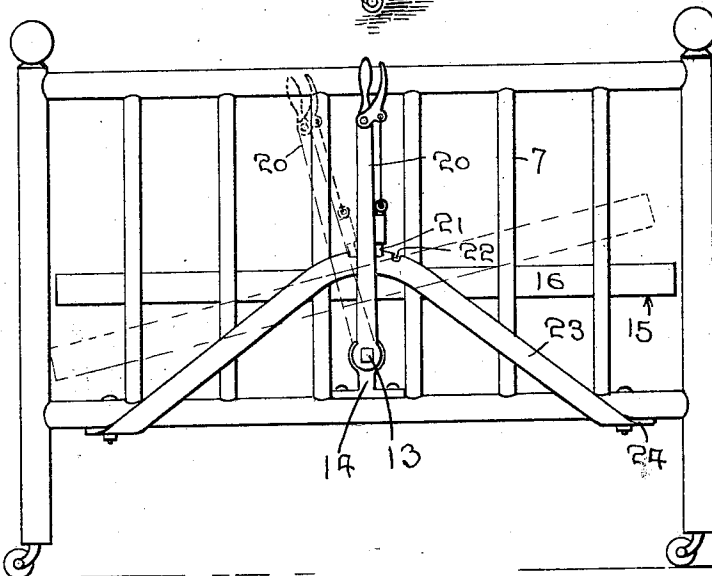
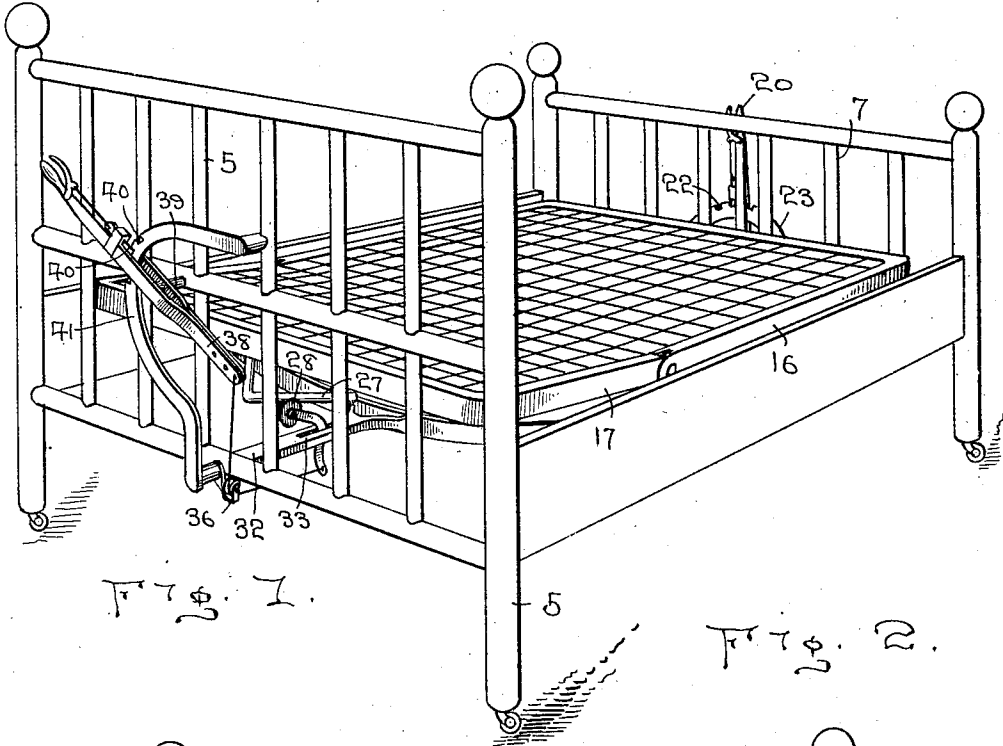


F. BERMAN.
BED FOR INVALIDS.
APPLICATION FILED FEB. 29, 1912.

1,033,981.

Patented July 30, 1912.
2 SHEETS—SHEET 1.



WITNESSES:

Thomas R. Lee
W. Newcomb

INVENTOR
Frank Berman

BY
W. J. Fitzgerald & Co
Attorneys

F. BERMAN.
BED FOR INVALIDS.
APPLICATION FILED FEB. 29, 1912.

Patented July 30, 1912.
2 SHEETS—SHEET 2.

1,033,981.

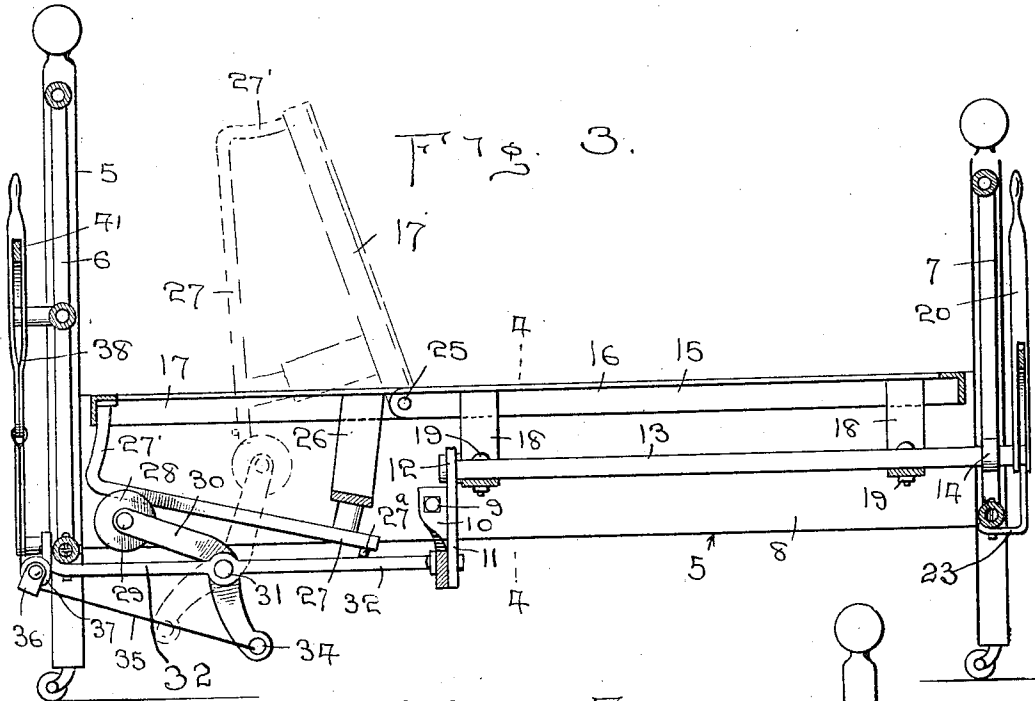


Fig. 3.

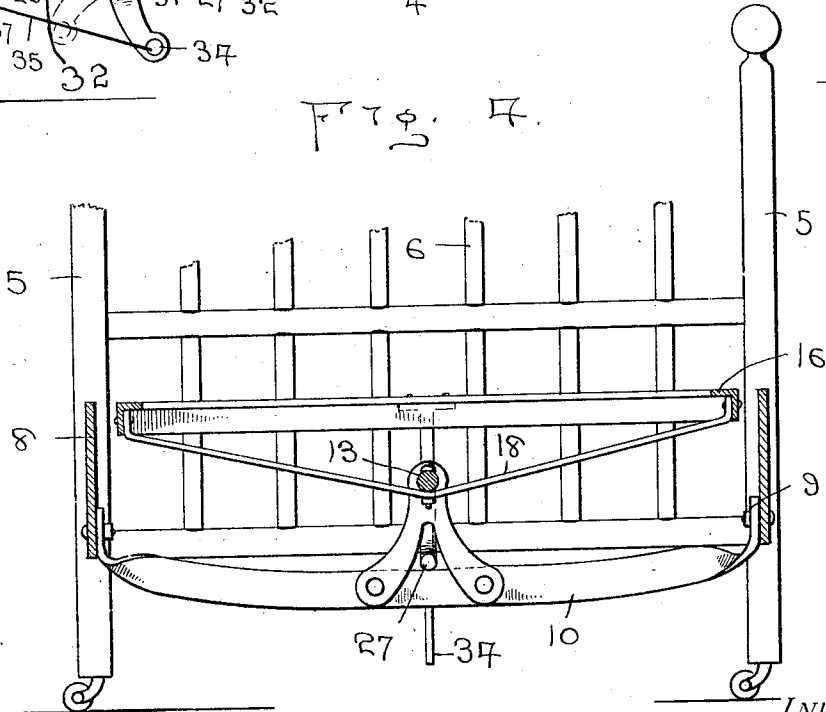


Fig. 4.

WITNESSES:

Shaw Riley
M. Newcomb

INVENTOR
Frank Berman

BY
W. J. Fitzgerald & Co
Attorneys

UNITED STATES PATENT OFFICE.

FRANK BERMAN, OF OREGON, WISCONSIN.

BED FOR INVALIDS.

1,033,981.

Specification of Letters Patent.

Patented July 30, 1912.

Application filed February 29, 1912. Serial No. 680,652.

To all whom it may concern:

Be it known that I, FRANK BERMAN, a citizen of the United States, residing at Oregon, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Beds for Invalids; 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.

This invention relates to an invalid bed, and it more particularly relates to new and useful elements in combination with a bedstead and springs, whereby the springs may be suitably manipulated for handling patients to the best advantage.

An object of the invention is to provide a bedstead of this character, which is especially applicable and useful in hospitals, infirmaries, etc., whereby the patients may be handled with the maximum degree of comfort to themselves and the maximum degree of convenience to their attendants.

A still further object of the invention is to provide new and useful means, in connection with a hinged bed-spring frame, whereby the head portion of the latter may be quickly and easily raised into one of several alternative degrees of inclination.

A still further object of the invention is to provide means for pivotally supporting the springs, whereby they may be tilted laterally relative to the bedstead.

A still further object is to provide a bedstead of this character in which may be embodied all of the necessary sanitary conditions, and which may be manufactured at a moderate cost, and which is clearly practical and efficient in operation.

Other objects and advantages will be hereinafter set forth and pointed out in the specification and claims.

In the accompanying drawings which form a part of this application, Figure 1 is a perspective view of the complete combination embodying the preferred form of my invention. Fig. 2 is an end view of the bedstead and springs, certain elements in the background being omitted. Fig. 3 is a longitudinal vertical sectional view through the bedstead and spring, and, Fig. 4 is a fragmental vertical sectional detail view on the line 4-4 of Fig. 3.

Referring to the drawings in which similar reference characters designate corre-

sponding parts throughout the several views, the bedstead 5 may be either of any ordinary or preferred construction having the usual head-piece 6, foot-piece 7, and side rails 8. Secured to the side rails, by any proper means, as by bolts 9, is a cross beam 10, and secured to the cross beam 10 is an upstanding bracket 11 having its upper end formed into a bearing 12, for the shaft 13, which has its other end journaled in a bearing 14, supported by the foot-piece. The springs, which are generally designated by the numeral 15, comprise a body-member or frame 16 and a head-member or supplemental frame 17. The body-member of the springs is supported by two struts or brackets 18, the latter being supported by the shaft 13, rigidly secured thereto by any proper means such as bolts 19, and it is obvious that if the shaft 13 is rotated or oscillated, the springs will be oscillated therewith.

Rigidly secured to the end of the shaft 13 is a shift-lever 20 carrying a slide bolt 21, adapted to engage notches 22, in a segment member 23, secured to the bedstead at 24. By shifting the lever 20 into the dotted line position thereof, the bed-springs will be shifted into their dotted line position, as shown in Fig. 2. The supplemental frame 17 is pivotally secured to the body-member of the frame at 25, and is adapted to be raised, or oscillated, into the dotted line position, as shown in Fig. 3. Secured to opposite sides of the supplemental frame, near the pivoted ends thereof, is a cross brace bracket 26, to the bottom of which may be secured, either directly or indirectly, an inclined rod 27 which will hereinafter be called the lift-rod. At the upper end of the inclined portion is a substantially vertical extension 27', the upper end of said extension being secured to the supplemental frame 17.

The inclined rod 27 is supported by a sheave wheel 28, journaled at 29 to a lever 30, said lever being pivoted at 31 to a bracket 32, the latter being secured to the head-piece 6 and to the cross beam 10 by any proper means. The bracket 32 is preferably slotted at 33 and the lever 30 extends through this slot and has an eye 34, which is engaged by a wire or cable 35. A bracket 36, secured on the head-piece 6, carries a pulley 37, over which the flexible member 35 passes to the end of the hand-lever 38, to which it is secured. The hand-lever 38 is

pivotaly connected to the head-piece through the medium of the stud 39, and carries a slide-bolt 40, which is adapted to be brought alternatively into engagement with notches in a segmental member 41, the latter being fixed to the head-piece 5. When the free end of the lever is forced downward from the position shown in Fig. 1, it is obvious that the flexible member 35 will be drawn upward and outward, resulting in the upward movement of the sheave wheel 28, and thereby through the medium of the rod 27, will move the supplemental frame into a position of greater inclination. The rod 27 is provided with a stop 27^a for limiting the movement of the sheave wheel 28, when carried by the lever 38 and cable 35. It is desired at times, however, to raise the patient to an approximately vertical posture, and this may be accomplished independently of the lever 38, by grasping the supplemental frame 17 and forcing it toward the foot-piece, whereupon the lever 30 and wheel 28 may be pushed into the dotted line position shown in Fig. 3, the end of the rod 27 resting upon said sheave wheel 28 at a point rearward of its axis. At this point, the lever 30 is prevented, from moving farther forward, by coming into contact with the bracket 32 at the rear end of the slot 33, and it is quite obvious that the wheel 28 and lever 30 constitute a secure support for the supplemental frame in this raised position. When it is desired to lower the supplemental frame into its normal position, it is only necessary to tilt said supplemental frame slightly forward, push the wheel 28 backward until it is supported by the flexible member 35, rest the rod 27 against the sheave wheel 28 and then raise the free end of the lever 38 into an approximately vertical position, whereupon the several elements will assume the full-line position shown in Fig. 3.

It is obvious that when it is desired to turn an invalid, this can be much more easily accomplished when the bed-spring is tilted laterally, as shown in the dotted line position, Fig. 2, than when said springs are level. Moreover, this feature is of great advantage when it is desired to change the bed-clothing, which may be accomplished by tilting the bed-springs to one side, moving the patient to the lower side of the inclined or tilted springs, applying clean bed-clothing to the high portion of the springs, then tilting the springs in the opposite direction; whereupon the patient may be easily transferred on to the clean bed-clothing, while the soiled or unsanitary clothing are being removed. This change

having been made, the bed-springs are returned to their normal level position, by moving the lever 20 to its normal vertical position, shown in Fig. 2.

I do not limit my invention to the exact details of construction, combination and arrangement of parts herewith shown and described, but my invention is limited only by a reasonable interpretation of the appended claims.

What I claim is:

1. In an invalid's bed, the combination with a bedstead and springs, of a bracket supported by the bedstead, a cross beam extending laterally across the bedstead and supporting a second bracket, said bracket and said second bracket having bearings, a shaft seated in the bearings, said bed-springs being secured to the shaft and adapted to be moved therewith, and means for imparting rotary motion to said shaft.

2. In an invalid's bed, the combination with a bedstead and springs, of a bracket secured at the foot of the bedstead, a cross beam connecting the sides of the bedstead and supporting an end of a second bracket having its other end supported by the head of the bedstead, said cross rail supporting a third bracket, said bed-springs being pivotally secured to the first said bracket and said third bracket and adapted to be oscillated relative to the bedstead, said bed-spring comprising two members pivotally united, and means associated with one of the bed-spring members and with the said second bracket for imparting rotary motion to one of the bed-spring members in a vertical plane.

3. In an invalid's bed, the combination with a bedstead and springs, said springs comprising a body member and a supplemental frame pivotally connected together and supported by the bedstead, a bracket under the supplemental frame, a sheave, a lever pivotally connected with the bracket and carrying the sheave, a lift rod secured to the supplemental frame and resting upon the sheave, and means connected to the bedstead whereby the lever may be moved and the sheave caused to travel along the lift rod, for moving the supplemental frame into one of several alternative inclined positions.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK BERMAN.

Witnesses:

A. E. CHATTERTON,
JOHN C. FEHLANDT.