(No Model.) 2 Sheets—Sheet 1.

G. E. LORD.

RECLINING CHAIR.

No. 435,938. Patented Sept. 9, 1890.

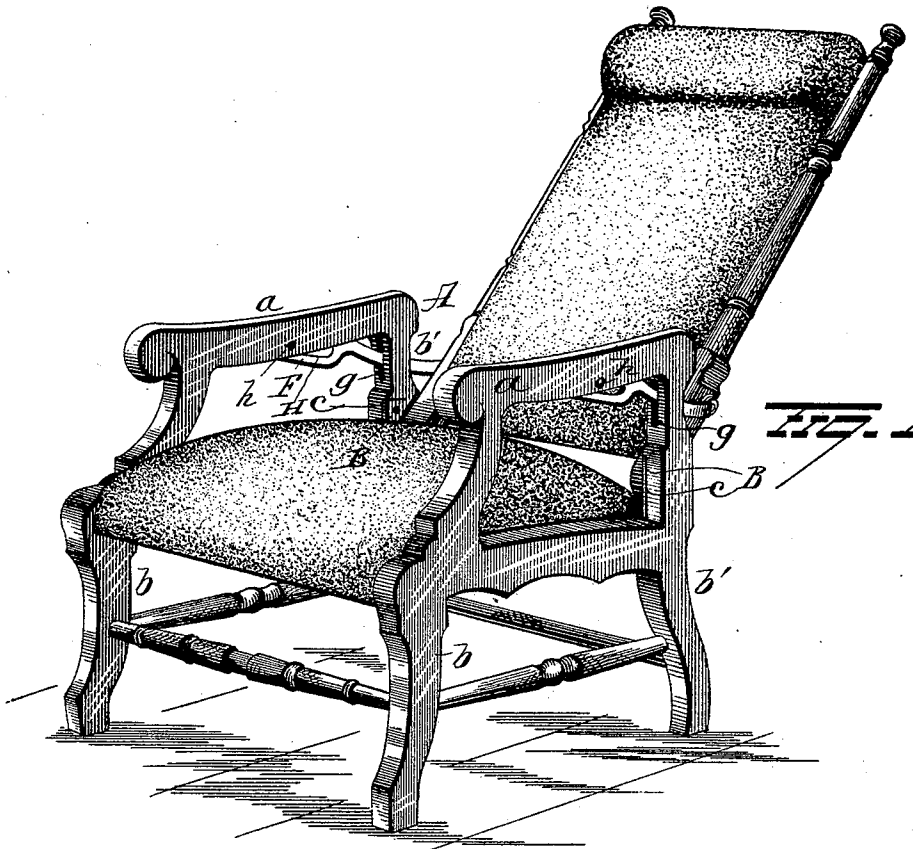
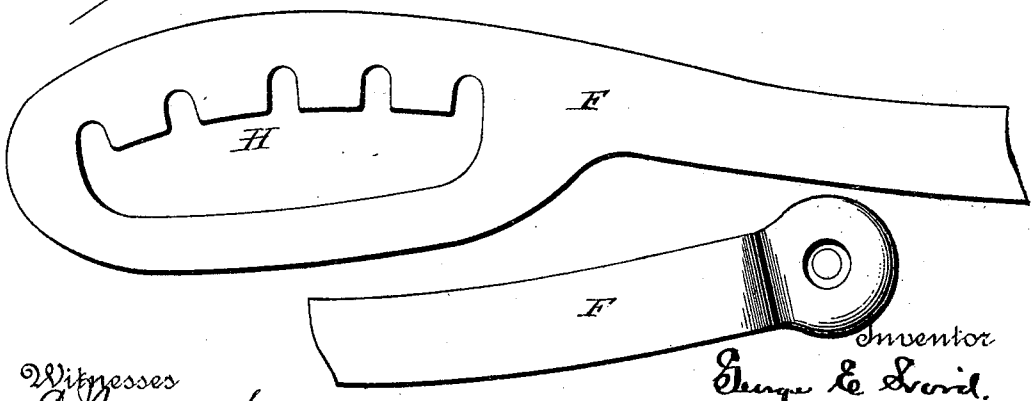


Fig. 1.

Fig. 5.



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(No Model.)

2 Sheets—Sheet 2.

G. E. LORD.

RECLINING CHAIR.

No. 435,938. Patented Sept. 9, 1890.

Fig. 2.

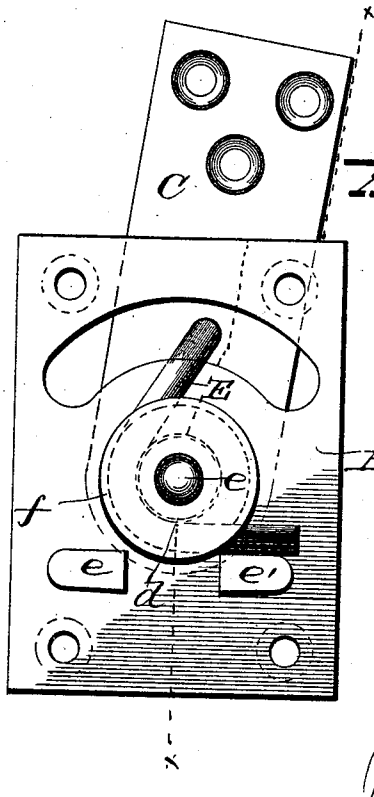


Fig. 3.

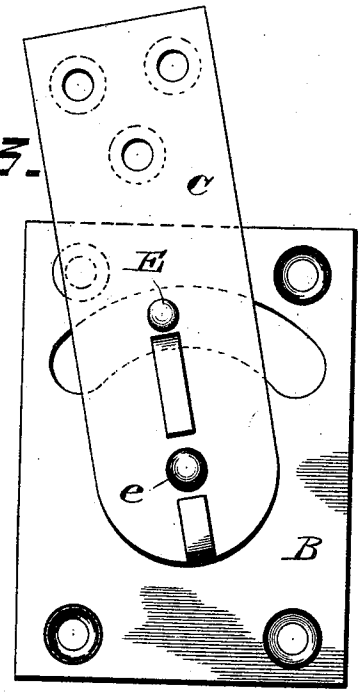
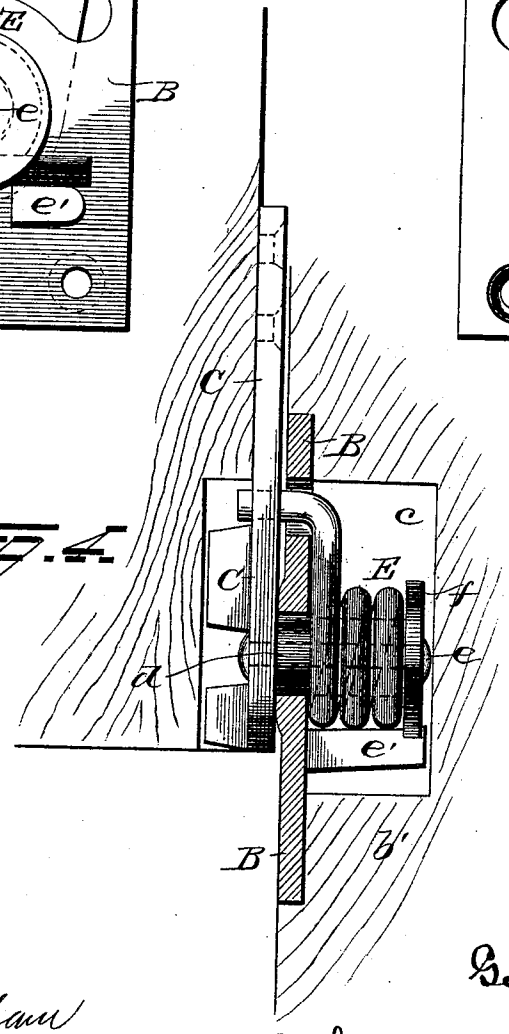


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE E. LORD, OF UTICA, NEW YORK.

RECLINING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 435,938, dated September 9, 1890.

Application filed March 12, 1890. Serial No. 343,605. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. LORD, of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Reclining-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.

My invention relates to an improvement in reclining-chairs, the object being to provide a chair having a movable back with devices for supporting the back and automatically moving the same to its upright or normal position.

A further object is to provide convenient and easily-operated devices for holding the back in an inclined position.

With these ends in view my invention consists in certain novel features of construction and combination of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 represents a perspective of a chair with the back in a slightly-inclined position. Fig. 2 is a view in elevation of the hinge and back plate. Fig. 3 is a view of the opposite face of the hinge and back plate. Fig. 4 is a vertical section of the hinge, taken on line *x x* of Fig. 2; and Fig. 5 is a perspective view of the rack-bar.

A represents the chair having arm-rests *a*, supported at their front and rear ends by the supports *b b'*, the supports *b'* being in this instance continuations of the rear legs. The supports *b'* are provided on their inner faces at or near the level of the seat with recesses *c* for the reception of the hinge-plate B. Each plate B is provided at suitable points with screw-holes and with an elongated slot curved in the arc of a circle concentric with the axis of the chair-back. Each plate B is further provided on its inner face with two abutments *e e'*, and at a point between the abutments and the curved slot with a circular opening for the passage of the hub on the back plate C. The plates C are attached to the opposite sides of the lower end of the back, and each is provided with a hub *d*, which, as before stated, passes through the circular opening in its plate B, and is held thereon by the rivet *e*, passing through the hub and through a disk *f*, located against the free end of the hub.

Mounted on each hub is a stiff coil-spring E, one end of which is bent laterally and passes through a circular opening in plate C, while the opposite end rests on one of the abutments on plate B. The plates B are alike in every respect, and by providing each with two abutments they can be used on either the right or left side by simply changing the spring to engage the proper abutment. The disks *f* hold the springs in place on the hubs. When the parts are in their normal position, the springs hold the back in its upright position. Now when a pressure is applied on the back, and by means of the long leverage obtained by pressing on the upper end of the back, this pressure can be slight, the back is caused to fall or incline rearwardly, the degree of inclination depending on the pressure applied. Lugs *f f* on the rear faces of plates C enter narrow slots or recesses in the lower ends of the chair-back and assist in holding said plates in position and take part of the strain off the screws which hold the plates in position.

To hold the back rearwardly, I employ the rack-bars F, which latter are pivoted to the back at points above the hinge, and passing through slots *g* in the supports *b'* engage pins located within grooves formed in the under side of the arm-rests. These bars F are provided at their front ends with loops H, the under side of the upper section of each loop being provided with notches which engage the pins *h*. The lower sections of the loops rest below the lower surfaces of the arm-rests, and hence by simply pressing upwardly on the loops the notches are disengaged and the back is free to be adjusted to the desired inclination by the operator bearing or pressing against the same. When properly adjusted, it can be locked by simply releasing the loops and permitting the notches to engage the pins. To elevate the back to its upright or normal position, the loops are raised and pressure removed. This leaves the springs E free to expand and raise the back.

I have described the hinge in connection

with a chair; but it is evident that it might be employed for other purposes than those described.

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

1. A hinge consisting of two plates, one of which is provided with a circular opening, a curved slot concentric with said opening, and an abutment, the other plate having a hub passing through the circular opening, and a spring mounted on the hub, one end of said spring engaging the abutment and the other passing through the curved slot and engaging the plate carrying the hub.

2. A hinge consisting of two plates, one of which is provided with a circular opening, a curved slot concentric with said opening, and two abutments, the other plate having a hub passing through the circular opening, and a spring mounted on the hub, one end of said spring engaging one of the said abutments and the other passing through the curved slot and engaging the plate carrying the hub.

3. In a reclining-chair, the combination, with a seat and arm-rests, of a pair of hinges, each consisting of two plates, one of which is provided with a circular opening, a curved slot concentric with said opening, and an abutment, the other plate having a hub passing through the circular opening, and a spring mounted on the hub, one end of said spring engaging the abutment and the other passing through the curved slot and engaging the plate carrying the hub, the plates having the curved slots being secured to the arm-rests supports, a back secured to the plates having the hubs, and devices carried by the back and adapted to be adjustably connected with the arm-rests, substantially as set forth.

4. In a reclining-chair, the combination of a seat, arm-rests, a back, a pair of hinges, each consisting of two plates, one of which is provided with a circular opening, a curved slot concentric with said opening, and an abutment, the other plate having a hub passing through the circular opening and a spring mounted on the hub, one end of said spring engaging the abutment and the other passing through the curved slot and engaging the plate carrying the hub, one set of said plates being secured to the seat or its supports and the other set being secured to the back, and devices carried by the back-rest and adapted to be adjustably connected with the arm-rests, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE E. LORD.

Witnesses:
J. M. CHUBBUCK,
WILLIAM E. LATIMER.