

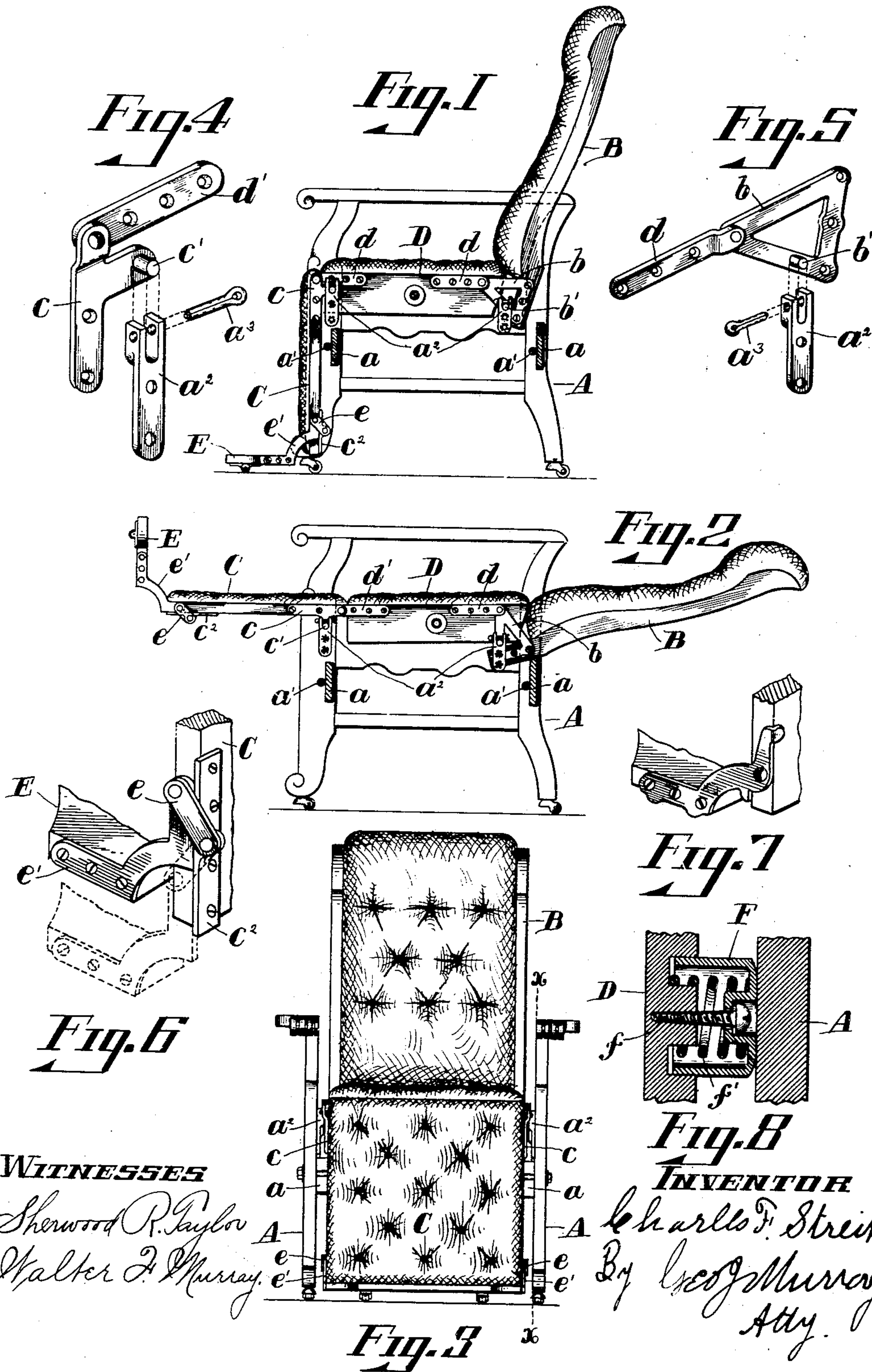
No. 607,293.

Patented July 12, 1898.

C. F. STREIT.  
RECLINING CHAIR.

(Application filed Nov. 22, 1897.)

(No Model.)





# UNITED STATES PATENT OFFICE.

CHARLES F. STREIT, OF CINCINNATI, OHIO.

## RECLINING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 607,293, dated July 12, 1898.

Application filed November 22, 1897. Serial No. 659,355. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES F. STREIT, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Reclining-Chairs, of which the following is a specification.

My invention relates to reclining-chairs. Its object is to provide a chair in which the back, leg, and foot rests may be brought to any position desired by the movement of the occupant's body and maintained in any position or changed at will by the simple movement of the occupant's body without stops or other mechanical appliances. Its object is also to prevent injury to the occupant's clothing by sliding or slipping on the back, as the position of the chair is changed while occupied.

A still further object is to provide a foot-support which will adjust itself to the feet of the occupant when reclining and slide up the leg-rest when the chair is brought to the upright position to be used as a chair instead of as a couch, thus providing for placing the seat lower than is practicable in ordinary reclining-chairs having foot-rests.

These objects I attain by the means illustrated in the accompanying drawings, in which—

Figure 1 is a view in side elevation of my device in upright position, with one side of the frame removed, through line  $xx$  of Fig. 3. Fig. 2 is a similar view of chair in reclining position. Fig. 3 is a view of the chair in front elevation. Fig. 4 is a detail view in perspective, upon an enlarged scale, of the couplings that connect the leg-rest to the front of the seat and of the lug-plate which is secured to the frame of the chair. Fig. 5 is a similar view of the couplings for the rear of the seat and the back of the chair and the side frame. Fig. 6 is a detail view in perspective, upon an enlarged scale, of the coupling connecting the leg-rest and the adjustable foot-support, the full line showing the elevated positions, as in Fig. 1, and the dotted lines the extended position, as in Fig. 2. Fig. 7 is a detail view in perspective of a non-extensible form of foot-rest. Fig. 8 is a view in diametrical section of a spring-buffer used to prevent lateral motion in the seat-frame.

Referring to the parts, which are indicated by similar reference-letters wherever they occur throughout the various views, A is the side frames of the chair, connected by cross-rails  $a$ , which may be framed up in the usual manner by a mortise-and-tenon joint when the frame is made rigid, and which is also perforated at  $a'$  to receive transverse bolts to clamp the sides to the shoulder of the cross-rail when it is desired to make the chair K D to economize space in shipping.

Attached to the side frame A are bearing-lugs  $a^2$ , which are transversely perforated to receive the cotter-pins  $a^3$ . In these lugs  $a^2$  rest the journal-pins  $b'$  and  $c'$  of the links  $b$  and  $c$ , respectively, said links being secured to the back B and the leg-rest C, respectively.

The link  $b$ , of which two (right and left) are used in each chair, is a triangular plate perforated on one of its sides for attachment to the folding back B, having projecting from it the pivot-pin  $b'$  to rest in the supports  $a^2$ , permanently secured to the top rails of the side frames A and having a perforation at its end to receive the pivot-pin, which couples it to the metal strip  $d$  at the rear end upon opposite sides of the seat. The link  $c$  is a similar plate, but different in shape, having one of its sides perforated for attachment to the leg-support C, its angular end having a projecting perforated lug above it for attachment to the plate  $d'$ , which is secured to the side near the forward end of the seat, and having also, like the link  $b$ , a projecting lug to rest in the bearings  $a^2$ , secured to the seat-frame sides A at their forward ends.

The seat D has attached to its sides metal strips  $d$  and  $d'$ , pivoted to the links  $b$  and  $c$ , respectively.

When the back of the chair is pushed backward, the link  $b$  swings on its journal in the lug  $a^2$ . This causes its pivoted apex to move backward, carrying with it the seat to which it is pivoted. The seat moving backward causes the link  $c$  to swing on its journal in the lug  $a^2$ , thereby raising the leg-rest C.

The journal-pins  $b'$  and  $c'$  are each placed at such distances from the pivoted points that in changing positions of the chair neither the cushions of the seat and back nor the cushions of the seat and leg-rest spread apart. Thus when an occupant changes his position



the cushions all maintain their relative positions to his body, thus causing none of that uncomfortable friction between the chair and the body of the occupant noticeable in changing the position in former chairs of this type. The chair maintains itself in any position, because the motion of both the back and leg-rest depend upon a lateral motion in the seat of the chair, and there is no tendency to such motion while the occupant's weight is upon the seat.

Upon the bottom of the leg-rest C is secured a metal strip  $c^2$ , to which is pivoted the link  $e$ , which is pivoted at the other end to a metal arm  $e'$ , which is secured to the foot-support E. When the leg-rest D is down, the foot-support E, coming into contact with the floor, is elevated, as shown in Fig. 1. When the leg-rest is raised, the foot-support is pushed out, as shown in Fig. 2. When the parts are detached for shipment, the foot-support may be folded against the leg-rest to economize space. This device allows the seat of the chair to be placed nearer the floor, while giving the occupant room for stretching his legs when in a reclining position, thus overcoming another defect formerly found in this type of chair—that the seats were so high from the floor, in order that the occupant's legs be not cramped when reclining, that it was awkward to get into them.

The stationary frame is mounted on casters, as usual, and casters are also provided on the under side of the foot-support E, so that the chair may be moved around readily from one position to another and the foot-support may not be liable to be injured by stepping on it, as it is when rigid, as shown in Fig. 7, and in the preferred form the casters assist in swinging the links of the foot-support to the elevated position.

The spring-buffer shown upon an enlarged scale in Fig. 8 consists of the metal cup F, having a central depression in its closed end to seat the screw  $f$ , by which it is secured to the side of the seat-frame D, the seat-frame having an annular recess to permit the cup to slide within it. A spring  $f'$ , coiled within the cup, holds the smooth end of the cup with elastic pressure against the inside of the cross frame or rail A and prevents lateral or shaking motion of chair when in use. This feature, however, is not essential to the action of the chair and might be substituted by round-headed posts or pins secured in either the side of seat-frame or side frame of chair to reduce friction when the chair is adjusted to either position.

I have shown my chair in what I believe its simplest and best form; but it is obvious that many mere mechanical changes may be made without departing from the spirit and scope of my invention. For instance, an inferior modification of my invention would be to dispense with the lug-plates  $a^2$  and journal-pins upon the links  $b$  and  $c$  and connect the sta-

tionary frame and the movable parts by a journal-bolt passing through the side frame and links, and hence I do not limit myself to the precise details shown.

What I claim is—

1. In a reclining-chair, the combination of the fixed frame, the movable parts consisting of the back, the seat and the leg-rest, links secured to the back and leg-rest, pivotally connected to the seat-frame and journaled in the side frames of the chair.

2. In a reclining-chair the combination of the fixed frame consisting of the side pieces, including the legs, their upper extensions forming the arm-rests, the cross-bars connecting the legs and the transverse bars connecting the side frames, the lug-plates secured to the side frames, the removable parts consisting of the back, the seat and leg-rest, the links secured to the upper and lower ends respectively of the leg-rest and the back of the chair, pivoted to metal strips secured to the front and rear respectively of the seat-frame and having journal-pins from them between the fixed and pivoted ends and resting in the lugs secured to the frame of the chair.

3. In a reclining-chair the combination of the fixed frame, lug-plates secured thereto, said lug-plates being transversely perforated to receive cotter-pins to hold the movable parts removably to the fixed frame, the movable parts consisting of the back, the seat and the leg-rest, the links fixed to the back and leg-rest respectively, pivotally connected to the front and rear respectively of the seat, and having journal-pins projecting therefrom and resting in a journal-box formed of the lug-plates which are secured to the frame and the cotter-pins therein.

4. In a reclining-chair the combination of the fixed frame, the movable parts consisting of the back, the seat and the leg-rest, links secured to the back and leg-rest respectively, pivotally connected to the seat-frame and journaled in the side frames of the chair, the extensible foot-support at the lower end of the leg-rest.

5. In a reclining-chair the combination of the fixed frame, the movable parts consisting of the back, the seat and the leg-rest, links secured to the back and leg-rest respectively, pivotally connected to the seat-frame and journaled in the side frame of the chair, the metal lug-plate secured to the bottom of the leg-rest, the link pivoted at one end to said lug-plate and pivoted at the other to an angle-plate secured to the foot-support and the angle-plate secured to the foot-support.

6. Couplings for reclining-chairs consisting of metal strips or bars to be secured to the opposite sides of the seat-frame, links formed in pairs right and left and pivoted to the ends of said bars, one pair being perforated for attachment to the leg-rest and the opposite pair perforated for attachment to the chair-back, all of said links having journal-pins project-



ing outwardly from them when secured in place to hang the seat, back and leg-rest between the stationary frame and lug-plates to be attached to the inside of the frame sides to receive said journal-pins, substantially as hereinbefore set forth.

7. In a reclining-chair the combination of the fixed frame, the movable parts consisting of the back, seat, the leg-rest and the foot-support, the angle-plate secured along one leg to the foot-support and connected at the end of the other leg by a link to a lug-plate secured to the bottom of the leg-support, and the link pivoted at one end to the angle-plate

and at the opposite end to the lug-plate, substantially as shown and described.

8. Couplings for an extensible foot-support for reclining-chairs consisting of an angle-plate, one leg of which is adapted to be secured to a foot-support, the other leg to receive a pivot, the lug-plate adapted to be secured to the leg-support and to receive a pivot, the link pivoted to the angle-plate and the lug-plate.

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Witnesses:

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