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(54) **LOCK FOR A DOOR OR A WINDOW**
SCHLOSS FÜR EIN FENSTER ODER EINE TÜR
SERRURE POUR UNE FENÊTRE OU UNE PORTE

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WO-A2-03/076746 CN-A- 104 631 975
DE-U1- 29 707 200 GB-A- 2 297 798</p> |
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Description

TECHNICAL FIELD

[0001] The present invention relates to a lock for a door or a window. In particular, the present invention makes reference to the technical field of door closing devices.

PRIOR ART

[0002] As is well known, there exist locks that effect the closure of a leaf, which is movable relative to the frame of the door or window, by means of a bolt that is reversibly movable, relative to the leaf, between an extracted position and a retracted position. In greater detail, the bolt is configured to engage, on command, in a seat provided in the frame so as to lock the leaf and effect the closure of the door or window.

[0003] Generally, such locks have a lock body that can be housed in the thickness of the leaf and comprises the bolt. In particular, the bolt is moved between the extracted position and the retracted position thanks to the rotation of a square bar that passes through the lock body.

[0004] Such locks further comprise a pair of handles at least partially recessed into the exposed surface of the leaf and at least one of which is connected to the square bar so as to control the movement of the bolt. In particular, each handle comprises a receptacle adapted to be recessed into the surface of the leaf and configured to receive an actuating member, typically a latch, directly connected to the square bar. In greater detail, if the lock is intended for a door or window for which the bolt must be actuated from only one side, for example, from the inside of a room, the latch is suitably shaped in order that it can be gripped and actuated manually by a user. In the handle positioned on the other side, by contrast, typically on the outside of the room, the latch cannot be gripped, but rather has an indentation for a tool, or a coin, so as to allow only a possible emergency opening of the lock and, therefore, of the door or window.

[0005] Alternatively, the handle on the outside is idly mounted on the square bar. Such locks and handles pose several drawbacks.

[0006] Firstly, accurate, time-consuming work on the leaf is necessary to create the recessed seat for each receptacle.

[0007] Secondly, the field of application of such locks and handles is disadvantageously limited by the thickness of the leaf. In fact, each receptacle requires a recessed seat having a minimum depth, so it is essential that the leaf have a sufficient thickness, both for installing the lock and for creating the recessed seat.

[0008] Disadvantageously, moreover, the above-described handles are not very ergonomic and, especially in the case of hinged leaves, they require auxiliary gripping members, typically extractable. This circumstance introduces constructive complications and higher costs.

[0009] Document DE 29707200 U1, in accordance

with the preamble of claim 1, describes a lock for doors of bathrooms or toilets with a rotatable handle disposed inside the room and a display device positioned outside the room to display the "closed" status.

OBJECTS OF THE INVENTION

[0010] In this context, therefore, it would be desirable to have a lock for a door or a window capable of addressing at least some of the abovementioned problems.

[0011] In particular, one object of the present invention is to provide a lock that can be mounted on leaves having reduced thicknesses.

[0012] A further object of the present invention is to propose a lock that can be rapidly and easily installed.

[0013] Another object of the present invention is to provide a lock that is simple to use.

[0014] The stated technical task and specified objects are substantially achieved by a lock for a door or a window comprising the technical features disclosed in one or more of the appended claims.

[0015] The dependent claims correspond to possible embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] Additional features and advantages of the present invention will emerge more clearly from the approximate, and thus non-limiting, description of a preferred but not exclusive embodiment of a lock for a door or a window as illustrated in the appended drawings, in which:

- figure 1 is a perspective view of a lock for a door or a window in accordance with a possible embodiment of the present invention;
- figure 2 is a representation, in an exploded view, of a portion of the lock in figure 1;
- figure 3 is an enlarged view of a constructive detail of the portion of the lock shown in figure 2;
- figure 4 is a sectional view of the lock in figure 1;
- figure 5 is a further sectional view of the lock in figure 1;
- figure 6 is an exploded perspective view of a lock for a door or a window in accordance with a further possible embodiment of the present invention;
- figure 7 is a representation, in an exploded view, of a portion of the lock in figure 6;
- figures 8 and 9 are sectional views of the lock in figure 6;
- figures 10 and 11 are sectional views of a lock for a

door or a window in accordance with further possible embodiments of the present invention.

DETAILED DESCRIPTION

[0017] With reference to the appended figures, a lock for a door or a window according to the invention has been denoted in its entirety by the reference number 1.

[0018] The lock 1 comprises a lock body 2 connectable to a leaf "A" (figures 4 and 8) of a door or a window.

[0019] In particular, the lock body 2 comprises a locking element 3 that is reversibly movable between a retracted position, in which it is at least partly housed inside the lock body 2, and an extracted position, in which it is at least partly projecting from the lock body 2 so as to define a condition of closure of the door or the window.

[0020] Preferably, the locking element 3 comprises a bolt 4.

[0021] Advantageously, the lock body 2 can comprise a magnetic retaining device 5 configured to interact magnetically with a counter-plate (not illustrated) installed on the frame of the door or the window. In this manner, the leaf "A" can be kept firmly in a closed position without the activation of the bolt 4.

[0022] With particular reference to figures 1 and 6, the lock 1 further comprises an actuating means 6 for moving the locking element 3.

[0023] In accordance with a possible embodiment illustrated in figures 1-5, the actuating means 6 comprises a bar 13 with a polygonal cross section which is active on the lock body 2 and reversibly rotatable in order to move the locking element 3 at least between the retracted position and the extracted position. For example, the bar 13 can have a quadrangular cross section, preferably a square one. It should be underscored that the kinematic mechanism of the transmission of motion between the bar 13 and the bolt 4 is of a known type and not illustrated.

[0024] As may be better seen in figures 4, 5, 8 and 9, the lock 1 comprises a fixed handle 7 that is connectable to the leaf "A" and can be gripped by a user. In particular, the fixed handle 7 is solidly joined to the lock body 2. Furthermore, the lock 1 comprises a rotating handle 8 that is connectable to the leaf "A" and can be gripped by a user.

[0025] The rotating handle 8 is solidly coupled to the actuating means 6 and rotatable relative to the lock body 2 in order to move the locking element 3 between the extracted position and the retracted position. Advantageously, moreover, the actuating means 6 and at least the rotating handle 8 can be telescopically coupled to enable the lock to be adapted to the thickness of the leaf.

[0026] For example, the fixed handle 7 and the rotating handle 8 can be disposed, respectively, on the surface of the leaf outside a room and on the surface of the leaf inside a room.

[0027] Preferably, the actuating means 6 is disposed at least partly inside the rotating handle 8. In other words, the rotating handle 8 can be configured to house the

actuating means 6 at least partly, thereby imparting a particular aesthetic appeal to the lock 1.

[0028] With particular reference to figures 2 and 7, the lock 1 further comprises a first support element 9 and a second support element 10, each having a longitudinal dimension of extension such that they take on a configuration, during use, projecting from a leaf "A".

[0029] Advantageously, the fixed handle 7 and the rotating handle 8 can be fitted over the first support element 9 and the second support element 10, respectively.

[0030] In this manner, the fixed handle 7 and the rotating handle 8 can be disposed, during use, on the outside of the leaf "A", thereby increasing the convenience of the door or window, since the user can readily grip the handles without needing to rely on complex extraction procedures. Advantageously, this solution is highly ergonomic, as it simplifies the procedure of locking the leaf, allowing the leaf to be closed and subsequently locked with a single continuous sequence of movements of the same hand.

[0031] In a further advantageous manner, this solution makes it possible to simplify and speed up the installation of the lock by minimising the milling operations on the leaf "A" compared to the prior art.

[0032] For this reason, moreover, the present lock 1 can be advantageously mounted on leaves having a reduced thickness, even only slightly larger than that of the lock body 2. Therefore, the lock according to the invention can have particular and effective application on glass leaves and, in general, on leaves having a thickness equal to or less than 14 millimetres. With reference to the variant embodiments shown in figures 4, 5, and 8-11, the first support element 9 and the second support element 10 can be completely housed inside the fixed handle 7 and the rotating handle 8, thus being, during use, substantially out of view so as to increase the aesthetic appeal of the lock 1.

[0033] Advantageously, the fixed handle 7 and/or the rotating handle 8 can be in the form of a knob, thus ensuring optimal ergonomics and a high aesthetic appeal of the lock 1.

[0034] According to further possible embodiments, the handle can have a different form, for example to satisfy the user's needs, without altering the inventive concept of the present invention.

[0035] With particular reference to figures 2 and 7, the lock 1 comprises a circlip 30 active on the rotating handle 8 in order to keep it fitted over the second support element 10.

[0036] Furthermore, the lock 1 comprises a connecting grub screw 40 active on the fixed handle 7 in order to keep it fitted over the first support element 9. Preferably, the first support element 9 and the second support element 10 are connectable to the leaf "A" and/or lock body 2 so that the latter is at least partly interposed between them, and thus between the fixed handle 7 and the rotating handle 8.

[0037] As illustrated in the appended figures, the lock 1 can comprise fixing elements 11, for example screws, suitable for connecting the first support element 9 and the second support element 10 to the leaf "A", thereby ensuring particular stability and robustness of the lock 1.

[0038] For example, the fixing elements 11 are connected to the first support element 9 and second support element 10 in such a way that, during use, the fixed handle 7 and the rotating handle 8 are opposite relative to the leaf "A" of the door or window and, preferably, have respective axes of extension that coincide. According to a further preferred configuration, the axes of extension of the handles 7, 8 coincide with the axis of extension of the bar 13.

[0039] Preferably, the first support element 9 and the second support element 10 can have, respectively, a pair of housings 50 adapted to receive, by insertion, the fixing elements 11.

[0040] With particular reference to figure 10, the fixing elements 11 can comprise four screws, each of which inserted into a corresponding housing 50 and screwed, when in use, directly onto the leaf "A".

[0041] In accordance with further possible embodiments and as illustrated in figures 4 and 11, the fixing elements 11 can, when in use, pass through the leaf "A" and the lock body 2.

[0042] As shown in figure 4, the fixing elements 11 can be inserted into the housings 50 of the first support element 9 so as to be connected to respective housings 50 of the second support element 10, in such a way as to maintain the first support element 9 and the second support element 10 constrained to the leaf "A".

[0043] With particular reference to figure 11, the fixing elements 11 can be inserted into the housings 50 of the first support element 9 and screwed into a respective female screw inserted in the housings 50 of the second support element 10.

[0044] Furthermore, as the fixed handle 7 and the rotating handle 8 can be fitted, during use, over the support elements 9, 10, they hide the fixing elements 11 from view, thus imparting aesthetic quality to the lock 1.

[0045] With particular reference to figures 2, 3, 4 and 5, the lock 1 can comprise an auxiliary control device 12 at least partly housed in the fixed handle 7. The auxiliary control device 12 can be activated in order to move the locking element 3 at least from the extracted position to the retracted position.

[0046] In this manner, the auxiliary control device 12 can define, for example, an emergency opening system for the door or window.

[0047] The auxiliary control device 12 can further be activated in order to reversibly move the locking element 3 from the retracted position to the extracted position.

[0048] In greater detail (figures 2 and 3), the auxiliary control device 12 comprises a control member 14 solidly joined to the bar 13 and having a seat 15, preferably an indentation, adapted to receive a tool for external actuation by a user. For example, the tool for external actuation

can consist in a coin and/or the tip of a screwdriver.

[0049] Preferably, the control member 14 is fitted over the bar 13 and coupled thereto by virtue of their mating shape, in such a way as to optimise the overall dimensions of the lock 1. In particular, the control member 14 has a first portion 16, fitted over the bar 13, and a second portion 17 exposed to view (when the lock is in use) and bearing the seat 15.

[0050] As illustrated in figures 2-5, the first portion 16 and the second portion 17 are reciprocally constrained by virtue of their mating shape, thus minimising the connection elements and simplifying the manufacturing process.

[0051] For example, the first portion 16 and the second portion 17 can be reciprocally press fitted.

[0052] Furthermore, the first portion 16 is connected to the bar 13 by means of a circlip 30 which ensures an adequate positioning thereof relative to the first support element 9 of the fixed handle 7.

[0053] In accordance with a further possible embodiment illustrated in figures 6-9, the lock 1 comprises a cylinder 18 having a shank 19 over which the rotating handle 8 is fitted. Preferably, the rotating handle 8 and the shank 19 are reciprocally coupled in rotation by means of a coupling grub screw 40.

[0054] In the embodiment shown in figures 6 and 7, the shank 19 essentially defines the actuating means 6.

[0055] With particular reference to figures 8-9, the fixed handle 7 has an access opening 20 for accessing the cylinder 18 to allow the insertion of a key "C" by a user. In this manner, the cylinder 18 can also perform the function of an auxiliary control device for emergency opening.

[0056] Preferably, a plug 21 is further present; it is insertable into the access opening 20 and provided with a through slot adapted to allow the insertion of the key "C".

[0057] In particular, the plug 21 can be connected to the fixed handle 7 by means of a circlip 30 which ensures the correct positioning thereof relative to the access opening 20.

[0058] In accordance with a further aspect, the present invention relates to a door or window comprising a supporting frame, a leaf "A" which is reversibly movable relative to the frame between at least an open position and a closed position, and a lock in accordance with what was previously described.

[0059] It may be observed, therefore, that the present invention achieves the proposed objects by providing a lock for a door or a window that can also be installed on leaves having reduced thicknesses.

[0060] Furthermore, the lock according to the invention is capable of enhancing the ergonomics and convenience for the user thanks to the presence of a fixed handle and a rotating handle which can be fitted, during use, over a first and a second support element so as to take on a configuration of projecting from the leaf.

[0061] Advantageously, the present invention provides a lock with a "knob"-style handle with a gripping system and a leaf stop system in a single solution for locks with

one or more points of activation of the lock for the leaf.

Claims

1. A lock (1) for a door or a window comprising:

- a lock body (2) connectable to a leaf of a door or a window and comprising a locking element (3) that is reversibly movable between a retracted position, in which it is at least partly housed inside the lock body (2), and an extracted position, in which it is at least partly projecting from the lock body (2) so as to define a condition of closure of the door or the window;

- an actuating means (6) for moving the locking element (3);

- a fixed handle (7) that is connectable to the leaf (A) and can be gripped by a user, said fixed handle (7) being fixed relative to the lock body (2);

- a rotating handle (8) that is connectable to the leaf (A) and can be gripped by a user, said rotating handle (8) being coupled to the actuating means (6) and rotatable relative to the lock body (2) in order to move the locking element (3) between the extracted position and the retracted position; being **characterized in that** the lock comprises

- a first and a second support element (9, 10) each having a longitudinal dimension of extension such that they take on a configuration, during use, projecting from a leaf (A); and wherein the fixed handle (7) and the rotating handle (8) can be fitted over the first support element (9) and the second support element (10), respectively.

2. The lock in accordance with claim 1, wherein said first and second support elements (9, 10) are connectable to the leaf (A) and/or to the lock body so that the latter is at least partly interposed between them.

3. The lock in accordance with claim 1 or 2, comprising at least one fixing element (11) that is insertable into a through opening of said lock body (2) in order to connect said first support element (9) and said second support element (10).

4. The lock in accordance with claim 3, wherein the first support element (9) and the second support element (10) are configured to receive, by at least partial insertion, the at least one fixing element (11) so that, during use, the rotating handle (8) and the fixed handle (7) are opposite relative to the leaf (A) of the door or the window and, preferably, have respective axes of extension that coincide.

5. The lock in accordance with one or more of the preceding claims, comprising at least one circlip (30) active on the rotating handle (8) in order to keep it fitted over said second support element (10).

6. The lock in accordance with one or more of the preceding claims, wherein said actuating means (6) is positioned at least partly inside the rotating handle (8).

7. The lock in accordance with one or more of the preceding claims, comprising an auxiliary control device (12) at least partly housed in the fixed handle (7), said auxiliary control device (12) being activatable in order to move the locking element (3) at least from the extracted position to the retracted position.

8. The lock in accordance with one or more of the preceding claims, wherein said actuating means (6) comprises a bar (13) with a polygonal cross section which is active on the lock body and reversibly rotatable in order to move the locking element (3) at least between the retracted position and the extracted position.

9. The lock in accordance with claim 8 when it depends on claim 7, wherein said auxiliary control device (12) comprises a control member (14) solidly joined to said bar (13) and having a seat (15) adapted to receive a tool for external actuation by a user.

10. The lock in accordance with claim 9, wherein said control member (14) is fitted over the bar (13) and coupled thereto by virtue of their mating shape.

11. The lock in accordance with claim 10, wherein said control member (14) has a first portion (16), fitted over the bar (13), and a second portion (17), defining said seat (15); and wherein said first portion (16) and said second portion (17) are reciprocally constrained by virtue of their mating shape.

12. The lock in accordance with claim 1, comprising a cylinder (18) having a shank (19) adapted to have the rotating handle (8) fitted over it, said shank (19) at least partly defining said actuating means (6).

13. The lock in accordance with claim 12, wherein the fixed handle (7) has an access opening (20) for accessing said cylinder (18) to allow the insertion of a key (C) into the cylinder (18) by a user.

14. The lock in accordance with claim 12 or 13, comprising a coupling grub screw (40) active between the rotating handle (8) and the shank (19) in order to couple them reciprocally in rotation.

15. The lock in accordance with one or more of the

preceding claims, wherein the fixed handle (7) and/or the rotating handle (8) have a knob-like shape.

16. The lock in accordance with one or more of the preceding claims, wherein the actuating means (6) and at least the rotating handle (8) are telescopically coupled so as to be adaptable to the thickness of the leaf (A). 5
17. The lock in accordance with one or more of the preceding claims, wherein the lock body further comprises a magnetic retaining device (5) configured to interact magnetically with a counter-plate installed on the frame of the door or the window. 10
18. A door or a window comprising:
 - a supporting frame;
 - a leaf (A) which is movable relative to said frame;
 - a lock (1) in accordance with one or more of the preceding claims and installed on said leaf (A). 15

Patentansprüche 25

1. Schloss (1) für eine Tür oder ein Fenster, Folgendes umfassend:
 - einen Schlosskörper (2), der mit einem Flügel einer Tür oder eines Fensters verbindbar ist und ein Verriegelungselement (3) umfasst, das zwischen einer zurückgezogenen Position, in der es mindestens teilweise im Inneren des Schlosskörpers (2) untergebracht ist, und einer herausgezogenen Position, in der es mindestens teilweise aus dem Schlosskörper (2) vorsteht, reversibel beweglich ist, um einen Schließzustand der Tür oder des Fensters zu definieren; 30
 - ein Betätigungsmittel (6) zum Bewegen des Verriegelungselements (3); 35
 - einen feststehenden Griff (7), der mit dem Flügel (A) verbindbar ist und von einem Benutzer ergriffen werden kann, wobei der feststehende Griff (7) im Verhältnis zum Schlosskörper (2) fest ist; 40
 - einen drehbaren Griff (8), der mit dem Flügel (A) verbindbar ist und von einem Benutzer ergriffen werden kann, wobei der drehbare Griff (8) mit dem Betätigungsmittel (6) gekoppelt und im Verhältnis zum Schlosskörper (2) drehbar ist, um das Verriegelungselement (3) zwischen der herausgezogenen Position und der zurückgezogenen Position zu bewegen; **dadurch gekennzeichnet, dass** das Schloss 45
 - ein erstes und ein zweites Tragelement (9, 10) umfasst, die jeweils eine Längserstreckungsab-

messung aufweisen, so dass sie im Gebrauch eine von einem Flügel (A) vorstehende Konfiguration einnehmen; und wobei der feststehende Griff (7) und der drehbare Griff (8) auf das erste Tragelement (9) bzw. das zweite Tragelement (10) aufgesteckt werden können.

2. Schloss nach Anspruch 1, wobei das erste und das zweite Tragelement (9, 10) mit dem Flügel (A) und/oder dem Schlosskörper verbindbar sind, so dass letzterer mindestens teilweise zwischen ihnen eingefügt ist.
3. Schloss nach Anspruch 1 oder 2, das mindestens ein Befestigungselement (11) umfasst, das in eine Durchgangsöffnung des Schlosskörpers (2) einsetzbar ist, um das erste Tragelement (9) und das zweite Tragelement (10) zu verbinden.
4. Schloss nach Anspruch 3, wobei das erste Tragelement (9) und das zweite Tragelement (10) dazu eingerichtet sind, das mindestens eine Befestigungselement (11) aufzunehmen, indem dieses mindestens teilweise eingesetzt wird, so dass der drehbare Griff (8) und der feststehende Griff (7) im Gebrauch im Verhältnis zu dem Flügel (A) der Tür oder des Fensters gegenüberliegend sind und vorzugsweise jeweilige Erstreckungsachsen, die zusammenfallen, aufweisen.
5. Schloss nach einem oder mehreren der vorhergehenden Ansprüche, das mindestens einen Sicherungsring (30) umfasst, der auf den drehbaren Griff (8) wirkt, um ihn auf dem zweiten Tragelement (10) aufgesteckt zu halten.
6. Schloss nach einem oder mehreren der vorhergehenden Ansprüche, wobei das Betätigungsmittel (6) mindestens teilweise innerhalb des drehbaren Griffs (8) positioniert ist.
7. Schloss nach einem oder mehreren der vorhergehenden Ansprüche, das eine Hilfssteuervorrichtung (12) umfasst, die mindestens teilweise im feststehenden Griff (7) untergebracht ist, wobei die Hilfssteuervorrichtung (12) aktivierbar ist, um das Verriegelungselement (3) mindestens von der herausgezogenen Position in die zurückgezogene Position zu bewegen.
8. Schloss nach einem oder mehreren der vorhergehenden Ansprüche, wobei das Betätigungsmittel (6) eine Stange (13) mit polygonalem Querschnitt umfasst, die auf den Schlosskörper wirkt und reversibel drehbar ist, um das Verriegelungselement (3) mindestens zwischen der zurückgezogenen Position und der ausgezogenen Position zu bewegen.

9. Schloss nach Anspruch 8, wenn er von Anspruch 7 abhängt, wobei die Hilfssteuervorrichtung (12) ein Steuerglied (14) umfasst, das fest mit der Stange (13) verbunden ist und einen Sitz (15) aufweist, der dazu ausgelegt ist, ein Werkzeug aufzunehmen, das von außen durch einen Benutzer betätigt wird. 5
10. Schloss nach Anspruch 9, wobei das Steuerglied (14) auf die Stange (13) aufgesteckt ist und aufgrund ihrer Komplementärform mit dieser gekoppelt ist. 10
11. Schloss nach Anspruch 10, wobei das Steuerglied (14) einen ersten Abschnitt (16), der auf die Stange (13) aufgesteckt ist, und einen zweiten Abschnitt (17) aufweist, der den Sitz (15) definiert; und wobei der erste Abschnitt (16) und der zweite Abschnitt (17) aufgrund ihrer Komplementärform wechselseitig eingeschränkt sind. 15
12. Schloss nach Anspruch 1, das einen Zylinder (18) umfasst, der einem Schaft (19) aufweist, der so ausgelegt ist, dass der drehbare Griff (8) auf ihm aufgesteckt ist, wobei der Schaft (19) mindestens teilweise das Betätigungsmittel (6) definiert. 20
13. Schloss nach Anspruch 12, wobei der feststehende Griff (7) eine Zugangsöffnung (20) für den Zugang zu dem Zylinder (18) aufweist, um das Einführen eines Schlüssels (C) in den Zylinder (18) durch einen Benutzer zu ermöglichen. 25
14. Schloss nach Anspruch 12 oder 13, das eine Verbindungsmadenschraube (40) umfasst, die zwischen dem drehbaren Griff (8) und dem Schaft (19) wirkt, um die beiden wechselseitig drehbar zu koppeln. 30
15. Schloss nach einem oder mehreren der vorhergehenden Ansprüche, wobei der feststehende Griff (7) und/oder der drehbare Griff (8) eine knaufartige Form aufweisen. 35
16. Schloss nach einem oder mehreren der vorhergehenden Ansprüche, wobei das Betätigungsmittel (6) und mindestens der drehbare Griff (8) teleskopisch gekoppelt sind, damit sie an die Dicke des Flügels (A) anpassbar sind. 40
17. Schloss nach einem oder mehreren der vorhergehenden Ansprüche, wobei der Schlosskörper ferner eine magnetische Haltevorrichtung (5) umfasst, die dazu eingerichtet ist, magnetisch mit einer am Rahmen der Tür oder des Fensters installierten Gegenplatte zusammenzuwirken. 45
18. Tür oder Fenster, Folgendes umfassend:

- einen Tragrahmen;

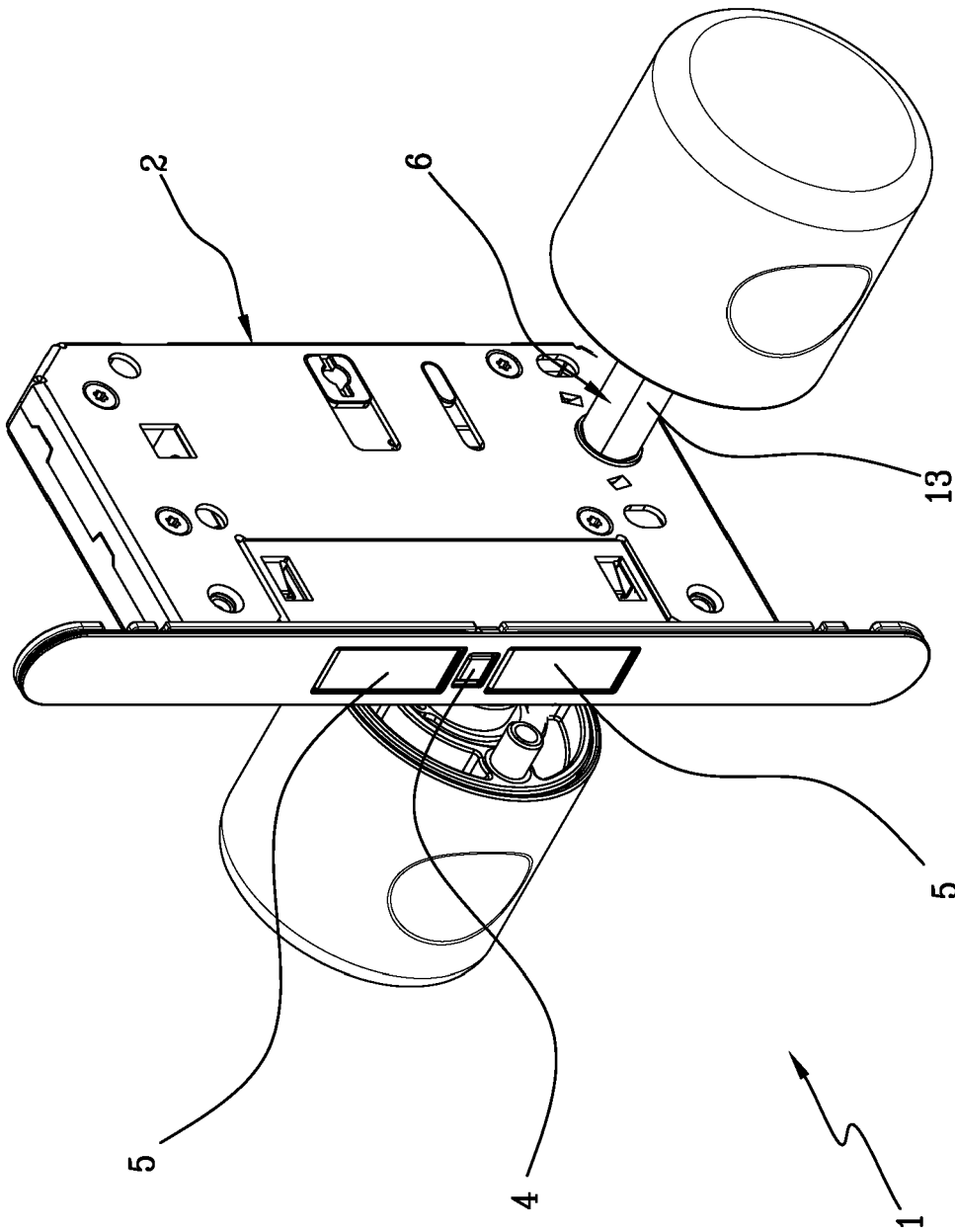
- einen Flügel (A), der im Verhältnis zum Rahmen beweglich ist;
- ein Schloss (1) nach einem oder mehreren der vorhergehenden Ansprüche, das am Flügel (A) installiert ist.

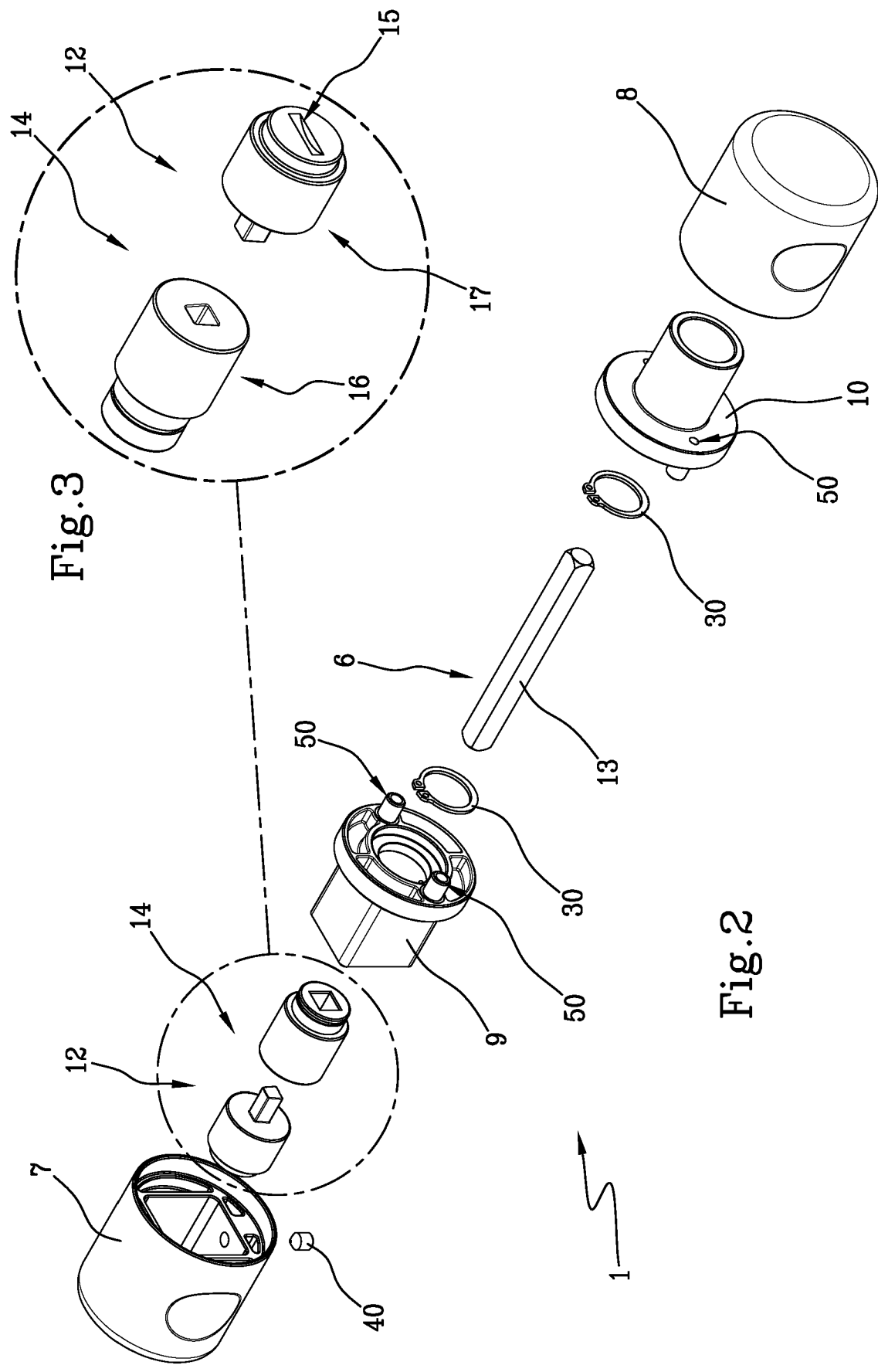
Revendications

1. Serrure (1) pour une porte ou une fenêtre comprenant :
- un corps de serrure (2) raccordable à un vantail d'une porte ou d'une fenêtre et comprenant un élément de verrouillage (3) mobile de manière réversible entre une position rétractée, dans laquelle il est au moins partiellement logé à l'intérieur du corps de serrure (2), et une position extraite, dans laquelle il fait au moins partiellement saillie du corps de serrure (2) de manière à définir un état de fermeture de la porte ou de la fenêtre ;
- un moyen d'actionnement (6) pour déplacer l'élément de verrouillage (3) ;
- une poignée fixe (7) qui est connectables au vantail (A) et peut être saisie par un utilisateur, ladite poignée fixe (7) étant fixe par rapport au corps de la serrure (2) ;
- une poignée rotative (8) qui est connectables au vantail (A) et peut être saisie par un utilisateur, ladite poignée rotative (8) étant couplée au moyen d'actionnement (6) et pouvant tourner par rapport au corps de serrure (2) afin de déplacer l'élément de verrouillage (3) entre la position extraite et la position rétractée ;
- caractérisée par le fait que la serrure comprend**
- un premier et un deuxième éléments de support (9, 10) présentant chacun une dimension longitudinale d'extension telle qu'ils prennent une configuration, en cours d'utilisation, en saillie par rapport à un vantail (A) ; et dans lequel la poignée fixe (7) et la poignée rotative (8) peuvent être montées sur le premier élément de support (9) et le deuxième élément de support (10), respectivement.
2. Serrure selon la revendication 1, dans laquelle lesdits premier et deuxième éléments de support (9, 10) sont connectables au vantail (A) et/ou au corps de serrure de sorte que ce dernier est au moins partiellement interposé entre eux.
3. Serrure selon la revendication 1 ou 2, comprenant au moins un élément de fixation (11) qui peut être inséré dans une ouverture de passage dudit corps de serrure (2) afin de relier ledit premier élément de support (9) et ledit second élément de support (10).

4. Serrure selon la revendication 3, dans laquelle le premier élément de support (9) et le deuxième élément de support (10) sont configurés pour recevoir, par insertion au moins partielle, l'au moins un élément de fixation (11) de sorte que, lors de l'utilisation, la poignée rotative (8) et la poignée fixe (7) sont opposées par rapport au vantail (A) de la porte ou de la fenêtre et, de préférence, ont des axes d'extension respectifs qui coïncident. 5
5. Serrure selon l'une ou plusieurs des revendications précédentes, comprenant au moins un circlip (30) actif sur la poignée rotative (8) afin de la maintenir emboîtée sur ledit deuxième élément de support (10). 10
6. Serrure selon l'une ou plusieurs des revendications précédentes, dans laquelle ledit moyen d'actionnement (6) est positionné au moins en partie à l'intérieur de la poignée rotative (8). 20
7. Serrure selon l'une ou plusieurs des revendications précédentes, comprenant un dispositif de commande auxiliaire (12) logé au moins en partie dans la poignée fixe (7), ledit dispositif de commande auxiliaire (12) pouvant être activé afin de déplacer l'élément de verrouillage (3) au moins de la position extraite à la position rétractée. 25
8. Serrure selon l'une ou plusieurs des revendications précédentes, dans laquelle ledit moyen d'actionnement (6) comprend une barre (13) à section polygonale qui est active sur le corps de la serrure et réversible en rotation afin de déplacer l'élément de verrouillage (3) au moins entre la position rétractée et la position extraite. 30
9. Serrure selon la revendication 8 lorsqu'elle dépend de la revendication 7, dans laquelle ledit dispositif de commande auxiliaire (12) comprend un organe de commande (14) solidarisé à ladite barre (13) et présentant un siège (15) adapté pour recevoir un outil pour actionnement externe par un utilisateur. 35
10. Serrure selon la revendication 9, dans laquelle ledit organe de commande (14) est emboîté sur la barre (13) et couplé à celle-ci du fait de leur forme d'accouplement. 40
11. Serrure selon la revendication 10, dans laquelle ledit organe de commande (14) comporte une première partie (16), adaptée sur la barre (13), et une seconde partie (17), définissant ledit siège (15) ; et dans laquelle ladite première partie (16) et ladite seconde partie (17) sont contraintes réciproquement en vertu de leur forme d'accouplement. 50
12. Serrure selon la revendication 1, comprenant un cylindre (18) ayant une tige (19) adaptée pour s'adapter à la poignée rotative (8), ladite tige (19) définissant au moins en partie ledit moyen d'actionnement (6). 55
13. Serrure selon la revendication 12, dans laquelle la poignée fixe (7) présente une ouverture d'accès (20) pour accéder audit cylindre (18) pour permettre l'insertion d'une clé (C) dans le cylindre (18) par un utilisateur.
14. Serrure selon la revendication 12 ou 13, comprenant une vis sans tête d'accouplement (40) active entre la poignée rotative (8) et la tige (19) afin de les coupler réciproquement en rotation.
15. Serrure selon l'une ou plusieurs des revendications précédentes, dans laquelle la poignée fixe (7) et/ou la poignée rotative (8) ont une forme de bouton.
16. Serrure selon l'une ou plusieurs des revendications précédentes, dans laquelle le moyen d'actionnement (6) et au moins la poignée rotative (8) sont couplés télescopiquement de manière à pouvoir s'adapter à l'épaisseur du vantail (A).
17. Serrure selon l'une ou plusieurs des revendications précédentes, dans laquelle le corps de serrure comprend en outre un dispositif de retenue magnétique (5) configuré pour interagir magnétiquement avec une contre-plaque installée sur le cadre de la porte ou de la fenêtre.
18. Porte ou une fenêtre comprenant :
- un cadre de support ;
 - un vantail (A) qui est mobile par rapport audit cadre ;
 - une serrure (1) selon l'une ou plusieurs des revendications précédentes et installée sur ledit vantail (A).

Fig.1





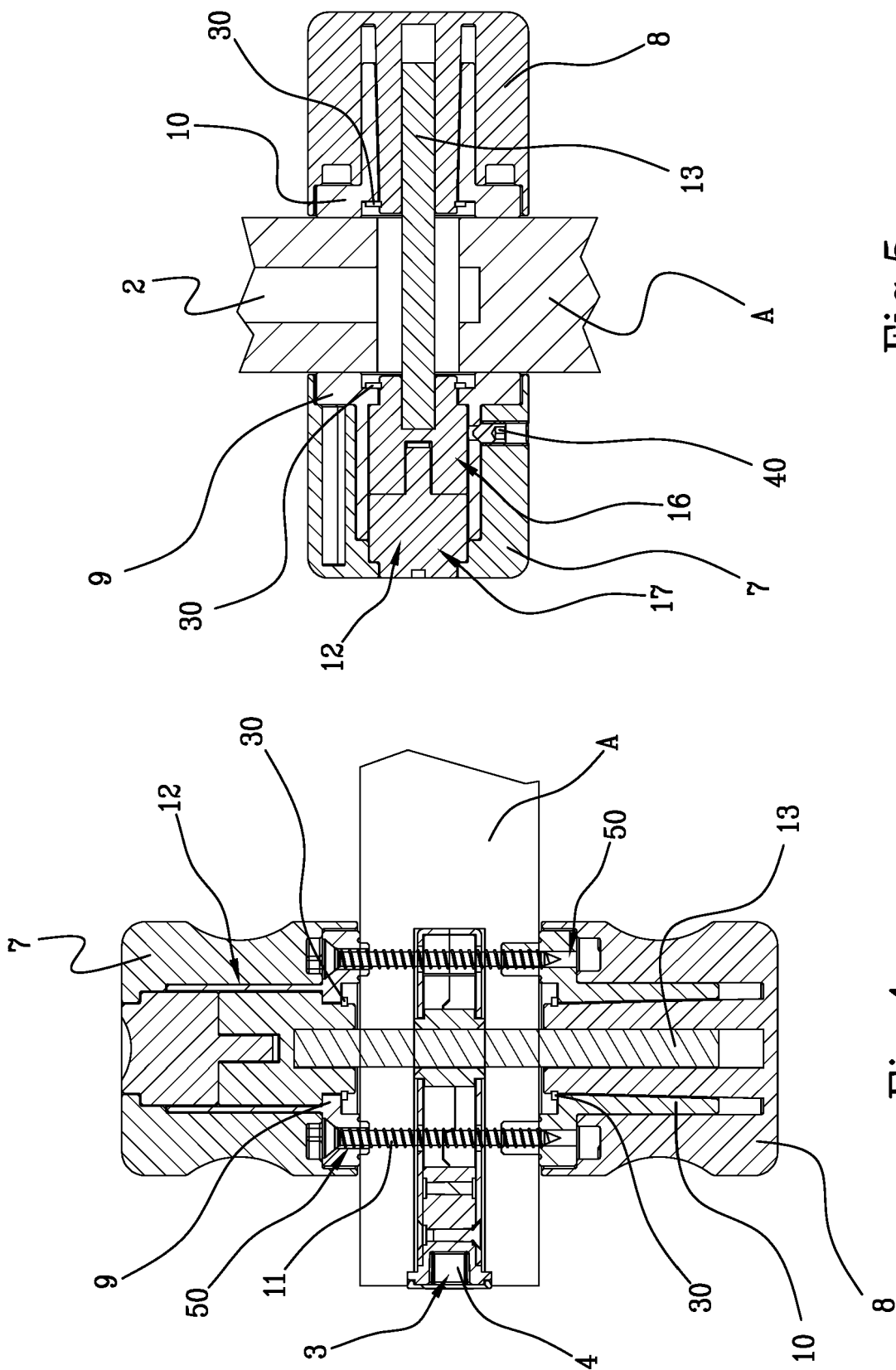
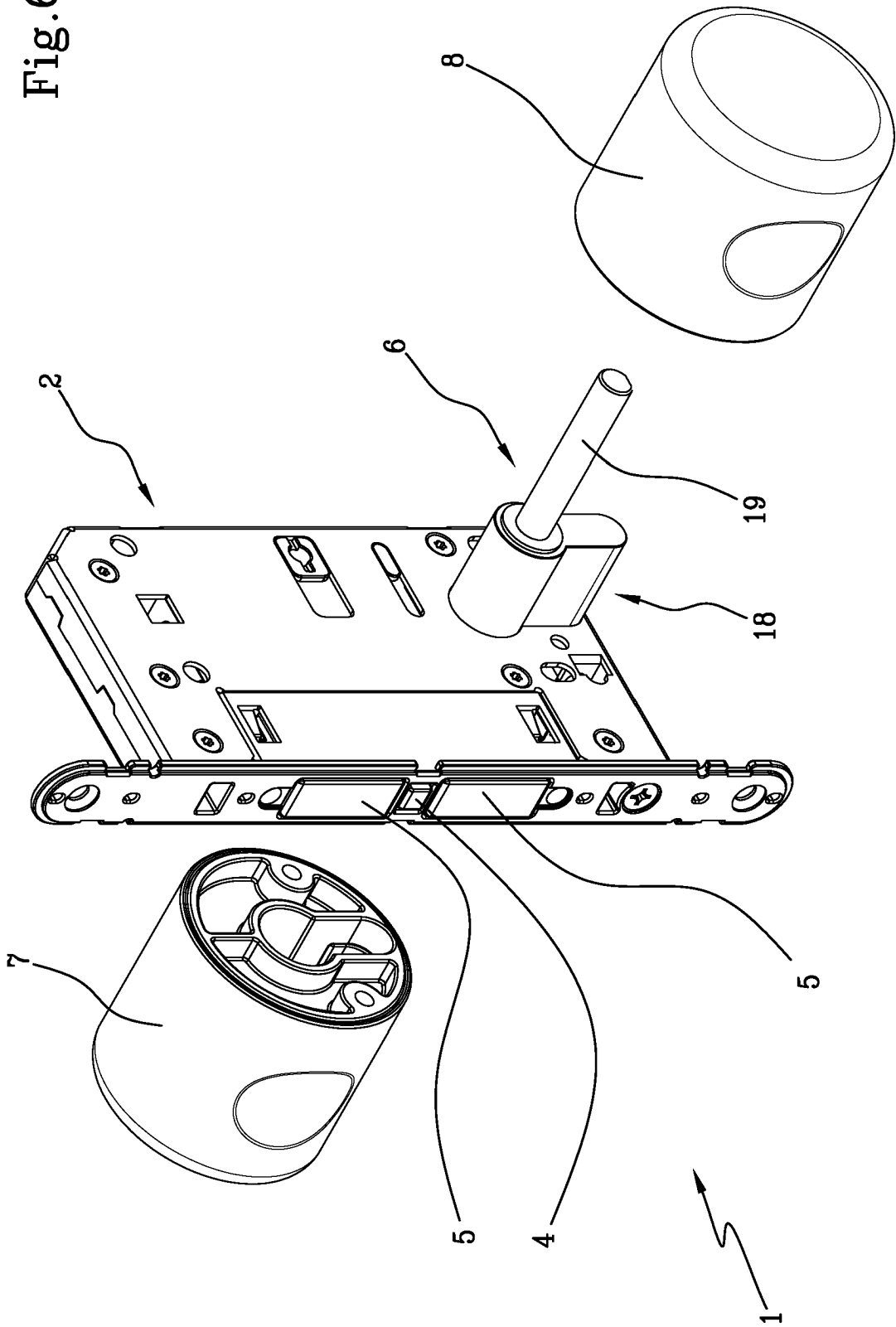


Fig.5

Fig.4

Fig.6



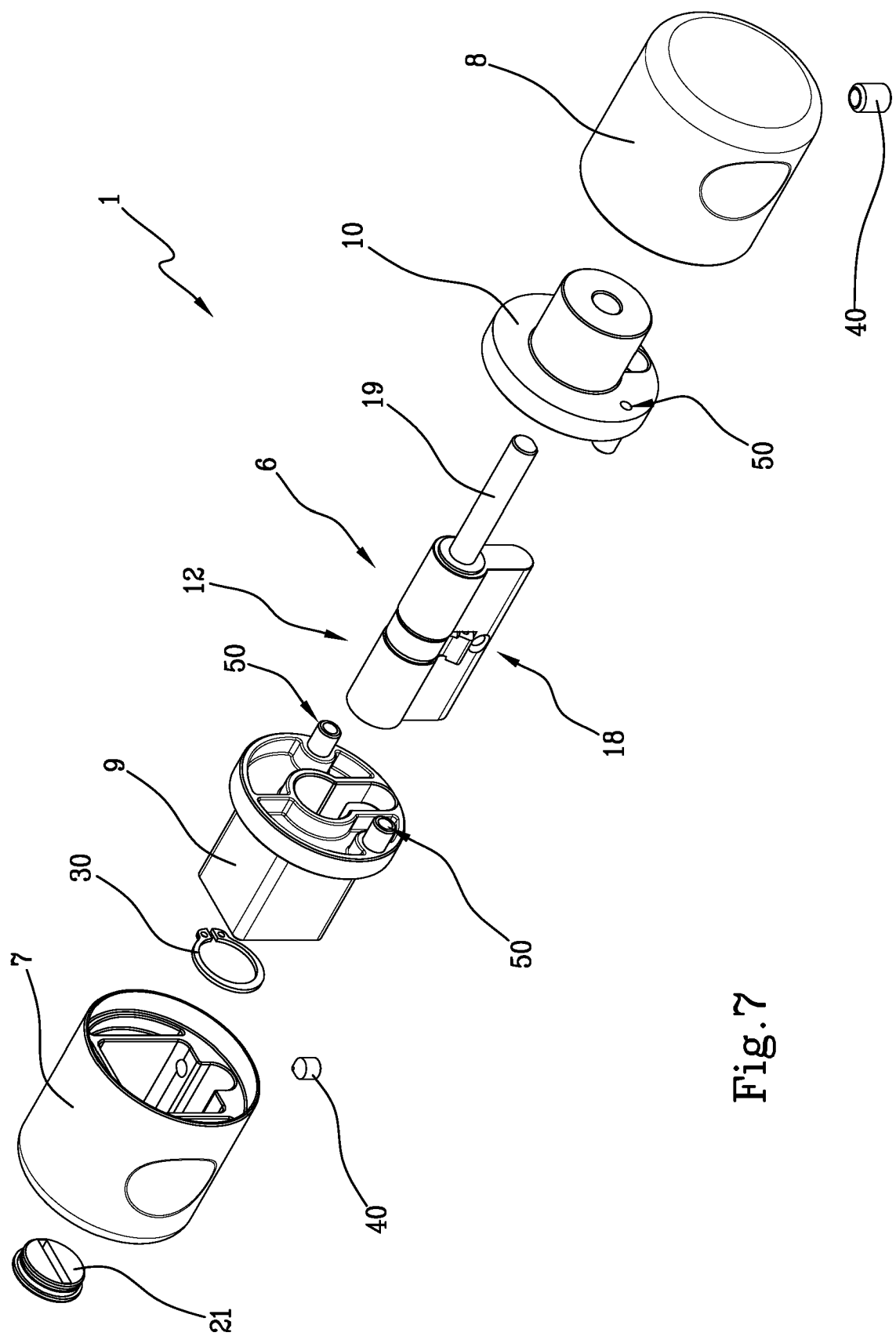
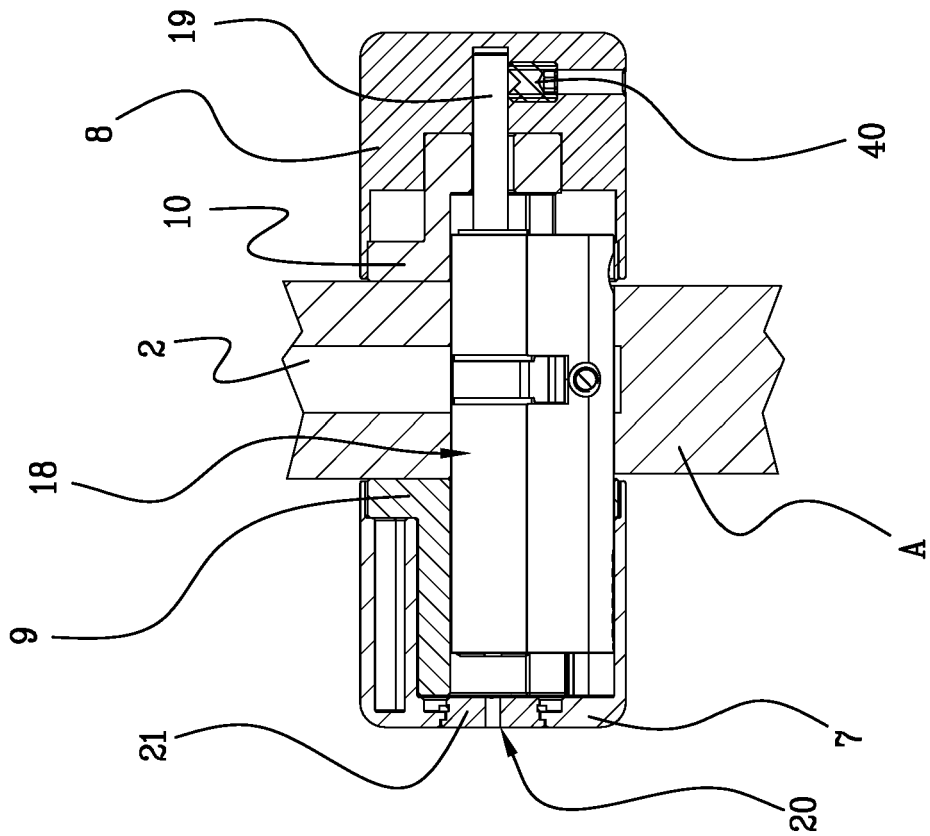
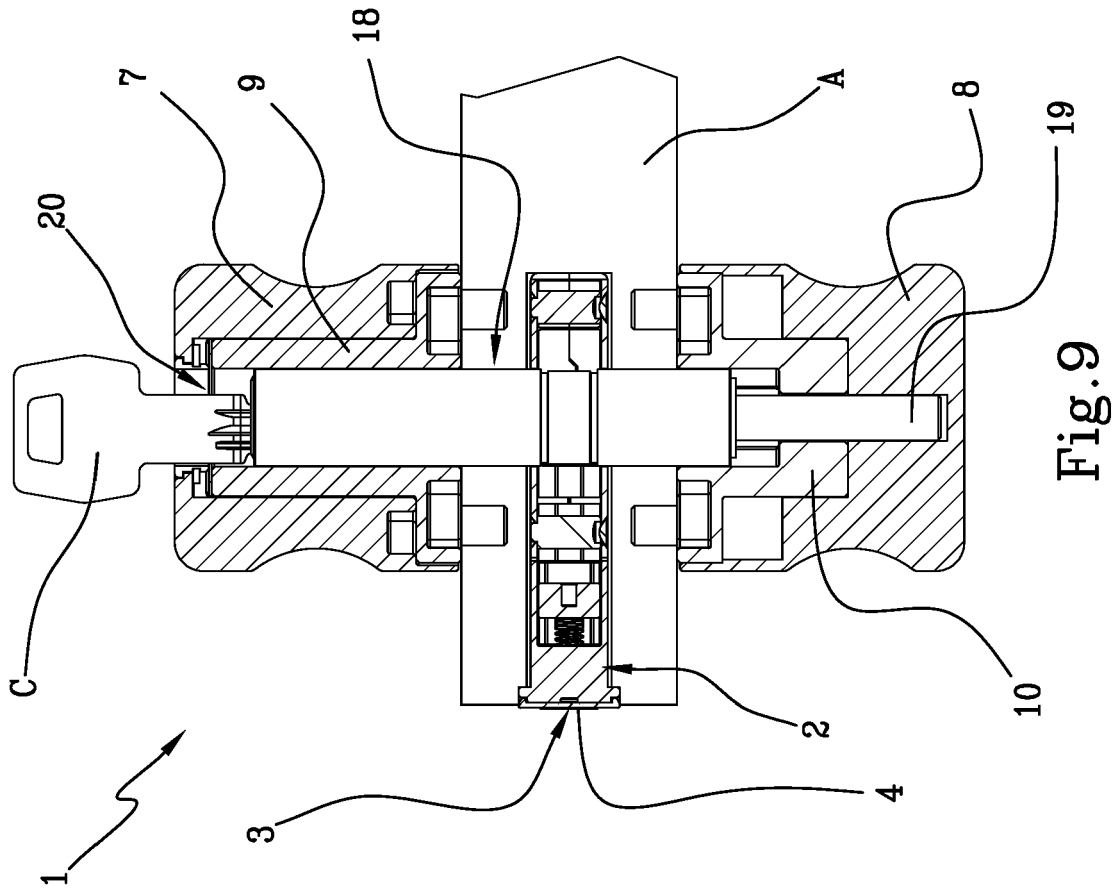


Fig. 7



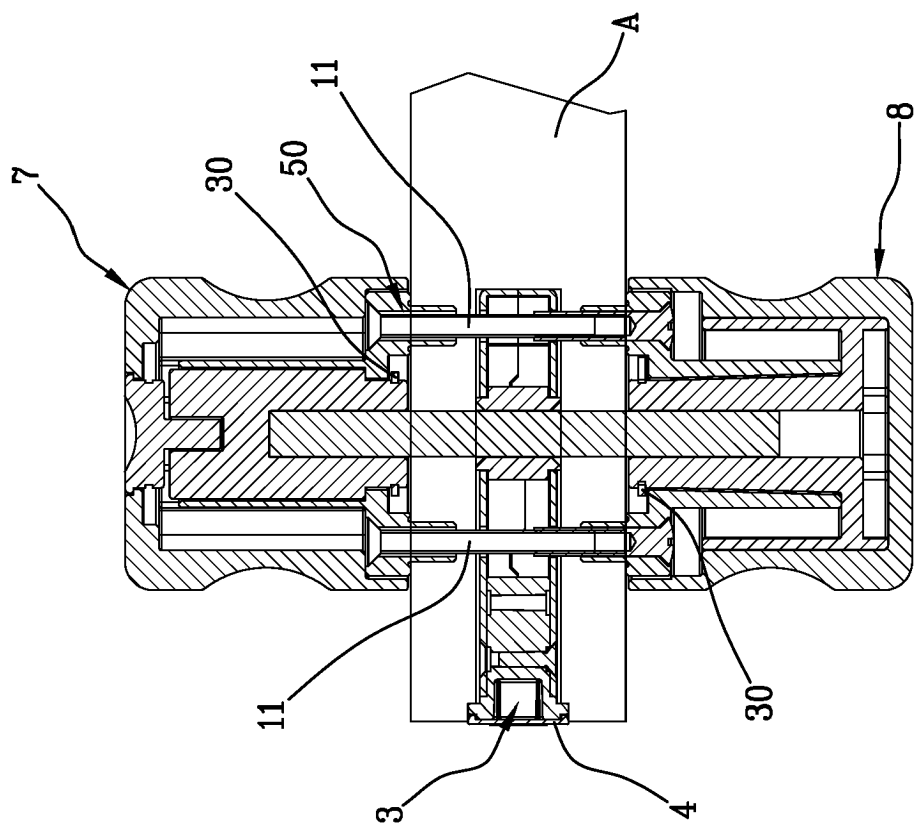


Fig.11

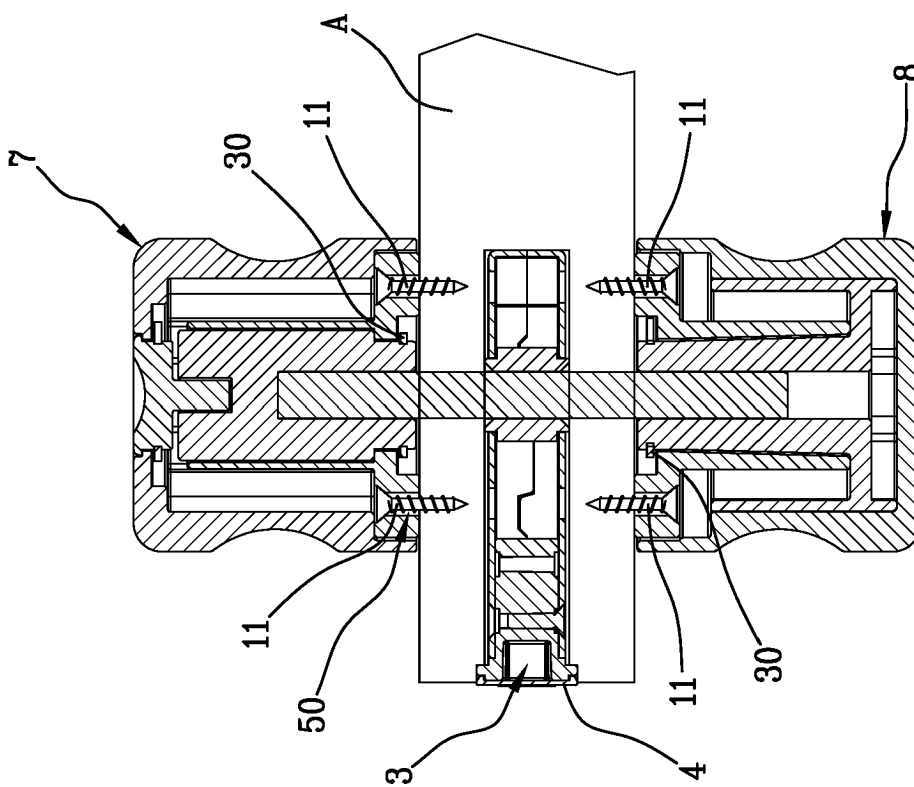


Fig.10

REFERENCES CITED IN THE DESCRIPTION

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