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(54) **A handle for turn opening and tilt and turn opening doors or windows**

Handhabe für Dreh- und Drehklappbare Fenster oder Türen

Poignée pour fenêtres ou portes pivotantes et oscillo-battantes

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**EP 1 387 029 B1**

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## Description

**[0001]** The present invention relates to a handle for both turn opening and tilt and turn opening doors and windows, in particular a Cremona bolt handle that may be equipped with an incorrect operation safety lock device.

**[0002]** The present specification refers in particular to Cremona bolt handles applicable to window or door sashes made of metal, for example, of aluminium, but without thereby restricting the scope of the invention.

**[0003]** Handles for Cremona bolts usually comprise:

- a handle body, normally prismatic in shape;
- an operating handgrip protruding from one side of the handle body;
- drive elements protruding from the side opposite the handle body and designed to actuate the device for closing the sash;
- means for fixing the handle to the sash, the latter having holes or slots in it for the passage of the drive elements and for the fixing means themselves.

**[0004]** Doors and windows currently available on the market include two basic types: one where the sash can be opened only by turning and one where the sash can be opened either by tilting or by turning.

**[0005]** In the case of doors and windows that open only by turning (the more common, traditional type of the two), the drive elements include two sliders which protrude from the handle body and which, when fitted to the sash, are coupled with the sliding rods of the opening and closing mechanism (for example, upper and lower bolts insertable in matching seats).

**[0006]** The two sliders (see also patent EP 446.566) are guided in their movements towards and away from one another along the handle body by a pair of parallel racks, the teeth of which are meshed with a pinion. The pinion rotates as one with a spindle attached to the handgrip in such a way as to open and close the sash when the handgrip is rotated.

**[0007]** The handle body also has a cover plate attached to it and designed to hold the racks and part of the sliders together. The cover plate has a set of holes at each end, through which securing means are inserted, and at least one slot for guiding the sliders.

**[0008]** In the case of doors and windows that open by tilting or by turning, as described also in patent EP 1036899 A2, the handle differs from the one described above in that it has a single slider protruding from the handle body and designed to be coupled with a drive element connected to suitable means for operating the mechanisms for opening and closing the sash in the desired configuration.

**[0009]** In this type of door or window, the handgrip can be moved into at least three different configurations. It must therefore be provided with an "incorrect operation safety lock" device to lock the handle in the open config-

uration chosen by the user (tilted or turned), thus preventing accidental operation which would otherwise create problems not only for safety but also for subsequent closure of the door or window.

**[0010]** The device applied to the handle according to the present invention is based on a prior constructional solution available on the market where the device is fitted directly on the operating slider.

**[0011]** In practice, the slider consists of a guide fork that slidably accommodates a slide plate equipped with an interposed spring between the base of the slide plate and an internal portion of the slider.

**[0012]** The slide plate can move between a retracted, non-operating drive position (sash closed) where the slide plate itself is all the way inside the slider thanks to contact with the fixed door or window frame, and a forward handle drive locked operating position (sash opened in one of its configurations), where the slide plate partly protrudes from the slider, thanks to the thrust exerted by the spring; this movement (in one of the prior solutions) causes one of the protuberances on it to engage with one of the specially made seats in the aforementioned cover plate (preferably) and prevents the slider from moving.

**[0013]** Handles of the type described above have proved to be extremely valid and practical but have, over time, created a warehousing cost and management problem for manufacturers of door and window hardware.

**[0014]** The reason for this is that the presence of two different solutions for the handles, one for each type of door or window (traditional and tilt/turn) makes it necessary to keep separate stocks of ready-assembled handles of the two different types, which leads to higher management costs.

**[0015]** With this problem in mind, the Applicant now proposes a handle comprising the same essential parts that will meet the requirements of both types of doors or windows currently in demand but with enhanced accessory features that will allow the same handle to be adapted either to a traditional door or window or to a tilt/turn door or window.

**[0016]** The invention achieves this object in a handle for both turn opening and tilt and turn opening doors and windows according to the subject matter of claim 1.

**[0017]** The technical characteristics of the invention, with reference to the above aims, are clearly described in the claims below and its advantages are apparent from the detailed description which follows, with reference to the accompanying drawings which illustrate a preferred embodiment of the invention provided merely by way of example without restricting the scope of the inventive concept, and in which:

- Figure 1 is a schematic side view, with some parts cut away in order to better illustrate others, of a handle according to the invention, in a first application;
- Figure 2 is a schematic side view, with some parts cut away in order to better illustrate others, of a han-

- dle according to the invention, in a second application;
- Figure 3 is a perspective exploded view of the handle shown in Figures 1 and 2;
  - Figures 4 and 5 illustrate a first detail of the handle of Figure 3, respectively, in a plan view from above and in cross section through line V.- V;
  - Figure 6 illustrates a second detail of the handle of Figure 3 in a perspective view;
  - Figure 7 illustrates a third detail of the handle of Figure 3 in a perspective view;
  - Figures 8 and 9 are a top plan view and a cross section through line IX - IX of an alternative embodiment of the drive elements of the handle shown in the drawings listed above.

**[0018]** With reference to the accompanying drawings, in particular Figure 2, the handle illustrated, denoted in its entirety by the numeral 1, is used for operating door or window sashes made of any one of a variety of different materials, for example, a metal.

**[0019]** In particular, the handle is suitable for use with doors or windows either of the traditional type, which open by turning, or those of the type which open by tilting or turning.

**[0020]** Although the handle 1 referred to in the present specification is of the Cremona bolt type, the structure according to the invention may be applied to other types of handle without losing the novelty of the invention.

**[0021]** As illustrated in Figure 3, the handle 1 essentially comprises a handle body 2 from which there project, on the side presenting a bush 2a made in a single piece with the handle body 2, a handgrip 4 used for driving kinematic transmission means 8, and drive elements 5 on the other side of the handle body 2.

**[0022]** The kinematic means 8 comprise a spindle 8a housed inside the handle body 2 and a rack 8b whose teeth mesh with a pinion 8d that rotates as one with the spindle 8a.

**[0023]** The free ends of the drive elements 5 engage with sash closing devices 6 and 7 (incidental to the description of the invention and therefore not illustrated in detail) represented in Figure 1 as a plain rod equipped with contact elements 6a and 6b, and as a contact element 7 in Figure 2.

**[0024]** More specifically, rotation of the handgrip 4 causes the drive elements 5, under the action of the kinematic means 8, to move between different stable positions corresponding to the closed and open configurations of the sash A (see arrow F in

**[0025]** Figures 1 and 2).

**[0026]** The drive elements 5 illustrated comprise a slider element 10, constituting the element that drives the sash opening and closing devices 6 and 7, and means 11 for locking the single slider element 10 in the different positions corresponding to the tilt opened and turn opened configurations of the sash.

**[0027]** The rack 8b comprises a drive portion 10t pre-

sented by the slider element 10 and enabling the latter to move between different stable positions corresponding to the closed and open configurations of the sash.

**[0028]** The handle body 2 also has a cover plate attached to it and designed to protect the kinematic assembly 8 and the portion of the slider element 10 connected to the assembly.

**[0029]** The cover plate 9 has a set of first holes 9a at each end, through which fixing means 3 (consisting of screws for example) are inserted in order to secure the handle body 2 to the sash.

**[0030]** In addition, as shown clearly in Figure 7, the cover plate 9 also has in it at least one guide slot 9b through which the slider element 10 protrudes.

**[0031]** As illustrated in Figure 3, the aforementioned locking means 11 are mounted on the slider element 10 detachably, that is to say, in such a way that they can be separated.

**[0032]** More specifically, the locking means 11 are slidable into the single slider element 10 from the free outer end of the slider element 10 itself after the latter has been fitted to the handle body 2.

**[0033]** In practice, this possibility enables the handle 1, in its plain configuration, that is to say, with only the slider element 10 present, to be fitted to sashes that open only by turning, while by simply adding the locking means 11, the handle 1 can be applied to sashes that open by tilting or turning.

**[0034]** For changing over rapidly from one type to the other, the invention contemplates the provision of non-reversible means 12 for fastening the locking means 11 on the handle 1 and acting on the locking means 11 when the locking means 11 themselves are inserted into the slider element 10.

**[0035]** Looking in more detail, the locking means 11 (see also Figures 4 and 5) comprise a slide plate 16, slidably housed in the slider element 10, and spring means 17 placed between the slide plate 16 itself and the slider element 10 when the slide plate 16 itself is inserted.

**[0036]** The spring means 17 enable the slide plate 16 to move between a retracted, non-operating drive position of the slider element 10, where the slide plate 16 itself is all the way inside the slider element 10 thanks to contact with a fixed door or window frame (not illustrated), and a forward slider element locked operating position, where the slide plate 16 partly protrudes from the slider element 10 (see Figure 2).

**[0037]** The fastening means 12 hold the slide plate 16 securely in the slider element 10 in the locked operating position, since the non-operating position is shifted towards the inside of the handle body 2.

**[0038]** At a constructional level (again with reference to Figures 4 and 5), the slide plate 16 comprises an operating end head 20 and a boss 21, at the opposite end, which comes into contact with a fixed surface defined by the cover plate 9 of the handle body 2.

**[0039]** The slide plate 16 also has a second central

groove 22 that partly contains the spring means 17 which are positioned with one end touching a second contact pin 23 also made on the slide plate 16.

**[0040]** In practice, when the slide plate 16 (constituting a device also known as incorrect operation safety lock) is fitted on the slider element 10, its end head 20 tends to protrude and, with the boss 21, engages a matching opening 9c made in the cover plate 9 and stops the slider element 10 from moving: this occurs, as is known, when the sash A is open.

**[0041]** As shown also in Figure 6, the slider element 10 has the shape of a "C" to form a pair of guides 10a, one on each side, for slidably containing the slide plate 16, and a first central guide groove 18 for the spring means 17 positioned with one end touching a first contact pin 19 made on the inside end of the slider element 10.

**[0042]** With the drive elements 5 made in this way, in a first non-restricting exemplary embodiment, the aforementioned fastening means 12 are positioned on and operate between the slide plate 16 and the cover plate 9.

**[0043]** More specifically, (see Figures 3 to 7), these fastening means 12 may comprise a tooth 13 made on the cover plate 9 (preferably at one of the aforementioned openings 9c).

**[0044]** The tooth 13 is engageable with an end projection 11a which protrudes from the boss 21 of the slide plate 16 when the slide plate 16 is slidably housed in the slider element 10.

**[0045]** The tooth 13 is elastically mobile (see arrow F1 in Figure 7) from a position where the projection 11a is past the cover plate 9 and the tooth 13 is inside the cover plate 9 through engagement with the projection 11a, to a position where the projection 11a is locked inside the cover plate 9, the tooth 13 lies in the same plane as the cover plate 9 and the projection 11a is stopped against the tooth 13 itself.

**[0046]** This slide plate 16 locked configuration is stabilised during assembly with the tooth 13 resting on the surface of the sash A.

**[0047]** In a second exemplary embodiment (see Figures 8 and 9), the aforementioned fastening means 12 are positioned on and operate between the slide plate 16 and the slider element 10.

**[0048]** In this embodiment, the fastening means 12 comprise at least one elastically compliant appendage 14 made on the slider element 10, the appendage 14 protruding from the plane in which the slide plate 16 slides in the slider element 10.

**[0049]** In addition to this, there is a lug 15 which is made at the lower end of the slide plate 16 and which, once the slider element 10 is inserted (see arrow F2 in Figure 9), comes into contact with and moves past the appendage 14, and then holds the slide plate 16 within the slider element 10 when the appendage 14 returns to its protruding state in such a way as to stop the lug 15 (see arrows F3 in Figure 9).

**[0050]** In the first embodiment described above, the slide plate 16 can be slidably inserted into the slider el-

ement 10 after the latter has been stably attached to the handle body 2 but before the handle 1 is fitted to the sash A.

**[0051]** In the second embodiment described above, the slide plate 16 can be slidably inserted into the slider element 10 after the latter has been stably attached to the handle body 2 and after the handle 1 has been fitted to the sash A.

**[0052]** The handle made as described above achieves the aforementioned aims thanks to a simple variation in the structure of the handle drive elements which enable the slide plate to be inserted into the slider element by a simple manual operation only when necessary to adapt the handle to doors or windows of the tilt and turn type.

**[0053]** The invention has the following advantages:

- reduced stock of handles since the basic design is identical for doors or windows that open only by turning and for those that open by tilting and turning;
- reduction in the number of preassembly operations required for tilt and turn handles;
- a single incorrect operation safety lock device, the slide plate, is the same for all the handles and, if necessary, can be applied to the Cremona bolt even on the spot quickly and easily and without using any tools.

**[0054]** Both the tooth and the flexible appendage are exemplary embodiments of the means for fastening the slide plate to the handle and it is obvious that equivalent fastening means may be adopted without diminishing the effectiveness of the invention.

### 35 Claims

1. A handle for both turn opening and claims tilt and turn opening doors or windows, the handle (1) comprising:

- a handle body (2) attachable to a sash (A) of the door or window by means of suitable fastening means (3) ;
- an operating handgrip (4) protruding from one side of the handle body (2);
- drive elements (5) protruding from the side of the handle body (2) opposite the side with the handgrip (4) and connectable to operating devices (6, 7) for opening and closing the door or window; the drive elements (5) being controlled by kinematic means (8) for transmitting motion from the handgrip (4) to the drive elements (5) in such a way as to move the drive elements (5) themselves into the different positions corresponding to the tilt opened and turn opened configurations of the sash (A); the drive elements (5) comprising a slider element (10) connected to the kinematic means (8) and constituting the

- element that drives the operating devices (6, 7), and means (11) for locking the single slider element (10) in the different positions corresponding to the tilt opened and turn opened configurations of the sash;
- a plate (9) for covering at least the kinematic means (8) and being attachable to the handle body (2) on the side from which the drive elements (5) protrude, the handle (1) being **characterised in that** the locking means (11) are mounted on the slider element (10) detachably, that is to say, in such a way that they can be separated, and **in that** the locking means (11) comprise a slide plate (16), slidably housed in the slider element (10), and spring means (17) placed between the slide plate (16) itself and the slider element (10).
2. The handle according to claim 1, **characterised in that** the locking means (11) are slidable into the single slider element (10) from the free outer end of the slider element (10) itself after the latter has been fitted to the handle body (2).
  3. The handle according to claim 1, **characterised in that** it comprises non-reversible means (12) for fastening the locking means (11) on the handle (1) and acting on the locking means (11) when the locking means (11) themselves are inserted into the slider element (10).
  4. The handle according to claim 1, **characterised in that** it comprises:
    - the locking means (11) slidable into the single slider element (10) from the free outer end of the slider element (10) itself after the latter has been fitted to the handle body; and
    - non-reversible means (12) for fastening the locking means (11) on the handle (1) and acting on the locking means (11) when the locking means (11) themselves are inserted into the slider element (10).
  5. The handle according to claim 4, **characterised in that** the fastening means (12) are positioned on and operate between the locking means (11) and the plate (9) for covering at least the kinematic means (8).
  6. The handle according to claim 4, **characterised in that** the fastening means (12) are positioned on and operate between the locking means (11) and the slider element (10).
  7. The handle according to claims 1 and 4, **characterised in that** the fastening means (12) comprise a tooth (13) made on the cover plate (9) and engage-  
able with an end projection (11a) of the locking means (11) when the locking means (11) are inserted into the slider element (10), the tooth (13) being elastically mobile from a position where the projection (11a) of the locking means (11) is past the cover plate (9) and the tooth (13) is inside the cover plate (9) through engagement with the projection (11a), to a position where the projection (11a) is locked inside the cover plate (9), the tooth (13) lies in the same plane as the cover plate (9) and the projection (11a) is stopped against the tooth (13) itself.
  8. The handle according to claims 1 and 4, **characterised in that** the fastening means (12) comprise; at least one elastically compliant appendage (14) made on the slider element (10) and protruding from the plane in which the locking means (11) slide in the slider element (10); and a lug (15) made at one end of the locking means (11) and designed to come into contact with and move past the appendage (14) when the locking means (11) are inserted into the slider element (10), in such a way as to hold the locking means (11) within the slider element (10).
  9. The handle according to claim 1, **characterised in that** the slide plate (16) is moved by the spring means (17) between a retracted, non-operating drive position of the slider element (10), where the slide plate (16) itself is all the way inside the slider element (10) thanks to contact with a fixed door or window frame, and a forward slider element (10) locked operating position, where the slide plate (16) partly protrudes from the slider element (10); it being possible to secure the slide plate (16) inside the slider element (10) in the locked operating position.
  10. The handle according to claim 1, **characterised in that** the slider element (10) has the shape of a "C" to form a pair of guides (10a), one on each side, for slidably containing the slide plate (16), and a first central guide groove (18) for the spring means (17) positioned with one end touching a first contact pin (19) made on the inside end of the slider element (10).
  11. The handle according to claim 1, **characterised in that** the slide plate (16) comprises an operating end head (20) and a boss (21), at the opposite end which comes into contact with a fixed surface defined by the cover plate (9) of the handle body (2); the slide plate (16) having a second central groove (22) for partly containing the spring means (17) positioned with one end touching a second contact pin (23) made on the slide plate (16).
  12. The handle according to claim 1, **characterised in that** the locking means (11) can be slidably inserted into the slider element (10) after the latter has been

stably fitted to the handle body (2).

13. The handle according to claim 1, **characterised in that** the locking means (11) can be slidably inserted into the slider element (10) after the latter has been stably fitted to the handle body (2) and after the handle body has been fitted to the sash (A).

#### Patentansprüche

1. Handgriff zum drehbaren Öffnen und zum kipp- und drehbaren Öffnen von Türen und Fenstern, wobei der Handgriff (1) wie folgt enthält:

- einen Griffkörper (2), anbringbar an einem Tür- oder Fensterflügel (A) mit Hilfe von geeigneten Befestigungsmitteln (3);
- einen Betätigungsgriff (4), der auf einer Seite des Griffkörpers (2) hervorsteht;
- Betätigungselemente (5), die auf der Seite des Griffkörpers (2) entgegengesetzt von der Seite mit dem Betätigungsgriff (4) hervorstehen und an Betätigungsvorrichtungen (6, 7) zum Öffnen und Schliessen der Tür oder des Fensters anschliessbar sind; wobei die Betätigungselemente (5) angetrieben werden durch kinematische Mittel (8) zum Übertragen der Bewegung von dem Betätigungsgriff (4) auf die Betätigungselemente (5), und zwar auf solche Weise, dass die Betätigungselemente (5) selbst in unterschiedliche Positionen bewegt werden, entsprechend den Konfigurationen des Kippöffnens und des Drehöffnens des Flügels (A); wobei die Betätigungselemente (5) ein Schieberelement (10) enthalten, angeschlossen an die kinematischen Mittel (8) und das Element bildend, das die Betätigungsvorrichtungen (6, 7) antreibt, sowie Mittel (11) zum Blockieren des einzigen Schieberelementes (10) in den verschiedenen Positionen, entsprechend den Konfigurationen des Kippöffnens und des Drehöffnens des Flügels;
- eine Platte (9) zum Abdecken von wenigstens den kinematischen Mitteln (8) und anbringbar an dem Griffkörper (2) auf der Seite, auf welcher die Betätigungselemente (5) hervorstehen, wobei der Handgriff (1) **dadurch gekennzeichnet ist, dass** die genannten Blockiermittel (11) lösbar an dem Schieberelement (10) montiert sind, das heisst auf solche Weise, dass sie abgenommen werden können, und **dadurch**, dass die Blockiermittel (11) eine Gleitplatte (16) enthalten, die gleitbar in dem Schieberelement (10) aufgenommen ist, und Federmittel (17), angeordnet zwischen der Gleitplatte (16) selbst und dem Schieberelement (10).

2. Handgriff nach Patentanspruch 1, **dadurch ge-**

**kennzeichnet, dass** die Blockiermittel (11) in das einzige Schieberelement (10) von dem freien äusseren Ende des Schieberelementes (10) selbst her einschiebbar ist, nachdem letzteres an dem Griffkörper (2) befestigt worden ist.

3. Handgriff nach Patentanspruch 1, **dadurch gekennzeichnet, dass** er nicht umkehrbare Mittel (12) zum Befestigen der Blockiermittel (11) an dem Handgriff (1) enthält, die auf die Blockiermittel (11) wirken, wenn die Blockiermittel (11) selbst in das Schieberelement (10) eingesetzt sind.

4. Handgriff nach Patentanspruch 1, **dadurch gekennzeichnet, dass** er wie folgt enthält:

- Blockiermittel (11), einschiebbar in das einzige Schieberelement (10) von dem freien äusseren Ende des Schieberelementes (10) selbst her, nachdem letzteres an dem Griffkörper befestigt worden ist; und
- nicht umkehrbare Mittel (12) zum Befestigen der Blockiermittel (11) an dem Handgriff (1), die auf die Blockiermittel (11) wirken, wenn die Blockiermittel (11) selbst in das Schieberelement (10) eingesetzt sind.

5. Handgriff nach Patentanspruch 4, **dadurch gekennzeichnet, dass** die Befestigungsmittel (12) an den Blockiermitteln (11) positioniert sind und zwischen diesen und der Platte (9) zum Abdecken von wenigstens den kinematischen Mitteln (8) wirken.

6. Handgriff nach Patentanspruch 4, **dadurch gekennzeichnet, dass** die Befestigungsmittel (12) an den Blockiermitteln (11) positioniert sind und zwischen diesen und dem Schieberelement (10) wirken.

7. Handgriff nach den Patentansprüchen 1 und 4, **dadurch gekennzeichnet, dass** die Befestigungsmittel (12) einen Zahn (13) enthalten, angearbeitet an die Abdeckplatte (9) und verbindbar mit einem Endvorsprung (11a) der Blockiermittel (11), wenn die Blockiermittel (11) in das Schieberelement (10) eingesetzt sind, wobei der Zahn (13) elastisch beweglich ist aus einer Position, in welcher der Vorsprung (11a) der Blockiermittel (11) über die Abdeckplatte (9) hinaus steht und der Zahn (13) sich durch den Eingriff mit dem Vorsprung (11a) im Inneren der Abdeckplatte (9) befindet, in eine Position, in welcher der Vorsprung (11a) im Inneren der Abdeckplatte (9) blockiert ist, der Zahn (13) auf derselben Ebene liegt wie die Abdeckplatte (9) und der Vorsprung (11a) im Anschlag an den Zahn (13) selbst gehalten ist.

8. Handgriff nach den Patentansprüchen 1 und 4, **dadurch gekennzeichnet, dass** die Befestigungsmittel (12) enthalten: wenigstens einen elastisch nach-

gebenden Ansatz (14), angearbeitet an das Schiebererelement (10) und hervorstehend aus der Ebene, in welcher die Blockiermittel (11) in dem Schiebererelement (10) gleiten; und eine Nase (15) an einem Ende der genannten Blockiermittel (11), dazu bestimmt, mit dem Ansatz (14) in Kontakt zu kommen und sich über diesen hinaus zu bewegen, wenn die Blockiermittel (11) in das Schiebererelement (10) auf solche Weise eingesetzt sind, dass die Blockiermittel (11) im Inneren des Schiebererelementes (10) gehalten werden.

9. Handgriff nach den Patentanspruch 1, **dadurch gekennzeichnet, dass** die Gleitplatte (16) durch die Federmittel (17) bewegt wird zwischen einer zurückgezogenen, nicht operativen Betätigungsposition des Schiebererelementes (10), in welcher die Gleitplatte (16) selbst dank des Kontaktes mit einem feststehenden Tür- oder Fensterrahmen vollkommen im Inneren des Schiebererelementes (10) ist, und einer vorgeschobenen blockierten Betriebsposition des Schiebererelementes (10), in welcher die Gleitplatte (16) teilweise aus dem Schiebererelement (10) hervorstet; wobei es möglich ist, die Gleitplatte (16) im Inneren des Schiebererelementes (10) in der blockierten Betriebsposition zu sichern.
10. Handgriff nach den Patentanspruch 1, **dadurch gekennzeichnet, dass** das Schiebererelement (10) die Form eines "C" hat, um ein Paar von Führungen (10a) zu bilden, eine auf jeder Seite, um die Gleitplatte (16) verschiebbar zu halten, und eine erste mittlere Führungsrille (18) für die Federmittel (17) aufweist, die mit einem Ende im Kontakt mit einem ersten Anschlagzapfen (19) angeordnet sind, hergestellt an dem internen Ende des Schiebererelementes (10).
11. Handgriff nach den Patentanspruch 1, **dadurch gekennzeichnet, dass** die Gleitplatte (16) einen operativen Endkopf (20) enthält, sowie einen Vorsprung (21) an dem entgegengesetzten Ende, welcher mit einer feststehenden Oberfläche in Kontakt kommt, beschrieben durch die Abdeckplatte (9) des Griffkörpers (2); wobei die Gleitplatte (16) eine zweite mittlere Rille (22) zur teilweisen Aufnahme der Federmittel (17) aufweist, die mit einem Ende im Kontakt mit einem zweiten Anschlagzapfen (23) angeordnet sind, hergestellt an der Gleitplatte (16).
12. Handgriff nach den Patentanspruch 1, **dadurch gekennzeichnet, dass** die Blockiermittel (11) gleitbar in das Schiebererelement (10) eingesetzt werden können, nachdem letzteres stabil an dem Griffkörper (2) befestigt worden ist.
13. Handgriff nach den Patentanspruch 1, **dadurch gekennzeichnet, dass** die Blockiermittel (11) gleitbar

in das Schiebererelement (10) eingesetzt werden können, nachdem letzteres stabil an dem Griffkörper (2) befestigt worden ist, und nachdem der Griffkörper an dem Flügel (A) befestigt worden ist.

## Revendications

1. Une poignée pour fenêtres ou portes aussi bien pivotantes qu'oscillo-battantes, telle poignée (1) comprenant :
- un corps de poignée (2) pouvant être associé à un cadre (A) de la porte ou de la fenêtre par l'intermédiaire de moyens de fixation (3) appropriés ;
  - un levier de manoeuvre (4) dépassant d'un côté du corps de poignée (2) ;
  - des éléments de commande (5) dépassant du côté du corps de poignée (2) opposé au côté présentant le levier (4) et pouvant être reliés à des dispositifs de manoeuvre (6, 7) pour l'ouverture et la fermeture de la porte ou de la fenêtre ; les éléments de commande (5) étant assujettis à des moyens cinématiques (8) destinés à transmettre le mouvement du levier (4) aux éléments de commande (5) de manière à déplacer les éléments de commande (5) eux-mêmes dans les différentes positions correspondant aux configurations d'ouverture « à soufflet » et d'ouverture « à la française » du cadre (A) ; les éléments de commande (5) comprenant un élément coulisseau (10) relié aux moyens cinématiques (8) et constituant l'élément qui commande les dispositifs de manoeuvre (6, 7), et des moyens (11) pour bloquer l'élément coulisseau (10) dans les différentes positions correspondant aux configurations d'ouverture « à soufflet » et d'ouverture « à la française » du cadre ;
  - une plaque (9) destinée à couvrir au moins les moyens cinématiques (8) et pouvant être associée au corps de poignée (2) du côté duquel dépassent les éléments de commande (5), la poignée (1) étant **caractérisée en ce que** les moyens de blocage (11) sont montés de façon détachable sur l'élément coulisseau (10), c'est-à-dire de manière à pouvoir être séparés, et **en ce que** les moyens de blocage (11) comprennent une plaque coulissante (16), logée de façon coulissante dans l'élément coulisseau (10), et des moyens à ressort (17) placés entre la plaque coulissante (16) elle-même et l'élément coulisseau (10).
2. La poignée selon la revendication 1, **caractérisée en ce que** les moyens de blocage (11) peuvent être associés par coulissement dans l'élément coulisseau (10).

- seau (10) au niveau de l'extrémité libre extérieure de l'élément coulisseau (10) lui-même une fois que ce dernier a été monté sur le corps de poignée (2).
3. La poignée selon la revendication 1, **caractérisée en ce qu'elle** comprend des moyens irréversibles (12) destinés à retenir les moyens de blocage (11) sur la poignée (1) et agissant sur les moyens de blocage (11) quand les moyens de blocage (11) eux-mêmes sont insérés dans l'élément coulisseau (10). 5
  4. La poignée selon la revendication 1, **caractérisée en ce qu'elle** comprend :
    - les moyens de blocage (11) pouvant être associés par coulissement dans l'élément coulisseau (10) au niveau de l'extrémité libre extérieure de l'élément coulisseau (10) lui-même une fois que ce dernier a été monté sur le corps de poignée ; et 10
    - des moyens irréversibles (12) destinés à retenir les moyens de blocage (11) sur la poignée (1) et agissant sur les moyens de blocage (11) quand les moyens de blocage (11) eux-mêmes sont insérés dans l'élément coulisseau (10). 15
  5. La poignée selon la revendication 4, **caractérisée en ce que** les moyens de retenue (12) sont positionnés sur et agissent entre les moyens de blocage (11) et la plaque (9) destinée à couvrir au moins les moyens cinématiques (8). 20
  6. La poignée selon la revendication 4, **caractérisée en ce que** les moyens de retenue (12) sont positionnés sur et agissent entre les moyens de blocage (11) et l'élément coulisseau (10). 25
  7. La poignée selon les revendications 1 et 4, **caractérisée en ce que** les moyens de retenue (12) comprennent une dent (13) réalisée sur la plaque de couverture (9) et pouvant être mise en prise avec une saillie d'extrémité (11a) des moyens de blocage (11) quand ces mêmes moyens de blocage (11) sont insérés dans l'élément coulisseau (10), la dent (13) étant élastiquement mobile d'une position où la saillie (11a) des moyens de blocage (11) est au-delà de la plaque de couverture (9) et la dent (13) est à l'intérieur de la plaque de couverture (9) par mise en prise avec la saillie (11a), à une position où la saillie (11a) est bloquée à l'intérieur de la plaque de couverture (9), la dent (13) est située dans le même plan que la plaque de couverture (9) et la saillie (11a) est en butée contre la dent (13) elle-même. 30
  8. La poignée selon les revendications 1 et 4, **caractérisée en ce que** les moyens de retenue (12) comprennent : au moins un appendice (14) pouvant céder de façon élastique, réalisé sur l'élément cou- 35
  - lisseau (10) et dépassant du plan dans lequel les moyens de blocage (11) coulisent dans l'élément coulisseau (10) ; et un ergot (15) réalisé à une extrémité des moyens de blocage (11) et destiné à venir en contact avec et à passer au-delà de l'appendice (14) quand les moyens de blocage (11) sont insérés dans l'élément coulisseau (10) de manière à retenir les moyens de blocage (11) eux-mêmes dans l'élément coulisseau (10). 40
  9. La poignée selon la revendication 1, **caractérisée en ce que** la plaque coulissante (16) est déplacée par les moyens à ressort (17) entre une position de manoeuvre rentrée non opérationnelle de l'élément coulisseau (10), dans laquelle la plaque coulissante (16) elle-même est entièrement à l'intérieur de l'élément coulisseau (10) en raison du contact avec le châssis fixe d'une porte ou d'une fenêtre, et une position opérationnelle sortie de blocage de l'élément coulisseau (10), dans laquelle la plaque coulissante (16) dépasse en partie de l'élément coulisseau (10) ; la plaque coulissante (16) pouvant être immobilisée à l'intérieur de l'élément coulisseau (10) dans la position opérationnelle de blocage. 45
  10. La poignée selon la revendication 1, **caractérisée en ce que** l'élément coulisseau (10) a la forme d'un « C » afin de définir une paire de guides (10a), un de chaque côté, pour contenir de façon coulissante la plaque coulissante (16), et présente une première rainure centrale (18) de guidage des moyens à ressort (17) disposés avec une extrémité touchant une première broche de contact (19) réalisée sur l'extrémité intérieure de l'élément coulisseau (10). 50
  11. La poignée selon la revendication 1, **caractérisée en ce que** la plaque coulissante (16) comprend une tête d'extrémité opérationnelle (20) et une protubérance (21), à l'extrémité opposée, qui vient en contact avec une surface fixe définie par la plaque de couverture (9) du corps de poignée (2) ; la plaque coulissante (16) ayant une seconde rainure centrale (22) destinée à contenir en partie les moyens à ressort (17) disposés avec une extrémité touchant une seconde broche de contact (23) réalisée sur la plaque coulissante (16). 55
  12. La poignée selon la revendication 1, **caractérisée en ce que** les moyens de blocage (11) peuvent être insérés de façon coulissante dans l'élément coulisseau (10) une fois que ce dernier a été associé de façon stable au corps de poignée (2).
  13. La poignée selon la revendication 1, **caractérisée en ce que** les moyens de blocage (11) peuvent être insérés de façon coulissante dans l'élément coulisseau (10) une fois que ce dernier a été associé de façon stable au corps de poignée (2) et une fois que



ledit corps de poignée a été monté sur le cadre (A).

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FIG. 2

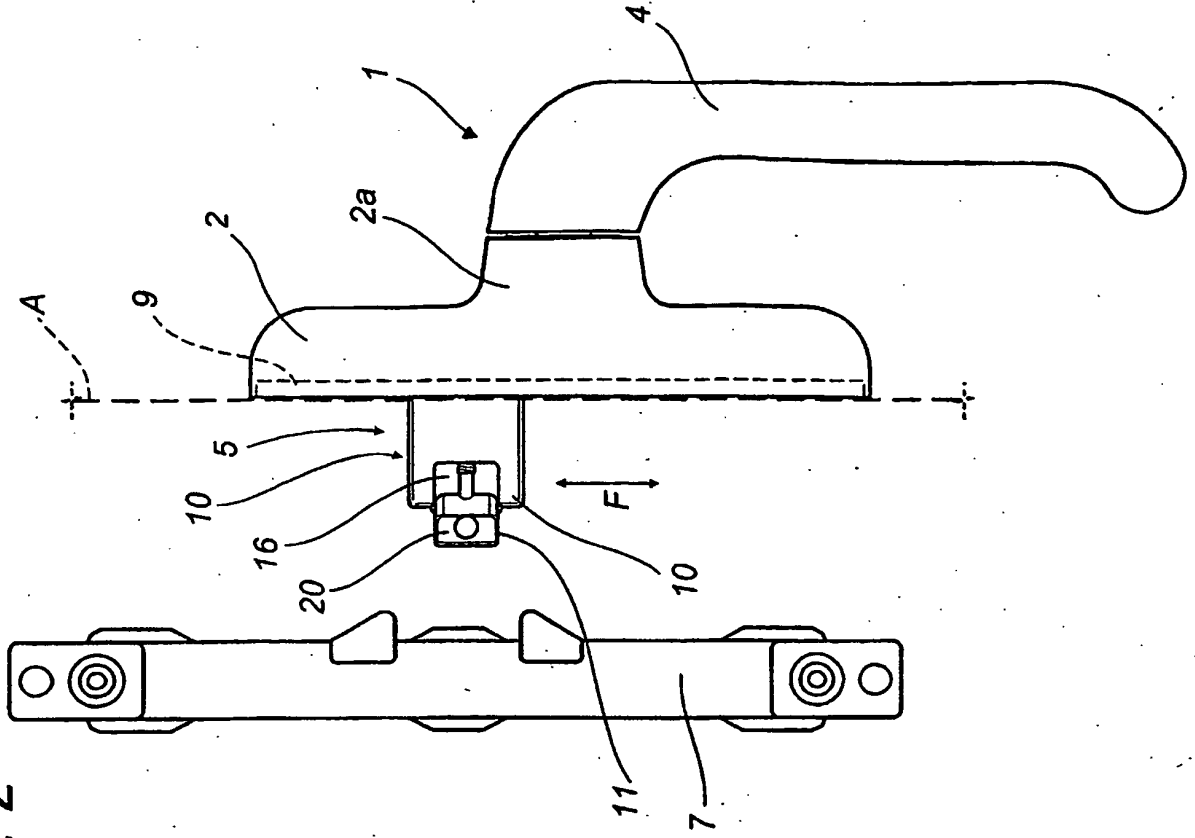


FIG. 1

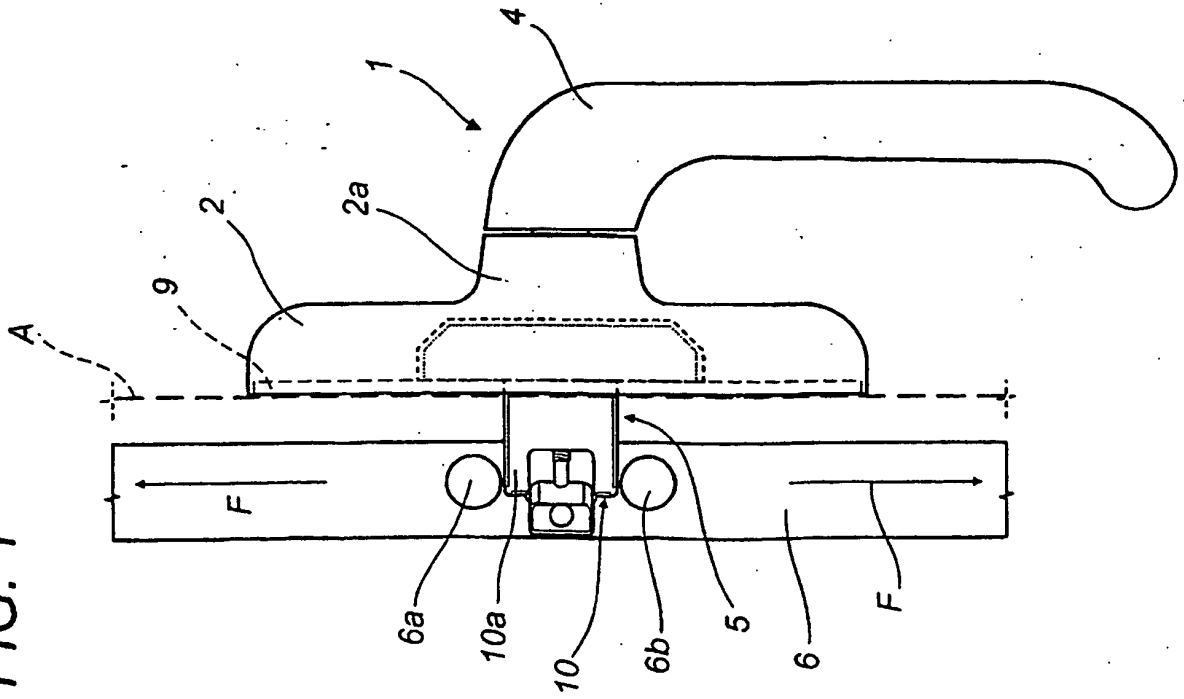


FIG. 3

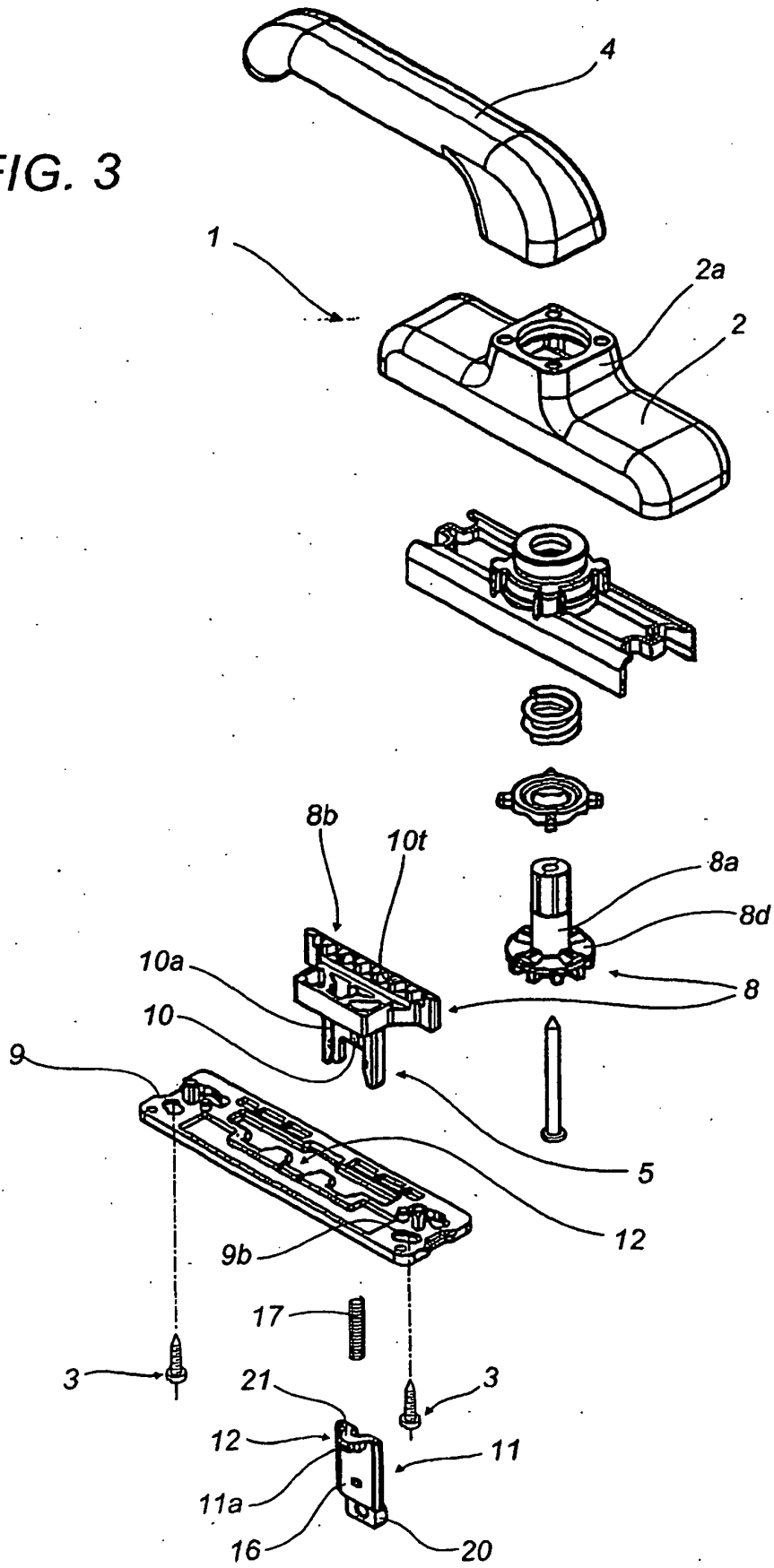


FIG. 4

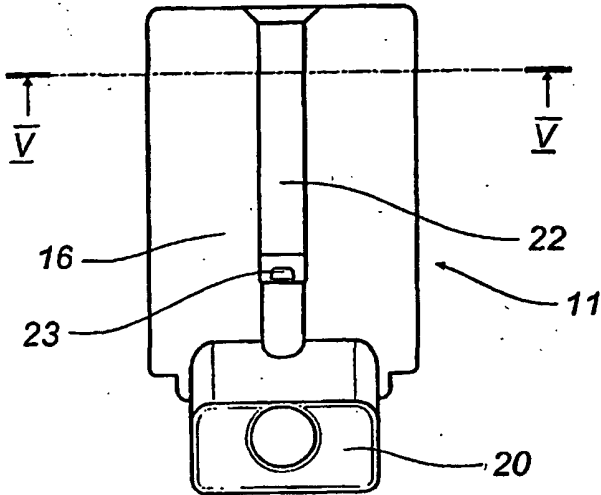


FIG. 5

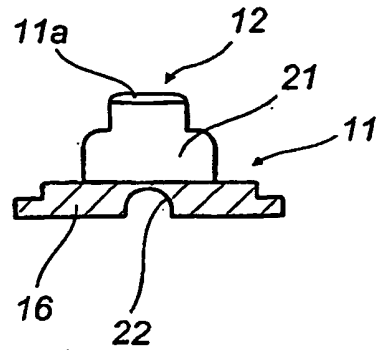


FIG. 6

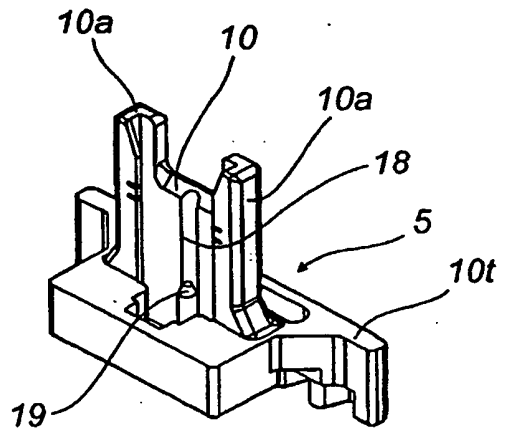


FIG. 7

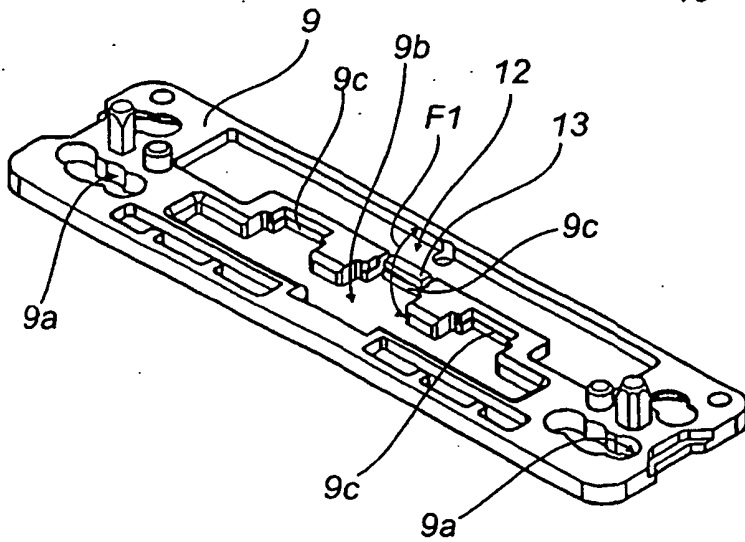


FIG. 9

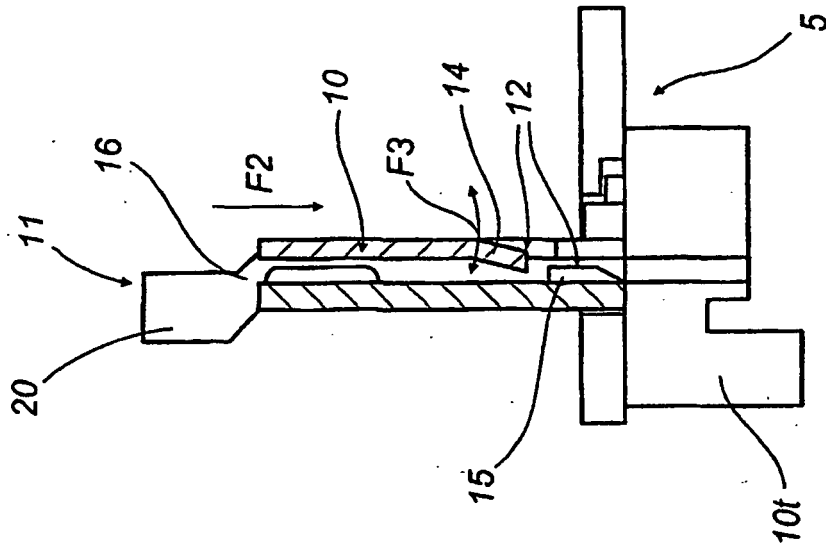


FIG. 8

