

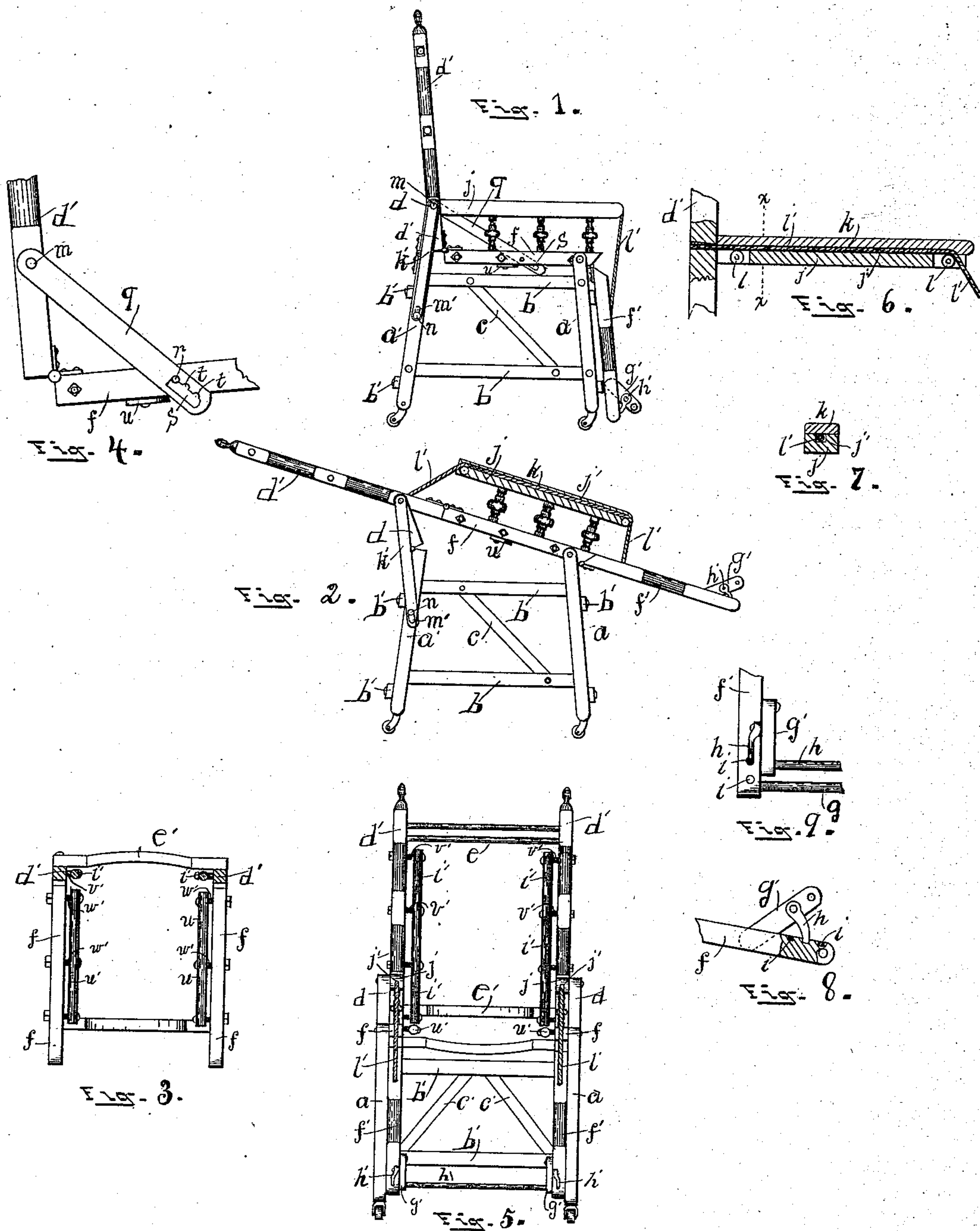
(No Model.)

L. BERGER.

ADJUSTABLE RECLINING CHAIR.

No. 377,011.

Patented Jan. 31, 1888.



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UNITED STATES PATENT OFFICE.

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ADJUSTABLE RECLINING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 377,011, dated January 31, 1888.

Application filed July 23, 1886. Serial No. 208,823. (No model.)

To all whom it may concern:

Be it known that I, LEWIS BERGER, a citizen of Canada and a subject of the Queen of Great Britain, residing at Bay City, in the county of Bay, State of Michigan, have invented certain new and useful Improvements in Adjustable Reclining-Chairs, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in that class of chairs which are adjustable to any position and that are particularly adapted for use as a lawn or hammock chair; and the invention consists in the combination, arrangement, and construction of the several parts composing the chair, as I hereinafter describe and claim.

The objects of the invention are to produce a chair that may be easily adjusted, and that can be set up in almost any position or place, and to produce a cheaper and more durable device than those commonly constructed.

The accompanying drawings illustrate the devices I employ to attain these objects.

Figure 1 is a side view of my improved chair and shows the device in a position for sitting upright. Fig. 2 is the same in a reclining position. Fig. 3 is a horizontal section of the chair, taken just above the arms. Fig. 4 is a detail view showing the locking-brace. Fig. 5 is a front view of the chair with the web or cover removed. Fig. 6 is a longitudinal vertical section of the arm-piece detached. Fig. 7 is a section of the arm-piece at $x\ x$. Fig. 8 is an enlarged end view of the lower portion of the foot-rest detached, partly sectional. Fig. 9 is a front view of the same, showing a portion of one side detached.

a represents the front legs of a chair, and a' the rear legs. These legs are secured and held in a proper position by the cross-pieces b and b' and the braces c and c' . The rear legs, a' , have a short upper section, d , which is hinged to the principal leg, and has its upper end pivoted to the side rails d' of the portion forming the chair-back. These side rails are held in a proper position relative to each other by the lower cross-piece, e , bolted to their rear sides and at their upper ends by the cross-piece e .

f are seat rails of the seat portion, placed between the upper ends of the legs and hinged at their rear ends to the lower ends of the side

rails d' , and are pivoted to the upper ends of the legs a at a point a short distance in rear of their front ends, and to these front ends are hinged the upper ends of the side rails f' . The lower ends of the rails f' are held at a proper distance apart by the bar g , and a foot-rest is arranged, consisting of the pieces g' , pivoted to the rails f' at or near their lower ends, and a bar, h , is secured between the side pieces, g' , upon which to rest the foot. Pawls h' are pivoted to the sides of the pieces g' , and are arranged in such a manner that their free ends will engage, when the foot-bar is raised up, with a ratchet or holes, i , in the edge of the side rails g' .

i' are pieces placed on the inside of the side rails d' , and are held in position by the screw-bolts v' , passing through the side rails, and a covering of carpet, netting, cane or other suitable material is secured by its ends to the cross-bars e and g , and is secured on its side edges to the pieces i' and the seat-rails f or bars u' , which are secured to the seat-rails by the screw-bolts w' . These screw-bolts v' and w' allow the pieces i' and u' to be moved toward the side rails and take up the slack or stretch of the chair-covering.

Side arms, j , are rigidly supported above the seat-rails f , and are provided with a longitudinal groove, j' , which is covered by a cap-piece, k , forming a portion of the arm, and at the ends of the arm-piece j is placed the pulleys l , and flexible cords or cables l' are passed into the grooves j' and passed over the pulleys, and have one end of each secured to the side rails d' at a point where the side rails meet the ends of the arms, and the opposite ends of the cords are secured to the side rails g' of the foot portion at a point a short distance below their hinged ends.

The operation of the device is that the weight of a person sitting in an upright position in the chair and resting his weight largely upon the rear ends of the seat-rails holds the chair in the position shown in Fig. 1, and then, upon the occupant leaning heavily against the back, moves the back portion to a reclining or level position, as shown in Fig. 2, the cords l' sliding within the groove j' and operating to bring the foot portion to an elevated position, and the movement may be arrested in any position between the positions shown at the will of the op-

erator by a slight change in the position of the occupant, as by slightly moving or pushing backward, &c., and the chair is changed from a reclining to an upright position by the occupant rising to a sitting posture. The back and foot portions, being connected together by the cable *l'*, move together with the occupant, so that any desired position may be simply and easily obtained.

As will be seen by Fig. 2, when the chair is in a reclining position the hinged section *d* of the legs *a'* moves slightly backward to allow the seat-rails and back rails to rise up on their hinged ends, and in order to strengthen the sections *d* a piece, *k'*, is placed, if desired, upon the outside of the pieces *d*, the upper end of the piece *k'* being held by the bolt *m*, which also pivots the pieces *d* to the side rails of the chair-back, and the lower end, extending considerably below the hinged portion, is provided with an elongated opening, *m'*, and is secured to the leg *a'* by a bolt, *n*, passing through the opening *m'*. This opening *m'* is arranged so that when the chair is in the position shown in Fig. 2 the upper portion of the opening will rest upon the pivot *n*, and the piece *k'* then forms a support which strengthens the pieces *d* when the piece is considerably inclined, as shown, and when most of the weight of the occupant is resting over the pieces *d* or rear legs.

In order to secure the chair in any desired position a brace, *q*, is pivoted at one end by the bolt *m* to the back rail, *d'*, and extending forward and downward. The opposite end is provided with a slot, *s*, and secured to the seat-rail *f'* by the bolt *r*. The upper edge of this slot *s* is provided with notches *t*, which engage with the bolt *r* and secure the back in a desired position. A button, *u*, is pivoted beneath the seat-rail *f* just in rear of the brace, and may be turned to a position for holding the brace *q* in a manner to allow the slot *s* to move upon the bolt *r* without engaging the notches *t* with the bolt, and thus the parts of the chair are allowed a free and easy movement, and operate the same as if the braces *q* were removed.

I do not confine my invention entirely to supporting the seat, back, and front portions by the legs, as I have herein described, as these parts may be supported in other ways—as by cords or bars swinging from a shade-tree or from the roof of a veranda, or from supports of other kinds—as when supported from above the parts work in a similar manner and with a similar result, so long as the supports are pivoted at or near the points shown.

I claim—

1. The combination, in a reclining-chair, of

the back portion, the seat portion, and the foot portion hinged together at their meeting ends and provided with cross-bars and having a flexible cover, the front legs pivoted to the seat-rails, and the rear legs provided with a hinged section pivoted to the side rails of the back portion, and the arms rigidly secured above the seat-rails and provided with longitudinal grooves with cords placed within the grooves and with one end secured to the side rails of the back portion and their opposite ends secured to the side rails of the foot portion, substantially as and for the purpose set forth.

2. The combination, in a reclining-chair, with the back side rails *d'*, the seat-rails *f*, and side rails *f'*, hinged together at their meeting ends and provided with cross-bars *e* and *g* and having a flexible cover, the legs *a*, pivoted to the seat-rails, and the legs *a'*, provided with the hinged portion *d*, pivoted to the back side rails, and the arm *j*, rigidly secured above the seat-rails and provided with the groove *j'*, of the pulleys *l*, journaled in the ends of the arms *j*, and the cords *l'* within the groove and passing over the pulleys and secured to the side rails, *d'* and *f'*, substantially as and for the purpose herein set forth.

3. In a reclining-chair, the combination of the back portion, the seat portion, and foot portion hinged together and operating as described, the front legs, *a*, pivoted to the seat-rails, and the rear legs, *a'*, having a hinged portion, *d*, pivoted to the side rails *d'*, with a supporting-brace, *k'*, pivoted by the bolt *m* to the upper end of the piece *d*, and provided on its lower end with the opening *m'*, and the bolt *n*, passing through the opening *m'* and into the leg *a'*, substantially as and for the purpose set forth.

4. In a reclining-chair, the combination, with the back side rails *d'*, the seat-rails *f*, and side rails *f'*, hinged together and provided with cross-bars, the arms *j*, rigidly secured above the seat-rails and provided with a longitudinal groove, *j'*, and the cords *l'* within the groove and secured to the rails *d'* and *f'*, of the braces *q*, pivoted at one end by the bolt *m* to the back rail *d'* and provided on their opposite ends with the slots *s*, having the ratchet *t*, the bolt *r*, passing through the slot *s* and into the seat-rail *f*, and a button, *u*, beneath the seat-rail *f*, and operating substantially as described, and for the purpose set forth.

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

LEWIS BERGER.

Witnesses:

JAS. E. THOMAS,
W. H. POWER.