

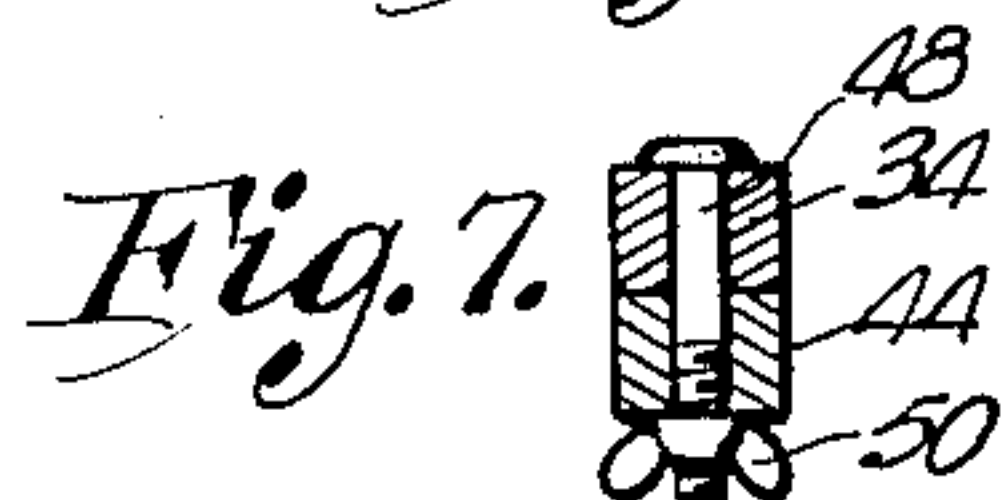
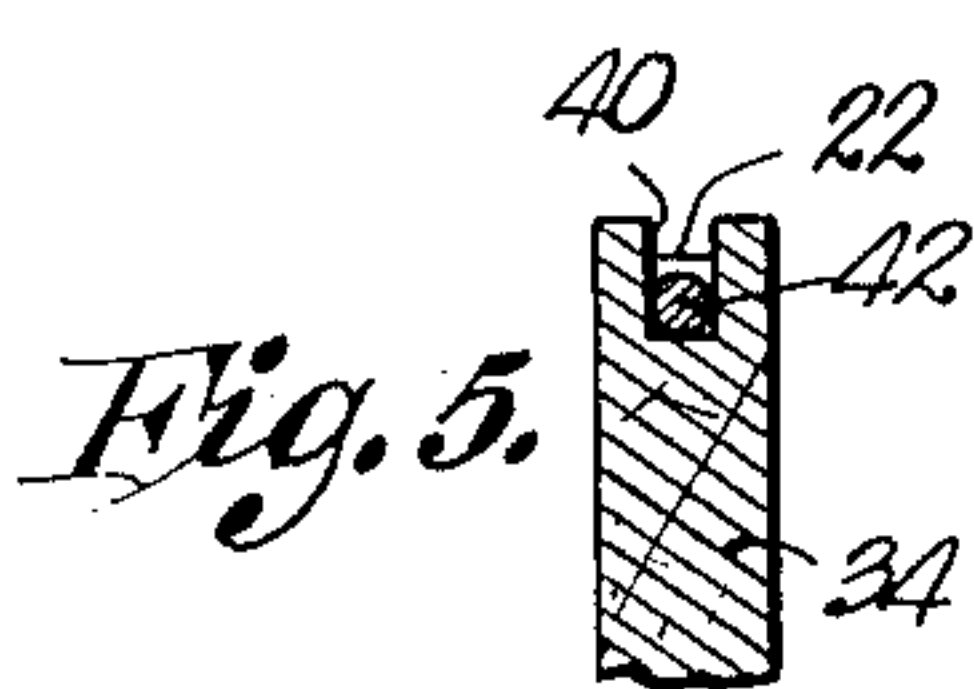
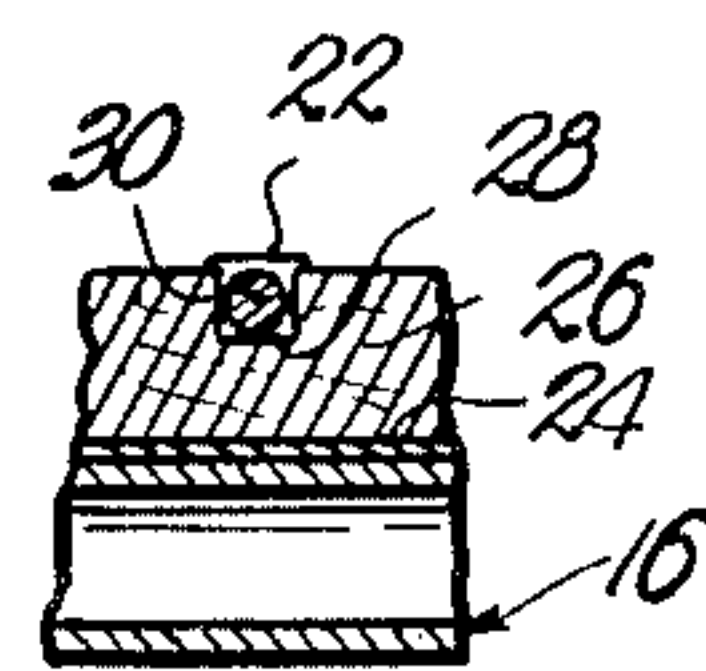
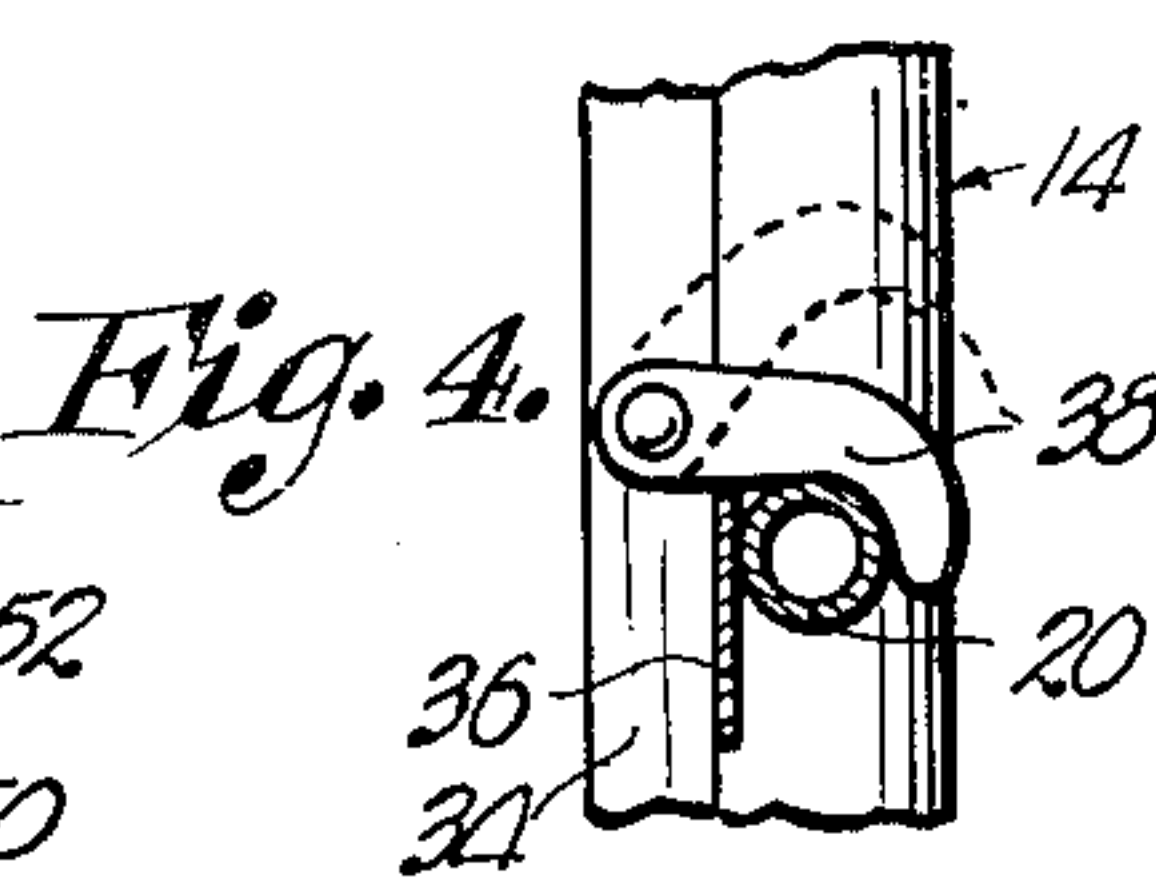
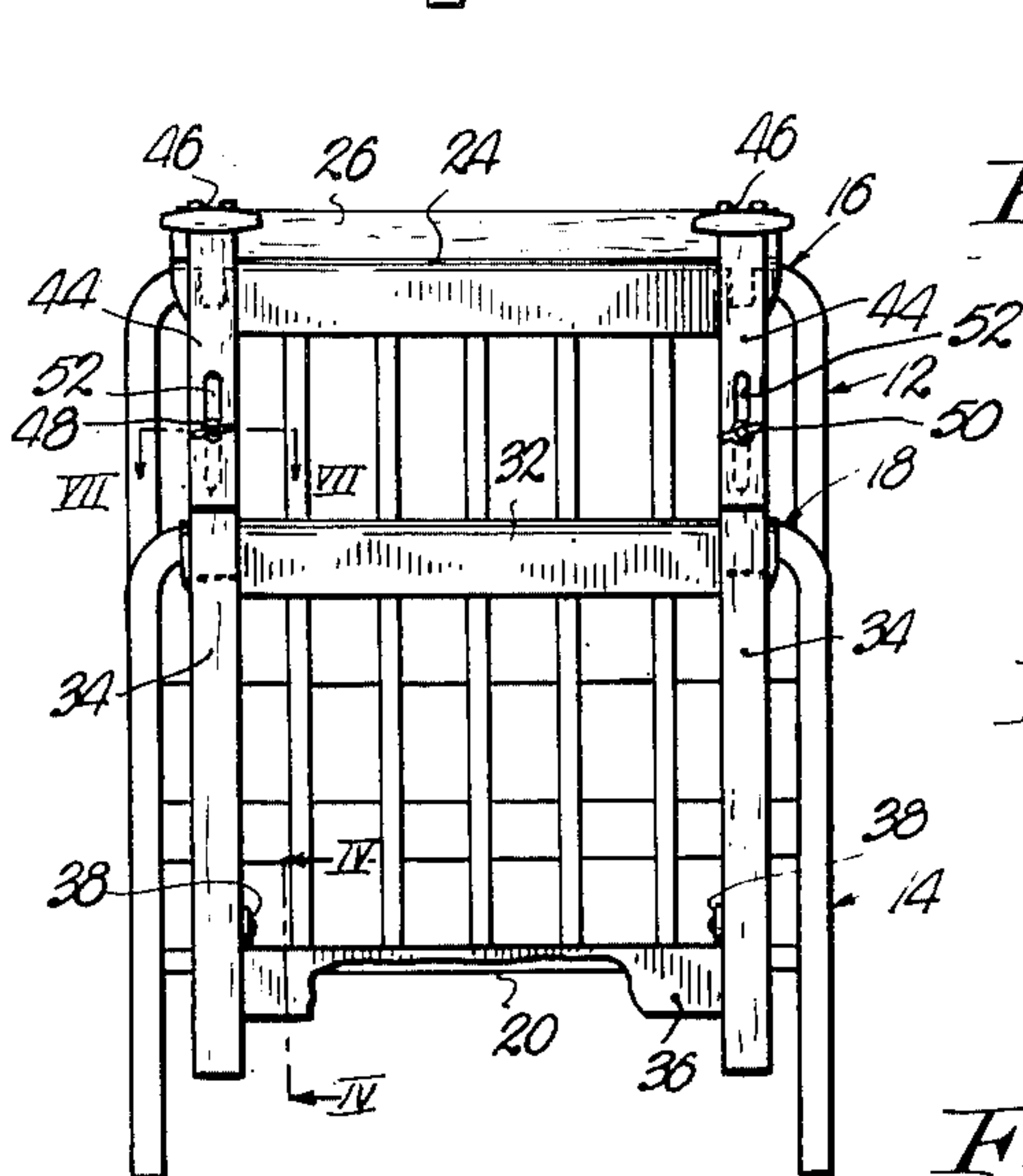
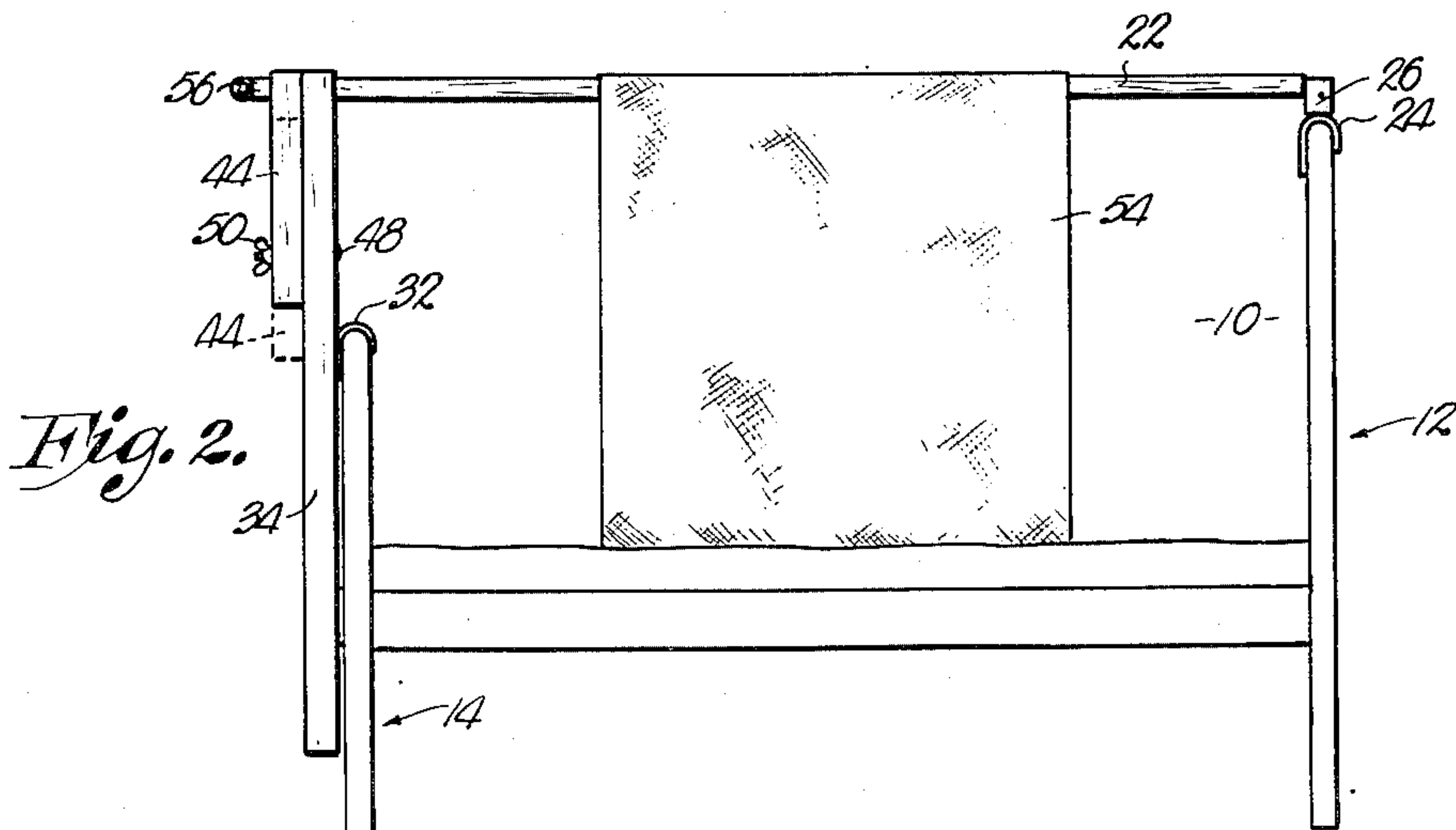
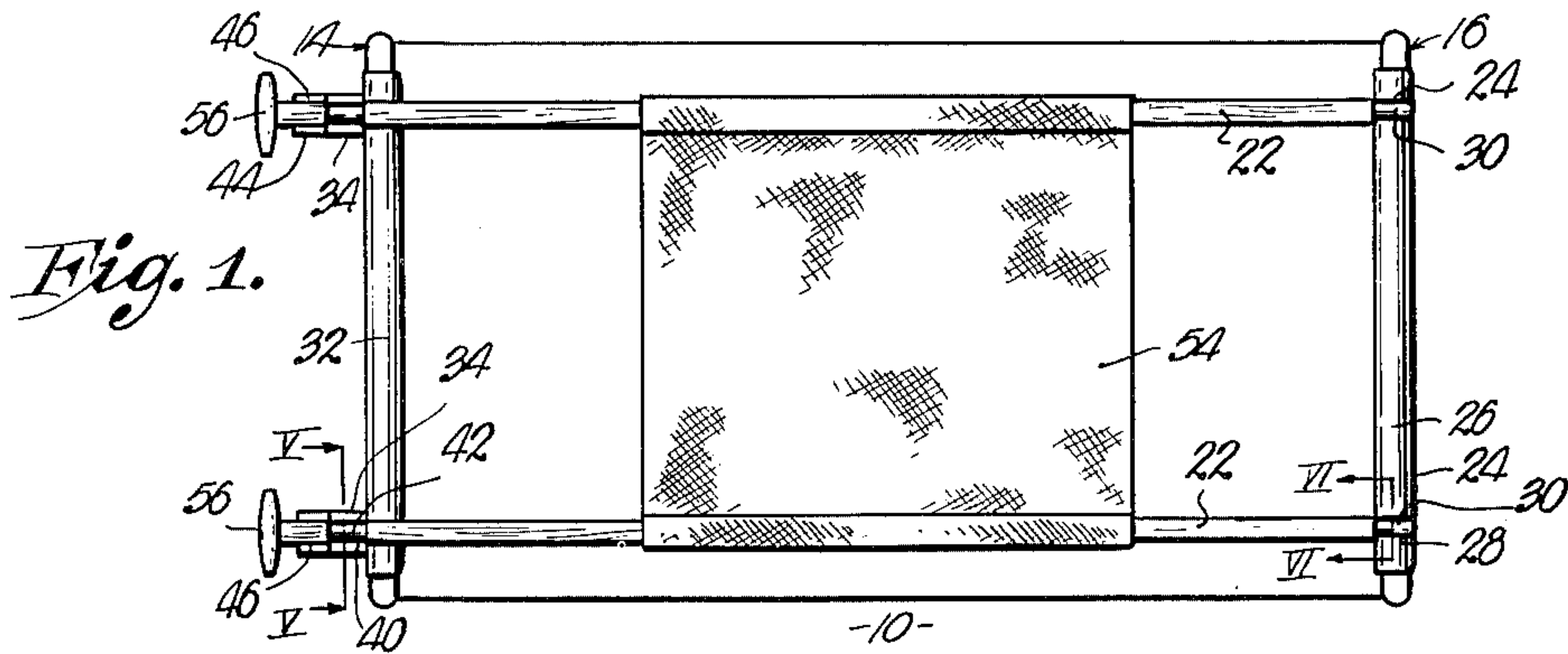
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INVALID HANDLING APPARATUS

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INVALID HANDLING APPARATUS

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1 Claim. (Cl. 5—84)

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This invention relates to apparatus adapted for attachment to a bedstead or the like for facilitating the handling of invalids not only from the standpoint of movement of the patient to provide comfort but to lessen the task of changing, replacing and rearranging bedding and other bedstead parts without full removal of the patient from the bed.

It is the most important object of the present invention to provide an invalid handling device that includes a pair of spaced-apart, rotatable beams adapted for connection with the head-board and foot-board of a bedstead and provided with a sheet of flexible material between the beams for receiving the patient and raising him to an elevated position by rotation of the beams and coiling the sheet thereabout.

Other objects of this invention include the way in which the aforesaid rotatable beams are releasably mounted upon the bedstead; the way in which the supports are provided for rotatably receiving the beams; and the manner of releasably locking the rotatable beams against rotation so as to hold the patient in an elevated condition when desired.

Many more minor objects including details of construction will be made clear or become apparent as the following specification progresses, reference being had to the accompanying drawing, wherein:

Figure 1 is a top plan view of invalid handling apparatus made pursuant to the present invention.

Fig. 2 is a side elevational view thereof.

Fig. 3 is an end elevational view.

Fig. 4 is a fragmentary, detailed, cross-sectional view taken on line IV—IV of Fig. 3.

Fig. 5 is a detailed, sectional view taken on line V—V of Fig. 1.

Fig. 6 is a cross-sectional view taken on line VI—VI of Fig. 1; and

Fig. 7 is a detailed section taken on line VII—VII of Fig. 3.

The apparatus forming the subject matter of this invention is adapted for mounting upon a conventional bedstead broadly designated by the numeral 10 and including a head-board 12 and a foot-board 14. Uppermost horizontal rails 16 and 18 form a part of the head-board 12 and the foot-board 14 respectively and the latter additionally includes a lowermost cross-bar 20.

The attachment hereof includes a pair of identical, spaced-apart elongated beams 22 disposed in a common horizontal plane and having a length greater than the distance between the

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head-board 12 and the foot-board 14. The beams 22 are supported at one end thereof by the rails 16 of head-board 12 through the medium of an elongated strap 24 preferably of metallic material.

The strap 24 is U-shaped in cross-section as illustrated in Fig. 2 and embraces the uppermost end of the head-board 12 including the rail 16 thereof. As shown in Figs. 1 and 3 of the drawing, the length of the strap 24 is substantially the same as that of the upper rail 16.

The strap 24 has connected directly thereto in any suitable manner, an elongated bar 26 of any suitable material and preferably polygonal in cross-section that is provided with a notch 28 in the uppermost edge thereof for each of the beams 22 respectively. While the beams 22 are polygonal, preferably square in cross-section throughout substantially their entire lengths, one end thereof is rounded to present a pintle 30 that is free to rotate within the corresponding notch 28.

The opposite ends of the beams 22 are supported by the foot-board 14 through the medium of an elongated strap 32 similar to the strap 24 and looped over the rail 18. There is provided an elongated, upright standard 34 for each beam 22 respectively that is secured directly to the strap 32 in any suitable fashion and extends well above the rail 18 as well as below strap 32 alongside the cross-bar 20. The two uprights 34 are joined near the lowermost ends thereof by an elongated plate 36 that bears flatly against the bar 20 and each upright 34 is provided with a hook 38 swingably secured thereto and normally looped over the cross-bar 20 as illustrated in Fig. 4.

Each upright 34 has a notch 40 in the uppermost end thereof for receiving a rounded portion 42 of the corresponding beam 22. A lock for each upright 34 includes an elongated element 44 having a polygonal notch 46 at the uppermost end thereof adapted to receive its respective beam 22 outwardly from rounded portion 42 and to thereby hold the beam 22 against rotation.

Each element 44 is releasably secured to its upright 34 through the medium of a bolt 48 having a wingnut 50, the bolts 48 extending through elongated slots 52 extending longitudinally of the elements 44.

The beams 22 are interconnected by a polygonal sheet of flexible material 54 having its marginal edges secured to and coiled about the corresponding beam 22. Rotation of the beams 22 is facilitated by a handle 56 at one end thereof.

It is to be understood that the device is placed

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in use after mounting upon the bedstead 10 by arranging the patient or invalid upon the sheet of material 54 that is looped downwardly from its support by beams 22. Beams 22 are unlocked for free rotation by loosening of the wing nuts 50 and shifting the elements 44 downwardly on the uprights 34. Upon manipulation of the handles 56 to rotate the beams 22, the sheet of material 54 is caused to coil about the beams 22 and the patient thereon is elevated to a desired position. The user thereupon shifts the elements 44 upwardly to a point where the notches 46 thereof engage the beams 22 and prevents the latter from rotation. Tightening of the wing nuts 50 holds the locking elements 44 in a position engaging the beams 22. When it is desired to lower the patient either or both of the elements 44 may be released and the corresponding beam 22 will rotate to permit downward movement of the bight of flexible sheet 54.

It is understood further that the device may be used to roll the patient from side to side in the bed by manipulation of either or both of the beams 22. The position of the patient can thereby be changed without pain or injury.

By virtue of the attachment that has been included for the invalid-handling apparatus upon a bedstead 10, it is possible to quickly and easily change the same to different beds when desired. All of the parts are fully and readily collapsible and therefore, easily shipped or stored as may become necessary or desired.

It is appreciated that the expense of manufacture of the apparatus is not great and that the same may be operated to lift or move patients quickly and easily without particular skill on the part of a nurse or other attendant.

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Details of construction may be varied within the spirit of this invention and therefore, it is desired to be limited only by the scope of the appended claim.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

Invalid handling apparatus comprising a pair of spaced supports adapted for attachment to the head-board and the foot-board respectively of a bedstead; a pair of spaced, elongated beams carried by the supports for rotation on their longitudinal axes; a flexible sheet interconnecting the beams and adapted to coil thereabout on rotation of the beams; and a lock for each beam respectively, each lock being shiftable to and from a position engaging its beam for holding the same against rotation, a portion of each beam being polygonal in cross-section, said locks each including a reciprocable bar having a notch for receiving said portion of its beam.

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