(No Model.)

J. & M. GRUNWALD.

ROCKING CHAIR.

No. 342,296. Patented May 18, 1886.

Fig. 1.

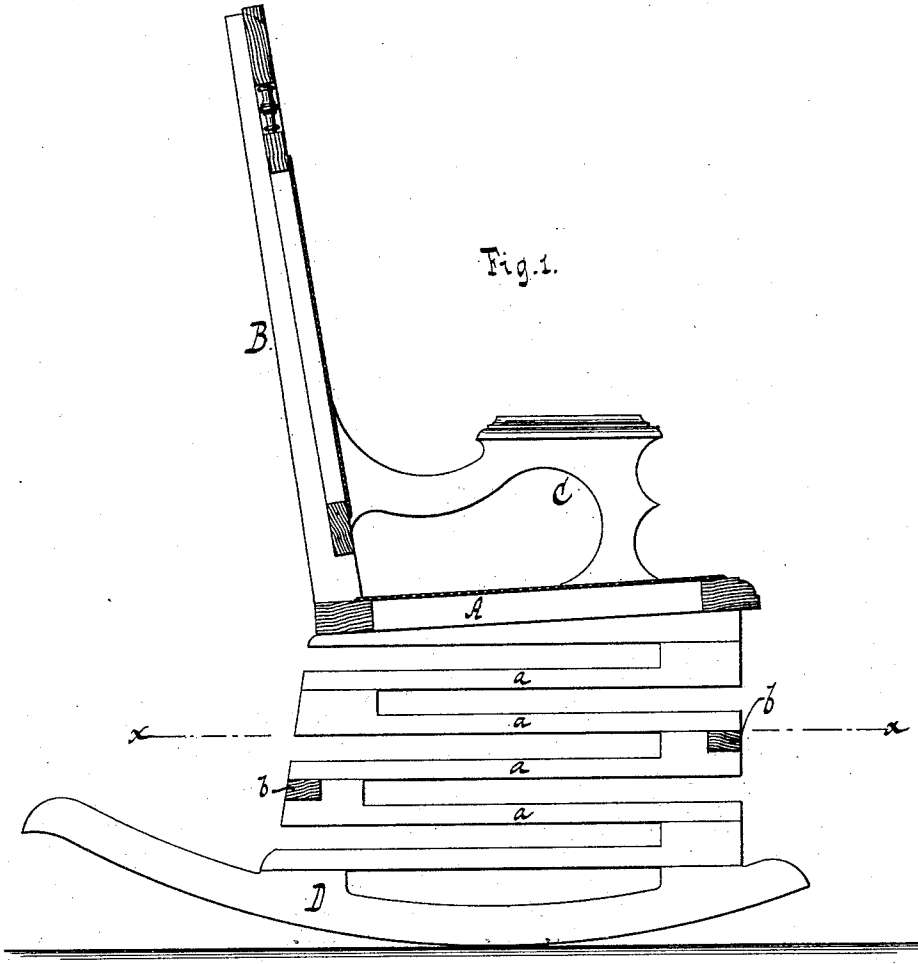
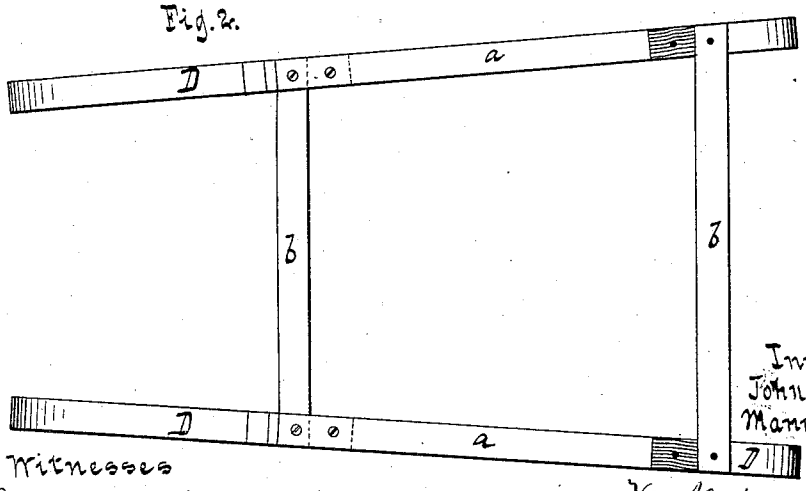


Fig. 2.



Witnesses
Otto Hupfeld
William Miller

Inventors
John Grunwald
Manuel Grunwald
by
Van Santvoord & Hauff
their att'ys.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN GRÜNWALD AND MANUEL GRÜNWALD, OF NEW YORK, N. Y.

ROCKING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 342,296, dated May 18, 1886.

Application filed January 28, 1886. Serial No. 190,092. (No model.)

To all whom it may concern:

Be it known that we, JOHN GRÜNWALD and MANUEL GRÜNWALD, citizens of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Rocking-Chairs, of which the following is a specification.

This invention has for its object to provide a novel and efficient spring rocking-chair; and it consists in the construction of devices hereinafter described and claimed, reference being made to the accompanying drawings, illustrating our invention, in which—

Figure 1 is a central vertical section of the chair. Fig. 2 is a horizontal section in the plane *x x*, Fig. 1.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the seat, to which the back B and arms C may be secured in the usual manner. D are the rockers. All the above parts may be of common construction. Between the seat and the rockers are secured zigzag springs, consisting of a series of spring-rods, *a*, firmly fastened to each other at alternate extreme ends. A series of these zigzag spring-rods are placed between each rocker and each side of the chair-seat. The upper rod of each series is attached at one end to the side edge of the seat, and the lower rod is attached at one end to the rocker. The width of the rods comprising the springs is the same, or approximately the same, as the width of the rockers, and where two series of springs of this character are arranged as described it is necessary that they be braced and steadied against lateral or sidewise movement or displacement. To accomplish this, I connect the front and rear ends of two or more of the rods comprising the springs through the medium of transverse bars *b b*, which extend, respectively, from the front and rear ends of two or more of the spring-rods at one side of the chair to the front and rear ends of the corresponding spring-rods at the opposite side of the chair. By this means both series of springs are rigidly held in vertical line at different points between the seat and the rockers, which is very important in bracing and steadying the two sets of springs against lateral or sidewise movement or displacement.

We are aware that zigzag springs have heretofore been constructed, and such, therefore, we do not broadly claim.

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

A spring rocking chair consisting of the following elements, to wit: the rockers, the seat, the two sets of zigzag spring-rods having their upper rods secured at one end, respectively, to the side edges of the seat, and their lower rods secured at one end to the rockers, and the transverse bars rigidly connecting together the front and rear ends of two of the spring-rods of each set, for bracing and steadying the opposite sets of spring-rods against lateral or sidewise movement, substantially as described.

In testimony whereof we have hereunto set our hands and seals in the presence of two subscribing witnesses.

JOHN GRÜNWALD. [L. S.]
MANUEL GRÜNWALD. [L. S.]

Witnesses:
OTTO HUFELAND,
A. FABER DU FAUR, Jr.