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(54) Benævnelse: **Forskæftemonteringssystem til et håndskydevåben**

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[0001] The invention relates to a stock fastening device for a hand firearm. The invention also relates to a hand firearm with such a stock fastening device. A stock fastening device for fixing a stock is known from DE 3 509 125.

[0002] In the hand firearms known to date, the stocks which are usually made of wood or plastic, are normally fastened to the receiver by means of special threaded screws. One disadvantage of this fastening is that the threaded screws require several turns for attaching or detaching the barrel, which entails a corresponding amount of time and effort. In addition, the threaded screws can easily be lost when in use.

[0003] The object of the invention is to create a stock fastening device and a hand firearm with such a stock fastening device which allow easy and rapid attachment and detachment of a stock.

[0004] This object is achieved through a stock fastening device with the features of claim 1 and through a hand firearm with the features of claim 13. Expedient embodiments and advantageous developments of the invention are disclosed in the subordinate claims.

[0005] The stock fastening device according to the invention consists of a clamping bolt and a clamping eccentric which co-operates with the clamping bolt and through which the stock can be fastened to the receiver while generating an axial traction force. The clamping eccentric exhibits a central through-bore for passage of a clamping head of the clamping bolt and at least one lateral slot for receiving a slimmer region of the clamping bolt. As a result of this, the clamping bolt can be passed through the clamping eccentric and the clamping eccentric can be turned to a clamping position. The clamping eccentric and the associated clamping bolt create a quick-action fastening which allows rapid and reliable attachment and detachment of the stock without complicated attachment operations. In comparison to conventional fastening screws, the clamping eccentric need only be turned a quarter turn to clamp or release. In addition, a fixed clamping position can be predetermined by the clamping eccentric so that insufficient or excessive tightening of the stock and resulting inaccuracies or distortions can be avoided. The clamping eccentric and the clamping bolt also remain fitted to the parts to be connected when the stock is detached so that they cannot be lost even if the stock is detached in the field.

[0006] In one advantageous embodiment, the clamping bolt is arranged on the receiver and the clamping eccentric is arranged in the stock. For fastening a fore stock, the clamping eccentric can be arranged for example in the forestock so as to be able to turn about an axis perpendicular to the longitudinal axis of the stock. The clamping eccentric is expediently arranged inside a housing so as to be able to turn on a base plate. However, the clamping eccentric can also be arranged in the stock without a separate housing.

[0007] Preferably, on the outside the clamping eccentric exhibits at least one eccentric clamping face for bearing on a tightening face of the clamping bolt. This allows the production of an axial inward traction force between the clamping eccentric and the clamping bolt. However, the clamping eccentric can also be symmetrical in shape and exhibit two opposing eccentric clamping faces and two opposing slots. Then, no special installation position need be considered when attaching the clamping eccentric.

[0008] A locking device can be provided on the clamping eccentric to prevent undesired turning of the clamping eccentric. The locking device can comprise for example an actuating element which is connected with the clamping eccentric in form-locking fashion and is displaceable axially between a locking position and an actuating position and can only be turned in the actuating position. In one expedient embodiment this can be achieved in that the actuating element exhibits a head embodied as a hexagon and a slimmer shank lying underneath the head and runs through an opening embodied as a slot in a base plate in such a way that in the locking position the head is held inside the opening so that it cannot turn and in the actuating position the shank is in the region of the opening allowing the actuating element to turn.

[0009] In a further expedient embodiment, the clamping bolt can be fastened to the receiver by means of a mounting element. The mounting element can be arranged in a slot of a barrel mounting receptacle of the receiver embodied as a slotted sleeve so as to be able to pivot between a stock mounting position and a barrel mounting position and is embodied in the manner of a wedge in such a way that the barrel mounting receptacle is widened in the barrel mounting position. As a result, the mounting element can not only hold the clamping bolt, it can also perform the function of a mounting aid for attachment and detachment of the barrel.

[0010] Further particular features and advantages will become apparent from the following description of a preferred embodiment example given with reference to the drawings in which:

figure 1 shows a receiver of a repeating rifle with a stock fastening device according to the invention for fixing a fore stock to the receiver;
figure 2 shows the stock fastening device shown in figure 1 without the housing;
figure 3 shows a detail view of the stock fastening device with an actuating element in a locking position;
figure 4 shows a detail view of the stock fastening device with the actuating element in an actuating position;
figure 5 shows the stock fastening device with a clamping eccentric in a release position in section;
figure 6 shows the stock fastening device with the clamping eccentric of figure 5 in a release position in section;
figure 7 shows a view from underneath of a receiver with a mounting element of the stock fastening device in a stock mounting position and
figure 8 shows a view from underneath of the receiver with the mounting element of the stock fastening device in a barrel mounting position.

[0011] The stock fastening device 1 illustrated in various views in figures 1 to 6 comprises a clamping bolt 3 which is fastened for example to a receiver 2 of a repeating rifle, and a clamping eccentric 4 which can be seen in figure 2 and can be arranged for example in a fore stock 5 of the repeating rifle, as shown in figure 5. The fore stock 5 can be fixed to the receiver 2 by the clamping bolt 3 and the clamping eccentric 4.

[0012] As can be seen from figures 5 and 6, the clamping eccentric 4 is arranged inside the fore stock 5 so as to be able to turn about an axis perpendicular to the longitudinal axis of the stock 5. The clamping eccentric 4 is arranged inside a housing 6 so as to be able to turn on a base plate 7, which can be seen in figure 2, between a release position shown in figure 5 and a clamping position shown in figure 6. The base plate 7 and the housing 6 with the clamping eccentric 4 arranged in it are fastened by means of bores 8 and screws 9, visible in figure 2, in a corresponding recess 10 of the fore stock 5. A continuous opening 11 is provided in the housing 6 for introduction of the clamping bolt 3.

[0013] The stock 5 also incorporates a passage 12 which is aligned with the opening 11 for introduction of the clamping bolt 3. In the mounting position, the clamping bolt 3 fastened to the front end of the receiver 2 is arranged so as to project towards the front from the receiver 2 in the direction of the longitudinal axis thereof and at its free front end exhibits a clamping head 13 and an adjoining slimmer region 14. In the clamping position shown in figure 6, the clamping bolt 3 extends through the clamping eccentric 4 and the clamping head 13 projects in relation to the clamping eccentric 4.

[0014] The clamping eccentric 4 shown in figure 2 and in figures 5 and 6 comprises a central through-bore 15 running at right angles to its axis of rotation, and two diametrically opposing lateral slots 16 and 17 which in each case extend to a web 18 and 19 respectively. The through-bore 15 exhibits a somewhat greater inside diameter than the outside diameter of the clamping head 13 so that the clamping head 13 can be passed completely through the clamping eccentric 4. The slots 16 and 17 exhibit a somewhat greater width than the slimmer region 14 on the clamping bolt 3. The slots 16 and 17 are embodied in such a way that the clamping eccentric 4 can be turned through approx. 90° when the clamping bolt 3 is inserted. On the outside of the clamping eccentric 4 there is at least one eccentric clamping face 20 which runs in a helix for example and which comes to bear on an inner tightening face 22 on the inside of the clamping head 3 when the clamping eccentric 4 is turned to the clamping position, and produces an axial inward traction force between the clamping bolt 3 and the clamping eccentric 4.

[0015] In the embodiment shown, the clamping eccentric 4 is symmetrical with two opposing clamping faces 20 and 21 and two lateral receiving slots 16 and 17. This allows the clamping eccentric 4 to be fitted in two positions. However, the clamping eccentric 4 can also exhibit just one clamping face 20 and an associated receiving slot 16.

[0016] The clamping eccentric 4 is turned by a bolt-shaped actuating element 23 which is displaceable axially and arranged inside the stock 5 so as to be able to turn coaxially to the axis of rotation of the clamping eccentric 4 and is displaceable axially against the force of a compression spring 24 between a lower locking position shown in figure 3 and an upper actuating position shown in figure 4. The actuating element 23 which can be turned for example by a hexagon socket screw key or another suitable tool, comprises an upper part which extends through an

opening 25 in the base plate 7 and has a head 26 in the form of a hexagon and an underlying slimmer cylindrical shank 38 which can be seen in figure 4.

[0017] For rotation of the clamping eccentric 4, the head 26 in the form of a hexagon engages in a recess in the form of a hexagon socket in the underside of the clamping eccentric 4. The opening 25 is embodied as a slot with a width which is only slightly greater than the width across the flats of the head 26 embodied as a hexagon. Thus, when the head 26 embodied as a hexagon is in the region of the opening 25 in the base plate 7, the actuating element 23 cannot be turned. The slimmer shank 38 lying under the head 26 is arranged in such a way that it only comes into the region of the opening 25 embodied as a slot in the base plate 7 when the actuating element 23 is moved into the upper actuating position and thus allows the clamping eccentric 4 to be turned. On the other hand, when the actuating element 23 is pressed into the lower locking position by the compression spring 24, the head 26 embodied as a hexagon is also in engagement with the opening 25 embodied as a slot, so that the clamping eccentric 4 is prevented from turning. Thus, the actuating element 23 must first be pressed in against the force of the compression spring 24 before the clamping eccentric 4 can be turned. This creates a locking arrangement to prevent undesired turning of the clamping eccentric 4.

[0018] In the embodiment shown in the drawing, the receiver 2 exhibits a barrel mounting receptacle 27 embodied as a slotted sleeve for detachable mounting of a barrel 28. The clamping bolt 3 is connected to the receiver 2 by means of a bolt-shaped mounting element 29. As can be seen from the views from underneath in figures 7 and 8, the barrel mounting receptacle 27 comprises a slot 30 and lateral bores 31, which can be seen in figure 1, by means of which the barrel mounting receptacle 27 embodied as a slotted sleeve can be pressed together with the aid of clamping screws 32 to secure the barrel 28. The mounting element 29 is arranged with its rear end 33 formed with flats on both sides in the slot 30 so as to be able to turn about a transverse pin 34, which can be seen in figure 1, between a stock mounting position shown in figure 7 and a barrel mounting position shown in figure 8.

[0019] The clamping bolt 3 is screwed securely in a threaded bore 35, which can be seen in figure 8, in the front end of the bolt-shaped mounting element 29. The rear end 33 formed with flats of the mounting element 29 is embodied in the manner of a wedge in such a way that the barrel mounting receptacle 27 can be

widened when the mounting element 29 is pivoted into the position shown in figure 8 for easier attachment or detachment of the barrel 28. For this, the end 33 of the mounting element articulated in the slot 30 can be provided with lateral wedge faces 36, which can be seen in figure 7, and which, when the mounting element 29 is pivoted into the position shown in figure 8, come to bear on a step-shaped shoulder 37 between a wider outer region and a slimmer inner region of the slot 30 and so widen the barrel mounting receptacle 27.

[0020] In the stock mounting position shown in figure 7, the mounting element 29 is aligned as in figure 1 in the longitudinal direction of the receiver 2 so that the clamping bolt 3 fastened in the mounting element 29 can be introduced into the clamping eccentric 4 when the fore stock 5 is applied to the receiver 2. In contrast, in the downwardly pivoted barrel mounting position shown in figure 8, the barrel mounting receptacle 27 is widened so that the barrel 28 can be attached or detached more easily. Thus, the mounting element 29 serves not only to hold the clamping bolt 3 but also can have the function of a mounting aid for attachment or detachment of the barrel 28.

Patentkrav

1. Skæftefastgørelsesindretning (1) til fiksering af et skæfte (5) til en låseramme (2) af et håndskydevåben, **kendetegnet ved** en spændebolt (3) og en med spændebolten (3) samvirkende spændeexcentrik (4), som har en central gennemgående boring (15) for passage af et spændehoved (13) på spændebolten (3) og mindst en siderettet slids (16, 17) til optagelse af et smallere område (14) af spændebolten (3).

2. Skæftefastgørelsesindretning ifølge krav 1, **kendetegnet ved, at** spændebolten (3) er arrangeret på låserammen (2), og spændeexcentrikken (4) er arrangeret i skæftet (5).

3. Skæftefastgørelsesindretning ifølge krav 1 eller 2, **kendetegnet ved, at** spændeexcentrikken (4) er arrangeret i et forskæfte (5) for derved at kunne dreje om en akse vinkelret på skæftets (5) længdeakse.

4. Skæftefastgørelsesindretning ifølge et af krav 1 til 3, **kendetegnet ved, at** spændeexcentrikken (4) er arrangeret inde i et hus (6) for at kunne dreje på en grundplade (7).

5. Skæftefastgørelsesindretning ifølge et af krav 1 til 4, **kendetegnet ved, at** på ydersiden har spændeexcentrikken (4) mindst en excenterspændeflade (20, 21) til anlæg mod en spændeflade (22) på spændeboltens (3) spændehoved (13).

6. Skæftefastgørelsesindretning ifølge et af krav 1 til 5, **kendetegnet ved, at** en låseindretning (23, 25, 26) er arrangeret på spændeexcentrikken (4) for at undgå uønsket drejning af spændeexcentrikken (4).

7. Skæftefastgørelsesindretning ifølge krav 6, **kendetegnet ved, at** låseindretningen (23, 25, 26) omfatter et drivelement (23), som er forbundet med spændeexcentrikken (4) på formsluttende måde og kan forskydes aksielt mellem en låsestilling og en drivstilling og kun kan drejes i drivstillingen.

8. Skæftefastgørelsesindretning ifølge krav 7, **kendetegnet ved, at** drivelementet (23) har et hoved (26) udformet som en sekskant og et smallere skaft (38), der befinder sig under hovedet (24) og forløber gennem en åbning (25) udformet som en slids i en grundplade (7) på sådan måde, at hovedet (26) i låsestillingen

holdes inden i åbningen (25), så det ikke kan dreje, og at skaftet (38) i drivstillingen er i det område af åbningen (25), som tillader driveelementet (23) at blive drejet.

9. Skæftefastgørelsesindretning ifølge et af krav 1 til 8, **kendetegnet ved, at** spændebolten (3) er fastgjort til låserammen (2) ved hjælp af et monteringselement (29).

10. Skæftefastgørelsesindretning ifølge krav 9, **kendetegnet ved, at** monteringselementet (29) er arrangeret i en slids (30) i en som løbsoptagerdel (27) udformet opslidset bøsning af låserammen (2).

11. Skæftefastgørelsesindretning ifølge krav 10, **kendetegnet ved, at** monteringselementet (29) er arrangeret i slidsen (30), så det kan svinges mellem en skæftemonteringsstilling og en løbsmonteringsstilling og er udformet som en kile på sådan måde, at løbsoptagerdelen (27) udvides i løbsmonteringsstillingen.

12. Skæftefastgørelsesindretning ifølge krav 11, **kendetegnet ved, at** monteringselementet (29) omfatter siderettede kileflader (36) for anlæg mod en trinformet afsats (37) i slidsen (30).

13. Håndskydevåben med en skæftefastgørelsesindretning (1) til fiksering af et skæfte (5) til en låseramme af håndskydevåbnet, **kendetegnet ved, at** skæftefastgørelsesindretningen (1) er udformet ifølge et af krav 1 til 12.

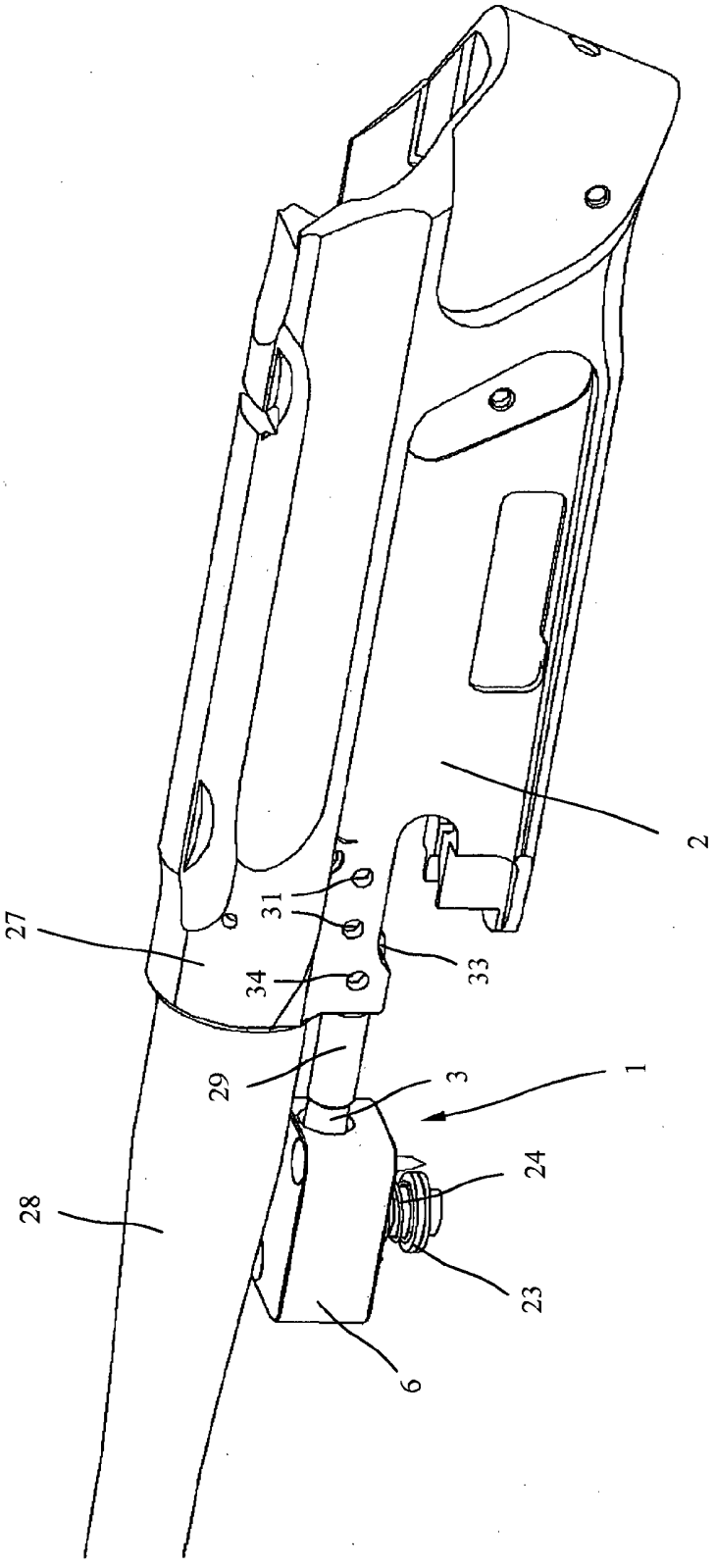

Fig. 1

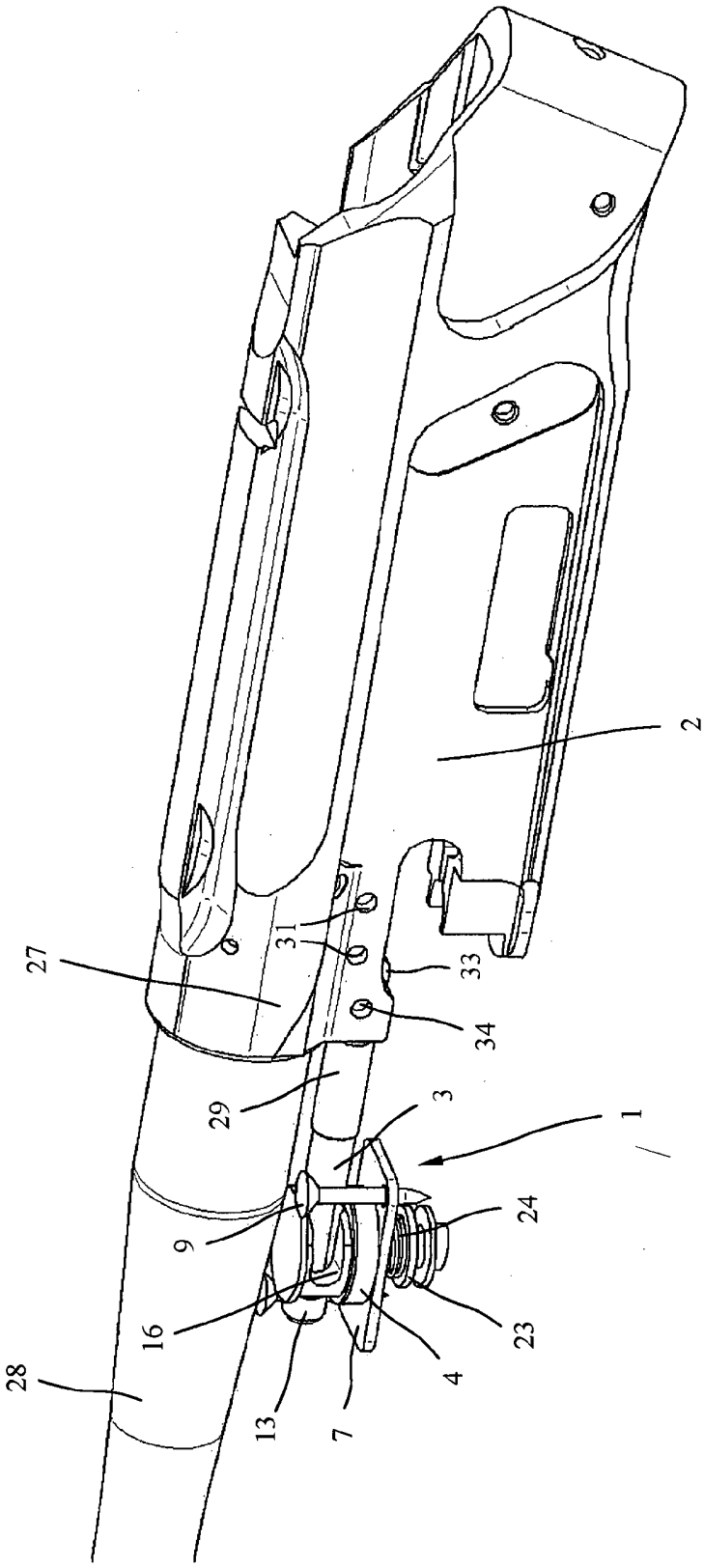

Fig. 2

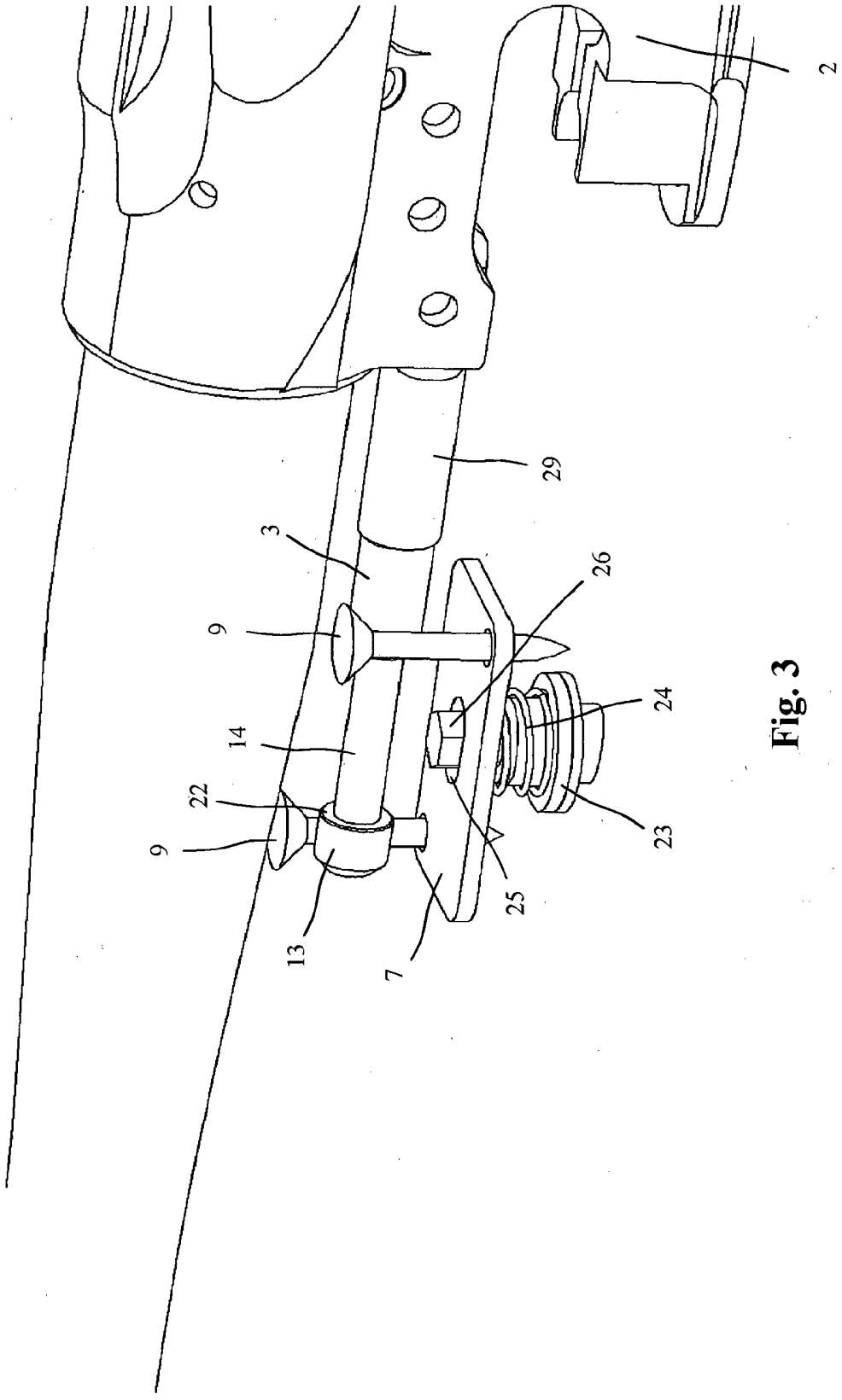

Fig. 3

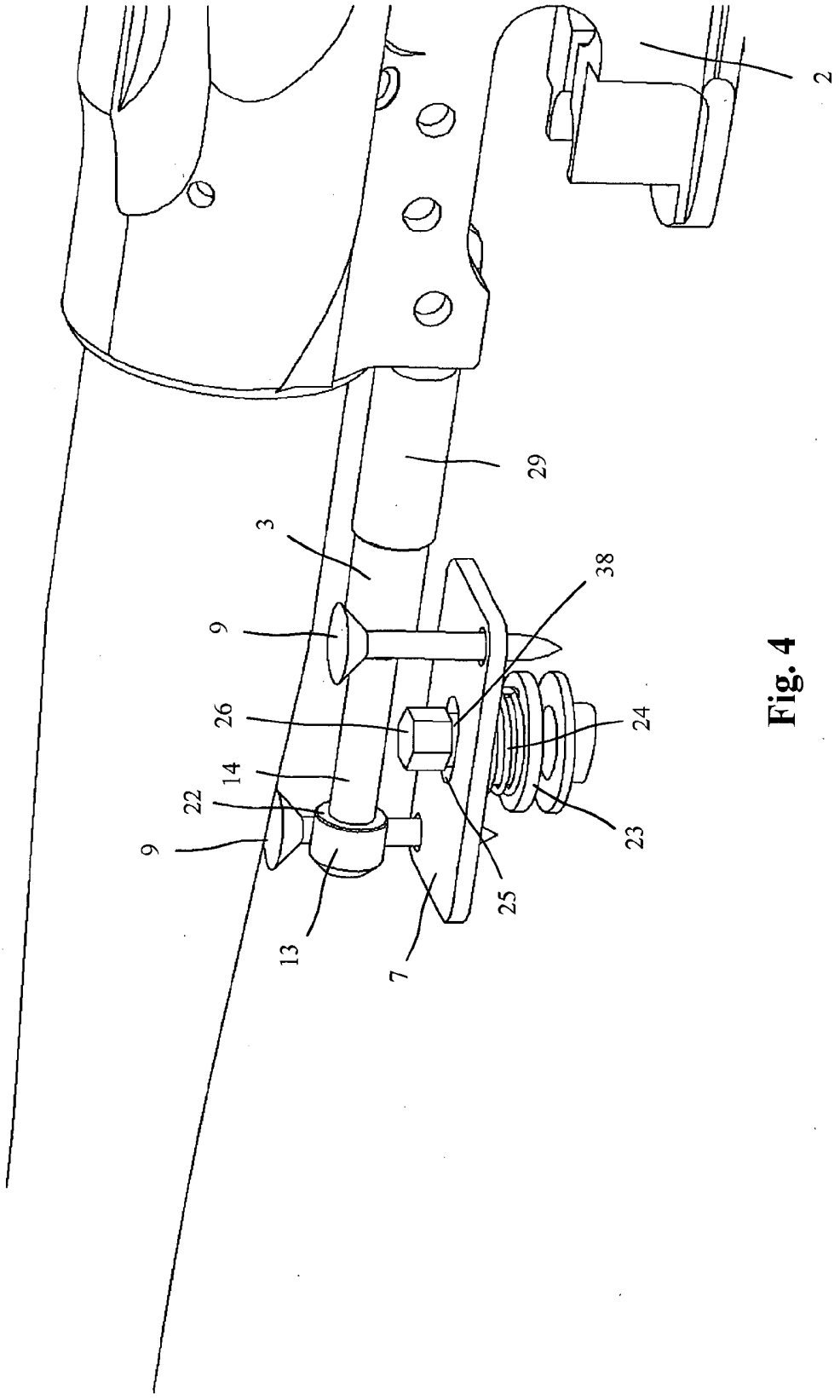

Fig. 4

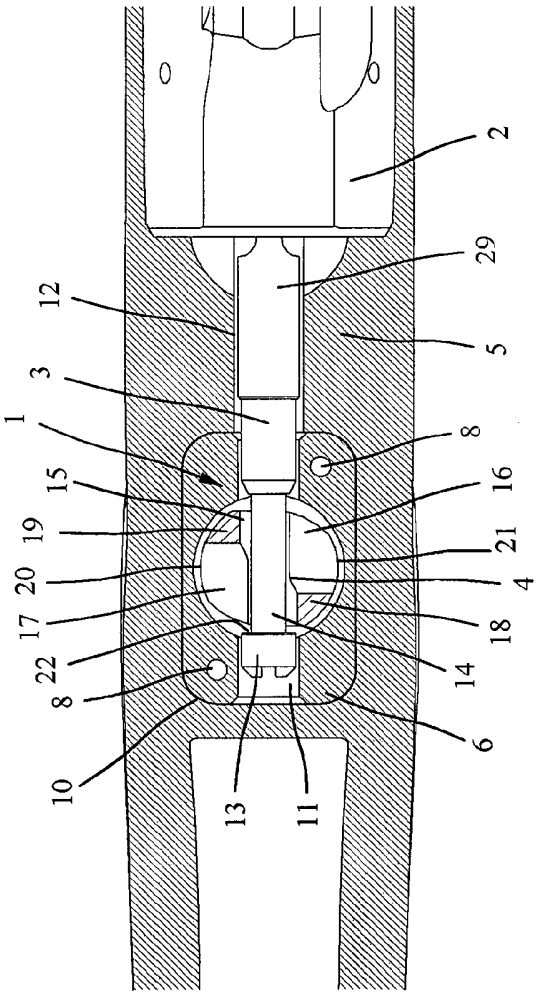
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Fig. 5

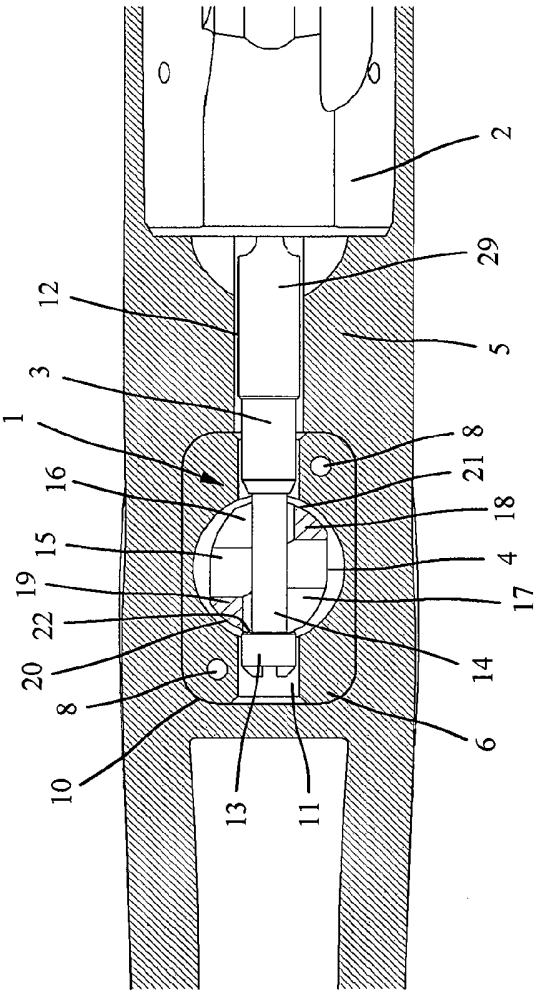
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Fig. 6

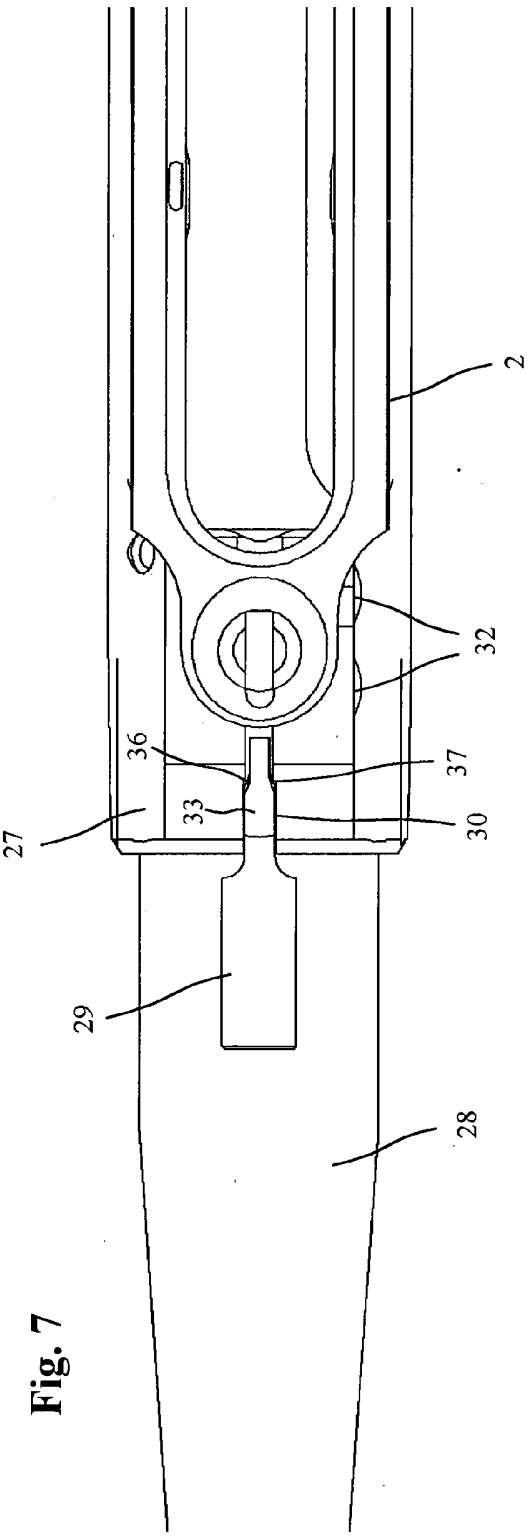

Fig. 7

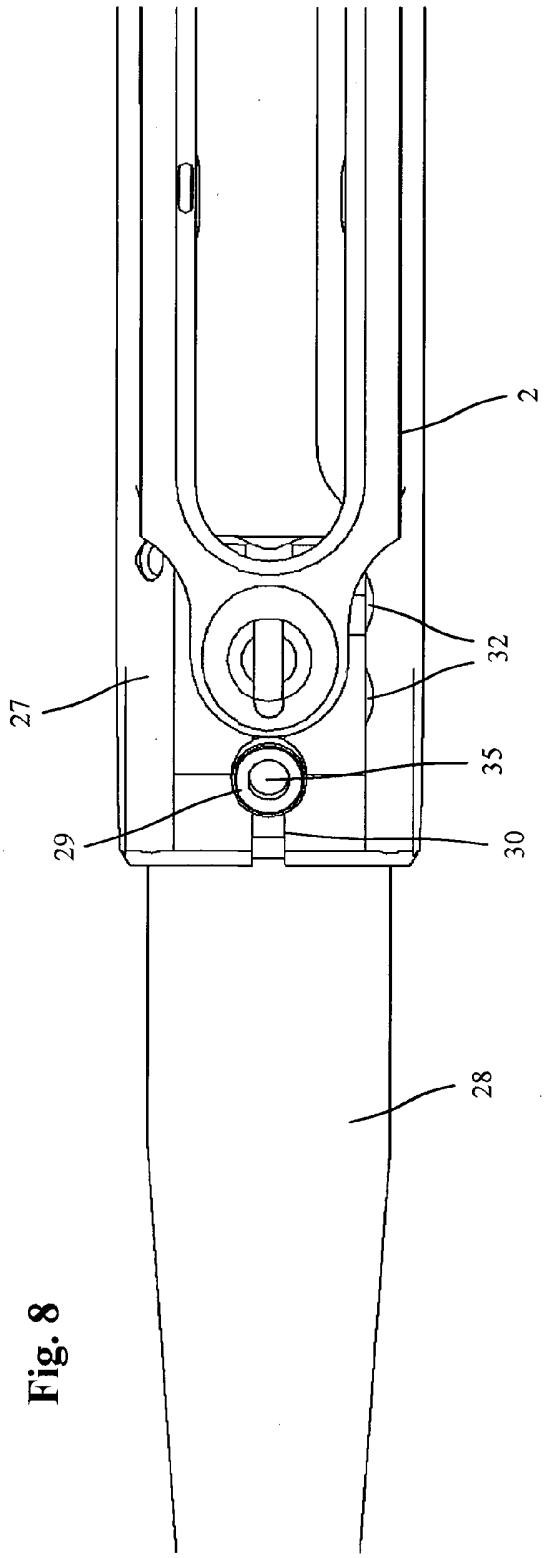

Fig. 8