William Heath

Invalid Bedstead

No. 75265 Patented March 10 1868

Fig. 1

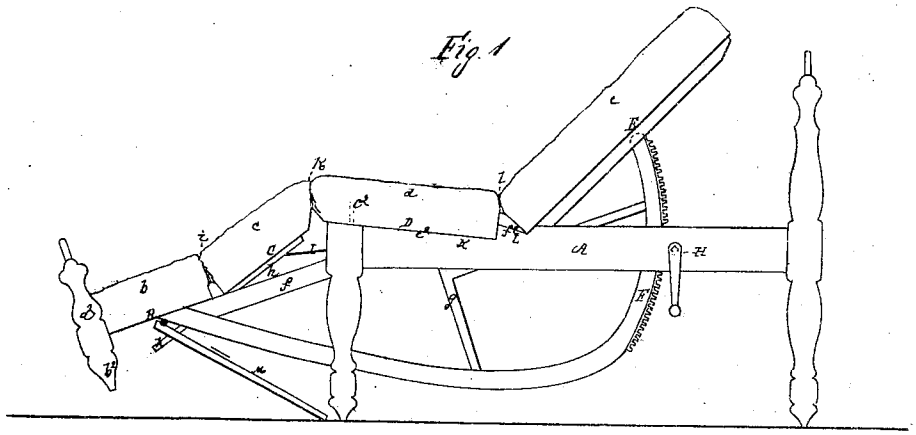


Fig. 2

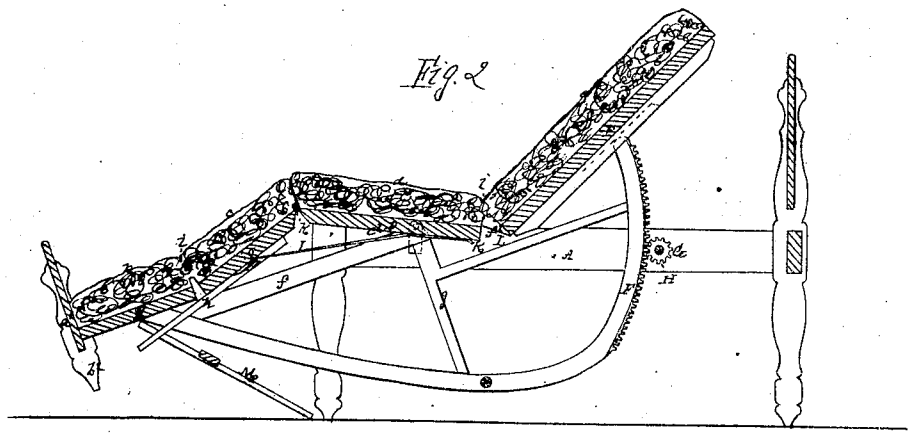
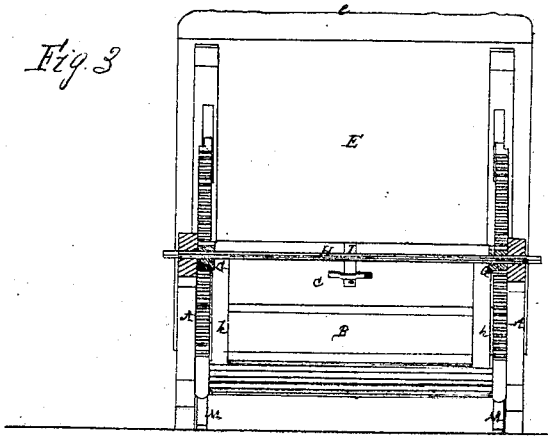


Fig. 3



Witnesses

J. P. Hale Jr.

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WILLIAM HEATH, OF BATH, MAINE.

Letters Patent No. 75,265, *dated March* 10, 1868.

IMPROVED INVALID-BEDSTEAD.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL PERSONS TO WHOM THESE PRESENTS MAY COME:

Be it known that I, WILLIAM HEATH, of Bath, in the county of Sagadahoc, in the State of Maine, have invented a new and useful or improved Invalid-Bedstead; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 denotes a side elevation, and

Figure 2 a longitudinal section of it.

Figure 3 is a transverse section taken through the operative shaft and pinions or gears G G.

In the said drawings, A denotes the frame for supporting the operative parts, it being formed as represented, or otherwise suitably made. At or near one end of this frame is what I term the seat-frame D, which constitutes part of the bedstead-frame, which is composed of four portions, B, C, D, and E, all of which are to b suitably connected together by hinges *i k l*, upholstered or provided with cushions, as shown at *b c d e*. Within the frame A, and against opposite sides of it, two toothed sectors, F F, are arranged, and are applied to the frame so as to be capable of being moved on centres and in vertical planes, and by means of gears G G, fixed on a horizontal shaft, H, extended across the frame A, and being supported in suitable boxes or bearings applied thereto. From each of the toothed sectors an arm, *f*, supported by a stud, *g*, is extended toward and underneath the parts B C of the bed-frame. The front edge of the said part C rests on the two arms *f f*. There are also one or more arms, *h h*, which are extended from the under side of the portion C, underneath and against the lower side of the part B. An elastic band or spring, I, extends from the part C to or about to the rear part of the portion D, and at its ends is fastened to the bottoms of such parts. When the part E is in the act of being elevated by the toothed sectors, the said band I serves to depress or decline the part C. A foot-frame, a^2, having short legs, b^2 b^2, is fastened to the front end of the part B, and serves to support the said part B when in its lowest position.

The seat-frame D is held in position or connection with the frame A by means of short pins, c^2, projecting from the frame A up into holes made in the seat-frame, near its front edge and ends, the same being large enough to admit of the seat-frame being depressed or dropped backward a little. Hinges may be used in lieu of such pieces. While the back frame, E, is in the act of being raised, the seat-frame will be depressed or declined into triangular recesses, K K, made in the two side rails of the frame A. The bottoms, e^2 e^2, of these recesses serve to support the seat-frame when depressed on them. In rear of each of the recesses K K is another such recess, L, which is formed on the side rail. The bottom, f^2, of such recess is an inclined plane, and serves as a cam to enable the back frame E, while being depressed, to elevate the frame D into a horizontal position or out of the recesses K K. In order to support the arms *f f* of the sector, when the parts B C D E are in horizontal positions, I hinge to them a pair of legs, M M, and so that such legs will stand vertically on the floor when the parts B, C, D, and E, are in a horizontal plane. The said legs take an inclined position when the back frame, E, is elevated, in which case the legs extend back underneath the parts C and D. By applying a key or crank to the shaft H and revolving it, we can put the toothed sectors in movement so as to throw the back-rest E up into an inclined position, and the leg-rests B C down into inclined positions. The seat-frame D will also be depressed at its rear edge, or will fall into the recesses K K, the same being as exhibited in the drawings.

The above-described invalid-bedstead, with the exception of the recesses K L, and the legs M M, is essentially like what is represented and described in Letters Patent, No. 59,600, granted to me on the 13th day of November, A. D. 1866.

The additional recesses, K L, are for effecting important results, as set forth, viz, the depression and elevation of the seat-frame D. The weight of a patient while on the bed and the back frame is being raised, will cause the seat-frame to fall down into the recesses K L, the rearward movement of the back frame on the inclined bottoms f^2 f^2 of the recesses L L, serving to greatly ease the seat-frame back or down into the recesses K K. While the back frame is being depressed, its leverage on the bottoms of the recesses L L will effect the elevation of the seat-frame to a horizontal position.

What, therefore, I claim as my present invention, is as follows:

I claim the combination of the recesses K K, L L, or their equivalents, with the frame A, the two frames, D E, and mechanism for moving and depressing or operating the back frame E, substantially in manner as described.

I also claim the combination of the folding legs M M, the toothed sectors, and their arms *f f*, the frame A, and the parts B, C, D, and E, arranged and connected substantially as specified.

WILLIAM HEATH.

Witnesses:

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