

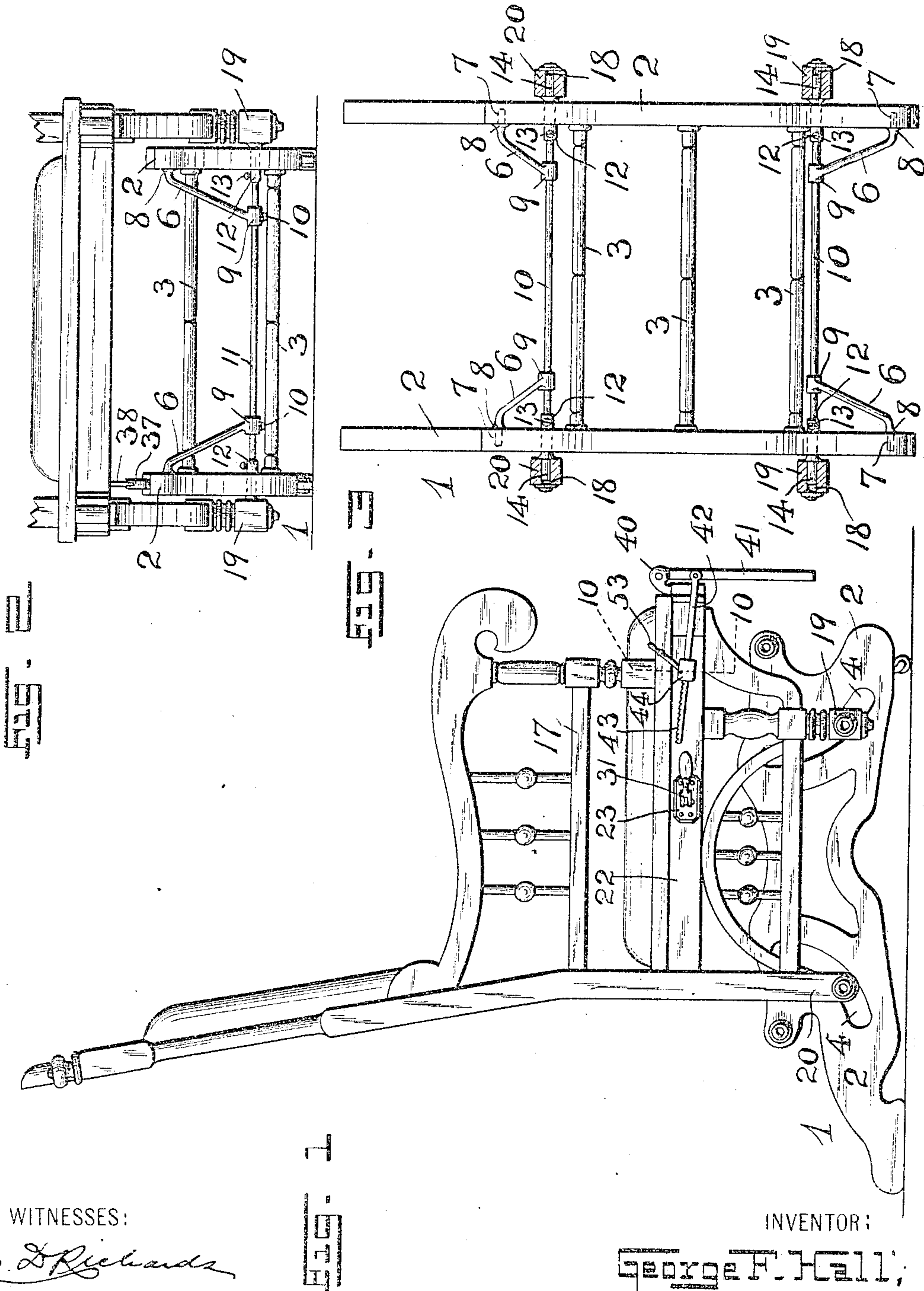
No. 787,171.

PATENTED APR. 11, 1905.

G. F. HALL.  
ROCKING CHAIR.

APPLICATION FILED JULY 2, 1903.

3 SHEETS—SHEET 1..



WITNESSES:

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*F. H. W. Fraentzel*

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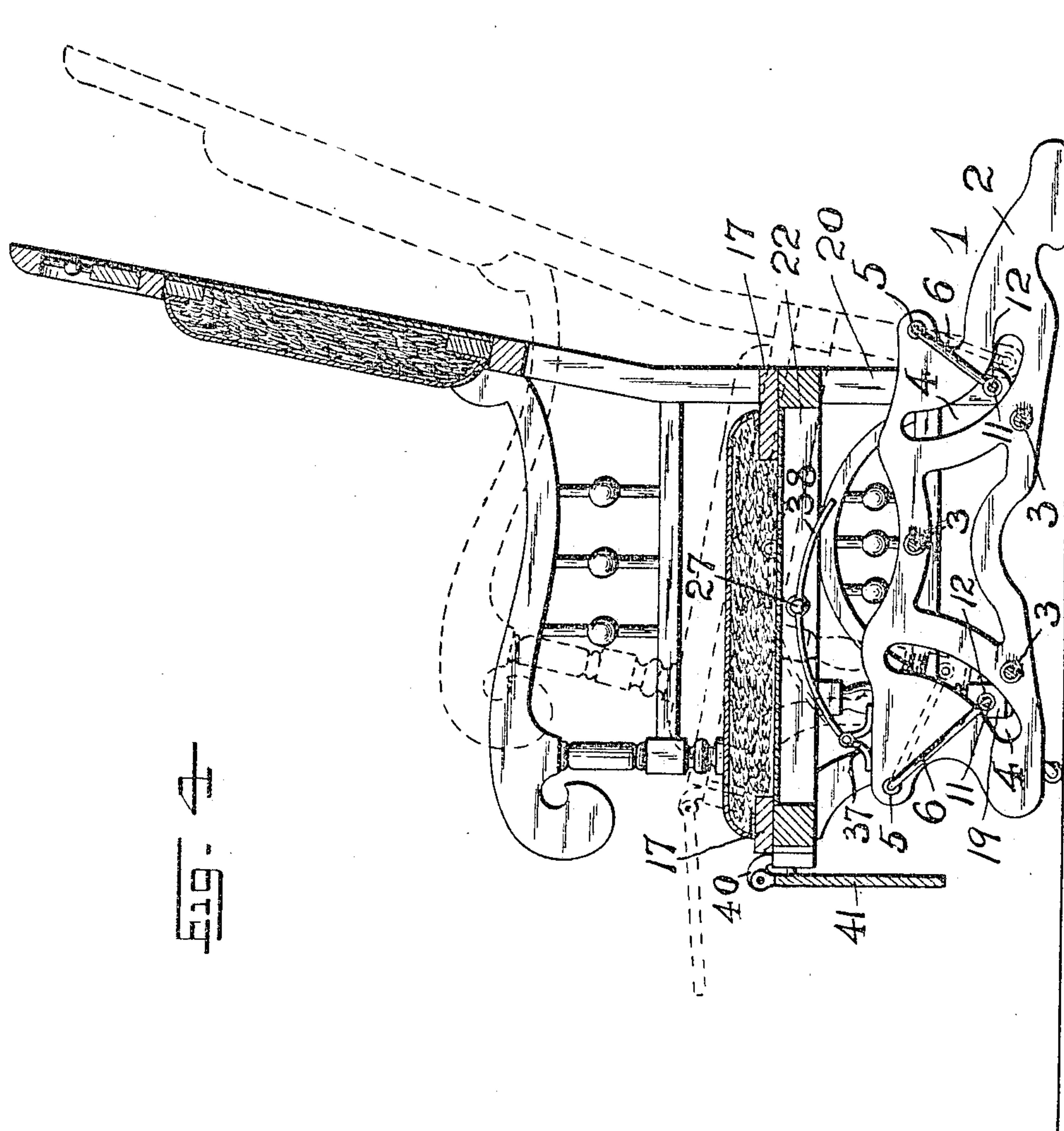
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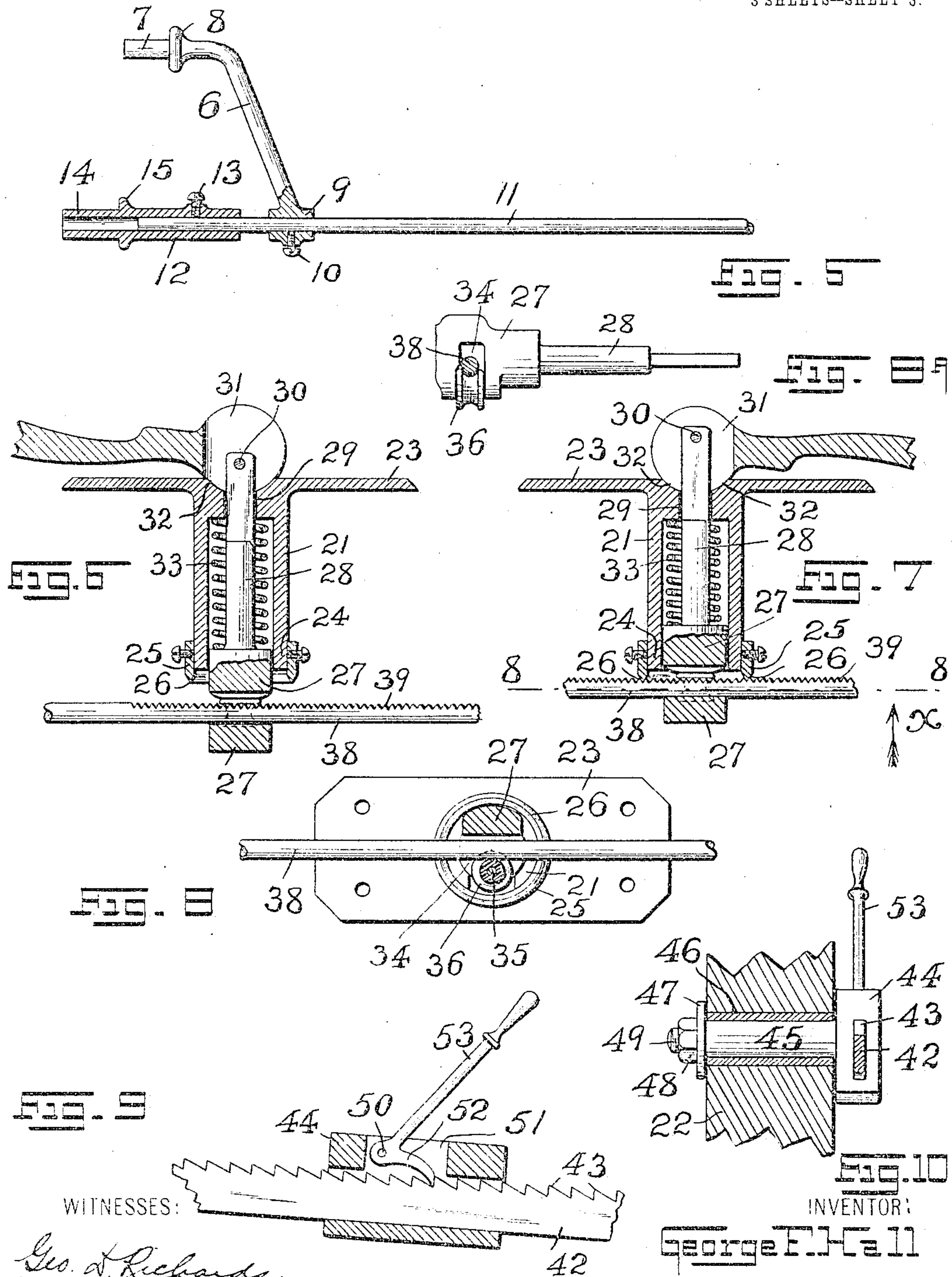
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3 SHEETS—SHEET 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE F. HALL, OF NEWARK, NEW JERSEY.

## ROCKING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 787,171, dated April 11, 1905.

Application filed July 2, 1903. Serial No. 164,005.

*To all whom it may concern:*

Be it known that I, GEORGE F. HALL, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Rocking-Chairs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention has reference to improvements in rocking-chairs and furniture of a similar character in which the movable body portion is suspended by means of an arrangement of hangers upon a base; and my present invention has for its principal object to provide a simply-constructed hanger mechanism for rocking-chairs and the like comprising readily-separable members to permit of the parts of the hanger or suspension mechanism to be quickly assembled for suspension of the swinging body upon the fixed base or for the quick separation of the parts of the mechanism when it is desired to disconnect the body from the base.

Other objects of the present invention will be clearly understood from the following detailed description of my present invention.

The present invention consists, therefore, in the various arrangements and combinations of devices and in certain features of construction, all of which will be more fully described in the accompanying specification and then finally embodied in the clauses of the claim.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a rocking-chair embodying the principles of my present invention. Fig. 2 is a front elevation of the lower portion of the chair-body, the fixed base, and the hanger mechanism or suspension device by means of which the chair-body is movably suspended upon the base; and Fig. 3 is a plan or top view of the base and the said hanger mechanism or suspension device, those portions of the chair-body with which said device is operatively connected being

represented in horizontal section. Fig. 4 is a longitudinal vertical section of the complete chair, base, and suspension device. Fig. 5 is a detail view of parts of the suspension device, illustrating in longitudinal section one arrangement of adjustable and detachable sleeve connected with the end portion of one of the hanger-rods. Fig. 6 is a horizontal sectional representation of a locking device and a part of a rod with which the device is to be brought in holding engagement to lock the chair-body against swinging movement, the said parts being represented in their normally disengaged relation. Fig. 7 is a similar view of the said locking device and rod, but representing the parts in their locked engagement. Fig. 8 is a cross-section taken on line 8 8 in said Fig. 7 looking in the direction of the arrow *a*, and Fig. 8<sup>a</sup> is a side view of the locking-bolt represented in said Figs. 7 and 8. Fig. 9 is a detail longitudinal section of a lock-box pivotally connected with the side of the framework of the chair-body and a part of a rack slidably arranged in said box to be connected with a foot-rest for raising said rest and held by a pawl in said box in its raised position; and Fig. 10 is a detail transverse vertical section taken on line 10 10 in said Fig. 1, but representing the said locking-box and its pivotal stud in side elevation.

Similar characters of reference are employed in all of the above-described views to indicate the corresponding parts.

Referring now to the said drawings, the reference character 1 indicates the fixed base, which may be of any suitable design and of any desired marginal configuration. The said base 1 comprises a pair of side frames 2, which are connected by suitably-disposed tie-rods or rungs 3, the said side frames being also formed with suitably-shaped openings, as 4, for the passage and swinging movement of the hangers in the manner and for the purposes to be presently described. Each side frame 2 is also provided in its upper front and rear portions with suitable perforations 5, which form suitable bearings for a set of four hangers 6. Each hanger, as will be seen from Fig. 5, consists, essentially, of a horizontal journal or bearing portion 7, adapted to be arranged in



a perforation 5, with a shoulder or flange 8 arranged directly against the inner side of the frame 2, as illustrated in Figs. 2, 3, and 4, and the lower end of each hanger 6 is made with a horizontal sleeve 9 and provided with a set-screw 10. From an inspection of Figs. 3 and 4 it will be seen that there is one pair of hangers at the front and one pair of hangers at the rear of the base 1, and the sleeves 9 of each pair of hangers are arranged and held by means of the said set-screws on suitable hanger rods or bars 11. Suitably secured upon each end of the rods or bars 11, by means of set-screws 13 or in any other manner, are the sleeves 12, which extend into and through the respective openings 4 in the said frame 2, as shown, each sleeve 12 being made with a bearing portion or journal 14 and an annular shoulder or flange 15, as clearly illustrated. The said bearing or journal portions 14, as will be seen more especially from an inspection of Fig. 3, are arranged in perforations 18 in the frame portions 19 and 20 of the chair-body 17.

In assembling the parts the journal portions 14 of the sleeves 12, which are loosely arranged upon the respective end portions of the hanger-rods 11, are arranged in the perforations 18 above mentioned and slipped upon the rods 11 until their shoulders or flanges 15 rest against the inner surfaces of the frame portions 19 and 20, and the set-screws 13 are then tightened to retain the said sleeves 12 in their adjusted and rigidly-connected relation upon the ends of the said rods 11. The hangers 6, which have also been loosely arranged upon the rods 11, are now slipped forward upon their respective rods and their journal portions 7 arranged in the respective perforations 5 in the side frames 2 in the manner hereinabove set forth, and the hangers 6 are then secured in their operative positions by tightening up the screws 10, as will be clearly understood. It will thus be evident that the various parts are separably connected in their adjusted and operative positions when the chair-body is suspended in its swinging position above the base 1, and by simply loosening the set-screws 10 and 13 the hangers 6 and sleeves 12 can be slipped back and forth upon the respective rods 11 for removing the chair-body from its suspended position or for securing it in its suspended relation without being compelled to take the framework of either the chair-body or the base apart.

The chair-body is operated by the occupant in the usual manner by a slight forward and backward motion. To lock the said chair-body in any one of the angular positions against further swinging movement, I have provided the chair-body with a locking device, clearly illustrated in Figs. 1, 4, 6, 7, 8, and 8<sup>a</sup>. This device consists, essentially, of a cylinder 21, which is arranged in an open-

ing in the frame portion 22 of the chair-body, the said cylinder having an ornamental plate 23, which is secured over the said opening upon the outside of the said frame portion 22, as represented in Fig. 1. Secured to the open end portion 24 of the said cylinder 21 is a ring or sleeve 25, having the sharp holding edge 26, the said open end portion 24 and sleeve 25 projecting from said opening in the frame portion 22 upon the inner surface of the said portion 22, as shown. Movably arranged in the open end of the said cylinder 21 is a plunger 27, having a stem 28 within the cylinder, the upper end of said stem being movably arranged in and extending from a guide-opening 29 in the closed end of the cylinder. Pivoted to the free end of the stem 28, upon a pin 30, is a cam-lever 31, having a cam-shaped head resting in the curved and depressed part 32 of the closed end portion of the cylinder, as clearly represented in the drawings. The stem 28 is also encircled by a coiled spring 33. The plunger 27 is made with an opening 34, in which there is a pin 35 and a grooved roller 36, said roller being preferably made of hard rubber. Pivotally arranged upon a bracket 37 upon one of the side frames 2 is a curved rod 38, the said rod extending through the opening 34 and under normal conditions, while rocking and when the parts of the locking device are in the positions indicated in Fig. 6, moving freely upon the roller 36. When, however, the cam-lever is turned into the position represented in Fig. 7, then the plunger 27 will be drawn farther into the cylinder, whereby the said rod 38 is drawn toward the sleeve 25, thereby bringing certain serrations 39 on said rod 38 in holding engagement with the sharp holding edge 26 of the sleeve 25, as clearly illustrated in Fig. 7 of the drawings, and the chair-body will thereby be held against any swinging movement until the cam-lever 31 is again thrown back into its initial position, (indicated in Fig. 6,) and the coils of the compressed spring 33 will once more force the parts to their normally inactive positions, thus leaving the rod 38 to move freely back and forth upon the roller 36, so as not to interfere with the swinging movement of the chair-body.

If desired, bearings 40 may be secured to the framework of the chair-body, and a foot-rest 41 may be pivotally arranged between said bearings. Pivotally connected with the said rest 41 is a bar 42, having ratchet-teeth 43, said bar extending in a rearward direction and being slidably arranged in an oscillating box 44 at the side of the frame portion 22. That this box 44 may oscillate it is made with a pin or stud 45, which is arranged in a bearing 46 in said frame portion 22 and is held in its operative position by a washer 47 and a nut 48 on a screw-threaded end portion of said pin or stud, as clearly illustrated in Fig. 10. That the said rest 41 may be held in the



desired angular position I have arranged upon a pin 50 within the chambered part 51 of the box 44 a dog or pawl 52, having a lever 53, by means of which the dog or pawl 52 can be made to engage with the teeth of the said bar 42 or can be forced out of engagement therewith, as will be clearly evident from an inspection of Fig. 9.

Of course it will be clearly understood that some changes may be made in the various arrangements and combinations of the devices and their parts, as well as in the details of the construction thereof, without departing from the scope of my present invention. Hence I do not limit my invention to the exact arrangements and combinations of the devices and their parts as described in the foregoing specification and as illustrated in the accompanying drawings; nor do I confine myself to the exact details of the constructions of the said parts.

Having thus described my invention, what I claim is—

1. In a rocking-chair, the combination, with a base, and a chair-body, of a suspension device for swinging said chair-body above the base, and a locking attachment for locking said chair-body in a fixed position, comprising a spring-plunger on said chair-body, said plunger being provided with an opening, a roller in said opening, a rod pivotally connected with said base, said rod being movably arranged upon said roller, and means for locking said plunger and rod in fixed holding engagement, substantially as and for the purposes set forth.

2. In a rocking-chair, the combination, with a base, and a chair-body, of a suspension device for swinging said chair-body above said base, and a locking attachment for locking said chair-body in a fixed position, comprising a spring-plunger on said chair-body, said plunger being provided with an opening, a roller in said opening, a rod pivotally connected with said base, said rod being movably arranged upon said roller, and means for locking said rod and plunger in fixed holding

engagement, consisting, of a stem connected with said plunger, and a cam-lever pivotally connected with said stem, substantially as and for the purposes set forth.

3. In a rocking-chair, the combination, with a base, and a chair-body, of a suspension device for swinging said chair-body above said base, and a locking attachment for locking said chair-body in a fixed position, comprising a cylinder, means at one end of said cylinder for attaching it to said chair-body, and having its opposite end open, a locking-sleeve connected with the open end portion of said cylinder, a spring-plunger in said opening, said plunger also having an opening, a roller in said opening, a rod pivotally connected with said base, said rod being movably arranged upon said roller, and means for locking said locking-sleeve and rod in fixed holding engagement, substantially as and for the purposes set forth.

4. In a rocking-chair, the combination, with a base, and a chair-body, of a suspension device for suspending said chair-body above said base, and a locking attachment for locking said chair-body in a fixed position, comprising a cylinder, means at one end of said cylinder for attaching it to said chair-body, and having its opposite end open, a locking-sleeve connected with the open end portion of said cylinder, a spring-plunger in said opening, said plunger also having an opening, a roller in said opening, a rod pivotally connected with said base, said rod being movably arranged upon said roller, and means for locking said locking-sleeve and rod in fixed holding engagement, consisting, of a stem connected with said plunger, and a cam-lever pivotally connected with said stem, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 17th day of June, 1903.

GEORGE F. HALL.

Witnesses:

FREDK. C. FRAENTZEL,  
GEO. D. RICHARDS.