March 26, 1957 R. L. ARMSTRONG 2,786,214

BED SIDE GUARD

Filed May 27, 1955 2 Sheets-Sheet 1

Fig. 1

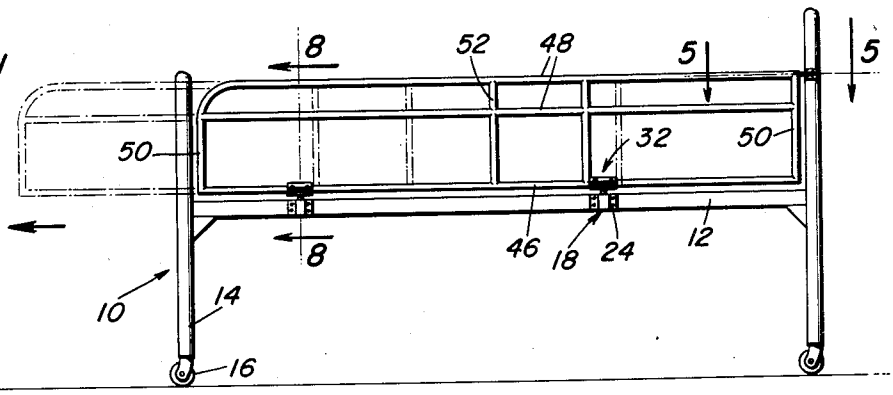
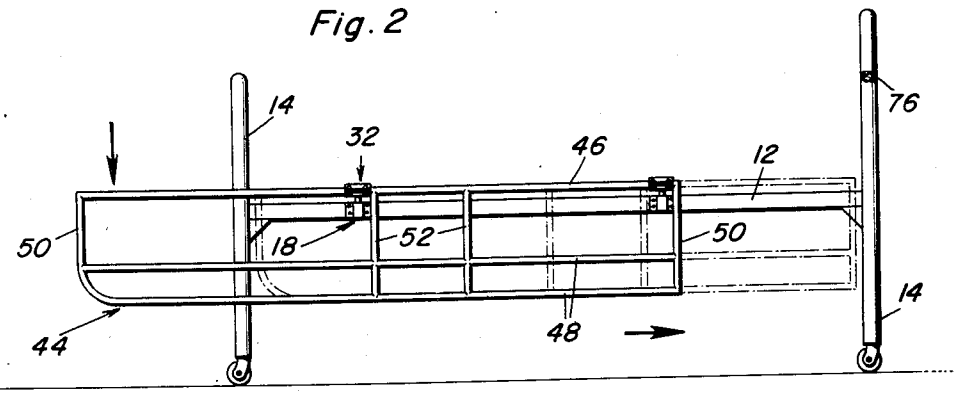


Fig. 2



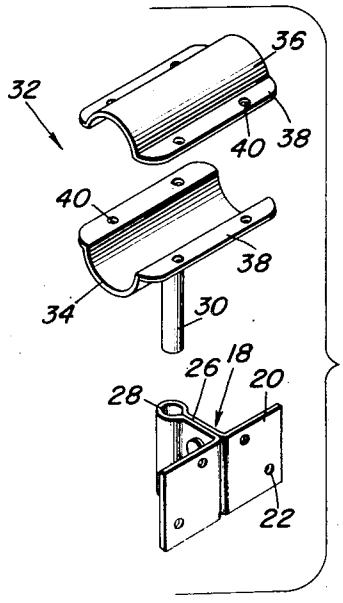
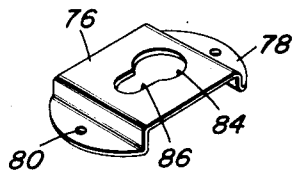


Fig. 3

Fig. 4



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BED SIDE GUARD

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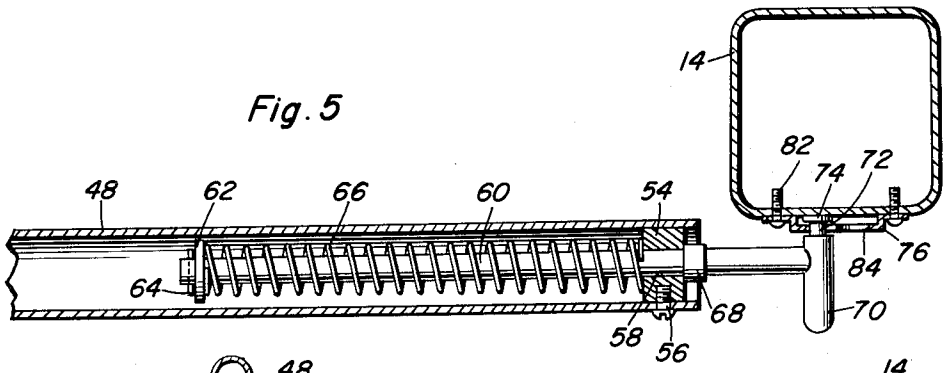
Fig. 5



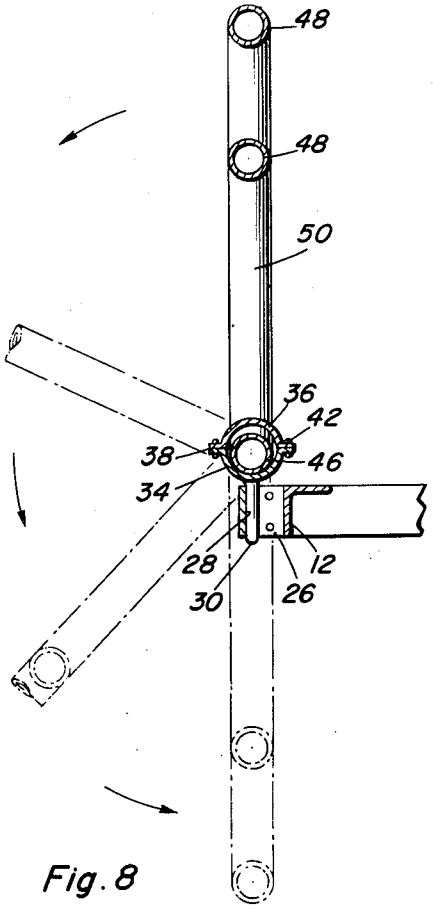


Fig. 8

Fig. 6

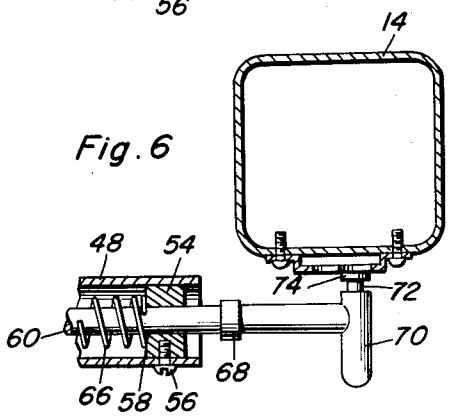
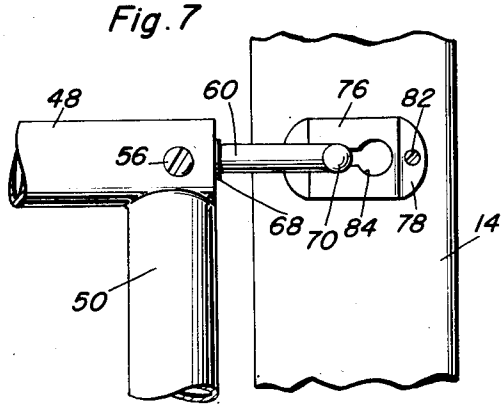


Fig. 7



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BED SIDE GUARD

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Application May 27, 1955, Serial No. 511,493

9 Claims. (Cl. 5—331)

This invention generally relates to a bed attachment, and the primary object thereof is to provide a guard to prevent a person lying on a bed from accidentally falling or rolling off the bed, this invention being a continuation-in-part of my copending application, Serial No. 434,445, filed June 4, 1954, and now abandoned.

Another object of the invention is to provide a bedside fastener in the form of a guard rail which is detachably secured to a bed and which is capable of being removed from the bed when no longer useful or lowered out of the way when not in use.

Other features of the present invention involve a construction having a novel arrangement of parts including a plurality of bracket members having sockets thereon for receiving retaining members for rotatably and slidably carrying the guard rail of the bed attachment together with a novel latch adapted to engage a latch plate secured to the bedstead for selectively retaining the guard rail in elevated position.

A still further object of the present invention is to provide a bedside fastener including a pivotal and slidable guard rail which may be positioned in an elevated or downwardly depending relation and moved longitudinally by releasing a latch means.

Other objects of the present invention will reside in its simplicity of construction, ease of attachment, ease of adjustment, attractive appearance, adaptation for its particular purposes and its relatively inexpensive manufacturing costs.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a side elevational view of the bed attachment showing the device in the elevated position and illustrating its longitudinal adjustment in dotted lines;

Figure 2 is a side elevational view of the construction of Figure 1 illustrating the bed attachment in lowered position and showing the two longitudinally adjustable positions;

Figure 3 is an exploded group perspective view illustrating the details of construction of the supporting brackets that are attached to the longitudinal bed rails and the retaining means for rotatably and slidably supporting the bed rail;

Figure 4 is a detail perspective view of the latch plate secured to the bedstead;

Figure 5 is an enlarged sectional view taken substantially upon a plane passing along section line 5—5 of Figure 1 illustrating the construction of the latch means;

Figure 6 is a view similar to Figure 5 showing the manner in which the latch means is unlatched;

Figure 7 is an enlarged detail elevational view illustrating the relationship between the latch plate and the headed latch member; and

Figure 8 is a detailed sectional view taken substantially upon a plane passing along section line 8—8 of Figure 1 illustrating the construction of the retaining means for rotatably and slidably mounting the lower member of the guard rail.

With reference to the drawings, reference numeral 10 generally indicates a bed having longitudinally extending support members or rails 12 on both sides thereof which form supports for the bed springs. These longitudinal support members 12 are supported by transverse bed ends 14 having supporting wheels 16 on the bottom thereof.

Secured to the support members 12 are a plurality of supporting brackets generally designated by the numeral 18 which includes a pair of vertical mounting plates 20 having apertures 22 therein for the reception of fasteners 24 for supporting the plates 20 on the longitudinal members 12. Projecting outwardly and integrally formed with the plate members 20 is a pair of side-by-side plates 26 which terminate in a vertical socket 28 wherein the brackets 18 are generally T-shaped members and the sockets 28 are generally vertically disposed in parallel relation to the outer surface of the longitudinal support members 12.

The socket 28 is adapted to receive a depending peg or rod 30 on retaining means generally designated by the numeral 32 which includes a lower semicylindrical retaining member 34 and an upper semicylindrical retaining member 36, each of which is provided with diametrically opposed and outwardly extending flanges 38 having apertures 40 therein for receiving fastening members 42 for securing the flanges 38 together, thereby mounting the retaining members 34 and 36 in overlying relation for forming a cylindrical retaining means.

A bed attachment generally designated by the numeral 44 includes a lower longitudinal rail 46 and a pair of upper longitudinal rails 48 which are interconnected by vertical end members 50 and spaced vertical members 52 in spaced relation to the end members 50, thereby forming a guard rail extending between the bed ends 14 above the longitudinal support members 12 for retaining persons on the bed.

As illustrated in Figure 8, the retaining means 32 surrounds the lower rail 46 and rotatably supports the lower rail 46 and also slidably supports the rail 46 to permit swinging movement of the bed attachment 44 as well as longitudinal sliding movement thereof.

The upper member 48 is tubular as are all of the other rail portions of the attachment 44, and the upper rail 48 is provided with a disk 54 held in place adjacent the end of the upper rail 48 by a setscrew 56 or similar fastening means. The disk 54 is provided with a central aperture 58 for slidably receiving an elongated plunger 60 extending therethrough. A collar 62 is secured to the end of the plunger 60 by a key 64 wherein the key 64 removably holds the collar in position. An elongated compression coil spring 66 yieldingly extends between the collar 52 and the inner surface of the disk 54, thereby continuously urging the plunger inwardly of the tubular member 48. A stop 68 is provided on the plunger 60 for engaging the outer surface of the disk 54 for limiting the inward movement of the plunger 60 due to the compression spring 66. A transverse handle 70 is attached to the outer end of the plunger 60 and extends in perpendicular relation thereto.

The handle 70 is provided with a reduced neck portion 72 and a headed portion 74 on the outer end thereof. The headed portion 74 is adapted to extend into a substantially U-shaped latch plate 76 having flanges 78 provided with apertures 80 therethrough so that fasteners 82 may be utilized for securing the latch plate 76 to the

bed end 14. The headed portion 74 extends through an aperture 84 in the latch plate 76 and in communication with the aperture 84 is a slot 86 of reduced dimension for lockingly engaging the neck portion 72 with the headed portion 74 engaging the undersurface thereof adjacent the edges of the slot 86 so that the handle 70 and the bed attachment guard rail 44 will be held in an elevated position.

The headed end 74 may be disconnected from the latch plate 76 by grasping the handle 70 and moved in the direction illustrated in Figure 6 until the headed end 74 can be withdrawn from the aperture 84. The spring 66 normally urges the headed portion 74 into engagement behind the slot 86 in the latch plate 76, thereby locking the bed attachment 44 in elevated position.

The specific positioning of the brackets 18 and the retaining means 32 and the relative positions of the vertical central tubular members 52 is such that the bed attachment 44 may be moved longitudinally within the limits defined by the vertical members 52 and the vertical end members 50. As illustrated in Figures 1 and 2, the attachment 44 may be moved toward the foot bed end 14 until such time as the inner surface of the front end rail 50 engages the forward retaining means 32 or the outermost vertical member 52 engages the outermost retaining means 32. Also, the forwardmost central vertical member 52 engages the forwardmost retaining means 32 to limit the forward longitudinal sliding movement of the attachment 44, thereby assuring the correct relationship of the handle 70 to the latch plate 76 wherein the spring 66 will act to retain the headed portion 74 of the handle 70 within the slot 86 of the latch plate 76. With the longitudinal sliding movement of the guard rail, the bedside stand or cabinet may be retained in position adjacent the bed while the guard rail is moved from an elevated to a depending relation, or vice versa, thereby permitting access to the patient. This feature saves nurses or other attendants much unnecessary work and time and eliminates the necessity for moving the usual bedside cabinets which are normally positioned between beds or closely adjacent beds in hospitals, sick rooms and the like.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A foldable and detachable guard for a bed comprising a longitudinally extending support, a plurality of substantially T-shaped members secured to said support, sockets forming end portions of said T-shaped members, lower retaining members having rods depending therefrom removably received in said sockets, upper retaining members secured to said lower retaining members, said upper and lower retaining members rotatably receiving a guard rail, and a latch carried by said guard rail for engaging a latch plate adapted to be secured to the bedstead of a bed to hold said guard rail in an elevated position, said guard rail including upper and lower tubular members, said lower tubular member being received in said upper and lower retaining members, said upper and lower retaining members being substantially semicylindrical in configuration.

2. A foldable and detachable guard for a bed comprising a longitudinally extending support, a plurality of substantially T-shaped members secured to said support, sockets forming end portions of said T-shaped members, lower retaining members having rods depending therefrom removably received in said sockets, upper retaining members secured to said lower retaining members, said upper and lower retaining members rotatably receiving a guard rail, and a latch carried by said guard rail for engaging a latch plate adapted to be secured to the bedstead of a bed to hold said guard rail in an elevated position, said guard rail including upper and lower tubular members, said lower tubular member being received in said upper and lower retaining members, said upper and lower retaining members being substantially semicylindrical in configuration, said upper tubular member including an internally positioned apertured disk, a plunger extending through said disk, a collar on said plunger, a spring concentric with said plunger yieldingly engaging said collar and said disk, a handle extending normal to said plunger and having a reduced neck portion and a headed end, said neck portion engaging said latch plate, said latch plate having an aperture therethrough for receiving said headed end, and a restricted opening in communication with said aperture in said latch plate for engaging said neck portion.

3. A guard for a bed comprising a longitudinally extending support, a plurality of brackets mounted on said support, each of said brackets terminating in a socket, a guard rail, and a plurality of retaining means engaging said rail and supported in said sockets, said retaining means pivotally and slidably supporting said guard rail, said guard rail having latch means for engaging a bedstead for retaining said guard rail in elevated position, each of said retaining means including an upper retaining member and a lower retaining member detachably secured together and rotatably and slidably receiving the guard rail.

4. An attachment for a bed comprising a guard assembly, means for supporting said assembly alongside the bed for pivotal and longitudinal sliding movement, and means for releasably retaining the assembly in upright guard position.

5. A foldable and detachable guard for a bed comprising a longitudinally extending support, a plurality of substantially T-shaped members secured to said support, sockets forming end portions of said T-shaped members, lower retaining members having rods depending therefrom removably received in said sockets, upper retaining members secured to said lower retaining members, said upper and lower retaining members rotatably receiving a guard rail, and a latch carried by said guard rail for engaging a latch plate adapted to be secured to the bedstead of a bed to hold said guard rail in an elevated position, said guard rail including upper and lower tubular members, said lower tubular member being received in said upper and lower retaining members, said upper and lower retaining members being substantially semicylindrical in configuration, and latch means for releasably retaining said guard rail assembly in elevated position.

6. A foldable side guard structure for bedsteads comprising a pair of bearing members adapted to be secured to the side of a bedstead, a panel having elongated rail means at its lower side slidably journaled in said bearing members for rotation of said panel from an upstanding guard position intermediate the ends of the bedstead to a downwardly extending storage position, means on said structure for securing said panel in said upright position, said panel being slidable endwardly in said bearing members when said securing means is disabled thereby to permit the swinging of said panel between said two positions without interference from objects along the side of the bedstead near one end thereof, and interengaging means on said panel and at least one of said bearing members for limiting the endwise sliding movement of said panel.

7. A foldable side guard structure for bedsteads comprising bearing means adapted to be mounted alongside a bedstead, a panel having means at its lower edge slidably and rotatably supporting the panel from said bearing means for rotation of said panel from an upstanding guard position intermediate the ends of the bedstead to a downwardly extending storage position, means on said structure for securing said panel in said upright position, said panel being slidable endwardly on said bearing means when

said securing means is disabled thereby to permit the swinging of said panel between said two positions without interference from objects along the side of the bedstead near one end thereof, and interengaging means on said panel and said bearing means for limiting the endwise sliding movement of said panel in at least one direction.

8. A foldable side guard structure comprising bearing means adapted to be mounted alongside a bedstead, a panel slidably and rotatably supported from said bearing means, means on said structure for releasably retaining said panel in upright position between the ends of a bedstead, said panel being slidable longitudinally upon release of the retaining means thus permitting movement of the panel from an upstanding guard position to downwardly extending inoperative position without interference from obstructions disposed alongside the bedstead adjacent one end thereof.

9. A foldable side guard structure comprising bearing

means adapted to be mounted alongside a bedstead, a panel slidably and rotatably supported from said bearing means, means on said structure for releasably retaining said panel in upright position between the ends of a bedstead, said panel being slidable longitudinally upon release of the retaining means thus permitting movement of the panel from an upstanding guard position to downwardly extending inoperative position without interference from obstruction disposed alongside the bedstead adjacent one end thereof, said retaining means adapted to interengage the panel and one end of the bedstead thus retaining the panel in upright position.

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