

(No Model.)

3 Sheets—Sheet 1.

H. W. STERN.
CHAIR.

No. 576,480.

Patented Feb. 2, 1897.

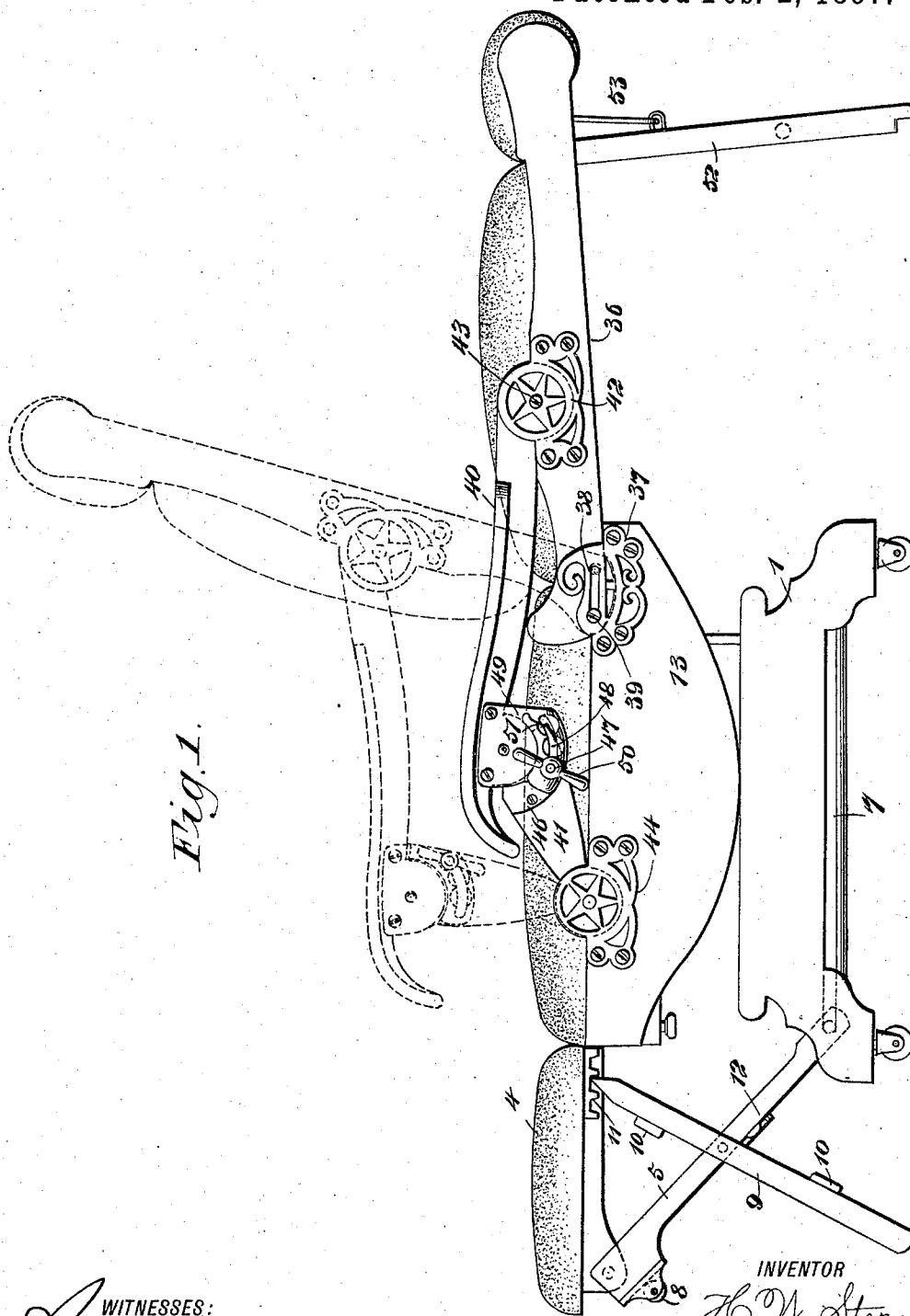


Fig. 1.

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C. R. [Signature]

INVENTOR
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BY
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ATTORNEYS.

(No Model.)

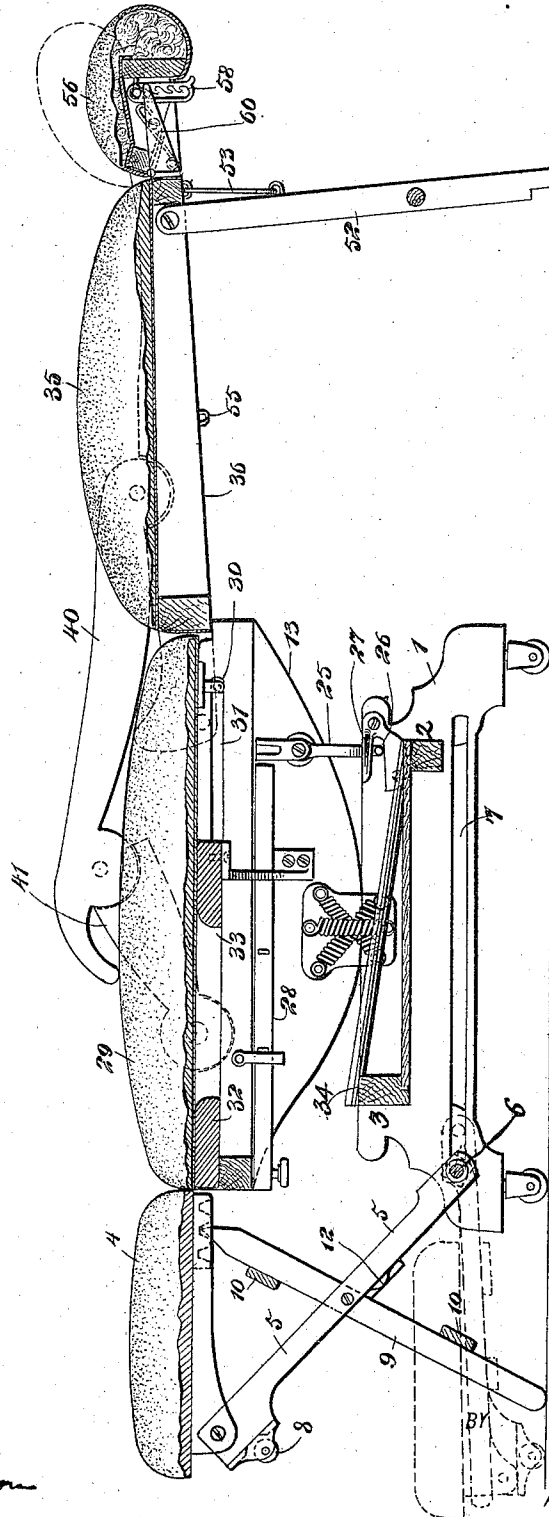
H. W. STERN.
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No. 576,480.

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Fig. 2.



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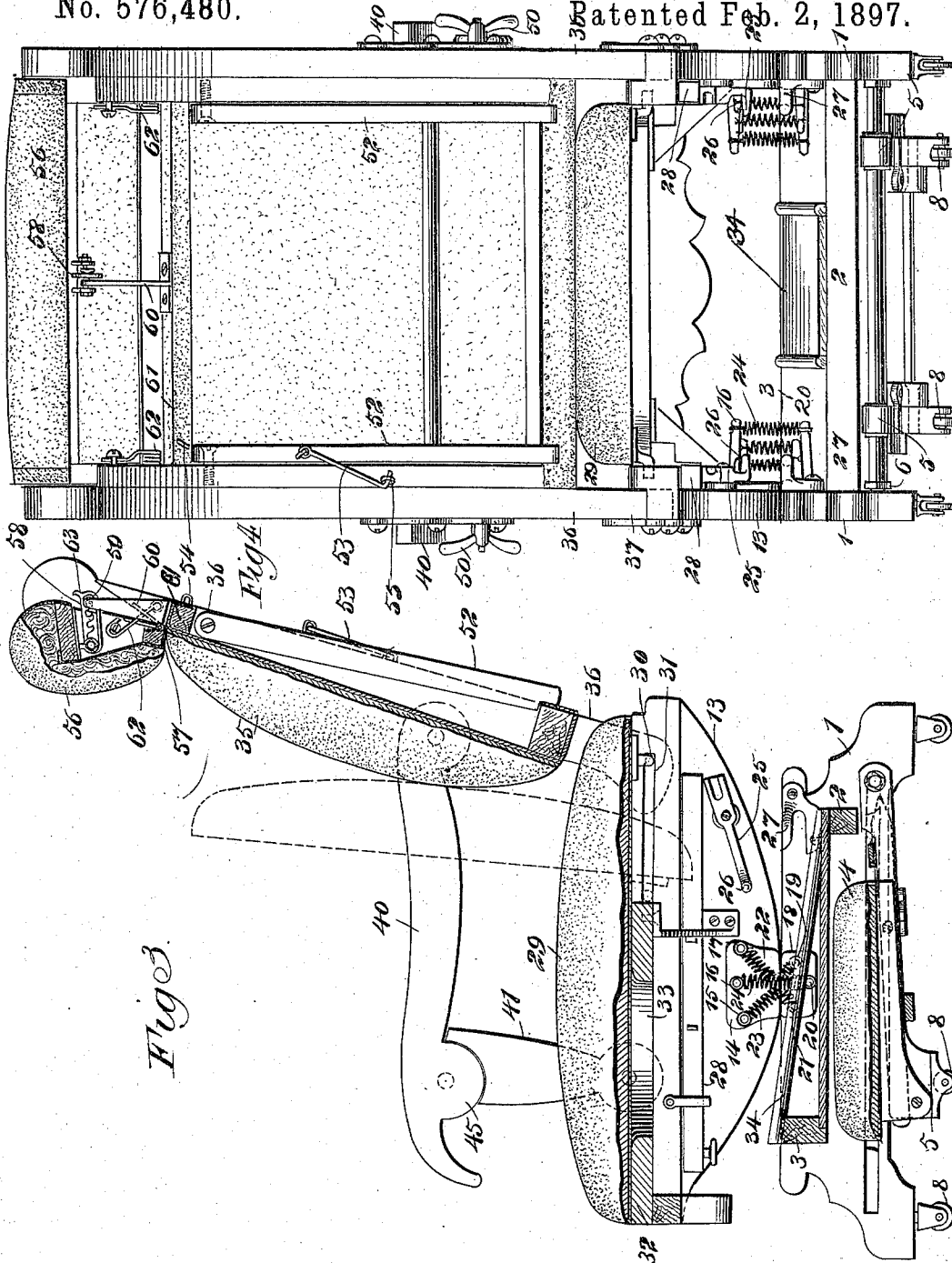
(No Model.)

3 Sheets—Sheet 3.

H. W. STERN.
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No. 576,480.

Patented Feb. 2, 1897.



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UNITED STATES PATENT OFFICE.

HARRIS WOLF STERN, OF VINCENNES, INDIANA.

CHAIR.

SPECIFICATION forming part of Letters Patent No. 576,480, dated February 2, 1897.

Application filed August 27, 1896. Serial No. 604,102. (No model.)

To all whom it may concern:

Be it known that I, HARRIS WOLF STERN, of Vincennes, in the county of Knox and State of Indiana, have invented new and useful Improvements in Chairs, of which the following is a full, clear, and exact description.

This invention relates particularly to chairs that may be changed from a sitting to a reclining position, and also so constructed that the chair may be used either as a rocker or non-rocking chair; and the object is to provide such a chair in which the working parts are so constructed that the several changes may be easily and quickly made by a person sitting on the chair, thus making it useful to invalids.

I will describe a chair embodying my invention, and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a chair embodying my invention, showing the same in full lines as arranged for reclining and showing in dotted lines the back and arms raised for a sitting position. Fig. 2 is a longitudinal section of a chair, showing the same in a reclining position. Fig. 3 is a vertical section of the chair, showing the back as arranged for a sitting position; and Fig. 4 is a rear elevation.

The chair comprises a rocker-body consisting of the side pieces 1, connected together by transverse bars 2 3. Arranged to slide longitudinally of the side pieces 1 and also vertically adjustable relatively therewith is a foot-rest 4, suitably upholstered. To the sides of the foot-rest frame near its forward end are pivoted brace-bars 5, which at their opposite ends are mounted to swing on a bar 6, having its ends projected into and movable in longitudinal slots 7, formed in the side pieces 1 of the rocker-body. The front ends of these brace-bars 5 are provided on their lower sides with rollers 8, designed to rest upon the floor when the foot-rest is drawn outward or forward of the rocker-body frame, and thus the front end of said foot-rest may be supported by the rollers and the rear portion will be supported by resting on the brace-rods 5.

As before stated, the foot-rest 4 may be elevated relatively to the rocker-body and in front of the chair. For this purpose I provide legs 9, pivotally connected at their central portions to the brace-bars 5, and intermediate of their ends the legs 9 are connected with one another by brace-bars 10. These legs 9 at their upper ends are adapted to engage with the teeth of the rack-bars 11, secured to the under side of the foot-rest frame at the rear end thereof. By this construction it will be seen that the foot-rest 4 may be supported in line with the seat of the chair or at any desired angle relatively thereto, adjustment being effected by changing the position of the legs 9 on the rack-bars 11. The lower ends of the said legs rest upon the floor.

The legs 9 may be folded parallel with and against the bars 5, and to limit their movement I provide the bars 5 with stops 12.

The rocker-frame comprises rocker-pieces 13, having their lower edges longitudinally curved and adapted to receive and rock upon the upper edges of the rocker-body side pieces 1. This is what is termed in the art as a "spring-rocker," and I will now describe the peculiar construction of the spring arrangement which I employ.

To the inner side of each rocker 13 is secured a plate 14, having inwardly-extended lugs 15, 16, and 17, the central lug 16 having a greater projection than the lugs 15 and 17. To the inner sides of the base side pieces 1 are secured plates 18, from which lugs 19, 20, and 21 extend. The lug 17 on the plate 14 is somewhat longer than the lug 15, and from this lug 17 a coil-spring 22 extends to a connection with the lug 21 on the plate 18, which is similar to the lug 17. From the lug 15 a coil-spring 23 extends to a connection with the lug 19, which has a length equal to that of the lug 15, and between the lugs 16 and 20 is a coil-spring 24. It will be seen that the springs 22 and 23 cross each other and that the spring 24 crosses the springs 22 23 at their junction. By this construction a very strong spring device is provided for the chair.

As a means for holding the rocker-frame from rocking on the rocker-bed I employ arms 25, pivoted between their ends to the inner sides of the rockers 13 and having at their lower ends inwardly-extended fingers 26,

adapted to be engaged with hooks 27, secured to the inner sides of the rocker bed-pieces 1. When in locked position, the fingers 26 will engage against both the upper and lower walls of the hook-castings 27, and thus the rockers will be held from movement.

As a means for moving the holding devices out of engagement with the hooks 27 I employ slide-bars 28, movable through guide-ways secured to the inner sides of the rockers 13. These slide-bars are adapted to engage at their rear ends with the upper ends of the arms 25, and their forward ends near the front of the chair may be provided with suitable finger-pieces. Obviously by sliding these bars 28 rearward they will cause the arms 25 to rock to disengage the fingers 26 from the hooks 27, and then by sliding slightly over the upper ends of the arms 25 will maintain them in this released position, as plainly indicated in Fig. 3. The bars 28 may be provided with suitable stops to engage against the guides to limit the movements of the bars in either direction. By means of these bars it is obvious that a person sitting in the chair may easily operate the parts to change the chair to a rocker or to a stationary chair.

Arranged on the upper side of the rockers 13 is an upholstered seat 29. This upholstered seat is designed to be swung upwardly with relation to the rockers to the position substantially as shown in dotted lines in Fig. 3. For this purpose I provide the frame of the upholstered seat at its under side near the rear end with laterally extended lugs 30, which project into channels 31, formed in the inner surfaces of the rockers 13. As the upholstered seat-frame rests loosely on the upper edges of the rockers or on bars connected with said rockers it is obvious that said upholstered seat may be drawn slightly forward and then upward.

An auxiliary seat 32 is supported by the rockers 13, and this auxiliary seat 32 is provided with an opening 33, and attached to the rocker bed-frame below the auxiliary seat is a platform 34, which is inclined downward and rearward. The platform 34 is provided for supporting a chamber and is inclined for more advantageously disposing the same with reference to the opening 33.

Pivottally connected to the rear portion of the chair is an upholstered back 35. This upholstered back 35 is supported on side bars 36, the lower ends of which are curved and seated to move in depressions formed in the upper edges of the rockers 13, as indicated by dotted lines in Fig. 1. To the outer sides of the rockers 13 are attached castings 37, provided with slots 38, extended longitudinally of the rockers, and through these slots 38 pins 39 extend from the side bars 36 to the back. Arms 40 have pivotal connection at one end with the side bars of the back and at the opposite end have a pivotal connection with arm-braces 41, which at their lower ends have pivotal connection with the rockers 13.

The ends of the arms 40 connected with the side bars of the back are rounded, and these rounded ends are seated to move in semicircular recesses formed in the front faces of the back side bars, and to the outer side of these side bars 36 are secured castings 42, which form bearings for pivots 43, extended from the arms 40. The arm-braces 41 at their lower ends are rounded and seated in semicircular depressions formed in the upper edge of the rockers 13, and these lower ends of the arm-braces 41 are pivotally connected to castings 44, similar to the castings 42.

The front ends of the arms 40 at their lower sides are provided with curved blocks 45, seated to move in correspondingly-shaped recesses in the upper ends of the braces 41. To the outer side of each brace 41 is secured a plate 46, from which a threaded lug 47 extends through an arc-shaped slot 48, formed in the plate 49, secured to the arm 40. The threaded portion of the lug 47 is engaged by a thumb-nut 50. Each wall of the arc-shaped slot 48 is provided with semicircular recesses 51, a recess in one wall being directly opposite a recess in the opposite wall. These recesses practically form racks on the opposite walls of the slot, so that by engaging around a portion of the thumb-nut 50 in the recesses while the said thumb-nut is screwed tightly up on the lug the plates will be held from slipping one relatively to the other, or, in other words, the thumb-nuts provide means for securing the back in any of its desired positions.

Pivoted to the inner sides of the side bars 36 of the back are legs 52, which, when the back is in its horizontal position, will rest with their lower or free ends upon the floor. They may be secured in this position by means of a hook 53, connected at one end to a leg 52 and at the other end adapted to engage in an eye 54 on one of the side bars or a frame attachment thereto. When the back is in its upward or other inclined position, the legs 52 may be folded up within the same, as indicated in Fig. 4, and secured by engaging the hook 53 in an eye 55 on the frame of the back.

An adjustable head-rest 56 is mounted between the side bars 36 at the upper end of the back 35. As here shown, this head-rest 56 has hinge connections 57 with the frame of the back, and pivoted in the frame portion of the head-rest is a rack-plate 58, engaging with a pin 59, supported on a post 60, extended upward from a cross-head 61 of the back frame. Springs 62 are secured at one end to the back frame and have their free ends in engagement with lugs extended inward from the frame of the adjustable head-rest 56, and these springs have a tendency to move said head-rest rearward on its hinges. It will be seen that the front edges of the teeth forming the rack 58 are curved downward and rearward. By this construction the head-rest may be swung forward relatively to the back 35, and the rack

58 will ride over the pin 59, and when the head-rest shall have been moved sufficiently forward it will be there held by the back edge of a tooth engaging with a pin 59. The rack 5 58 has an upwardly-extended finger-piece 63, so that a person sitting in the chair will reach over the top of the head-rest and by engaging said finger-piece lift the rack, so that the springs 62 will return the head-rest to its normal position or to any other desired position 10 rearward of its extreme front position.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

15 1. A chair having a body with two rigidly-connected side pieces, a rocker-frame having two rockers respectively mounted on the side pieces, springs respectively connecting the rockers with the side pieces, a hook secured 20 to one of the side pieces, a longitudinally-sliding lock-bar carried by the rocker-frame, and an arm pivoted to the rocker-frame and having a finger locking with the hook whereby to prevent the independent movement of the 25 rocker-frame, the lock-bar having engagement with the end of the arm opposite the finger, whereby to raise the finger out of position to engage the hook and to hold said

finger raised by bearing against the finger, substantially as described. 30

2. In a chair, the combination of a body portion, a rocker-frame on the body portion, a hook fixed to one of said parts, an arm pivoted on the remaining of said parts and capable of locking with the hook, and a sliding 35 bar carried on the part having the arm, the bar engaging the arm to move the finger out of engagement with the hook and to hold said finger disengaged from the hook, substantially as described. 40

3. In a chair, the combination of a body, a rocker-frame carried on the body, a hook fixed to the body, an arm pivoted on the rocker-frame and engaging the hook, the arm 45 extending vertically when engaged with the hook, and a horizontally-sliding bar located above the arm and engaging the upper end thereof whereby to move the arm from engagement with the hook and to hold the arm 50 disengaged by moving over the pivot thereof, substantially as described.

HARRIS WOLF STERN.

Witnesses:

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SAM LAWSON.