(No Model.)

G. HUNZINGER.

SPRING ROCKING CHAIR.

No. 264,880. Patented Sept. 26, 1882.

Fig. 1.

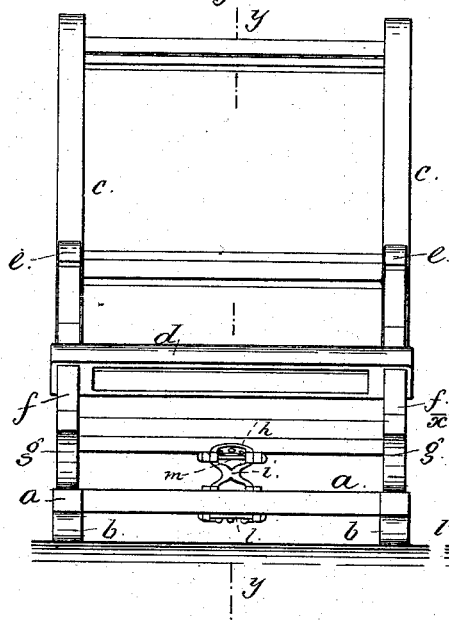


Fig. 2.

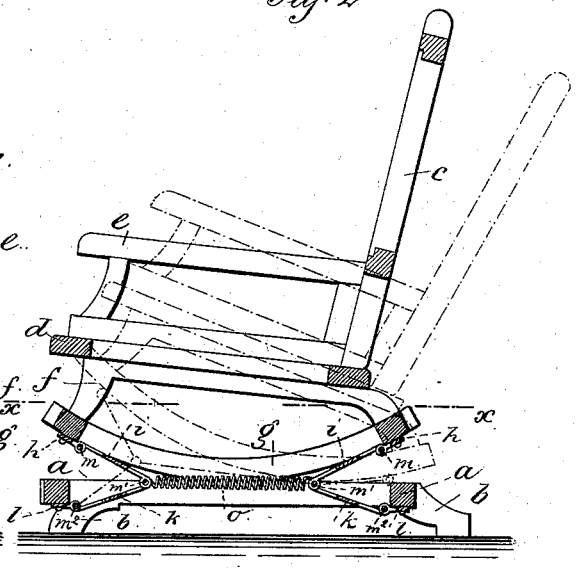


Fig. 4.

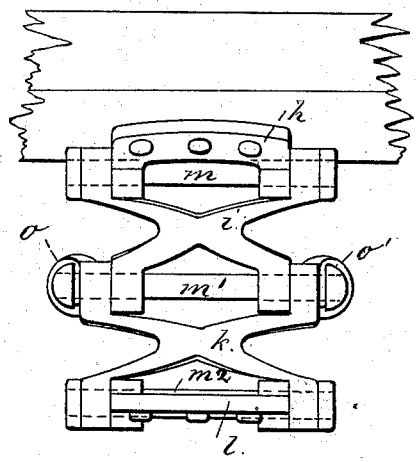
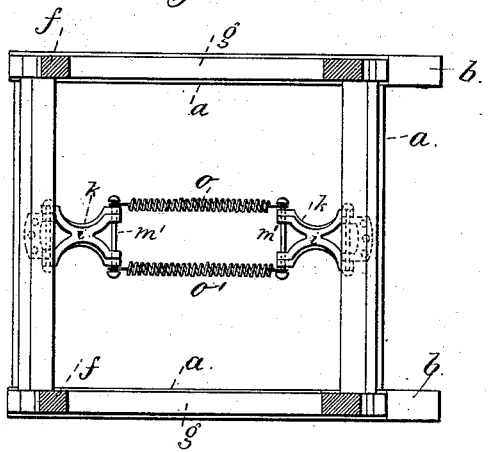


Fig. 3.



Witnesses.

J. Stabb

Chas. H. Smith

Inventor

George Hunzinger

per Lemuel W. Serrell atty

UNITED STATES PATENT OFFICE.

GEORGE HUNZINGER, OF NEW YORK, N. Y.

SPRING ROCKING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 264,880, dated September 26, 1882.

Application filed May 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HUNZINGER, of the city and State of New York, have invented a new and useful Improvement in Spring Rocking-Chairs; and the following is declared to be a correct description of the same.

Rocking-chairs having stationary bases for resting upon the floor have long been regular articles of manufacture; and said chairs have contained springs and other devices in a number of forms to connect the stationary base and the rocking-chair together, and to compel the rocking-chair to return from either end of its movement to a normal position.

My invention relates to a device wherein the rocking-chair and stationary base are connected and held together by combination hinge and spring mechanism which insures a stable connection of the parts, and at the same time a positive and easy spring movement.

In the drawings, Figure 1 is a front elevation of the chair. Fig. 2 is a vertical section at the line *y y*, Fig. 1. Fig. 3 is a sectional plan of the same at the line *x x*, Fig. 2. Fig. 4 is a front elevation of the parts of the hinge in larger size.

The chair is of any usual form, the base-frame *a* having short legs *b*. The chair proper has the back *c*, seat-frame *d*, arms *e*, legs *f*, and rockers *g*, and the chair may be finished or upholstered in any desired manner.

Each compound hinge is composed of the four parts *h i k l*, and the parts are connected together by three pins or rods, *m m' m²*. The parts *h* and *l* and the parts *i* and *k* are similar in size and shape, and a similar compound hinge is used at the front and back of the chair. The part *h* is secured by screws or rivets to the cross-piece of the rocker *g*, and at the outer edge it receives the hinge-rod *m*. The parts *i* and *k* are preferably of about the same size, and shaped like a letter **X**, with cylindrical ends that form hinge-joints with the rods *m*, *m'*, and *m²*. The part *l* is of the same size and shape as the part *h*, and it is screwed or riveted to the cross-bars of the base *a*.

The cross-rod *m'* is made longer than *m* or *m²*, and to its ends are secured the helical spring *o* and *o'*, which springs connect the compound hinge in the front of the chair to the one employed in the back. The back hinge is secured to the chair in the same manner as the front one. These pairs of compound hinges retain the rockers in their proper places upon the side rails, *a*, of the base, and these hinges are similar to toggle joints. The springs tend to draw the middle portions of these joints toward each other, and in the position of rest the angles between the hinges at the front and back will be nearly the same. As the chair is rocked back, as shown by dotted lines in Fig. 2, the front hinge will be opened more than the back hinge is closed and the springs will be strained, and by their contraction tend to bring the chair to a position of rest. If the chair is rocked forward, the back hinge will be opened faster than the front hinge is closed and the springs will be again distended, and as they contract the chair will again be returned to a normal position. By this improvement the chair can be rocked with the greatest ease, and there is no tendency for one part to slip upon the other, and there will be little or no noise in the spring and hinges as they move.

I do not limit myself to the **X** shape of the parts *i k*, nor to the exact form of the parts *h l*, as these may be changed without altering the operation; and I do not limit myself to the employment of two springs, as any number may be used.

I claim as my invention—

1. The chair and rockers, in combination with a stationary base upon which the rockers rest, compound hinges connected at their ends to cross-pieces upon the front and back portions of the base and rocking-chair, respectively, and contractile springs extending from the middle portion of one compound hinge to the middle portion of the other, substantially as set forth.

2. The combination, with the rocking-chair and its base, of compound hinges composed of the end pieces, *h* and *l*, screwed to the front and rear cross-pieces of the chair and base, respectively, and the folding portions *i* and *k*, united by the joint-rods *m m' m²*, and the springs *o o'*, connected at their ends to the rods *m'*, substantially as set forth.

Signed by me this 10th day of May, A. D. 1882.

GEO. HUNZINGER.

Witnesses:

GEO. T. PINCKNEY,

WILLIAM G. MOTT.