C. BRADA.
Rocking-Chair.

No. 196,423. Patented Oct. 23, 1877.

Fig. 1.

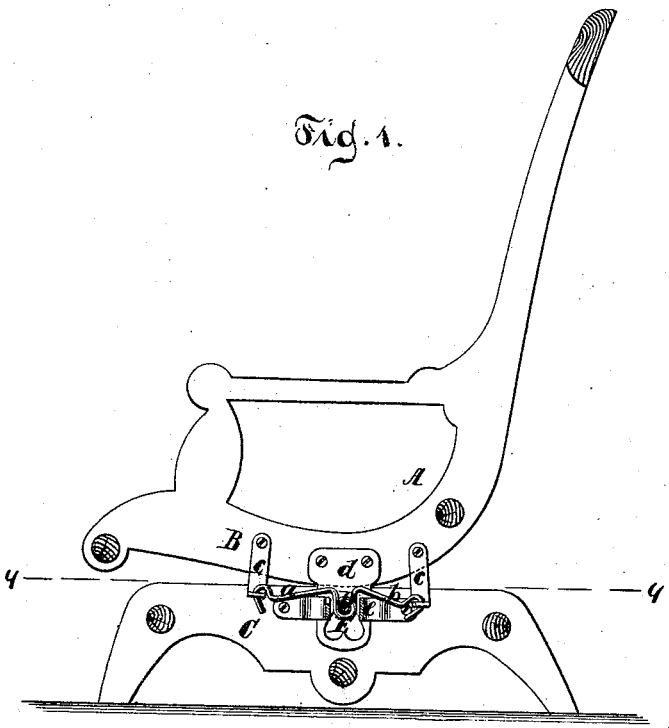


Fig. 3.

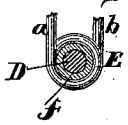
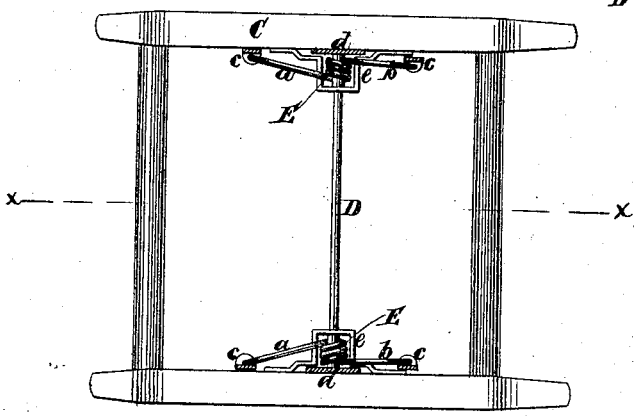


Fig. 2.



Witnesses.
Otto Stufeland
Chas. Wahlers.

Inventor.
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his attorneys

UNITED STATES PATENT OFFICE.

CHARLES BRADA, OF NEW YORK, N. Y.

IMPROVEMENT IN ROCKING-CHAIRS.

Specification forming part of Letters Patent No. **196,423**, dated October 23, 1877; application filed August 15, 1877.

To all whom it may concern:

Be it known that I, CHARLES BRADA, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Rocking-Chairs, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a longitudinal vertical section in the plane *x x*, Fig. 2. Fig. 2 is a horizontal section in the plane *y y*, Fig. 1. Fig. 3 is a detached section of one of the springs and its supports on a larger scale than the previous figures.

Similar letters indicate corresponding parts.

This invention consists in the combination, in a rocking-chair, of a seat provided with rockers, a supporting-frame, two coiled springs wound round a rod secured in the supporting-frame, each of said springs being provided with two arms, which extend in opposite directions, and are hooked to brackets secured to the rocking seat, and two stops, (one for each spring,) which are fastened to the supporting-frame, and co-operate with the rear arms of the springs, so that by the action of said springs the rocking seat is held down squarely upon the supporting-frame, and that in rocking backward the springs are wound up, and thereby a comfortable and easy motion of the rocking-chair is produced. Between the coiled springs and their supporting-bar are placed sleeves of india-rubber or other elastic material, whereby the rolling of the springs on the supporting-bar is checked to a certain extent, the action of said springs during the rocking motion of the chair is increased, and all noise from contact of the springs with their metallic supporting-bar is avoided.

In the drawing, the letter A designates the seat of my rocking-chair, which is provided with rockers B. These rockers rest upon the side pieces of the supporting-frame C. In this supporting-frame is firmly secured a transverse bar, D, round which are coiled two springs, E. Each of these springs is provided with two arms, *a b*, which extend in opposite directions, and which are hooked on, or otherwise secured to, brackets *c*, that are fastened to the inner sides of the rockers B, and extend down below the top edges of the side pieces of the supporting-frame, so that they prevent a lateral displacement of the seat on said frame. The springs are so adjusted that by the strain of their arms *a b* the seat A is squarely depressed upon the supporting-frame; but in order to increase the security of the position of the seat on its supporting-frame, two lugs or ears, *d*, are fastened to the inner surfaces of the rockers, (one on each), and made to extend down over the inner surfaces of the side pieces of the frame C. These ears are provided with heart-shaped openings, which straddle the bar D, and effectually prevent the seat from being lifted or thrown off from its supporting-frame.

With the rear arm *b* of each of the springs E is combined a strap, *e*, so that in rocking backward said rear arm comes in contact with its stop, the tension of the spring is gradually increased, and the backward motion of the seat is checked without danger of upsetting the chair by rocking back too far. In rocking forward no such stop is needed, since the weight of the person occupying the chair is brought to bear principally on the rear portion of the seat and on the back of the chair.

In the example shown in the drawings the straps *e* are made in the form of ⊔-shaped supports, which are secured to the side pieces of the supporting-frame, and form additional bearings for the transverse bar D. The form of these straps may, however, be changed in various ways without deviating from my invention.

Between the springs E and the transverse bar D are placed sleeves *f*, of india-rubber or other elastic material, the springs being firmly wound on said sleeves, so that by the friction between the sleeves and the bar D, the rolling of the springs on said bar is checked, and their action during the rocking motion of the chair is increased. Furthermore, by said sleeves all noise from contact of the springs with their metallic supporting-bar is avoided.

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

1. The combination of the rockers B, provided with the downwardly-extending slotted plate *d*, the side pieces C, and cross-arm D, passing through the slots in said plate, as described.

2. The combination of the cross-arm D, loop-

straps *e*, and coiled spring E, having arms *a b*, connected to the rockers B, substantially as described.

3. The combination, with the rocking seat A, the supporting-frame B, the coiled springs E, and their supporting-bar D, of sleeves *f*, of india-rubber or other elastic material, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of August, 1877.

CHARLES BRADA.

Witnesses:
W. HAUFF,
E. F. KASTENHUBER.