J. H. DICKERSON.

HOSPITAL BED.

APPLICATION FILED JULY 29, 1914.

1,191,772.

Patented July 18, 1916.

2 SHEETS—SHEET 1.

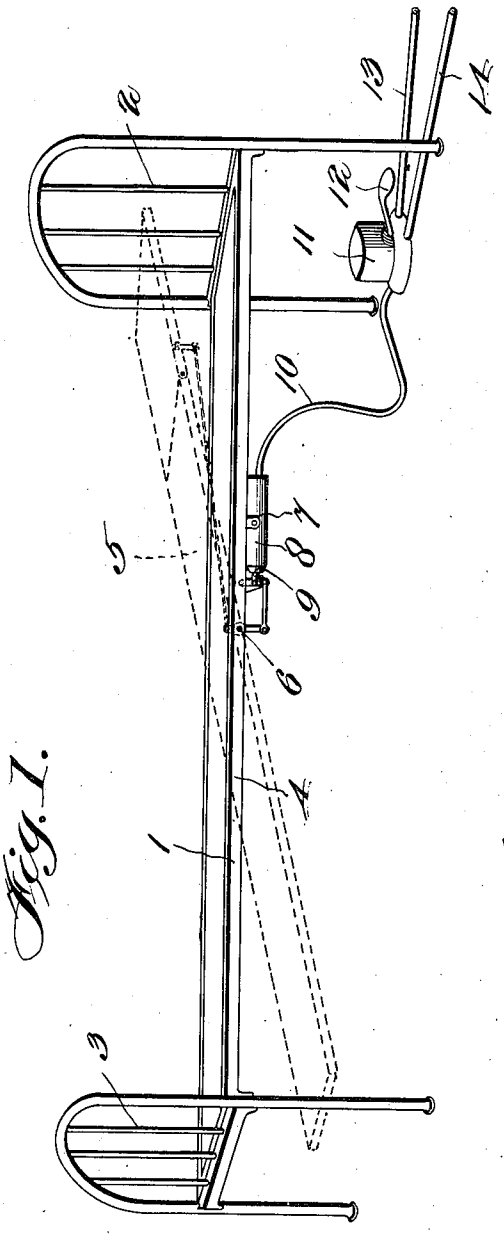


Fig. 1.

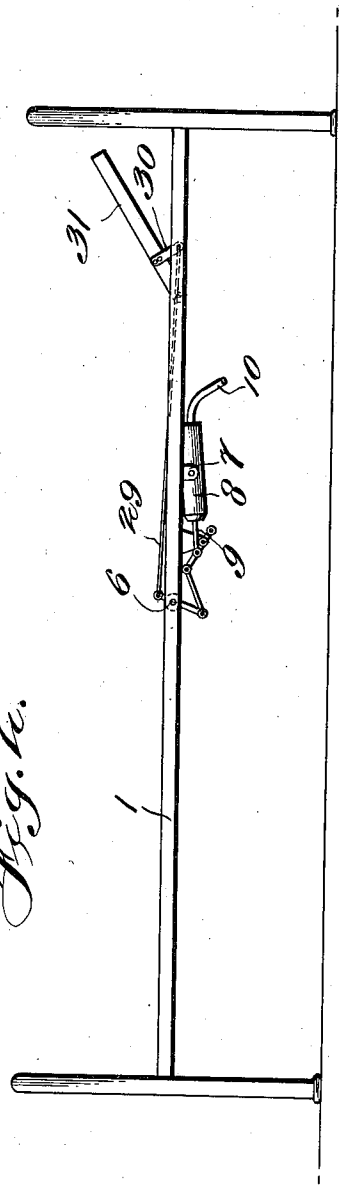


Fig. 2.

Witnesses

W. W. Duvall.

H. Clay Evans

Inventor

J. H. Dickerson,

By A. Randolph & Co.

Attorneys

J. H. DICKERSON.

HOSPITAL BED.

APPLICATION FILED JULY 29, 1914.

1,191,772.

Patented July 18, 1916.

2 SHEETS—SHEET 2.

Fig. 4.

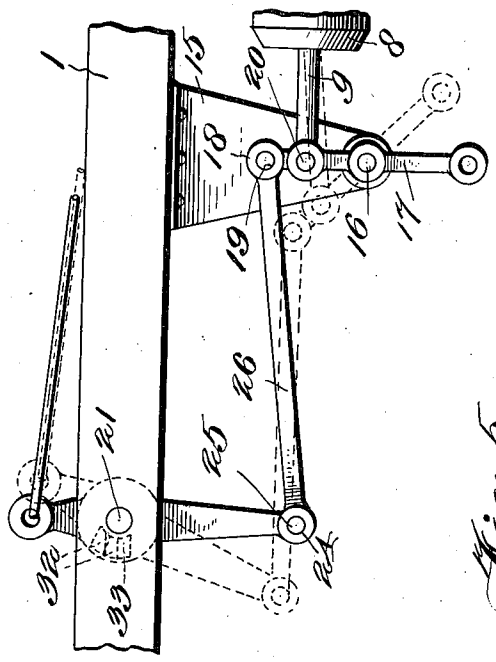


Fig. 5.

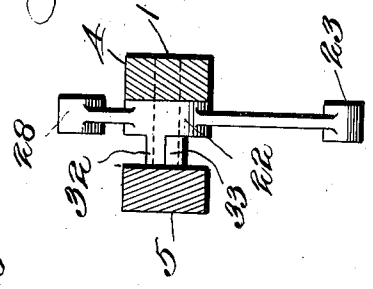
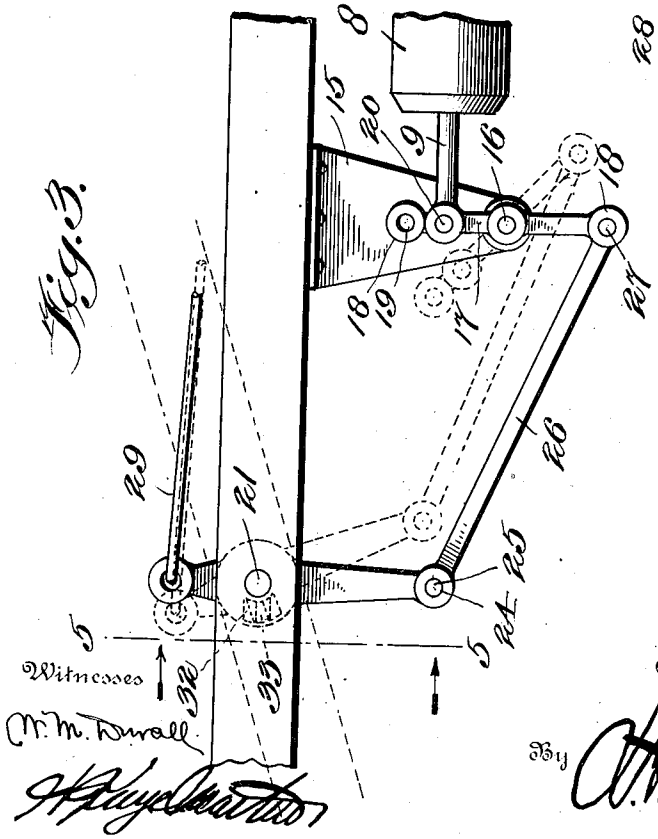


Fig. 3.



Witnesses

W. M. Duvall.

Inventor

J. H. Dickerson,

By A. Pennington Jr.

Attorney

UNITED STATES PATENT OFFICE.

JOHN H. DICKERSON, OF HAZLETON, PENNSYLVANIA.

HOSPITAL-BED.

1,191,772. Specification of Letters Patent. Patented July 18, 1916.

Application filed July 29, 1914. Serial No. 853,871.

To all whom it may concern:

Be it known that I, JOHN H. DICKERSON, a citizen of the United States, residing at Hazleton, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Hospital-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.

This invention relates to new and useful improvements in hospital beds, and has for its principal object to provide an adjustable bed which is particularly adapted for use in hospitals and sick rooms.

Another object of the invention is to provide an automatically operated bed which may be tilted as an entirety or which may be constructed so that the head of the occupant is raised.

A further object of the invention is to provide a bed carrying a hydraulic cylinder by means of which the operation of the same is controlled.

With these and other objects in view, the invention consists in the novel combination and arrangement of parts which will be fully set forth in the following specification and accompanying drawings, in which,

Figure 1 is a perspective view of a hospital bed constructed in accordance with this invention, showing the same tilted in the dotted lines, Fig. 2 is a side view in elevation of a bed constructed in accordance with this invention showing the head piece as it would appear when raised, Fig. 3 is an enlarged detail view of the controlling levers showing the same connected in position to tilt the bed, Fig. 4 is a view similar to Fig. 3 showing the same so connected as to raise the head piece, and Fig. 5 is a transverse sectional view taken on line 5—5 of Fig. 3.

Referring now to the drawings by characters of reference, the numeral 1 designates as an entirety the bed frame comprising the usual head and foot pieces 2 and 3 respectively which are connected by the side bars 4. The spring frame, which is designated generally by the numeral 5, is arranged to be pivotally mounted on the frame 1 as at 6.

Secured to one of the side rails 4 of the bed 1 are a pair of depending ears 7 which are arranged to pivotally hold the cylinder 8, having the piston rod 9, which controls the operation of the bed. A suitable flexible tube 10 is connected to the cylinder and to a suitable controlling mechanism 11, which controlling mechanism is provided with the lever 12 by means of which the operation of the bed is controlled. A suitable inlet pipe 13 and outlet pipe 14 are connected to the controller 11 and thus furnishes the power by means of which the device is operated.

Secured to one of the rails 4 of the stationary frame 1 of the bed in direct alinement with the piston rod of the cylinder, is a depending bracket 15 carrying at its lower terminal a pivot 16. This pivot 16 is arranged to rotatably hold the lever 17 with relation to the bracket and the lever is provided at each extremity with the enlargement 18 having formed centrally thereof a suitable aperture 19, the use of which will appear as the description proceeds. Adjacent to the upper enlargement 18 is a suitable lug 20, which is arranged to form a connection for the free end of the piston rod 9 hereinbefore referred to. Extending through the side rails 4 of the bed frame 1 is a suitable lug 21, which is rigidly secured to the frame 5. This lug is arranged to form a pivot on which the lever 22 is mounted and arranged to swing. This lever is provided at its lower end with a suitable enlargement 23 having formed transversely thereof a suitable aperture 24 which is arranged to receive the lug 25 carried by the link 26. The opposite terminal of the link 26 is provided with a suitable lug 27 which is arranged to extend through the lowermost or uppermost apertures 19 of the lever 17, hereinbefore described. The opposite terminal of the lever 22 is provided with the enlargement 28 which is arranged to form a connection for the link 29, the opposite end of which extends toward the head of the bed and is connected to the depending projection 30 carried by the pivoted head section of the member 5 which is designated by the numeral 31. Formed laterally of the cylindrical portion of the lever 22 is a suitable lug 32 which is arranged to coöperate with the lug 33 carried by the spring frame 5 in swinging said frame on its pivots 6.

It will be apparent from the foregoing that in use when it is desired to swing the entire spring frame in the position illustrated by the dotted lines in Fig. 1, the link 26 is connected to the lever 17 as illustrated

in Fig. 3. Upon admitting pressure to the cylinder 8 it will be apparent that the piston rod 9 will force the upper terminal of the lever 17 in the position illustrated in the dotted lines and thereby cause the lugs 32 and 33 to engage each other, thereby swinging the spring frame to the desired position. When it is desired that the head piece be raised, the link 26 is disconnected from the lower connection 18 and connected to the upper connection as illustrated in Fig. 4. In this way when pressure is admitted to the cylinder 8, the piston rod will force the lever 17 forwardly, thereby causing the frame to assume the position illustrated in the dotted lines and disengage the lugs thereby exerting pressure on the link 29, which in turn operates on the extension 30 and raises the head piece 31 hereinbefore described.

It will thus be seen that a simple and efficient means for controlling the operation of the bed is provided and any necessity of exertion other than the operation of the foot lever 12 of the controller 11 is eliminated.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that such changes may be made in the combination and arrangement of parts as will fall within the spirit and scope of the invention as defined in the appended claim.

Having thus described my invention, I claim:

A hospital bed including a rigid frame, a spring frame pivoted within the rigid frame, a cylinder mounted to operate on the rigid frame, a piston operable within the cylinder, a lever pivotally mounted on the rigid frame, said lever being connected to the piston, a second lever pivotally mounted on the rigid frame, a pivoted head piece on the spring frame, a link connecting the upper end of the second lever with the pivoted head piece and arranged to raise said head piece, lugs carried by the second lever and arranged to engage the pivoted frame, and a link connected to the second lever and arranged to be connected to the upper or lower terminals of the first mentioned lever so that when the piston within the cylinder is operated the spring frame or head piece will be operated according to the link connection.

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

JOHN H. DICKERSON.

Witnesses:
GRANT BUSBY,
ROBERT C. JOHNSON.