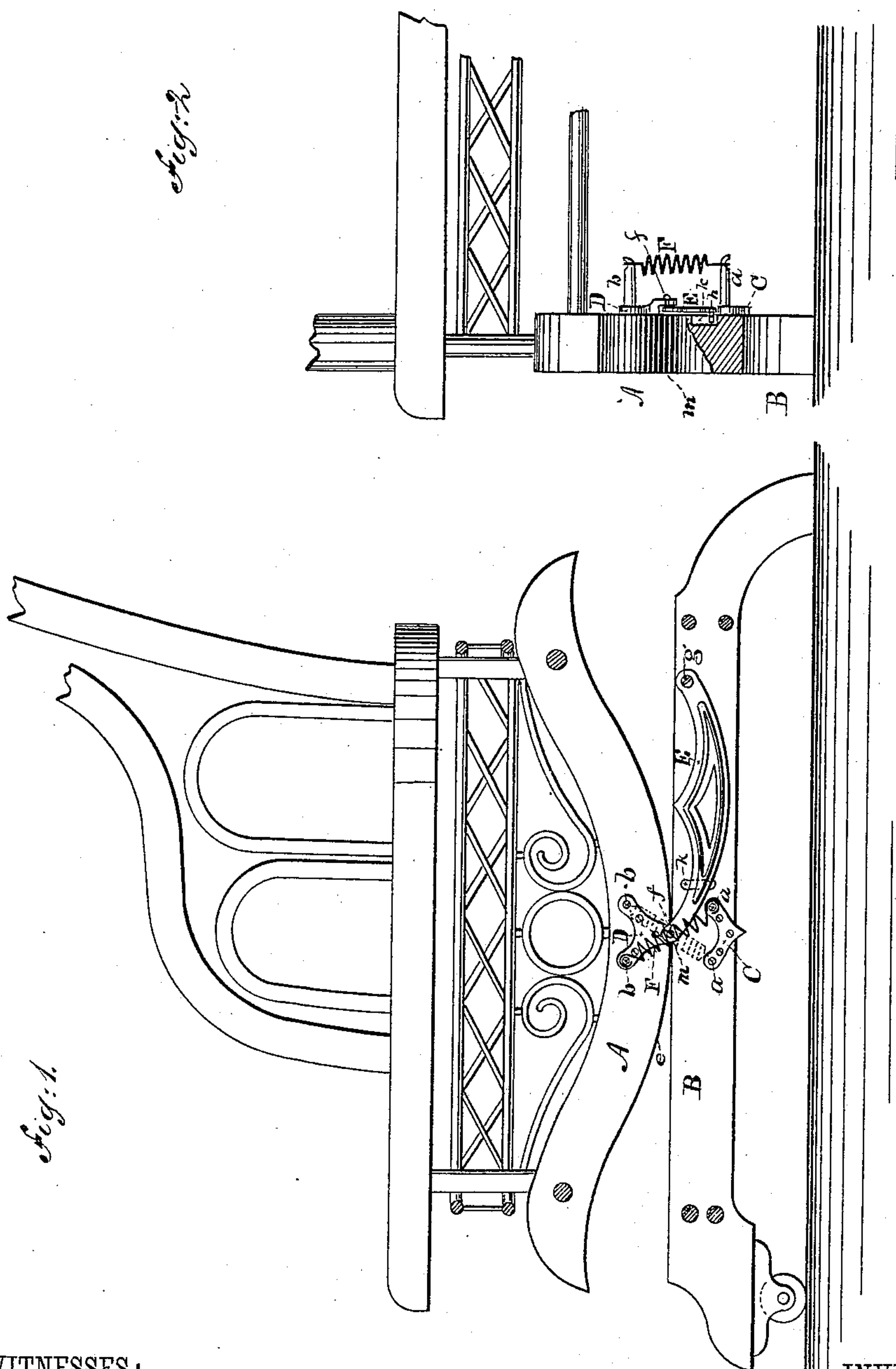


(No Model.)

G. A. WATKINS.  
BASE ROCKING CHAIR.

No. 326,361.

Patented Sept. 15, 1885.



WITNESSES:

Chas. Nida  
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INVENTOR

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# UNITED STATES PATENT OFFICE.

GARDNER A. WATKINS, OF GARDNER, MASSACHUSETTS, ASSIGNOR TO HENRY HEYWOOD, GEORGE HEYWOOD, ALVIN M. GREENWOOD, AND AMOS MORRILL, ALL OF SAME PLACE.

## BASE ROCKING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 326,361, dated September 15, 1885.

Application filed June 7, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, GARDNER A. WATKINS, of Gardner, Worcester county, State of Massachusetts, have invented a new and useful Improvement in Base Rocking-Chairs; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying sheet of drawings, forming part of this specification.

This invention relates to an improvement in base rocking-chairs; and the invention consists in a base rocking-chair with its rockers and base combined with springs, brackets, pivoted segments, and stops, in the manner hereinafter particularly shown, described, and claimed.

In the accompanying sheet of drawings, Figure 1 is a side elevation, partly in section; and Fig. 2, an end view, partly in section.

Similar letters of reference indicate like parts in the several figures.

This invention pertains to that class of rocking-chairs commonly known as "base rocking-chairs"—that is, a chair the rockers of which bear upon a base constructed for that purpose instead of directly upon the floor, as do the rockers of the ordinary rocking-chair.

To render more perfect in many respects and to lessen the cost of construction of base rocking-chairs is the purpose of this invention. All or nearly all chairs of this class are constructed with coil-springs and brackets for confining the springs to the base and rockers, and stops to limit the extent of the backward and forward rocking motion of the chair on its base; but in many of the details of the construction such chairs have in use been found objectionable. To obviate these objections I construct my chair with the ordinary rockers A and base B, the rockers resting on the upper surfaces of the base.

To the inner faces of the base B are rigidly fixed brackets C. Each of these brackets is provided with two projections, *a*, and to each of the rockers A are fixed brackets D, and these last-named brackets are also provided with projections *b*. The lower part of these brackets D are prolonged until the prolongations extend somewhat below the rocking sur-

face *e* of the rockers A. To these prolongations of the brackets D are pivoted at one end, as at *f*, segments E. The other ends of these segments are also pivoted to the base B, as at *g*. Each segment E is provided with a right-angular projection, *h*, which projections enter into slots *k*, formed in the inner face of the base B. The brackets D are located on the inner faces of the rockers of the chair, so as to bring the pivotal joints of the segments E coincident with the points at which the rockers bear upon the base when the rockers are at rest.

Extending from the bracket C to the bracket D, and uniting these brackets, are coil-springs F, one end of each spring passing over one of the projections *a* of the bracket C, and the other end of the spring over one of the projections *b* of the bracket D.

Now, when my chair is constructed substantially in the manner described, its operation is as follows: When the chair is rocked to and fro on its base, the springs F yield more or less of their elastic force, and thereby prevent the too sudden or jerking motion that would follow the rocking were the springs omitted, and as the chair is rocked the ends of the segments E, while turning or yielding somewhat on the pivots *f* and *g*, are at the same time raised and lowered to some extent, during which the projections *h* on these segments travel up and down in the slots *k* of the base, and when these projections are brought in contact with the upper and lower limits of these slots stops are produced which prevent undue forward and backward rocking, such as would throw the rockers from the base; and as the chair is rocked in the manner described the pivoted segments E, or rather their forward ends in connection with the prolongations of the brackets D, act as stops to prevent the rockers from working sidewise on their base. This feature is due in some measure to the fact that the pivot *f* is placed exactly coincident with the point at which the rockers rest on the base, as before stated; but the pivotal joint at *f* in no wise interferes with the freest possible rocking motion, for not only does this joint at *f* operate as an or-



dinary pivot, but provision is made for its continuing to act as such, notwithstanding the shifting of the position of the pivotal joint when the chair is rocked, the movement of the pivoted segment E permitting the pivot to accommodate itself to the change of position incident to the rocking.

In chairs of this base rocking class it is desirable that some provision be made to regulate the tension of the coil-springs to the weight of the occupant, so that the rocking of the chair may not be rendered too easy or too difficult to the user. This adjustment is accomplished in my chair by shifting the position of the springs F on the projections *a* and *b*, for, as is apparent, when the springs are vertical and at right angles to the axis of oscillation or central point, *m*, their action is practicably neutral, and the chair can be rocked with the utmost freedom on its base by the lightest user. When, however, it is desired to adapt the chair to a user of greater weight, by simply shifting the springs F so that they will assume a position diagonal to the axis of oscillation *m*, as is shown in Fig. 1, then the preponderating force of the occupant will be to some extent counteracted by the elasticity of the springs F, which, when in the position last named, are in the best position to exert their full resilient power; and by shifting the position of these springs so that one shall be vertical and the other diagonal or both diagonal or both vertical on corresponding opposite projections *a* and *b*, or arranging the springs so that one spring shall be placed vertically forward of the axis of oscillation, as indicated at *m*, and the other on the opposite side and in the rear of the same, or by supplying each projection *a* and *b* with separate springs, making four in all, the chair can be made to accommodate itself to the weight of any occupant, and, as is apparent, these changes of the positions of the springs can be varied

to an extent much greater than those above enumerated.

The pivotal segment E, in addition to its functions above named, acts also as a stop to prevent the rockers from sliding backward and forward on their base.

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

1. In a base rocking-chair, the combination of the rockers A and base B with brackets C and D, provided with projections *a* and *b*, springs F, and segments E, pivoted to the base B and to the brackets D, and provided with projections *h*, fitting into slots *k* in the face of the base, all constructed and arranged for the purpose and in the manner hereinbefore described.

2. In a base rocking-chair having the rockers A and base B, the combination, with said rockers, of brackets D, and the segments E, pivoted to the base and to the brackets D at or near the axis of oscillation *m* of the rockers on the base, substantially as described.

3. In a base rocking-chair having the rockers A and base B, brackets C and D, each of said brackets having two projections, *a a* and *b b*, respectively, combined with a single coil-spring, F, for each pair of said brackets, removably attached to the projections, whereby said spring may be adjusted on different pairs of said projections, for the purpose set forth.

4. In a base rocking-chair having the rockers A and base B, combined with segments E, pivoted to said base and to brackets D on the rocker, the said segments having projections *h* to engage slots *k* in the base, substantially as and for the purpose set forth.

GARDNER A. WATKINS.

Witnesses:

CALVIN H. HILL,  
JOSEPH W. HYDE.