G. W. CUMMINGS, Jr.
Oscillating-Chair.

No. 199,189. Patented Jan. 15, 1878.

Fig. 1.

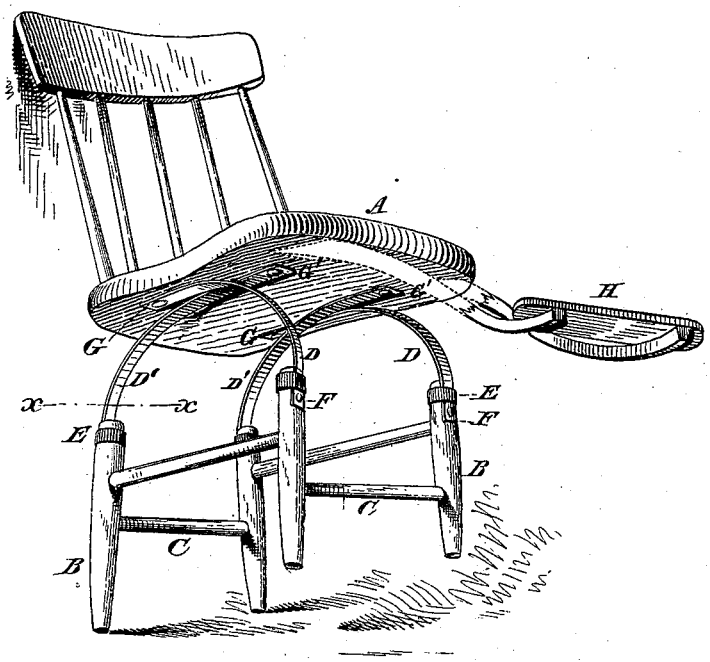
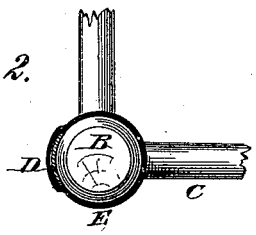


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE W. CUMMINGS, JR., OF BIG RAPIDS, MICHIGAN.

IMPROVEMENT IN OSCILLATING CHAIRS.

Specification forming part of Letters Patent No. **199,189**, dated January 15, 1878; application filed October 9, 1877.

To all whom it may concern:

Be it known that I, GEORGE W. CUMMINGS, Jr., of Big Rapids, in the county of Mecosta and State of Michigan, have invented a new and useful Improvement in Rocking Chairs and Cradles, of which the following is a specification:

The object of my invention is to provide a cheap and simple means of connecting the legs or the supporting lower part of a chair or cradle with the seat or upper part, so as to enable a rocking motion of the seat or upper part to be effected, while the legs or supporting parts remains stationary.

The invention will first be described in connection with the drawings, and then pointed out in the claim.

In the accompanying drawings, Figure 1 represents a perspective view of a chair constructed according to my present invention. Fig. 2 is a detail section of the same, taken through the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the seat of the chair. If A be considered the bottom of a cradle instead of a chair-seat, it is evident that a description of my invention relative to the latter will apply also to the former.

B are the legs, connected together by the rounds C. D D′ are the springs, forming the connection between the legs and the seat, and supporting the latter on the former. For this purpose the front springs D are attached with their lower ends to the front legs, thence curved backward, and their upper ends G fastened to the rear part of the under side of the seat, while the rear springs D′ are attached with their lower ends to the rear legs, thence curved forward, and fastened with their upper ends G′ to the front part of the under side of the seat, the two springs of each side pair thus crossing each other, as seen in the drawing. The result is that a backward rocking or oscillation of the seat A will cause the weight thereon to be taken up mainly by the front springs D, and a forward rocking of the seat will cause the weight to be taken up mainly by the rear springs D′, thereby enabling longer springs to be used, and insuring a softer and more comfortable rocking motion.

The ends of the springs may be fastened in any ordinary manner, though for their attachment to the legs I prefer the simple metallic band or ring E, driven on from the top to surround the end of the spring and the leg at the same time, and clamping the former to the latter. The extreme end of the spring is then fastened to the leg below the band E, at F, by a screw or nail, or in any other manner.

By this construction the springs are held securely against lateral play, as well as against vertical.

A foot-rest, H, may be attached to the seat A at the option of the user.

I do not claim, broadly, connecting the legs and the seat of a chair by means of springs, but limit myself to the arrangement herein shown.

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

A chair whose seat A and legs B are connected by crossing springs D D′, secured directly to legs by bands E, as shown and described.

GEORGE W. CUMMINGS, JR.

Witnesses:

JOHN M. RAPER,

CALVIN W. NOTTINGHAM.