

J. M. PHILLIPS.
BED JACK.
APPLICATION FILED JAN. 7, 1921.

1,401,554.

Patented Dec. 27, 1921.

Fig. 1.

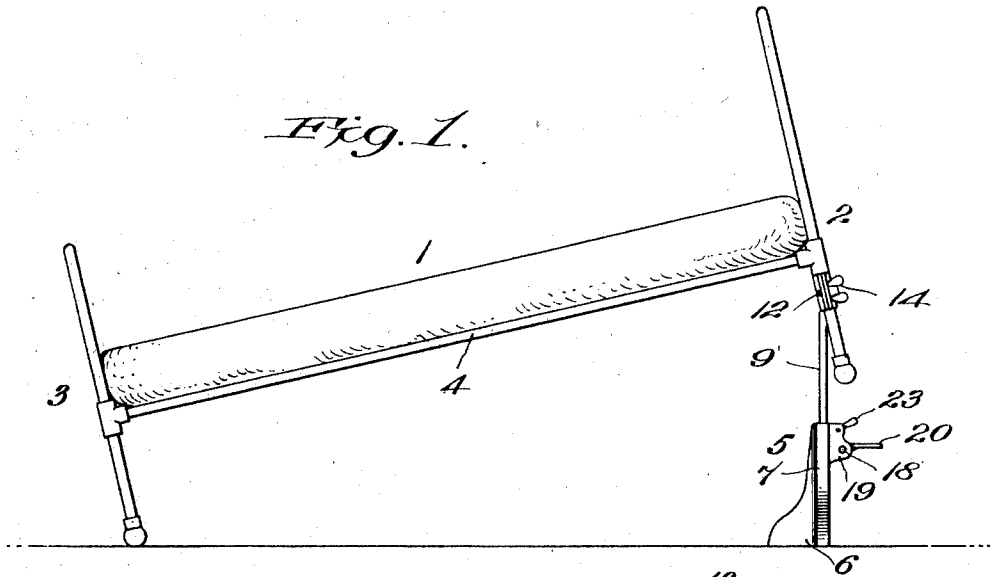


Fig. 2.

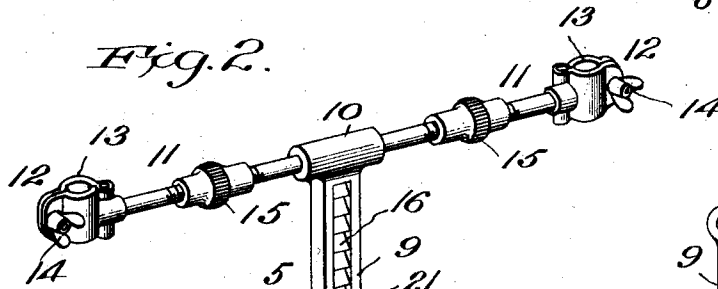


Fig. 3.

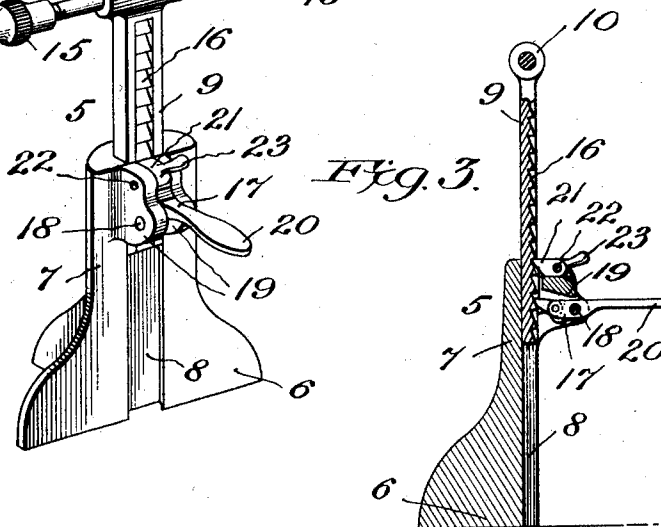
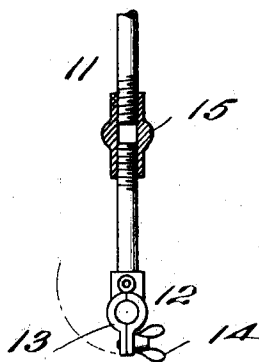


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPHINE M. PHILLIPS, OF ELIZABETH, NEW JERSEY.

BED-JACK.

1,401,554.

Specification of Letters Patent.

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Application filed January 7, 1921. Serial No. 435,586.

To all whom it may concern:

Be it known that I, JOSEPHINE M. PHILLIPS, a citizen of the United States, and resident of Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Bed-Jacks, of which the following is a specification.

This invention relates to improvements in bed jacks principally adapted for use in hospitals where it is necessary to lift the head of the bed so that a patient may be raised from a horizontal to an inclined position.

The general object of the invention is to provide a portable device of this character which may be quickly attached to and detached from a bed without having to lift or otherwise move the bed.

Another object of the invention is to provide a relatively simple, substantial and durable device which, when secured to a bed, may be manipulated by a nurse or attendant so that the bed, with a patient therein, may be raised with the least exertion.

And to these ends the invention consists in the novel details of construction and combination of parts more fully hereinafter described and particularly pointed out in the claim. Referring to the drawings forming a part of this specification, in which like numerals designate like parts in all the views,

Figure 1 is a side elevational view of a bedstead showing my jack connected thereto and with the bed disposed in an inclined position. Fig. 2 is an enlarged detail perspective view of the invention. Fig. 3 is a cross sectional view of the same, and Fig. 4 is a plan view of one end of one of the arms, with a part shown in section.

Heretofore bed jacks have either formed a permanent part of the bed or when connected to the bed, the bed had to be lifted or otherwise moved to secure the jack thereto. In both these instances when it is desired to raise a patient from a horizontal to an inclined position, one end of the bed with the patient therein had to be raised bodily by the nurse or attendant. It is obvious that this requires a great deal of strength and, if one is not very careful he may injure himself through such procedure.

By the use of a bed jack constructed in accordance with my invention, these objectionable features are overcome and one end

of a bed may be readily and easily raised by the nurse or attendant by simply operating the jack with his hand or foot, as desired.

Referring to the drawings in detail, 1 designates a bed of the metal type having the head 2, and foot 3, connected by the side rails 4, and 5 designates the bed jack arranged for elevating and supporting the bed in a horizontally inclined position.

The jack comprises a supporting base 6 having an upwardly extending portion 7 which is grooved as at 8 to receive an extension leg 9. This leg is slidably mounted within the groove and is provided at its upper end with a head 10 from which project two oppositely disposed arms 11. The outer ends of these arms are provided with clamps 12 which are arranged to engage the legs of the bed preferably at the head portion thereof. These clamps 12 are loosely mounted on the arms 11 so as to rotate on the arms during elevation and lowering of the bed so that the body of the jack will extend vertically when the head of the bed is at an angle thereto, as shown in Fig. 1 and in this manner slipping of the body of the jack and the quick descent of the bed is prevented. To facilitate the quick connection of the jack to the bed and its detachment therefrom these clamps are provided with the hinged sections 13, wing nuts 14 being provided for securely holding the sections together when connected to the legs of the bed.

To provide for connecting the jack to various widths of beds each of the arms is formed in two sections and connected by an adjusting piece 15. This piece is in the form of a sleeve having its inner portion provided with right and left hand screw threads for engaging the corresponding threaded ends of the arm sections, as clearly shown in Fig. 4.

In order to raise the jack the extension leg is formed with a rack 16 extending vertically thereon and this rack is adapted to be engaged by a pawl having a finger 17 pivotally attached to its free end and this pawl is horizontally disposed and pivoted on a pin 18 between a pair of laterally extending ears 19 mounted on the upper portion of the base 6. The pawl is provided with an extended handle or treadle portion 20 and is arranged to be manually actuated for raising the jack when desired. To assist in manipulating the jack and holding

the leg in an extended position, a second pawl or dog 21 is provided. This pawl is also arranged to engage the rack 16 and is disposed above the pawl 17 and pivotally connected on a pin 22 between the lateral extending ears 19. An extension 23 is provided on the pawl 21 for throwing the same into and out of engagement with the rack when desired.

10 When in use it is obvious that the clamps on the ends of the arms are first connected to the legs of the bed at the head thereof, the extension leg being in its lowermost position. Now when it is desired to raise the

15 head of the bed, the nurse or other attendant actuates the handle 20 either with the hand or foot which causes the finger 17 of the pawl to engage the rack 16 and force the extension leg upwardly. The actuation of the handle is continued until the head of the bed is brought to its desired elevation. During the actuation of the handle, the dog or second pawl 21 coacts with the rack 16 to prevent the downward movement of the extension leg. Now when it is desired to lower

25 the bed both the pawls 17 and 21 are thrown out of engagement with the rack and the

bed will fall by gravity to its lower or initial position.

It is obvious that those skilled in the art 3 may vary the details of construction and arrangement of parts without departing from the spirit of my invention, and, therefore, I do not wish to be limited to such features except as may be required by the claim. 35

What I claim as new and desire to secure by Letters Patent of the United States is:

A bed jack comprising a supporting base, an extension leg slidably mounted in said base, adjustable arms mounted on the upper 40 ends of said leg, means mounted on the base and engaging said extension leg and adapted to be manually actuated for extending the legs, means coacting with said extension leg and base for holding the leg in lifted position, and clamps rotatably mounted on the 45 outer ends of said arms and arranged for engaging the legs of the bed at one end thereof, for the purpose specified.

Signed at New York in the county of New 50 York and State of New York this 5th day of January, A. D. 1921.

JOSEPHINE M. PHILLIPS.