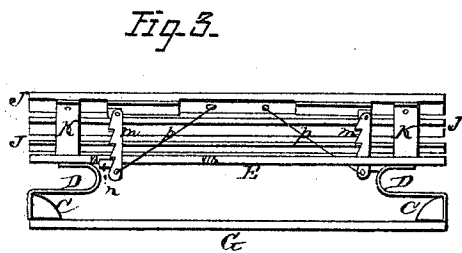
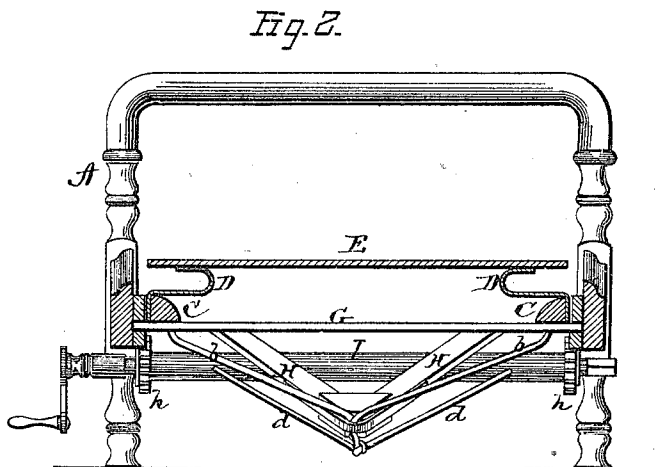
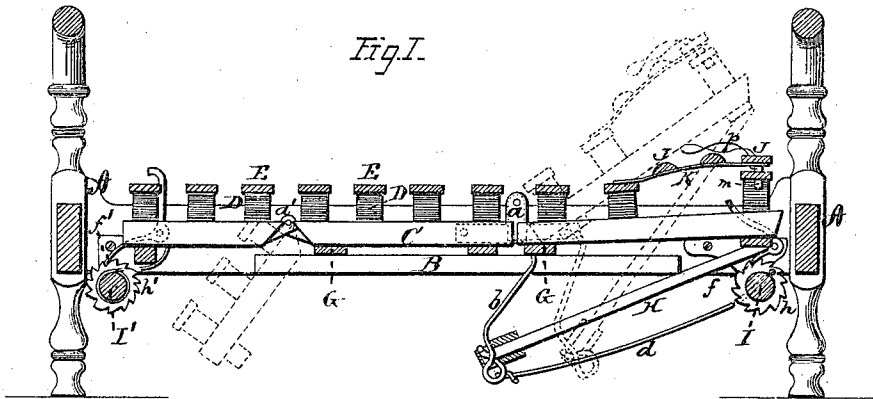


H. N. BLAIR.
Invalid Bedsteads.

No. 134,456.

Patented Dec. 31, 1872.



Witness:
Jas. C. Hutchinson
L. L. Fournier.

Inventor.
Horatio N. Blair
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Attorneys.

UNITED STATES PATENT OFFICE.

HORATIO N. BLAIR, OF TROY, PENNSYLVANIA.

IMPROVEMENT IN INVALID-BEDSTEADS.

Specification forming part of Letters Patent No. 134,456, dated December 31, 1872.

To all whom it may concern:

Be it known that I, HORATIO N. BLAIR, of Troy, in the county of Bradford and in the State of Pennsylvania, have invented certain new and useful Improvements in Invalid-Bedsteads; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of an invalid-bedstead, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal vertical, and Fig. 2 a transverse vertical, section of a bedstead with my invention placed in the same; and Fig. 3 is a view of the head end.

A represents a bedstead of any ordinary or suitable construction. On the inner sides of the side pieces of this bedstead are cleats B, upon which the bed-bottom rests. C C represent the side bars of the bed-bottom, said bars being constructed as shown particularly in Figs. 2 and 3—that is, the bottom or lower side horizontal and the outer side perpendicular, and then convex from the upper edge of the outer side to the inner edge of the bottom or lower side; or, in other words, these bars are made triangular with one side curved convex, this convex side being the inner side of the bar. Upon the bars C C are secured the springs D D, which support the slats E E. The springs D D are formed in the shape of a C, with the lower end extended and then turned downward, this turned end being attached to the outer side of the bar C. By the shape of the inner side of the bars C C the springs have more play, and at the same time have all the support necessary for any weight calculated to be put on the bed. The bars C C are, on their under sides, connected by means of cross-bars G G, and these supported upon the cleats B B on the side pieces of the bedstead. A suitable distance from the head end of the bed-bottom thus constructed the bars C C are cut and con-

nected by L-shaped strap-hinges a a, allowing the head end of the bed-bottom to be raised at any angle desired. To the head cross-bar G of the bed-bottom are attached two inclined braces, H H, the front ends of which are joined together and further braced by rods b b to the cross-bar nearest to the hinges a a. From the joined ends of the braces H H cords d d connect with a shaft or roller, I, located at the rear end of the bedstead, and turned by a crank at either end. By turning the shaft or roller I so as to wind up the cords d d the head part of the bed-bottom may be raised to any angle desired, and it is held at this point by means of a pawl, f, working in a ratchet-wheel, h, attached to the end of the shaft or roller I. The pawl f is pivoted to the inner side of the side piece of the bedstead, and is provided with a handle extending above said side rail, so that the pawl may at any time be raised from the ratchet-wheel, when the head part of the bed-bottom will fall of its own weight. To this head part of the bed-bottom is attached a head-rest, consisting of two or more narrow slats, J J, attached to and connected by steel springs K K, the front ends of which are secured to one of the bed-slats E. Near each end of the upper or rear slat J, on the under side, is pivoted a ratchet-bar, m, which passes through a slot in the rear bed-slat E and catches on a plate or stop, n, attached to said bed-slat, thus holding the head-rest at any angle desired independent of the angle at which the head part of the bed-bottom may be standing. The two ratchet-bars m m are connected by a cord, p, passing up through the head-rest, by means of which said bars may be moved from the stops n n so that the head-rest will be lowered, the weight of the pawls themselves throwing them back against the stops as soon as the cord p is let go again. In the same manner as the head part of the bed-bottom is hinged, and can be raised and lowered, a suitable part at the foot end of the bed-bottom is also hinged at a' and connected, by cords d', with a shaft or roller, I', at the foot end of the bedstead, said shaft or roller having ratchet-wheels h' and pawls f' to engage in the same. By this means the foot part of the bed-bottom can be lowered and held at any angle from the horizontal that may be desired.

This bed-bottom is more particularly designed for invalids, and can be adjusted so as to place the person occupying the same in almost any position desired.

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

1. The combination, with the slats E and triangular bars C C, of the flat steel springs D D bent in the form shown, one end secured under the slat and the other bent over and secured to the outside of the triangular bar, as set forth.

2. The hinged head part of the bed-bottom with braces H H and rods *b b*, in combination with the cords *d d* and roller I with ratchet-wheels and pawls, substantially as and for the purposes herein set forth.

3. The head-rest J K, constructed as described, and operated independently of the hinged head part of the bed-bottom by means of the ratchet-bars *m m*, stops *n n*, and cord *p*, as and for the purpose specified.

4. The combination of the hinged head-rest section, the stationary central section, and the hinged foot-rest section of the bed-bottom with the bedstead A, provided with a roller, pawl, and ratchet at each end, all constructed substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of December, 1872.

H. N. BLAIR.

Witnesses:

C. L. EVERT,
A. N. MARR.