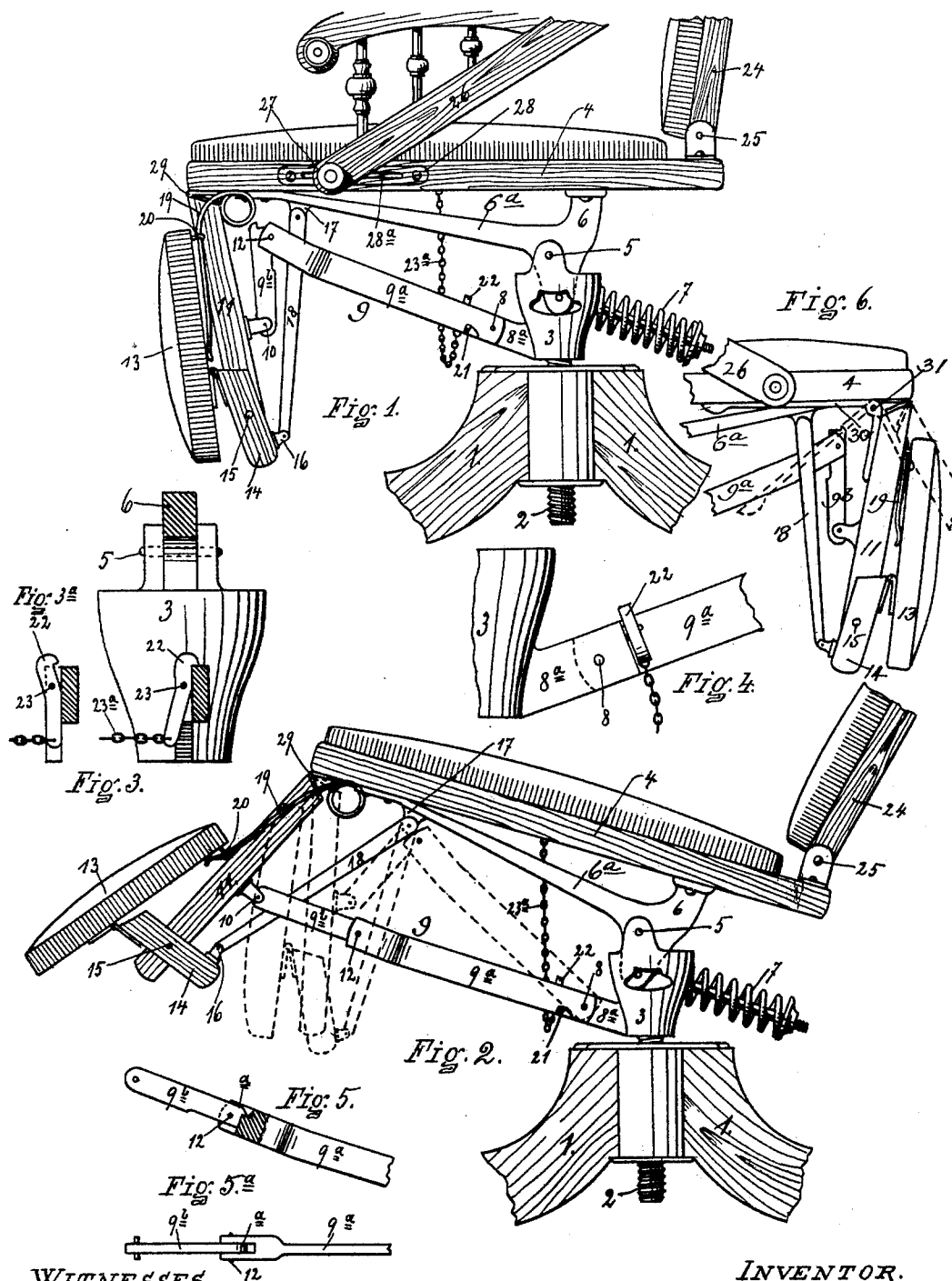


(No Model.)

C. A. LEE.
COMBINATION CHAIR AND FOOT REST.

No. 586,610.

Patented July 20, 1897.



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COMBINATION CHAIR AND FOOT-REST.

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To all whom it may concern:

Be it known that I, CHARLES A. LEE, of Canastota, in the county of Madison and State of New York, have invented certain new and useful Improvements in a Combination Chair and Foot-*Rest*; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

My present invention relates to an improvement in a combination chair and foot-rest in which the foot-rest is capable of automatic operation.

In the drawings, Figure 1 shows the foot-rest in connection with the seat portion and supports of the chair on which the rest is mounted and in the folded position. Fig. 2 shows the same parts in open or extended position. Fig. 3 shows details of a lock or catch employed in the construction for securing a member of a jointed arm or brace which holds the foot-rest extended. Fig. 3^a shows the same catch in open position. Fig. 4 shows the same details from the side. Figs. 5 and 5^a show details of the joint between the members of the arm or brace mentioned. Fig. 6 shows a portion of the construction from the opposite side to that shown in Fig. 1, with added details.

Referring to the reference-figures of the drawings in a more particular description, 1 indicates the chair-base, provided with legs in the usual manner and a nut in which the adjusting support-screw 2 engages. The screw is provided with a head 3, in which is pivoted at 5 the seat-hanger 6. A spring 7 is also provided for holding the chair in a normal position and means for limiting the swinging movement of the seat-hanger in the head. The seat-hanger 6 is provided with a rigid arm 6^a, which extends to the front side of the seat, and the seat 4 is mounted and secured on the hanger 6 and its arm 6^a. On the head 3 is provided a rigid projection 8^a, on which is pivoted at 8 one member 9^a of the rule-jointed arm or brace 9. The other member 9^b of this arm is pivoted at 10 to an ear on the under side of the foot-rest support

11. The particular details of the joint 12 between the members 9^a and 9^b of the arm 9 are shown in Fig. 5. It will be noted that the member 9^b is provided with a shoulder, as shown at *a*, which engages a shoulder on the member 9^a in such manner as to limit the relative movement of the parts at the joint when the members are in line with each other or slightly beyond a straight line, so that the pivot or joint 12 will take a position slightly below a direct line between the pivots 8 and 10. By this arrangement the arm 9 is rigid as a whole against endwise thrust when in the position shown in Figs. 2 and 5.

The foot-rest 13 is hinged on the ends of the rocking arms 14, which are pivoted at 15 to the swinging end of the rest-support 11. Extending between an ear 16 on a cross-bar between the arms 14 and an ear 17 on the seat-hanger arm and pivoted to each is a bracing-bar 18. At 19 is shown a spring secured to the under side of the seat at one end and being provided with a convolution in its middle portion. Its opposite end passes through an eye 20 on the under side of the foot-rest.

The downwardly-swinging movement of the member 9^a of the jointed arm is limited by a pin or stops 21. Secured on the projection 8^a of the head 3 and for securing the member 9^a in the position shown in Fig. 2 while the foot-rest is being extended there is provided a catch 22, pivoted at 23 to the end of the projection 8^a and arranged to stand normally open or unhooked. To the lower end of the catch 22 is attached one end of a chain 23^a, by means of which the catch can be operated, and the chain is extended into a position to be readily reached by the occupant of the chair.

The chair is provided with an adjustable back 24, pivoted at 25 to the rear of the seat, and is held by means of the brace 26, which also constitutes an arm of the chair. The end of the brace at the seat is adjustably secured to the seat by a bolt and a nut with a head adapted to be operated by the hand, as shown at 27, the head of this bolt engaging in and being adjustable along the slot shown in the fixture 28 at 28^a.

It should be noted that the seat of the chair is mounted on the head 3 so as to bring its center considerably in advance of the axial

line of the screw 2. This is desirable in order to maintain a nice balance when the chair is in a reclining position, with the foot-rest extended and an occupant in the chair.

5 The chair may be used as an ordinary chair when in the position shown in Fig. 1.

To extend the foot-rest, the occupant would preferably adjust the back 24 to a position more inclined to the seat than that in which
10 it was ordinarily used by means of the adjusting-screw 27 and the cooperating parts. The occupant then throws his weight to the rear of the axial line of the supporting-screw 2, tilting the seat from the position shown in
15 Fig. 1 into the position shown in Fig. 2. At the same time that this is done he also may pull on the chain 23^a to cause the catch 22 to engage with the brace member 9^a and secure it for the time being as a rigid arm extending
20 from the head 3. Then as the seat assumes its inclined position, as before mentioned, the foot-rest is automatically extended into the position shown in Fig. 2, the parts operating from the position shown in full lines in Fig. 1 into the position shown in full lines in Fig. 2.
25 In this position the foot-rest is held, being braced by the rule-jointed arm 9, which is at this time and in this position a stiff rigid arm, and held suspended by the hinged joint 29 at
30 the front end of the seat and the arm 18.

The foot-rest may be placed in extended position by the occupant of the chair without operating the catch 22 when tilting the chair into inclined position by the occupant
35 grasping the foot-rest 13 between the legs and throwing it out into the position shown in Fig. 2 after the chair has been placed in inclined position. When it is brought into this position, the jointed brace 9 will lock it there.

40 When the occupant of the chair moves the seat toward a horizontal position from that shown in Fig. 2, the weight of the foot-rest, together with any additional weight that may be upon it and its attached parts, is thrown
45 onto the projecting end of the arm 9 at the pivotal point 10 and this point is moved down to a position below the extended line between the pivots 12 and 8, and when it passes this line the rule-joint is broken down and the
50 arm 9 immediately folds into the position shown in dotted lines in Fig. 2 and the foot-rest folds into the position shown in dotted lines, leaving the occupant's feet in position to come directly down on the floor, and when
55 the seat is brought completely into normal position the foot-rest and its attachments and braces are brought into the position shown in full lines in Fig. 1.

The office of the spring 19 is to retain the

foot-rest 13 in a vertical position when the 60 device is folded.

As an additional and independent means of extending the foot-rest there is provided a bell-crank lever 30, pivoted to the under side of the seat at 31 and having one arm 65 thereof extending along on the under side of the seat at the edge in convenient position to be reached as a handle and the other end adapted to engage with the back side of the supporting-arms 11.

70 It is evident that the construction might be varied in several particulars without departing from the equivalents of my construction.

What I claim as new, and desire to secure by Letters Patent, is— 75

1. The combination of a chair-support, a seat pivoted on the support on a horizontal pivot, a foot-rest hinged to the front edge of the seat and a rule-jointed arm 9 pivoted on the chair-support at a point below the pivot 80 of the seat, and means for limiting the downward movement of the jointed arm, the arm connected at its outer end with the foot-rest, substantially as set forth.

2. In a combination chair and foot-rest, a 85 chair-support, a jointed arm projecting forwardly from the support under the seat, a seat pivoted on the support, a swinging foot-rest support hinged to the front edge of the seat, and attached below its hinging-point to the jointed arm, a pivoted lever on the lower 90 end of the foot-rest support on the end of which the foot-rest is hinged and a connecting-rod between the opposite end of the foot-rest lever and a point on the seat to the rear 95 of the hinge of the foot-rest support and pivoted to each, combined substantially as set forth.

3. In a combination chair and foot-rest, the supporting-head 3 with a jointed arm composed of the members 9^a and 9^b, a seat pivoted to swing backwardly and forwardly on the head, a foot-rest support 11 hinged to the front end of the seat and connected below its hinging-point to the arm member 9^b, a 105 rocking arm 14 pivoted on the swinging end of the support 11, a foot-rest 13 hinged on the end of the arm 14 and the connecting-rod 18 hinged at one end to arm 14 and at the other to the seat at a point to the rear of the hinging-point on the support 11, combined substantially as set forth. 110

In witness whereof I have affixed my signature in presence of two witnesses.

CHAS. A. LEE.

Witnesses:

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M. A. KELLER.