

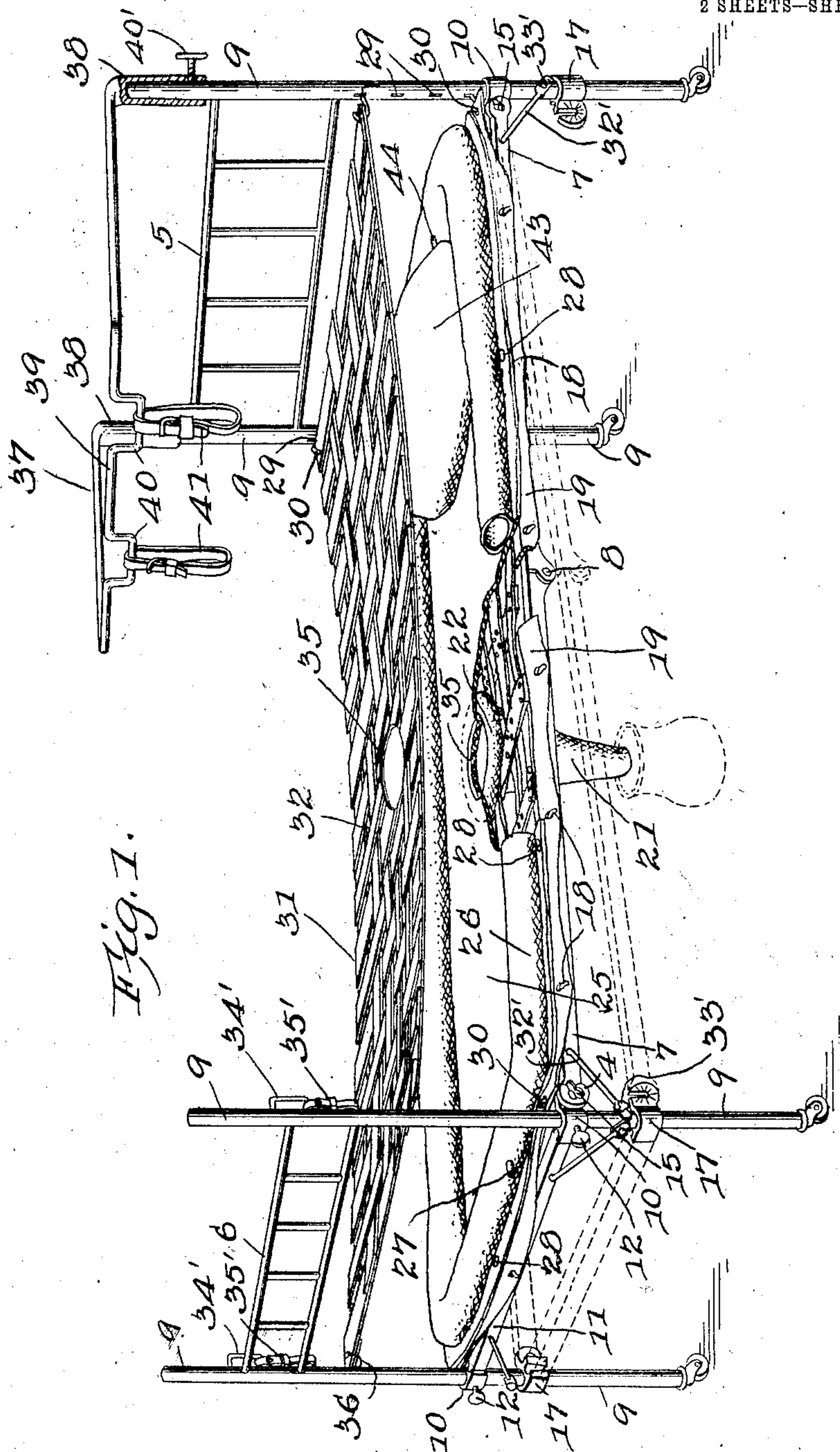
No. 826,978.

PATENTED JULY 24, 1906.

V. WHITTINGTON.
COMBINED INVALID AND SURGICAL COUCH.

APPLICATION FILED MAR. 3, 1906.

2 SHEETS—SHEET 1.



WITNESSES:

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L. W. Tucker

Virginia Whittington INVENTOR.

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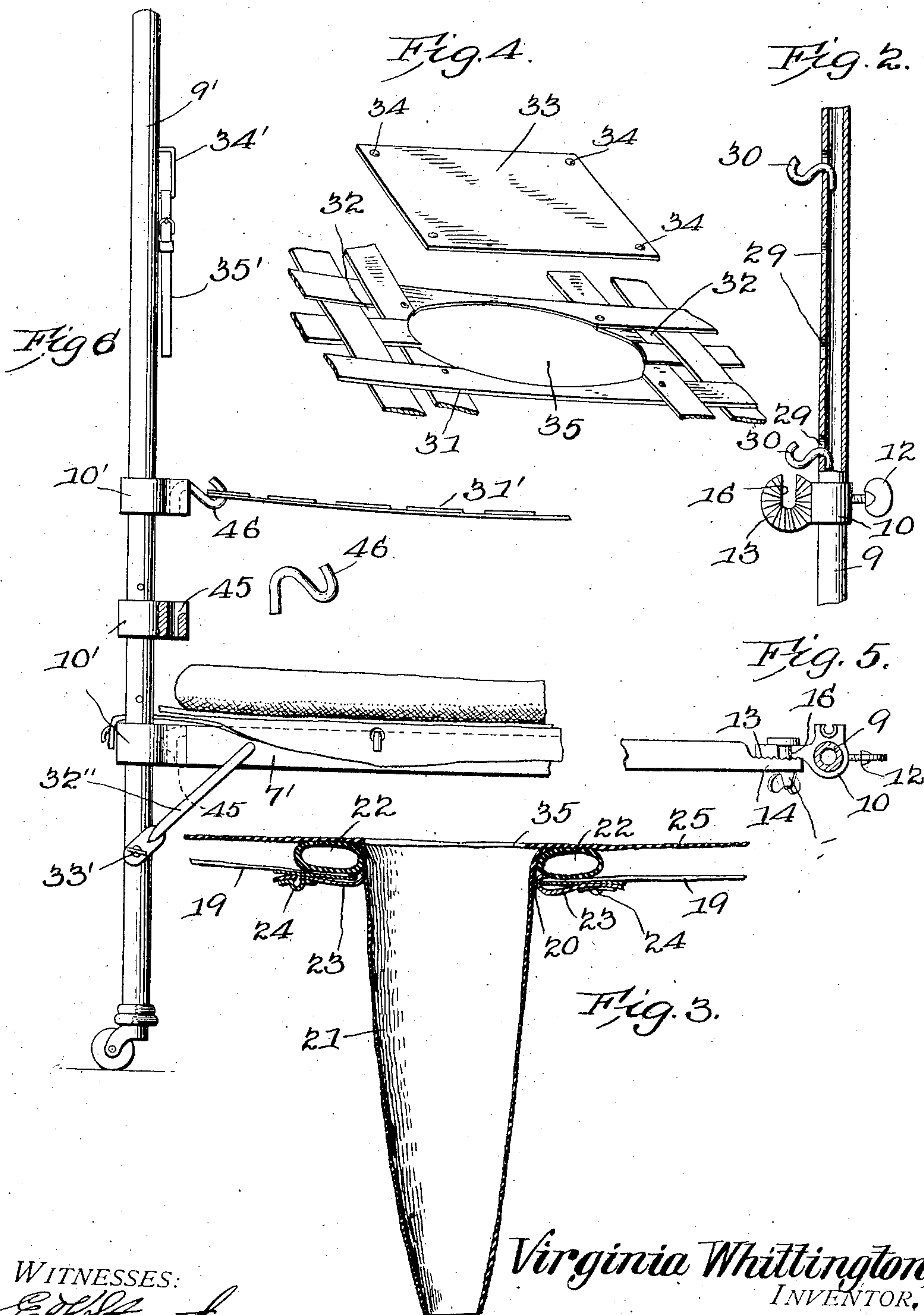
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E. H. Stewart
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UNITED STATES PATENT OFFICE.

VIRGINIA WHITTINGTON, OF VALDOSTA, GEORGIA.

COMBINED INVALID AND SURGICAL COUCH.

No. 826,978.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed March 8, 1906. Serial No. 304 118.

To all whom it may concern:

Be it known that I, VIRGINIA WHITTINGTON, a citizen of the United States, residing at Valdosta, in the county of Lowndes and State of Georgia, have invented a new and useful Combined Invalid and Surgical Couch, of which the following is a specification.

This invention relates to certain improvements in portable beds or couches of that general class designed for use in hospitals, sick-rooms, and similar places for supporting invalids and other persons while being operated upon or when receiving treatment for different kinds of diseases.

The object of the invention is to provide an invalid bed or couch in which the side and end rails may be adjusted vertically with respect to the corner-posts and which may also be knocked down and compactly assembled for transportation or shipment.

A further object is to provide a bed having a detachable sheet for lifting and supporting the invalid in elevated position while the bed-covering is being changed and, further, to provide a removable rubber sheet or dam to protect the bedclothing while the patient is being bathed or operated upon.

A still further object of the invention is to generally improve this class of devices so as to add to their utility and durability, as well as to reduce the cost of manufacture.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, and illustrated in the accompanying drawings, it being understood that various changes in form, proportion, and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of an invalid bed or couch constructed in accordance with my invention. Fig. 2 is a longitudinal sectional view of a portion of one of the corner-posts. Fig. 3 is a longitudinal sectional view of a portion of the main supporting sheet or covering and waste-pipe. Fig. 4 is a perspective view of a portion of the elevating-sheet, showing the covering for the waste-pipe. Fig. 5 is a transverse sectional view showing the manner of clamping the side rails in adjusted position. Fig. 6 is a side elevation of a portion of a bed, illustrating a modified form of construction.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved bed or couch comprises the head-section 5 and foot-section 6, connected by the side rails 7, the latter being hinged intermediate their ends, as indicated at 8, to permit the same to be compactly folded for transportation or shipment. Slidably mounted for vertical movement on the corner-posts 9 are supporting members 10, provided with angular extensions adapted to receive and support the rails 11, said members being secured in adjusted position by means of clamping-screws 12.

The members 10 are provided with serrated or corrugated faces 13, adapted to engage the correspondingly-serrated ends 14 of the side rails 7, the end rails and supporting members being secured together by means of bolts 15, carried by the ends of the rails 7 and engaging the vertical slots or openings 16, formed in the serrated faces of the members 13, as shown.

Rigidly secured to the post 9 and spaced from the members 10 are similar supporting members 17, whereby either end of the rails 7 may be adjusted into engagement with the members 17, as indicated by dotted lines in Fig. 1 of the drawings, so as to vary the inclination of the invalid or other occupant of the bed.

The side rails 7 are formed with a series of spaced hooks 18, adapted to engage and support a sheet or covering 19, the latter being preferably formed of strips of canvas or other non-yieldable material and provided with a central opening 20 for the reception of a waste-pipe 21.

The waste-pipe 21 is provided with a pneumatic rim or cushion 22, which rests on the adjacent surface of the supporting-sheet and is retained in position thereon by a flexible band 23, detachably secured to the bottom of the supporting-sheet by spring-clasps 24. Detachably secured to the main supporting-sheet 19 is a rubber dam or cover 25, provided with a marginal flange or cushion 26, adapted to be inflated through the medium of the valve 27, so as to prevent the water from flowing over the sides of the sheet and wetting or otherwise soiling the bed-covering. The rubber sheet 25 is retained in position on the main supporting-sheet by suitable spring-clasps 28, similar in construction to the clasp 24.

The corner-posts 9 are formed with a series of spaced slots or openings 29, adapted to receive detachable supporting-hooks 30 for supporting a lifting-sheet 31. The lifting-sheet 31 is formed of a plurality of longitudinal and transverse strips sewed or otherwise secured together to form a series of rectangular openings 32, and formed in the sheets 31 and 25 are openings 35, arranged in alignment with the opening 20, so as to permit the waste-pipe to be positioned in any one of said sheets, the waste-pipe being preferably of sufficient length to extend through the openings in the several sheets for communication with a suitable receptacle when said waste-pipe is supported by the lifting-sheet 31. It will thus be seen that the lifting-sheet may be supported at any desired elevation with respect to the side rails by adjusting the hooks 30 in the openings 29 and securing the sheet in position by inserting the bills of the hooks through suitable eyes 36, preferably formed in the corners of said sheet, as shown.

As a means for assisting the invalid to raise and lower himself there is provided an overhanging bracket 37, having spaced sockets 38 adapted to receive the corner-posts 9 and provided with a horizontal bar 39, having offset portions 40 formed therein for the reception of depending lifting-straps 41. The bracket 37 is adjustable vertically with respect to the posts 9 and secured in adjusted position by clamping-screws 40', said bracket being detachable, so that the same may be positioned on either the head or foot section of the bed.

As a means for reinforcing and strengthening the bed suitable corner-braces 32' are detachably secured to the posts 9 by clamping-screws 33', each brace being provided at its free end with a terminal hook adapted to engage suitable openings or sockets in the side rails, as shown, so that the braces may be swung downwardly against the posts when the bed is knocked down or raised or lowered, according to the position of the side rails.

Secured to the corner-posts at the front of the bed are loops or brackets 34', adapted to receive ankle-straps 35', whereby the feet of the patient may be supported in elevated position when the patient is undergoing surgical operations.

The covering for the waste-pipe opening in the rubber sheet or dam will preferably extend transversely across the sheet and partly cover the marginal flange 26, thus permitting the covering when detached to be used for various other purposes, such as protecting the clothing when bathing infants, packing ice, and the like. If desired, a pair of waste-pipe openings may be formed in the rubber sheet, one being disposed at the head and the other at the foot of the bed, and a single cov-

ering may be used for closing both openings. A pillow 43 is also used in connection with the bed, the latter being preferably formed of rubber and provided with a valve 44, so that the same may be inflated with air and used as a pillow or filled with hot or cold water and used either as a syringe or water-bag. In operation when it is desired to elevate the head or foot of the patient the side rails are detached from the members 10 and clamped in position on the members 17, and when it is desired to elevate said rails the members 10 may be adjusted vertically of the corner-post and locked at any desired height by means of the clamping-screws 12.

When it is desired to bathe the invalid, the rubber dam or sheet 25 is placed in position on the main supporting-sheet 19 and secured by the fastening devices 28, the water escaping through the waste-pipe 21 into a suitable receptacle designed to receive the same, as before described. When it is desired to change the bedclothing, the patient is elevated on the sheet 31 and supported in elevated position by inserting the hooks 30 in the eyes 36. The bed may also be used in the ordinary manner by detaching both the elevated sheet and rubber dam.

In Fig. 6 of the drawings there is illustrated a modified form of the invention in which the corner-posts 9' are formed with spaced supporting members 10', each provided with a socket or recess 45, adapted to receive the fastening devices 46 on the ends of the side rails 7', whereby said rails may be adjusted vertically of the posts. The sockets in this case also form means for supporting the detachable hooks 46, so that when the side rails are in engagement with the lower supporting members 10' the hooks may be inserted in the sockets of the adjacent members for supporting the elevated sheet 31 in position on the corner-posts. The side rails and corner-posts are also preferably reinforced and strengthened by diagonal braces 32'', similar in construction to the braces shown in Fig. 1 of the drawings. The covering for the waste-pipe opening of the rubber sheet in both forms of the device may be attached to either the top or bottom of the sheet, with spring-clasps or other suitable fastening devices, and the transverse and longitudinal strips forming the supporting and elevating sheets may be disposed at different distances apart.

Any suitable means may be used for retaining the several sheets in position on the bed, and the side rails of said bed may be constructed with or without the intermediate hinges.

From the foregoing description it is thought that the construction and operation of the device will be readily understood by those skilled in the art, and further description thereof is deemed unnecessary.

Having thus described the invention, what is claimed is—

1. In a bed, a head-section, a foot-section, a plurality of spaced supporting members secured to said sections, side rails engaging one of the members on each section and movable vertically into engagement with the adjacent member, a covering detachably secured to the side rails and means for locking the side rails in engagement with the supporting members.

2. In a bed, a head-section, a foot-section, a plurality of spaced supporting members secured to said sections and each provided with a clamping-face, side rails having similar clamping-faces adapted to engage one of the members on each of said sections and movable into engagement with adjacent members, and a fastening means engaging the clamping-faces of the members and side rails.

3. In a bed, a foot-section, and a head-section connected by side rails, a covering engaging the side rails, and an overhanging bracket detachably secured to one of said sections and provided with spaced depressions for the reception of lifting-straps.

4. In a bed, a head-section and foot-section connected by side rails, an overhanging bracket secured to one of said sections and provided with a horizontally-disposed bar having depressions formed therein for the reception of lifting-straps, a covering engaging the side rails, a rubber sheet detachably secured to the covering, and a waste-pipe supported by said covering.

5. In a bed, a head-section and a foot-section detachably connected by hinged side rails and provided with spaced recesses, a covering engaging the side rails, detachable supporting-hooks seated in the recess of the head and foot sections, and a lifting-sheet adapted to engage said hooks.

6. In a bed, a head-section and a foot-section, provided with corner-posts having spaced recesses formed therein, side rails detachably secured to said posts and having their intermediate portions hinged, hooks detachably engaging the recesses in said posts, and a lifting-head adapted to engage the supporting-hooks.

7. In a bed, a head-section and a foot-section connected by side rails, a covering detachably secured to the side rails and formed with a circular opening, a waste-pipe extending through said opening and provided with an inflatable rim adapted to engage the upper face of the covering, and flexible strips secured to the waste-pipe and detachably engaging the lower face of said covering.

8. In a bed, a head-section and a foot-section connected by detachable side rails, a covering engaging the side rails and provided with a central opening, a rubber sheet detachably secured to the covering and provided with a central opening disposed in alinement with the opening in the supporting-sheet, a lifting-sheet provided with a similar opening, and a waste-pipe adapted to engage said opening and provided with an inflatable rim.

9. In a bed, a head-section, a foot-section, supporting members slidably mounted for vertical movement on said sections, side rails engaging one of the members on each section and movable vertically into engagement with the adjacent member, a covering engaging the side rails, a sheet of impervious material detachably secured to the covering and having a marginal inflatable rim, means for locking the supporting members in adjusted position and means for locking the side rails in engagement with the supporting members.

10. In a bed, a head-section and a foot-section connected by side rails, a covering engaging the side rails and provided with an opening, a rubber sheet detachably secured to the covering and having an inflatable marginal rim, said sheet being provided with an opening disposed in alinement with the opening in the covering, and a waste-pipe having an inflatable rim interposed between the rubber sheet and covering and engaging said openings.

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

VIRGINIA WHITTINGTON.

Witnesses:

C. WHITTINGTON,
W. F. STATEN.