

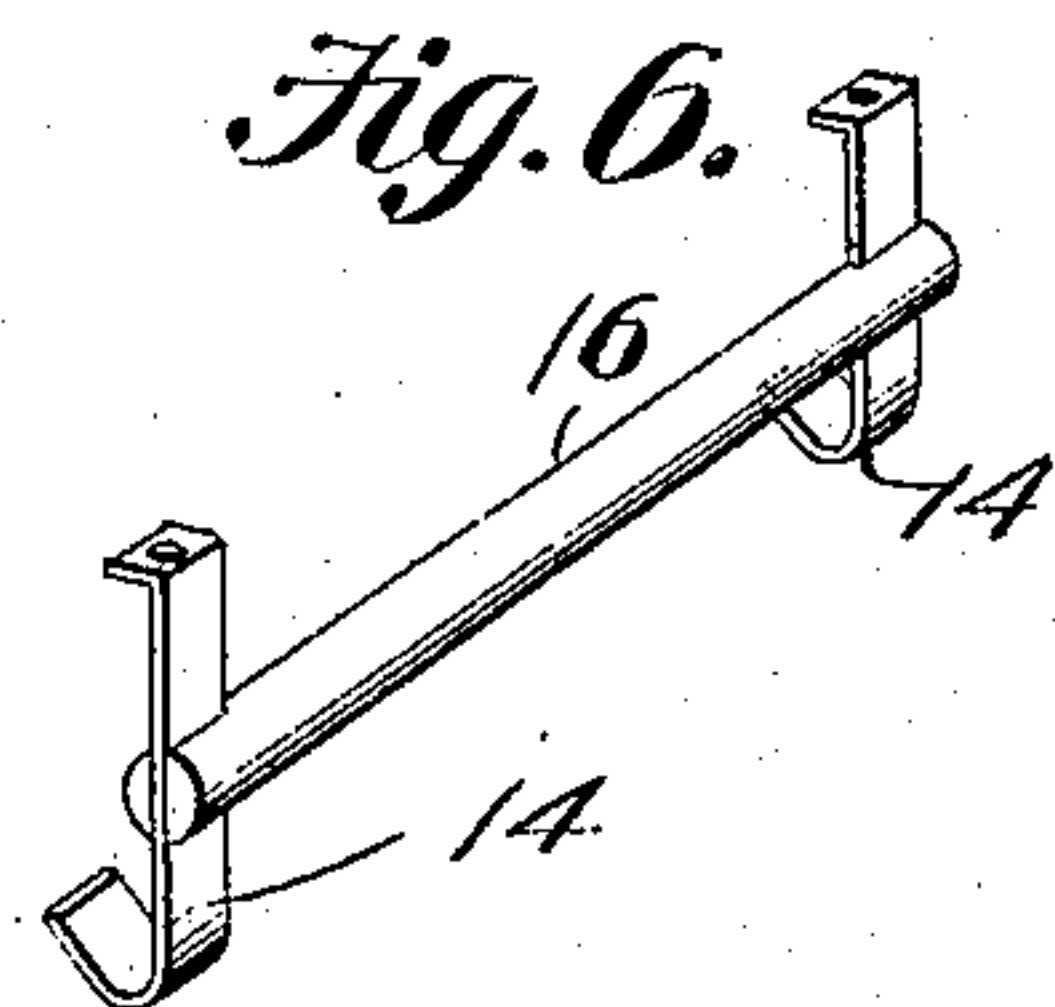
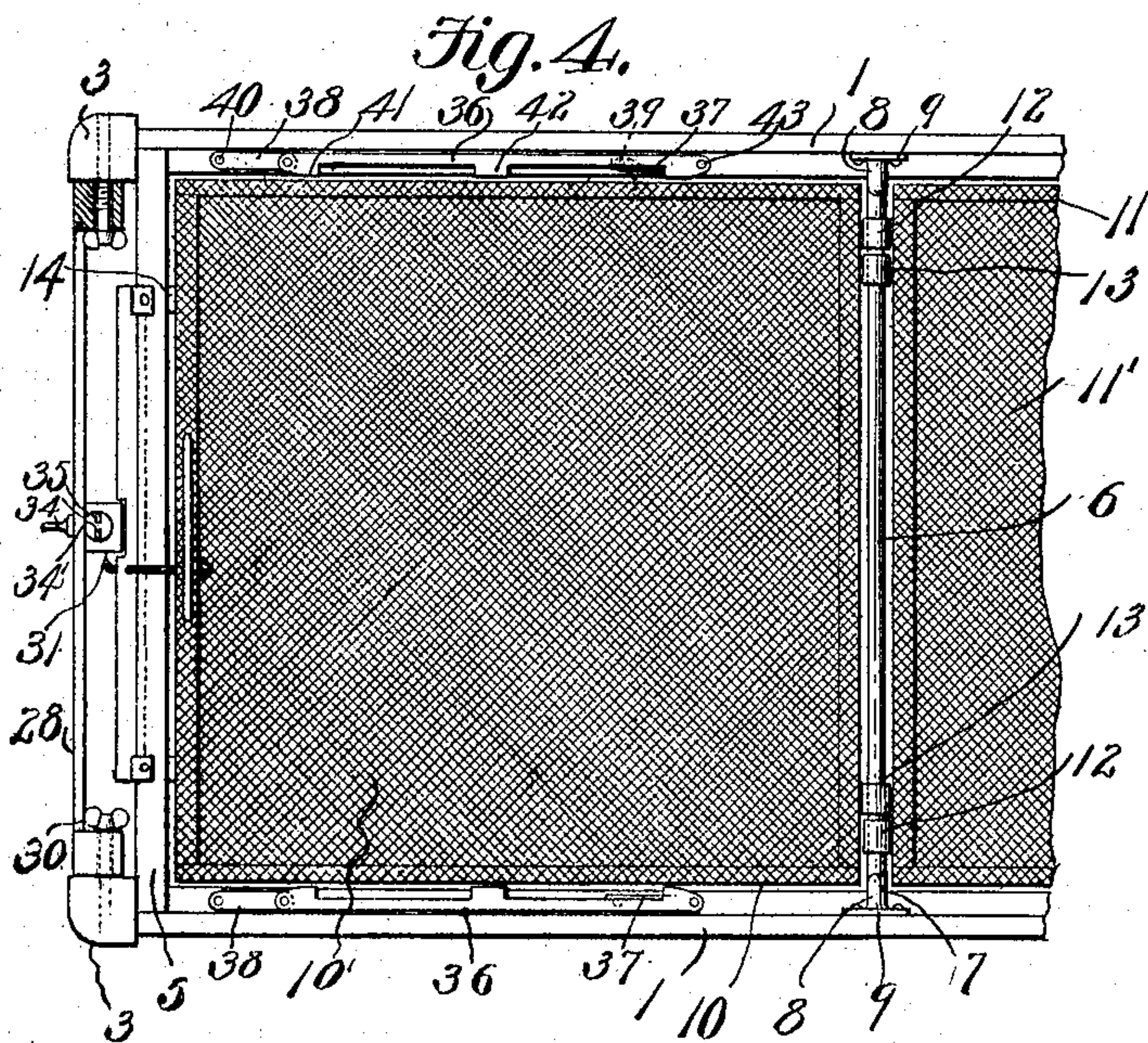
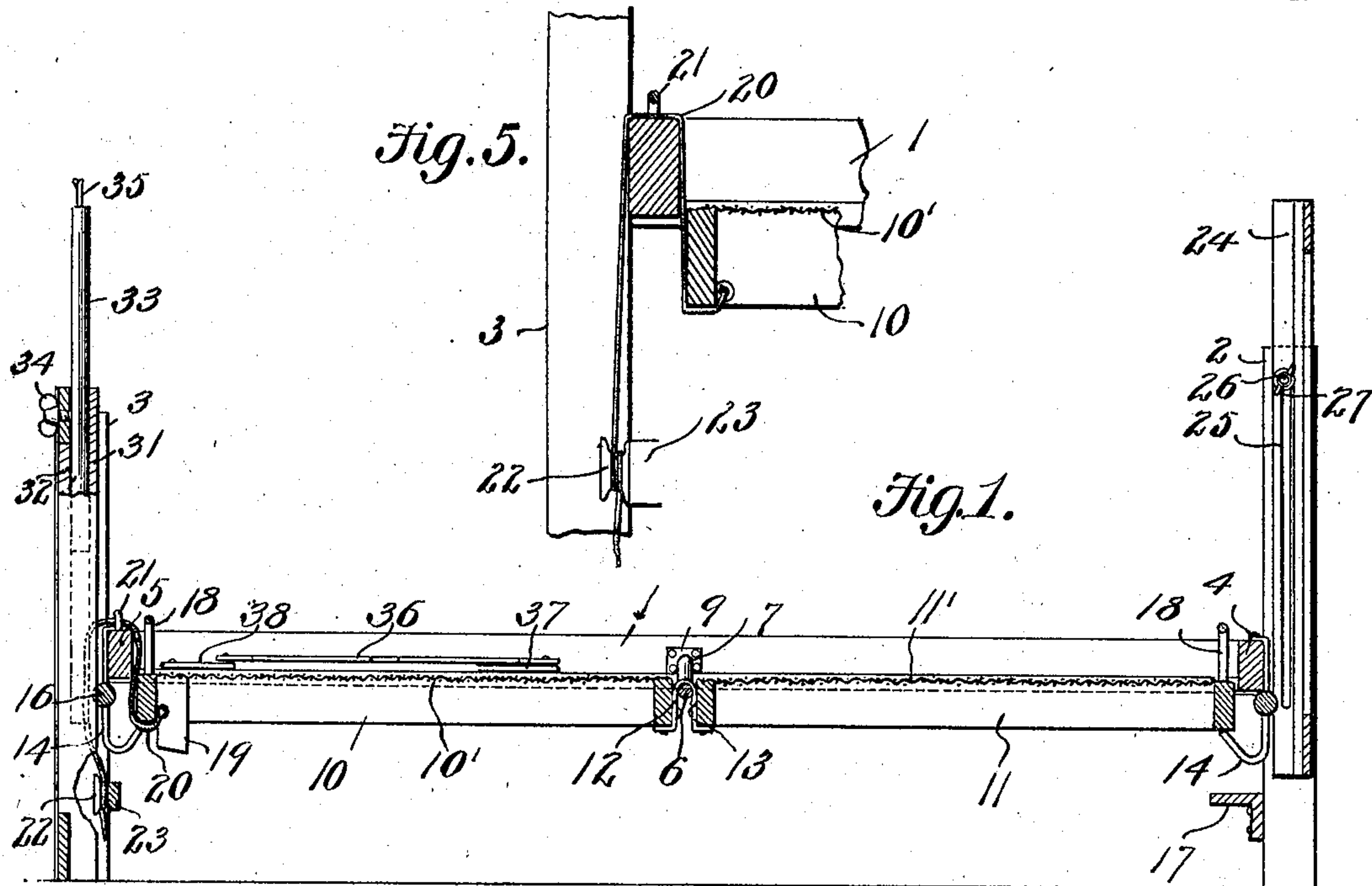
No. 816,048.

PATENTED MAR. 27, 1906.

J. W. SUMMERS.  
INVALID BED.

APPLICATION FILED OCT. 6, 1905.

2 SHEETS—SHEET 1.



Witnesses

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*W. J. Shepard*

*John W. Summers,*

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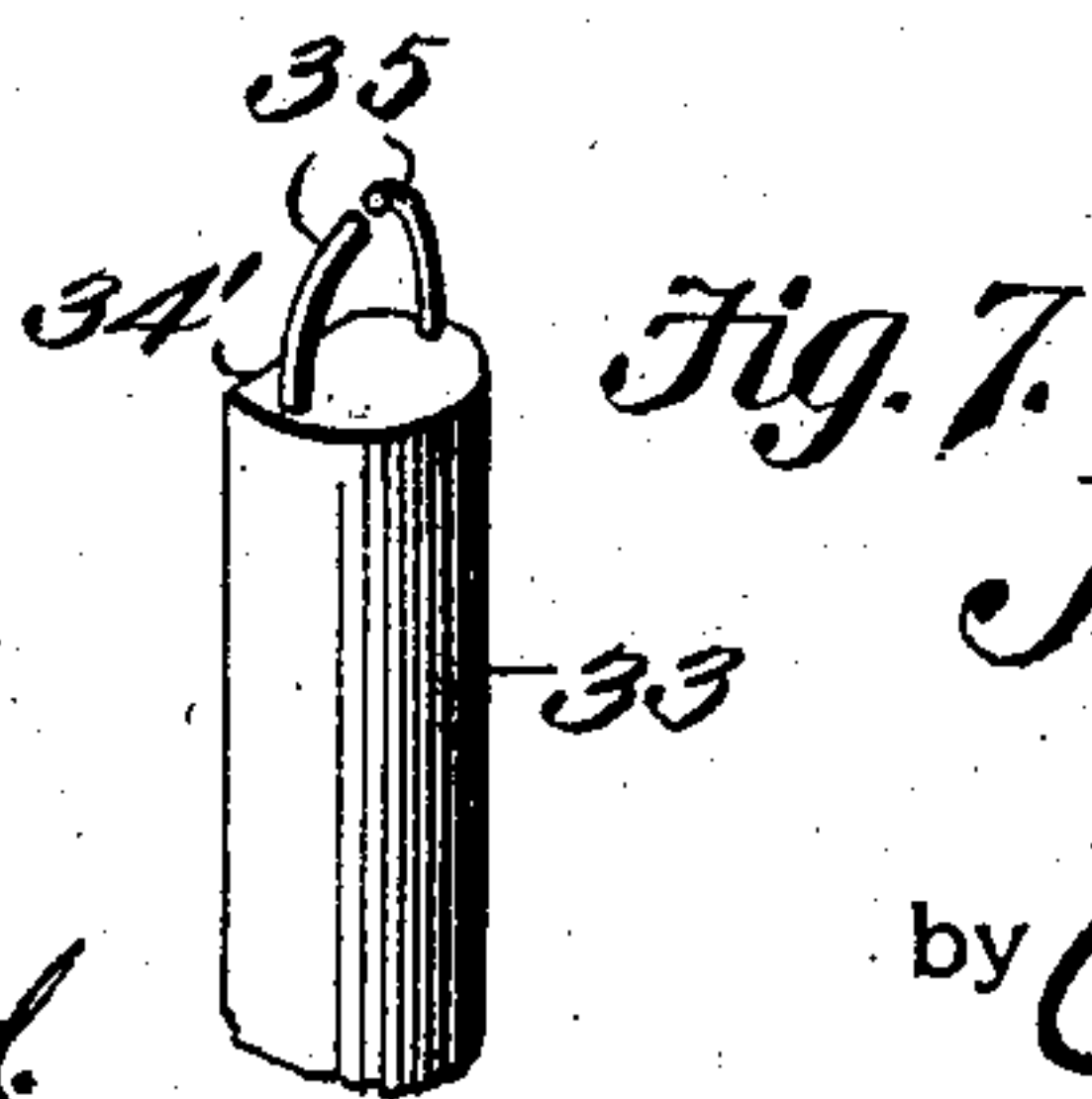
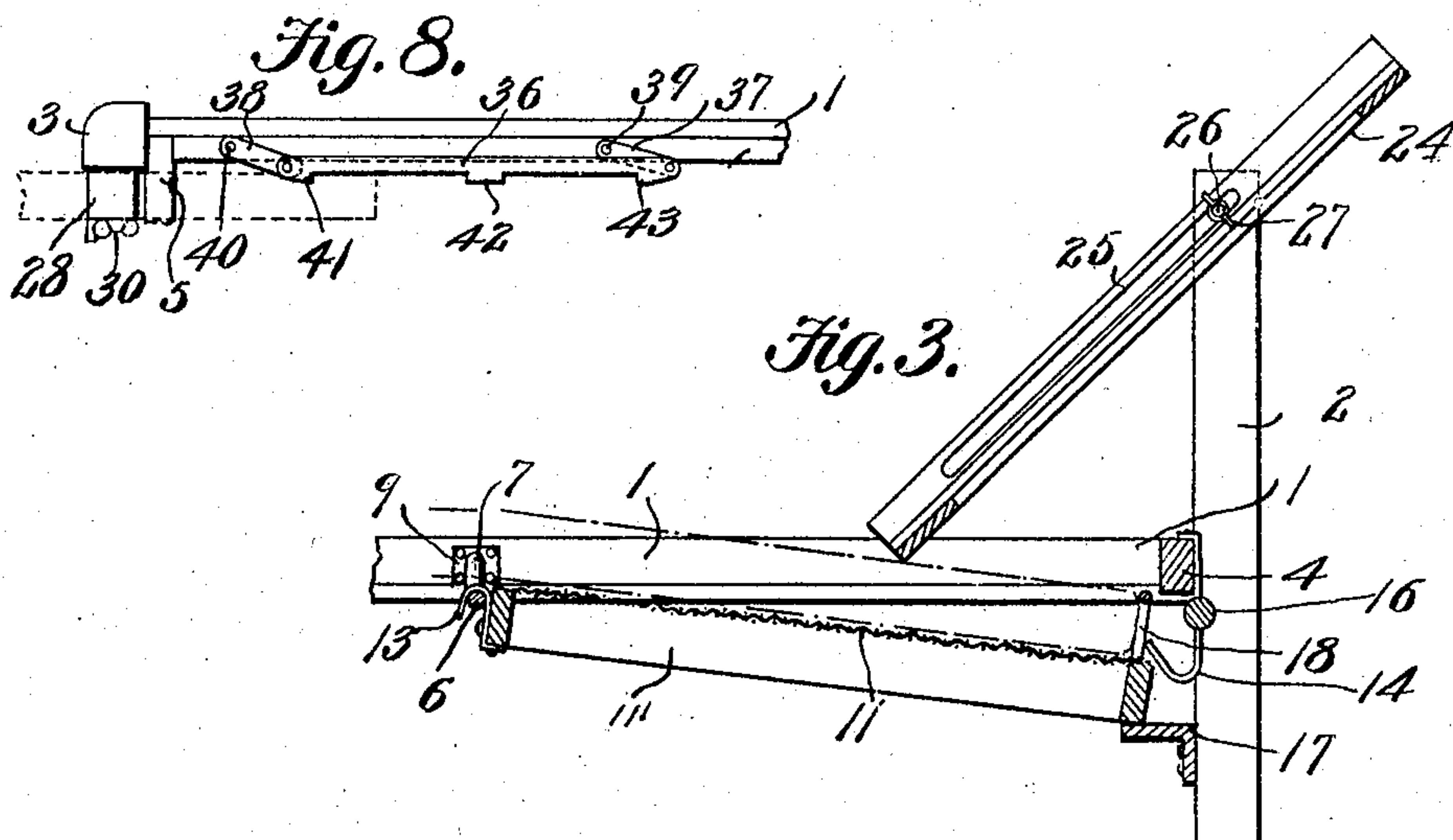
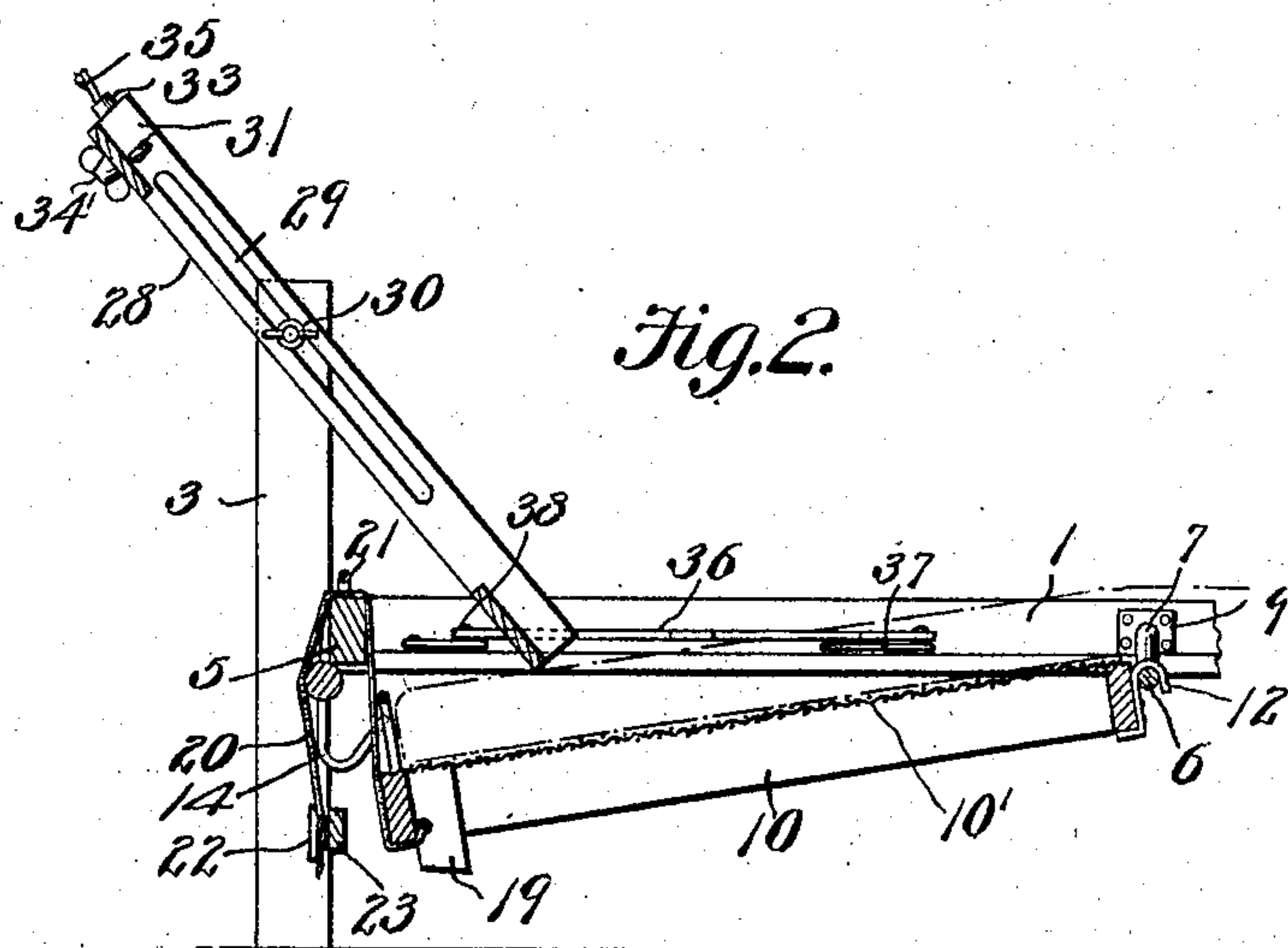
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# UNITED STATES PATENT OFFICE.

JOHN W. SUMMERS, OF MATTOON, ILLINOIS.

## INVALID-BED.

No. 816,048.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed October 6, 1905. Serial No. 281,662.

*To all whom it may concern:*

Be it known that I, JOHN W. SUMMERS, a citizen of the United States, residing at Mattoon, in the county of Coles and State of Illinois, have invented a new and useful Invalid-Bed, of which the following is a specification.

This invention relates to invalid-beds, and has for its object to provide a novel mounting of the bed-bottom, so as to obtain adjustments thereof for supporting the body of a patient in different inclined positions.

A further object of the invention is to obtain adjustments of the head and foot board members, so as to provide inclined props for the back and feet of a patient.

It is proposed to carry out the present invention without departing materially from the conventional form of bedstead, thereby to enable the use of an ordinary mattress and the usual type of bedclothing.

A still further object of the invention is to provide for the convenient supporting of a fountain-syringe, douche, or the like in an elevated position at the foot of the bedstead in position for convenient use upon the occupant of the bed.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of a bedstead embodying the features of the present invention. Fig. 2 is a detail sectional view taken through the foot portion of the bedstead with the bed-bottom lowered and the foot-section adjusted to rest upon the mattress in an inclined position. Fig. 3 is a view similar to Fig. 2, taken through the head portion of the bedstead. Fig. 4 is a fragmentary plan view of the bedstead. Fig. 5 is an enlarged fragmentary sectional view taken through the foot of the bedstead. Fig. 6 is a detail perspective view of one of the supports for holding the bed-bottom in its normal position. Fig. 7 is a detail perspective view of the upper end of the douche-staff. Fig. 8 is a fragmentary plan view illustrating the means for propping the tiltable foot-frame.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

The present bedstead includes side rails 1, preferably in the nature of metallic angle-bars with their flanges directed inwardly at the lower edges of the bars, said rails being suitably connected to the head and foot posts 2 and 3, respectively. Head and foot bars 4 and 5 connect the respective ends of the side rails and complete the frame of the bedstead.

About midway between the ends of the bedstead there is a cross-bar 6, which has its ends upturned, as at 7, and provided with lateral projections 8, fitted in suitable seats 9, carried by the respective side rails, whereby the bar is situated below its points of support. Between the cross-bar or hanger 6 and the respective ends of the bed there are two bottom sections 10 and 11, which consist of rectangular frames provided with the respective woven-wire mattress-sections 10' and 11'. The section 11 is provided with a pair of hooks 12, which embrace the hanger 6, and similar hooks 13 are carried by the section 10 and engage the hanger, whereby the two sections are supported at their inner ends. For the support of the outer end of the section 11 there is a pair of hook-shaped hangers 14, (shown in detail in Fig. 6 of the drawings,) with their upper ends provided with connections 15 with the head cross-bar 4 of the frame of the bedstead, there being a cross head or bar 16 connecting the hangers between their ends and constituting a weight to normally maintain the upturned hooked terminals of the hangers beneath the outer end of the frame of the section 11. The cross-bar 16 also constitutes a handle for simultaneously moving the hangers out of engagement with the bed-bottom section 11, so as to permit of the outer end of the section being inclined downwardly upon the hanger 6 of the pivotal support, there being a cross-bar 17 connecting the head-post 2 adjacent their lower ends and in the downward path of the outer free end of the bed-bottom section 11, so as to prevent undue lowering of said section.

To prevent endwise displacement of the mattress, which has been shown in dotted lines in Fig. 3 of the drawings, when the bed-bottom portion 11 is tilted downwardly, there is a guard 18, which is in the nature of an arched bar or yoke, carried by the outer end



of the frame of the bed-bottom section 11. In addition to forming a guard the member 18 also constitutes a handle for convenience in lifting the bed-bottom section when re-  
 5 turning the same to its normal position. By reason of the inclination of the upturned terminals of the hooked hangers 14 the free end of the bed-bottom section 11 will wipe past the same when being elevated, which obvi-  
 10 ates manual manipulation of the hangers when lifting the bed-bottom section.

The free end of the bed-bottom section 10 is normally supported in a horizontal position in the same manner as described for the  
 15 section 11; but there is no stop to limit the downward movement of the section. However, the outer free end of the section 10 is provided at each corner with a foot 19 to engage the floor at the lower limit of the section.  
 20 The free end of the section 10 is provided with a guard, which is the duplicate of the guard 18 upon the section 11. It is proposed to support the section 10 in different tilted positions, and therefore a guard or strap 20 is  
 25 secured to the free end of the frame and passes upwardly and outwardly through a suitable guide 21 upon the top of the cross-bar 5 and thence downwardly to a cleat 22, carried by the cross-bar 23, which connects the lower  
 30 portions of the foot-posts 3.

The head board or frame 24 is separate from the head-posts 2 and has each side bar provided with a longitudinal slot 25 for the reception of a threaded pin 26, carried by the  
 35 adjacent post, there being a winged nut 27 carried by the pin for the purpose of clamping the head-frame against the head-post in any elevated position. In addition to being  
 40 vertically adjustable the head-frame may have its lower end tilted forwardly and supported upon the top of the mattress, as shown in Fig. 3 of the drawings, so as to form an inclined support for the back of a patient. The  
 45 head-frame may be employed in the capacity of a support in the normal position of the bed-bottom, as well as in the inclined position thereof. (Shown in Fig. 3.)

The foot-frame member 28 is similar to the head-frame member, each side bar having a  
 50 longitudinal slot 29 for the reception of a suitable adjustable fastening 30, carried by the adjacent foot-post, so as to permit vertical adjustment and also to enable the tiltable adjustment of the frame, as shown in  
 55 Fig. 2 of the drawings. The foot-frame section constitutes a foot prop or support when the head and foot frames are adjusted as in Figs. 2 and 3, whereby the patient is prevented from slipping downwardly when  
 60 supported in a sitting posture by the head-frame 24.

As best shown in Figs. 1 and 4 of the drawings, it will be seen that the foot-frame section is provided with a central upright bar  
 65 31, which is pierced through its top by a

socket or bore 32 for the slidable reception of a douche-staff 33, there being a clamping-screw 34 carried by the bar 31 and piercing the socket for engagement with the staff to support the latter in any elevated position. 70  
 By preference the staff has one flat side 34', (shown in Fig. 7 of the drawings,) and the socket has a corresponding flat side to prevent rotation of the staff. Upon the top of the staff is a pair of upwardly and inwardly 75  
 bowed hooks 35, upon which a water-bag or the like is adapted to be hung. It will be noted that the douche-staff is located midway between the opposite sides of the bedstead in order that the douche may be con- 80  
 conveniently used at any portion of the bedstead, and when not in use it is of course lowered to a position as shown in Fig. 2 of the drawings

To prevent slipping of the foot-frame section when adjusted as in Fig. 2 of the drawings, a supporting element is mounted upon each side rail of the bedstead and consists of a bar 36, having its ends pivotally connected to the free ends of the respective links 37 and 90  
 38, which are in turn pivotally connected to the flange of the rail 1, as indicated at 39 and 40, whereby the bar may be folded across the top of the flange and against the inner side of the rail. The bar 36 is provided upon its 95  
 outer edge with a series of lateral projections or shoulders 41, 42, and 43, with which the foot-frame 28 may be individually engaged, as shown in Fig. 2 of the drawings, to prevent rearward slipping of the foot-frame by 100  
 the pressure of the feet of the patient

Having thus described the invention, what is claimed is—

1. A bedstead having a vertically-tiltable bed-bottom pivotally supported at one end, 105  
 and a swinging hanger carried by the frame of the bedstead and detachably engaging the under side of the bed-bottom to support the same in an elevated position.

2. A bedstead having a vertically-tiltable 110  
 bed-bottom pivotally supported thereon, a pair of hangers loosely swung from the bedstead with their free upturned ends detachably engaging the under side of the free end of the bed-bottom to support the same, and a 115  
 cross-bar connecting the hangers.

3. A bedstead having a cross-bar supported by the side rails thereof midway between the ends of the bedstead, bed-bottom sections hinged to the cross-bar, and swinging 120  
 hangers carried by the respective ends of the bedstead with their lower free portions detachably engaging the bed-bottom sections to normally support the same in elevated positions. 125

4. A bedstead having an upright terminal frame member capable of being tilted vertically to bring its lower edge across the bedstead, and frame-supporting means carried by the side rails of the bedstead and capable 130



of being shifted into operative and inoperative positions.

5 5. A bedstead having flanged side rails, an upright terminal frame capable of being tilted to bring its lower edge across the top of the bedstead, and frame-supporting devices carried by the flanges of the rails and capable of being projected inwardly beyond the same for engagement with the frame and of being  
10 withdrawn across the flanges into their inoperative positions.

15 6. A bedstead having an upright terminal frame capable of being tilted to bring its lower edge across the top of the bedstead, pairs of links pivotally supported upon each side rail of the bedstead, and frame-supporting bars pivotally carried by the links.

7. A bedstead having an upright terminal frame capable of being tilted to bring its lower edge across the top of the bedstead, 20 pairs of substantially horizontal links pivotally supported upon the side rails, and bars pivotally supported upon the links, said bars capable of being folded upon the links into operative and inoperative positions and provided with series of shoulders for engagement  
25 by the frame when tilted.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN W. SUMMERS.

Witnesses:

LEARA ADRIAN,  
ED SUMMERS.

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