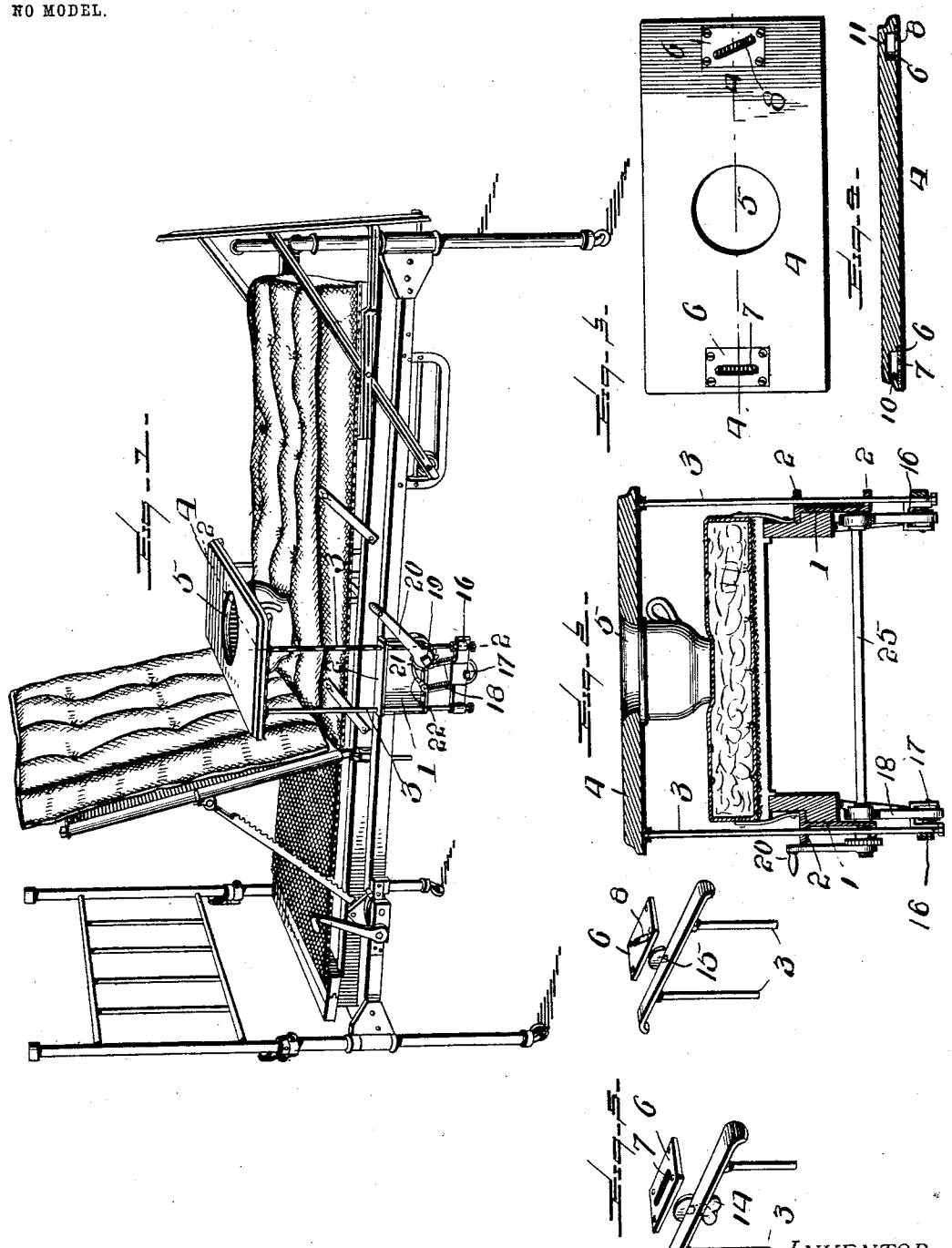
No. 735,135. PATENTED AUG. 4, 1903.

W. McLENNAN.

INVALID BED.

APPLICATION FILED JULY 22, 1902.

NO MODEL.



WITNESSES:

W. F. Doyle.

Frederick S. McGannon

INVENTOR

William McLennan.

BY George B. Shepard

Attorney

THE NORRIS PETERS CO. PHOTO-LITHO., WASHINGTON, D. C.

No. 735,135. Patented August 4, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM McLENNAN, OF OGDENSBURG, NEW YORK.

INVALID-BED.

SPECIFICATION forming part of Letters Patent No. 735,135, dated August 4, 1903.

Application filed July 22, 1902. Serial No. 116,524. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM McLENNAN, a citizen of the United States, residing at Ogdensburg, in the county of St. Lawrence and State of New York, have invented certain new and useful Improvements in Invalid-Beds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in invalid-beds, and relates more particularly to the stool-lifter used for the purpose of supporting the patient.

The invention has for its objects a lifter which may be readily swung to a position beneath the patient, enabling the latter to comfortably seat thereon, the lifter after receiving the patient or invalid then being raised in a gradual manner to enable the proper positioning of the stool.

To these ends the invention consists in the novel details of construction and combination of parts, to be fully described in the following specification and then set forth in the claims.

Referring to the accompanying drawings, forming a part of this application, and in which like characters of reference indicate similar parts throughout the several views, Figure 1 is a perspective view of a bed, showing my improved means thereon and illustrating the position of the stool when in operation. Fig. 2 is a sectional view on line 2 2 of Fig. 1. Fig. 3 is an underneath plan view of the table or rest. Fig. 4 is a longitudinal sectional view on line 4 4, Fig. 3. Fig. 5 is a perspective view of the guide-rods and the plates on the under side of the table or rest with the latter removed.

The bed, as shown in the drawings, is preferably of the well-known types of metal bedsteads, being provided with a back-rest readily adjustable at any desired angle to the bed, but which will not be described in detail here, the subject-matter of this adjustable back-rest forming a separate application for Letters Patent, Serial No. 98,507, filed March 17, 1902.

In carrying the invention into practice I secure to each side of the bed, or, more properly speaking, to the side rails thereof, a guide-plate 1, which may be secured in any approved manner. At its upper and lower portions these guide-plates are provided with flanges 2, which extend in alinement with the bed and are provided with bores to receive the lifting-rods, (designated at 3.) These lifting-rods are two in number, a pair being located on each side of the bed, and are connected at their upper ends by means of a yoke 4, preferably having its ends curved slightly downwardly in order to more readily permit the seat or lifter to be swung into position. This lifter, or the same may be designated a "seat," is shown at 4, and is provided with an opening for an obvious purpose. To the under sides of the seat, at each end thereof, is secured in any approved fashion a plate 6, each being provided with a slot 7 8, the former extending in a plane parallel with the sides of the seat and the latter at an angle thereto. The seat on its under side and in alinement with the aforesaid slots is chiseled out, as shown at 10 11 in Fig. 4 of the drawings, for a purpose, as will hereinafter be obvious. It should be understood that the seat is only placed to engage the yokes on the lifting-rods when the stool or commode is to be positioned with relation to the patient or invalid, and it is a desideratum that the seat be positioned with as great expediency as is possible, and to these ends I furnish one of the yokes with a revolubly-mounted button 14, the head of which is of a size to readily enter one of the slots of the plates previously mentioned. On the opposite end of this button a thumb-piece is cast which will enable the button to be revolved for the purpose of preventing the head thereof from becoming disengaged from the plate after the said head has entered the slot of the plate. The chiseled portions of the seat are of sufficient depth to permit of the head of the button being easily turned. Rigidly affixed to the yoke on the farther side of the bed is a button 15, extending in alinement with the yoke to conform itself and to readily enter the angular slot in the plate on the other side of the seat. In operation it will be understood that the one plate with the angular slot is first engaged over the head of the button 15, and the seat is then swung about this button as a point of pivot, thereby

preventing the head from becoming disengaged from the plate and bringing the head of the button on the opposite yoke into engagement with the slot in the plate. The head of the button in the last-named yoke is then turned to engage with the plate and securely retain the seat upon the yokes, as will be obvious. Rigidly affixed to the lower ends of the lifting-rods are yokes 16, which, as shown, may be secured in any approved manner. Each of these yokes 16 pivotally supports a pulley 17, journaled for free rotation. Passing over this pulley is a strap 18, which is rigidly affixed to the guide-plate 1 and the other end of which passes over a pulley 19, journaled on the guide-plate 1. This latter pulley may be actuated by a hand-crank 20, though other means may be employed as may be found most convenient. For the purpose of preventing a backward movement of the pulley I provide the same with a ratchet-wheel 21, engaged by a gravity-pawl 22, mounted upon the lower flange 2 of the guide-plate 1, these flanges receiving the lifting-rods 3 through the bores previously mentioned. It will be seen that by this construction the seat, with the patient thereon, may be raised in a gradual and minute manner, thereby subjecting the occupant to practically no jar or shock while the raising operation takes place. By adjusting the back-rest to a position so that the latter will engage the rear side of the seat, the patient's back may be supported while being raised, the stool being positioned after the seat has been raised to such a degree as will permit of its insertion between the seat and the mattress, all of which will be obvious.

The construction of the guide-plates and the corresponding mechanism being precisely the same upon each side of the bed, I have simply described the construction of one of the side members. However, in order to effect an equal raising of each of the pairs of lifting-rods I mount each of the pulleys or winches upon a common shaft 25, running athwart the bed, which only requires that one hand-crank or its equivalent be employed for the purpose of imparting movement to the operating pulleys or winches.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A device of the type set forth, comprising guides secured to the side rails of a bed, lifting-rods engaging said guides, yokes at the upper and lower ends of said lifting-rods securing the same together, a seat on the upper yokes of the lifting-rods, and mechanism secured to said guides and lower yokes for raising and lowering said lifting-rods, substantially as described.

2. A device of the type set forth, consisting of guides secured to the side rails of a bed, lifting-rods yoked at their upper and lower ends and engaging the guides, means carried by the guides and engaging the lower yokes for lifting said rods, and a seat detachably secured to the upper yokes of the lifting-rods.

3. A device of the type set forth, consisting of guide-plates secured to the side rails of a bed, with pairs of lifting-rods passing through the guide-plates and carrying yokes at their ends, a seat mounted upon said lifting-rods, a strap secured to each of the guide-plates and engaging the lower of the said yokes, with means for actuating the straps carried by the guides, and means for limiting the movement of said means.

4. A device of the type set forth, consisting of guides, secured to the side rails of the bed, with lifting-rods yoked at their upper and lower ends passing through the guides, means carried by the guides and engaging the lower one of the said yokes for actuating the lifting-rods, and a seat with means for detachably securing the same to the upper of the said yokes.

5. A device of the type set forth, comprising guide-plates secured to the side rails of a bed, lifting-rods slidingly mounted within said guide-plates, yokes at the lower and upper ends of said rods securing the same together, a seat secured to the upper yokes of the lifting-rods, and means secured to the guide-plates for raising and lowering said rods, said means being secured to the lower yokes of the same, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM McLENNAN.

Witnesses:
GEORGE B. SHEPARD,
WILLIAM M. STEPHENS.