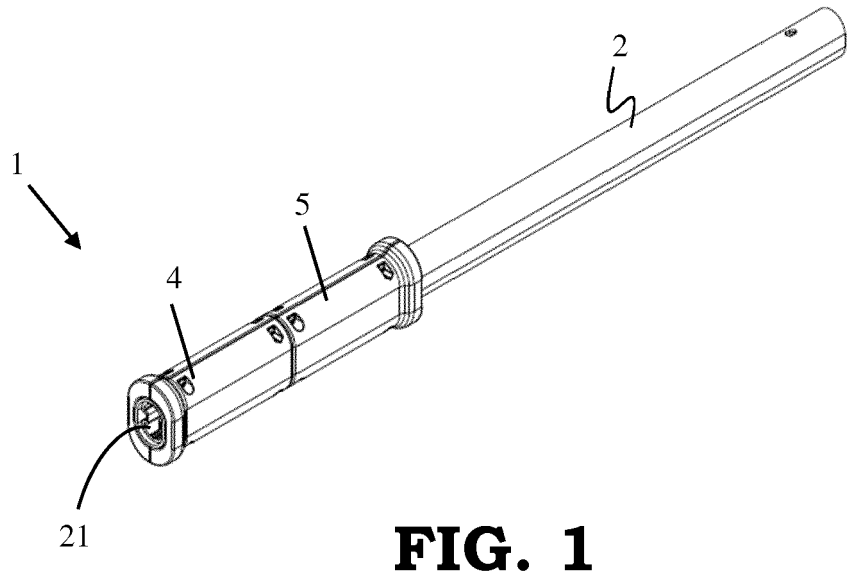


FIG. 1

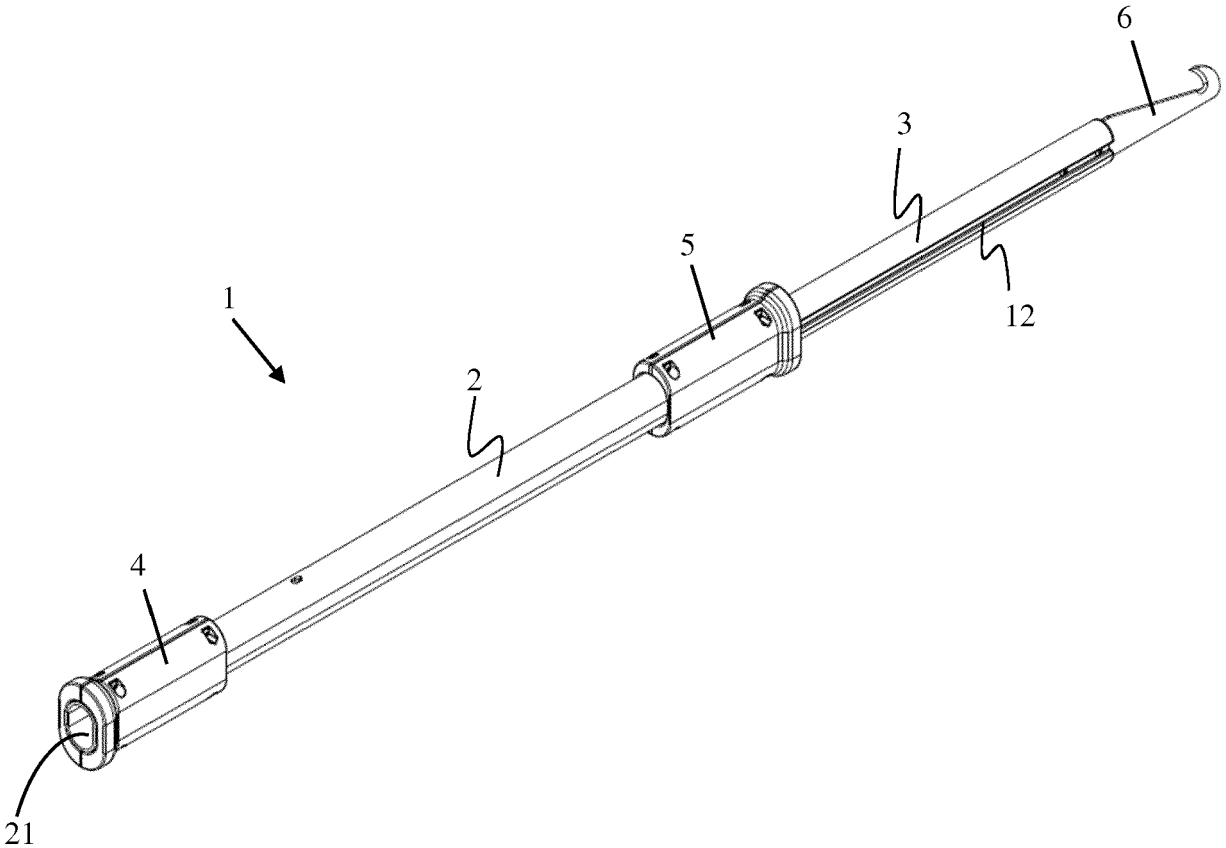
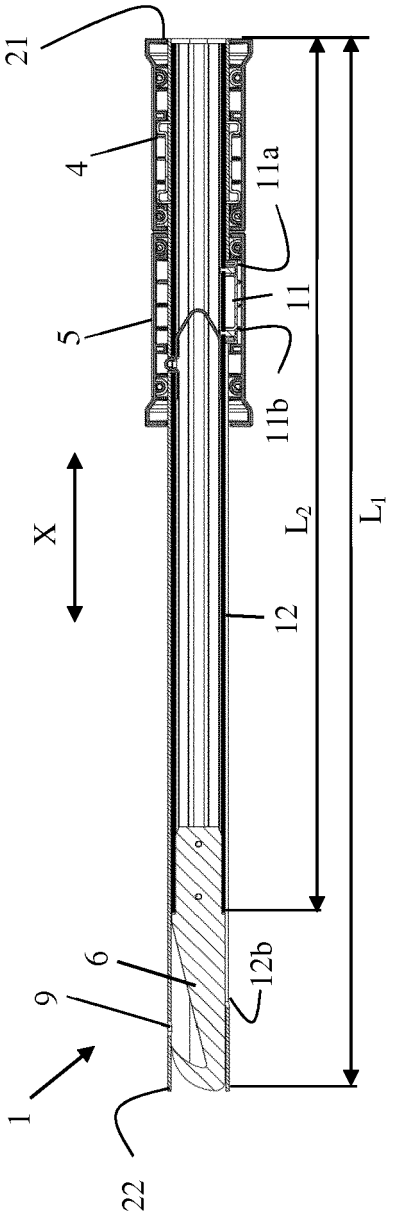


FIG. 2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4
11a
11
5
11b
X
L2
L1
12
12b
6
9
1
22

FIG. 3

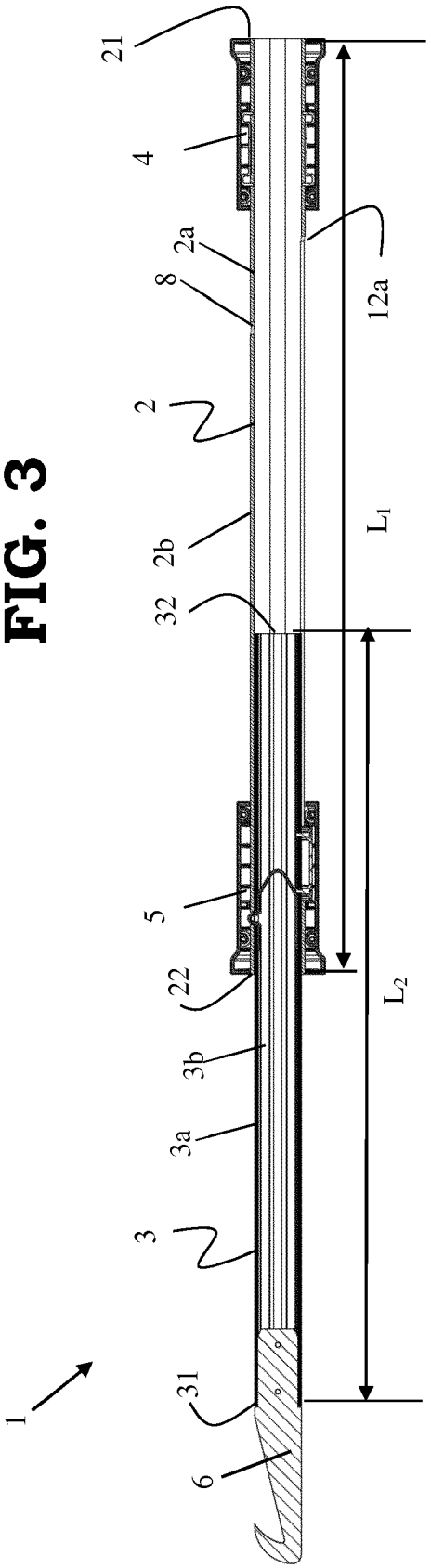
21
4
2a
8
12a
2
2b
L1
32
5
22
L2
3b
3a
3
31
6
1

FIG. 4

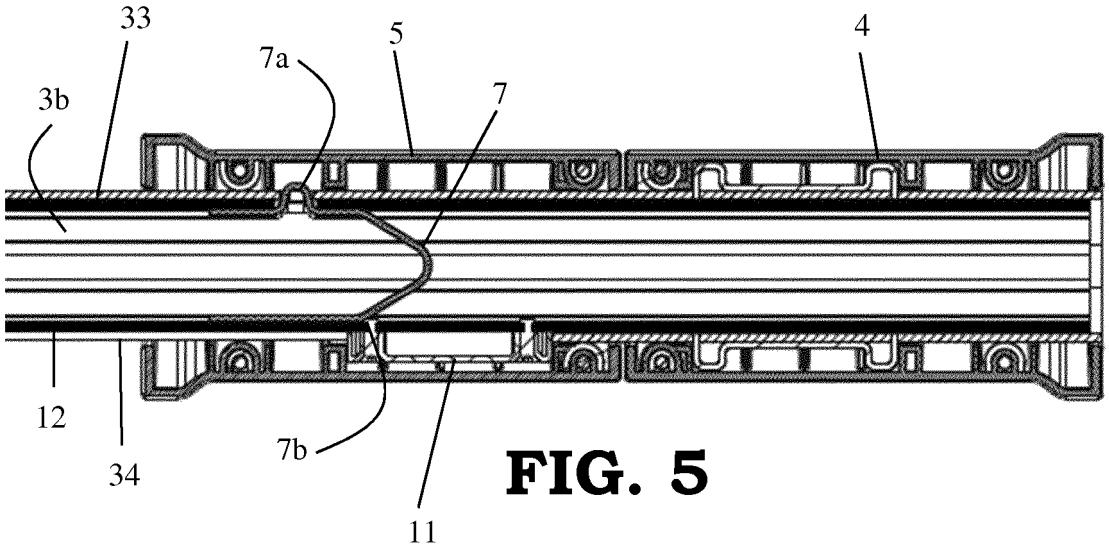

FIG. 5

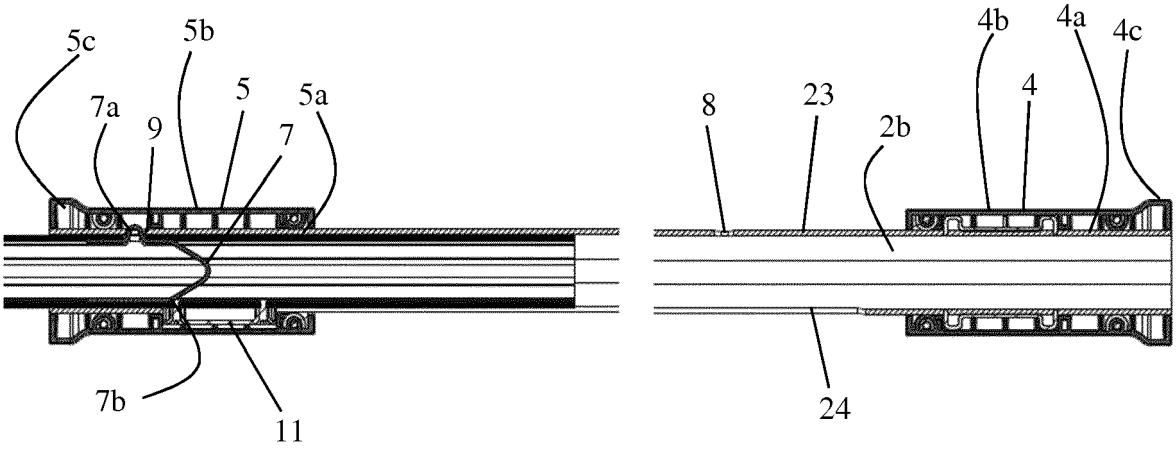

FIG. 6

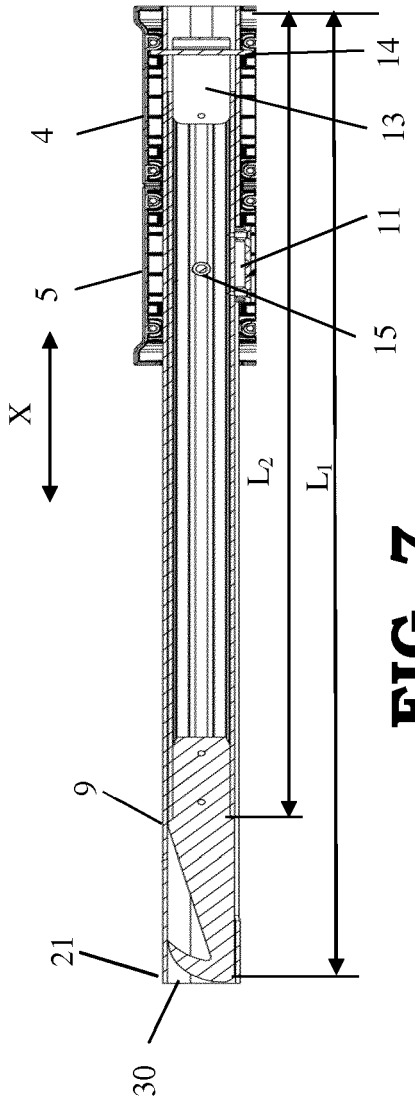

FIG. 7

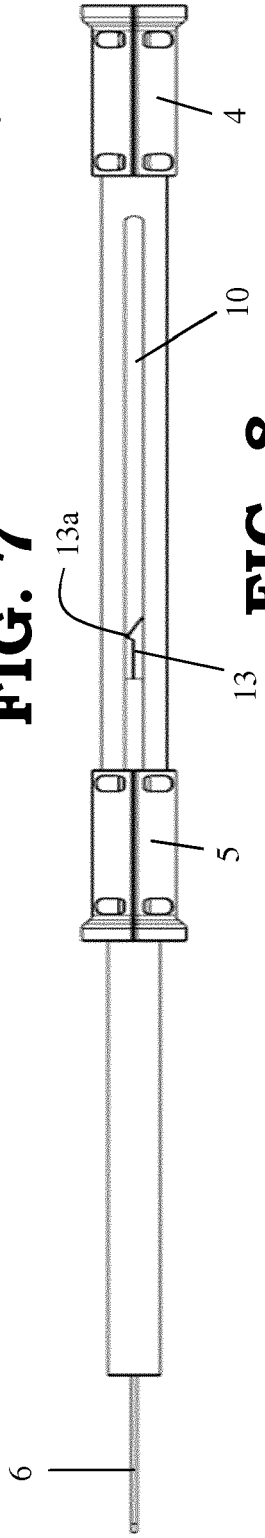

FIG. 8

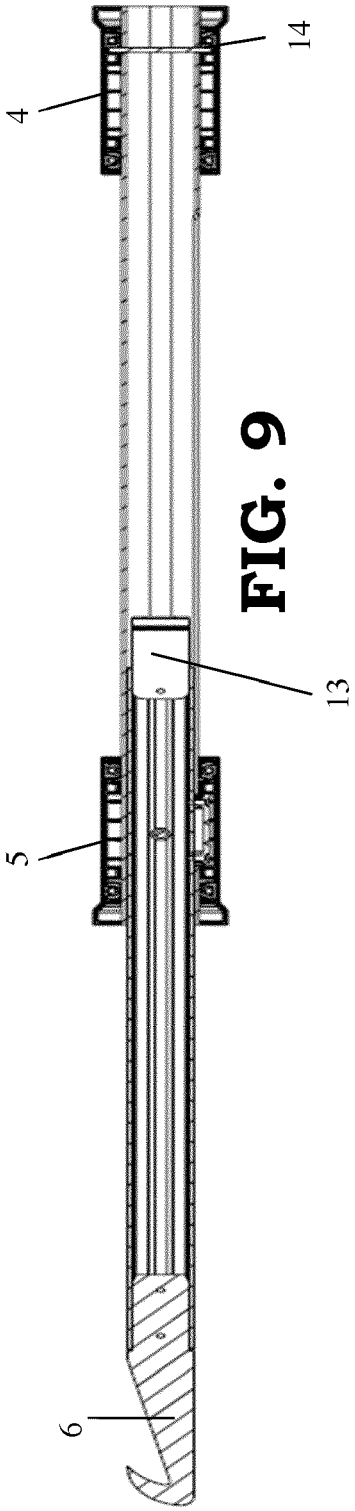

FIG. 9

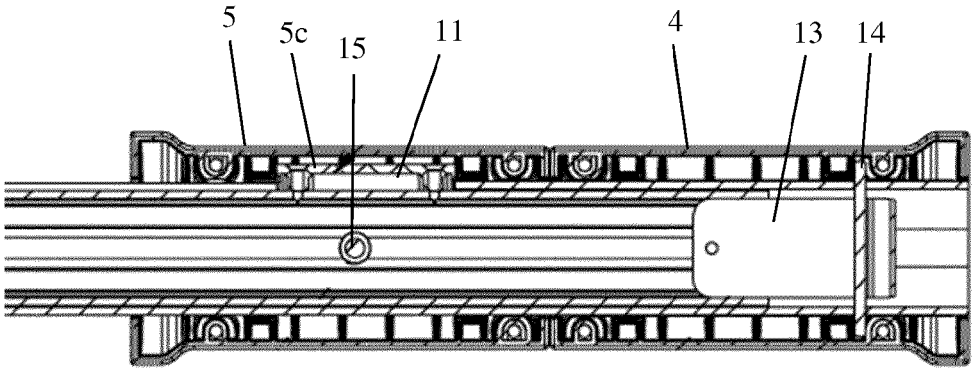

FIG. 10

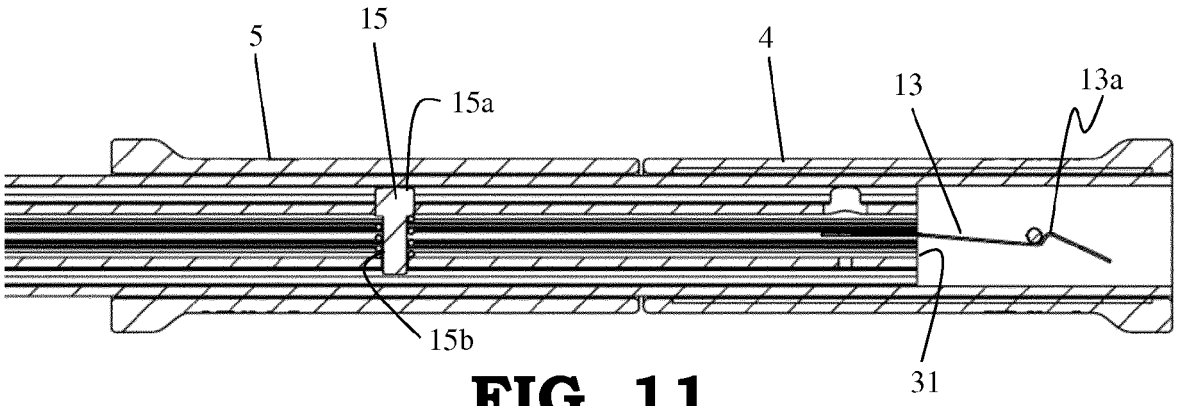

FIG. 11

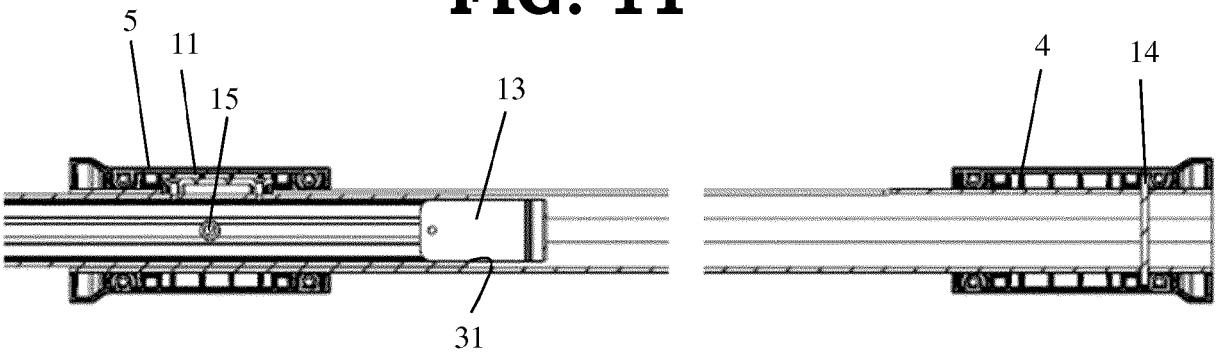

FIG. 12

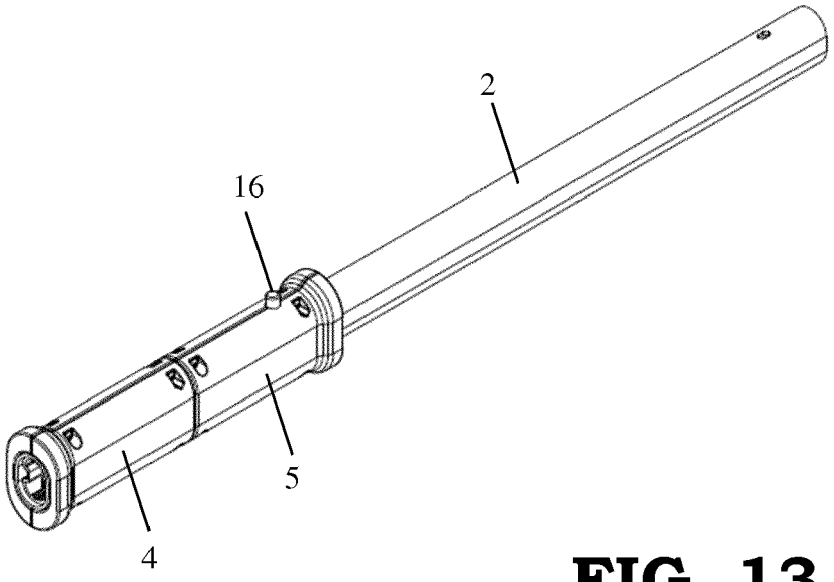

FIG. 13

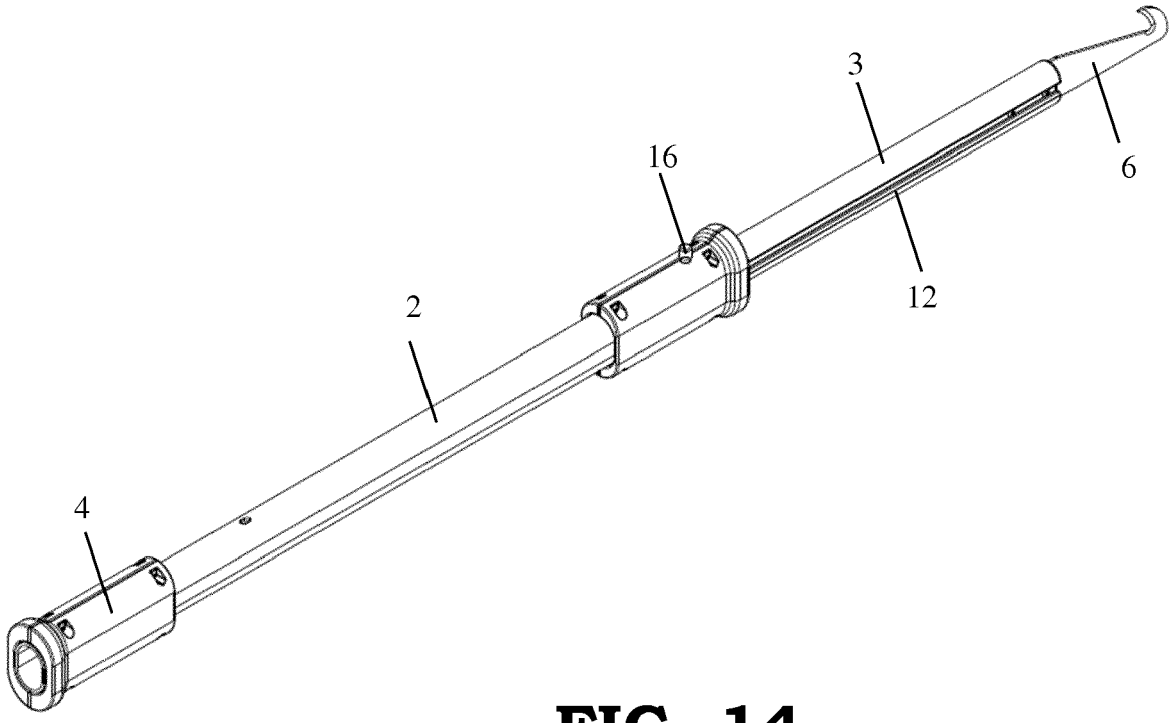

FIG. 14

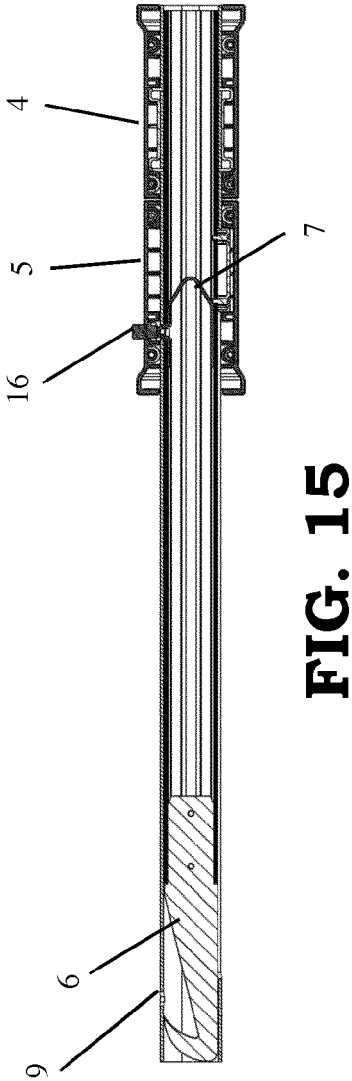

FIG. 15

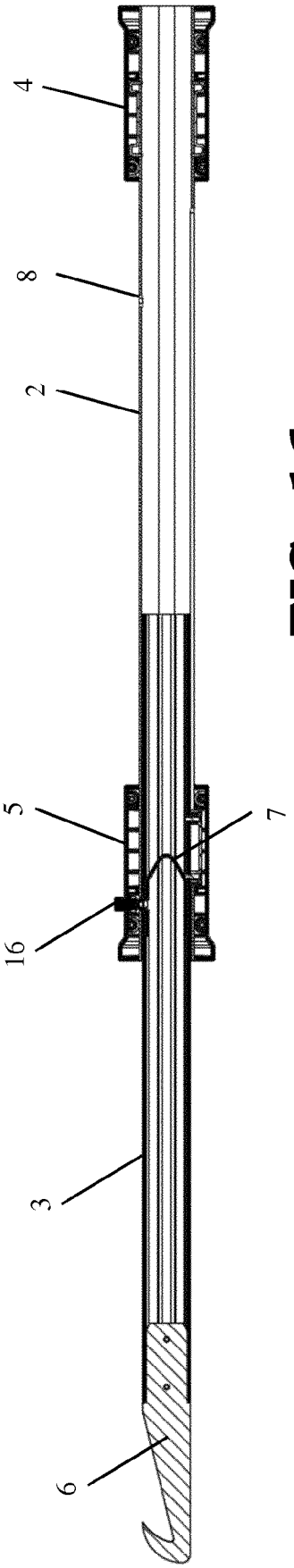

FIG. 16

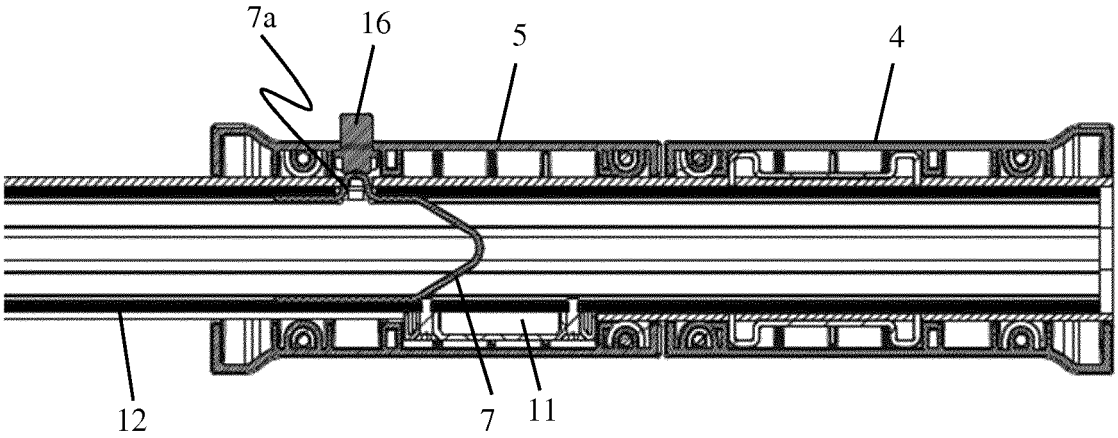

FIG. 17

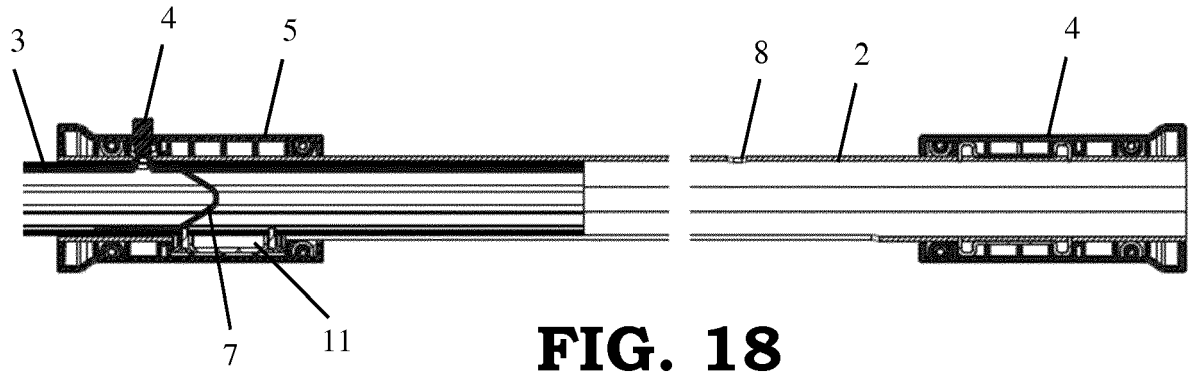

FIG. 18

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EUROPEAN SEARCH REPORT

Application Number
EP 18 15 1846

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X Y	FR 2 849 796 A1 (VIGNATELLI YVES [FR]) 16 July 2004 (2004-07-16) * page 2, line 3 - page 3, line 13 * * page 24, line 6 - page 26, line 16 * * figures 3,9,12 *	1,3-15 2	INV. B26B5/00
X	US 2 517 158 A (AHMER CARL W) 1 August 1950 (1950-08-01) * column 1, line 39 - column 2, line 46 * * figures 1-5 *	1,3-8	
Y	US 2011/308090 A1 (HO CHUN-FENG [TW]) 22 December 2011 (2011-12-22) * figure 9 *	2	
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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	20 June 2018	Calabrese, Nunziante

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20-06-2018

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