

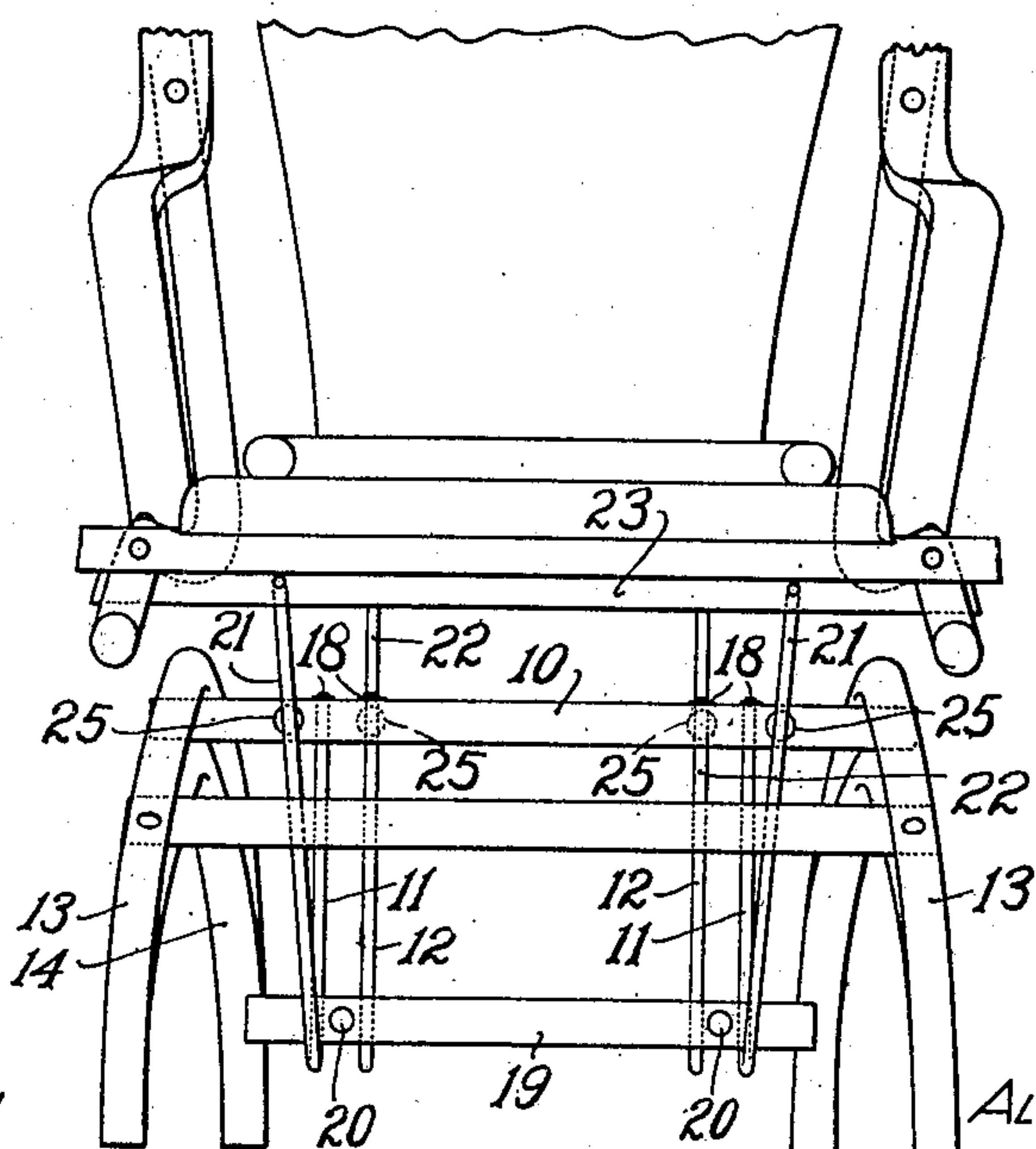
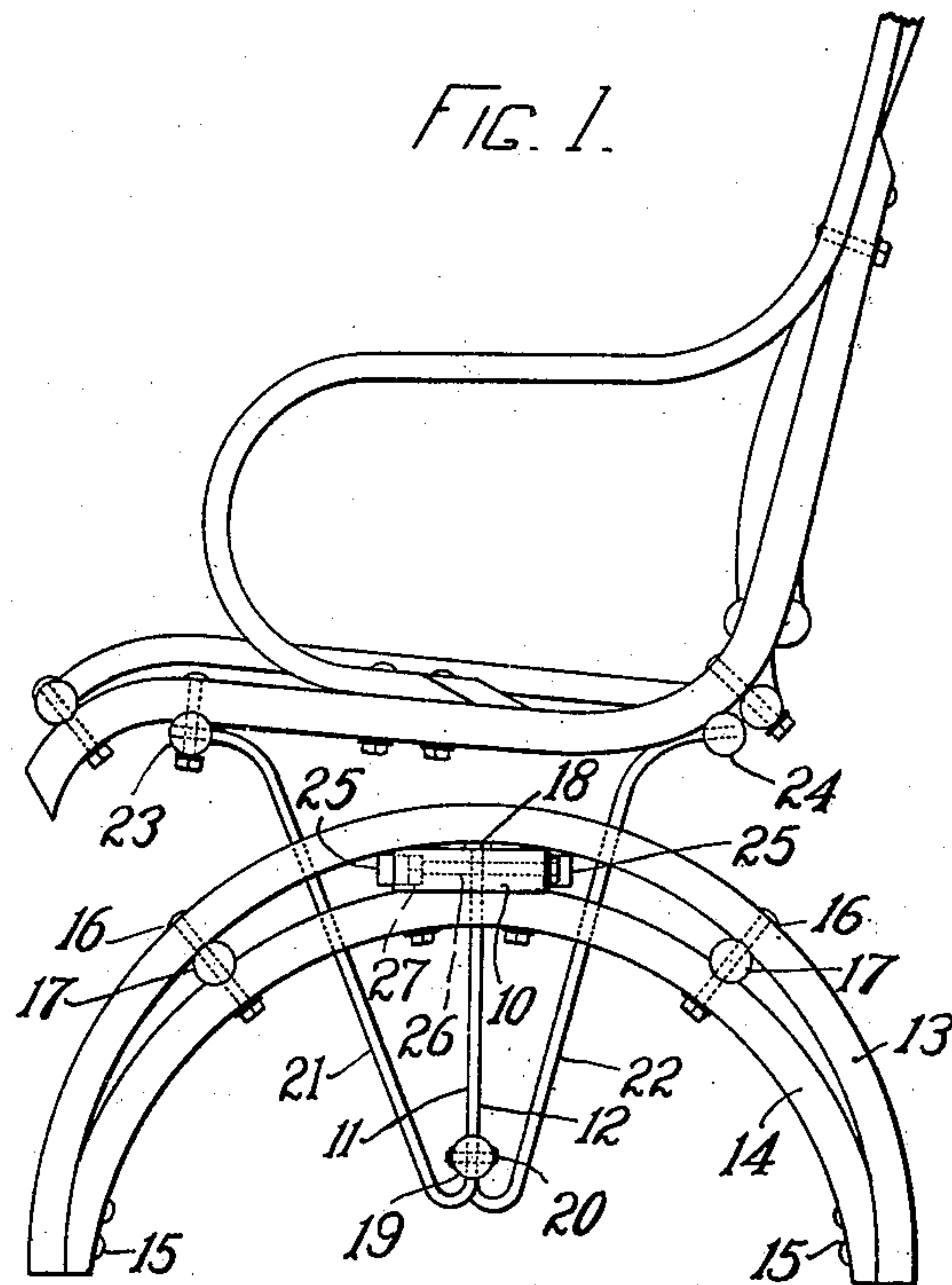
No. 887,959.

PATENTED MAY 19, 1908.

A. H. ORDWAY.  
ROCKING CHAIR.

APPLICATION FILED JUNE 22, 1907.

2 SHEETS—SHEET 1.



WITNESSES  
A. T. Palmer  
Oliver Schoonmaker

INVENTOR  
ALBERT H. ORDWAY  
BY HIS ATTORNEY

Everett Kent

FIG. 2.

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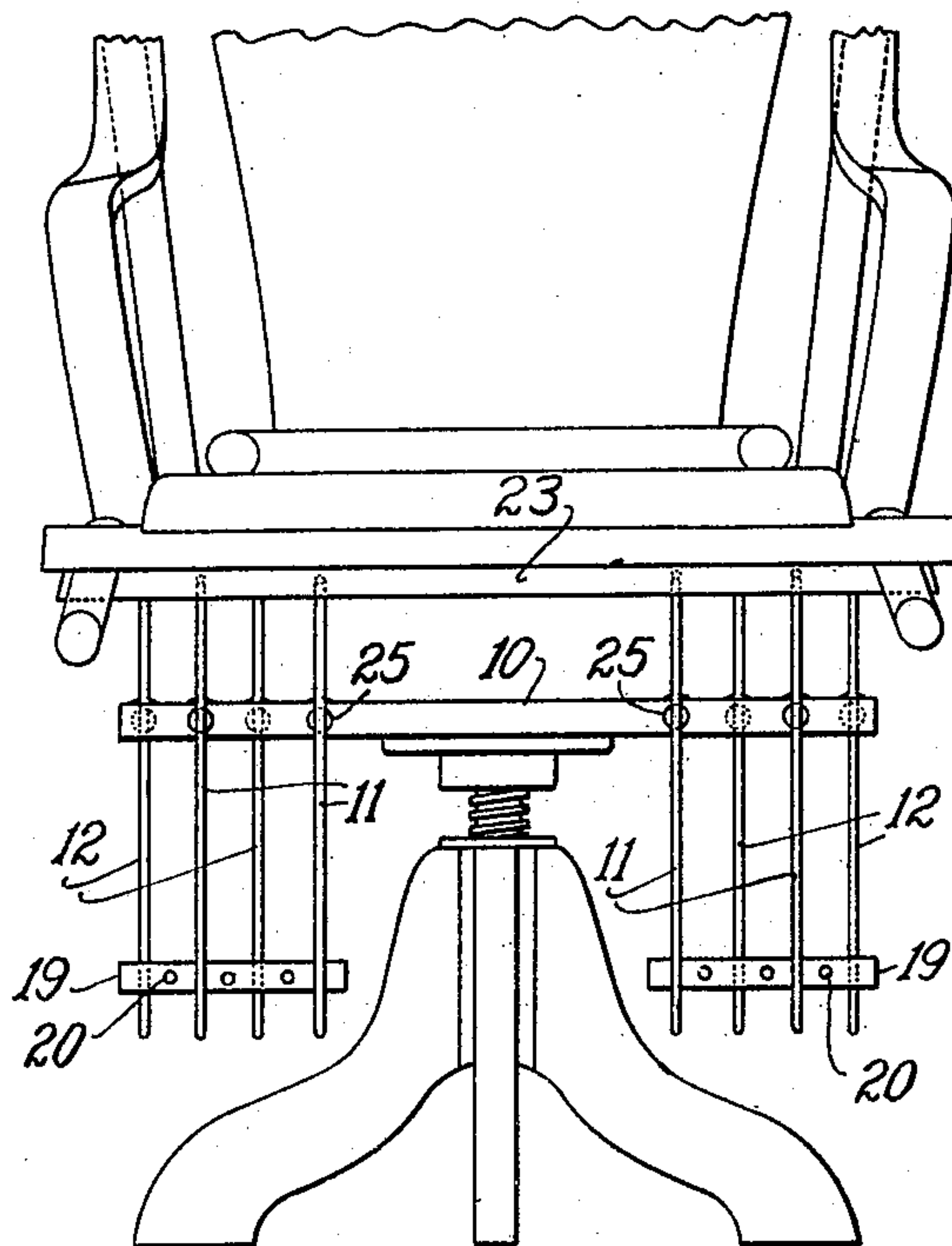


FIG. 3.

WITNESSES

A. T. Palmer

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# UNITED STATES PATENT OFFICE.

ALBERT H. ORDWAY, OF FRAMINGHAM, MASSACHUSETTS.

## ROCKING-CHAIR.

No. 887,959.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed June 22, 1907. Serial No. 380,271.

*To all whom it may concern:*

Be it known that I, ALBERT H. ORDWAY, of Framingham, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Rocking-Chairs, of which the following is a specification.

This invention relates to improvements in spring rocking chairs and the like, including tilting chairs, and other uses to which the invention hereinafter described may be found applicable.

The accompanying drawings illustrate two embodiments of the invention.

Figure 1 is a side elevation of the lower portion of a rocking chair. Fig. 2 is a front elevation of the same. Fig. 3 is a front elevation of a pivot chair, being a view corresponding to Fig. 2, showing a different application of the invention.

The invention is carried out as follows: The seat and frame of the chair are suspended vertically from a central beam 10 through spring rods 11, 12, the beam 10 being supported upon any suitable base resting upon the floor. In the form shown in Fig. 1 the base comprises side pieces, each formed of two component arches 13 and 14. These are tied together at each end of the composite arch at 15, and midway at 16, where the stretchers 17 cross, and at the crown by bolts passing through the beam 10. This beam 10 runs across under the center of the chair from one side piece to the other. The spring rods are inserted vertically therein and are so formed that they hang vertically downward therefrom, being headed on the upper side thereof, as at 18. At the bottom of the vertical portion of the spring rods a clamp 19 prevents them from spreading in fore and aft direction. This clamp may conveniently be made from a piece of wood strung upon the rods before their upper ends are inserted in beam 10, and may be strengthened by bolts 20. Having passed below this clamp, the rods are formed upward, and their upper ends are inserted in the front and rear beams of the chair frame. In Fig. 1 these portions of the spring are marked 21 and 22 respectively, and the front and rear beams of the chair frame are 23 and 24 respectively. The spring is curved so that it enters these beams approximately horizontally, and these beams may consist of simple round sticks, as shown in the drawing, and

the other parts may be of bent wood of the well known type.

When set, each outer limb 21 or 22 of a spring is bent inward under sufficient tension so that when the chair rocks toward it its tension is being reduced, preferably reaching zero at the point of maximum swing of the chair in its direction. The maximum swing is determined by stops or buffers 25 inserted in the top hanger beam 10. The hanger beam 10 preferably is a flat board, and preferably is strengthened by the insertion of cross tie bolts 26, the heads 27 of which may be counter-sunk within the beam, allowing a buffer 25 to be inserted covering the head. It will thus be seen that the complete spring consists of a series of units, each having a central suspension member, and either a forward or a rear member. The forward and rear members act against each other, the inner limb of each being tied to the other inner limbs at the top and at the bottom. Owing to this double tie the central members all work together. In action, the central suspension rods bend and their lower ends swing a little, and the outer limbs of the spring furnish easy resilience, bending to a greater extent. By reason of the tie at the bottom, downward pressure on the forward spring, for example, raises the rear spring a little, and the forward motion of the chair increases the flexion of the rear spring till it encounters the buffer. The shock against the buffer tends to drive the end of the rear spring further into its insertion in beam 24, thus tending toward permanence and durability; and this tendency is helped by the fact that even when at its rearmost flexion this spring is under a tension pushing it further to the rear. Thus, the bend on that spring comes wholly in one direction, and the flexion of the spring is never reversed. Conversely, the same facts are true of the forward springs. By reason of the bend in this member of the spring, and its horizontal insertion in the cross beam of the chair seat, a tendency to twist about a vertical axis is counteracted and all twisting strains eliminated, which might occur if these springs were inserted vertically or approximately so, in line with the upward trend of the spring.

The cross beam 10 may be supported upon any suitable type of base. Fig. 3 shows a pivotal support, in which case the springs hang upon each side of the center. In this



figure, four springs are shown at each side, and the bottom tie 19 is made in two sections, one on each side of the base.

By the construction above described the entire chair hangs suspended from the beam 10. The base being thus relieved of the strain of the springs, which, when the chair is rocked, exert their tension against each other instead of against the base, may be considerably lighter than heretofore, and made from less expensive stock. Also, the springs are not as expensive as torsional coiled springs; and when in use the slight forward and back swinging motion of the bottom tie 19 combines with the yielding of the spring members 21 and 22 to make a novel and notably comfortable rocking motion for the chair.

I claim:

1. The combination, in a chair, of a base having side pieces composed of two arches, one superimposed upon the other and tied thereto, with a horizontal transverse beam, having its ends clamped between said arches at their crown; hangers depending from the beam; and spring members rising from the hangers, front and rear; and a chair body supported thereby.

2. In a rocking chair, the combination of a transverse supporting beam, springs depending vertically therefrom, clamped together in longitudinal direction below the beam, and rising from said clamp to the front and to the

rear, and a chair body supported on said front and rear portions.

3. In a rocking chair, the combination of a transverse beam, with a hanger depending therefrom, having its lower end movable longitudinally, and springs rising from said lower end forward and rearward thereof, and a chair body supported thereon.

4. In a rocking chair, the combination, with a base and a chair body, of a transverse beam supported by the base, and a multiplicity of springs depending from said beam; means tying them rigidly together at a distance below the beam, the springs being arranged on opposite sides of said transverse beam and under tension in opposite directions, and the chair body being supported thereon.

5. The combination, in a rocking chair, of a base, a body and a multiplicity of springs intervening, hanging in line transversely across the base and clamped together in groups of more than two to a group, each group including a spring reaching forward and one reaching backward to its connection with the chair body.

In testimony whereof I hereto affix my signature, in presence of two witnesses.

ALBERT H. ORDWAY.

Witnesses:

ELLIOTT B. CHURCH,  
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