

W. O. Reid,
Invalid Bedstead.

No. 111,380.

Patented Jan. 31. 1871.

Fig. 1.

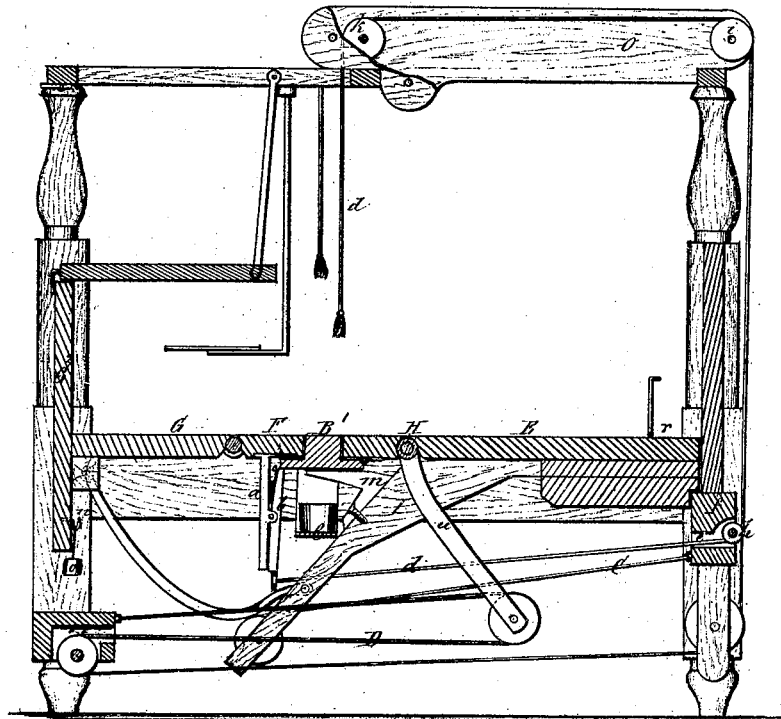
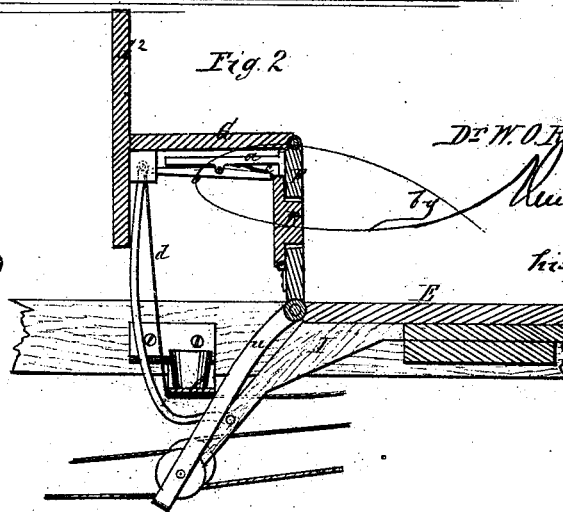


Fig. 2.



Witnesses
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United States Patent Office.

WILLIAM O. REID, OF VIENNA, NORTH CAROLINA.

Letters Patent No. 111,380, dated January 31, 1871.

IMPROVEMENT IN INVALID BEDSTEADS.

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

To all whom it may concern:

Be it known that I, WILLIAM O. REID, of Vienna, in the county of Forsythe and State of North Carolina, have invented a new and improved Invalid Bedstead; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a longitudinal vertical central section, with the bed-bottom horizontal, and

Figure 2 is a similar section, with the part F raised in a vertical position, and the part G elevated above the level of the bed.

This invention relates to certain improvements on the adjustable bedstead for which Letters Patent numbered 100,324, and bearing date March 1, 1870, were granted me, said bedstead consisting in an arrangement of the bottom in three sections, jointed together, and supported on a transverse axis mounted in the side-rails of the bedstead, wherewith are combined novel arrangements of supporting and adjusting-arms and hoisting and adjusting pulleys, whereby the patient may, while lying on the bed, raise himself to a sitting position, with the feet projecting below the plane of the bottom of the bed, which assumes the position of a large chair, and whereby, also, he may, while lying on the bed, raise the thighs to a perpendicular position.

My improvements relate, in part, to a simplification of the mechanism, whereby the patient is enabled to raise his thighs into a perpendicular position, and, in part, to a mechanism whereby the patient is enabled, if not in a perfectly helpless condition, to answer the calls of nature without rising from the bed or demanding the aid of an attendant.

In the drawing—

E F G are the three sections of the bottom of the bedstead.

H, the transverse shaft upon which the parts E and F are hinged, and which is mounted in the side-rails of the bedstead.

u, an arm rigidly attached at its upper end to the shaft H, and projecting downward and forward therefrom, said arm bearing, at its lower extremity, a grooved pulley, over which the cord D passes, by pulling which the section F is raised to a vertical position, as set forth in the said Letters Patent, the said shaft H being provided with arms, not shown in the drawing, which extend into grooves cut transversely of the under side of the section F, and are fastened, in any suitable manner, to the said section.

In my former invention there is a rock-shaft marked W, placed beneath the section F, and provided with wipers, which bear against the under side of the said

section so as to raise it when the rock-shaft W is turned; and it is to this rock-shaft that the arm u is attached in the said former invention.

In my present invention I have done away with the rock-shaft, and attached the arm u and the arms that lift the section F directly to the transverse shaft H, as above explained, and in this way I have simplified the mechanism which effects the elevation of the sections F and G.

B' is the stopper in the section F, which has to be dropped when the patient is compelled to attend to the calls of nature. The said stopper in my former invention must be operated by an attendant.

One of my present improvements is a mechanism whereby the patient may drop and raise the stopper himself. To this end I have provided a rod, a, rigidly attached to and extending downward from the under side of the section F.

To the rod a is pivoted a latch, b, whose upper extremity bears against the lower side of the stopper B'.

A spring, c, tends to keep the latch in position under the stopper.

To the lower end of the latch b a cord, d, is attached, which cord passes backward through a hole, e, in the head cross-piece f of the bedstead, and over a sheave, h, placed within the hole e, thence upward to a sheave, i, in one end of the grooved support O thence forward to a sheave, k, in the opposite end of said support, and thence downward to within convenient reach of the patient.

After the latter has converted the bed into a large chair by the means explained in the said Letters Patent, he has only to pull the cord d, when the stopper B' drops and leaves an orifice, through which the patient may ease himself into a vessel supported below upon the frame l, placed transversely beneath the bedstead, and attached at its ends to the sides of the same.

This having been done, when the patient restores the bed-bottom to its horizontal position, by the means also explained in the said Letters Patent, the tooth m of the arm I strikes the stopper B' and raises it so far that the latch b slips under and holds it.

To hooks n, attached to the inner side of the foot-board G², I contemplate hanging weights, o, of a gravity proportioned to that of the section E of the bed-bottom, for the purpose of counterbalancing the same in order that the patient may have to exert little or no strength in converting the bed into a chair or the chair into a bed.

I fasten pins, r, to the corners of the section E next the head-board, which pins are intended to hold the bed-cloths from falling when the section E is elevated.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The shaft H, when mounted in the side-rails of the bedstead, and provided with the arm *u*, and combined with the section E F of the bed-bottom, so as to subserve not only its original purpose of a pivot, but also to take the place of all other apparatus for elevating the section F, as described.

2. The combination of the hinged stopper B' with

the bar *a*, latch *b*, spring *c*, and cord *d*, when all these parts are constructed and arranged as set forth.

3. The combination of the hinged stopper B' with the swinging arm I and tooth *m*, as specified.

To the above specification of my invention I have signed my hand this 23d day of June, A. D. 1879.

WM. O. REID.

Witnesses:

D. OURAND,

CHAS. A. PETTIT.