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(54) **BARRIER FOR A BED**

(57) Described herein is a barrier for a bed. The barrier is moveable between first and second positions, the first position for preventing an occupant of a bed from rolling out of a bed and the second position being a storage position. The barrier is securable in the first position by a securing means. When the barrier is in the first position the barrier is in an extended configuration and when the barrier is in the second position the barrier is in a compact configuration. The barrier comprises a locking means for locking the barrier in an extended configuration. The locking means is releasable by movement of the barrier from the first position to the second position.

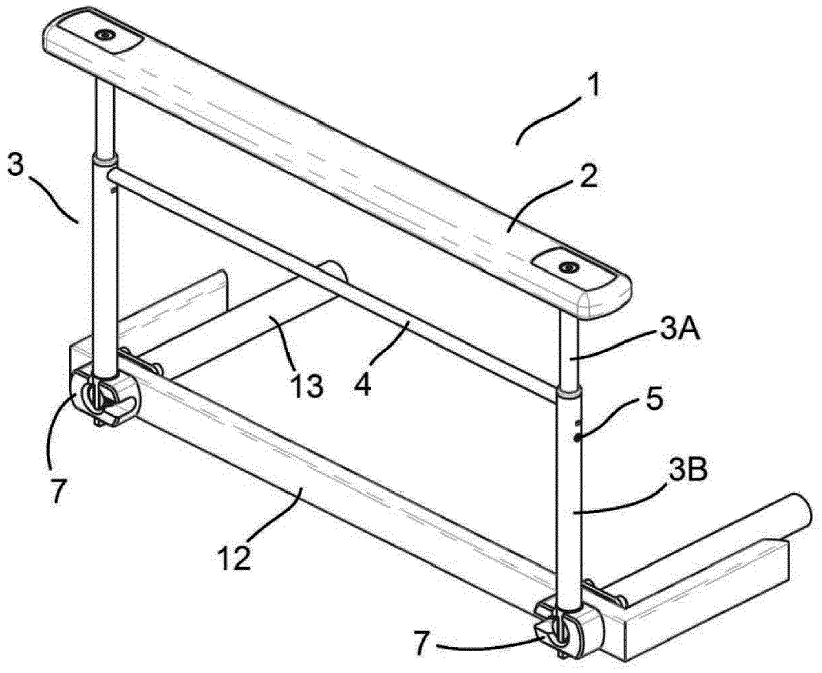

Fig 1A

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Description

[0001] The present invention relates to a barrier for a bed, in particular to a barrier in the form of a safety rail for preventing a patient rolling out of a hospital bed.

[0002] Various types of safety rail are known for use with hospital beds. Due to the need to frequently move patients in and out of bed, and also to administer care to a patient, it is highly desirable for safety rails to be moveable so that a patient can either exit the bed or so that a healthcare professional can gain access to the patient.

[0003] Traditionally, safety rails are provided at both sides of the bed and can be moved from an upper position for preventing a patient rolling out of the bed to a lower position allowing a patient to exit the bed. Various examples are known where the safety rail simply slides from the upper to lower position. However, this causes problems when in the lower position because the safety rail hinders access to the underside of the bed. This is especially problematic for beds which include controls under the bed, for example to allow the bed to be raised or lowered. In this case, if the safety rail is in the lower position the controls are not easily accessible.

[0004] It would, therefore, be desirable for the safety rail to be stowed under the bed in a horizontal rather than vertical orientation. With this in mind, safety rails are known that pivot and then slide under the mattress support of the bed so that they do not hinder access to the patient or exit of the patient from the bed, but at the same time, are out of sight and do not hinder access to the underside of the bed. However, the mechanisms by which these safety rails operate are complicated and cumbersome. This is especially compounded by the need for the safety rails to at least partially collapse in order for safety rails from each side of the bed to fit under the mattress support at the same time and in order that the safety rails take up as little space as possible when in a stowed position. This means that in order to move the safety rail from the upper position, a number of steps have to be performed. For example, the safety rail must be collapsed, rotated and then slid under the mattress support. The mechanisms for collapse of the safety rail are particularly problematic and often required locks to be manually released and/or triggers to be actuated. Thus, operation of such known mechanisms are complex and time consuming to use, whilst being susceptible to mechanical failure.

[0005] It is, therefore, an object of the present invention to seek to alleviate the above identified problems.

SUMMARY OF THE INVENTION

[0006] According to one aspect of the present invention, there is provided a barrier for a bed, the barrier moveable between first and second positions, the first position for preventing an occupant of a bed from rolling out of a bed and the second position being a storage position, the barrier being securable in the first position by a securing means, wherein when the barrier is in the first position the barrier is in an extended configuration and when the barrier is in the second position the barrier is in a compact configuration, the barrier comprising a locking means for locking the barrier in an extended configuration said locking means being releasable by movement of the barrier from the first position to the second position.

[0007] Preferably, the locking means comprises one or more locking pins.

[0008] Preferably, the one or more locking pins are biased towards a locking position.

[0009] Preferably, the one or more locking pins comprise a crutch pin.

[0010] Preferably, the barrier comprises one or more telescopic arms for moving the barrier between the extended and compact configurations.

[0011] Preferably, one or more, preferably all, of said telescopic arms comprise a locking pin provided on a first arm element said locking pin being biased towards a locking position through a hole in a second arm element, said first arm element being slideable within the second arm element.

[0012] Preferably, the first and second arm elements are hollow members, for example tubes.

[0013] Preferably, the first and second arm elements have a circular cross-section. Alternatively, the first and second arm elements have a square or rectangular cross-section.

[0014] Preferably, when the barrier is in the first position the barrier is in a first plane and when the barrier is in the second position the barrier is in a second plane.

[0015] Preferably, the first plane is substantially at right angles to the second plane.

[0016] Preferably, the barrier is rotatable between the first and second planes.

[0017] Preferably, the barrier is rotatable about one or more pivot elements.

[0018] Preferably, the one or more pivot elements are one or more bosses.

[0019] Preferably, the barrier is secured in the first position by one or more, preferably all, of the pivot elements.

[0020] Preferably, the securing means comprises an opening, for example an aperture or recess, in one or more, preferably all, of the pivot elements, the opening being positioned and shaped such that when the barrier is in the first position the barrier sits within the opening and is held in the first position.

[0021] Preferably, the opening narrows as it extends through the pivot element to allow a narrowed end of the barrier to pass therethrough.

[0022] Preferably, the barrier is moveable from the first position towards the second position by at least partially lifting the barrier out of the opening in one or more, preferably all, of the pivot elements and rotating the barrier away from the bed about said one or more pivot elements.

[0023] Preferably, the barrier is moveable from the first position towards the second position by partially lifting the barrier out of the opening and rotating the barrier

away from the bed about said one or more pivot elements.

[0024] Preferably, when the barrier is in the second plane, the barrier is moveable through one or more, preferably all, of the pivot elements into the second position.

[0025] Preferably, movement of the barrier through one or more, preferably all, of the pivot elements releases the locking means.

[0026] Preferably, one or more, preferably all, of the pivot elements are shaped for releasing the locking means as the barrier passes therethrough.

[0027] Preferably, one or more, preferably all, of the pivot elements comprise a shaped edge, preferably a chamfered edge.

[0028] Preferably, one or more, preferably all, of the pivot elements are accommodated within another part of the barrier when in the second position.

[0029] Preferably, one or more, preferably all, of the pivot elements are accommodated within a bar, for example an arm rest, of the barrier when in the second position.

[0030] Preferably, the barrier comprises a bar, for example an arm rest, comprising one or more recesses for accommodating one or more of said pivot elements when the barrier is in the second position.

[0031] Preferably, one or more of the recesses comprise a securing means for securing the barrier in the second position.

[0032] Preferably, the securing means comprises one or more magnets.

[0033] Preferably, the barrier is moveable through one or more, preferably all, of the pivot elements and into one or more receiving elements, said receiving elements being securable to the frame of a bed such that when said receiving elements are secured to the frame of a bed they are moveable relative thereto to receive the barrier in the second position.

[0034] Preferably, one or more, preferably all, of the receiving elements comprise one or more tubes.

[0035] Preferably, one or more, preferably all, of the receiving elements comprise a deformable connector for securing the one or more receiving elements to the frame of a bed.

[0036] Preferably, the barrier comprises one or more guides for guiding the barrier along the one or more receiving elements.

[0037] Preferably, one or more, preferably all, of the guides are positioned within one or more of said receiving elements and are pivotably secured to the barrier.

[0038] Preferably, the arms are provided with one or more guides for guiding the arms along the receiving elements.

[0039] Preferably, one or more, preferably all, of the guides are positioned within the receiving elements and are pivotably secured to the end of an or each arm.

[0040] Preferably, one or more, preferably all, of the guides comprise one or more nylon runners.

[0041] Preferably, a stop prevents one or more, preferably all, of the guides from exiting the receiving elements when the barrier is moved from the second position to the first position.

[0042] Preferably, the barrier comprises a securing means for securing the barrier in the second position.

[0043] Preferably, the securing means comprises one or more magnets.

[0044] Preferably, one or more of the magnets are provided on the underside of a bar of the barrier, for example on the underside of an arm rest.

[0045] Preferably, one or more of the magnets are provided in one or more recesses.

[0046] Preferably, one or more of the magnets are for engagement with a bar of the barrier.

[0047] Preferably, the barrier comprises one or more rails.

[0048] Preferably, the barrier is a rail, for example a safety rail, preferably a side rail.

[0049] According to another aspect of the present invention, there is provided a barrier for a bed, the barrier moveable between first and second positions, the first position for preventing an occupant of a bed from rolling out of a bed and the second position being a storage position, wherein the barrier is moveable into one or more receiving elements, said receiving elements being securable to the frame of a bed such that when said receiving elements are secured to the frame of a bed they are moveable relative thereto to receive the barrier in the second position.

[0050] Preferably, one or more, preferably all, of the receiving elements comprise one or more tubes.

[0051] Preferably, one or more, preferably all, of the receiving elements comprise a deformable connector for securing the one or more receiving elements to the frame of a bed.

[0052] Preferably, the barrier comprises one or more guides for guiding the barrier along the one or more receiving elements.

[0053] Preferably, one or more, preferably all, of the guides are positioned within one or more of said receiving elements and are pivotably secured to the barrier.

[0054] Preferably, the arms are provided with one or more guides for guiding the arms along the receiving elements.

[0055] Preferably, one or more, preferably all, of the guides are positioned within the receiving elements and are pivotably secured to the end of an or each arm.

[0056] Preferably, one or more, preferably all, of the guides comprise one or more nylon runners.

[0057] Preferably, a stop prevents one or more, preferably all, of the guides from exiting the receiving elements when the barrier is moved from the second position to the first position.

[0058] Preferably, when the barrier is in the first position the barrier is in a first plane and when the barrier is in the second position the barrier is in a second plane.

[0059] Preferably, the first plane is substantially at right angles to the second plane.

[0060] Preferably, the barrier is rotatable between the

first and second planes.

[0061] In another aspect of the present invention, there is provided a bed comprising one or more barriers as described herein.

[0062] According to another aspect of the present invention, there is provided a kit comprising one or more barriers as described herein for fitting to an existing bed.

[0063] Within this specification embodiments have been described in a way which enables a clear and concise specification to be written, but it is intended and will be appreciated that embodiments may be variously combined or separated without parting from the invention. For example, it will be appreciated that all preferred features described herein are applicable to all aspects of the invention described herein.

DETAILED DESCRIPTION

[0064] Example embodiments of the present invention will now be described with reference to the accompanying Figures, in which

Figures 1A to 1D show a barrier of the present invention as it moves between a first position (Figure 1A) for preventing an occupant of a bed from rolling out of the bed, to a second/storage position (Figure 1D);

Figure 2 shows an exploded view of the barrier shown in Figures 1A to 1D;

Figure 3 shows an enlarged view of a pivot element;

Figure 4 shows a cross-sectional through a barrier of the present invention when in the second/storage position and when viewed from above; and

Figures 5A to 5D show a barrier of the present invention as it moves between the second/storage position (Figure 5A) to the first position (5D).

[0065] The present invention relates to a barrier for a bed, in particular to a safety rail for the side of a hospital bed.

[0066] With reference to Figure 1A, a barrier of the present invention is shown in the form of a safety rail 1 attached to the frame 12 of a bed.

[0067] As shown with reference to Figures 1A to 1D, the safety rail 1 is moveable from a first position (Figure 1A) for preventing an occupant of a bed from rolling out of a bed and a second position (Figure 1D) being a storage position, which allows ease of access to the patient and to the bed. When the safety rail is in the second/storage position it is provided under a mattress (not shown) positioned on top of the bed frame.

[0068] The safety rail 1 includes an arm rest 2 connected to a pair of telescopic arms 3. Each arm 3 includes a first tube 3A slideable within a second tube 3B. The second tubes 3B of each arm 3 are connected to each other by a bar 4. The upper face of arm rest 2 is substantially parallel to the horizontal face of the base of the bed and the mattress resting surface thereon. The telescopic arms 3 extend substantially vertically, i.e. perpendicular to the arm rest 2 and the horizontal face of the bed base and mattress.

[0069] The telescopic arms 3 allow the safety rail 1 to move between an extended "use" configuration (Figure 1A, 1B, 1C) and a compact "storage" configuration (Figure 1D). As will be apparent from the Figures, when the safety rail 1 is in the first position the safety rail is in the extended configuration and when the safety rail is in the second position the safety rail is in the compact configuration.

[0070] Each arm 3 includes a locking means in the form of a crutch pin 5 for locking the safety rail in the extended configuration. A retractable crutch push pin 5 is provided on each of the first tubes 3A and is biased by a spring to protrude through an aperture 6 (see Figure 2) provided in each of the second tubes 3B.

[0071] As discussed in further detail below, the crutch push pins 5 are depressed and so disengage from and retract through the apertures 6 as the crutch pins engage a chamfered edge 8 of pivot elements 7 during movement of the safety rail from the first position to the second position.

[0072] The safety rail 1 is held in the first position by a securing means. In the embodiment shown, the securing means is in the form of apertures 9 which are u-shaped recesses through the pivot elements 7. The arms 3 of the safety rail 1 sit within the apertures 9 and are thus held in an upright, i.e. substantially vertical position relating to a horizontal bed base (not shown). The apertures 9 narrow as they extend through the pivot elements 7 to allow a narrower, tapered end of each arm 3B to pass therethrough. This serves to hold the safety rail 1 in the first extended position. The safety rail 1 can be released from the securing means 7, 9 by lifting the arm rest 2 which moves the arms 3 out of engagement with the apertures 9. The arm rest 2 is then rotated away from the bed (not shown) about the pivot elements 7 and into the position shown in Figure 1B, wherein the telescopic arms 3 are substantially parallel to the horizontal face of the base of the bed and the mattress resting thereon (not shown).

[0073] Once in the position shown in Figure 1B, the arm rest 2 is then pushed towards the bed and the second tubes 3B of each arm 3 pass through apertures 10 in the pivot elements 7. The second tubes 3B then pass through apertures 11 in the frame 12 of the bed and into receiving tubes 13 secured against the frame 12 of the bed.

[0074] The receiving tubes 13 hold the safety rail 1 in the second storage position in a plane which is substantially at right angles to the plane of the safety rail in the first position, i.e. such that the safety rail 1 is substantially parallel to the outer perimeter wall of the bed frame.

[0075] As the second tubes 3B pass through the apertures 11, the crutch pins 5 move into engagement with chamfered edges 8 of the pivot elements 7. As the arm rest 2 is pushed towards the bed this causes the crutch pins 5 to move along the chamfered edge 8 which, in

turn, causes the crutch pins 5 to depress and disengage the apertures 6 in the second tubes 3B. Once the crutch pins 5 have disengaged the apertures 6, the first tubes 3A are released and are allowed to slide within the second tubes 3B. The continued movement of the arm rest 2 towards the bed causes the safety rail to move from the extended horizontal configuration shown in Figure 1C to the compact horizontal storage configuration shown in Figure 1D and thus into the second storage position shown in Figure 1D.

[0076] Remarkably, the present invention not only allows the safety rail to be stowed under the mattress of a bed, but it allows movement from a first extended configuration position for preventing an occupant rolling out of a bed to a second under mattress storage position in a one handed operation without the need to manually actuate any locks or release mechanisms. This not only greatly simplifies manufacture of such a stowable safety rail but also makes operation thereof greatly simplified.

[0077] An enlarged view of a pivot element 7 is shown in Figure 3. The pivot element includes a circular recess/aperture 9 which is shaped for receiving and holding the arms 3 of the safety rail in the first position, and an aperture 10 (which passes through the pivot element) perpendicular to the circular recess/aperture 9 through which the arms 3 can be inserted as the safety rail moves from the position shown in Figure 1B to the position shown in Figure 1C. The aperture 9 includes a narrowed part, for example tapered opening, 21 through which the narrowed end of the male part 18A (see below) of the arm can pass.

[0078] The pivot element 7 includes a recess 14 for receiving the bar 4 when the safety rail is in the second storage compact position.

[0079] As shown in Figure 4, when the safety rail 1 is in the second position, the pivot elements 7 are accommodated within recesses 15 in the underside of the arm rest 2. In addition, as noted above, the bar 4 is accommodated within recesses 14 of the pivot means 7. This means that the arm rest 2 is positioned in close proximity to the frame 12 of the bed thus reducing the overall width of the bed when the safety rail 1 is in the second storage position.

[0080] As also shown in Figure 4 (and Figure 2), the receiving tubes 13 are secured to the frame 12 of the bed by an offset plate 23 but separated from the frame 12 therefrom by a deformable (for example, rubber) O-ring 16. This allows the receiving tubes 13 to flex slightly in relation to the frame 12 of the bed and so allow the receiving tubes 13 to self-align with the telescopic arms 3, thus preventing the telescopic arms 3 from jamming as they are inserted into the receiving tubes 13.

[0081] Also shown in Figure 4 is the location of a magnet 25 for securing the safety rail 1 in the second position. The magnet 25 is provided within the recess 15 and makes contact with the bar 4. As will be appreciated, the bar 4 is a metal bar and thus contact of the magnet 25 with the bar 4 prevents the arm rest 2 from moving and thus secures the safety rail 1 in the second position. The strength of the magnet 25 is such that a user can easily release the arm rest 2 from the bar 4 and then move the safety rail 1 from the second position to the first position.

[0082] As shown in Figure 2, the ends of each arm 3 are pivotably connected to nylon runners 17 which slide within the receiving tubes 13 and reduce movement of the arm/s 3 in unwanted planes within the receiving tubes 13. With reference to Figure 2, the end of each second tube 3B is provided with a male part 18A for engagement with a female part 18B of one of the nylon runners. The male part 18A of the second tube 3B is provided with a slot 19 through which a nut 20 of the nylon runner 17 can be inserted to allow the second tube 3B to pivot relative to the nylon runner 17.

[0083] As also shown in Figure 2, a locking bush and stop system 22 prevents the first tube 3A from pulling out of the second tube 3B. A stop 24 prevents the nylon runners 20 from exiting the receiving tubes 13 when the safety rail is moved from the second/storage position to the first use position.

[0084] With reference to Figures 5A to 5D, the safety rail 1 is moved from the second storage position in which the arm rest 2 conceals the pivot elements 7 (Figure 5A) to the first use position (Figure 5D) by pulling the arm rest 2 away from the bed in a direction parallel to the horizontal face of the base of the bed and the mattress resting thereon to move the safety rail 1 from the compact toward the extended configuration (Figure 5B). The safety rail 1 is pulled out further from the bed in the horizontal direction until the nylon runners 17 abut the stop 24 provided within the receiving tubes 13 and the crutch pins 5 have been released to lock the safety rail 1 in the extended configuration (Figure 5C). The safety rail 1 can then be rotated about the pivot elements 7 into an upright position where the arms 3 are substantially vertical and perpendicular to the horizontal face of the base of the bed and then lowered such that the narrowed end of the male parts 18A of the second tubes 3B pass through the narrowed part 21 of the aperture 9 and the safety rail is held securely in the first position (Figure 5D).

[0085] The present invention includes the following embodiments.

1. A barrier for a bed, the barrier moveable between first and second positions, the first position for preventing an occupant of a bed from rolling out of a bed and the second position being a storage position, the barrier being securable in the first position by a securing means, wherein when the barrier is in the first position the barrier is in an extended configuration and when the barrier is in the second position the barrier is in a compact configuration, the barrier comprising a locking means for locking the barrier in an extended configuration said locking means being releasable by movement of the barrier from the first position to the second position.

2. A barrier according to embodiment 1, wherein the locking means comprises one or more locking pins.

3. A barrier according to embodiment 1 or 2, wherein the barrier comprises one or more telescopic arms for moving the barrier between the extended and compact configurations.

4. A barrier according to any preceding embodiment, wherein the barrier is rotatable about one or more pivot elements.

5. A barrier according to embodiment 4, wherein the barrier is secured in the first position by one or more of the pivot elements.

6. A barrier according to embodiment 4 or 5, wherein the securing means comprises an opening in one or more of the pivot elements, the opening being positioned and shaped such that when the barrier is in the first position the barrier sits within the opening and is held in the first position.

7. A barrier according to embodiment 6, wherein the opening narrows as it extends through the pivot element to allow a narrowed end of the barrier to pass therethrough.

8. A barrier according to embodiment 6 or 7, wherein the barrier is moveable from the first position towards the second position by at least partially lifting the barrier out of the opening in one or more of the pivot elements and rotating the barrier away from the bed about said one or more pivot elements.

9. A barrier according to any preceding embodiment, wherein when the barrier is in the first position the barrier is in a first plane and when the barrier is in the second position the barrier is in a second plane.

10. A barrier according to embodiment 9, wherein the first plane is substantially at right angles to the second plane.

11. A barrier according to embodiment 9 or 10, wherein when the barrier is in the second plane, the barrier is moveable through one or more of the pivot elements into the second position.

12. A barrier according to embodiment 11, wherein movement of the barrier through one or more of the pivot elements releases the locking means.

13. A barrier according to any of embodiments 4 to 12, wherein one or more of the pivot elements are shaped for releasing the locking means as the barrier passes therethrough.

14. A barrier according to any of embodiments 4 to 13, wherein one or more of the pivot elements comprise a shaped edge, preferably a chamfered edge.

15. A barrier according to any of embodiments 4 to 14, wherein one or more of the pivot elements are accommodated within another part of the barrier when in the second position.

16. A barrier according to any of embodiments 4 to 15, wherein one or more of the pivot elements are accommodated within a bar, for example an arm rest, of the barrier when in the second position.

17. A barrier according to any of embodiments 4 to 16, wherein the barrier comprises a bar, for example an arm rest, comprising one or more recesses for accommodating one or more of said pivot elements when the barrier is in the second position.

18. A barrier according to any of embodiments 4 to 16, wherein the barrier is moveable through one or more of the pivot elements and into one or more receiving elements, said receiving elements being securable to the frame of a bed such that when said receiving elements are secured to the frame of a bed they are moveable relative thereto to receive the barrier in the second position.

19. A barrier according to embodiment 18, wherein one or more of the receiving elements comprise one or more tubes.

20. A barrier according to embodiment 18 or 19, one or more of the receiving elements comprise a deformable connector for securing the one or more elements to the frame of a bed.

21. A barrier according to any of embodiments 18 to 20, wherein the barrier comprises one or more guides for guiding the barrier along one or more of the receiving elements.

22. A barrier according to embodiment 21, wherein one or more of the guides are positioned within one or more of said receiving elements and are pivotably secured to the barrier.

23. A barrier according to embodiment 21 or 22, wherein a stop prevents one or more of the guides from exiting the receiving elements when the barrier is moved from the second position to the first position.

24. A barrier according to any preceding embodiment, wherein the barrier comprises a securing means for securing the barrier in the second position.

25. A barrier according to embodiment 24, wherein the securing means comprises one or more magnets.

26. A barrier according to embodiment 25, wherein one or more of the magnets are provided on the underside of a bar of the barrier, for example on the underside of an arm rest.

27. A barrier according to embodiment 25 or 26, wherein one or more of the magnets are provided in one or more recesses.

28. A barrier according to any of embodiments 25 to 27, wherein one or more of the magnets are for engagement with a bar of the barrier.

29. A barrier for a bed, the barrier moveable between first and second positions, the first position for preventing an occupant of a bed from rolling out of a bed and the second position being a storage position, wherein the barrier is moveable into one or more receiving elements, said receiving elements being securable to the frame of a bed such that when said receiving elements are secured to the frame of a bed they are moveable relative thereto to receive the barrier in the second position.

30. A bed comprising one or more barriers according to any preceding embodiment.

31. A kit comprising one or more barriers according to any of embodiments 1 to 29 for fitting to an existing bed.

[0086] It should be understood that various changes and modifications to the presently preferred embodiments described herein will be apparent to those skilled in the art. Such changes and modifications can be made without departing from the spirit and scope of the present invention and without diminishing its attendant advantages. It is therefore intended that such changes and modifications are covered by the appended claims.

Claims

1. A barrier for a bed, the barrier moveable between first and second positions, the first position for preventing an occupant of a bed from rolling out of a bed and the second position being a storage position, the barrier being securable in the first position by a securing means, wherein when the barrier is in the first position the barrier is in an extended configuration and when the barrier is in the second position the barrier is in a compact configuration, the barrier comprising a locking means for locking the barrier in an extended configuration said locking means being releasable by movement of the barrier from the first position to the second position.

2. A barrier according to claim 1, wherein the locking means comprises one or more locking pins, and/or wherein the barrier comprises one or more telescopic arms for moving the barrier between the extended and compact configurations.

3. A barrier according to any preceding claim, wherein the barrier is rotatable about one or more pivot elements, optionally wherein the barrier is secured in the first position by one or more of the pivot elements, and/or wherein the securing means comprises an opening in one or more of the pivot elements, the opening being positioned and shaped such that when the barrier is in the first position the barrier sits within the opening and is held in the first position, optionally wherein the opening narrows as it extends through the pivot element to allow a narrowed end of the barrier to pass therethrough, and/or wherein the barrier is moveable from the first position towards the second position by at least partially lifting the barrier out of the opening in one or more of the pivot elements and rotating the barrier away from the bed about said one or more pivot elements.

4. A barrier according to any preceding claim, wherein when the barrier is in the first position the barrier is in a first plane and when the barrier is in the second position the barrier is in a second plane, optionally wherein the first plane is substantially at right angles to the second plane, and/or wherein when the barrier is in the second plane, the barrier is moveable through one or more of the pivot elements into the second position.

5. A barrier according to claim 4, wherein movement of the barrier through one or more of the pivot elements releases the locking means.

6. A barrier according to any of claims 3 to 5, wherein one or more of the pivot elements are shaped for releasing the locking means as the barrier passes therethrough, and/or wherein one or more of the pivot elements comprise a shaped edge, preferably a chamfered edge.

7. A barrier according to any of claims 3 to 6, wherein one or more of the pivot elements are accommodated within another part of the barrier when in the second position, and/or wherein one or more of the pivot elements are accommodated within a bar, for example an arm rest, of the barrier when in the second position, and/or wherein the barrier comprises a bar, for example an arm rest, comprising one or more recesses for accommodating one or more of said pivot elements when the barrier is in the second po-

sition.

8. A barrier according to any of claims 3 to 7, wherein the barrier is moveable through one or more of the pivot elements and into one or more receiving elements, said receiving elements being securable to the frame of a bed such that when said receiving elements are secured to the frame of a bed they are moveable relative thereto to receive the barrier in the second position.

9. A barrier according to claim 8, wherein one or more of the receiving elements comprise one or more tubes.

10. A barrier according to claim 8 or 9, one or more of the receiving elements comprise a deformable connector for securing the one or more elements to the frame of a bed.

11. A barrier according to any of claims 8 to 10, wherein the barrier comprises one or more guides for guiding the barrier along one or more of the receiving elements, optionally wherein one or more of the guides are positioned within one or more of said receiving elements and are pivotably secured to the barrier, and/or wherein a stop prevents one or more of the guides from exiting the receiving elements when the barrier is moved from the second position to the first position.

12. A barrier according to any preceding claim, wherein the barrier comprises a securing means for securing the barrier in the second position, optionally wherein the securing means comprises one or more magnets, optionally wherein one or more of the magnets are provided on the underside of a bar of the barrier, for example on the underside of an arm rest, and/or wherein one or more of the magnets are provided in one or more recesses, and/or wherein one or more of the magnets are for engagement with a bar of the barrier.

13. A barrier for a bed, the barrier moveable between first and second positions, the first position for preventing an occupant of a bed from rolling out of a bed and the second position being a storage position, wherein the barrier is moveable into one or more receiving elements, said receiving elements being securable to the frame of a bed such that when said receiving elements are secured to the frame of a bed they are moveable relative thereto to receive the barrier in the second position.

14. A bed comprising one or more barriers according to any preceding claim.

15. A kit comprising one or more barriers according to any of claims 1 to 13 for fitting to an existing bed.

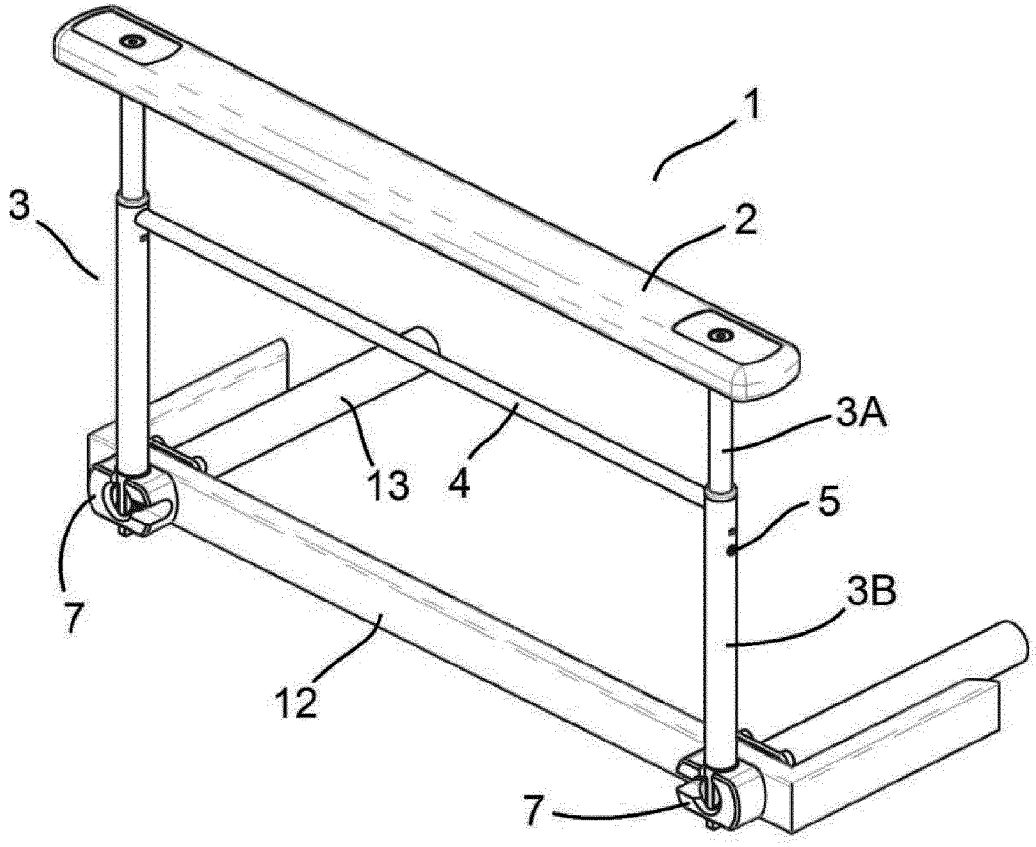

Fig 1A

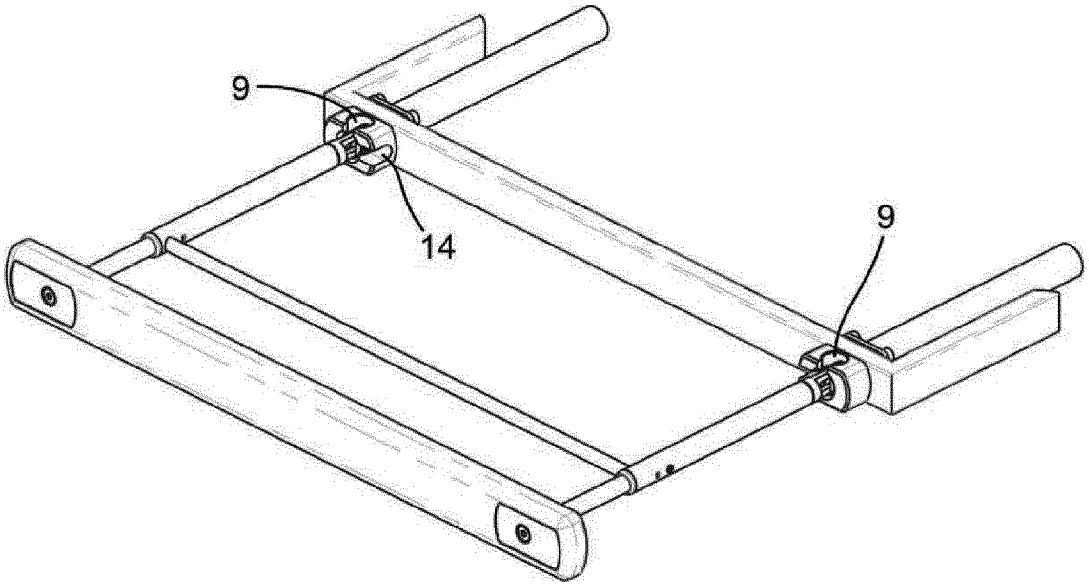

Fig 1B

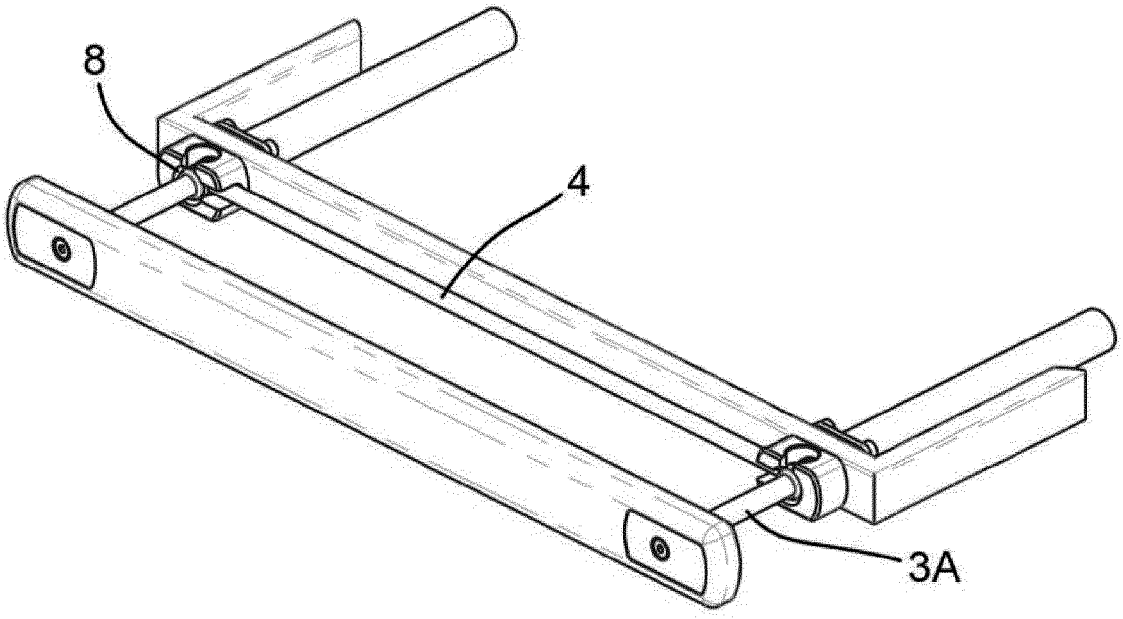

Fig 1C

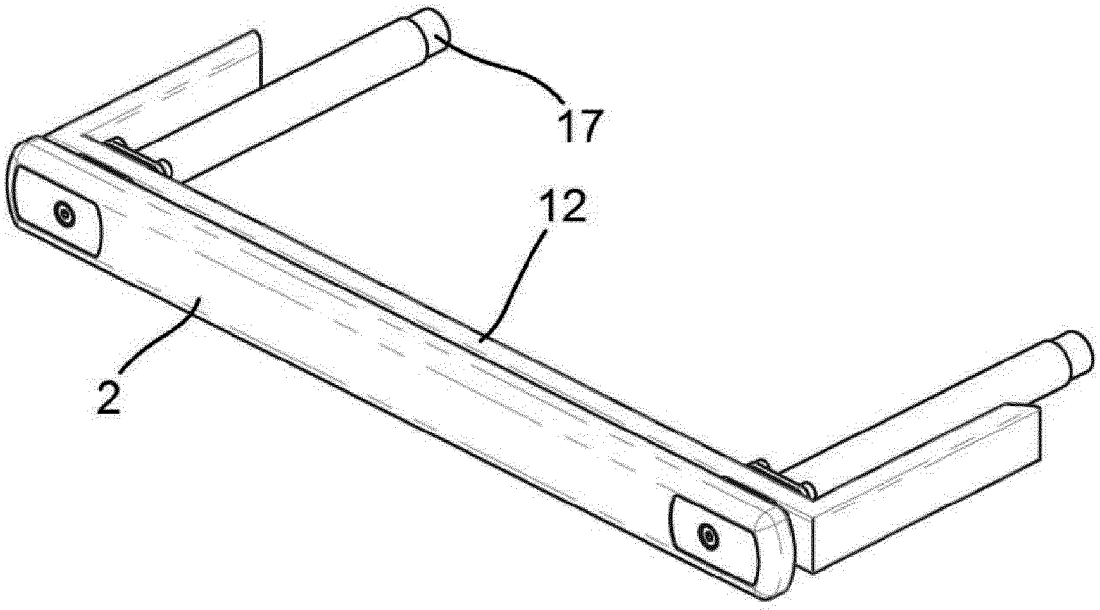

Fig 1D

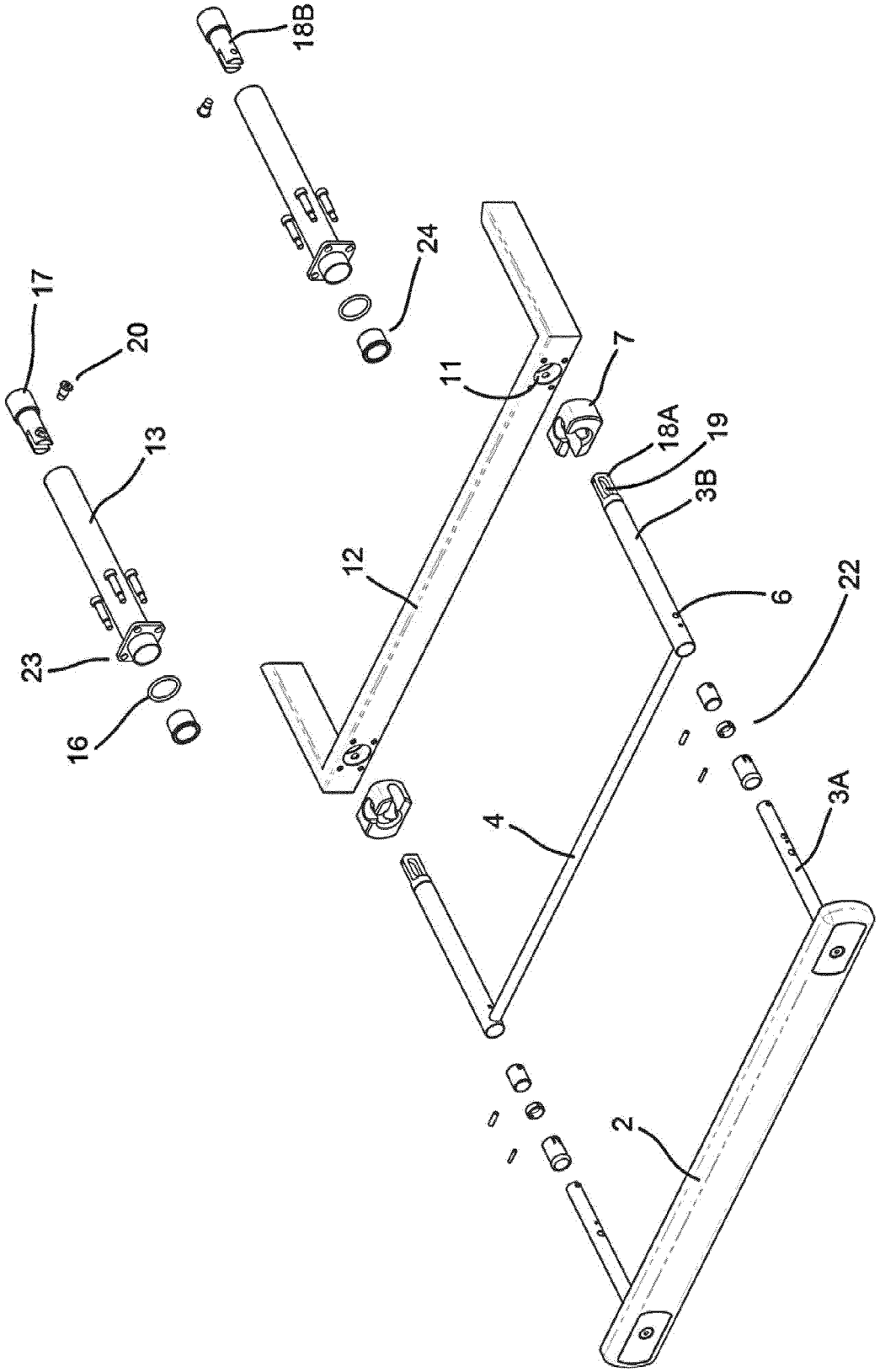

Fig 2

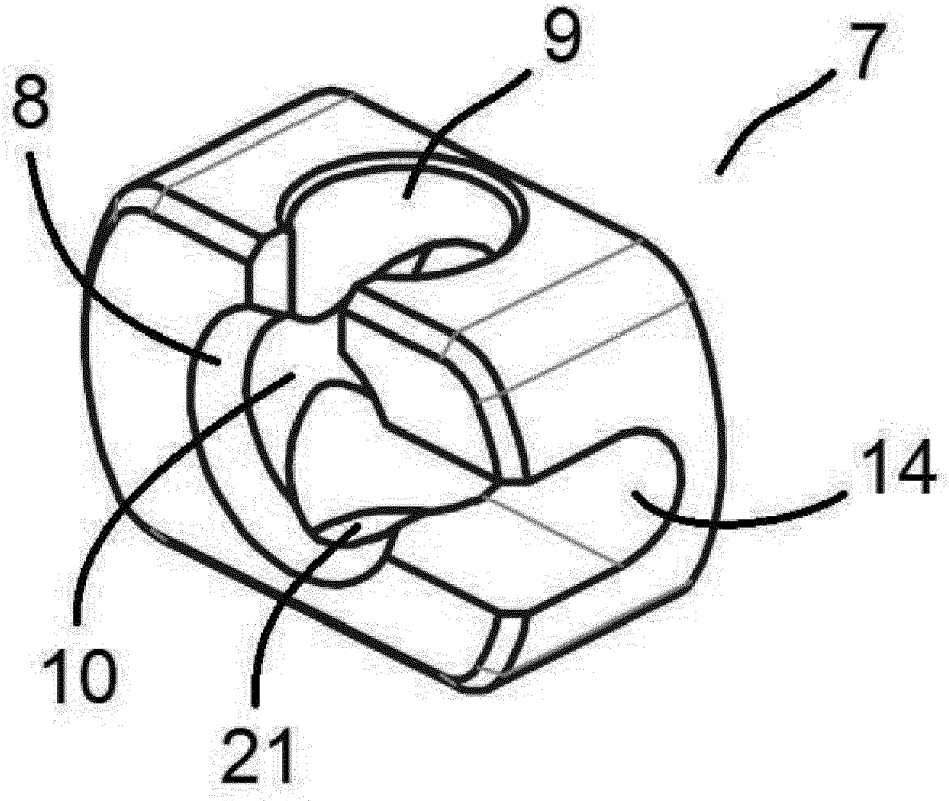

Fig 3

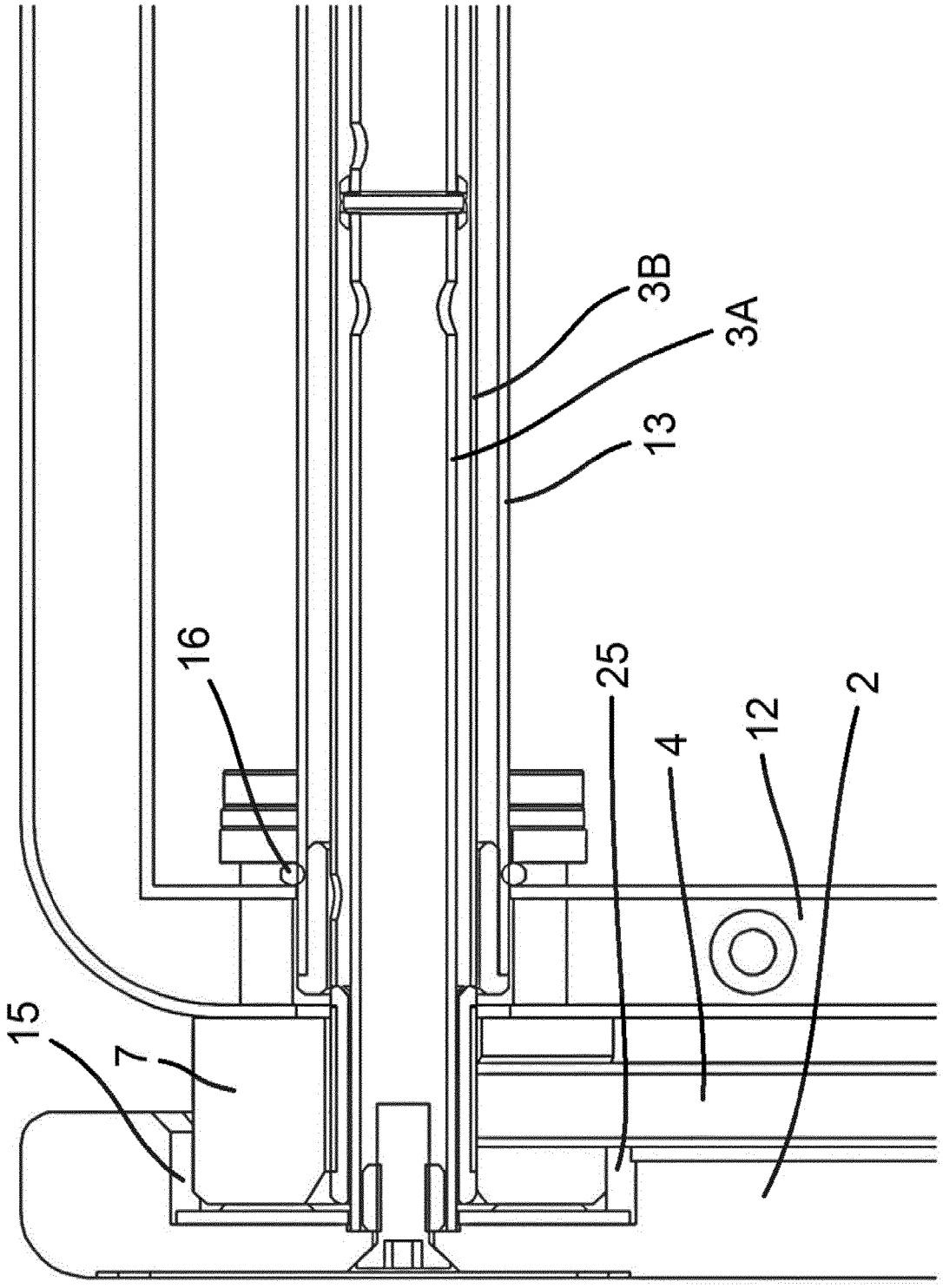

Fig 4

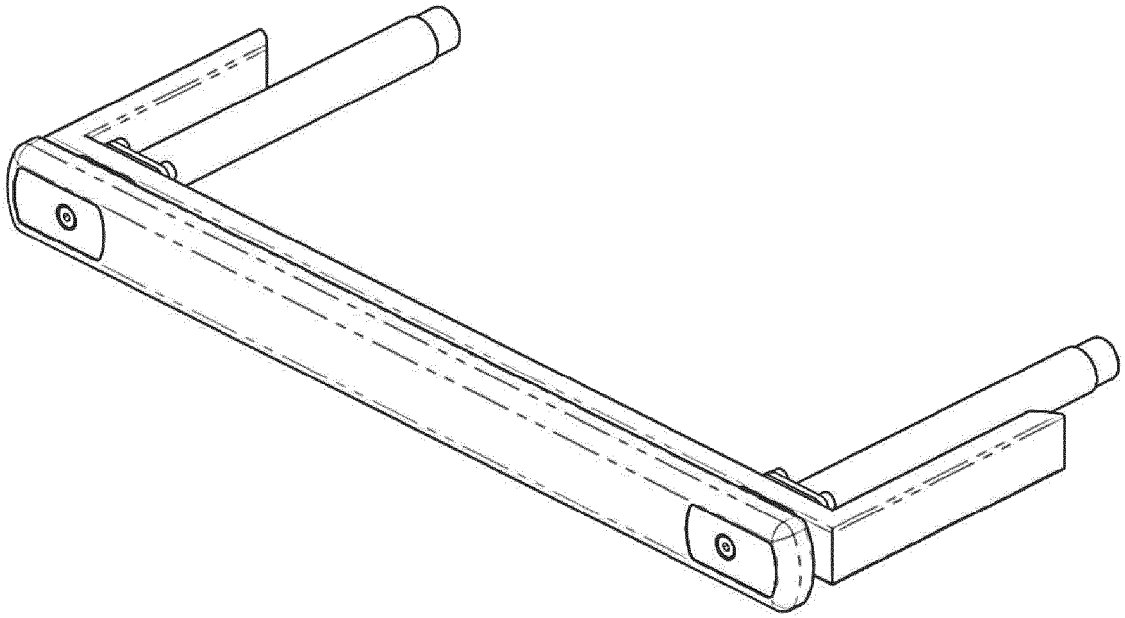

Fig 5A

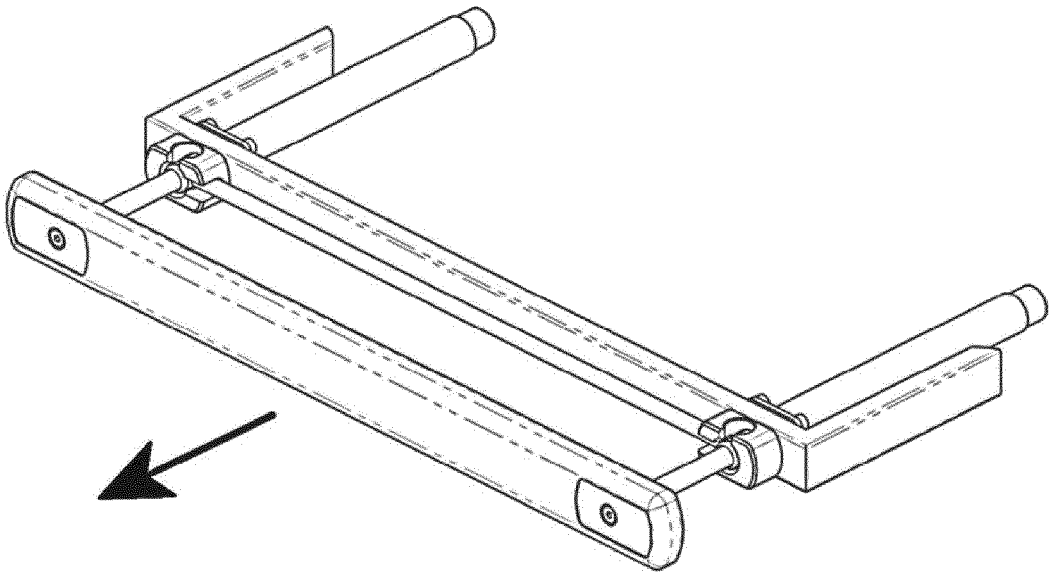

Fig 5B

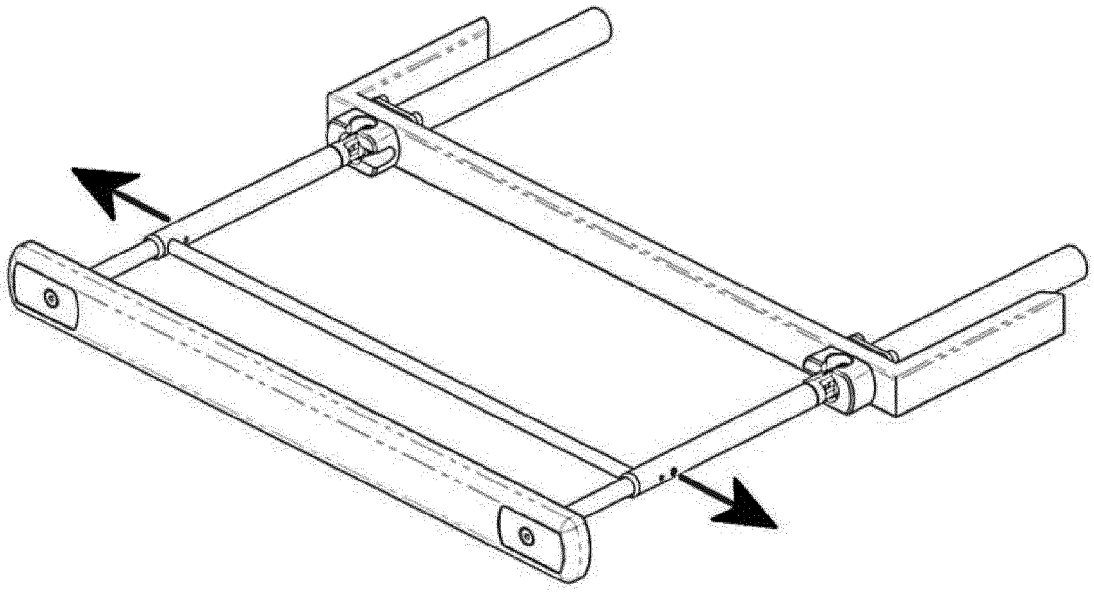

Fig 5C

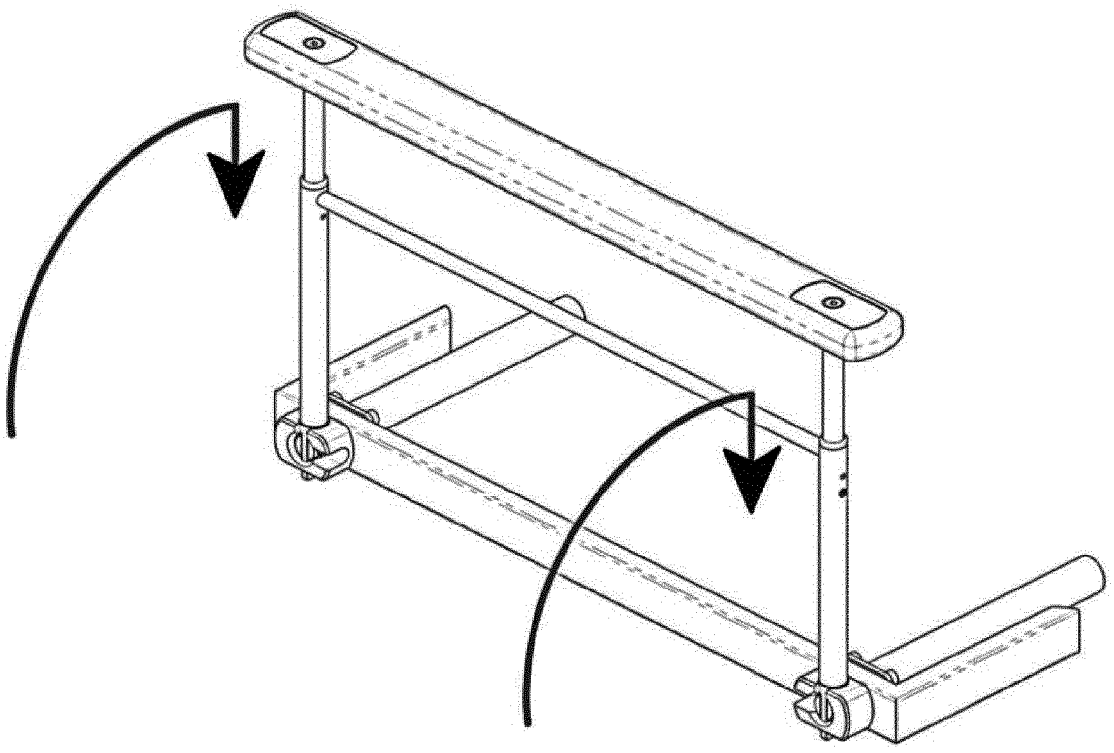

Fig 5D