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(54) **LOCKING DEVICE FOR DOORS/WINDOWS**

VERRIEGELUNGSVORRICHTUNG FÜR TÜREN ODER FENSTER

DISPOSITIF DE VERROUILLAGE POUR PORTES/FENÊTRES

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(73) Proprietor: **Fedeli, Benedetto**
98000 Monaco (MC)

(72) Inventor: **Fedeli, Benedetto**
98000 Monaco (MC)

(74) Representative: **Brunacci, Marco**
BRUNACCI & PARTNERS S.r.l.
Via Pietro Giardini, 625
41125 Modena (MO) (IT)

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Description

Technical Field

[0001] The present invention relates to an anti break-in door/window comprising a locking device for fixtures, such as doors, main doors, windows, leaves and the like.

Background Art

[0002] Various locking devices, particularly of the type of locks and the like, are known which are generally provided with a latch mechanism mounted between the door and the frame of a corresponding fixture.

[0003] In particular, such a latch mechanism is commonly provided with a locking pin mounted in a retractable manner on the door from which it protrudes overhanging under the effect of a spring, and at least one housing seat of such a pin obtained on the frame.

[0004] Consequently, during the closure of the door, the frame temporarily pushes the pin inside the door until the housing seat faces the pin itself, which, this way, occupies this seat under the effect of the thrust of the spring, thereby closing the fixture.

[0005] In particular, this type of locking device uses a locking pin provided with a head portion which is cut so as to create an inclined portion that defines a chamfer on which the frame slides in abutment to allow the locking pin to return inside the door and then close the fixture.

[0006] This solution allows the user to close the fixture quickly and easily by simply pushing the door up against the corresponding frame.

[0007] In addition, the locking devices of known type generally comprise opening means for opening the fixture of the manual type, e.g., of the type of a handle, a knob or the like, used by the user of the fixture to extract the locking pin from the respective housing seat and permit opening of the fixture.

[0008] At the same time, this type of device comprises locking means for locking the doors/windows, such as e.g., a cylinder operated by a corresponding key, adapted to lock the opening means and the locking pin, thus preventing the latter from retracting.

[0009] Nevertheless, the locking devices of this type are open to improvement.

[0010] In fact, a user entering the house, once inside, closes the door by pushing the door up against the frame, thereby making the latch mechanism trigger.

[0011] This operation allows the door/window to close, but is not enough to ensure the security of the closure.

[0012] The locking pin, in fact, may be easily retracted by inserting a flexible sheet into the slot of the fixture, e.g., a piece of sheet or a credit card, adapted to operate on the head portion of the pin.

[0013] It would be easy for anyone ill-intentioned to gain entry from the outside.

[0014] To ensure the security of the closure, the key must be turned so that one or more bolts slide into the appropriate closure seats.

[0015] This operation is usually carried out at night, from the inside, to ensure greater peace of mind for those who are preparing to go to bed.

[0016] However, it often occurs that this operation is not carried out, for example because it is forgotten or not considered necessary, thus allowing any ill-intentioned persons to enter the house during the night while the occupants are sleeping.

[0017] In general, the operations related to locking the door by turning the key can prove inconvenient and laborious (choice of key, multiple rotation of the key), sometimes incompatible with the needs of practicality required by users, or required in particular emergency situations.

[0018] For example, in the event of an earthquake or fire, the operations required to open a closed door/window could be too long and laborious, with consequent risks to people's safety.

[0019] On the other hand, leaving the door/window open exposes the user to the risk of ill-intentioned persons forcing the latch mechanism and gaining entry.

[0020] Other locking devices for doors/windows are known from EP 2 248 969 A1 and US 2013/020812 A1.

Description of the Invention

[0021] The main aim of the present invention is to devise an anti break-in door/ window comprising a locking device which enables an automatic closure of the door/window in an effective, quick, safe and practical manner.

[0022] A further object of the present invention is to devise a locking device which can also be installed and used on existing fixtures.

[0023] Another object of the present invention is to devise a locking device which is compatible with existing locks.

[0024] Another object of the present invention is to devise a locking device which allows overcoming the aforementioned drawbacks of the prior art within a simple, rational, easy and effective to use as well as affordable solution.

[0025] The aforementioned objects are achieved by the present anti break-in door/ window having the characteristics of claim 1.

Brief Description of the Drawings

[0026] Other characteristics and advantages of the present invention will become more apparent from the description of several preferred, but not exclusive, embodiments of a locking device, illustrated by way of an indicative, yet nonlimiting example, in the accompanying tables of drawings wherein:

Figure 1 is an axonometric view of an anti break-in door/window according to the invention;

Figure 2 is a rear axonometric view of a locking de-

vice according to the invention;
Figure 3 is a front axonometric view of the locking device shown in Figure 2;
Figures 4-6 are axonometric views showing in succession the transition between the opening configuration and the closure configuration of the anti break-in door/window according to the invention;
Figure 7 is a cross-sectional view from above of the locking device according to the invention;
Figure 8 is an axonometric view of an embodiment of the locking device according to the invention.

Embodiments of the Invention

[0027] With particular reference to such figures, reference numeral 1 globally indicates a locking device.

[0028] The locking device 1 for doors/windows comprises:

- at least one supporting frame 5 mounted on a first portion 2 of a door/window 2, 3 movable close to/away from a second portion 3 of the door/window 2, 3 between at least one closure configuration and at least one opening configuration;
- at least one locking pin 4 movable in a sliding manner along one direction of movement A between at least one forward position and at least one backward position and mounted on the supporting frame 5;
- control means 19, 20 provided with operating means 19 adapted to move the locking pin 4 from the forward position to the backward position;
- return means 18 coupled to the locking pin 4 and adapted to move the latter from the backward position to the forward position.

[0029] Conveniently, the device 1 comprises anti break-in means 12, 13 adapted, in the closure configuration, to prevent the locking pin 4 from moving from the forward position to the backward position by means of the break-in means 17 adapted to forcibly move the locking pin 4 from the forward position to the backward position.

[0030] Advantageously, the locking pin 4 extends longitudinally along the direction of movement A and comprises at least one protruding portion 8 extending overhanging from the supporting frame 5 and which has at least one extreme wall 11 inclined with respect to the direction of movement A.

[0031] Preferably, the extreme wall 11 lies on an inclined plane D. Furthermore, the inclined plane D is arranged inclined with respect to a plane orthogonal to the direction of movement A.

[0032] Conveniently, the second portion 3 comprises at least one abutment body 10 adapted to abut against the extreme wall 11 during the movement between the opening configuration and the closure configuration to move the locking pin 4 from the forward position to the backward position.

[0033] Preferably, the abutment body 10 extends along a direction of extension orthogonal to the direction of movement A.

[0034] Advantageously, the supporting frame 5 defines at least one transit hole 6 of the locking pin 4.

[0035] In this way, in the forward position, the locking pin 4 is arranged overhanging the supporting frame 5 through the transit hole 6.

[0036] Preferably, in the closure configuration, the first and second portions 2, 3 are abutting each other, and in the opening configuration the first and second portions 2, 3 are far away from each other, as is generally the case with reference to the doors/windows 2, 3 of known type.

[0037] Advantageously, the locking pin 4 is insertable in a removable manner inside a corresponding housing seat 7.

[0038] Preferably, the housing seat 7 is made on a template associated with the second portion 3 of the doors/windows 2, 3 or made directly on the same second portion.

[0039] In particular, in the closure configuration, the housing seat 7 faces the locking pin 4.

[0040] This way, when the door/window 2, 3 is in the closure configuration, the locking pin 4 is engaged and disengaged from the housing seat 7 in the forward position and in the backward position, respectively.

[0041] Conveniently, when the locking pin 4 is fitted inside the housing seat 7, it prevents the movement of the door/window 2, 3 from the closure configuration to the opening configuration.

[0042] Preferably, the elastic return means 18 are of the type of an elastically deformable body, e.g., of the type of a spring, coupled to the locking pin 4. Advantageously, the operating means 19 are adapted to move the locking pin 4 from the forward position to the backward position by means of the locking pin 4 itself.

[0043] In this way, it is possible to move the door/window 2, 3 from the closure configuration to the opening configuration.

[0044] Conveniently, the return means 18 tend to return the locking pin 4 to the forward position.

[0045] Preferably, the operating means 19 are of the type of a gripping element, e.g., of the type of a handle, a knob or the like, which can be manually operated by a user of the device 1.

[0046] Conveniently, in the closure configuration, the return means 18 are adapted to automatically move the locking pin 4 from the backward position to the forward position.

[0047] In particular, during the transition between the opening configuration and the closure configuration, the inclined wall 11 abuts against the abutment body 10, which slides in contact with the inclined wall 11.

[0048] At the same time, the abutment body 10 pushes the locking pin 4 to the backward position and causes at least the partial loading of the return means 18. Upon reaching the closure configuration, the inclined wall 11

is moved away from the abutment body 10 and the return means 18 are unloaded, pushing the locking pin 4 to the forward position.

[0049] Advantageously, the control means 19, 20 comprise turning means 20 adapted to move the locking pin 4 between the forward position and at least one of:

- at least one position further forward than the forward position; and
- the backward position.

[0050] Advantageously, the turning means 20 are adapted to move the locking pin 4 between the forward position and the backward position and between the forward position and at least one further forward position.

[0051] This way, the turning means 20 are adapted to insert the locking pin 4 more deeply into the housing seat 7.

[0052] Furthermore, the turning means 20 are adapted to bring the locking pin 4 to the backward position, so as to allow the movement of the door/window 2, 3 from the closure configuration to the opening configuration.

[0053] Preferably, the turning means 20 comprise at least one drum and at least one key insertable in a removable manner inside the drum and rotatable inside it to move the locking pin 4.

[0054] With particular reference to Figure 1, the first portion 2 is of the type of a flat-shaped hinged body, e.g., such as e.g. the main door of a security door or the like.

[0055] Advantageously, the first portion 2 lies on a lying plane C.

[0056] In addition, the direction of movement A lies or is parallel to the lying plane C. The second portion 3, on the other hand, is of the type of a stop body, e.g., such as a doorjamb or the like, adapted to operate in conjunction with the hinged body to close/open the door/window 2, 3.

[0057] In this way, in the closure configuration, the first portion 2 and the second portion 3 lie on the same lying plane C, so as to close the door/window 2, 3. On the contrary, in the opening configuration, the first portion 2 and the second portion 3 lie on two different planes, so as to open the door/window 2, 3.

[0058] In particular, in the closure configuration, the first and second portions 2, 3 define an interstice 9 crossed by the locking pin 4 in the forward position, as shown in Figures 6 and 7.

[0059] Through the interstice 9, the break-in means 17 reach the locking pin 4 and operate thereon to force it backwards from the forward position to the backward position.

[0060] Preferably, break-in means 17 means a flexible foil-shaped body adapted to be inserted inside the interstice 9 to easily reach the locking pin 4.

[0061] Break-in means with different conformations cannot however be ruled out.

[0062] The anti break-in means 12, 13 comprise:

- at least one blockage body 12 associated with the extreme wall 11, arranged so as to protrude overhanging from the latter along the direction of movement A and adapted to prevent the break-in means 17 from reaching the extreme wall 11;
- at least one groove 13 made on the abutment body 10, the blockage body 12 passing through the groove 13 during the movement between the opening configuration and the closure configuration to allow the abutment body 10 to abut against the extreme wall 11.

[0063] In this way, during the transition between the opening configuration and the closure configuration, the blockage body 12 passes through the groove 13 and the inclined wall 11 abuts against the abutment body 10.

[0064] This solution allows the abutment body 10 to push the locking pin 4 to the backward position, causing the at least partial loading of the return means 18. Therefore, the blockage body 12 operates in conjunction with the groove 13 and does not impede the movement from the opening configuration to the closure configuration.

[0065] However, in the closure configuration, the blockage body 12 hinders the passage of the break-in means 17 along the interstice 9, thus preventing the extreme wall 11 from being reached.

[0066] In this way, in the closure configuration, the locking pin 4 cannot be forcibly retracted from the outside through the use of the break-in means 17.

[0067] Conveniently, the blockage body 12 is provided with at least one blockage profile 14 extending longitudinally along the direction of movement A by a predefined length and adapted to abut against the break-in means 17, thus preventing the extreme wall 11 from being reached.

[0068] Advantageously, the predefined length is less than or equal to the extension of the extreme wall 11 along the direction of movement A.

[0069] Preferably, the blockage profile 14 extends along the direction of movement A by a length equal to the extension of the extreme wall 11 along the same direction.

[0070] In other words, the length of the projection of the blockage profile 14 along the direction of movement A coincides with the length of the projection of the blockage body 12 along the same direction.

[0071] Further embodiments of the device 1 cannot be ruled out wherein the predefined length is greater than or equal to the extension of the extreme wall 11 along the direction of movement A.

[0072] Conveniently, the blockage body 12 comprises a supporting profile 15 interposed between the blockage profile 14 and the extreme wall 11 along a direction of extension B transverse with respect to the direction of movement A. Preferably, the direction of extension B is arranged orthogonal to the direction of movement A.

[0073] In this way, the supporting profile 15 imparts greater rigidity to the blockage profile 14.

[0074] Advantageously, the extension of the blockage body 12 is delimited by the blockage profile 14, by the supporting profile 15 and by the extreme wall 11.

[0075] In particular, the blockage profile 14, the supporting profile 15 and the extreme wall 11 define a blockage body 12 of substantially triangular conformation. Preferably, the protruding portion 8, in cross-section, has a rectangular or square profile as shown in Figure 6. In detail, the cross-section of the protruding portion 8 shown in Figure 6 is obtained along a plane orthogonal to the lying plane C.

[0076] Advantageously, the blockage body 12 extends along the inclined wall 11 dividing it into two inclined portions 11a, 11b.

[0077] Preferably, the blockage body 12 longitudinally divides the inclined wall 11 in half, as shown in Figures 2 and 3.

[0078] Further embodiments of the device 1 cannot however be ruled out wherein the anti break-in means 12, 13 comprise a plurality of blockage bodies 12 associated with the inclined wall 11 substantially spaced apart and parallel to each other. Furthermore, in this embodiment, the anti break-in means 12, 13 comprise a plurality of grooves 13 made on the abutment body 10 spaced apart and parallel to each other.

[0079] Advantageously, the blockage body 12 comprises a front face 16 defining the blockage profile 14.

[0080] In particular, the front face 16 lies on the lying plane C.

[0081] Preferably, the front face 16 is substantially flat.

[0082] The inclined wall 11, on the other hand, lies on the inclined plane D, which is arranged crossways to the lying plane C.

[0083] In particular, the lying plane C and the inclined plane D contain an axis of reference E arranged orthogonal to the direction of movement A, as shown in Figure 7.

[0084] In other words, the axis of reference E lies on the lying plane C and on the inclined plane D.

[0085] Furthermore, advantageously, the blockage body 12 lies on a plane orthogonal to the lying plane C.

[0086] A further embodiment of the device 1 is shown in Figure 8, wherein the blockage body 12 comprises at least one recess 22 adapted to receive the break-in means 17.

[0087] Preferably, the recess 22 extends along a direction of extension parallel to the inclined plane D.

[0088] Advantageously, in the closure configuration, when the pin is in the forward position, the recess 22 is arranged at the interstice 9.

[0089] In other words, in this configuration, the recess 22 faces the interstice 9, so as to intercept the break-in means 17, preventing the locking pin 4 from being forcibly retracted, as shown in Figure 8.

[0090] Advantageously, the device 1 is a lock. Preferably, in this embodiment, the locking pin 4, the control means 19, 20, the return means 18 and the anti break-in means 12, 13 are inserted in the supporting frame 5 to define the lock. Further embodiments of the device 1 cannot however be ruled out wherein the same is a diverter. Preferably, in this embodiment the control means 19, 20 of the diverter are kinematically connectable to an actuating rod insertable in the supporting frame 5 and adapted to control the same control means 19, 20. For example, the actuating rod may be positioned between the diverter and a lock through which the control means 19, 20 of the diverter are operable.

[0091] The present invention relates to an anti break-in door/window 21, comprising:

- at least one device 1;
- the first and the second portion 2, 3 of the door/window 2, 3.

[0092] It has in fact been ascertained that the described invention achieves the intended objects.

[0093] In particular, the fact is underlined that the anti break-in means allow the automatic closure of the door/window in an effective, quick, safe and practical way.

[0094] More in detail, the extreme wall allows moving the door/window from the opening configuration to the closure configuration in an automatic, practical and quick manner.

[0095] The blockage body and the groove, on the other hand, allow closing the door/window without interfering with its automatic closure and preventing it from being forced open by break-in means.

[0096] Furthermore, the break-in means can also be installed and used on existing doors/windows.

Claims

1. Anti break-in door/window (21), comprising:

- at least one locking device (1) for doors/windows, comprising:

  - at least one supporting frame (5) mounted on a first portion (2) of a door/window (2, 3) movable close to/away from a second portion (3) of the door/window (2, 3) between at least one closure configuration and at least one opening configuration;
  - at least one locking pin (4) movable in a sliding manner along one direction of movement (A) between at least one forward position and at least one backward position and mounted on said supporting frame (5);
  - control means (19, 20) provided with operating means (19) adapted to move said locking pin (4) from said forward position to said backward position;
  - return means (18) coupled to said locking pin (4) and adapted to move the latter from said backward position to said forward po-

sition;
- anti break-in means (12, 13) adapted, in said closure configuration, to prevent said locking pin (4) from moving from said forward position to said backward position by means of break-in means (17) adapted to forcibly move said locking pin (4) from said forward position to said backward position;

- said first and said second portion (2, 3) of said door/window;
- said locking pin (4) extends longitudinally along said direction of movement (A) and comprises at least one protruding portion (8) extending overhanging from said supporting frame (5) and which has at least one extreme wall (11) inclined with respect to said direction of movement (A);
- said second portion (3) comprises at least one abutment body (10) adapted to abut against said extreme wall (11) during the movement between said opening configuration and said closure configuration to move said locking pin (4) from said forward position to said backward position;

characterized in that

- said anti break-in means (12, 13) comprise:

- at least one blockage body (12) associated with said extreme wall (11), arranged so as to protrude overhanging from the latter along said direction of movement (A) and adapted to prevent the break-in means (17) from reaching said extreme wall (11);
- at least one groove (13) made on said abutment body (10), said blockage body (12) passing through said groove (13) during the movement between said opening configuration and said closure configuration to allow said abutment body (10) to abut against said extreme wall (11).

2. Anti break-in door/window (21) according to claim 1, **characterized by** the fact that said blockage body (12) is provided with at least one blockage profile (14) extending longitudinally along said direction of movement (A) by a predefined length and adapted to abut against the break-in means (17), thus preventing said extreme wall (11) from being reached.

3. Anti break-in door/window (21) according to one or more of the preceding claims, **characterized by** the fact that said blockage body (12) comprises at least one recess (22) adapted to receive said break-in means (17).

4. Anti break-in door/window (21) according to claim 2, **characterized by** the fact that said predefined length is less than or equal to the extension of said extreme wall (11) along said direction of movement (A).

5. Anti break-in door/window (21) according to claim 2, **characterized by** the fact that said predefined length is greater than or equal to the extension of said extreme wall (11) along said direction of movement (A).

6. Anti break-in door/window (21) according to one or more of the preceding claims, **characterized by** the fact that said blockage body (12) comprises a supporting profile (15) interposed between said blockage profile (14) and said extreme wall (11) along a direction of extension (B) transverse with respect to said direction of movement (A).

7. Anti break-in door/window (21) according to claim 6, **characterized by** the fact that the extension of said blockage body (12) is delimited by said blockage profile (14), by said supporting profile (15) and by said extreme wall (11).

8. Anti break-in door/window (21) according to claim 6, **characterized by** the fact that said blockage profile (14), said supporting profile (15) and said extreme wall (11) define a blockage body (12) of substantially triangular conformation.

9. Anti break-in door/window (21) according to one or more of the preceding claims, **characterized by** the fact that said device (1) is a lock.

10. Anti break-in door/window (21) according to one or more of the preceding claims, **characterized by** the fact that said device (1) is a diverter.

Patentansprüche

1. Einbruchhemmende Tür/ einbruchhemmendes Fenster (21), umfassend:

- mindestens eine Verriegelungsvorrichtung (1) für Türen/Fenster, umfassend:

- mindestens einen Stützrahmen (5), der an einem ersten Abschnitt (2) einer Tür/eines Fensters (2, 3) angebracht ist, der zwischen mindestens einer Schließkonfiguration und mindestens einer Öffnungskonfiguration zu einem zweiten Abschnitt (3) der Tür/des Fensters (2, 3) hin und von diesem weg bewegt werden kann;
- mindestens einen Verriegelungsstift (4), der entlang einer Bewegungsrichtung (A) zwischen mindestens einer vorderen Position und mindestens einer hinteren Position verschiebbar ist und an dem Tragrahmen

(5) angebracht ist;
- Steuermittel (19, 20), die mit Betätigungsmitteln (19) versehen sind, die ausgebildet sind, um den Verriegelungsstift (4) von der vorderen Position in die hintere Position zu bewegen;
- Rückstellmittel (18), die mit dem Verriegelungsstift (4) gekoppelt und ausgebildet sind, um diesen von der rückwärtigen Position in die vordere Position zu bewegen;
- Einbruchschutzmittel (12, 13), die in der Verschlusskonfiguration ausgebildet sind, um zu verhindern, dass sich der Verriegelungsstift (4) von der vorderen Position in die hintere Position bewegt, und zwar mittels Einbruchmitteln (17), die ausgebildet sind, um den Verriegelungsstift (4) zwangsweise von der vorderen Position in die hintere Position zu bewegen;

- den ersten und zweiten Abschnitt (2, 3) der Tür/des Fensters;
- wobei der Verriegelungsstift (4) sich in Längsrichtung entlang der Bewegungsrichtung (A) erstreckt und mindestens einen vorstehenden Abschnitt (8) umfasst, der sich überhängend von dem Tragrahmen (5) erstreckt und mindestens eine äußerste Wand (11) aufweist, die in Bezug auf die Bewegungsrichtung (A) geneigt ist;
- wobei der zweite Abschnitt (3) mindestens einen Anschlagkörper (10) umfasst, der ausgebildet ist, um während der Bewegung zwischen der Öffnungskonfiguration und der Schließkonfiguration gegen die äußerste Wand (11) zu stoßen, um den Verriegelungsstift (4) von der vorderen Position in die hintere Position zu bewegen; **dadurch gekennzeichnet, dass**
- die Einbruchschutzmittel (12, 13) umfassen:

- mindestens einen Sperrkörper (12), der mit der Außenwand (11) verbunden ist, so angeordnet ist, dass er entlang der Bewegungsrichtung (A) überhängend von dieser vorsteht, und ausgebildet ist, zu verhindern, dass die Einbruchmittel (17) die äußerste Wand (11) erreichen;
- mindestens eine Nut (13), die in dem Anschlagkörper (10) ausgebildet ist, wobei der Sperrkörper (12) während der Bewegung zwischen der Öffnungskonfiguration und der Schließkonfiguration durch die Nut (13) hindurchgeht, um es dem Anschlagkörper (10) zu ermöglichen, an der äußersten Wand (11) anzuliegen.

2. Einbruchhemmende Tür/ einbruchhemmendes Fenster (21) gemäß Anspruch 1, **dadurch gekennzeichnet, dass** der Sperrkörper (12) mit mindestens einem Blockierprofil (14) versehen ist, das sich in Längsrichtung entlang der Bewegungsrichtung (A) über eine vorgegebene Länge erstreckt und ausgebildet ist, um gegen die Einbruchmittel (17) zu stoßen, und dadurch zu verhindern, dass die äußerste Wand (11) erreicht wird.

3. Einbruchhemmende Tür/ einbruchhemmendes Fenster (21) gemäß einem oder mehreren der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** der Sperrkörper (12) mindestens eine Aussparung (22) umfasst, die ausgebildet ist, das Einbruchmittel (17) aufzunehmen.

4. Einbruchhemmende Tür/ einbruchhemmendes Fenster (21) gemäß Anspruch 2, **dadurch gekennzeichnet, dass** die vorgegebene Länge kleiner oder gleich der Ausdehnung der äußersten Wand (11) entlang der Bewegungsrichtung (A) ist.

5. Einbruchhemmende Tür/ einbruchhemmendes Fenster (21) gemäß Anspruch 2, **dadurch gekennzeichnet, dass** die vorgegebene Länge größer oder gleich der Ausdehnung der äußersten Wand (11) entlang der Bewegungsrichtung (A) ist.

6. Einbruchhemmende Tür/ einbruchhemmendes Fenster (21) gemäß einem oder mehreren der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** der Sperrkörper (12) ein Stützprofil (15) umfasst, das zwischen dem Blockierprofil (14) und der äußersten Wand (11) entlang einer Ausdehnungsrichtung (B) quer zu der Bewegungsrichtung (A) angeordnet ist.

7. Einbruchhemmende Tür/ einbruchhemmendes Fenster (21) gemäß Anspruch 6, **dadurch gekennzeichnet, dass** die Ausdehnung des Sperrkörper (12) durch das Blockierprofil (14), das Stützprofil (15) und die äußerste Wand (11) begrenzt ist.

8. Einbruchhemmende Tür/ einbruchhemmendes Fenster (21) gemäß Anspruch 6, **dadurch gekennzeichnet, dass** das Blockierprofil (14), das Stützprofil (15) und die äußerste Wand (11) einen Sperrkörper (12) mit im Wesentlichen dreieckiger Form definieren.

9. Einbruchhemmende Tür/ einbruchhemmendes Fenster (21) gemäß einem oder mehreren der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Vorrichtung (1) ein Schloss ist.

10. Einbruchhemmende Tür/ einbruchhemmendes Fenster (21) gemäß einem oder mehreren der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Vorrichtung (1) ein Um-/ Ablenker ist.

Revendications

1. - Porte/fenêtre antieffraction (21), comprenant :

- au moins un dispositif de verrouillage (1) pour portes/fenêtres, comprenant :

  - au moins un cadre de support (5), monté sur une première partie (2) d'une porte/fenêtre (2, 3), apte à se rapprocher/s'écarter d'une seconde partie (3) de la porte/fenêtre (2, 3) entre au moins une configuration de fermeture et au moins une configuration d'ouverture ;
  - au moins une goupille de verrouillage (4), mobile de manière coulissante le long d'une direction de mouvement (A) entre au moins une position avant et au moins une position arrière, et montée sur ledit cadre de support (5) ;
  - des moyens de commande (19, 20), comportant des moyens d'actionnement (19) agencés pour déplacer ladite goupille de verrouillage (4) de ladite position avant à ladite position arrière ;
  - des moyens de rappel (18), accouplés à ladite goupille de verrouillage (4) et agencés pour déplacer cette dernière de ladite position arrière à ladite position avant ;
  - des moyens antieffraction (12, 13), agencés, dans ladite configuration de fermeture, pour empêcher ladite goupille de verrouillage (4) de se déplacer de ladite position avant à ladite position arrière à l'aide de moyens d'effraction (17) agencés pour déplacer de force ladite goupille de verrouillage (4) de ladite position avant à ladite position arrière ;

- lesdites première et seconde parties (2,3) de ladite porte/fenêtre ;
- ladite goupille de verrouillage (4) s'étendant longitudinalement le long de ladite direction de mouvement (A) et comprenant au moins une partie en saillie (8) s'étendant en porte-à-faux à partir dudit cadre de support (5) et ayant au moins une paroi extrême (11) inclinée par rapport à ladite direction de mouvement (A) ;
- ladite seconde partie (3) comprenant au moins un corps de butée (10) agencé pour venir en butée contre ladite paroi extrême (11) pendant le mouvement entre ladite configuration d'ouverture et ladite configuration de fermeture pour déplacer ladite goupille de verrouillage (4) de ladite position avant à ladite position arrière ;

caractérisée par le fait que

- lesdits moyens antieffraction (12, 13) comprennent :

  - au moins un corps de blocage (12) associé à ladite paroi extrême (11), disposé de façon à faire saillie en porte-à-faux à partir de cette dernière le long de ladite direction de mouvement (A) et agencé pour empêcher les moyens d'effraction (17) d'atteindre ladite paroi extrême (11) ;
  - au moins une rainure (13) réalisée sur ledit corps de butée (10), ledit corps de blocage (12) passant à travers ladite rainure (13) lors du mouvement entre ladite configuration d'ouverture et ladite configuration de fermeture pour permettre audit corps de butée (10) de venir en butée contre ladite paroi extrême (11).

2. - Porte/fenêtre antieffraction (21) selon la revendication 1, **caractérisée par le fait que** ledit corps de blocage (12) comporte au moins un profil de blocage (14) s'étendant longitudinalement le long de ladite direction de mouvement (A) sur une longueur prédéfinie et agencé pour venir en butée contre les moyens d'effraction (17), les empêchant ainsi d'atteindre ladite paroi extrême (11).

3. - Porte/fenêtre antieffraction (21) selon une ou plusieurs des revendications précédentes, **caractérisée par le fait que** ledit corps de blocage (12) comprend au moins un évidement (22) agencé pour recevoir lesdits moyens d'effraction (17).

4. - Porte/fenêtre antieffraction (21) selon la revendication 2, **caractérisée par le fait que** ladite longueur prédéfinie est inférieure ou égale à l'extension de ladite paroi extrême (11) le long de ladite direction de mouvement (A).

5. - Porte/fenêtre antieffraction (21) selon la revendication 2, **caractérisée par le fait que** ladite longueur prédéfinie est supérieure ou égale à l'extension de ladite paroi extrême (11) le long de ladite direction de mouvement (A).

6. - Porte/fenêtre antieffraction (21) selon une ou plusieurs des revendications précédentes, **caractérisée par le fait que** ledit corps de blocage (12) comprend un profil de support (15) interposé entre ledit profil de blocage (14) et ladite paroi extrême (11) le long d'une direction d'extension (B) transversale par rapport à ladite direction de mouvement (A).

7. - Porte/fenêtre antieffraction (21) selon la revendication 6, **caractérisée par le fait que** l'extension dudit corps de blocage (12) est délimitée par ledit profil de blocage (14), par ledit profil de support (15)

et par ladite paroi extrême (11).

8. - Porte/fenêtre antieffraction (21) selon la revendication 6, **caractérisée par le fait que** ledit profil de blocage (14), ledit profil de support (15) et ladite paroi extrême (11) définissent un corps de blocage (12) de conformation sensiblement triangulaire.

9. - Porte/fenêtre antieffraction (21) selon une ou plusieurs des revendications précédentes, **caractérisée par le fait que** ledit dispositif (1) est une serrure.

10. - Porte/fenêtre antieffraction (21) selon une ou plusieurs des revendications précédentes, **caractérisée par le fait que** ledit dispositif (1) est un déviateur.

Fig.1

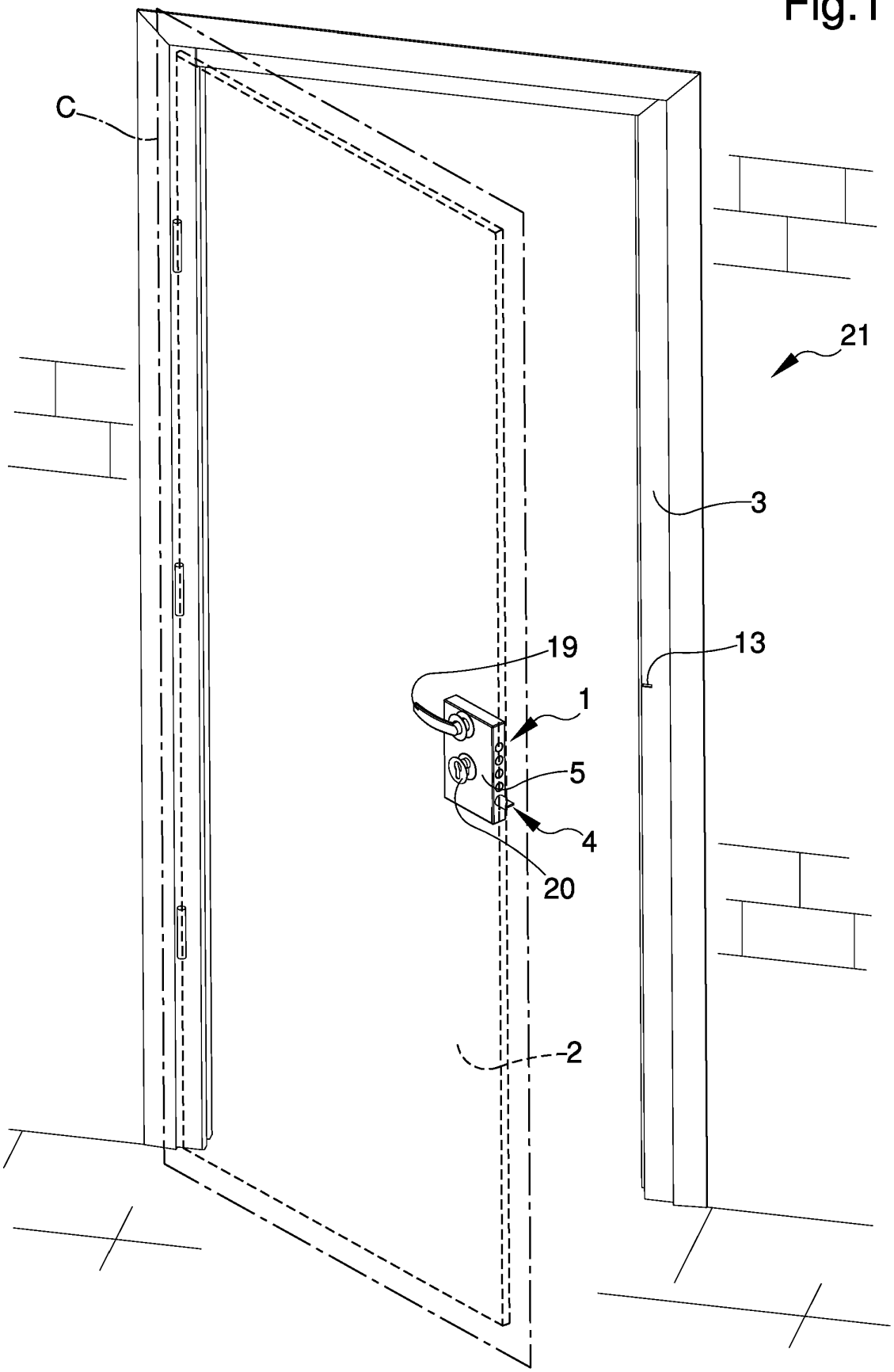
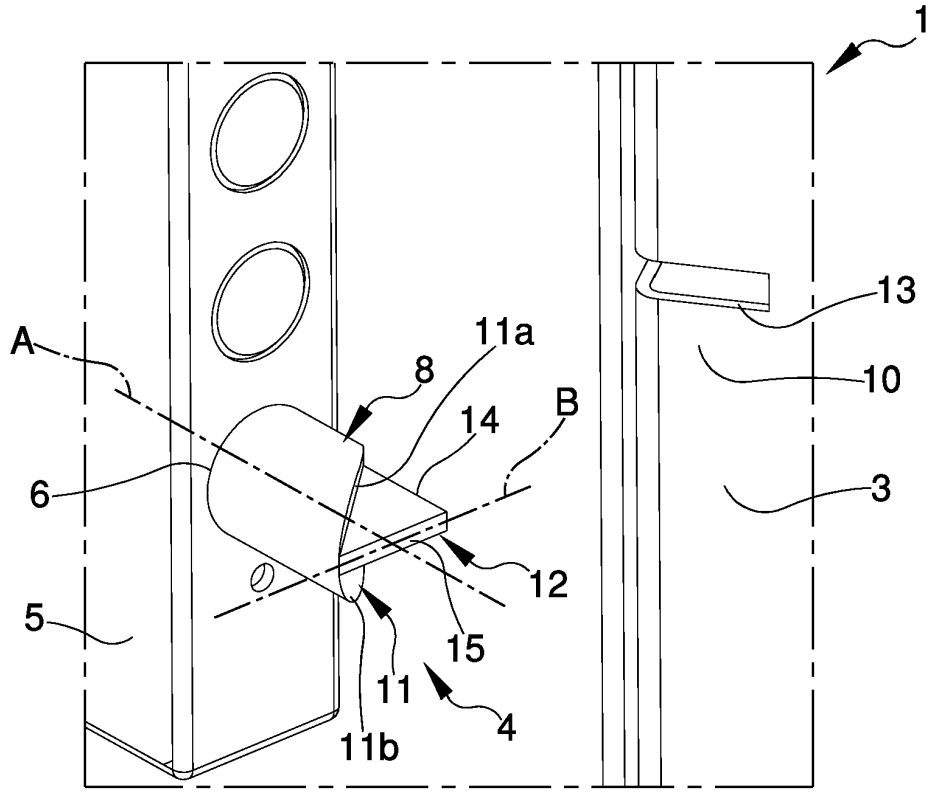


Fig.2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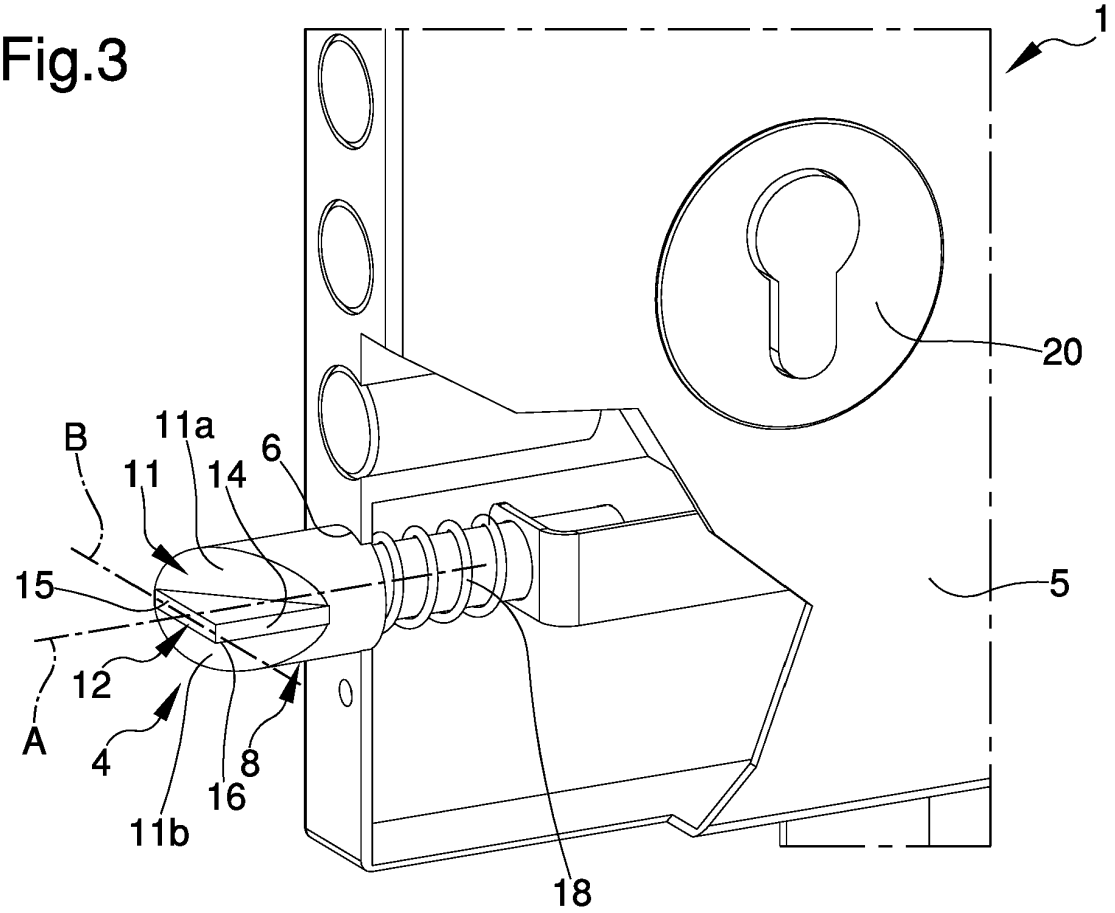
13
A
11a
8
10
B
14
6
3
12
5
15
11
4
11b

Fig.3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6
11
14
15
5
12
A
4
8
16
11b
18

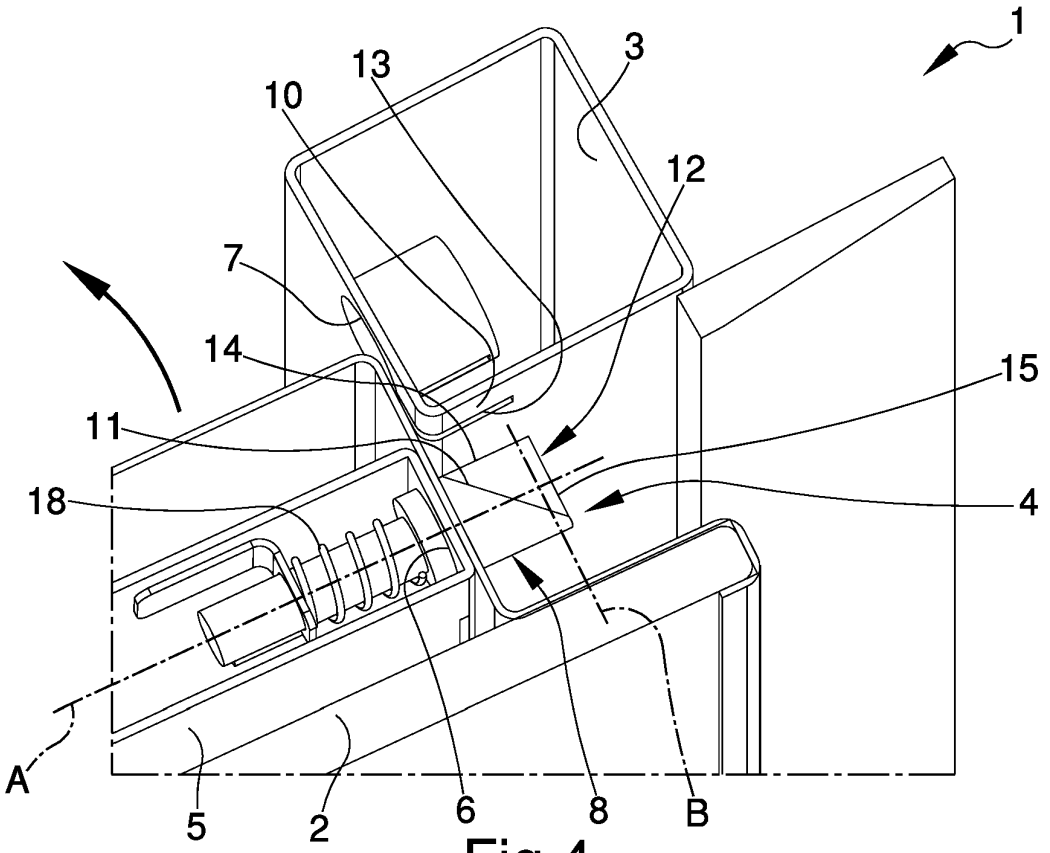

Fig.4

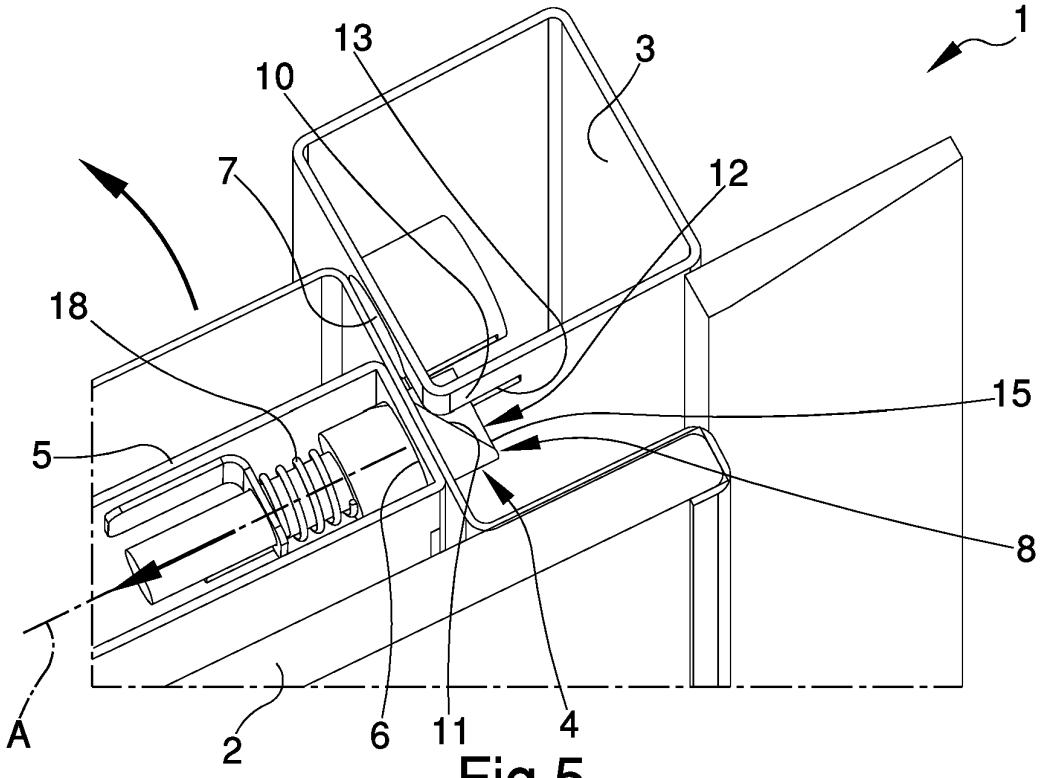

Fig.5

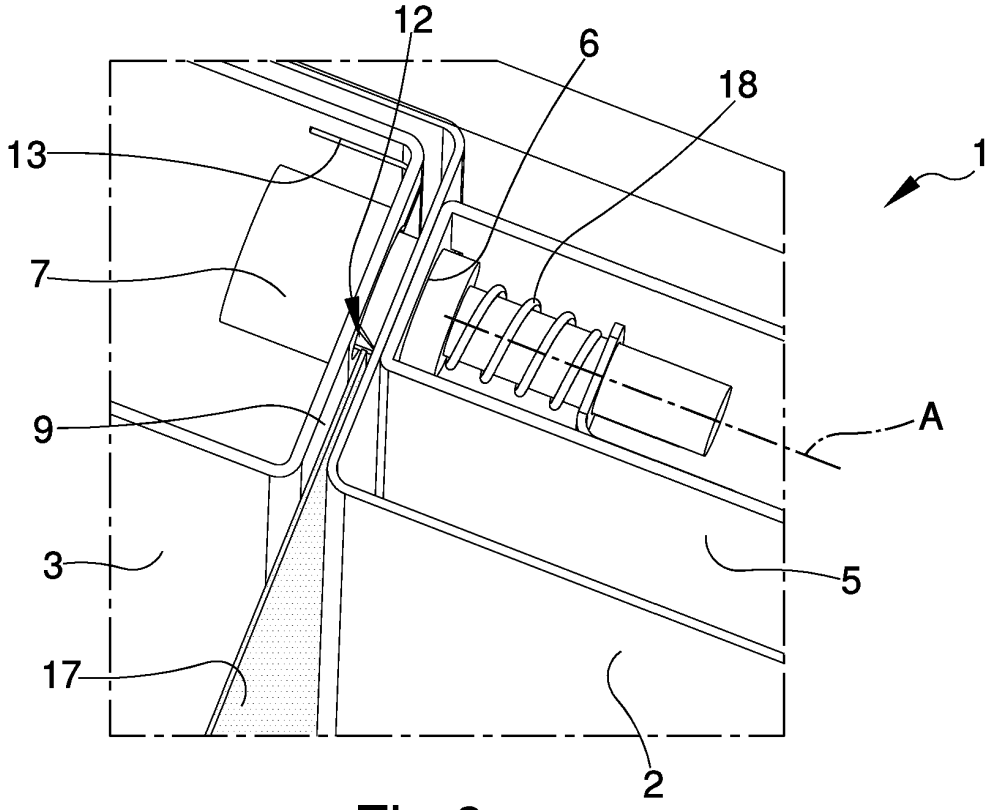

Fig.6

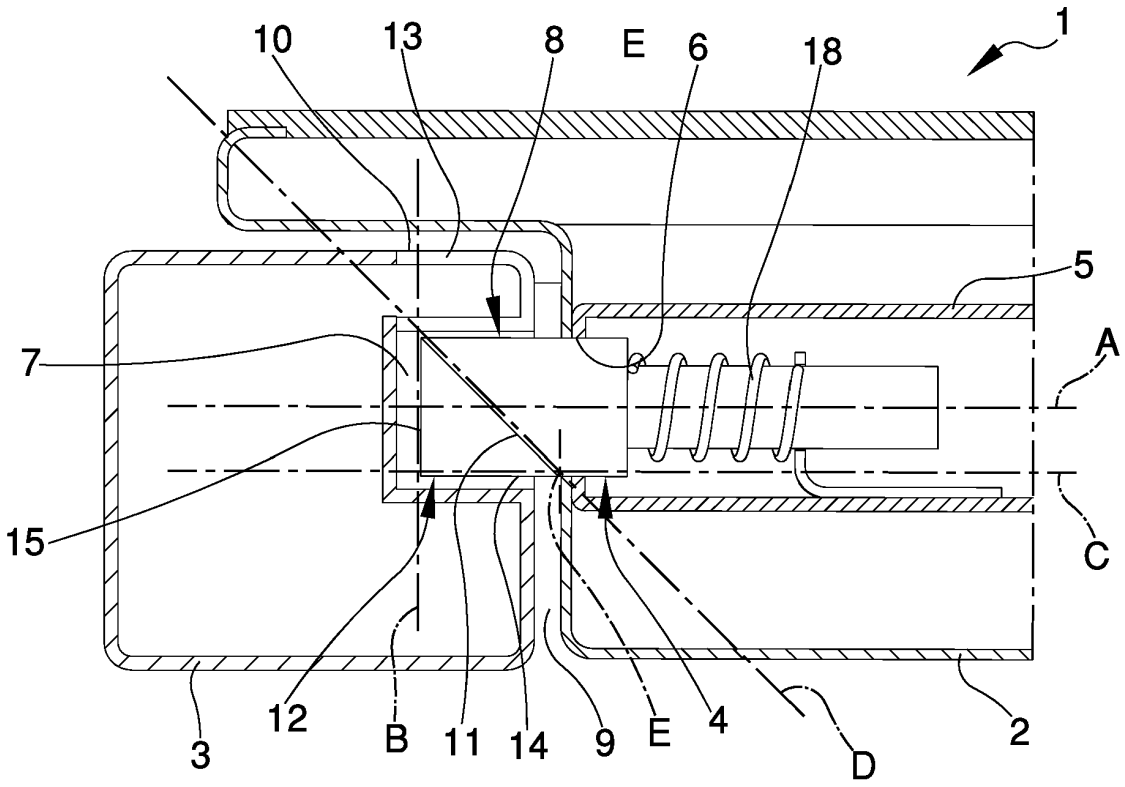

Fig.7

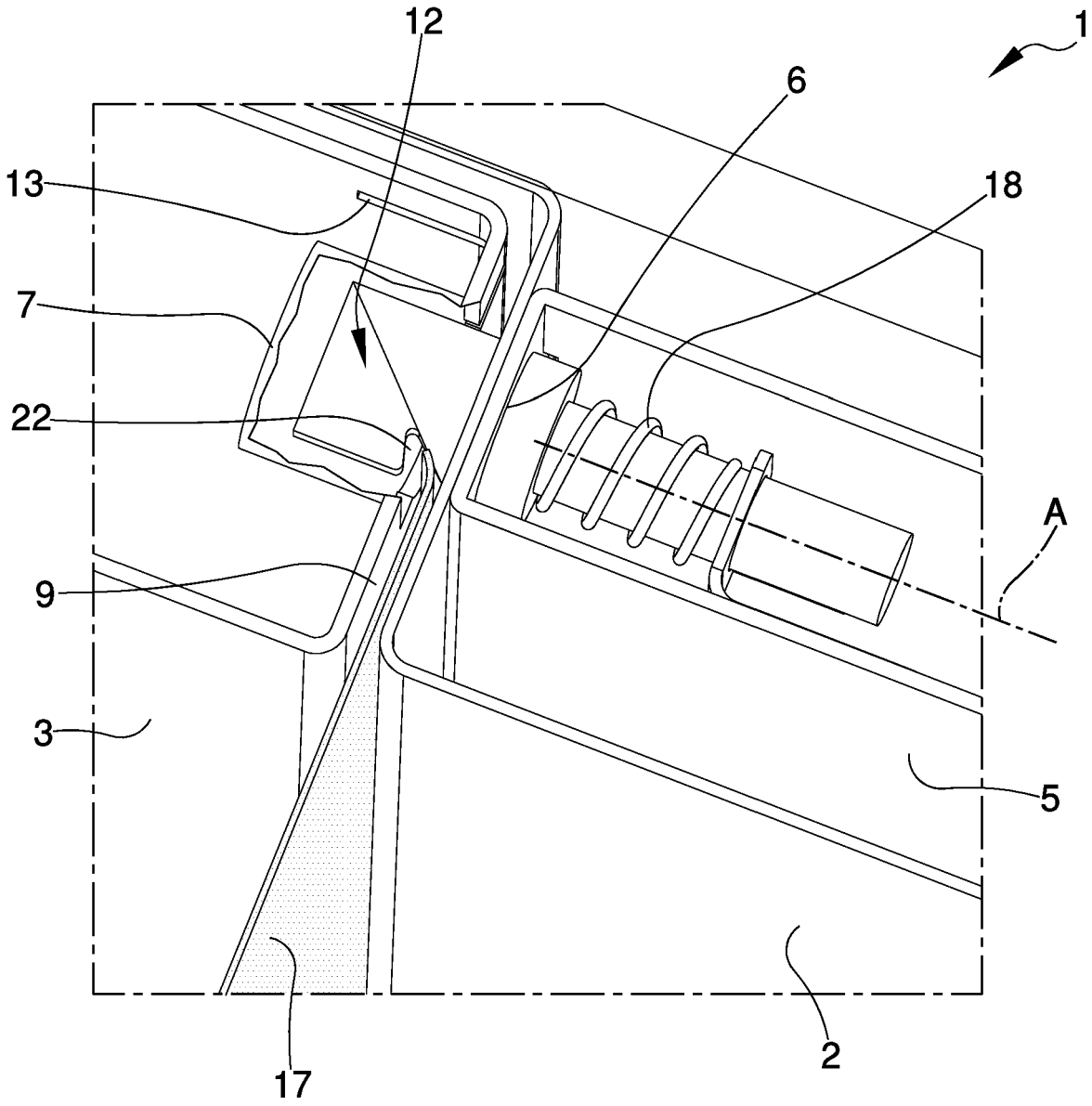

Fig.8

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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- US 2013020812 A1 **[0020]**