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(54) A SCREENING ARRANGEMENT WITH IMPROVED CONNECTING MEANS FOR TRANSVERSE ELEMENTS TO A SIDE RAIL

(57) A screening arrangement (1) for a window, in particular a roof window, having a supply condition and a condition of use, the screening arrangement defining, in the condition of use, a first longitudinal direction, and a second longitudinal direction, and a screening plane substantially parallel to a plane defined by the first and second directions, the screening arrangement comprising two operating elements (71, 72) extending in the first direction a screening body (61) extending, in the condition of use, substantially in the screening plane between the two operating elements (71, 72), two side rails (8, 9), each extending, in the condition of use, in the second direction, each side rail (8, 9) having a track including a hollow interior (81) and an access slot (82) extending between a first flange (84) and a second flange (83), a plurality of transverse elements (64) having two opposite ends and extending, in the condition of use, in the first direction and being connected to the screening body (61), and a plurality of connecting devices (5) connecting, in the condition of use, said plurality of transverse elements (64) with a respective side rail (8, 9), each connecting device (5) including a connecting clip (51) having at least one rigid L-shaped tab (511, 512) and at least one resilient tab (513).

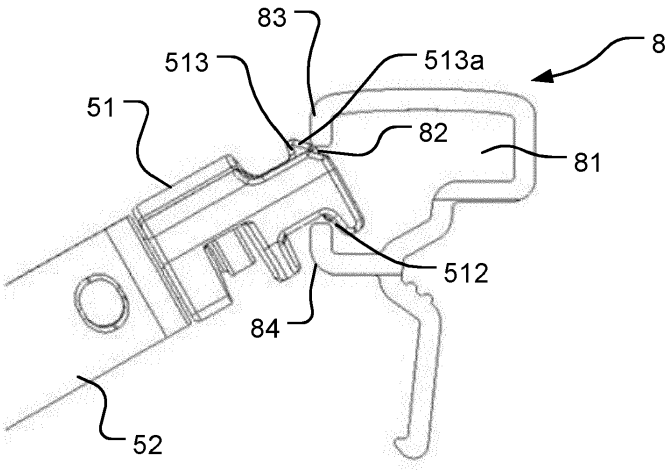

Fig. 14

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Description

[0001] The present invention relates to a screening arrangement for a window, in particular a roof window, having a supply condition and a condition of use, the screening arrangement defining, in the condition of use, a first longitudinal direction, and a second longitudinal direction, and a screening plane substantially parallel to a plane defined by the first and second directions, the screening arrangement comprising: two operating elements extending in the first direction, a screening body extending, in the condition of use, substantially in the screening plane between the two operating elements; two side rails, each extending, in the condition of use, in the second direction, each side rail having a track including a hollow interior and an access slot extending between a first flange and a second flange, a plurality of transverse elements having two opposite ends and extending, in the condition of use, in the first direction and being connected to the screening body, and a plurality of connecting devices connecting, in the condition of use, said plurality of transverse elements with a respective side rail, each connecting device including a connecting clip having at least one rigid L-shaped tab and at least one resilient tab. The invention furthermore relates to a window frame comprising a screening arrangement, and to a method of mounting a screening arrangement in a window frame.

[0002] Such screening arrangements including screening devices in the form of blinds are traditionally used for screening an aperture of a building structure, most often the light-admitting aperture of windows, but also of doors and other building openings. The blinds are either installed to extend substantially vertically in a building façade, or in an obliquely positioned roof window installed in an inclined surface, or as a horizontally extending cover for openings in a horizontal surface. When not screening the aperture, the screening body is normally rolled or folded up and gathered at a top element.

[0003] Connection between the screening body and head or side rails may be carried out in a number of manners. Examples of prior art connecting devices are shown in DE1911449A1, DE102006001157A1, GB2359480A, EP2286697B1 and DE202010003220U1. Further examples are shown in for instance DE 3631919 A1, GB 1554159 A and DE 4323993 A1.

[0004] In particular in roof windows installed in an inclined surface, the screening arrangement may be provided with means to prevent the screening body from hanging into the room, together with guiding means for guiding the screening arrangement during operation. Example of such means could be provided by side rails, which also serve as guidance for the end edges of the screening body itself, or of end elements connected to the screening body. In addition, the side rails provide additional darkening in the case of black-out blinds.

[0005] However, the provision of the side rails complicates the installation of the screening arrangement, in particular in such cases where the order of mounting the components is important. This applies i.a. to screening arrangements including a so-called Roman blind, in which the screening body is made from a flexible cloth including a number of pockets each with a stiffening transverse element, the ends of which are guided by the side rails via the connecting devices. Furthermore, the mere fact that two connecting devices need to be connected to the two opposing side rails renders the installation more difficult. Eventually, as the operation of the screening arrangement in the condition of use must be able to be carried out smoothly, particular requirements to the connecting device are posed as well, thus ruling out engagement with the track based on friction forces.

[0006] Another factor that complicates the installation in inclined window frames is that as opposed to the above-mentioned examples, in which connecting devices connect vertically hanging screening bodies, gravity acts to firstly counteract stable engagement with the track, and secondly moves the connecting devices downwardly in the track.

[0007] As such screening arrangements are provided in a supply condition, and the person performing the installation is most often not a craftsman, the mounting of the screening arrangement in the window frame, i.e. either a stationary frame or sash, or an openable sash, must be able to be carried out without too many difficulties and with a low risk of erroneous installation.

[0008] With this background it is an object to provide a screening arrangement, by which the installation process is facilitated, while at the same time providing ease of operation in the condition of use.

[0009] In a first aspect of the invention, this and further objects are met by a screening arrangement of the kind mentioned in the introduction, which is furthermore characterized in that each connecting clip is able to assume a first position, in which the at least one L-shaped tab is inserted into the hollow interior of said track and is in contact with the first flange while the resilient tab is outside the hollow interior, a second position, in which the at least one L-shaped tab is inserted into the hollow interior of said track and the resilient tab is in contact with the second flange and is biased, and a third position, in which the at least one L-shaped tab and the resilient tab are both inserted into the hollow interior of said track and the resilient tab is non-biased, and in that one connecting clip is connected to each end of each transverse element in the condition of use in such a manner that the connecting clips are able to move slightly in the first direction in the respective track.

[0010] In this manner, the connecting devices are easily connected to the side rails. The tabs of the connecting device need not be handled manually, as the bias entails that the resilient tab of the connecting clip resumes its non-biased condition when going from the second to the third position. Furthermore, the connecting device provides for at least temporary retention in the respective track when in the third position, until the respective trans-

verse element is connected to the connecting clips, thereby providing stability in the first direction; however still with the possibility of allowing slight back and forth movement of the connecting clips in the tracks in the first direction, thus ensuring easy operation of the screening arrangement in the condition of use.

[0011] Preferred embodiments of the screening arrangement are stated in claims 2 to 14.

[0012] In a second aspect of the invention, a window frame comprising a screening arrangement is provided as stated in claim 15.

[0013] In a third aspect of the invention is provided a method of mounting a screening arrangement in a window frame as stated in claim 16.

[0014] The advantages of the second and third aspects of the invention and further developed embodiments also applicable to the second and third aspects of the invention have been explained in the above description, and reference is made thereto.

[0015] Further details are described, and further advantages stated, in the description of particular embodiments of the invention.

[0016] In the following the invention will be described in further detail by means of examples of embodiments with reference to the schematic drawings, in which

Fig. 1 is a perspective view of a window frame with a screening arrangement in an embodiment of the invention;

Fig. 2 is a front view of a window frame with details of a screening arrangement in an embodiment of the invention;

Fig. 3 is a perspective view of details of a screening arrangement in an embodiment of the invention;

Fig. 4 is a partial perspective view, on a larger scale, of a window and details of a screening arrangement in an embodiment corresponding to Fig. 2;

Figs 5a to 5c are views corresponding to Fig. 4 and showing the window and details of a screening arrangement in an embodiment corresponding to Fig. 2, in three different positions;

Fig. 6 is a partial perspective view, on a larger scale, of a window and details of a screening arrangement in an embodiment corresponding to Fig. 2;

Figs 7 to 9 show a window and details of a screening arrangement in an embodiment corresponding to Figs 2 and 3, in three different positions;

Fig. 10 shows a partial perspective view, on a larger scale, of details of the screening arrangement of the embodiment of Figs 7 to 9;

Figs 11 to 13 are perspective views, on a still larger scale, of the details shown in Fig. 10; and

Figs 14 and 15 show schematic side views of the details of Fig. 10 in cooperation with a side rail.

[0017] Fig. 1 shows an embodiment of a screening arrangement 1 according to the invention mounted in a window frame generally designated 2 and representing a window. In the embodiment shown, window frame 2 is an openable sash adapted to be mounted in a stationary frame to be installed in an inclined roof surface. It is noted that the terms "sash" or "frame" is to be understood as incorporating any substantially rectangular structure positioned in any opening in a building, whether in a wall or the roof, and surrounding an aperture to be screened.

[0018] As shown in Fig. 2, the window frame 2 is substantially rectangular and has a top piece 21, two side pieces 22, 23 and a bottom piece 24. Fig. 2 also shows some components of the screening arrangement 1 in one stage of the installation process, i.e. between a supply condition and a condition of use. The screening arrangement defines, in the condition of use, a first longitudinal direction, and a second longitudinal direction, and a screening plane substantially parallel to a plane defined by the first and second directions. The longitudinal direction of the top and bottom pieces 21, 24 corresponding to a width direction of the window frame is parallel to the first direction, and the longitudinal direction of the side pieces 22, 23 corresponding to a height direction is parallel to the second direction. The terms "left-hand" and "right-hand" refer to the orientation shown in for instance Figs 1 and 2, and are utilized for reasons of convenience only. Similarly, the terms "front" and "back" are utilized to denote the sides of the screening arrangement 1, "front" being the side intended to face inwards into the interior of a building, and "back" the outwards facing side. The terms "upper" and "lower" refer to the orientation of the screening arrangement installed in a frame, where "upper" refers to the top piece of the frame and "lower" refers to the bottom piece of the frame.

[0019] Fig. 3 shows other components of the screening arrangement 1 in one stage of the installation process, i.e. between a supply condition and a condition of use, viz. a screening device 6 comprising a screening body 61 and a plurality of transverse elements 64, of which one is shown as being connected to the screening body 61.

[0020] In the embodiment shown, the screening arrangement 1 is a Roman blind and the screening body 61 is made from a flexible cloth including a number of pockets 62 with openings 63 (cf. Fig. 7), each for reception of one transverse element 64 of said plurality of transverse elements. In the embodiment shown, the openings 63 of the pockets 62 are positioned on the back side of the screening body 61. The screening body could be provided with other means for receiving the transverse elements, such as for example being provided with integrated pockets in the screening body or for example loops.

[0021] The screening arrangement 1 comprises two operating elements 71, 72 extending in the first direction. The operating elements 71, 72 are adapted to act as handles in the condition of use, during operation of the screening arrangement 1, i.e. when moving the operating elements 71, 72 and hence the screening body 61 between a non-screening position and a screening position, in which the screening body 61 covers the sash or frame

aperture partly or fully. The operating elements 71, 72 are formed in any suitable manner, for instance as extruded profile elements of a suitable material such as aluminium.

[0022] The screening body 61 extends, in the condition of use, substantially in the screening plane between the two operating elements 71, 72.Two side rails 8, 9 are provided, each extending, in the condition of use, in the second direction, at the left-hand and the right-hand, respectively, of side piece 22, 23 of the window frame 2. The side rails 8, 9 are formed by suitable means and materials, such as extruded profiles of aluminium and are connected to respective side pieces with fastening means such as screws and/or brackets to be described in further detail below.

[0023] As a preferred embodiment of the invention, the screening arrangement comprises a cord system comprising two cords 91, 92, one cord being adapted to extend from the left-hand lower corner of the sash or frame, up through or along the operating elements 71, 72 and further up to the top piece 21 of the window frame 2. The other cord is routed in a mirror-inverted manner. At the respective operating elements 71, 72, each cord is connected with a cord tightening device which is described in further detail in Applicant's co-pending application filed on the same date as the present application. The cord tightening devices entail that the cords are held suitably tight all the time during use, thereby ensuring that the operating elements 71, 72 at all times are kept substantially in parallel with the top and bottom pieces of the window frame, and makes it possible to retain the operating elements 71, 72 in an arbitrary position measured in the second direction, i.e. along the side pieces 22, 23 of the window frame 2.

[0024] Eventually, Fig. 2 shows a transportation and mounting fitting 25 which acts as retaining means for the operating elements 71, 72 and the cord system in the supply condition, and also has a function during the mounting of the screening arrangement 1 in the window frame 2 as illustrated in Figs 4, 5a to 5c, and 6. The transportation and mounting fitting 25 is connected to a mounting bracket 15 fastened to the side pieces 22, 23 of the window frame 2 to hold the operating elements 71, 72 in the correct position temporarily. Details of the transportation and mounting fitting 25 and the mounting thereof are described in further detail in one of Applicant's co-pending applications filed on the same date as the present application.

[0025] Figs 7 to 9 show further overviews of stages of installation of the screening arrangement, and attention is brought to a plurality of connecting devices 5 connecting, in the condition of use, the transverse elements 64 with a respective side rail 8, 9. The screening body 61 is at a first end edge 65 and a second end edge 66 provided with fastening means for fastening to a respective operating element 71, 72. These fastening means are releasable in the described embodiment, for instance Velcro, but other fastening techniques are conceivable.

[0026] Although the screening arrangement of the embodiments shown comprise one screening device having two operating elements, other configurations are conceivable. For instance, there may be more than two operating elements.

[0027] Details regarding the connecting devices 5 and the cooperation with the transverse elements 64 on one hand and the side rails 8, 9 on the other will be described with reference to the detailed drawings of Figs 10 to 15.

[0028] As shown most clearly in Figs 14 and 15, each side rail 8, 9 has a track including a hollow interior 81 and an access slot 82 extending between a first flange 84 and a second flange 83. The flanges 84, 83 are located in the same plane in the embodiment shown. This plane has an extension substantially perpendicular to the screening plane.

[0029] In the embodiment shown, each connecting device 5 includes a connecting clip 51 having at least one rigid L-shaped tab, here two L-shaped tabs 511, 512 and at least one resilient tab, here one resilient tab 513. The resilient tab 513 is substantially T-shaped in the present embodiment.

[0030] The dimensions of the L-shaped tabs 511, 512 are chosen such that the width of the tabs exceeds the size of the access slot 82.

[0031] The resilient tab 513 is formed such that one leg of the T-shape is shorter than the other.

[0032] Together, the L-shaped tabs 511, 512 and the resilient T-shaped tab 513 form a T when seen from the side (cf. Fig. 15).

[0033] When mounting the connecting clips 51, a distinct "click" is heard when the connecting clip 51 has reached its intended position and the heads of the L-shaped tabs 511, 512 and the resilient tab 513 are retained in the side rail 8, 9.

[0034] As is apparent from Fig. 11, the connecting device 5 furthermore includes an end member 52 which is connected to a respective end of the transverse element 64. The end member 52 is provided with a first engagement means 521, 522 for releasable engagement with corresponding engagement means of the connecting clip 51, said first engagement means being provided in the form of a recess 521 and a head 522 for cooperation with a receiving slot 516 of the connecting clip 51. In principle, at least one of the connecting clips 51 for connection with one transverse element 64 could be connected with the transverse element directly and/or the end member 52 could be made an integral part of the connecting clip 51.

[0035] Additionally or alternatively, the end member 52 is as shown provided with a second engagement means 520, 524 for releasable engagement with the transverse element 64. In its simplest form, the second engagement means is provided by including a hollow main body 520 of the end member 52 to match the transverse element 64. For instance, in a transverse element 64 having a circular cylindrical shape, the hollow main body has an internal diameter corresponding substantially to the outer diameter of the transverse element 64. In order to secure

that the end member 52 and the transverse element 64 do not move relative to each other, a locking tongue 524 is provided, preferably as shown here provided in an aperture 523. The locking tongue 524 may provide either positive or non-positive engagement with the transverse element 64.

[0036] As shown in Figs 12 and 13, the connecting clip 51 has a main portion 510 and an upstanding wall 515 from which the L-shaped tabs 511, 512 and the resilient tab 513 protrude in a direction away from the transverse element 64 in the mounted condition.

[0037] Furthermore, in the shown embodiment incorporating two L-shaped tabs 511, 512, the resilient tab 513 is positioned between the two L-shaped tabs 511, 512, but other numbers of tabs and other configurations are conceivable.

[0038] In order to facilitate the connecting process, the resilient tab 513 has an inclined surface 513a at one side of the resilient tab 513 facing away from the L-shape of the L-shaped tab or tabs 511, 512, and to ensure proper contact with the interior side of the second flange 83, the resilient tab 513 has a hook portion 513b, located opposite the inclined surface 513a.

[0039] The receiving slot 516 of the connecting clip 51 is in the embodiment shown positioned on the other side of the upstanding wall 515 than the at least one L-shaped tab 511,512 and the resilient tab 513.

[0040] Furthermore, the connecting clip 51 is provided with an inclined surface 517a, 517b on at least one side of the receiving slot 516, which facilitates the mutual connection between the connecting clip 51 and the end member 52, as the recess 521 is safely guided into the slot 516. The opening of the slot 516 may be the same size or slightly smaller than the diameter of the recess 521 in order to ensure a reliable engagement.

[0041] The end member 52 is thus secured from moving relative to the connecting clip 51 in the first direction as the head 522 abuts the upstanding wall 515 on one side and the end face next to the slot 516 on the other, whereas rotation between the end member 52 and the transverse element 64 is possible and foreseen during operation of the screening arrangement 1.

[0042] It is essential for the proper functioning of the screening arrangement 1 that there is enough room for opposite connecting clips 51 to move in the first direction in the track formed by the hollow interior 81, the access slot 82 and first and second flanges 84, 83. Thus, each connecting clip 51 is connected to each end of each transverse element 64 in the condition of use in such a manner that the connecting clips 51 are able to move slightly in the first direction in the respective track. By "slightly", the person skilled in the art will appreciate that such dimensions are chosen and measures taken that ensure proper functioning.

[0043] In order to increase the ease of operation, the two L-shaped tabs 511, 512 and the resilient tab 513 form, as shown in Fig. 15, a neck portion including opposing restriction C sections having such dimensions that there is a clearance at the neck portion in the access slot 82, i.e. also in the plane parallel to the first and second flanges 84, 83.

[0044] In principle, the tracks in the side rails 8, 9 could have any suitable configuration and be oriented for instance facing the back side of the respective side rail. However, the access slots 82 of tracks in the respective side rails 8, 9 advantageously face each other in the mounted condition and the first and second flanges 84, 83 are substantially perpendicular to the screening plane.

[0045] As will be described in further detail with particular reference to Figs 14 and 15, each connecting clip 51 is able to assume

- a first position, in which the at least one L-shaped tab 511, 512 is inserted into the hollow interior 81 of said track and is in contact with the first flange 84 while the resilient tab 513 is outside the hollow interior 81,
- a second position, in which the at least one L-shaped tab 511, 512 is inserted into the hollow interior 81 of said track and the resilient tab 513 is in contact with the second flange 83 and is biased, and
- a third position, in which the at least one L-shaped tab 511, 512 and the resilient tab 513 are both inserted into the hollow interior 81 of said track and the resilient tab 513 is non-biased.

[0046] In the following, the installation process of the screening arrangement will be described with a focus on the connection of the connection devices to the side rails 8, 9.

[0047] The screening arrangement is provided in a supply condition, comprising two operating elements 71, 72, a screening body 61, two side rails 8, 9, each having a track including a hollow interior 81 and an access slot 82 extending between a first flange 84 and a second flange 83, a plurality of transverse elements 64 having two opposite ends, and a plurality of connecting devices 5, each connecting device 5 including a connecting clip 51 having at least one rigid L-shaped tab 511, 512 and at least one resilient tab 513.

[0048] In the presently presented embodiment, the operating elements 71, 72 and the cord systems represented by cords 91, 92 are held together by means of transportation and mounting fitting 25. Thus, the step of connecting the operating elements 71, 72 to the side pieces 22, 23 of the window frame is here carried out by threading the transportation and mounting fitting 25 over the mounting bracket 15 at both sides, i.e. at the upper end of the respective side piece 22, 23.

[0049] Subsequently, the side rails 8, 9 are connected with the operating elements 71, 72 and to the side pieces 22, 23 of the window frame.

[0050] In the present embodiment, this is carried out as shown in Figs 5a to 5c, by inserting the side rail 9 over the transportation and mounting fitting 25 and sliding the side rail upwards until the upper end thereof it reaches,

or is at least positioned next to, the top piece 21 of the window frame 2. The lower end of the side rail 9 is brought into engagement with a bracket 93. The cord systems are fastened as well. The fastening of the side rails 8, 9 to the respective side piece 22, 23 may be supplemented by additional fastening means such as screws.

[0051] The screening device 6 is prepared by connecting the transverse elements 64 to the screening body 61 by introducing each transverse element 64 into a pocket 62 through the opening 63 which may be provided in one or both sides of the pocket.

[0052] Before starting the step of connecting the connecting devices 5 to the side rails 8, 9 it is advantageous that the operating elements 71, 72 are kept at a distance from each other to make room for the connecting devices 5. Typically, the distance is 20-25 cm but may depend on the number of connecting devices 5, which may typically be 5 to 10 in each side.

[0053] The connecting devices 5 are connected with the side rails 8, 9 such that one half of the connecting devices are connected to one side rail 8, and the other half to the other side rail 9, between the operating elements 71, 72 in either side. The connection is made feasible by the features presented in the above, and the procedure is hence the following:

- bringing each connecting clip 51 at an angle to the side rail 8, 9 and inserting the at least one L-shaped tab 511, 512 through the access slot 82 into the hollow interior 81 of said track and into contact with the interior side of the first flange 84 while the resilient tab 513 is outside the hollow interior 81 to attain a first position,
- bringing the resilient tab 513 into contact with the exterior side of the second flange 83 and biasing the resilient tab 513 to attain a second position, and
- inserting the resilient tab 513 through the access slot 82 and allowing the resilient tab 513 to return to its non-biased condition to attain a third position.

[0054] It is noted that the first position is shown substantially in Fig. 14. The angle will typically lie in the interval 30 to 45° with a line parallel to the first direction. To attain the second position, the connecting clip 51, in this embodiment with the end member 52 already engaged, is rotated slightly in the clock-wise direction about a point of rotation located approximately at the edge of the first flange 84. Once the third position has been reached, i.e. the position shown in Fig. 15, and at least temporary retention of the connecting clip 51 in the track has been achieved.

[0055] Following the connection of all connecting devices 5 with the side rails 8, 9 between the lower and the upper operating elements 72 and 71, the transverse elements 64 are connected with the connecting devices 5.

[0056] Finally, the screening body 61 is connected with the operating elements 71, 72, here by fastening the first and second end edges 65, 66 to the respective operating element 71, 72.

[0057] A handle (not shown) may be connected to one of or both operating elements 71, 72 before the screening body 61 is connected to the operating elements 71, 72. Such a handle may for instance be an angular bracket which is snapped on to the operating element.

[0058] The invention should not be regarded as being limited to the described embodiments. Several modifications and combinations of the different embodiments will be apparent to the person skilled in the art.

Claims

1. A screening arrangement (1) for a window, in particular a roof window, having a supply condition and a condition of use, the screening arrangement defining, in the condition of use, a first longitudinal direction, and a second longitudinal direction, and a screening plane substantially parallel to a plane defined by the first and second directions, the screening arrangement comprising:

two operating elements (71, 72) extending in the first direction,
a screening body (61) extending, in the condition of use, substantially in the screening plane between the two operating elements (71, 72);
two side rails (8, 9), each extending, in the condition of use, in the second direction, each side rail (8, 9) having a track including a hollow interior (81) and an access slot (82) extending between a first flange (84) and a second flange (83),
a plurality of transverse elements (64) having two opposite ends and extending, in the condition of use, in the first direction and being connected to the screening body (61), and
a plurality of connecting devices (5) connecting, in the condition of use, said plurality of transverse elements (64) with a respective side rail (8, 9), each connecting device (5) including a connecting clip (51) having at least one rigid L-shaped tab (511, 512) and at least one resilient tab (513),
characterized in that each connecting clip (51) is able to assume

- a first position, in which the at least one L-shaped tab (511, 512) is inserted into the hollow interior (81) of said track and is in contact with the first flange (84) while the resilient tab (513) is outside the hollow interior (81),
- a second position, in which the at least one L-shaped tab (511, 512) is inserted into the hollow interior (81) of said track and the resilient tab (513) is in contact with the second

flange (83) and is biased, and
- a third position, in which the at least one L-shaped tab (511, 512) and the resilient tab (513) are both inserted into the hollow interior (81) of said track and the resilient tab (513) is non-biased,

and **in that** one connecting clip (51) is connected to each end of each transverse element (64) in the condition of use in such a manner that the connecting clips (51) are able to move slightly in the first direction in the respective track.

2. A screening arrangement according to claim 1, wherein said connecting device (5) furthermore includes an end member (52) which is connected to a respective end of the transverse element (64).

3. A screening arrangement according to claim 2, wherein the end member (52) is provided with a first engagement means (521, 522) for releasable engagement with corresponding engagement means of the connecting clip (51), said first engagement means being preferably in the form of a recess (521) and a head (522) for cooperation with a receiving slot (516) of the connecting clip (51).

4. A screening arrangement according to claim 2 or 3, wherein the end member (52) is provided with a second engagement means (520, 524) for releasable engagement with the transverse element (64), said second engagement means preferably including a hollow main body (520) of the end member (52) and a locking tongue (524), preferably provided in an aperture (523).

5. A screening arrangement according to any one of the preceding claims, wherein the connecting clip (51) has a main portion (510) and an upstanding wall (515) from which the at least L-shaped tab (511, 512) and the resilient tab (513) protrude in a direction away from the transverse element (64) in the mounted condition.

6. A screening arrangement according to claim 5, wherein two L-shaped tabs (511, 512) are provided and the resilient tab (513) is positioned between the two L-shaped tabs (511, 512).

7. A screening arrangement according to claim 5 or 6, wherein the resilient tab (513) has an inclined surface (513a) at one side of the resilient tab (513) facing away from the L-shape of the L-shaped tab or tabs (511, 512), preferably also a hook portion (513b).

8. A screening arrangement according to any one of claims 3 to 4 and 5 to 7, wherein the receiving slot (516) of the connecting clip (51) is positioned on the other side of the upstanding wall (515) than the at least one L-shaped tab (511, 512) and the resilient tab (513).

9. A screening arrangement according to any one of claims 3 to 4 and 5 to 8, wherein the connecting clip (51) is provided with an inclined surface (517a, 517b) on at least one side of the receiving slot (516).

10. A screening arrangement according to any one of the preceding claims, wherein the at least L-shaped tab (511, 512) and the resilient tab (513), in the third position of the at least L-shaped tab (511, 512) and the resilient tab (513) of the connecting clip (51), form a neck portion including opposing restriction C sections having such dimensions that there is a clearance at the neck portion in the access slot (82).

11. A screening arrangement according to any one of the preceding claims, wherein the resilient tab (513) is substantially T-shaped.

12. A screening arrangement according to any one of the preceding claims, wherein the access slots (82) of tracks in the respective side rails (8, 9) face each other in the mounted condition and the first and second flanges (84, 83) are substantially perpendicular to the screening plane,

13. A screening arrangement according to any one of the preceding claims, wherein the screening arrangement is a Roman blind and the screening body (61) is made from a flexible cloth including a number of pockets (62) with openings (63), each for reception of one transverse element (64) of said plurality of transverse elements.

14. A screening arrangement according to claim 13, wherein the screening body (61) at a first end edge (65) and a second end edge (66) is provided with fastening means for fastening to a respective operating element (71, 72), the fastening means being preferably releasable.

15. A window frame comprising a screening arrangement according to any one of claims 1 to 14, wherein the window frame (2) includes a top piece (21), two side pieces (22, 23) and a bottom piece (24), and the longitudinal direction of the top and bottom pieces (21, 24) corresponding to a width direction of the window frame is parallel to the first direction, and the longitudinal direction of the side pieces (22, 23) corresponding to a height direction is parallel to the second direction.

16. A method of mounting a screening arrangement in a window frame including a top piece (21), two side

pieces (22, 23) and a bottom piece (24), comprising the steps of:

providing the screening arrangement in a supply condition, comprising two operating elements (71, 72), a screening body (61), two side rails (8, 9), each having a track including a hollow interior (81) and an access slot (82) extending between a first flange (84) and a second flange (83), a plurality of transverse elements (64) having two opposite ends, and a plurality of connecting devices (5), each connecting device (5) including a connecting clip (51) having at least one rigid L-shaped tab (511, 512) and at least one resilient tab (513),
connecting the operating elements (71, 72) to the side pieces (22, 23) of the window frame,
connecting the side rails (8, 9) with the operating elements (71, 72) and to the side pieces (22, 23) of the window frame,
connecting the transverse elements (64) to the screening body (61),
connecting the connecting devices (5) with the side rails (8, 9) such that one half of the connecting devices are connected to one side rail (8), and the other half to the other side rail (9), between the operating elements (71, 72) in either side,
connecting the transverse elements (64) with the connecting devices (5), and
connecting the screening body (61) with the operating elements (71, 72),
whereby the step of connecting the connecting devices (5) with the side rails (8, 9) is carried out by

- bringing each connecting clip (51) at an angle to the side rail (8, 9) and inserting the at least one L-shaped tab (511, 512) through the access slot (82) into the hollow interior (81) of said track and into contact with the interior side of the first flange (84) while the resilient tab (513) is outside the hollow interior (81) to attain a first position,
- bringing the resilient tab (513) into contact with the exterior side of the second flange (83) and biasing the resilient tab (513) to attain a second position, and

inserting the resilient tab (513) through the access slot (82) and allowing the resilient tab (513) to return to its non-biased condition to attain a third position.

Fig. 1

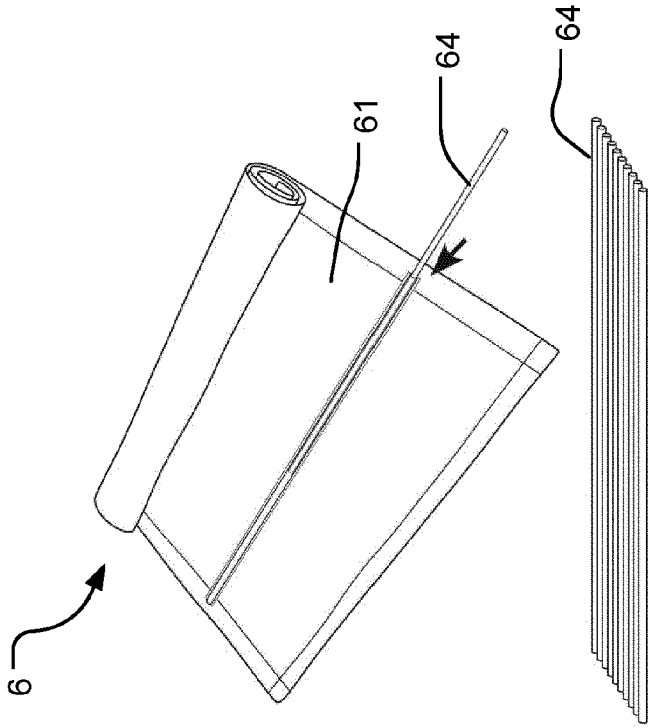

Fig. 3

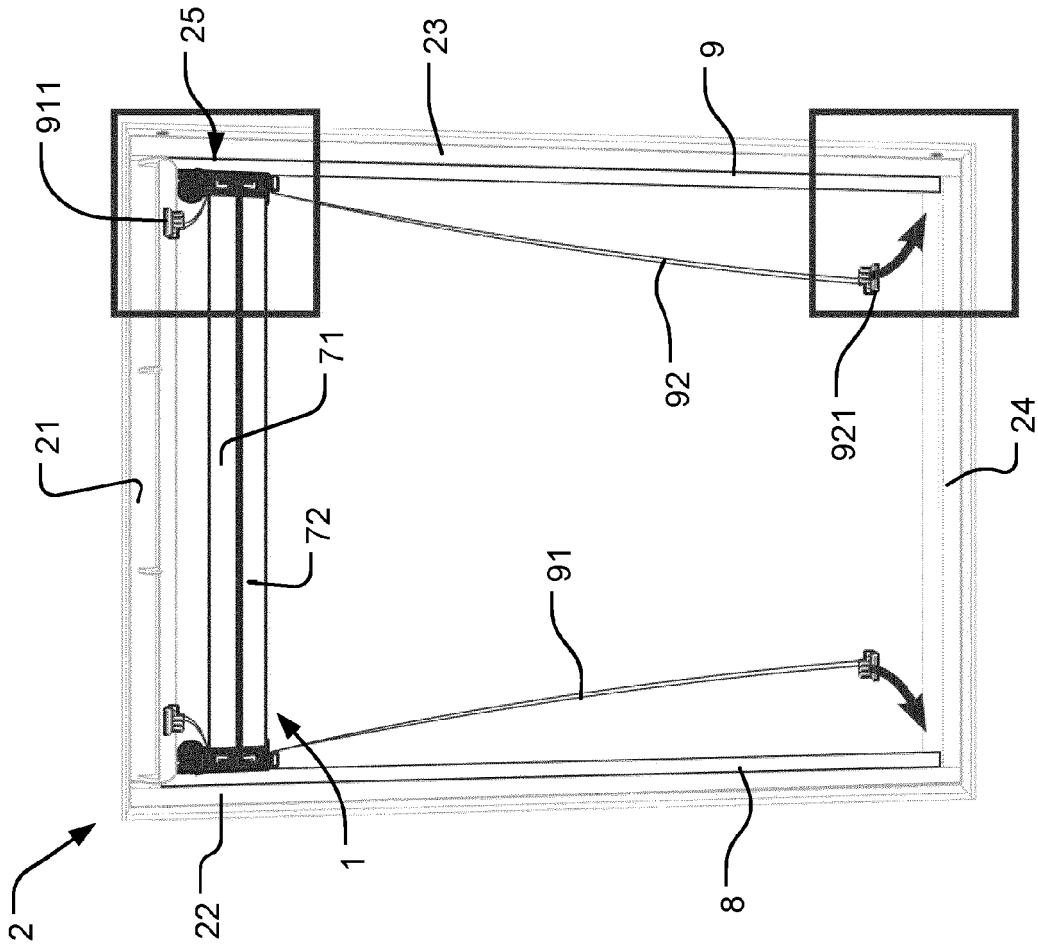

Fig. 2

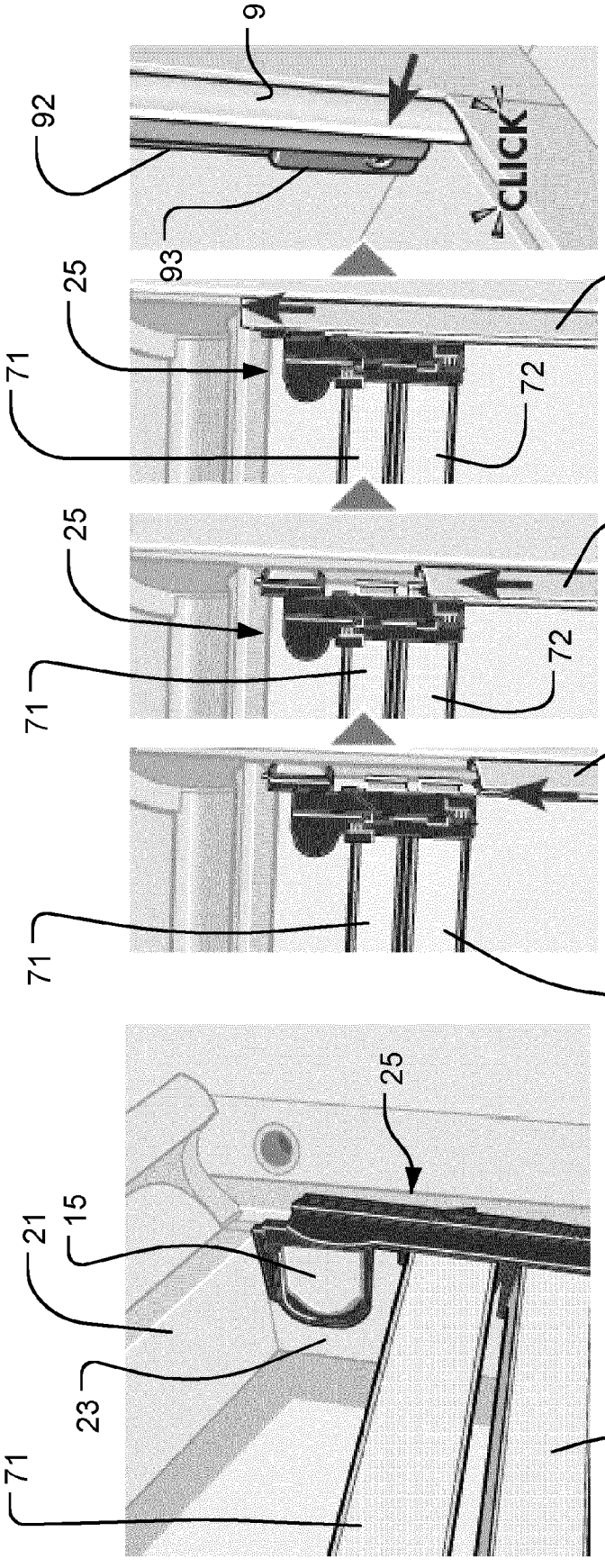

Fig. 6

Fig. 5c

Fig. 5b

Fig. 5a

Fig. 4

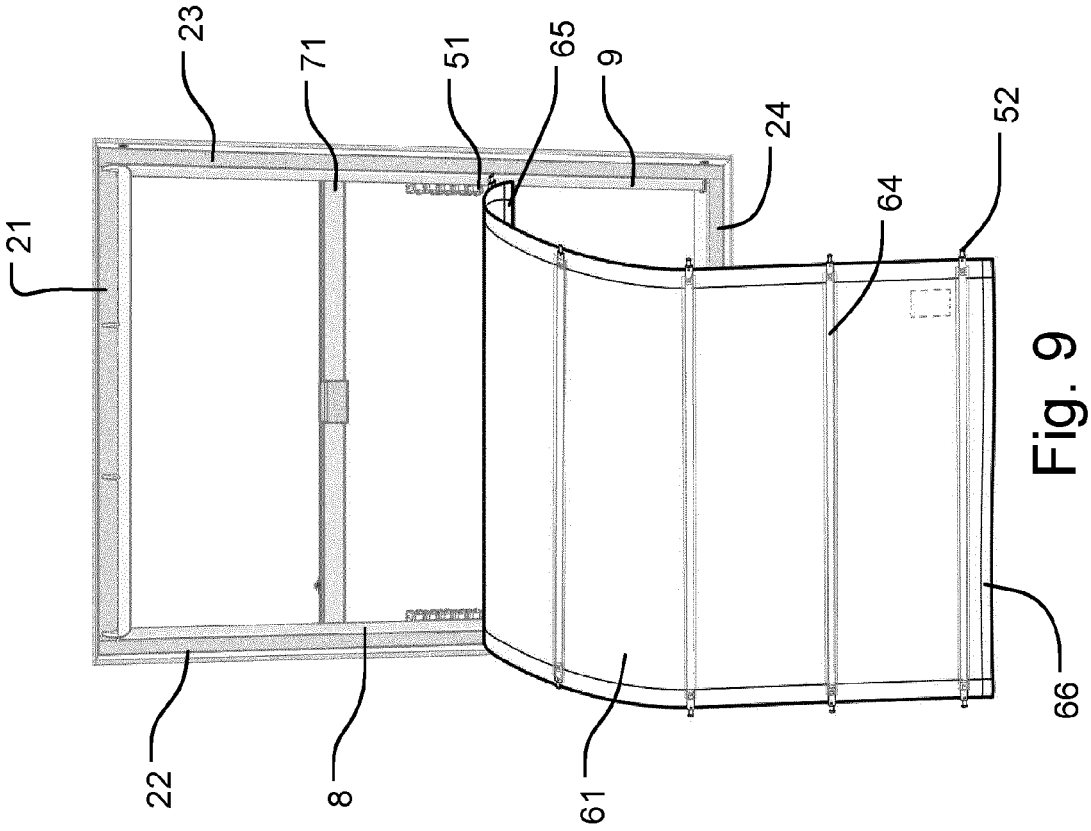

Fig. 9

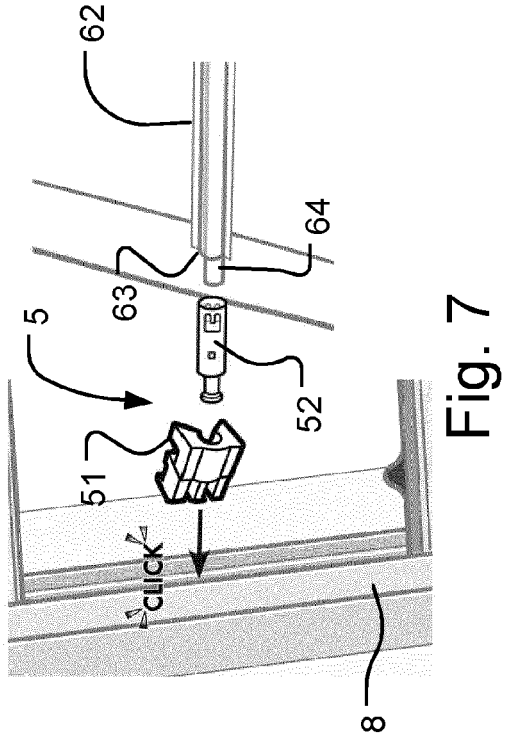

Fig. 7

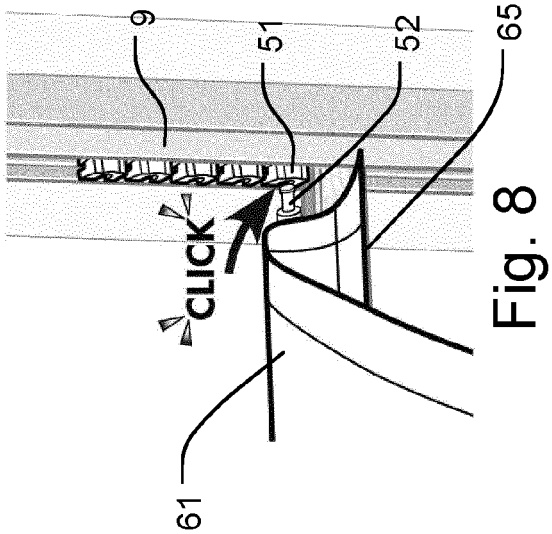

Fig. 8

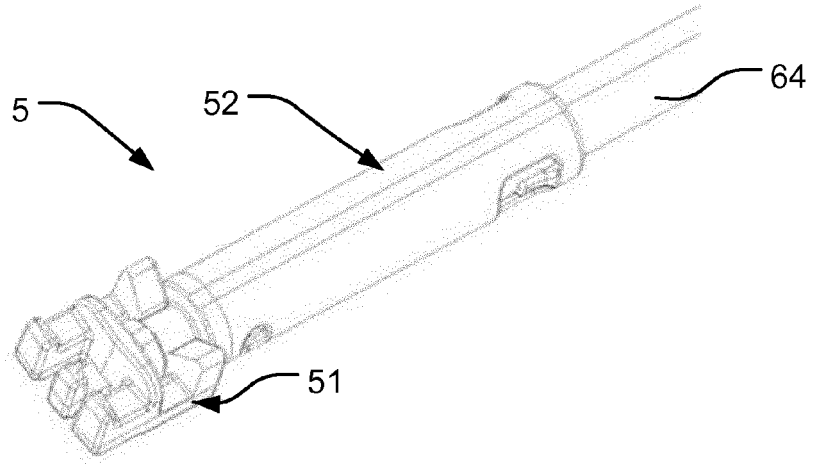

Fig. 10

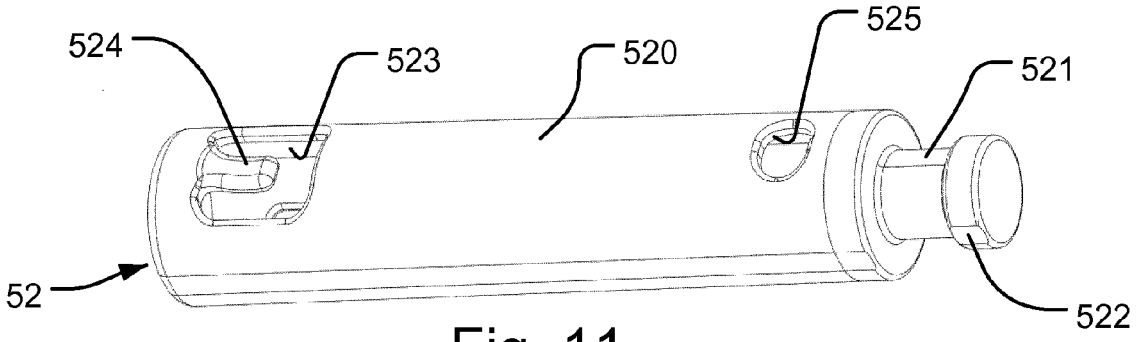

Fig. 11

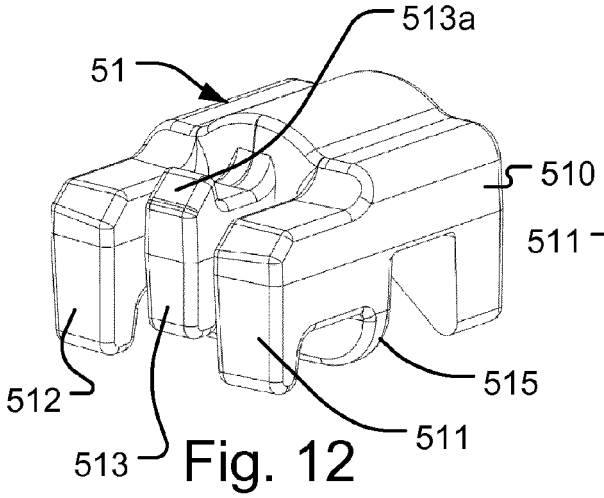

Fig. 12

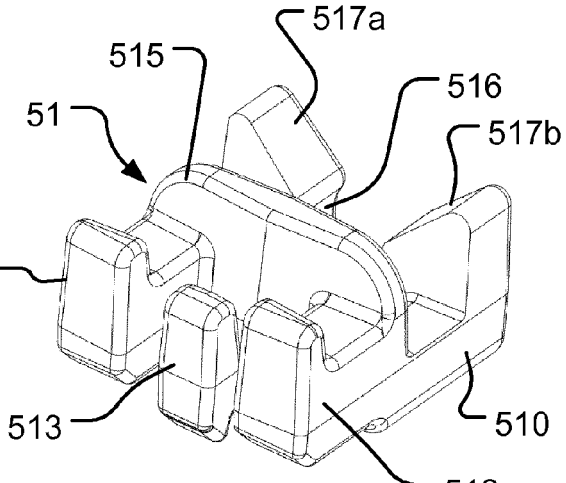

Fig. 13

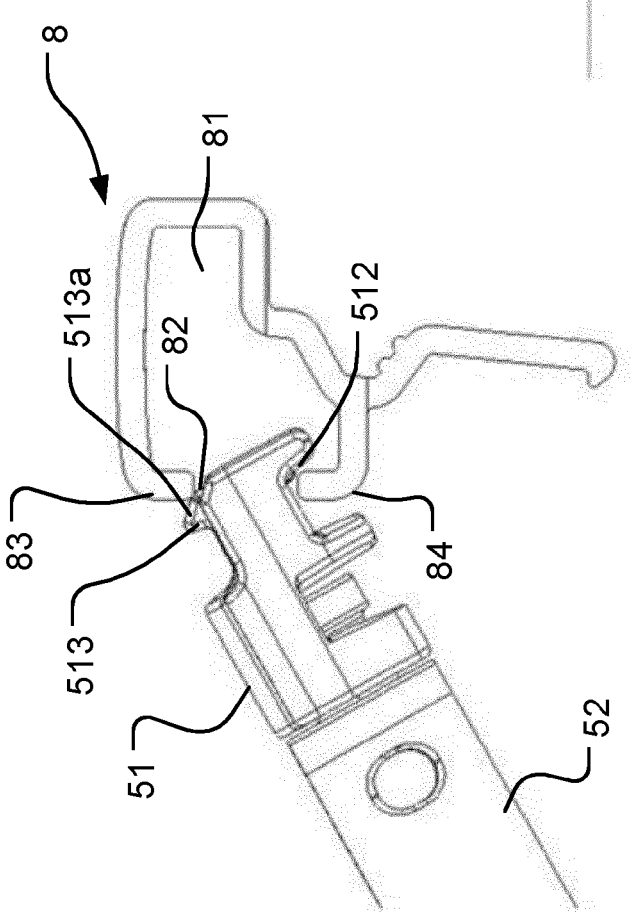

Fig. 14

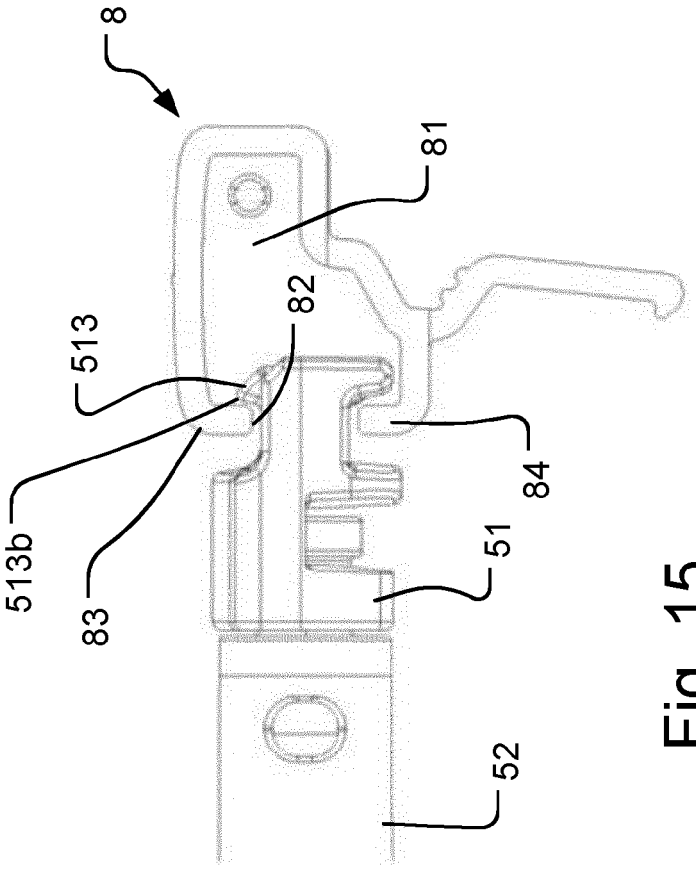

Fig. 15

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EUROPEAN SEARCH REPORT

Application Number
EP 15 17 0306

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E06B
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	10 December 2015	Kofoed, Peter

CATEGORY OF CITED DOCUMENTS

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