

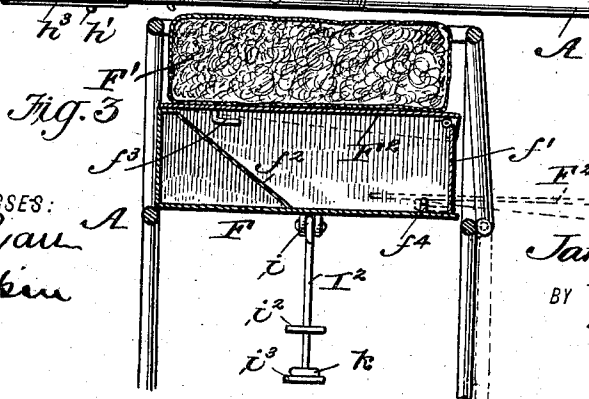
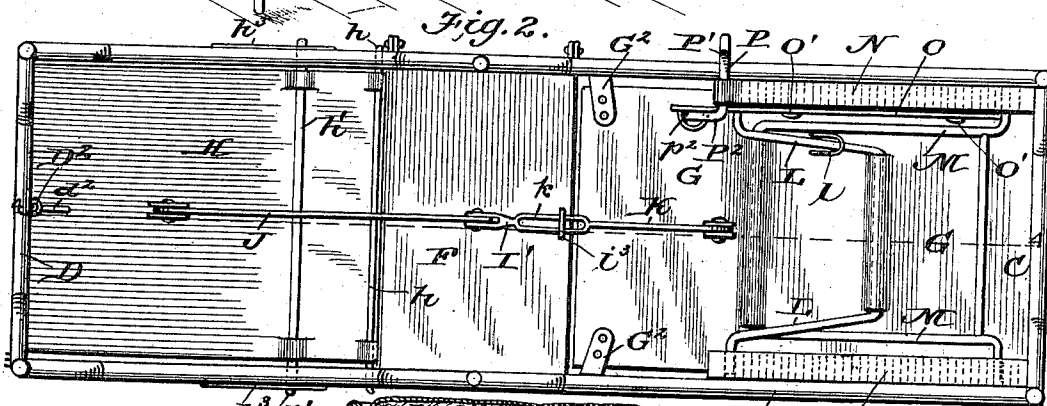
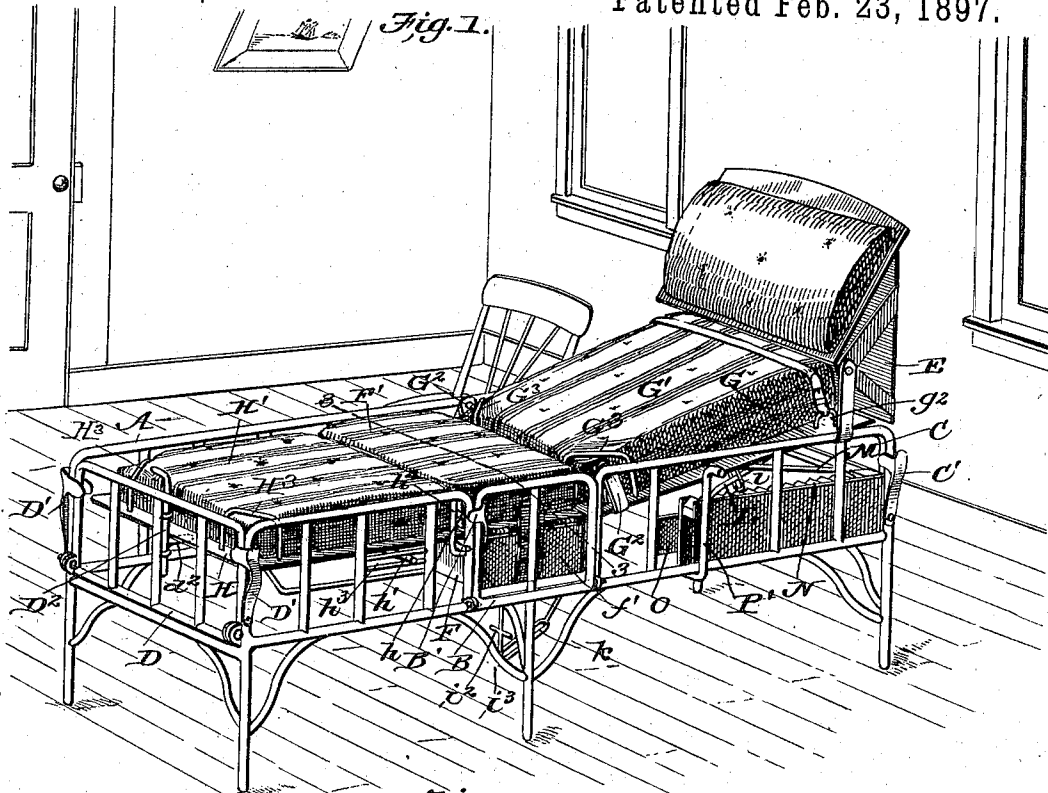
(No Model.)

2 Sheets—Sheet 1.

J. T. HALL.
INVALID BED.

No. 577,743.

Patented Feb. 23, 1897.



WITNESSES:

John A. Ryan
W. B. Turpin

INVENTOR

James T. Hall.

BY *Munn & Co.*

ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

J. T. HALL.
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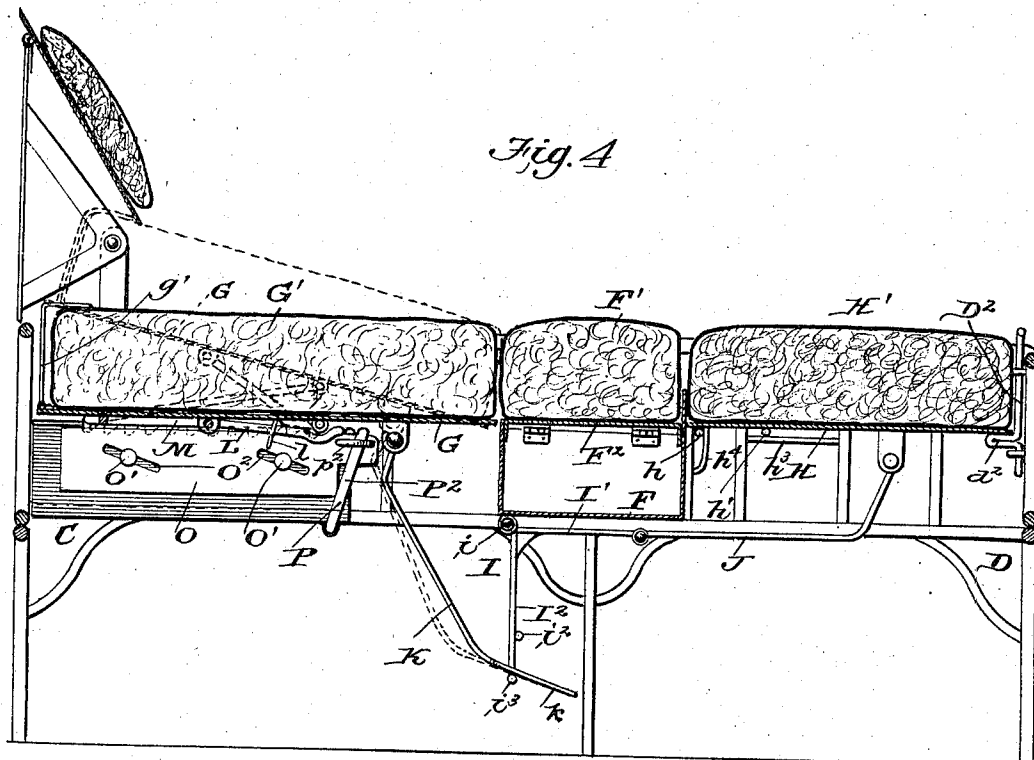


Fig. 5.

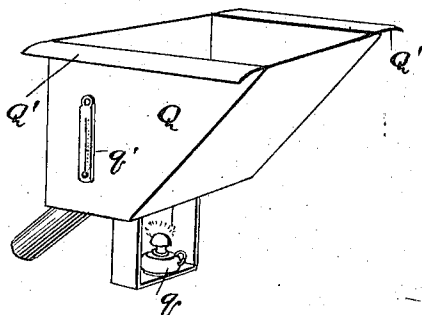


Fig. 6.

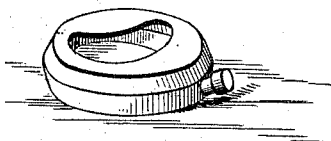
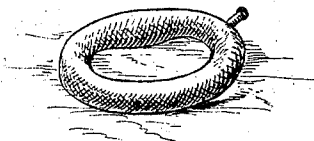


Fig. 7.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES T. HALL, OF MONTICELLO, ARKANSAS.

INVALID-BED.

SPECIFICATION forming part of Letters Patent No. 577,743, dated February 23, 1897.

Application filed June 22, 1896. Serial No. 596,489. (No model.)

To all whom it may concern:

Be it known that I, JAMES T. HALL, of Monticello, in the county of Drew and State of Arkansas, have invented a new and useful Improvement in Invalid-Beds, of which the following is a specification.

My invention is an improvement in invalid-beds, and especially in beds such as represented by my former patent, No. 555,859, dated March 3, 1896; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my improved bed. Fig. 2 is a bottom plan view thereof. Fig. 3 is a cross-section on about line 3 3 of Fig. 1. Fig. 4 is a vertical longitudinal section of the bed on about line 4 4 of Fig. 2. Fig. 5 is a detail view of the foot-tub; Fig. 6, a detail view of the bed-pan, and Fig. 7 is a detail view of the inflatable cushion.

The frame or bedstead is preferably formed of iron or other material or metal rods framed together and fashioned in any suitable design. It may be plain or ornamental to suit the purposes of the bed or the tastes of the purchaser.

One side frame A is continuous and unbroken from foot to head, while the other side is broken out at the center and is provided with a door or gate section B, opening into the middle portion of the bed and adapted to permit convenient access thereto for any desired purpose and having a suitable latch B', by which it may be held in closed position.

The bed-frame also has hinged ends C and D, provided with latches C' and D', and to the foot end D, I pivot the supporting-shaft D², having a projection d² and arranged to be turned so such projection will support the end of the lower bottom section. The bed has a headboard E similar in general respects to the corresponding part shown in my former patent before referred to.

The bottom of the bed is formed in three sections, the central section F being stationary, while the upper section G and the lower section H are arranged to tilt, and the mattress is formed in corresponding sections F', G', and H', as shown. The central mattress-section F' is not supported directly upon

the section F, but rests upon a laterally-sliding plate or floor F², arranged at one end to slide upon an incline f², and having at its other end a hinged section f', and this plate F² may be adjusted to a level with the bottom sections G and H to properly support the section F' level with the sections G' and H', or it may be lowered by moving it laterally, and so permit the withdrawal of the central section F' for any desired purpose. When the plate F² is adjusted outward, a hook f³ upon its under side engages with a staple f⁴ upon the bottom F and stays the plate F² in position. The bottom sections G and H have upon their lower ends loop-keepers, which receive the lower corners of the mattress-sections G' and H' and hold the same from dropping down when the bottom sections G and H are tilted.

The upper section G is pivoted at its lower end by means of the straps or bars G², secured at their lower ends to the section G, extending thence upward and pivoted at their upper ends to the bed-frame. This form of pivotal connection is preferred because by it the mattress-section G' is not caused to ride up the section G, as would occur if the axis of the pivotal joint were at the lower edge of such mattress-section.

The lower section H is supported in a peculiar manner. At its upper end it is provided with lateral studs h, and at points a short distance below said upper end it has lateral studs h'. The studs h' fit and operate in horizontal slots or guideways h³ in the bed-frame, while the studs h fit and operate in vertical slots or guideways h⁴ in said bed-frame. This construction permits the pivotal movement of the section H in such manner that its upper end will keep close to the central mattress and give more surface on which the legs of the patient may rest.

To the section F, preferably near its front edge, I pivot a double-armed lever I, pivoted at i and having an arm I', connected by a link or rod J with the section H, and an arm I², connected by a link or rod K with the section G. In connecting the arm I² with the rod K it is preferred to slot the rod K at k and to fit such slotted portion on the lower end of the arm I² between projections or shoulder-like portions i² i³, bearing one above and the other below the said slotted portion k of the

rod K, and this slot is so formed that the upward tilting movement of the section G may be continued for a short distance after the section H has reached its lowest point. At its upper end the section G has a lift-bar g' by which it may be raised, and to hold it in an elevated position I provide the supporting-frames L and M, both hinged at one end to the section G and both engaging at their other ends with the racks N and serving to hold the section G at any desired inclination. The frame L is limited in its movements by a keeper l .

It will be seen that both the supporting-frames L and M engage with the racks N, and to free them from such engagement I provide alongside one of the racks a slide O, held by studs O' , passed through inclined slots O^2 , so arranged that in one position the slide rests below the level of the said rack, but when moved longitudinally to the opposite position will ride up above said rack and so lift the supporting-frames out of the rack, when such frames may ride along the free upper edge of the slide and let the section G lower. A lever P is arranged to operate the slide O, being provided with an outer handle portion P' and an inner crank portion P^2 , connected at p^2 with the slide, so it may properly operate the same.

In Fig. 5 I show a bath-tub Q with heater q and thermometer q' , such tub being adapted to give a patient a foot-bath without removing him from the bed. This tub is designed to fit between the sides and lower end of the bed, and to be held in position by means of hooks Q' , extending out and engaging the side rails.

In Fig. 6 I show the bed-pan adapted to be applied to the center section F when desired to be used and to take the place of central mattress F' , removed.

In Fig. 7 I show an inflatable rubber pad or bag fitted to be used with the bed-pan shown in said figure for invalids' use.

The upper bottom section G has staples g^3 at its upper end to receive a strap or straps by which to hold the mattress G' from tilting forward when elevated.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The improved bed herein described comprising the frame having vertical and horizontal slots or guides, the upper tilting section provided at its lower end with upwardly-projecting straps or hangers, pivoted at their upper ends to the frame, and the lower tilting section having lateral studs at and a short distance below its upper end and arranged

to enter the vertical and horizontal slots or guides in the frame substantially as shown and described.

2. In a bed the combination of the upper tilting section, the bed-frame provided with racks, the supporting-frames pivoted at their upper ends to the said section extending thence in opposite directions and arranged at their lower ends to both engage the racks one in advance of the other and devices by which to free the said supporting-frames from such racks substantially as shown and described.

3. In a bed substantially as described the combination of the central fixed section the upper and lower tilting sections, a lever pivoted to the central section, a link or rod connecting said lever with the lower section and a link or rod connecting the upper section with said lever and having a slotted connection with the latter substantially as shown and described.

4. In a bed substantially as described the combination with the tilting section, the racks and the supporting frame or frames engaging said racks of the longitudinally-movable slide by which to free the said supporting-frame from the rack and means for operating said slide substantially as set forth.

5. In a bed the combination of the upper tilting section, the bed-frame provided with racks, the supporting-frames pivoted at one end to the upper section crossing each other between their ends and arranged at their other ends to both engage the racks and means by which to free both the supporting-frames from the racks substantially as shown and described.

6. In a bed substantially as described the combination of the bed-frame the lower tilting section having at its upper end and near such end lateral studs the horizontal and vertical guideways on the bed-frame for said studs, the central fixed section, the upper tilting section having at its lower end upwardly-projected hangers pivoted to the bed-frame, the lever jointed to the fixed section and connected with the opposite tilting sections, the racks fixed to the bed-frame the two supporting-frames pivoted to the upper tilting section and both engaged with the rack the longitudinally-movable slide for releasing said frames and the lever for operating the same substantially as shown and described.

JAMES T. HALL.

Witnesses:

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W. E. BENNETT.