No. 702,331. Patented June 10, 1902.

J. M. ROBERTS.

ADJUSTABLE ROCKING AND RECLINING CHAIR.

(Application filed Apr. 10, 1901.)

(No Model.) 3 Sheets—Sheet 1.

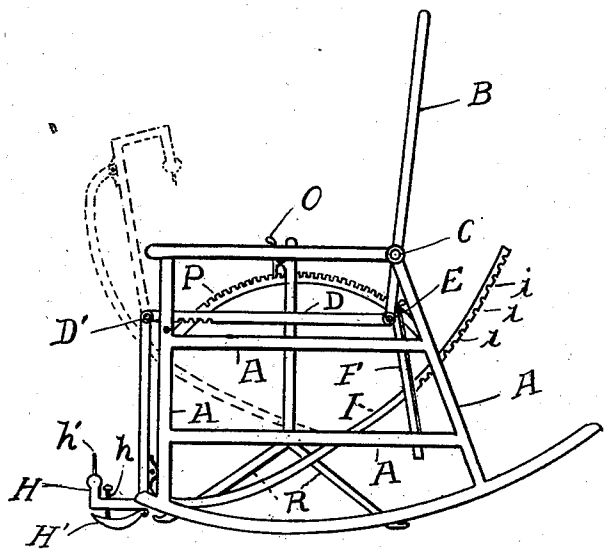

Fig. 1.

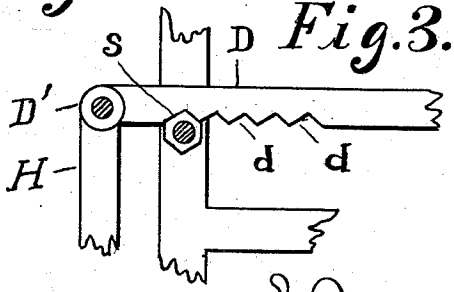

Fig. 3.

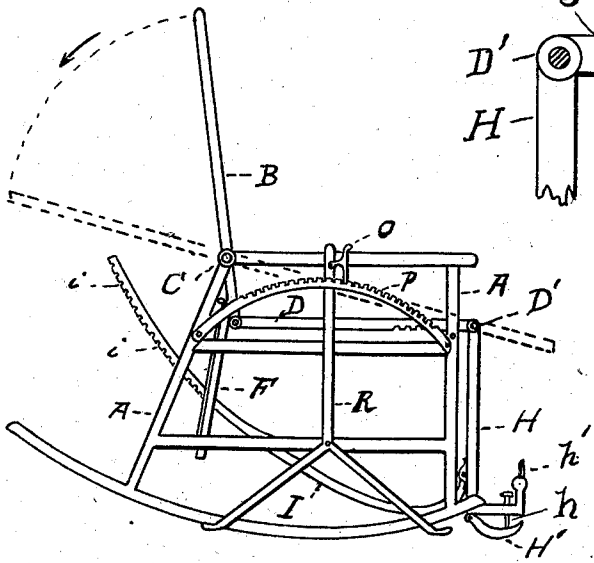

Fig. 2.

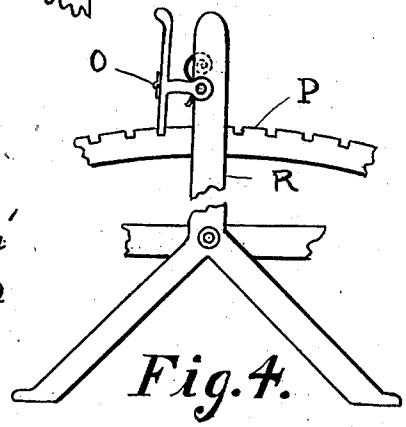

Fig. 4.

Witnesses:
Eugene Bruce Ayres
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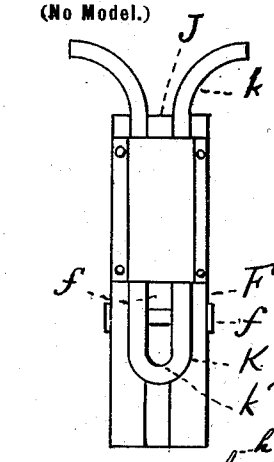

Fig. 9.

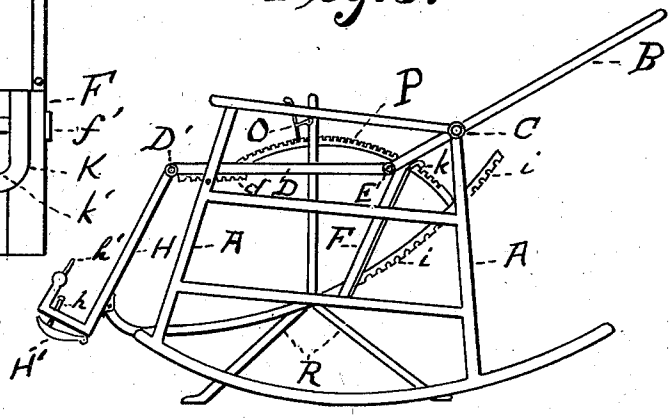

Fig. 5.

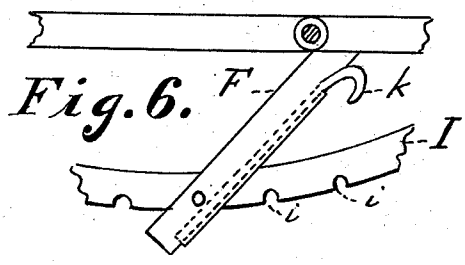

Fig. 6.

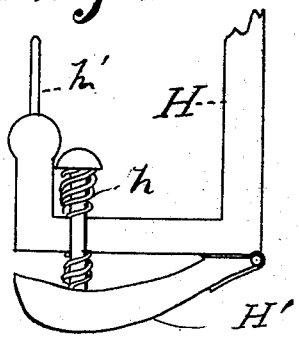

Fig. 7.

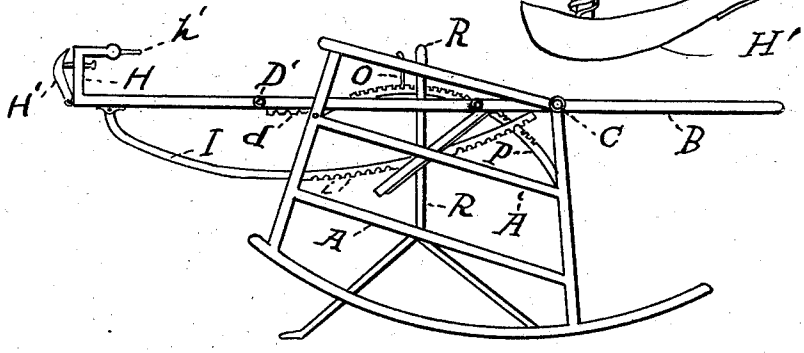

Fig. 8.

Witnesses:
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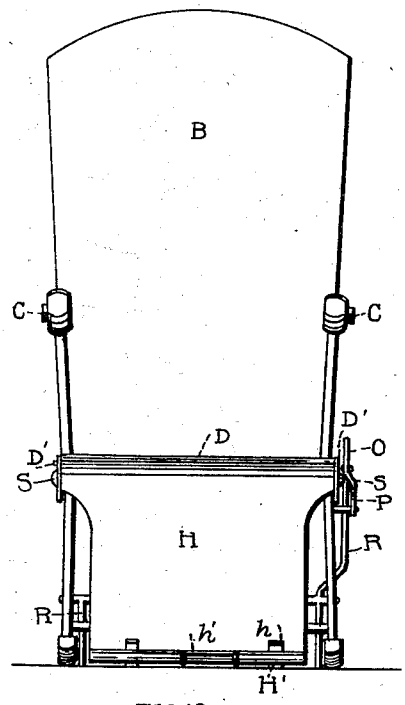

FIG 10.

WITNESSES:
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G W. Johnston

INVENTOR:
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Eugene Ames
ATTORNEY.

UNITED STATES PATENT OFFICE.

JAMES M. ROBERTS, OF ANDREW COUNTY, MISSOURI.

ADJUSTABLE ROCKING AND RECLINING CHAIR.

SPECIFICATION forming part of Letters Patent No. 702,331, dated June 10, 1902.

Application filed April 10, 1901. Serial No. 55,250. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. ROBERTS, a citizen of the United States, residing in the county of Andrew and State of Missouri, have invented certain new and useful Improvements in Adjustable Rocking and Reclining Chairs; and I do 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 the letters of reference marked thereon, which form a part of this specification.

My object is to provide an improved combined adjustable rocker and reclining chair in which, first, the chair-back, seat, and foot-rest may be brought to a straight line before reaching a horizontal position and then be able by means of a rocker-lock to lock the chair either forward or backward from an angle of sixty degrees to a longitudinal line; second, in which as the back of the chair is turned backward to a straight line the seat and foot-rest move forward sufficiently to bring the center of gravity of the person's weight far enough forward to prevent the chair turning over; third, in which the foot-rest works with the back, and vice versa, and the foot-rest works independently of the back and the back and seat work independently of the foot-rest; fourth, in which the rocker-lock when pushed forward locks the chair back, when pushed back locks the chair forward, and when in the center notch on the ratchet does not interfere with the rockers; fifth, in which the person is aided in rocking by spring-rockers under the foot-rest, which rockers take the place of the feet touching the floor when rocking; sixth, in which the seat, back, and foot-rest lock without the use of a ratchet-lever; seventh, which enables the person while sitting in the chair with but little effort to so place the back, seat, and foot-rest that he can assume almost any sitting and reclining posture, each position differing materially from any other position.

I attain my object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the chair; Fig. 2, an elevation showing the chair from the opposite side; Fig. 3, a detail view of the roller in contact with notches under the seat; Fig. 4, a detail view of a floor-clamp ratchet and pawl constituting a lock; Fig. 5, a view of the chair with the back thrown backward and foot-rest forward; Fig. 6, a detail of the bar held on pin through slot in lever; Fig. 7, a detailed view of the foot-rest rocker and its spring; Fig. 8, an elevation showing the back, seat, and foot-rest stretched out on a horizontal line; Fig. 9, a view of back of lever with its slot and pin and a lifter secured thereon, and Fig. 10 is a front view of the chair.

Similar letters refer to similar parts throughout the several views.

In the drawings, A A represent the different parts of the chair-frame; B, the back, attached near its lower end to the frame by means of pivots or hinges C C and also attached at its lower end to the seat D by means of hinges E E. A handleless lever F is rigidly attached to the back of the chair and extends downward. This lever is provided at its lower end with a vertical slot *f* and with a pin *f'* across said slot near the bottom. Said lever is also provided with a vertical groove J at its back, in which a lifter K works. This lifter works over the bar and is provided with a handle *k* and with a stirrup *k'* at its lower end.

H is the foot-rest; H', the foot-rest rocker, hinged to the bottom of the foot-rest; *h*, the rocker-spring, and *h'* a stirrup on the toe of the foot-rest.

D' D' are hinges or pivots connecting the chair-seat and foot-rest. A metal bar I of somewhat circular form and having teeth or notches *i i* is pivoted at its front end to the back near the bottom of the foot-rest and extends back through slot *f* and connects the foot-rest and the lever.

When the chair-back is turned backward on pivots C C, its lower end and the attached seat are moved forward and upward in the radius of a circle, as shown in Figs. 5 and 6. The lever, owing to one of its ends being connected with the back of the chair, is also at the same time carried forward in the radius of a circle, and bar I, being pivoted to the foot-rest and held on pin *f'*, at the same instant moves said foot-rest forward and upward in an elliptical path, because the seat moves forward and downward at the front in a small elliptical path. The use of the notch

i farthest forward in bar I brings the back, seat, and foot-rest on a siraight line.

The chair in its stretched-out position can be rocked back and forth anywhere from an angle of sixty degrees to a horizontal line or even past the horizontal line by the use of a rocker-lock at one side of the chair consisting of the pawl O, operating in connection with ratchet P and standard R, which is carried on a pin or bolt working loosely through a lower side rung of the chair, said standard R carrying the pawl near its head and being provided with two oppositely-extended feet, thus enabling it to assist in holding the chair at any angle. Without in any manner altering the idea embraced in my invention, I reserve to myself the right to attach said ratchet P at the top of the rocker vertically below the position shown in the drawings. By taking hold of the lifter K and raising bar I until its notch *i* is lifted off pin *f'* and placing the foot in stirrup *h'* on the edge of the toepiece of the foot-rest the foot-rest can be raised straight up and will remain in any position by allowing the pin to engage with the corresponding notch of the bar. When it is desired to leave the foot-rest down when the back is thrown backward, it is only necessary to raise the bar off its pin by the lifter and allow the bar to slide on the pin in front of the notches. The foot-rest can be raised straight up to the perpendicular line above the seat, with the seat and back in any position, or it can be let down, leaving the seat and back in any position. By means of the rocking-propellers H' H' and their springs *h' h'* when the foot-rest is down and the lock-pawl is engaged with the center notch on its ratchet the chair can be rocked the same as an ordinary rocker, while by the use of said pawl, ratchet, and floor-grip it can be rocked backward until the feet of the person are higher than the head without danger of overturning. When the foot-rest is raised, the chair can be rocked by use of the lock. The seat and foot-rest balance each other with the person's weight in any of their many positions and lock in any position by means of a roller S, which is preferably made sexangular and which works under notches *d d* on the under side of seat D, near its front. When a person desires to change position, it is only necessary to raise a portion of his weight off the foot-rest and the front part of the seat and allow the desired notch *d* to jump over on roller S.

The back, seat, and foot-rest of the chair balance each other in any position, because when the back of the chair is in its upright position near the perpendicular line the entire weight of the person is on pivotal hinges C C and roller S, the greater weight hanging on said pivots C C; but when the back of the chair is turned back the seat is moved forward, thereby diminishing the hanging weight on pivots C C and changing it to a resting weight on said pivots C C, throwing more weight on the forward edge of the seat in proportion as the back of chair is turned backward from its upright position. The hanging weight on pivots C C and the weight on the foot-rest have a tendency to close the chair to the upright position of back, as the foot-rest is connected with the back by means of lever F and bar I, while the leverage of the person's weight on the back of the chair above pivots C C has an equal tendency to stretch the chair out. In the drawings the pivotal hinges are shown in the arms of the chair; but these arms can be at any desired height above the seat and the pivots placed in the frame of the chair below the arms without detracting in any measure from the mechanical workings of the device, and I reserve the right to make any changes in the forms, proportions, and minor details of construction of the chair which may be made without departing from the scope of my invention.

What I claim, and desire to secure by Letters Patent, is—

1. In an adjustable rocking and reclining chair, the combination with the frame, back and rockers, of the chair-seat, a foot-rest, a lever attached to said back near the point of its hinged connection with the seat and provided with a slot at its lower end, a bar provided with notches at one end and having pivotal connection with the lower part of said foot-rest whose upper end is hinged to the front edge of the chair-seat, of the pin across said slot adapted to engage said notches and the lifter at the back of the lever to disengage the bar from such pin connection and permit the adjustment of the chair to a different angle, substantially as shown, for the purpose specified.

2. In an adjustable rocking-chair, the combination with the frame and rockers thereof, of a ratchet extending across one side of the chair, of a standard pivoted to the chair-frame and having extensions at the lower portion thereof adapted to contact with the floor, the arm of which extends near the arm of the chair, and of the pawl attached to said arm near its upper end and adapted to engage with the ratchet, the whole adapted to serve as a rocker-lock and hold the chair at any angle desired, substantially as described and for the purpose specified.

3. In an adjustable rocking-chair the combination with the frame and back thereof, of a ratchet at the side of the chair, of a standard pivoted to the chair-frame and having two feet or extensions at the lower portion thereof adapted to contact with the floor and the pawl attached to said standard and adapted to engage with said ratchet, substantially as described and for the purpose specified.

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

JAMES M. ROBERTS.

Witnesses:
S. R. GORWIN,
W. E. PENDLETON.