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(54) **LOCKING/UNLOCKING APPARATUS FOR A PIECE OF FURNITURE**

VORRICHTUNG FÜR VERRIEGELUNG UND ENTRIEGELUNG EINES MÖBELS

DISPOSITIF DE VERROUILLAGE ET DÉVERROUILLAGE D'UN MEUBLE

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EP 3 366 874 B1

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Description

[0001] The present patent application for industrial invention relates to a locking/unlocking apparatus and to a piece of furniture provided with said locking/unlocking apparatus.

[0002] Pieces of furniture are known that comprise a parallelepiped frame with a back wall, a lower wall, an upper wall and two sides, which are connected mutually. Said pieces of furniture also comprise one or more drawers that are slidingly mounted relative to the frame and are disposed one on top of the other. Each drawer comprises a compartment.

[0003] Said pieces of furniture comprise slides fixed to the sides of the frame and carriages fixed to the drawers. The carriages slide in the slides, in such way to move the drawers from an opening position, wherein the drawers are open and project frontally from the frame, to a closing position, wherein the drawers are closed. When the drawers are open, the user can have access to the drawer compartment. When the drawers are closed, the drawers are stopped against the frame in such way to act as front wall of the piece of furniture.

[0004] Generally, such a piece of furniture comprises a lock that is suitable for locking one or more drawers to the frame of the piece of furniture.

[0005] More precisely, the lock guarantees the locking of one or more drawers to the frame in closing position, preventing the carriages from sliding in the slides. In view of the above, the lock prevents the drawers from going from the closing position to the opening position.

[0006] The lock generally comprises a striker that can be manually operated with a key. The striker cooperates with locking mechanisms to lock the movement of the drawers relative to the frame.

[0007] Such pieces of furniture of the prior art provided with a lock are impaired by a first drawback due to the fact that the key is not very convenient or practical. In fact, users have to carry the key with them every time they decide to stay away from the piece of furniture, with the risk of losing or breaking the key accidentally.

[0008] If the key is lost or broken, it will be impossible to open the lock and have access to the drawer compartment if the lock is closed. On the contrary, if the lock is open, it will be impossible to close the lock to lock the drawer to the frame. Therefore, in such case, it is impossible to protect the contents of the drawers because anyone can open the drawer.

[0009] The pieces of furniture according to the prior art are impaired by a second drawback due to the fact that the keyhole of the lock of the piece of furniture is aesthetically unpleasant. In fact, such a keyhole is visible on the front wall of the drawer of the piece of furniture. The presence of the keyhole interrupts the linearity of the drawer, impairing the clean design of the entire piece of furniture.

[0010] Alternatively, the pieces of furniture according to the prior art may comprise one or more oscillating or

sliding door panels. Said pieces of furniture with door panels comprise a lock that can be operated with a key, which is identical to the key used in the pieces of furniture with drawers. Therefore the pieces of furniture with door panels are impaired by the same drawbacks as the pieces of furniture with drawers.

[0011] GB2273525 discloses a locking system according to the preamble of claim 1 suitable for being installed in a piece of furniture that comprises a plurality of drawers, disposed one on top of the other, in order to lock said drawers.

[0012] The purpose of the present invention is to remedy the drawbacks of the prior art by devising a piece of furniture provided with a locking/unlocking apparatus that is practical, easy to use, reliable and aesthetically pleasant.

[0013] Another purpose is to devise a locking/unlocking apparatus that is safe and suitable for protecting the contents of the drawer compartment.

[0014] A locking/unlocking apparatus according to the invention is suitable for locking/unlocking a door panel or a drawer of a piece of furniture. The locking/unlocking apparatus comprises a bar provided with a tooth that projects from the bar. The bar is suitable for being slidingly mounted on a piece of furniture. The bar is configured in such way to cooperate with means of the piece of furniture to lock the door panel or the drawer to a frame of the piece of furniture.

[0015] The locking/unlocking apparatus according to the invention comprises moving means for moving the bar. The moving means comprise a frame fixed to the piece of furniture and a button connected to the frame and disposed outside the piece of furniture. The button comprises a threaded housing.

[0016] The moving means comprise a ring that is revolvingly mounted in the frame and comprises a central threaded hole.

[0017] The moving means comprise a threaded pin that is revolvingly and slidingly mounted in the frame. The threaded pin has a first threaded ending section that is screwed into the threaded housing of the button and a second threaded ending section that is screwed into the threaded hole of the ring.

[0018] The moving means comprise a peg that is joined to the ring and projects from the frame. The peg is suitable for cooperating with the tooth of the bar in order to move the tooth of the bar.

[0019] The advantages of the locking/unlocking apparatus according to the invention are evident. In fact, because of the provision of the moving means with a button, the drawers or the door panels of the piece of furniture or of the structure can be locked and unlocked easily and comfortably. Moreover, because of the provision of the threaded pin, the locking/unlocking mechanism of the drawer operates smoothly and reliably.

[0020] It must be noted that the button, which remains visible, has a smooth surface that can be customized in terms of shape and color.

[0021] For the sake of clarity, the description of the piece of furniture according to the invention continues with reference to the attached drawings, which have a merely illustrative, not limiting value, wherein:

- Fig. 1 is an axonometric view of a piece of furniture according to the invention, comprising a locking/unlocking apparatus in open position;
- Fig. 2 is a sectional view of the locking/unlocking apparatus along the plane II-II of Fig. 1;
- Fig. 3 is a side view of the locking/unlocking apparatus of Fig. 1;
- Fig. 4 is the same as Fig. 1, except for it shows the locking/unlocking apparatus in closed position;
- Fig. 5 is a sectional view of the locking/unlocking apparatus along the plane V-V of Fig. 4;
- Fig. 6 is a side view of the locking/unlocking apparatus of Fig. 4;
- Fig. 7 is an axonometric view of the interior of the piece of furniture of Fig. 1, wherein the means of the drawer are visible.

[0022] With reference to Figs. 1, 4 and 7, a piece of furniture according to the invention is disclosed, which is generally indicated with reference numeral (7).

[0023] The piece of furniture (7) comprises a parallelepiped frame (71) and one or more drawers (70) that are slidably mounted relative to the frame (71).

[0024] The piece of furniture (7) comprises a locking/unlocking apparatus (100) used to lock/unlock the drawer (70) of the piece of furniture (7).

[0025] The locking/unlocking apparatus (100) comprises a bar (1) that is mounted with possibility of vertically sliding on the frame (71) of the piece of furniture (7). Advantageously, the bar (1) is slidably mounted on one side of the frame (71) of the piece of furniture (7).

[0026] The bar (1) has a longitudinal vertical axis. The bar (1) comprises a tooth (11) that projects from the bar (1) towards the interior of the piece of furniture (7). Advantageously, the tooth (11) has a cylindrical shape with a horizontal axis.

[0027] As shown in Fig. 7, the bar (1) comprises additional teeth (11a) that project towards the interior of the piece of furniture (7). The piece of furniture (7) comprises means (M) for locking one drawer (70) or multiple drawers (70) simultaneously. With reference to Fig. 7, the means (M) comprise a plate (M1) connected to the drawer (70). The plate (M1) comprises a hook (M3) that projects from the back of the plate (M1). The hook (M3), which is shaped like a hook, defines a housing (M2) that receives the additional teeth (11a) of the bar (1) when the bar (1) is moved upwards, in such way to prevent the drawer (70) from being opened.

[0028] It must be noted that the means (M) are of known type and can have different shapes and/or can be disposed in a different position compared to Fig. 7. For example, the means (M) can be disposed in lateral position on the side of the drawer (70).

[0029] With reference to Figs. 1 to 6, the locking/unlocking apparatus (100) comprises moving means (3) for moving the bar (1). Said moving means (3) comprise a parallelepiped frame (33) that is fixed to the piece of furniture (7). Advantageously, the frame (33) of the moving means (3) is fixed to the drawer (70) and is disposed partially inside the piece of furniture (7) and partially outside the piece of furniture (7). With reference to Figs. 2 and 5, the frame (33) of the moving means (3) is internally empty and comprises a first compartment (33a) and a second compartment (33b) in communication with the first compartment (33a).

[0030] With reference to Figs. 1 to 6, the locking/unlocking apparatus (100) comprises a button (30) disposed outside the piece of furniture (7). The button (30) comprises a fixed element (30b) that is screwed to the frame (33) of the moving means (3), and a mobile element (30c) that is slidably mounted in the fixed element (30b). The mobile element (30c) of the button (30) comprises a compartment in communication with the first compartment (33a) of the frame (33) of the moving means (3). The mobile element (30c) of the button (30) comprises a threaded housing (30a) disposed inside the compartment of the mobile element (30c).

[0031] With reference to Figs. 2 to 4, the locking/unlocking apparatus (100) comprises a ring (32) that is slidably mounted in the second compartment (33b) of the frame (33) of the moving means (3) and comprises a central threaded hole (32b).

[0032] Moreover, the locking/unlocking apparatus (100) comprises a threaded pin (31) that is revolvingly and slidably mounted in the frame (33) of the moving means (3). In particular, the threaded pin (31) comprises a first threaded ending section (31a) screwed into the threaded housing (30a) of the button (30), a second threaded ending section (31b) screwed into the threaded hole (32b) of the ring (32), and a non-threaded body (31c) disposed between the two threaded ending sections (31a, 31b). Otherwise said, the first threaded ending section (31a) of the threaded pin (31) is disposed at least partially inside the compartment of the mobile element (30c) of the button (30), the central body (31c) is disposed inside the first compartment (33a) of the frame (33) of the moving means (3) and the second ending section (31b) is disposed at least partially inside the second compartment (33b) of the frame (33) of the moving means (3).

[0033] The thread of the threaded ending section (31a) of the threaded pin (31) has a lower pitch than the thread of the second threaded ending section (31b) of the threaded pin (31). The provision of two threads with different pitch permits to define the rotation degrees of the ring (32) at every travel of the button (30). As a matter of fact, the thread of the first threaded ending section (31a) permits to adjust the displacement of the threaded pin (31) according to the travel of the button (30) and the thread of the second threaded ending section (31b) permits to adjust the rotation of the ring (32) according to the displacement of the threaded pin (31).

[0034] The locking/unlocking apparatus (100) comprises a peg (34) that projects from the frame (33) of the moving means (3) and is joined to the ring (32). In particular, the peg (34) is peripherally connected to the ring (32), in such way to move along a circular trajectory with the center of the ring (32) as center. The peg (34) cooperates with the tooth (11) of the bar (1) to move the tooth (11) of the bar (1).

[0035] With reference to Figs. 1, 2, 4 and 5, the locking/unlocking apparatus (100) advantageously comprises motion transmission means (2) that are slidably mounted on the piece of furniture (7) and connected to the bar (1) and to the moving means (3) to transmit the motion from the moving means (3) to the bar (1).

[0036] The motion transmission means (2) comprise a first surface (20) cooperating with the tooth (11) of the bar (1). More precisely, the motion transmission means (2) comprise an upper surface that coincides with the first surface (20) of the motion transmission means (2).

[0037] Alternatively, as shown in Fig. 7, the motion transmission means (2) comprise a lateral niche defined by an internal surface. The tooth (11) of the bar (1) is inserted in the lateral niche. The internal surface that defines the lateral niche coincides with the first surface (20) of the motion transmission means (2).

[0038] The motion transmission means (2) comprise a second surface (21) that cooperates with the peg (34) of the moving means (3). More precisely, the motion transmission means (2) comprise a seat (22) defined by an internal surface. The peg (34) of the moving means (3) is inserted in the seat (22). The internal surface that defines the seat (22) coincides with the second surface (21) of the motion transmission means (2).

[0039] The seat (22) of the motion transmission means (2) is shaped as a semicircle with lower radius of curvature than the circular trajectory of the peg (34). In view of the above, when moving, the peg (34) intercepts the internal wall of the seat (22) and moves the motion transmission means (2) either upwards or downwards. Because of the semicircular shape of the seat (22), a movement of the peg (34) inside the seat (22) determines a movement of the motion transmission means (2) exclusively in vertical direction, without causing the horizontal displacement of said motion transmission means (2).

[0040] The piece of furniture (7) comprises vertical guides (4) that are fixed to a side of the frame (71) of the piece of furniture. The motion transmission means (2) are slidably mounted in the guides (4). Advantageously, the guides (4) have a lower wall that supports the motion transmission means (2) when said motion transmission means (2) are in a lowered position.

[0041] In order to lock the drawer (70) to the frame (71) of the piece of furniture (7), the mobile element (30c) of the button (30) of the moving means (3) must be pressed. A sliding movement of the mobile element (30c) of the button (30) determines a rotation of the threaded pin (31) in the threaded housing (30a) of the mobile element (30c). The threaded pin (31) is screwed in the threaded

housing (30a) of the button (30) and is simultaneously screwed in the central threaded hole (32b) of the ring (32), causing a rotation of approximately 180° of the ring (32) in a closing direction. The peg (34) is moved along the circular trajectory, going from a lower dead point, which is shown in Fig. 1, to an upper dead point, which is shown in Fig. 4. The peg (34) moves the motion transmission means (2) upwards. Consequently, the bar (1) slides upwards and cooperates with the means (M) to lock the drawer (70). So the locking/unlocking apparatus (100) is in closing position.

[0042] In order to open the drawer (70), the mobile element (30c) of the button (30) must be pressed again. The threaded pin (31) is unscrewed from the threaded housing (30a) of the button (30) and simultaneously from the central threaded hole (32b) of the ring (32), causing a rotation of approximately 180° of the ring (32) in an opening direction, which is opposite to the closing direction. The peg (34) is moved along the circular trajectory, going from the upper dead point, which is shown in Fig. 4, to the lower dead point, which is shown in Fig. 1. The motion transmission means (2) are moved downwards by gravity. Also the tooth (11) is moved downwards by gravity, if the tooth (11) is disposed on the upper surface of the motion transmission means (2). Alternatively, the tooth (11) is pushed downwards by the motion transmission means (2), if the tooth (11) is disposed in the lateral niche of the motion transmission means (2). Consequently, the bar (1) slides downwards, being released from the means (M) and permitting the opening of the drawer. So the locking/unlocking apparatus (100) is in opening position.

[0043] Although this description refers to a piece of furniture with drawers, the piece of furniture may comprise one or more door panels. In such a case, the locking/unlocking apparatus permits to lock/unlock one door panel of the piece of furniture or multiple door panels of the piece of furniture at the same time.

[0044] Although it is not shown in the attached figures, the locking/unlocking apparatus (100) may not be provided with the motion transmission means (2). In such a case, the peg (34) of the moving means (3) directly acts on the tooth (11) of the bar (1), in such way to move the bar (1) upwards or downwards.

[0045] Although it is not shown in the attached figures, alternatively, the moving means (3) may be disposed on the side of the frame (71) of the piece of furniture, in adjacent position to the motion transmission means (2). In such a case, the peg (34) has an "L"-shape.

Claims

1. Locking/unlocking apparatus (100) to lock/unlock a door panel or a drawer (70) of a piece of furniture (7); said locking/unlocking apparatus (100) comprising:

- a bar (1) suitable for being slidably mounted on a piece of furniture (7); said bar (1) being configured in such way to cooperate with means (M) of the piece of furniture (7) to lock the door panel or the drawer (70) to a frame (71) of the piece of furniture (7);
- moving means (3) to move the bar (1); said moving means (3) comprising a frame (33) suitable for being fixed to the piece of furniture (7);

characterized in that

said bar (1) comprises a tooth (11) that projects from said bar (1), and

said moving means (3) also comprise:

- a button (30) connected to the frame (33) and disposed outside the piece of furniture (7); said button (30) comprising a threaded housing (30a);
- a ring (32) revolvably mounted in the frame (33) and comprising a threaded central hole (32b);
- a threaded pin (31) revolvably and slidably mounted in the frame (33); said threaded pin (31) having a first threaded ending section (31a) screwed into the threaded housing (30a) of the button (30) and a second threaded ending section (31b) screwed into the threaded hole (32b) of the ring (32);
- a peg (34) joined to said ring (32) and projecting from said frame (33); said peg (34) being intended to cooperate with said tooth (11) of the bar (1) to move said tooth (11) of the bar (1).

2. The locking/unlocking apparatus (100) of claim 1, wherein the thread of the threaded ending section (31a) of the threaded pin (31) has a lower pitch than the thread of the second threaded ending section (31b) of the threaded pin (31).

3. The locking/unlocking apparatus (100) of any one of the preceding claims, comprising motion transmission means (2) slidably mounted on the piece of furniture (7) and connected to the bar (1) and to the moving means (3) to transmit the motion from the moving means (3) to the bar (1); said motion transmission means (2) comprising:

- a first surface (20) cooperating with the tooth (11) of the locking bar (1);
- a second surface (21) cooperating with the peg (34) of the moving means (3).

4. The locking/unlocking apparatus (100) of claim 3, wherein said motion transmission means (2) comprise a seat (22) defined by an internal surface and housing said peg (34) of the moving means (3); said internal surface that defines the seat (22) coinciding

with the second surface (21) of the motion transmission means (2).

5. The locking/unlocking assembly (100) of claim 4, wherein said seat (22) has a semicircular shape.

6. The locking/unlocking assembly (100) of any one of claims 3 to 5, wherein said motion transmission means (2) comprise an upper surface that coincides with the first surface (20) of the motion transmission means (2).

7. The locking/unlocking assembly (100) of any one of claims 3 to 5, wherein said motion transmission means (2) comprise a lateral niche defined by an internal surface and housing said tooth (11) of the bar (1); said internal surface that defines the lateral niche coinciding with the first surface (20) of the motion transmission means (2).

8. The locking/unlocking apparatus (100) of any one of claims 2 to 7, comprising guides (4) fixed to the piece of furniture (7); said motion transmission means (2) being slidably mounted in said guides (4).

9. Piece of furniture (7) comprising:

- a frame (71);
- a door panel or a drawer (70) connected to said frame (71);
- means (M) connected to said door panel or drawer (70) of the piece of furniture (7);
- a locking/unlocking apparatus (100) according to any one of the preceding claims, which is connected to said frame (71) and cooperates with said means (M) to lock the door panel or the drawer (70) to the frame (71).

Patentansprüche

1. Verriegelungs-/Entriegelungsvorrichtung (100) zum Verriegeln/Entriegeln einer Tür oder einer Schublade (70) eines Möbels (7); wobei die Verriegelungs-/Entriegelungsvorrichtung (100) Folgendes umfasst:

- eine Stange (1), die dazu geeignet ist, in dem Möbel (7) verschiebbar gelagert zu sein; wobei die Stange (1) entsprechend ausgebildet ist, um mit Mitteln (M) des Möbels (7) zusammenwirken, um die Tür oder die Schublade (70) an einem Rahmen (71) des Möbels (7) zu verriegeln;
- Verschiebemittel (3) zum Verschieben der Stange (1); wobei die Verschiebemittel (3) einen Rahmen (33) umfassen, der dazu bestimmt ist, an dem Möbel (7) befestigt zu werden;

dadurch gekennzeichnet, dass

die Stange (1) einen aus der Stange (1) auskragenden Zahn (11) umfasst;

die Verschiebemittel (3) ferner Folgendes umfassen:

- eine Taste (30), die mit dem Rahmen (33) verbunden und außerhalb des Möbels (7) angeordnet ist; wobei die Taste (30) einen Gewindesitz (30a) umfasst;
- einen Ring (32), der in dem Rahmen (33) drehbar gelagert ist und ein zentrales Gewindeloch (32b) umfasst;
- einen Gewindestift (31), der in dem Rahmen (33) drehbar und verschiebbar gelagert ist; wobei der Gewindestift (31) einen ersten Gewindeendabschnitt (31a) aufweist, der in dem Gewindesitz (30a) der Taste (30) eingeschraubt ist, und einen zweiten Gewindeendabschnitt (31b), der in dem Gewindeloch (32b) des Rings (32) eingeschraubt ist;
- einen Zapfen (34), der mit dem Ring (32) einstückig ist und aus dem Rahmen (33) auskragt; wobei der Zapfen (34) dazu geeignet ist, mit dem Zahn (11) der Stange (1) zusammenwirken, um den Zahn (11) der Stange (1) zu verschieben.

2. Verriegelungs-/Entriegelungsvorrichtung (100) nach Anspruch 1, wobei das Gewinde des ersten Gewindeendabschnitts (31a) des Gewindestifts (31) eine kleinere Steigung als das Gewinde des zweiten Gewindeendabschnitts (31b) des Gewindestifts (31) aufweist.

3. Verriegelungs-/Entriegelungsvorrichtung (100) nach einem der vorstehenden Ansprüche, umfassend Bewegungsübertragungsmittel (2), die auf dem Möbel (7) verschiebbar gelagert und mit der Stange (1) und den Verschiebemitteln (3) verbunden sind, um die Bewegung von den Verschiebemitteln (3) auf die Stange (1) zu übertragen; wobei die Bewegungsübertragungsmittel (2) Folgendes umfassen:

- eine erste, mit dem Zahn (11) der Verriegelungsstange (1) zusammenwirkende Fläche (20);
- eine zweite, mit dem Zapfen (34) der Verschiebemittel (3) zusammenwirkende Fläche (21).

4. Verriegelungs-/Entriegelungsvorrichtung (100) nach Anspruch 3, wobei die Bewegungsübertragungsmittel (2) einen Sitz (22) umfassen, der von einer Innenfläche begrenzt wird, die den Zapfen (34) der Verschiebemittel (3) aufnimmt; wobei die den Sitz (22) begrenzende Innenfläche der zweiten Fläche (21) der Bewegungsübertragungsmittel (2) entspricht.

5. Verriegelungs-/Entriegelungsvorrichtung (100)

nach Anspruch 4, wobei der Sitz (22) halbkreisförmig ist.

6. Verriegelungs-/Entriegelungsvorrichtung (100) nach einem der Ansprüche 3 bis 5, wobei die Bewegungsübertragungsmittel (2) eine obere Fläche umfassen, die der ersten Fläche (20) der Bewegungsübertragungsmittel (2) entspricht.

7. Verriegelungs-/Entriegelungsvorrichtung (100) nach einem der Ansprüche 3 bis 5, wobei die Bewegungsübertragungsmittel (2) eine seitliche Nische umfassen, die von einer Innenfläche begrenzt wird, die den Zahn (11) der Stange (1) aufnimmt; wobei die Innenfläche, die die seitliche Nische begrenzt, der Fläche (20) der Bewegungsübertragungsmittel (2) entspricht.

8. Verriegelungs-/Entriegelungsvorrichtung (100) nach einem der Ansprüche 2 bis 7, umfassend Führungen (4), die an dem Möbel (7) befestigt sind; wobei die Bewegungsübertragungsmittel (2) in den Führungen (4) verschiebbar gelagert sind.

9. Möbel (7) umfassend:

- einen Rahmen (71);
- eine Tür oder eine Schublade (70), die mit dem Rahmen (71) verbunden ist;
- Mittel (M), die mit der Tür oder der Schublade (70) des Möbels (7) verbunden sind;
- eine Verriegelungs-/Entriegelungsvorrichtung (100) nach einem der vorstehenden Ansprüche, die mit dem Rahmen (71) verbunden ist und mit den Mitteln (M) zusammenwirkt, um die Tür oder die Schublade (70) an dem Rahmen (71) zu verriegeln.

Revendications

1. Groupe de blocage/déblocage (100) pour permettre le blocage/déblocage de la porte ou d'un tiroir (70) d'un meuble (7) ; ledit groupe de blocage/déblocage (100) comprenant :

- une barre (1) destinée à être montée coulissante sur un meuble (7) ; ladite barre (1) étant conformée de manière à coopérer avec des moyens de butée (M) du meuble (7) pour bloquer la porte ou le tiroir (70) sur un châssis (71) du meuble (7) ;
- des moyens de déplacement (3) pour déplacer la barre (1) ; lesdits moyens de déplacement (3) comprenant un châssis (33) destiné à être fixé au meuble (7) ;

caractérisé en ce que

ladite barre (1) comprend une dent (11) qui fait saillie de ladite barre (1), et lesdits moyens de déplacement (3) comprennent également :

- un poussoir (30) relié au châssis (33) et disposé hors du meuble (7) ; ledit poussoir (30) comprenant un siège fileté (30a) ;
 - un anneau (32) monté pivotant dans le châssis (33) et comprenant un orifice central fileté (32b) ;
 - un goujon fileté (31), monté pivotant et coulissant dans le châssis (33) ; ledit goujon fileté (31) ayant un premier segment d'extrémité fileté (31a) vissé dans le siège fileté (30a) du poussoir (30) et un second segment d'extrémité fileté (31b) vissé dans l'orifice fileté (32b) de l'anneau (32) ;
 - un pieu (34) solidaire avec ledit anneau (32) et faisant saillie du dit châssis (33) ; ledit pieu (34) étant apte à coopérer avec ladite dent (11) de la barre (1) pour déplacer ladite dent (11) de la barre (1).
2. Groupe de blocage/déblocage (100) selon la revendication 1, où le filetage du premier segment d'extrémité fileté (31a) du goujon fileté (31) a un pas mineur que celui du filetage du second segment d'extrémité fileté (31b) du goujon fileté (31).
3. Groupe de blocage/déblocage (100) selon l'une quelconque des revendications précédentes, comprenant des moyens de transmission du mouvement (2) montés coulissants sur le meuble (7) et reliés à la barre (1) et aux moyens de déplacement (3) pour transmettre le mouvement depuis les moyens de déplacement (3) à la barre (1) ; lesdits moyens de transmission du mouvement (2) comprenant :
- une première surface de butée (20) qui coopère avec la dent (11) de la barre de blocage (1) ;
 - une seconde surface de butée (21) qui coopère avec le pieu (34) des moyens de déplacement (3).
4. Groupe de blocage/déblocage (100) selon la revendication 3, où lesdits moyens de transmission du mouvement (2) comprennent un siège (22) délimité par une surface interne et qui loge ledit pieu (34) des moyens de déplacement (3) ; ladite surface interne qui délimite le siège (22) étant coïncidente avec la seconde surface de butée (21) des moyens de transmission du mouvement (2).
5. Groupe de blocage/déblocage (100) selon la revendication 4, où ledit siège (22) a une forme en demi-cercle.
6. Groupe de blocage/déblocage (100) selon l'une

quelconque des revendications de 3 à 5, où lesdits moyens de transmission du mouvement (2) comprennent une surface supérieure coïncidente avec la première surface de butée (20) des moyens de transmission du mouvement (2).

7. Groupe de blocage/déblocage (100) selon l'une quelconque des revendications de 3 à 5, où lesdits moyens de transmission du mouvement (2) comprennent une niche latérale délimitée par une surface interne et qui loge ladite dent (11) de la barre (1) ; ladite surface interne qui délimite la niche latérale coïncide avec la première surface de butée (20) des moyens de transmission du mouvement (2).
8. Groupe de blocage/déblocage (100) selon l'une quelconque des revendications de 2 à 7, comprenant des guides (4) fixés au meuble (7) ; lesdits moyens de transmission du mouvement (2) étant montés coulissants dans lesdits guides (4).
9. Meuble (7) comprenant :

- un châssis (71) ;
- une porte ou un tiroir (70) relié au dit châssis (71) ;
- des moyens de butée (M) reliés à ladite porte ou au ledit tiroir (70) du meuble (7) ;
- un groupe de blocage/déblocage (100) selon l'une quelconque des revendications précédentes, qui est relié au dit châssis (71) et qui coopère avec lesdits moyens de butée (M) pour bloquer la porte ou le tiroir (70) au châssis (71).

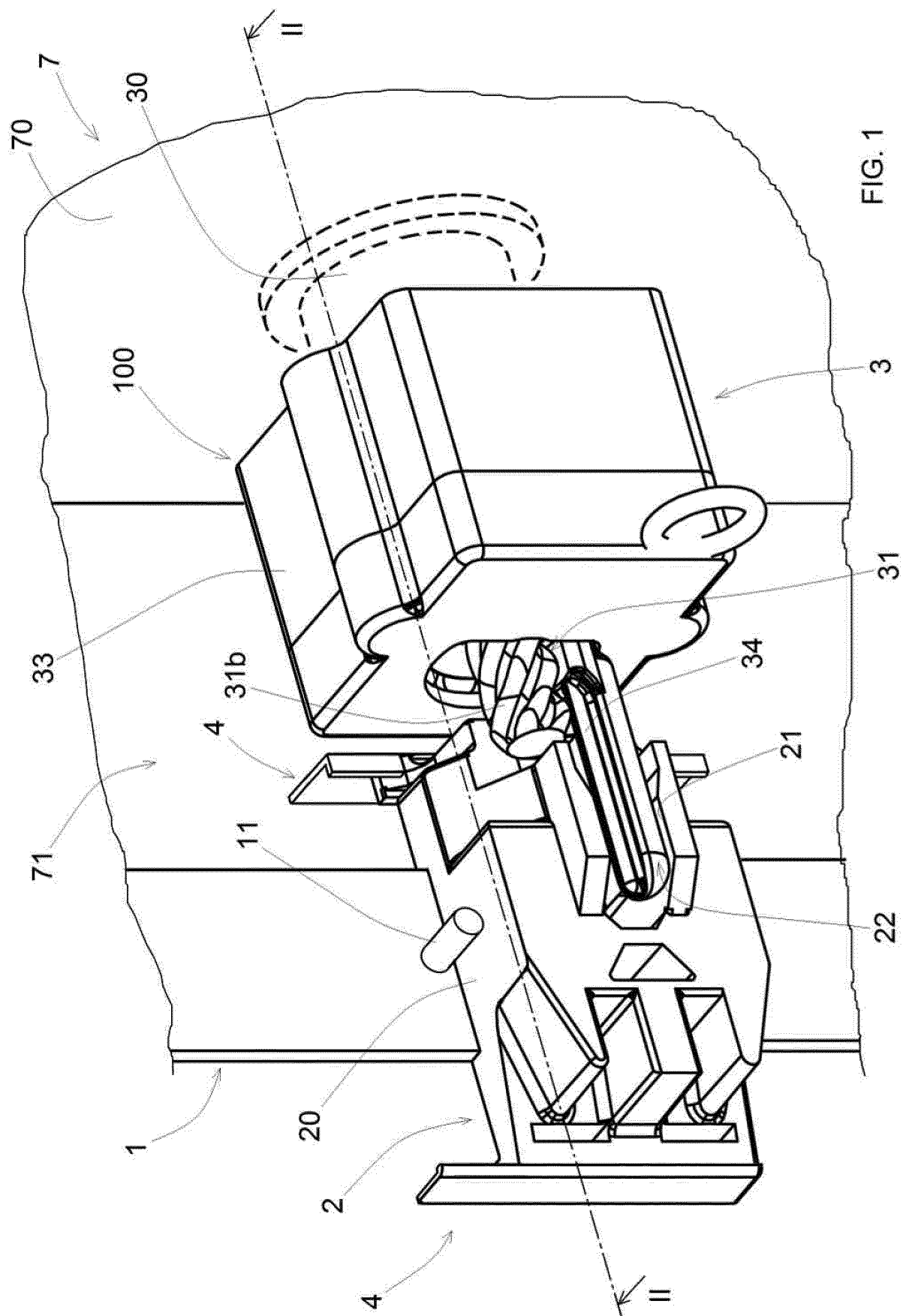
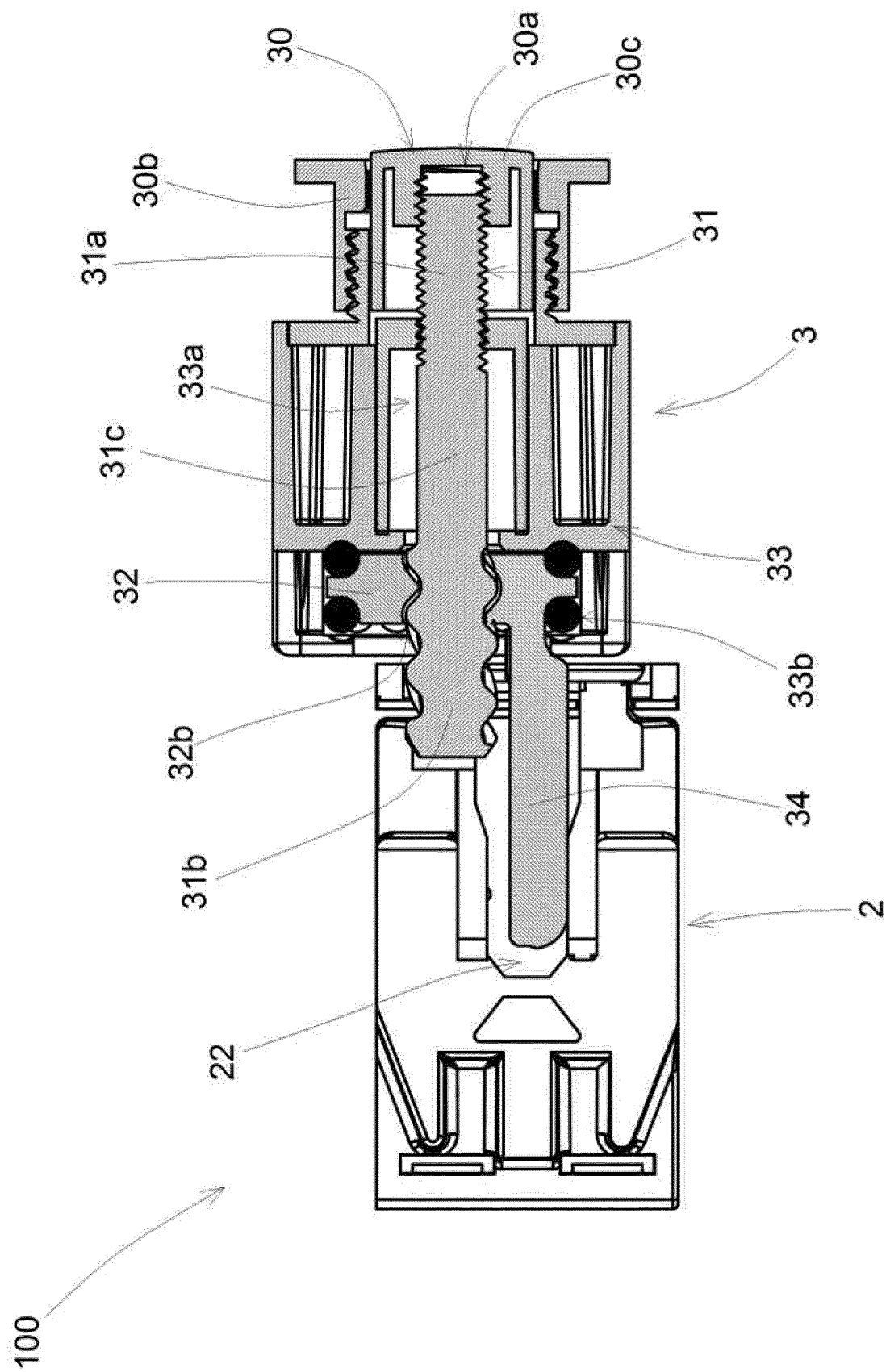


FIG. 1



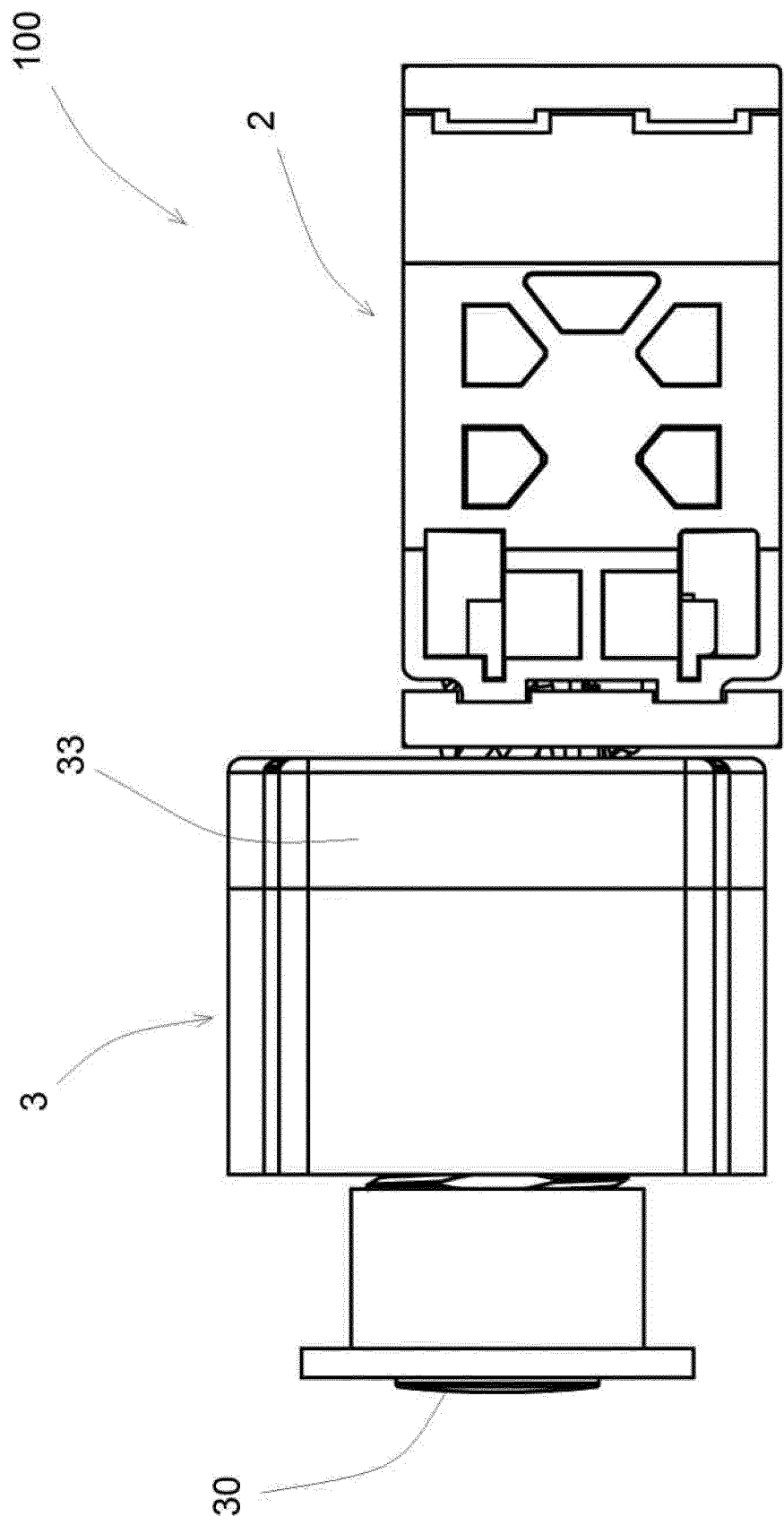


FIG. 3

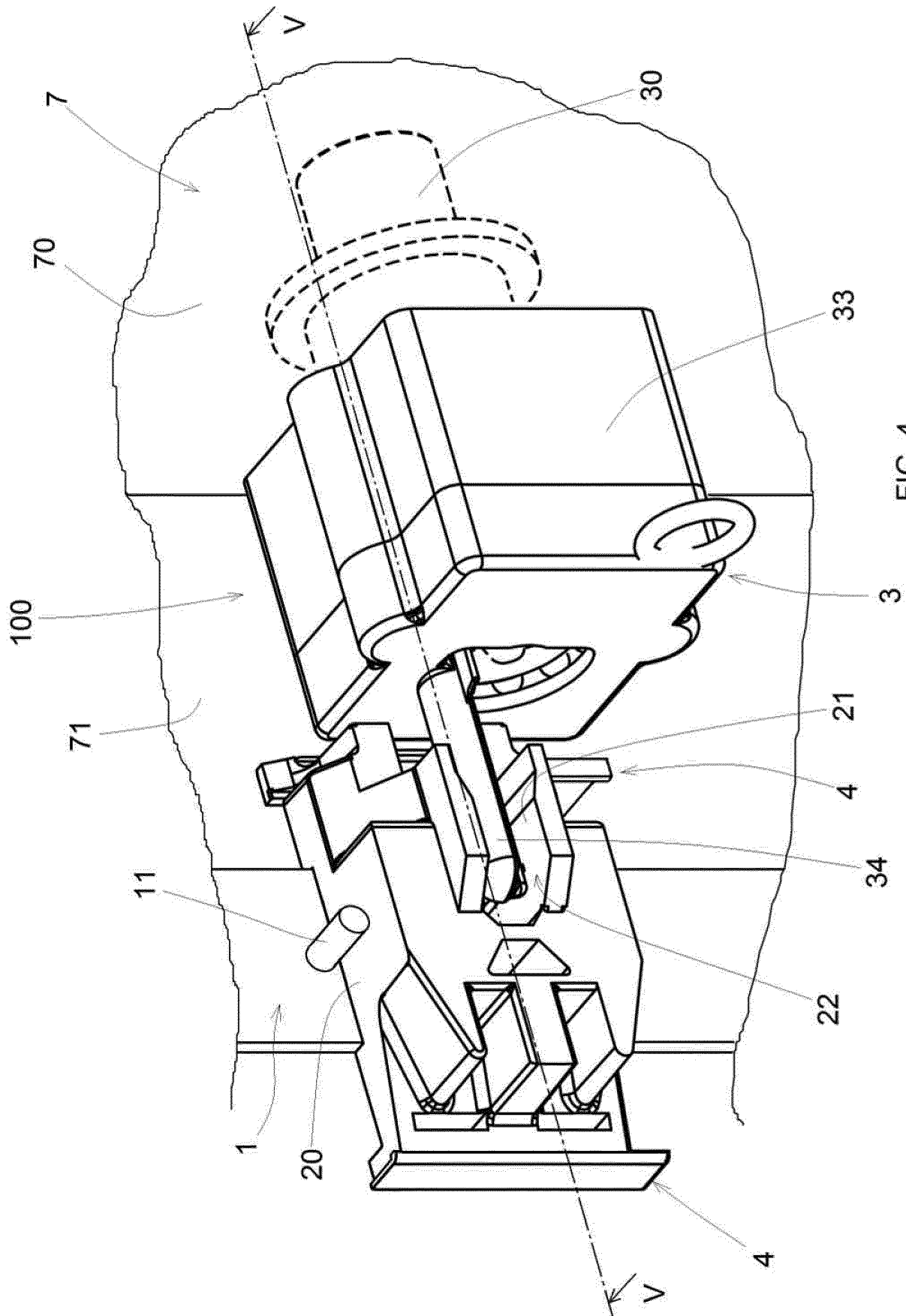


FIG. 4

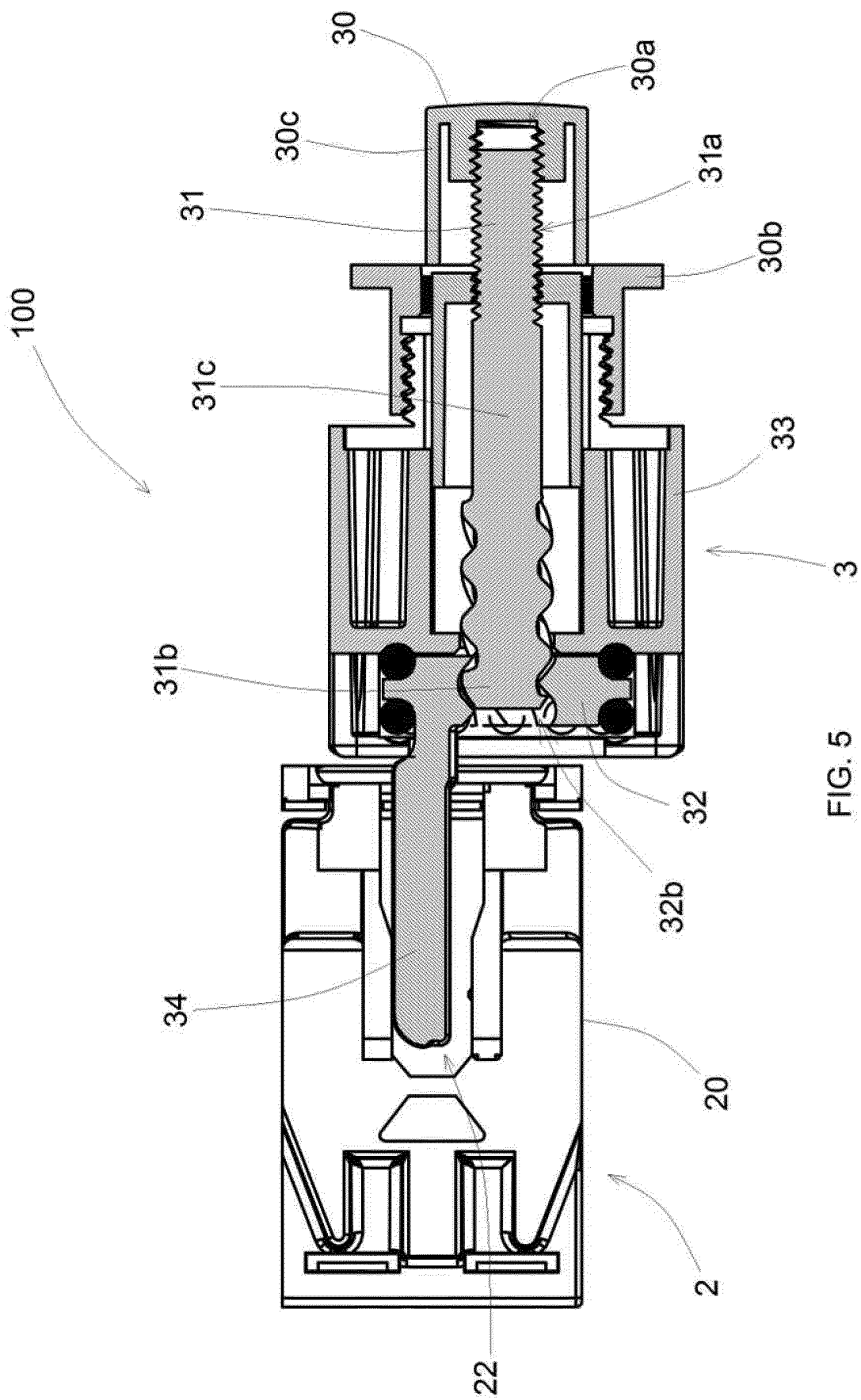


FIG. 5

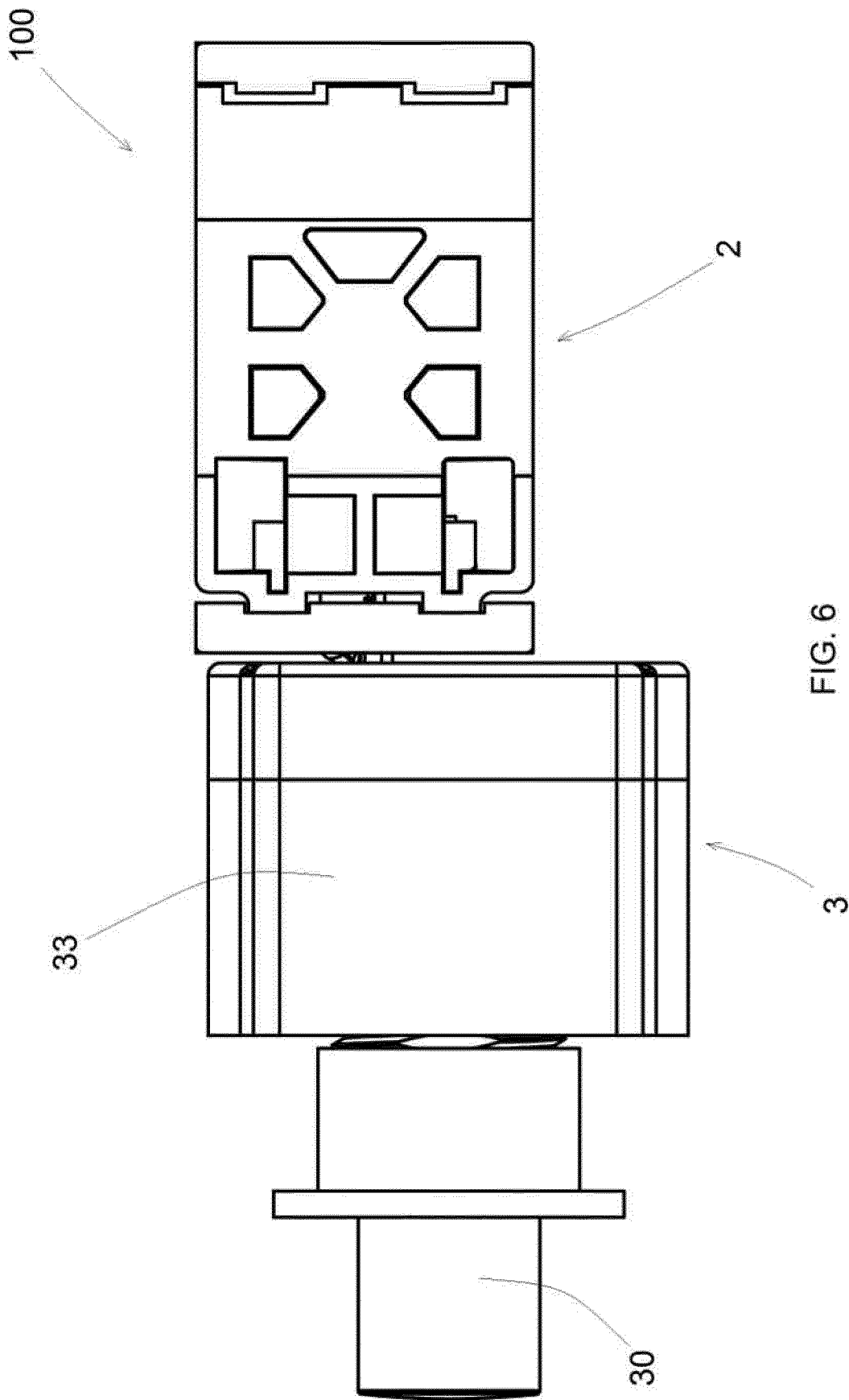


FIG. 6

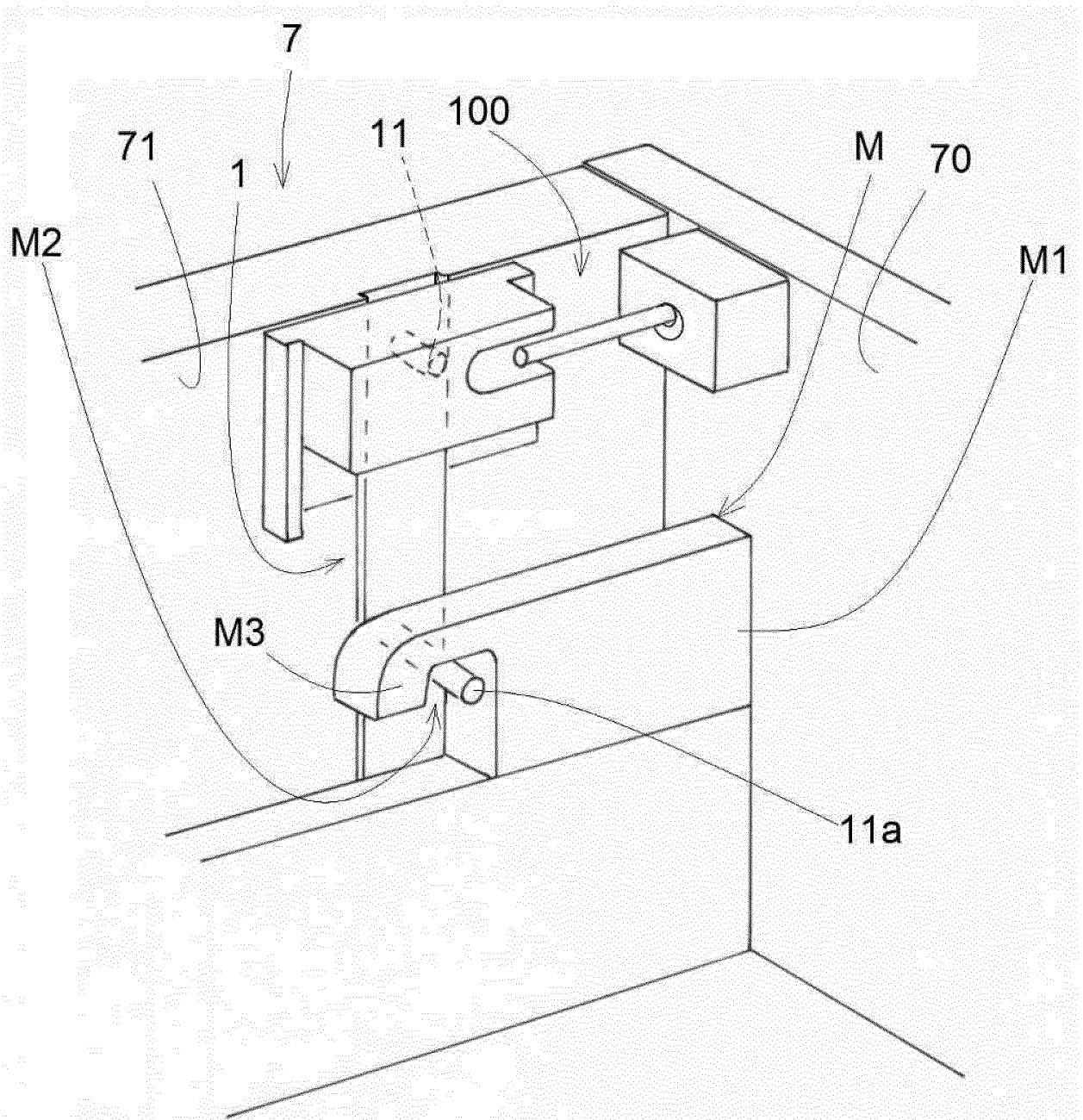


FIG. 7

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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