R. E. MALONE.

RECLINING CHAIR.

APPLICATION FILED AUG. 12, 1920.

1,371,209.

Patented Mar. 8, 1921.

2 SHEETS—SHEET 1.

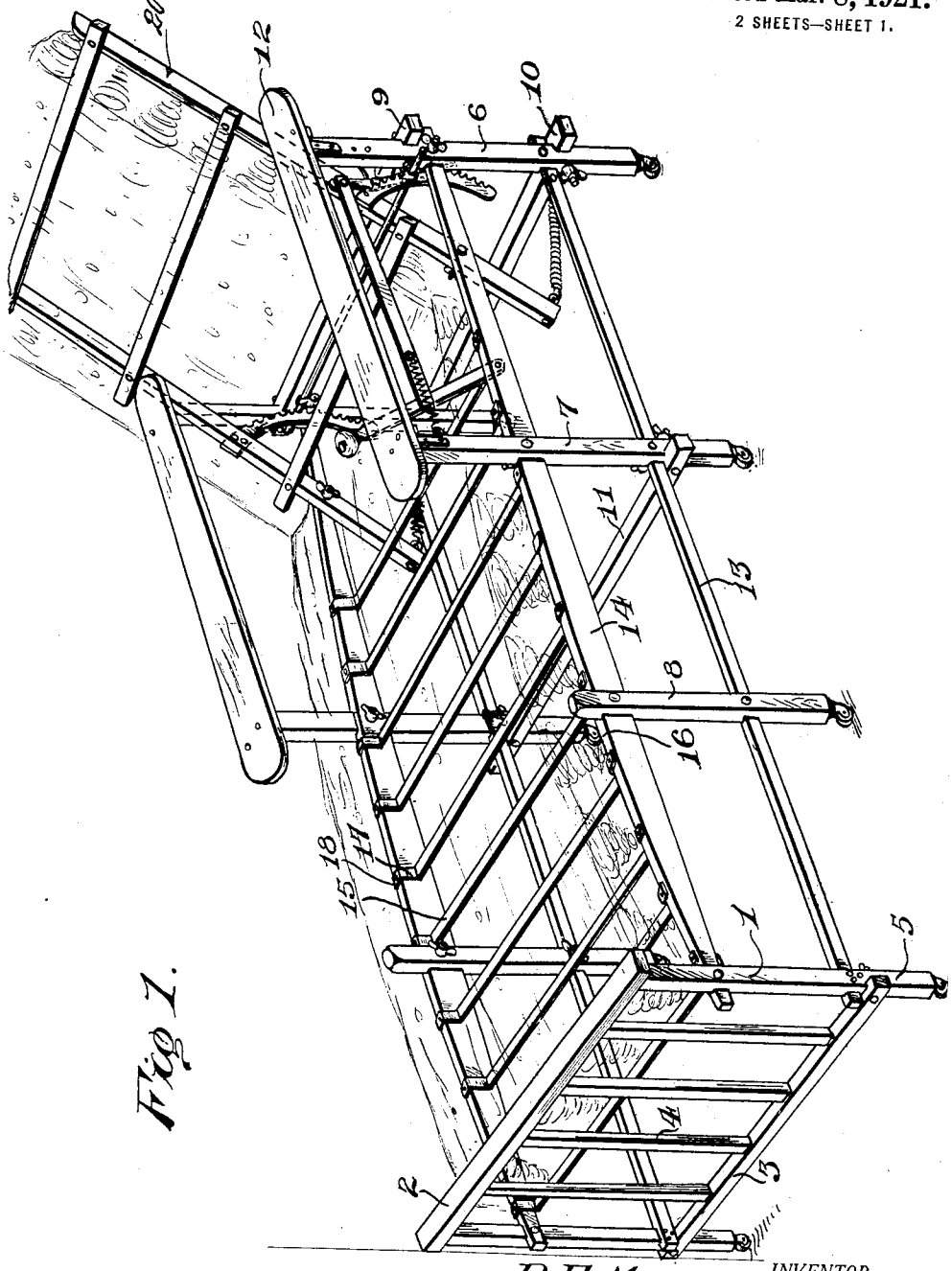

Fig. 1.

R. E. Malone INVENTOR.

BY

Lacey & Lacey ATTORNEYS

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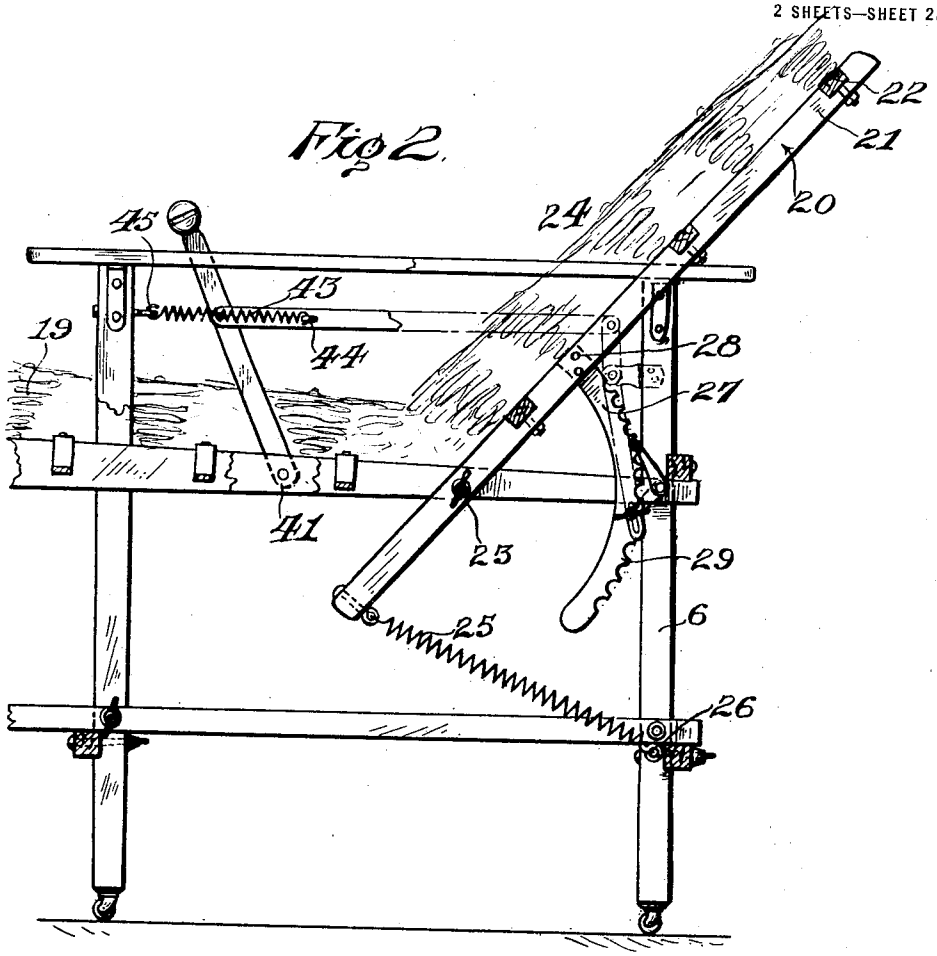
Fig 2.



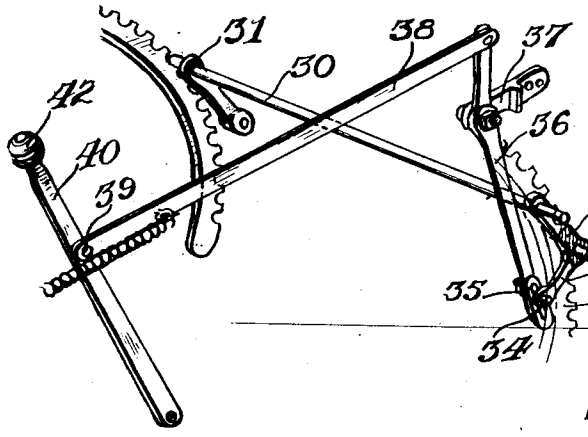


Fig 3.

R. E. Malone INVENTOR.

BY

Lacey & Lacey ATTORNEYS

UNITED STATES PATENT OFFICE.

RICHARD E. MALONE, OF SARANAC LAKE, NEW YORK.

RECLINING-CHAIR.

1,371,209. Specification of Letters Patent. Patented Mar. 8, 1921.

Application filed August 12, 1920. Serial No. 403,168.

To all whom it may concern:

Be it known that I, RICHARD E. MALONE, a citizen of the United States, residing at Saranac Lake, in the county of Franklin and State of New York, have invented certain new and useful Improvements in Reclining-Chairs, of which the following is a specification.

This invention relates to improvements in reclining chairs and more particularly that type in which the chair bottom is extended so that one may recline his full length upon the chair.

One object of the present invention is to provide a reclining chair or chaise-longue with a bottom so constructed and formed as to support the limbs of the occupant in the most comfortable manner. Ordinarily the bottoms of such chairs are flat and consequently the limbs of a person occupying the chair are supported in a substantially straight and therefore uncomfortable position but the present invention contemplates so constructing the chair bottom that the limbs will be supported with the knees more or less bent and therefore in a natural position and one insuring maximum comfort.

Another object of the invention is to provide a novel means whereby the adjustable inclined back of such a chair may be readily adjusted by the occupant of the chair without the necessity of rising from the chair.

In the accompanying drawings:

Figure 1 is a perspective view of the chair embodying the present invention,

Fig. 2 is a vertical longitudinal sectional view through the rear portion of the chair,

Fig. 3 is a perspective view illustrating the mechanism provided for adjusting the chair back.

The chair embodying the present invention includes in its structure a foot board indicated in general by the numeral 1 and comprising upper and lower rails 2 and 3, filler bars 4, and legs 5. The chair also includes rear corner legs 6, legs 7 which are located a suitable distance in advance of the legs 6, and other legs 8 located between the legs 5 and 7. The legs 6 are preferably connected by upper and lower cross bars 9 and 10 and the legs 7 may be connected by a cross bar 11. Arm rests 12 are secured upon the upper ends of the legs 6 and 7 at the possible sides of the structure and serve to connect the upper ends of the said legs 6 and 7, and side rails 13 extend between and are secured to all of the legs 5, 6, 7 and 8 at each side of the structure and connect these said legs.

The chair bottom comprises side rails which are indicated by the numeral 14, and slats 15 which extend between these rails. The side rails 14 are secured to the upper portions of the rails 5, 6, 7 and 8 at the respective sides of the chair structure and these rails 14 have their upper edges 16 curved upwardly between their ends, the highest points in these side rails 14 being preferably located at a point between the legs 5 and 7. Each of the slats 15 is in the nature of a bar of metal straight throughout its intermediate portion but having its ends turned upwardly as at 17 and thence laterally outwardly at right angles as at 18, these outturned portions being disposed to rest upon the upwardly curved edges 16 of the side rails 14 as clearly shown in Fig. 1 of the drawings with the portions 17 depending beside the inner faces of the respective side rails. Due to the curvature given the upper edges of the side rails 14, the intermediate or supporting portions of the slats 15 will consequently be more elevated at the intermediate portion of the series of slats than at the ends. As indicated in broken lines in Figs. 1 and 2 of the drawings, springs 19 are supported upon the slats 15 and in turn support any suitable cushion (not shown). The slats 15 constitute the supporting portion of the chair bottom and due to their relative elevation, the springs 19 and likewise the cushion which will be disposed upon the springs will be correspondingly curved or, in other words, bulged or rounded in an upward direction so as to more comfortably support the occupant of the chair.

The back of the chair is indicated in general by the numeral 20 and the same comprises side rails or stiles 21 and cross bars 22 although it may be of any other desired construction. In any event the side rails 21 are connected by means of pivot bolts 23 with the side rails 14 of the chair bottom at a point suitably spaced in advance of the legs 6 so that the back is mounted within the frame of the chair for tilting movement. The pivot bolts 23 are located near the lower ends of the rails 21, and any suitable cushioning means as for example springs 24, may be disposed against the forward side of the back above the pivots 23. A coil spring 25

is connected at one end to the lower end of each rail 21, and these springs are connected at their opposite ends as at 26 to the cross bar 10. These springs exert a rearward pull upon the lower end of the chair back thus tending to swing the upper portion of the back in a forward direction, but the back is held rigidly in various positions of adjustment by a means which will now be described. The numeral 27 indicates arcuate racks which are secured at their upper ends rigidly as at 28 to the side rails 21 of the chair back and the toothed sides of these racks, indicated by the numeral 29, are concentric to the pivots 23. For coaction with the racks 27 there is provided a rod 30 which is mounted adjacent its ends in the outer ends of rock arms 31 which arms are pivotally mounted at their lower ends in any suitable manner as for example by small trunnions 32, upon the inner sides of the legs 6. The ends of the rod 30 project beyond the upper ends of the arms 31 and one of the arms 31 is provided at its lower end with a downward and forward extension 33 carrying a pivot 34 which works in a slot 35 formed in the lower end of a rock arm 36. This arm 36 is mounted adjacent its upper end upon a suitable bearing bracket 37 fixed upon the adjacent leg 6, and pivoted to the upper end of the said rock arm 36 is the rear end of a connecting rod 38 the forward end of which rod is pivoted as at 39 to an operating lever 40. This hand lever 40 is pivoted at its lower end as at 41 upon the adjacent side rail 14 of the chair bottom and at its upper end extends beside the respective arm rest 12 in the manner clearly shown in Fig. 1 of the drawings, it being provided at its last named end with any suitable hand grip 42. A spring 43 is connected at its rear end as at 44 to the connecting rod 38 and at its forward end as at 45 to the adjacent leg 7 beneath the arm rest 12. The spring 43 normally holds the connecting rod 38 in a forward direction and thus holds the lever 40 correspondingly swung and in this position of the lever the lower end of the rock arm 36 is swung rearwardly and the arms 31 are swung forwardly to such position that the projecting ends of the bar or rod 30 will engage the racks 29 to securely hold the chair back in one or another position of angular adjustment. When it is desired to vary the adjustment of the back, it is only necessary to pull rearwardly upon the operating lever 40 against the tension of the spring 43 whereupon the rock arm 36 will be swung forwardly at its lower end thus acting upon the extension 33 to swing the respective arm 31 rearwardly and carrying the pawl rod 30 in a corresponding direction and out of engagement with the teeth of the arcuate racks 27. The springs 25 will then act to swing the chair back in a forward direction, or the occupant of the chair may lean against the back so as to cause the latter to swing in a rearward direction against the tension of the spring 25 and when the back has been brought to the desired angle of inclination, the lever 40 may be released thus permitting the parts to return to their normal position and locking the back in its position of adjustment.

While in the construction illustrated in the drawings, the rod 30 is supported at the outer ends of the crank arms 31, it will be understood that if desired the rod may have its end portions bent at right angles to form the equivalents of said arms, and its terminals bent outwardly at right angles to provide the equivalents of the pivots 32.

Having thus described the invention, what is claimed as new is:

In a reclining chair, a chair frame proper, a back rest in said frame, a foot piece located forwardly of the frame, and a bottom extending within the frame and also forwardly beyond the same and to the foot piece, the said bottom comprising a supporting means gradually continuously arched from the rear and forward ends of the said bottom toward the intermediate portion thereof, the highest point of elevation of the supporting means being located approximately midway between the front of the said frame and the foot piece.

In testimony whereof I affix my signature.

RICHARD E. MALONE. [L. S.]