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(54) **LOCK AND BUTTON MECHANISM FOR USE IN A DOOR OR A WINDOW**

(57) The present invention, in general, relates to a lock (80) suitable for use with a button mechanism (110) and a strike assembly (40), comprising a body (87), a spring-loaded latch housing (95) disposed in the body (87), and a latch (90) associated with the latch housing (95), which is, in use, suitable to be received in a lock strike assembly (40), a bolt (91) suitable to be engaged into a corresponding bolt hole (79) in the lock strike assembly (40), a spring-loaded bolt housing (97) in which the bolt (91) is guided and which is configured to be movable, and a cover (85) having a plurality of slots thereon. Said lock (80) comprises a sliding member (93) which is disposed movably in the lock body (87) and which is suitable to be moved by a triggering member (120) extending, at least partly, from the outside of the lock (87) into the inside thereof; and an actuating member (88) which is associated with the sliding member (93) and which transfers the motion from the sliding member (93) to the bolt housing (97) with which it is associated. Said bolt (91) is configured to compress a bolt spring (99) and push it outside the body (87) upon the actuation of the actuating member (88) and the sliding member (93) is configured to retract the bolt (91) into the body (87) once the triggering member (120) is withdrawn.

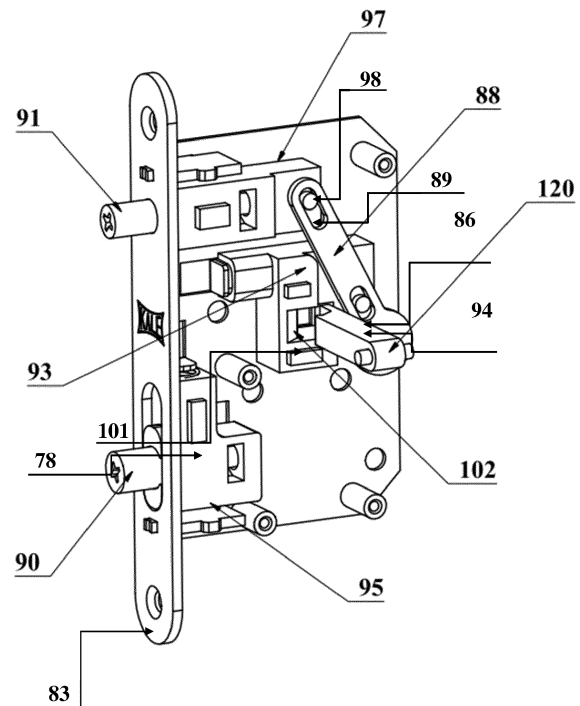


FIGURE 8

Description

Technical Field of the Invention

[0001] The present invention relates to a lock for use in doors and windows, and more particularly relates to a lock configured to use with a button mechanism by eliminating use of a handle or knob.

Background of the Invention

[0002] In order to open doors and windows in regular use, actuating members such as handles or knobs are required. A latch of the locks suitable for use in doors or windows in the state-of-art is configured to engage into a slot on the strike assembly provided in a relevant frame, and the lock assembly is used with a suitable handle, or knob-like elements. A latch of the lock provided in a lock assembly of a door wing is, when the wing is pushed, received in a corresponding slot in the strike assembly on the frame, which is then closed, and a bolt is engaged into the frame by means of a key or a similar encrypted element so as to complete the locking. In order to unlock a locked door, a suitable key-like element is also required, while it is necessary to turn the handle down in order to open an unlocked door. The handle, knob and similar elements that are used to open the door result in a protrusion on both faces of the wing. A press is exerted on the handle of the door or window in order to open it, so that the latch is engaged into the body and thus deactivated. Once the latch is deactivated, in order to open the door, a user in the room pulls the door to himself while a user outside the door pushes same or vice versa.

[0003] A lock in which the usage of the handle is eliminated is also known in the art. In order to open the doors on which such locks are used, a knob is mounted on the door, which knobs result in a protrusion on the outer side of the door, as mentioned above. Furthermore, as is the case with the handle, the door is opened by pulling from the inside or pushing from the outside by means of the knobs.

[0004] Another example of the prior art is that there is a static element in the inner structure of the strike plates without a mechanism. In such locks, after the door is closed, the bolt of the lock is engaged into the door frame by means of the key or knob, thereby locking the door.

[0005] A disadvantage of such handles and knobs in the art is that they spread infectious diseases due to the fact that a lot of people touch same in public and social places. In order to prevent this, expensive anti-bacterial door handles needed to be used.

[0006] A problem of the prior art is that a means such as a handle, knob etc. is required in window and door applications for purposes of opening the door, which results in a protrusion on the outer side of the door. Said protrusions extending to the outer side of the door involve the risk that the limbs of the children, particularly, and also those of the adults may strike same. Moreover, the

handles and knobs may hit the walls while the door/window is being opened, thereby resulting in permanent deformations both on the wall and the window/door.

[0007] Another problem in the prior art is that the elements such as handles and knobs that allow opening and closing of the door get rusted in time due to corrosion and cause an unpleasant appearance. This results in maintenance and labor cost.

[0008] Another problem of the prior art is that slots are made where the elements such as handles and knobs that allow opening and closing of the door are mounted. It is a great time and cost loss for the door manufactures to make said slots. Furthermore, such accessories as handles and knobs that are mounted destroy the overall visual quality of the door and have a negative aesthetical impact on the door.

[0009] Still another problem of the prior art is that in all lock applications in the world, the door is opened by pressing an element such as a handle or a knob in order to open it. Therefore, it is inevitable to manually touch such elements as handles and knobs in the existing locking systems. Due to the fact that every person touches the handles, they are hotspots for spreading germs and bacteria. The door handles of the toilets pose a much higher risk to this end. Also, public and social places such as hospitals, schools, cafeterias etc. also carries high risk. Since the door handles are often used by different persons, they are deemed to be a significant factor in spreading diseases because of the germs and bacteria available thereon. Therefore, they pose a great threat to human health.

[0010] Another problem of the prior art is that anti-bacterial handles are used for sanitary purposes. Said handles are quite expensive and require periodical maintenance.

[0011] Another problem of the prior art is the trouble experienced in opening of the door when the hands are full. In order to open the door, the user holding an object first puts the object and then presses the door handle for opening the door. Once the door is opened, the user takes the object again. This is both cumbersome and slow.

[0012] Another problem of the prior art is that closing of the door by pushing it may be accomplished if the latch is properly fitted into the strike plate hole. Due to the fact that it is quite sensitive to fit the latch into the strike plate, it is a quite common problem that the door travels back while closing it by pushing.

[0013] Still another problem of the prior art is that swing knobs etc. are used in the locks of toilets for locking purposes. It is again necessary to touch them in order to turn same. And this also carries the risk of spreading germs and diseases through touch, as it is the case with handles.

[0014] Another problem of the prior art is that the latch of the lock strikes the door frame and engages into the lock, and where it coincides with the strike plate hole, it protrudes out. Thus, it causes deformation of the furniture

where the latch strikes the door frame, thereby causing an unpleasant appearance and impairing the operating performance. In order to avoid it, elongated strike assemblies may be used, which though increases the cost of the product.

Object of the Invention

[0015] Primary object of the present invention is to provide a lock assembly and a button mechanism which allows opening of a door or a window by touching/pressing a wing, to which it is attached internally or externally, or a button, without requiring a handle or a knob. In this way, the cost of the components such as handles, rosettes etc. is eliminated and the labor costs are minimized.

[0016] Another object of the present invention is to provide a lock and button assembly which may also be opened by means of a shoulder or foot contact, without requiring a manually-operated piece such as door handles or knobs, which thus offers a great advantage where hygiene is important.

[0017] Another object of the present invention is to provide a lock and button assembly which eliminates the burden of the user to leave the load that he holds while entering or exiting the door, thereby ensuring an ease of use.

[0018] Another object of the present invention is to provide a lock and button assembly which, in addition to the comfort offered to the end users, eliminates the use of expensive anti-bacterial handles and knobs that are used in places where hygiene is important, thereby providing cost advantage for the consumer. Furthermore, labor cost and the time spent for mounting handles, rosettes etc. to the door is eliminated.

[0019] Another object of the present invention is to provide a lock and button assembly wherein the integrity of the door is preserved due the fact that there is no protrusion outside the door such as handles or rosettes, thereby resulting in more aesthetical and uniform doors or windows. Moreover, since no handles and knobs will be used, rusting and deformation of said components over time is also eliminated.

[0020] Another object of the present invention is to provide a lock and button assembly wherein the strike of the latch to the frame and deformation thereof, as experienced in the existing locks, is eliminated. Thus, a possible deformation of the furniture is also avoided.

[0021] Yet another object of the present invention is to provide a lock and button assembly which eliminates the problem that the door travels back while being closed.

Summary of the Invention

[0022] The present invention, in general, relates to a lock suitable for use with a button mechanism and a strike assembly, comprising a body, a spring-loaded latch housing disposed in the body, and a latch associated

with the latch housing, which is, in use, suitable to be received in a lock strike assembly, a bolt suitable to be engaged into a corresponding bolt hole in the lock strike assembly, a spring-loaded bolt housing in which the bolt is guided and which is configured to be movable, and a cover having a plurality of slots thereon. Said lock comprises a sliding member disposed movably in the lock body and suitable to be moved by a triggering member extending, at least partly, from the outside of the body to the inside thereof; and an actuating member which is associated with the sliding member and which transfers the motion from the sliding member to the bolt housing with which it is associated. Said bolt is configured to compress a bolt spring and push it outside the body upon the actuation of the actuating member and the sliding member is configured to retract the bolt into the body once the triggering member is withdrawn.

Brief Description of the Drawings

[0023] The lock and button mechanism according to the present invention is illustrated in the accompanying drawings for better understanding, which drawings are provided to illustrate the invention and should not be construed as limiting.

Figure 1 is a perspective view of a locking unit consisting of a lock and button mechanism according to the present invention, as used with a suitable strike assembly on a wing.

Figure 2 is a rear perspective view of the locking unit of the Fig. 1.

Figure 3 is a perspective view of the locking unit according to the present invention, as closed up on the wing, showing an open position in which the bolt is located in the body.

Figure 4 is a perspective view of the locking unit according to the present invention, as closed up on the wing, showing a closed position in which the bolt is driven out from the body.

Figure 5 is an exploded perspective view of the button mechanism according to the present invention.

Figure 6 is a perspective view of the triggering member and the button housing in the button mechanism the according to the present invention.

Figure 7 is an exploded perspective view of the lock according to the present invention.

Figure 8 is a perspective view of the lock according to the present invention, showing the inner mechanism thereof, with the cover removed and the bolt is driven.

Figure 9 is an upper view of the lock according to the present invention, showing the inner mechanism thereof, with the cover removed and the bolt is not driven and in an opened position.

Figure 10 is an upper view of the lock according to the present invention, showing the inner mechanism thereof, with the cover removed and the bolt is driven and in a closed position.

Figure 11 is a perspective view of a strike assembly suitable for use with the locking unit according to the present invention.

Figure 12 is a perspective view showing a rear position of the triggering member and the button housing in the button mechanism according to the present invention.

Detailed Description of the Invention

[0024] The present invention describes a lock (80) and a button mechanism (110) that is in interaction with the lock (80), as well as a locking unit (200) comprised of them. As seen in Fig. 1, the button mechanism (110) is associated with a door wing or window wing and allows controlling of the lock (80) thereon. Said lock (80) and button mechanism (110) together form the locking unit (200). The locking unit (200) comprises a button mechanism (110) comprising a button (116) with which the triggering member (120) is associated at one end, such that the driving and retraction of the bolt (91) in the lock (80) is especially controlled. The lock (80) of the present invention, in general, comprises at least a latch (90) and at least a bolt (91) mounted on a main body (87), and sub-parts thereof. Figure 1 also shows a locking unit (200) according to the present invention, with a lock (80) provided on a wing (11) hinged to a frame (20), a button mechanism (110) for controlling the lock, and a strike assembly (40) disposed on a frame in a suitable manner.

[0025] The present invention, in general, relates to the lock (80) comprising a body (87), a latch spring (96) loaded latch housing (95) disposed in the body (87), and a latch (90) disposed in the latch housing (95), which is, in use, suitable to be received in a lock strike assembly (40), a bolt (91) suitable to be engaged into a corresponding bolt hole (79) in the lock strike assembly (40), and a spring-loaded bolt housing (97) in which the bolt (91) is guided and which is configured to be movable. The latch spring (96) is disposed in the latch housing (95), as shown in figure 7, thereby pressing the latch housing (95) in a direction -Y.

[0026] Said lock (80) comprises a sliding member (93) which is disposed movably in the lock body (87) and which is suitable to be moved by a triggering member (120) extending, at least partly, into the lock (80); and an actuating member (88) which is associated with the sliding member (93) and which transfers the motion from the

sliding member (93) to the bolt housing (97) with which it is associated. Upon the actuation of the actuating member (88), the bolt (91) may move against the bolt spring (99) therein and protrude from the body (87) and the bolt (91) may be retracted into the body (87) once the triggering member (120) is withdrawn. Said lock comprises a protrusion in the body (87) which restricts the lateral movement of the said sliding member (93) in the lock (80), also comprises an abutment portion (72) which is intended to strike the protrusion and restrict the lateral movement. The lower part of the actuating member (88) is preferably formed to be annular, which is attached in the lock body (87) by means of the hole at the center thereof, and it is engaged into the corresponding pins by means of the channels provided on the extending member structure and acts as a motion-transferring member.

[0027] With reference to figure 8, said sliding member (93) comprises a sliding hole (101) and an inclined wall (102) in the sliding hole (101) which is shaped and sized with respect to an end of the triggering member (120), which allows movement of the sliding member (93) upon the contact of the actuating member (120). The inclined wall (102) is preferably obtained by inclining a lateral wall of the sliding hole (101), and the triggering member (120) contacts the inclined wall (102) of the spring-loaded sliding member (93) and causes the sliding member (93) to move in a direction +X that is perpendicular to the longitudinal axis of the lock. In this manner, an initial movement for driving of the bolt (91) is obtained.

[0028] As also seen in figures 7-10, said actuating member (88) has two hollow slots formed in the longitudinal direction, one of which that is close to the bolt (91) is configured as the upper slot (89) and the one that is close to the latch (90) is configured as the lower slot (86). The upper slot (89) of the actuating member (88) is associated with the bolt housing pin (98) on the sliding member (93) and the lower slot (86) is associated with the sliding member pin (94), thereby transferring the motion from the sliding member (93) to the bolt housing (97). With reference to figure 7, there is at least one cover lower slot (82) in which the sliding member protrusions (92) on the cover (85) are guided. Again in the figure 7, the cover (85) is illustrated which closes the lock (80) assembly and has a plurality of slots thereon, and on the cover (85), there is a cover upper slot (81) which is formed in the transversal direction. The lock (100) comprises a guiding protrusion (84) formed on the bolt housing (97), which is guided in the cover upper slot (81) and allows a linear movement. With the slots on the cover (85), the inner components of the lock are moved in the vertical or horizontal direction and in a linear manner, as desired. On the said cover (85), there is at least one cover lower slot (82) formed in the transversal direction and there is at least one, preferably two, sliding member protrusion(s) (92) on the sliding member (93), which is guided in the cover lower slot (82) and allows a linear movement. With reference to figure 8, there is a bolt housing pin (98) on the bolt housing (97) which preferably has a cylindrical

section, which bolt housing pin (98) may be formed in a different manner with respect to the upper slot (89) in which it will be guided. Likewise, there is a sliding member pin (94) on the sliding member (93) which preferably has a cylindrical section, which sliding member pin (94) may be formed in a different manner with respect to the lower slot (86) in which it will be guided.

[0029] As seen in figures 7-10, the latch housing (95) comprises a latch housing protrusion (78) which is guided in a cover latch slot (77) formed on the lock cover (85) with respect to the longitudinal axis of the cover (85) and which allows a linear movement. In this manner, the latch (90) is allowed to move inside a relevant strike assembly (40), preferably upwards and downwards in the longitudinal axis (Y) of the lock, further ensuring an interaction of the components in the strike assembly (40). In a preferred embodiment of the invention, although the latch (90) may be moved in the direction of a certain axis, it is also possible in alternative embodiments to arrange the latch housing (95) in a fixed manner, or to retract it into a body (87) by means of a cylinder lock or similar mechanism.

[0030] Referring to the Figs. 5 and 12, The lock comprises a plurality of connection protrusions (122) at an end of the triggering member (120) which are disposed on the opposite lateral walls, and there are a plurality of button protrusion housings (111) on the inner side of the button, which are shaped and dimensioned based on the plurality of the connection protrusions (122). In the button protrusion housings (111), as shown in figure 12 and preferably having a U-section, a connection protrusion (122) is guided which is shaped and dimensioned based on the housing (111). Again with reference to figure 5, the button mechanism (110) comprises a button housing (115) with a rectangular or square section, as well as a button (116) arranged in the button housing (115) along with the triggering member (120) with which it is associated. The user may press on the relevant portions on the button (116) to impart a pivotal movement thereon, in order to control the lock bolt (91). As seen in figure 6, an inner side of the button housing (115) formed to have a square section comprises a plurality of holes for connection, which forms a housing with a height difference, which is depressed in an inner direction so as to, at least partly, surround the button (116). And there is a button housing aperture (112) on the inner side through which the triggering member (120) will be passed. Said triggering member (120) in the form of a rod is passed through the button housing aperture (112) and contacts the sliding hole (101) in the lock (80) which has an inclined wall (102).

[0031] There are at least two opposite button protrusions (123) on an inner wall (124) of the button housing (115) such that said button (116) is allowed to rotate partially, and there are at least two opposite connection regions (121) on the button (116) which are configured to be snap-fitted with the button protrusions (123). Thus, the button (116) is allowed to rotate pivotally from the

regions where it is connected. Again as seen in figure 5, the button (116) of the said button mechanism (110) has an upper portion (125) and a lower portion (126), on the outer surface thereof, which are suitable to be pressed by the user so as to provide information to the user about the status of the lock (80). When the upper portion (125) of the button mechanism (110) is pressed, the associated triggering member (120) moves a little forward in the lock (80) where it is located, which thus allows the sliding member (93) to move in a direction X, also ensuring that said bolt (91) protrudes from the body (87) as a result of an interaction of the components in the lock (80).

[0032] Once the wing (11) is closed, the bolt (91) is pushed forwards by means of the button (110) and is engaged into a corresponding bolt hole (79) in the strike assembly (40), thereby ensuring the locking. Locking of a door or a window is performed by protruding the bolt (91) from the body (87) and engaging it into the bolt hole (79). When the upper portion (125) of the button (116) is pressed which preferably has a notification thereon indicating a closed position etc., the bolt (91) protrudes from the body (87), and when the lower portion (126) is pressed which has a notification thereon indicating that button is opened or a similar situation, the bolt (91) returns to the lock body (87).

[0033] After the wing (11) of a door or a window is closed, once the upper portion (125) of the button is pressed, the triggering member (120) in the form of an elongate rod that is associated with the button (116) and including an end portion with a narrowing section is moved into the lock body (87). Meanwhile, the triggering member (120) strikes the inclined lateral wall (102) of the sliding member (93) and causes the sliding member (93) to move along the inclined wall (102) in a direction +X. Said triggering member (120) is fitted into the corresponding holes with its protrusions such that it is substantially perpendicular to the button (116). The sliding member (93) in the lock (80), as illustrated in perspective in figure 7, on one hand, moves the bolt housing (97) in the direction +X by means of the associated triggering member (88), while on the other hand compressing the associated bolt spring (99). As a result of such movement, the bolt (91) is released from the lock and is engaged into the bolt hole (79) of the strike assembly (40), thereby ensuring the locking of the wing (11). In this case, even if the wing (11) is pushed from indoor (12) or outdoor (13), the wing (11) of the door or window will not be opened until it is released from the locking position.

[0034] Release of the locking unit (200) consisting of a lock (80) and a button mechanism (110) is performed such that: once the lower portion (126) of the button (116) is preferably pressed, the triggering member (120) is removed from the sliding hole (101) and thus a barrier of the sliding member (93) is eliminated. Once the sliding member (93) is released, it moves in the direction -X and returns to its initial position by means of the loaded bolt spring (99) with which the sliding member (93) is associated. As the sliding member (93) is being returned to

its initial position, the associated bolt (91) leaves the bolt hole (79) which is then retracted into the lock body (87), so that locking is deactivated. In this case, if the wing (11) is pushed from indoor (12) or outdoor (13), it is opened. The button mechanism (110) for locking may be arranged in the inner side or outer side of the room, or both. In an alternative embodiment of the invention, the lock (80) may also be integrated so as to be used with a key or cylinder lock.

[0035] The locking unit (200) ensures locking of the door or window, to which it is connected, such that: the bolt (91) is driven and engaged into the bolt hole (79) of the strike assembly (40). Once the upper portion (125) of the said button is pressed, the bolt (91) is moved out, and when the lower portion (126) thereof is pressed, the bolt (91) is withdrawn into the lock (80). After the door is closed, once the upper portion (125) of the button is pressed, the triggering member (120) connected to the button (116) moves forward. The triggering member (120) also moves forward towards the body (87) and the sliding member (93) strikes the inclined wall (102), which is made to move along the inclined surface in the direction +X. The sliding member (93), on one hand, moves the bolt housing (97) in the direction +X by means of the associated triggering member (88), while on the other hand compressing the associated bolt spring (99).

[0036] The locking unit (200) according to the present invention is suitable for use with a suitable strike assembly (40), so that a system may be achieved which may be opened and closed only by pressing the relevant button (116) and which offers a significant opportunity to use where hygiene or the like is important. Although the latch (90) and the bolt (91) are illustrated as an annular pin in the drawings of the present invention, both may have different forms and dimensions. The latch (90) and the bolt (91) can have different shapes depending on the form of the hole in the strike assembly (40) into which it will be engaged.

[0037] According to the present invention, a non-limiting example of a strike assembly (40) suitable to be used with the locking unit (200) is shown in figure 11. The strike assembly (40) comprises a holding member (55) which is rotatably attached in the strike body (43) and which is, when the wing (11) is closed, rotatable upon the strike of the latch (90) from that region where it is associated. Once the latch (90) strikes the holding member (55) configured to be rotatable, the holding member rotates in the clockwise direction, and the associated latch pin (90) seats into its hole in the inner side of the holding member (55) which is preferably shaped in V-form. The lock (80) and the locking unit (40) according to the invention may be used with the strike assembly (40) as shown in figure 11, or may be used with conventional strike assembly structures. The number of the bolts (91) and the latches (90) used in the invention can be increased, or the bolt (91) and the latch (90) which are preferably formed as a cylindrical pin can have different forms, i.e. may be formed as a hook.

List of components

[0038]

5	1	Door
	11	Wing
	12	Indoor
	13	Outdoor
10	20	Frame
	40	Strike assembly
	42	Strike assembly upper cover
	43	Strike body
15	55	Holding member
	58	Holding housing
	77	Cover latch slot
	78	Latch housing protrusion
20	79	Bolt hole
	80	Lock
	81	Cover upper slot
	82	Cover lower slot
	83	Faceplate
25	84	Guiding protrusion
	85	Cover
	86	Lower slot
	87	Main body
	88	Actuating member
30	89	Upper slot
	90	Latch
	91	Bolt
	92	Sliding member protrusion
35	93	Sliding member
	94	Sliding member pin
	95	Latch housing
	96	Latch spring
	97	Bolt housing
40	98	Bolt housing pin
	99	Bolt spring
	101	Sliding hole
	102	Inclined wall
45	110	Button mechanism
	111	Button protrusion housing
	112	Button housing aperture
	115	Button housing
	116	Button
50	120	Triggering member
	121	Button connection portion
	122	Connection protrusion
	123	Button protrusion
	124	Button housing inner periphery
55	125	Upper portion
	126	Lower portion
	200	Locking unit

Claims

1. A lock (80) suitable to be used with a button mechanism (110) and a strike assembly (40), comprising:
 - a body (87);
 - a spring-loaded latch housing (95) disposed in the body (87), and a latch (90) associated with the latch housing (95), which is, in use, suitable to be received in a lock strike assembly (40);
 - a bolt (91) suitable to be engaged into a corresponding bolt hole (79) in the lock strike assembly (40);
 - a spring-loaded bolt housing (97) in which the bolt (91) is guided and which is configured to be movable; and
 - a cover (85) having a plurality of slots thereon, **characterized in that** said lock (80) comprises:
 - a sliding member (93) which is disposed movably in the lock body (87) and which is suitable to be moved by a triggering member (120) extending, at least partly, from the outside of the body (87) into inside thereof; and
 - an actuating member (88) which is associated with the sliding member (93) and which transfers the motion from the sliding member (93) to the bolt housing (97) with which it is associated; **wherein** said bolt (91) is configured to compress a bolt spring (99) and push it outside the body (87) upon the actuation of the actuating member (88); and the sliding member (93) is configured to retract the bolt (91) into the body (87) once the triggering member (120) is withdrawn.
2. A lock (80) according to claim 1, wherein said sliding member (93) comprises a sliding hole (101), and an inclined wall (102) in the sliding hole (102) which is shaped and sized with respect to an end of the triggering member (120), which allows movement of the sliding member (93) upon the contact of the actuating member (120).
3. A lock (80) according to claim 1 or 2, wherein said actuating member (88) comprises an upper slot (89) in which a bolt housing pin (98) on the bolt housing (97) is guided, and a lower slot (86) in which a sliding member pin (94) on the sliding member (93) is guided.
4. A lock (80) according to any one of the preceding claims, **characterized by** comprising a cover upper slot (81) formed on the said cover (85) in the transversal direction, and a guiding protrusion (84) formed on the bolt housing (97), which is guided in the cover upper slot (81) and allows a linear movement.
5. A lock (80) according to any one of the preceding claims, **characterized by** comprising at least one cover lower slot (82) formed on the said cover (85) in the transversal direction, and at least one sliding member protrusion (92) formed on the sliding member (93), which is guided in the cover lower slot (82) and allows a linear movement.
6. A lock (80) according to any one of the preceding claims, wherein the latch housing (95) comprises a latch housing protrusion (78) which is guided in a cover latch slot (77) formed on the lock cover (85) in parallel to the longitudinal axis of the cover (85) and which allows the spring-loaded latch housing (95) to move in a linear direction.
7. A lock (80) according to any one of the preceding claims, **characterized by** comprising a protrusion in the body (87) which restricts a horizontal movement of the sliding member (93) in the lock (80), and an abutment portion (72) configured to abut this protrusion.
8. A locking unit (200) comprising a lock (80) according to any one of the preceding claims, **characterized by** comprising a button mechanism (110) having a button (116) with which the triggering member (120) is associated at one end, such that the driving and retraction of the bolt (91) in the said lock (80) is controlled.
9. A locking unit (200) according to claim 8, wherein the locking unit (200) comprises a plurality of connection protrusions (122) formed at an end of the triggering member (120) and at least one button protrusion housing (111) on the inner side of the button, which are shaped and dimensioned with respect to the plurality of connection protrusions so as to be coupled with these connection protrusions (122).
10. A locking unit (200) according to claim 8 or 9, wherein the button mechanism (110) comprises a button housing (115) having a rectangular or square section, and a button (116) arranged in said button housing (115) along with the triggering member (120) with which it is associated.
11. A locking unit (200) according to claim 10, wherein the locking unit (200) comprises at least two opposite button protrusions (123) on an inner wall of the button housing (115) such that said button (116) is allowed to rotate partially, and at least two oppositely oriented connection regions (121) on the said button (116) which are configured to be snap-fitted with the button protrusions (123).
12. A locking unit (200) according to claims 8-11, wherein the button (116) of the said button mechanism

(110) comprises an upper portion (125) and a lower portion (126), on the outer surface thereof, which are suitable to be pressed by the user so as to provide information to the user about the status of the lock (80).

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13. A locking unit (200) according to claim 11, wherein said button mechanism (110) is configured such that when the upper portion (125) thereof is pressed, the associated triggering member (120) moves in the lock (80) and causes the said bolt (91) to protrude from the body (87).
14. A locking system for use in doors or windows, comprising a locking unit (200) according to any one of claims 8-13, and a strike assembly (40) configured according to said locking unit (200).

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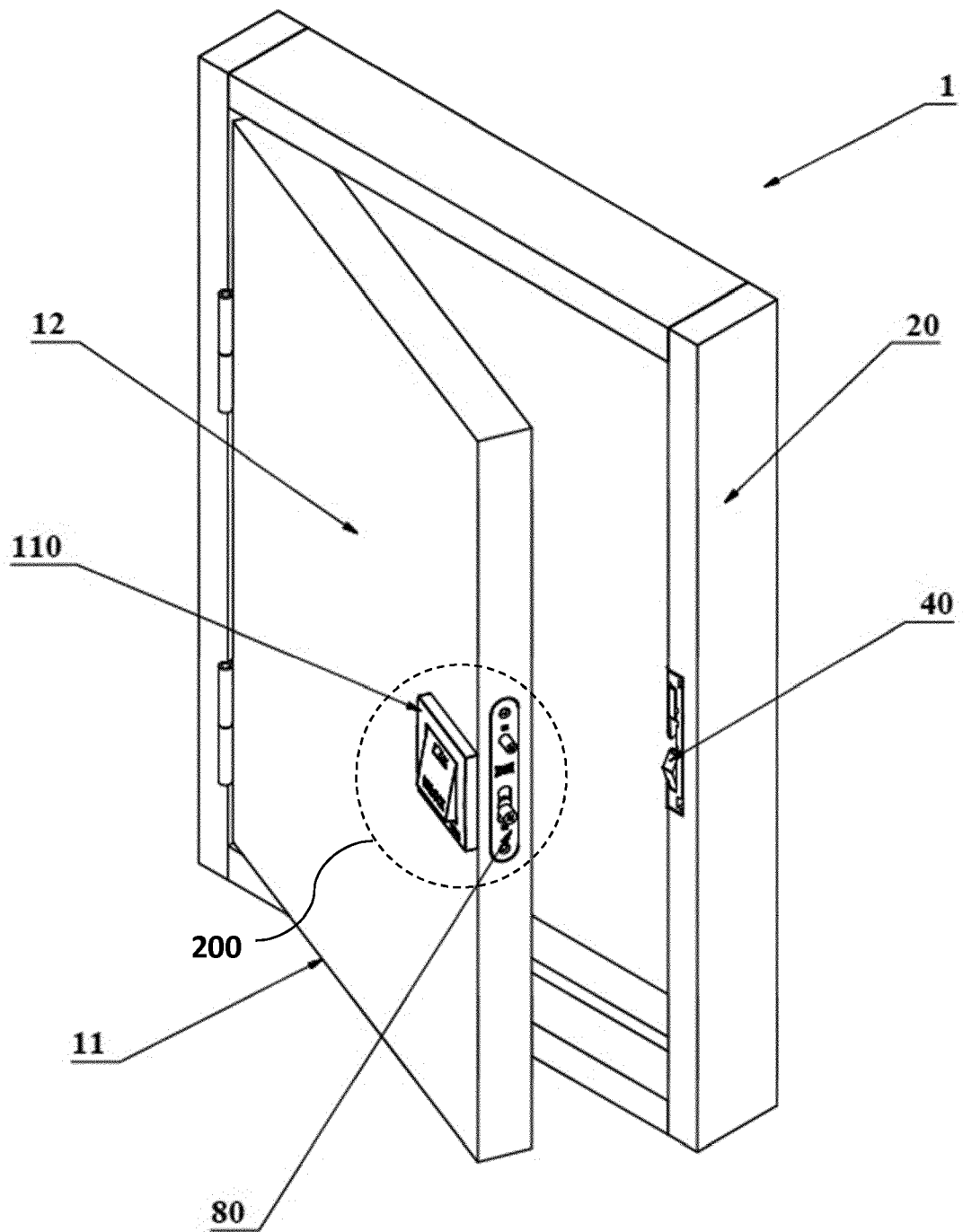


FIGURE 1

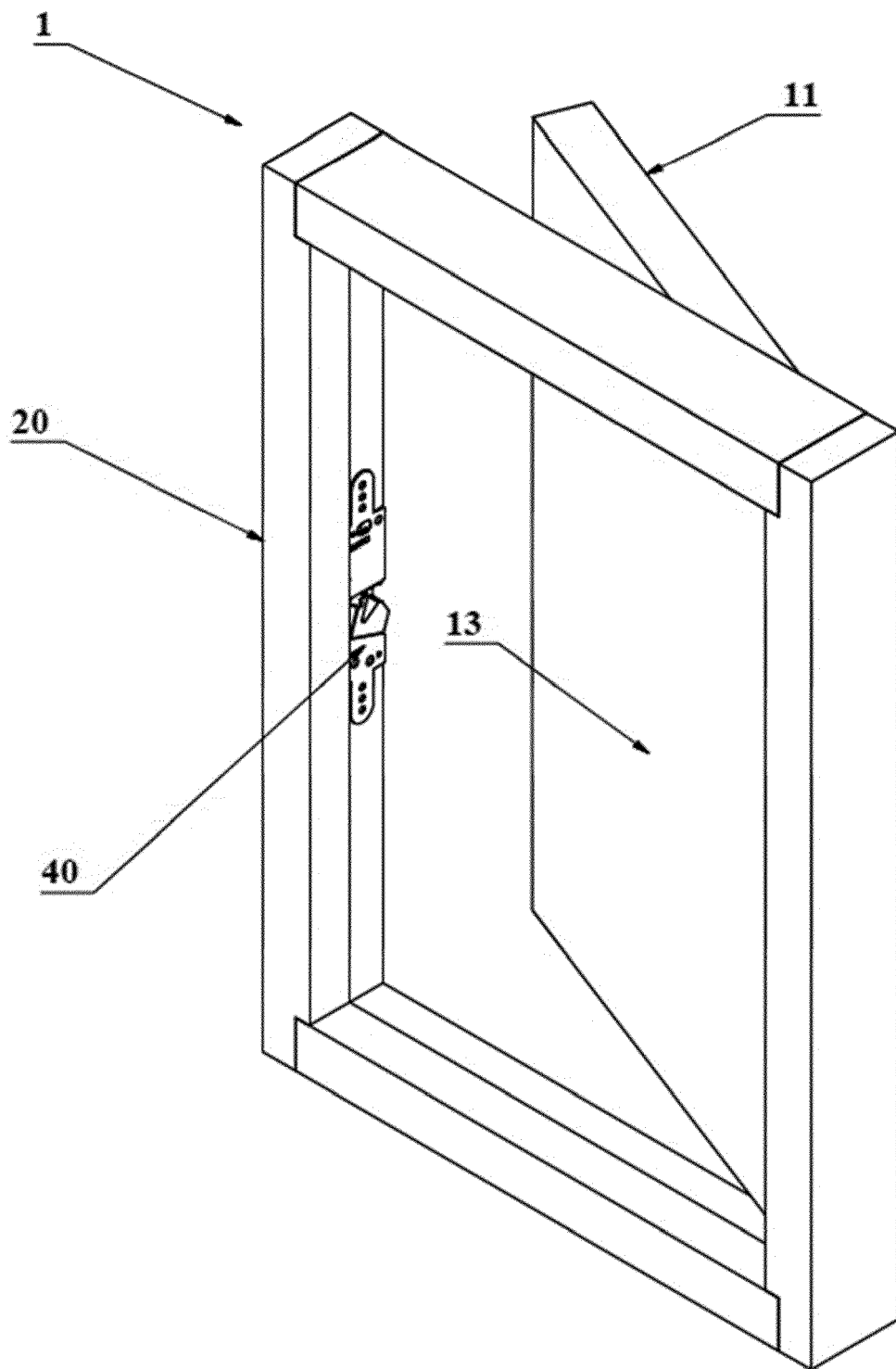


FIGURE 2

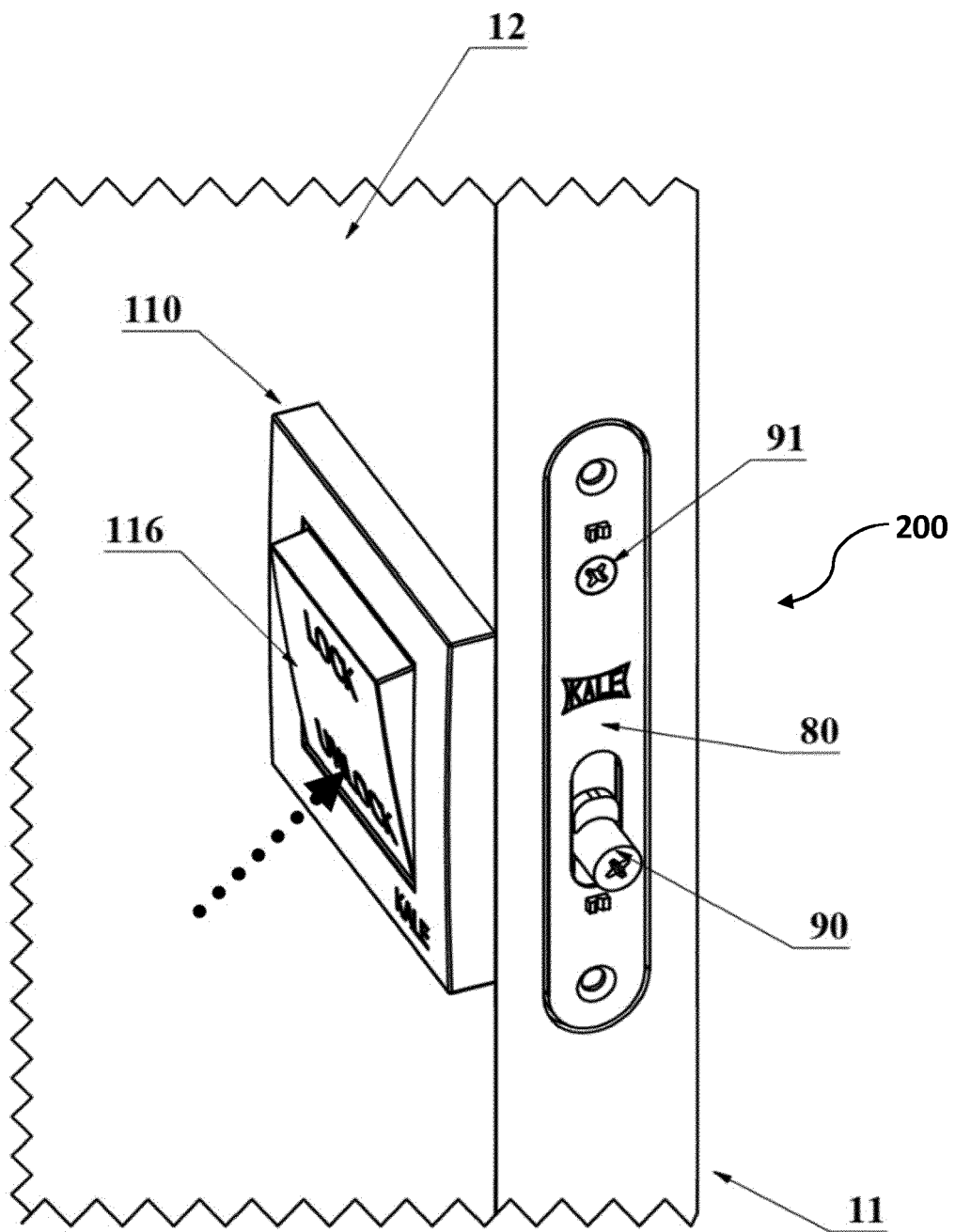


FIGURE 3

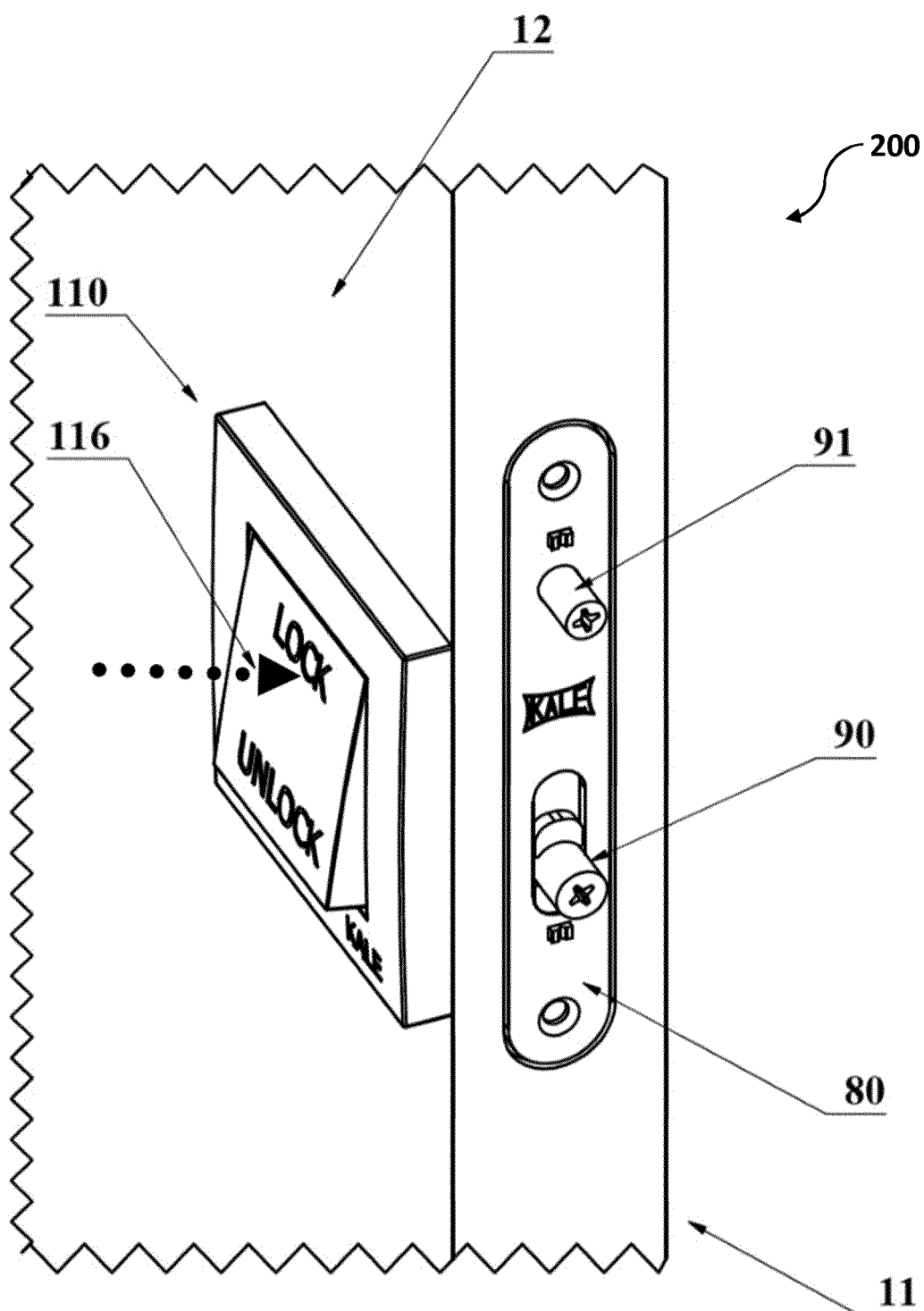


FIGURE 4

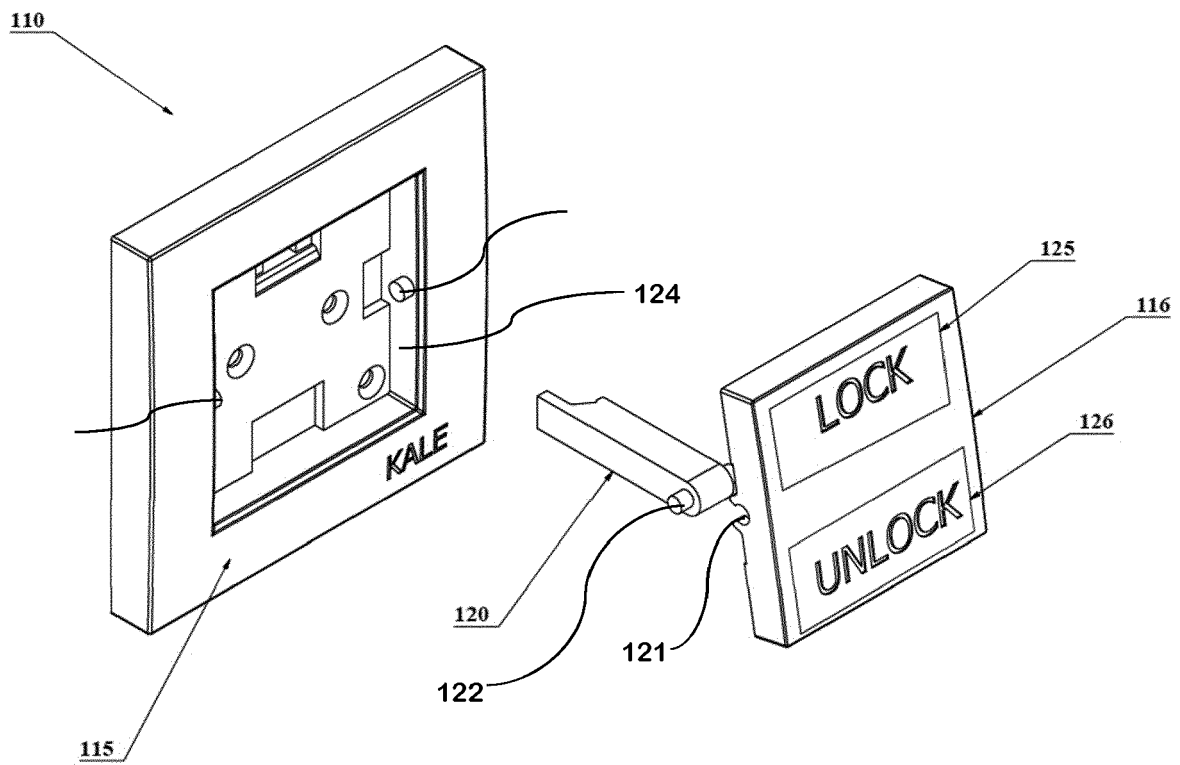


FIGURE 5

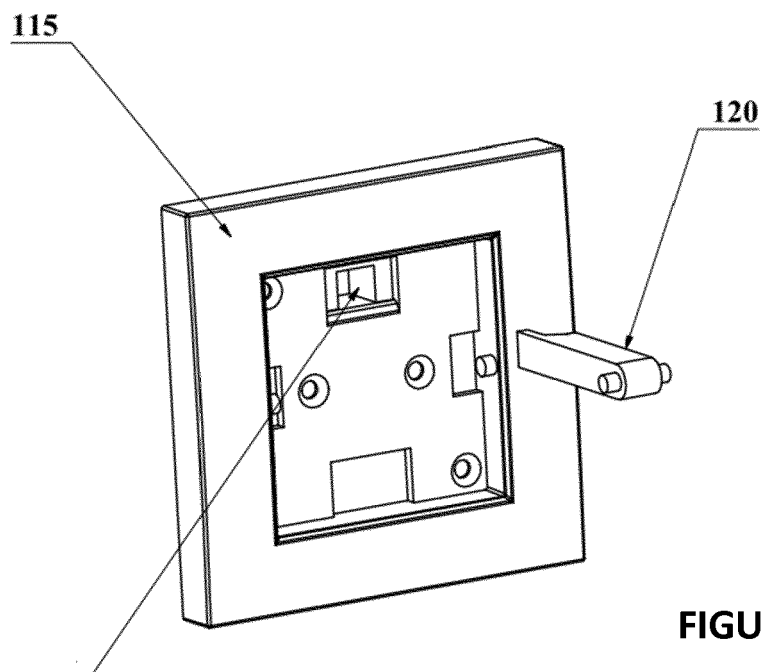


FIGURE 6

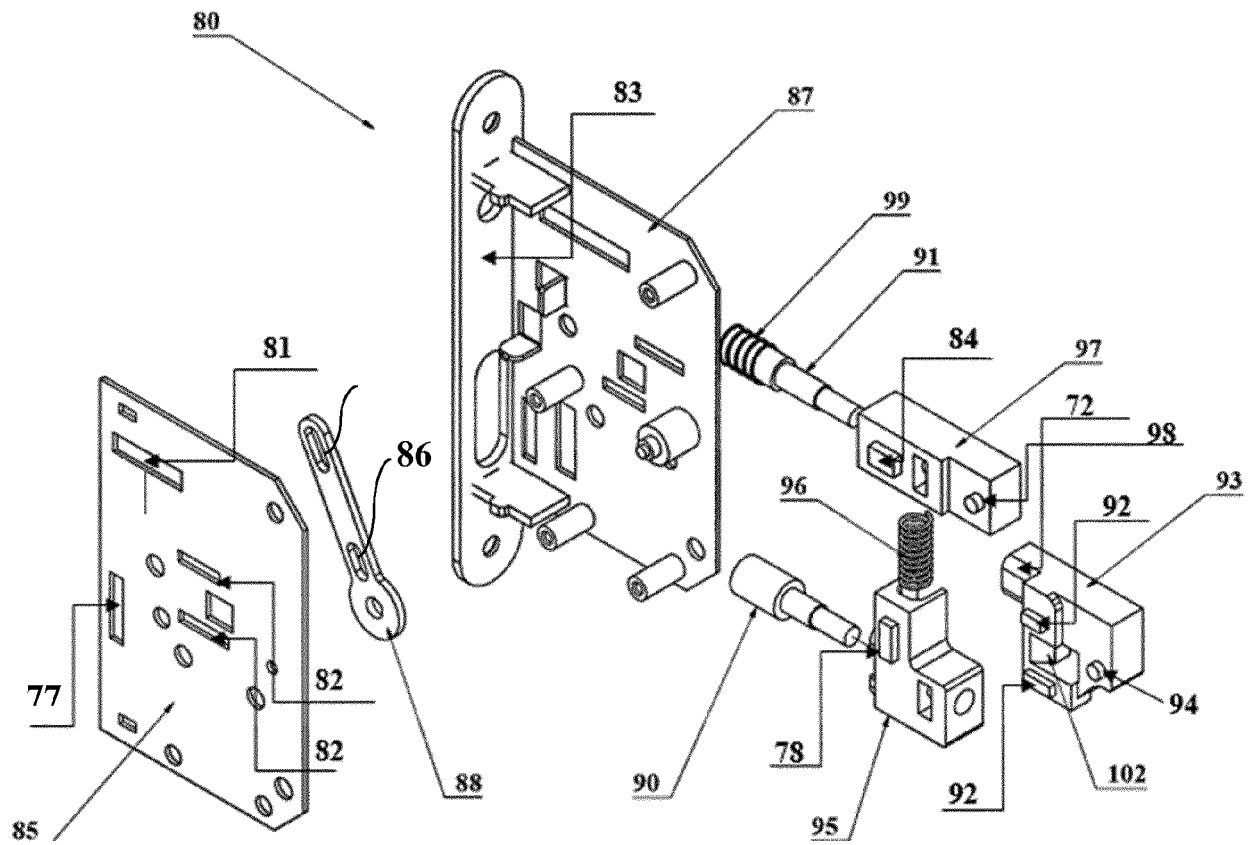


FIGURE 7

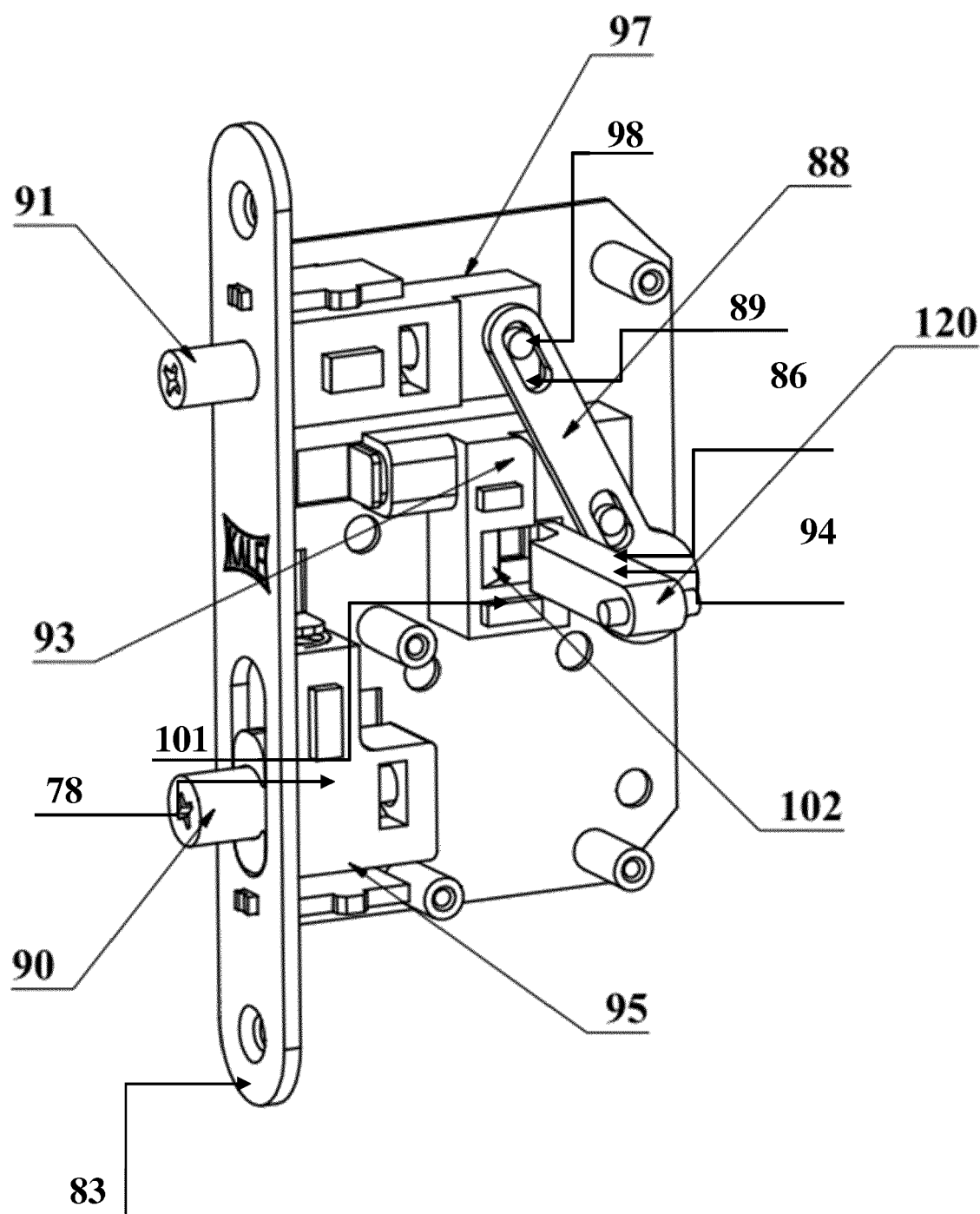


FIGURE 8

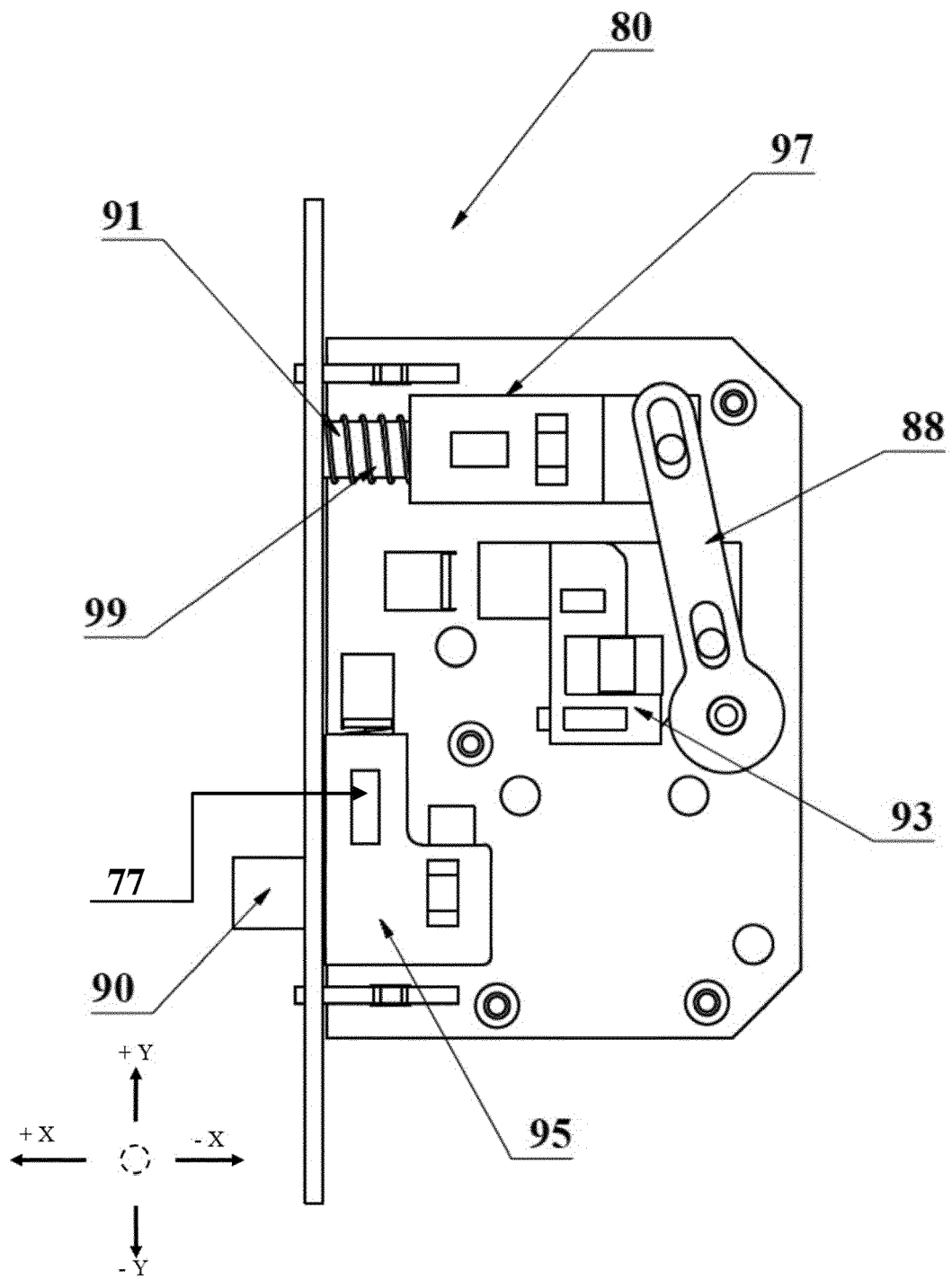
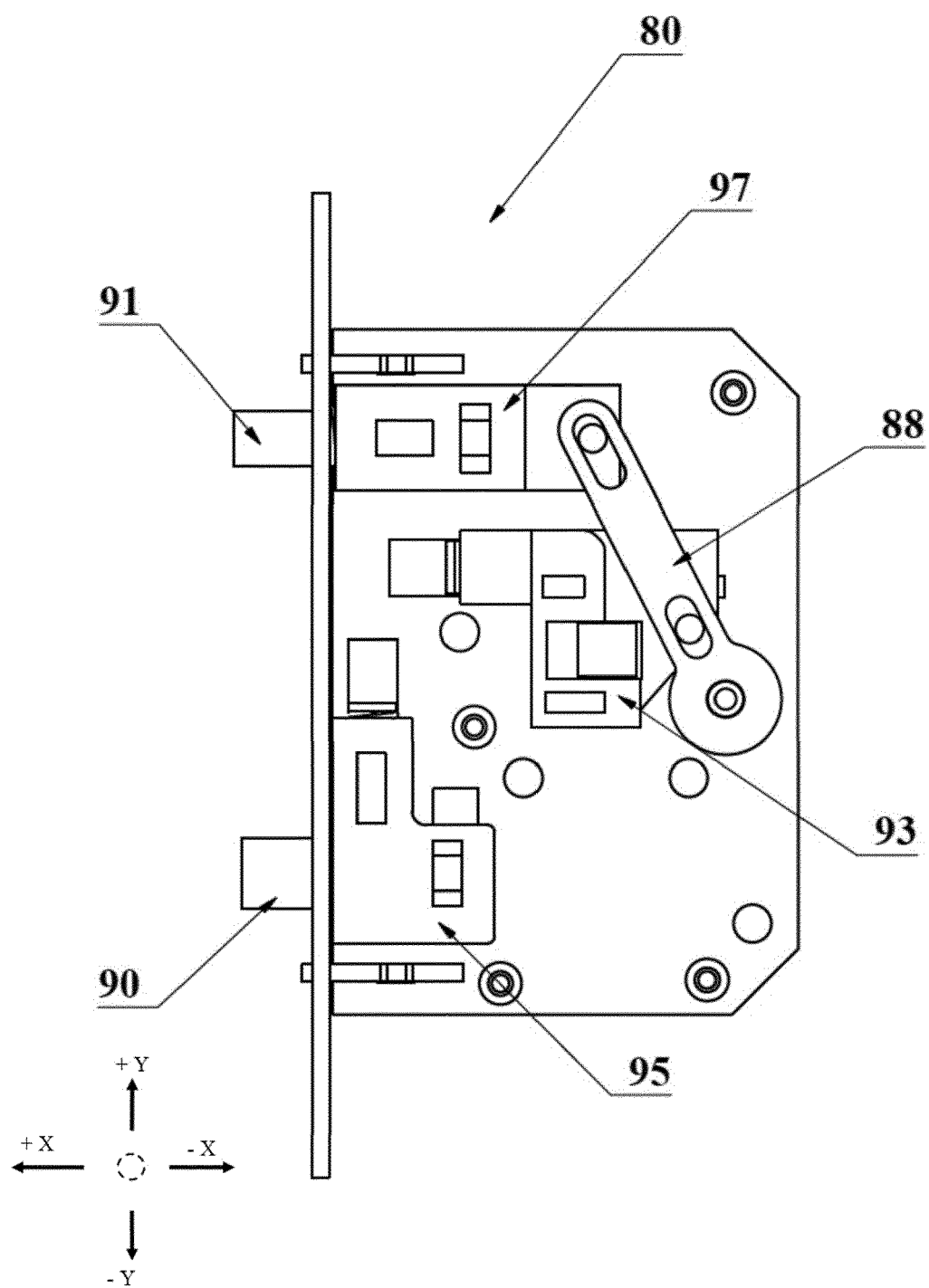


FIGURE 9

**FIGURE 10**

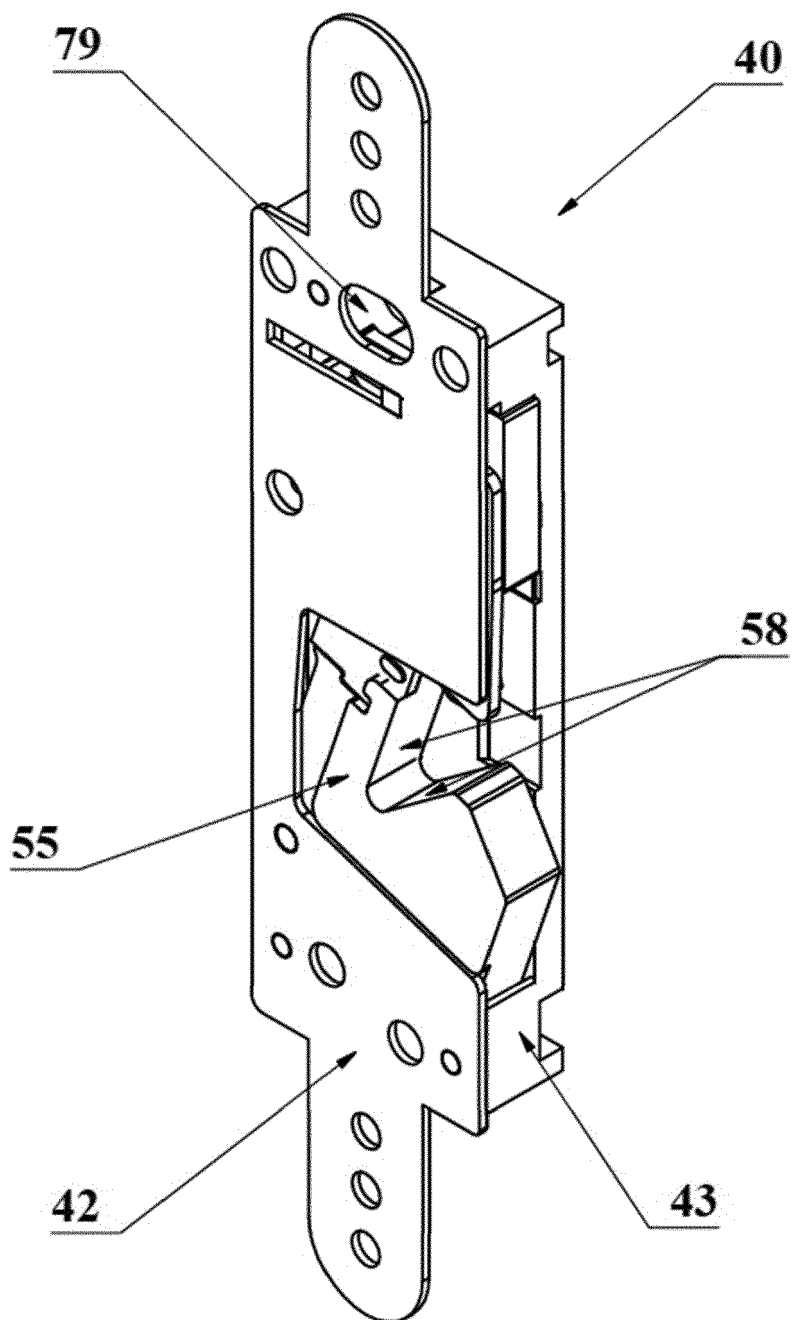


FIGURE 11

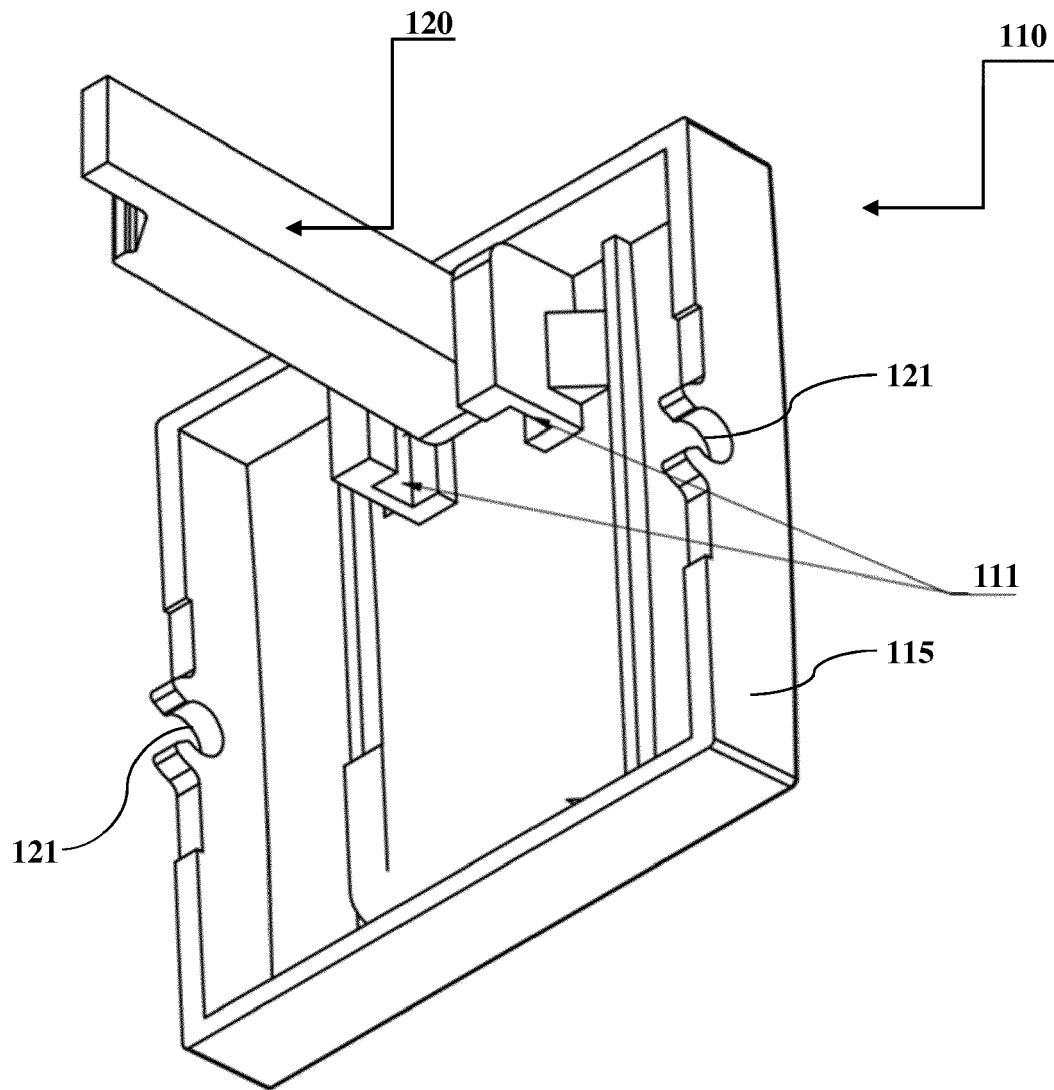


FIGURE 12



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			E05B E05C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 23 May 2019	Examiner Koster, Michael
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The members are as contained in the European Patent Office EDP file on
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