

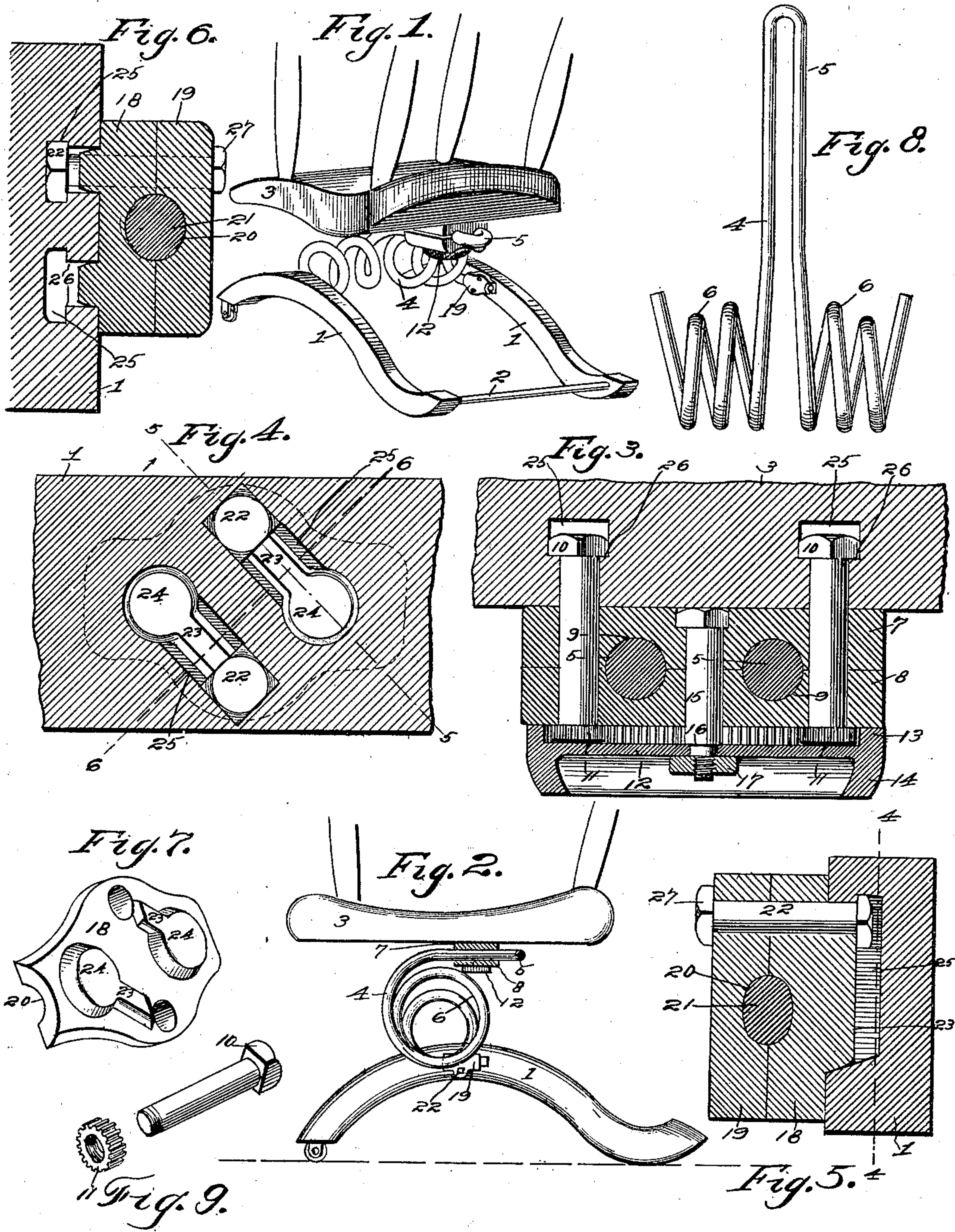
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Patented Aug. 6, 1901.

C. L. SANTEE.
ROCKING CHAIR.

(Application filed Mar. 11, 1901.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES L. SANTEE, OF PLYMOUTH, WISCONSIN.

ROCKING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 679,864, dated August 6, 1901.

Application filed March 11, 1901. Serial No. 50,714. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. SANTEE, a citizen of the United States, residing at Plymouth, in the county of Sheboygan and State of Wisconsin, have invented a new and useful Rocking-Chair, of which the following is a specification.

This invention relates to rocking-chairs, and has for its object to provide an improved spring connection between the base and the body of a spring-rocker, so as to cushion the body as well as to permit of a swinging movement thereof. It is furthermore designed to provide improved connections between the spring and the chair and also to provide improved means for conveniently tightening the fastenings should they become loosened under the rocking action of the body.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of the base and the seat portion of a spring-rocker equipped with the present spring connection. Fig. 2 is a sectional elevation thereof. Fig. 3 is an enlarged detail sectional view of the connection between the spring and the chair-bottom. Fig. 4 is a detail sectional view taken longitudinally through one of the side members of the base of the rocker and looking toward the adjacent fastening between said member and the spring and taken in the plane indicated by the line 4 4 of Fig. 5. Fig. 5 is a detail transverse sectional view taken on the line 5 5 of Fig. 4. Fig. 6 is a detail sectional view taken on the line 6 6 of Fig. 4. Fig. 7 is a detail perspective view of one of the parts or members of one of the terminal clamps or fastenings for the spring. Fig. 8 is a detail top plan view of the spring. Fig. 9 is a detail perspective view of one of the fastening-bolts for the spring-tongue clamp.

Like characters of reference designate cor-

responding parts in all of the figures of the drawings.

Referring to the drawings, 1 designates the opposite side members of the stationary base of a spring-rocker, and 2 one of the rounds or braces for connecting said members. Disposed above the base and out of contact therewith is an ordinary chair-bottom 3, which is yieldingly supported upon the base by means of the spring 4. As best shown in Fig. 8, this spring is formed from a single length of heavy spring metal or a spring-rod, which is folded intermediate of its ends into a tongue or stem 5, and the opposite side portions of this tongue are coiled laterally outward in opposite directions into the separate helical springs 6, lying at opposite sides of the tongue or stem and below the same, as best shown in Fig. 2. The tongue of the spring is connected to the middle portion of the under side of the chair-bottom by means of a clamp or bracket comprising top and bottom members 7 and 8, respectively, (best shown in Fig. 3,) and having their contiguous inner faces provided with corresponding pairs of grooves 9, extending for the entire lengths of the members and for the snug reception of the respective sides of the tongue, the members being clamped together by means of a pair of fastenings 10, that are in turn connected to the chair-bottom in a manner as will be hereinafter described. The lower projecting ends of the fastenings are screw-threaded and provided with circular nuts 11, which have toothed peripheries, and an internally-toothed adjusting or tightening device 12 is rotatably mounted upon the lower side of the clamp, with its toothed portion in mesh with the nuts, so that by turning the part 12 the nuts may be conveniently tightened should they become loosened by the rocking action of the chair-body.

As shown in the present embodiment of the invention, the tightening device is in the form of a disk having an upstanding marginal flange 13, which is toothed upon its inner side, and a pendent marginal flange 14, designed to form a comparatively wide marginal rim, that is milled or otherwise roughened to form a convenient hand-grasp for facilitating the turning of the device. At the center of the disk there is provided a perforation for the loose re-

ception of the projected portion of a stud or spindle 15, carried by the clamp, the portion embraced by the walls of the perforation being reduced, so as to form an annular shoulder 16 slightly below the plane of the lower faces of the nuts, so as to hold the disk away therefrom. The upper edge of the toothed flange bears against the under side of the clamp and thereby prevents wobbling of the disk. The lower extremity of the pivot-stud is again reduced and screw-threaded for the reception of a nut 17, whereby the disk is rotatably held upon the stud. Each terminal of the spring is connected to the inner face of the adjacent side member of the base by means of a clamp or bracket formed in inner and outer sections 18 and 19, respectively, which are provided in their inner contiguous faces with corresponding grooves 20 for the snug reception of the adjacent terminal 21 of the spring. The two clamp members are connected by means of a pair of bolts 22, passed through the intermediate portions of the members and at opposite sides of the grooves. Upon the back or outer side of the inner member there is provided a pair of lugs or ribs 23, which lie at opposite sides of the bolts, are disposed parallel, and are inclined diagonally across the member, the corresponding outer ends of the ribs being provided with enlarged terminals or heads 24. The inner face of the adjacent side of the base is provided with a pair of grooves or recesses 25, corresponding in shape to and also for the reception of the lugs or ribs, the narrow portions of the grooves being extended for the reception of the respective bolts 22. In assembling the clamp the bolts are first fitted to the base by inserting the heads thereof through the enlarged ends of the respective grooves and then sliding the bolts to the opposite smaller ends of said grooves, the heads fitting snugly the walls of the grooves, so as to be held against rotation. As best shown in Fig. 6, the grooves are provided at their outer open sides with opposite inwardly-directed flanges 26, which extend for the narrow portions only of the grooves, so as to lie against the heads of the bolts and prevent the latter from being displaced endwise in an outward direction. After the bolts have been placed in position the inner plate 18 is applied, so as to insert the ribs into the corresponding grooves and receive the bolts through the corresponding bolt-openings in the plate, after which the adjacent terminal of the spring is fitted in the groove in the inner plate, then the outer plate is applied in position, and finally the nuts 27 are fitted to the projected ends of the bolts, whereby the sections of the clamp are held together and the entire clamp is secured to the base of the chair. The purpose of the lugs or ribs fitting within the grooves or recesses of the base is to brace the clamp against torsional strain during the rocking movement of the chair-body.

The clamp which is secured to the under side of the chair-bottom has the same arrangement of bolts and ribs cooperating with recesses in the chair-bottom as described for the clamps that are secured to the base of the chair.

What is claimed is—

1. A rocking-chair, comprising a stationary base, a movable chair-body, and a spring having its intermediate portion secured to the chair-body, and its opposite end portions twisted into helical springs, which have their outer ends connected to the respective sides of the base.

2. A rocking-chair, comprising a stationary base, a movable chair-body, and a spring formed from a single spring-rod, which is folded intermediate of its ends to form a tongue, and the opposite end portions being bent laterally outward in opposite directions from the tongue and formed into helical springs, the tongue being secured to the chair-body, and the ends of the spring being secured to the respective sides of the base.

3. In a rocking-chair, a stationary base, a movable chair-bottom, a spring having an intermediate tongue, and opposite torsional-spring portions extending laterally outward in opposite directions from the tongue, a bracket or clamp connecting the tongue to the under side of the chair-bottom, and opposite brackets or clamps connecting the respective ends of the spring to the adjacent sides of the base.

4. In a rocking-chair, a stationary base, a movable chair-bottom, a spring formed from a single spring-rod folded intermediate of its ends into a tongue, with the opposite end portions of the tongue bent laterally outward in opposite directions therefrom to form torsional springs, a sectional clamp or bracket having pairs of corresponding grooves receiving the respective side members of the tongue and also connected to the under side of the chair-bottom, and opposite clamps or brackets connecting the respective ends of the spring to the adjacent sides of the base.

5. In a spring-rocker, a fastening bracket or clamp for the spring, having a pair of attaching-bolts, which have their projected ends provided with circular peripherally-toothed nuts, and a rotatable peripherally-toothed tightening device mounted upon the clamp or bracket and in mesh with the toothed nuts.

6. In a spring-rocker, a fastening bracket or clamp for the spring, having a pair of attaching-bolts, the projected ends of which are provided with circular peripherally-toothed nuts, an internally-toothed tightening device housing the nuts and in mesh with the toothed peripheries thereof, said tightening device being centrally pivoted to the clamp or bracket.

7. In a spring-rocker, a fastening clamp or bracket for the spring, having a pair of at-

5 attaching-bolts, the projected ends of which are provided with circular peripherally-toothed nuts, a stud carried by the bracket and located midway between the bolts, and a disk centrally pivoted upon the stud, and having cylindrical marginal flanges located upon opposite sides thereof, the inner flange being internally toothed and in mesh with the toothed nuts, and both flanges forming a hand-
10 grip for rotating the disk.

8. In a spring-rocker, the combination with the frame thereof provided with a pair of recesses or grooves that are respectively enlarged at opposite ends, and provided with
15 opposite inwardly - directed flanges at the other ends, of a clamp or bracket for the spring, having a pair of ribs or projections which are provided with terminal enlargements, and fitted snugly in the respective
20 grooves or recesses, and a pair of bolts having their heads entered through the enlarged ends of the grooves and lying snugly in the opposite ends of the grooves, said bolts be-

ing aligned between the projections and passed through the clamp.

9. In a spring-rocker, the combination with the frame thereof provided with a pair of parallel grooves or recesses that have their outer ends enlarged and their inner ends provided with inwardly-directed flanges, of a
25 pair of bolts having their heads entered through the enlarged ends of the grooves and lying snugly in the opposite inner ends thereof, a clamp or bracket for the spring, having a pair of parallel ribs which are enlarged at
30 their opposite outer ends, the ribs being fitted snugly into the respective recesses, the bolts passing through the clamp or bracket, and nuts applied to the projected ends of the bolts.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

CHARLES L. SANTEE.

Witnesses:

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