

(No Model.)

2 Sheets—Sheet 1.

W. D. DAWDY & A. HERREN.  
INVALID BED.

No. 504,333.

Patented Sept. 5, 1893.

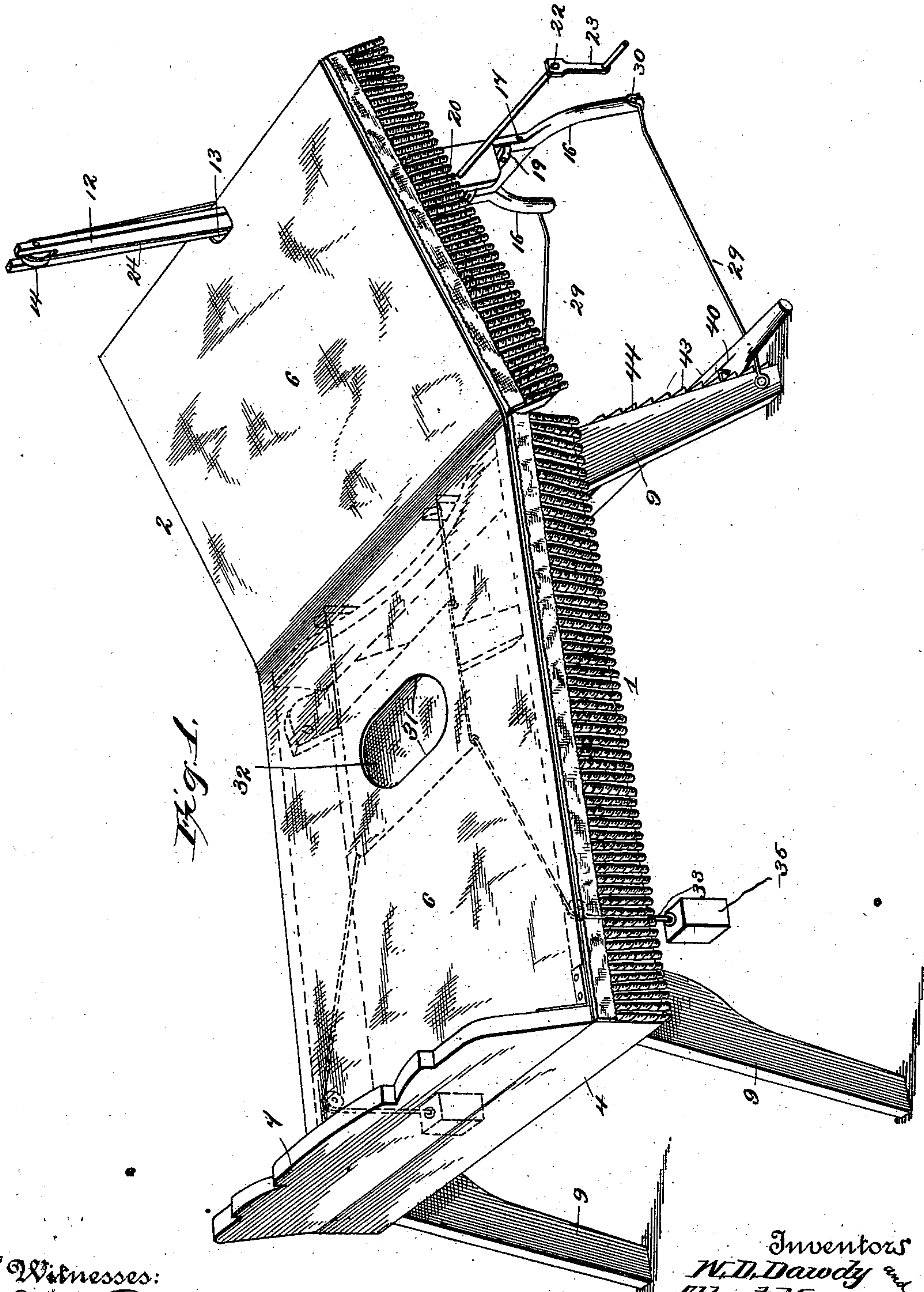


Fig. 1.

Witnesses:

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W. S. Duval.

Inventors

W. D. Dawdy and

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Attorneys.

(No Model.)

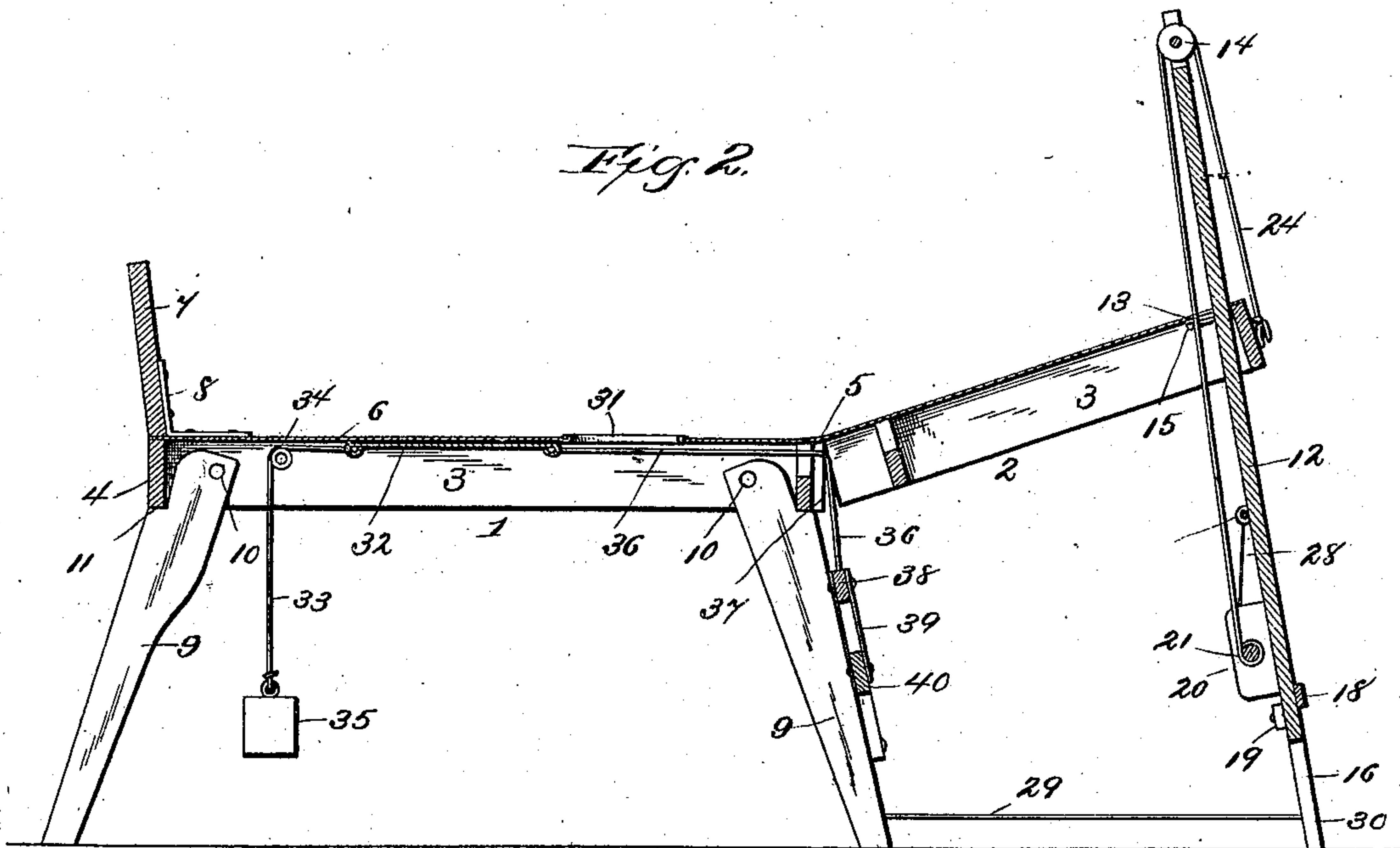
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W. D. DAWDY & A. HERREN.  
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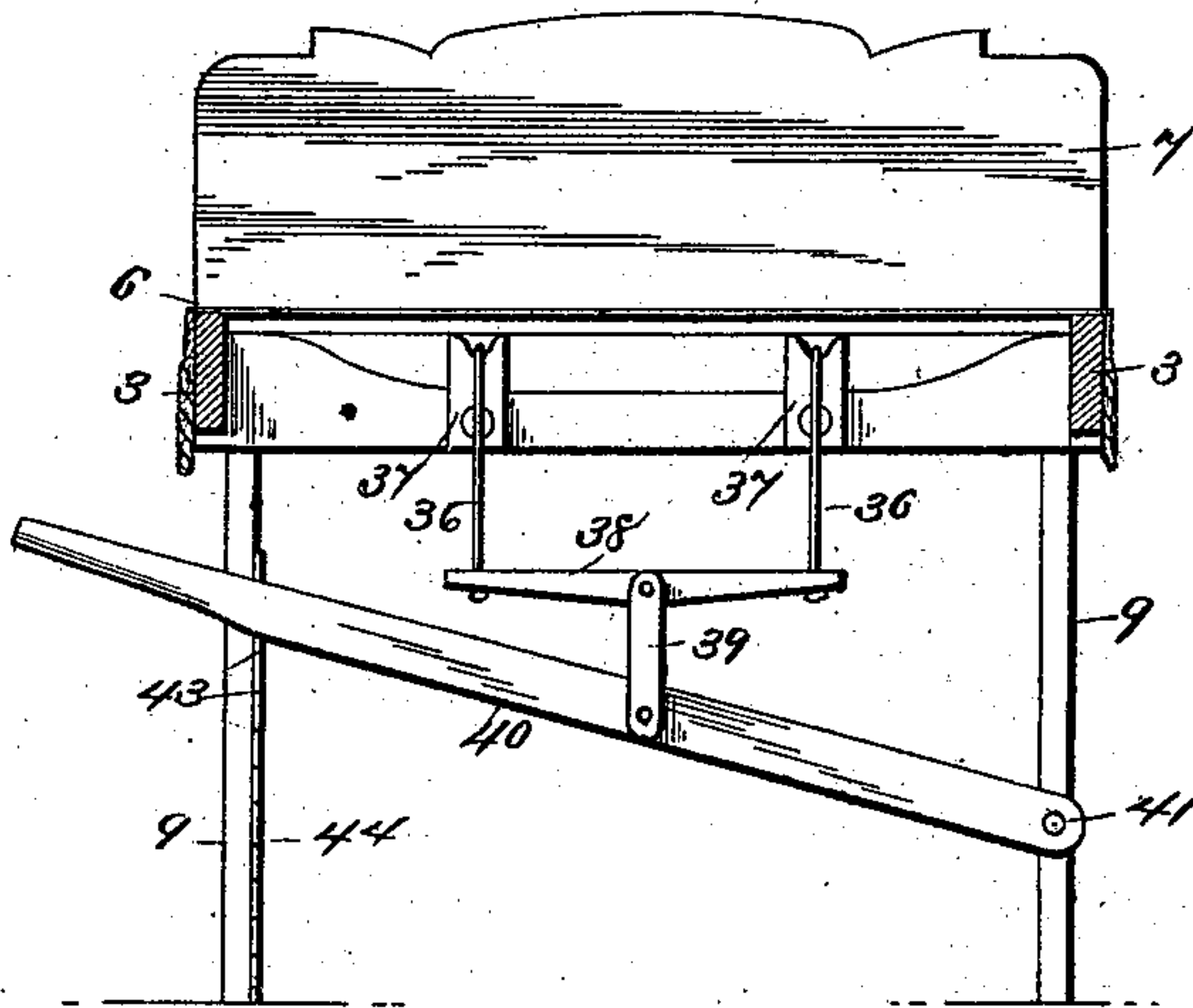
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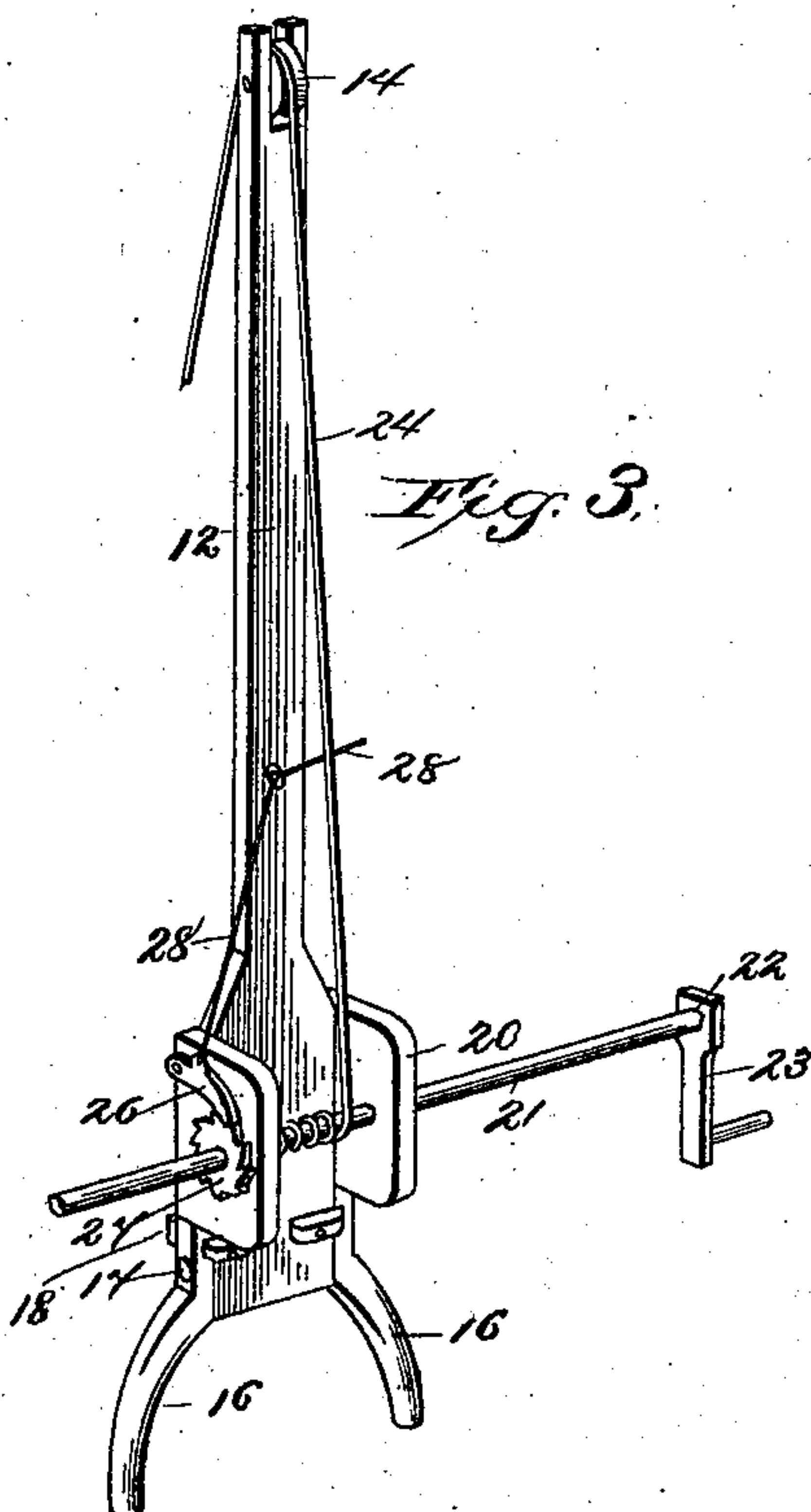
*Fig. 2.*



*Fig. 4.*



*Fig. 3.*



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# UNITED STATES PATENT OFFICE.

WARREN D. DAWDY AND ALBERT HERREN, OF ADAIR COUNTY, MISSOURI.

## INVALID-BED.

SPECIFICATION forming part of Letters Patent No. 504,333, dated September 5, 1893.

Application filed May 3, 1893. Serial No. 472,888. (No model.)

*To all whom it may concern:*

Be it known that we, WARREN D. DAWDY and ALBERT HERREN, citizens of the United States, residing in the county of Adair (La Plata P. O.) and State of Missouri, have invented a new and useful Invalid-Bed, of which the following is a specification.

Our invention relates to improvements in invalid-beds; the objects in view being to construct a bed of this class of cheap and simple construction; that shall be comfortable to the occupant, in that it may be adjusted to support him in any desired position—sitting, reclining, or at full length, and which is capable of being disposed in any of its adjusted positions with ease to the operator; and finally to provide for a complete folding of the bed for storage purposes, and to adapt it for supporting the patient for operation and yet avoid the necessity of employing a bed-pan.

Other objects and advantages of our invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of a bed constructed in accordance with our invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a detail in perspective of the windlass and its standard. Fig. 4 is a transverse sectional view through the swinging back-portion, looking toward the foot-board.

Like numerals of reference indicate like parts in all the figures of the drawings.

The bed-frame consists of two sections, namely, the foot-section or lower portion 1, and the head-section or upper portion 2. Each section comprises opposite parallel side-bars 3 and end-bars 4, the two bars 3 of the two sections being loosely hinged as at 5, at the upper corners of their adjacent or meeting ends. The entire frame is covered with a bottom 6, in this instance of canvas or other textile. A foot-board 7 is secured to the lower ends of the bars 3 by means of L-shaped brackets or angle-irons 8, and pairs of legs 9, are pivoted at 10, and have their outer upper corners notched or recessed, at 11, to fit or receive the lower edges of the end-bars 4. When not in use these legs may be folded up within the bed-frame for convenience in pack-

ing. A standard 12, is located at the head of the bed and at its upper end projects through an opening 13 made in the bed bottom adjacent to the cross-bar, the standard having its upper end bifurcated and provided with a loose grooved pulley or roller 14 and below the same loosely embraced by a wire loop or frame 15 which extends from the cross-bar 4 below the opening 13. A pair of legs 16, is pivoted at 17, to the opposite side-edges of the standard and at the lower end thereof; and a cleat 18 is located upon the rear face of the standard against which the upper ends of the legs abut when lowered to operative position. When thus lowered, turn-buttons 19, upon the front face of the standard serve to secure the legs in position.

Bearing-ears 20, are located upon and project from the front face of the standard, and journaled therein is a transverse winding-shaft 21, which has its opposite ends projecting at each side of its bearings and squared at 22, whereby either may accommodate a crank-handle 23, through the medium of which the shaft may be rotated. A rope 24, has one end attached to the said shaft, passes up the front of the standard through the opening 13 and loop thereunder, and rearwardly over the pulley of the standard, where it terminates, and is secured to the end-bar 4 of the head-section. Thus it will be seen that by winding the rope upon the shaft the head-section will be elevated at any desired angle, and may be subsequently lowered to a less angle or to a horizontal position by an unwinding. The shaft may be locked at any point by means of a pivoted gravity-pawl 26, engaging with the teeth of a ratchet-wheel 27, with which the shaft is provided. A light cord 28, is attached to the pawl and is connected to any fixed part of the bed whereby the operator regardless of his position with relation to the pawl may raise the same out of engagement with the wheel and thus release the shaft. The lower ends of the legs of the standard are connected to those of the adjacent supporting-legs of the bed by wire-rods 29, whose front ends are pivoted to those of the bed-legs and whose rear ends are hook-shaped to engage eyes 30, of the standard-legs.

Just in advance of the line of the hinges, the bed-bottom 6 is provided with an ellipti-



cal opening 31, the same being of such size and shape as to adapt it to fit the posterior of the patient, so that an operation may take place without the patient leaving the bed, but simply elevated to a sitting posture. A convenient vessel of any description is placed under the opening upon the floor or other support upon such occasions. When not in use the opening 31 is covered by a sliding curtain 32, arranged under the bed-bottom and supported for movement in such manner as desired but preferably as will be now described. Cords 33, are attached to the lower corners of the curtain and pass over two small guide-pulleys 34, at the inner sides of the bed-frame, and from the ends of these cords depend weights 35. Corresponding cords 36, lead from the opposite or upper corners of the curtain, over a pair of guide-standards 37, and are attached to the ends of an even-er-bar 38, located below the rear end of the foot-section. This even-er-bar is connected at its center by a pair of strap-links 39, to an intermediate point of a hand-lever 40, one end of which is pivoted at 41, to one of the upper legs 9, as indicated at 42, and the other end of which is designed to engage with any one of a series of notches 43, formed in the rear edge of a metal plate 44, secured to the side of the opposite or companion leg 9. By a depression of the hand-lever it will be seen that the curtain will be drawn forward under the opening 31 which will thus become covered, and the lever being engaged by the notched-plate a locking of the parts will ensue. On the other hand, the reverse or upward movement following an unlocking of the lever, will permit the curtain to be drawn from under the opening and thus uncover the same, the said weights serving to accomplish this purpose.

It will be seen that the head-section may be folded over upon the foot-section, whereby the bed is greatly reduced in length; that the standard is detachable and its legs foldable; and that the legs of the bed-frame may be swung thereunder, thus decreasing the height.

Various changes in the details of our invention will readily suggest themselves, and we do not therefore limit the invention to those precise details shown and described but hold that we may vary the same to any degree or extent within the knowledge of the skilled mechanic.

Having described our invention, what we claim is—

1. A bed-bottom having an opening, combined with a supporting bed-frame, a curtain under the opening, guides at opposite ends of the frame, pairs of cords passing over the guides, and connected at their inner ends to the corners of the curtain weights attached to the ends of two of said cords, a lever pivoted at one end of the frame, connecting-de-  
vices between the lever and remaining cords,

and means for locking the lever in any of its adjusted positions, substantially as specified.

2. A bed-bottom having an opening, a bed-frame for the bottom, said frame consisting of two hinged-sections, and legs for the foot-section; combined with a sliding curtain below the opening, guides at opposite ends of the foot-section, ropes connected to the corners of the curtain and passing over the guides, weights at the ends of two of the ropes, an even-er-bar at the ends of the remaining two, a lever pivoted to one of the legs, links connecting the lever and even-er, and a rack-bar attached to the other leg and adapted to engage the free end of the lever, substantially as specified.

3. In a bed, the combination with a stationary foot-section having legs at its four corners, of a hinged or swinging head-section having an opening near its free end, a standard extending through said opening and carrying a pulley at its upper end, a winding shaft having opposite squared ends, a detachable handle therefor, a rope connected to the shaft, passed over the pulley and secured to the end of the head-section, a ratchet-wheel upon the shaft, and a pawl for engaging the same, substantially as specified.

4. In a bed, the combination with a stationary foot-section having pivoted legs at its four corners, and a hinged or swinging head-section, of a standard at the head-section, a pulley at the upper end thereof, a winding-shaft journaled in bearings in the standard, a crank-handle for operating the same, a rope connected to the shaft, passed over the pulley and secured to the free-end of the head-section, a pair of legs pivoted to the lower end of the standard, a cleat secured in rear of the legs, turn-buttons in front thereof, eyes extending from the legs, and stay-rods loosely connected to the legs of the foot-section and removably connected to the eyes, substantially as specified.

5. In a bed, the combination with a stationary foot-section having legs at its corners, and a hinged or swinging head-section, of a standard at the head-section, a pulley at the upper end thereof, a winding-shaft journaled in the standard, a crank-handle for operating the same, a rope connected to the shaft, passed over the pulley and secured to the free end of the head-section, eyes extending from the legs, and stay-rods loosely connected to the legs of the foot-section and removably connected to the eyes, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

WARREN D. DAWDY.  
ALBERT HERREN.

Witnesses:

B. M. DAWDY,  
A. J. BUCK.