

No. 637,715.

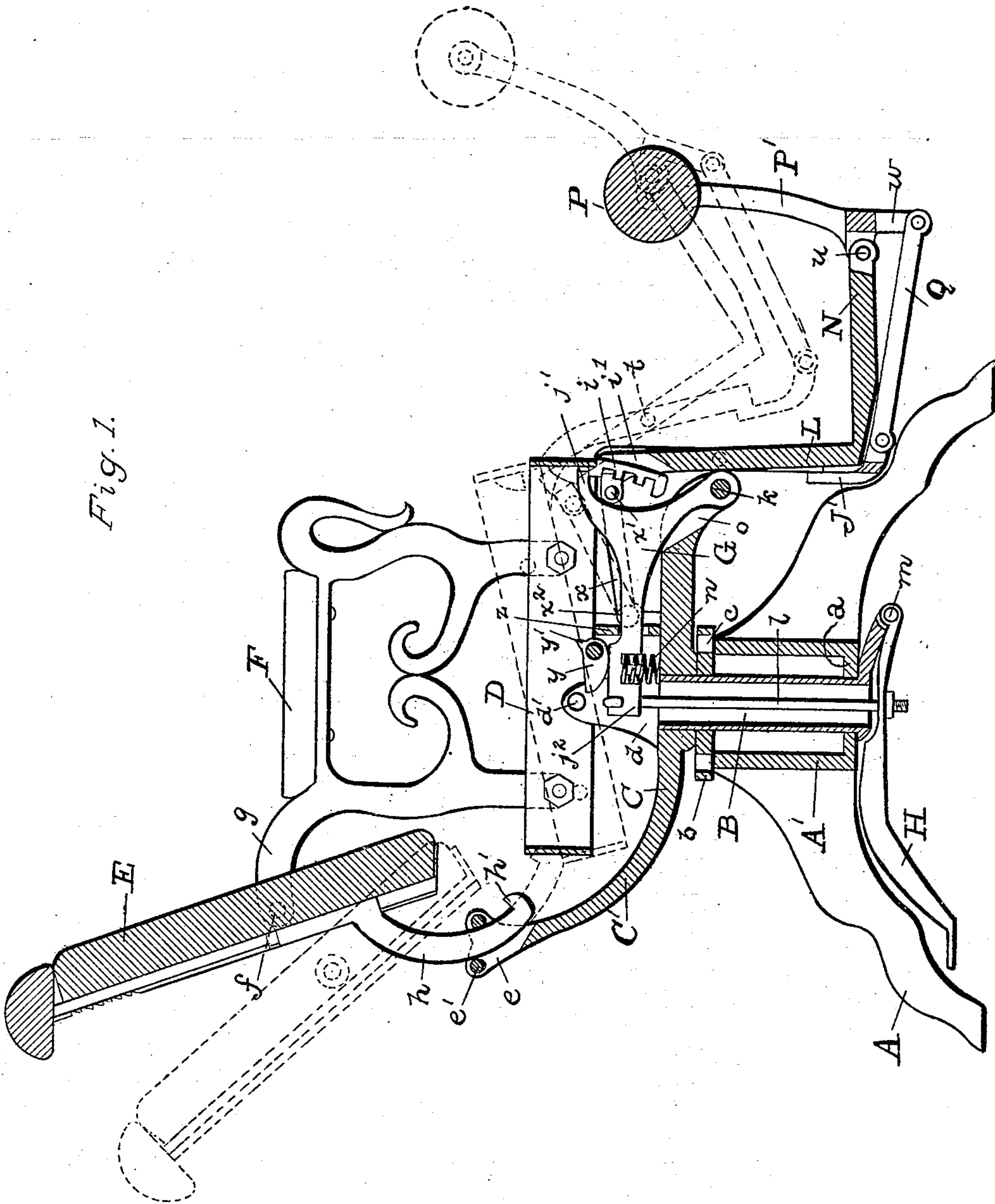
Patented Nov. 21, 1899.

F. DE FONTES.  
BARBER CHAIR.

(Application filed Feb. 23, 1899.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:  
Charles B. Mann Jr.  
Geo. Koether.

Inventor:  
Francis De Fontes  
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Attorney.

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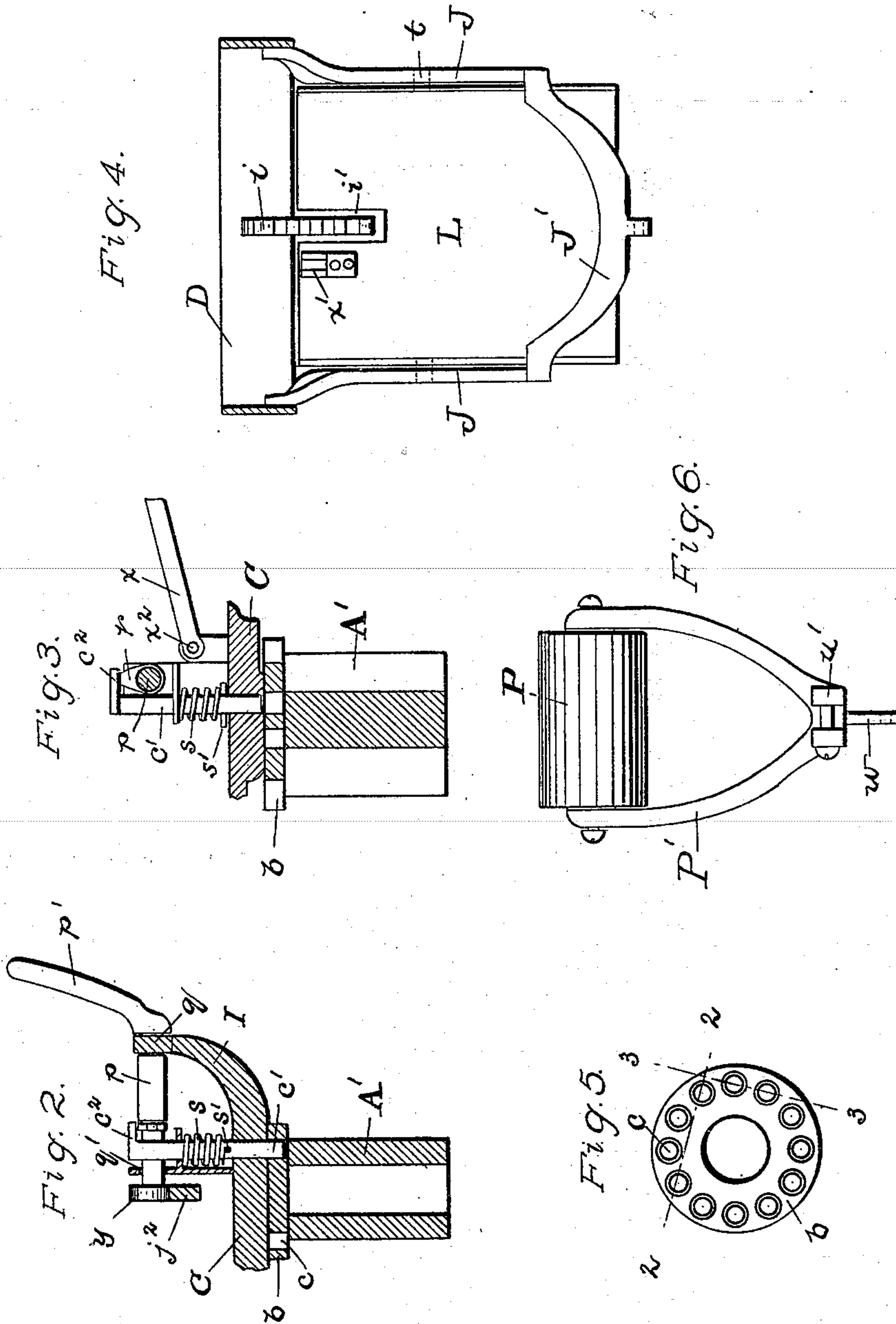
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# UNITED STATES PATENT OFFICE.

FRANCIS DE FONTES, OF BALTIMORE, MARYLAND.

## BARBER-CHAIR.

SPECIFICATION forming part of Letters Patent No. 637,715, dated November 21, 1899.

Application filed February 23, 1899. Serial No. 706,485. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS DE FONTES, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Barber-Chairs, of which the following is a specification.

This invention relates to a barber's chair, and has for its object to provide improved mechanism and construction for effecting various adjustments of the body, back, and foot-rest of the chair.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical elevation of the chair and shows two positions of the parts, one in full lines and the other in broken lines. Fig. 2 is a vertical section of the base center and a part of the revoluble seat-support, taken on the line 2 2 of Fig. 5, which is in a transverse direction from the line on which Fig. 1 is taken. Fig. 3 is a vertical section of the base center and a part of the revoluble seat-support, taken on the line 3 3 of Fig. 5, being in a transverse direction from that shown in Fig. 2. Fig. 4 is a rear view of the depending part of the leg-rest, looking forward. Fig. 5 is a top view of the base center. Fig. 6 is a view of the foot-rest detached, showing the side that would be seen when seated in the chair.

The letter A designates the feet of the base, and A' the base center to which the feet are attached. This base center is hollow in a vertical direction and at its bottom has a contracted portion *a*, with a round pivot-hole through it for the tubular vertical spindle B. At the top of the base center and made fast thereto is a circular cap-plate *b*, having a round pivot-hole in its center also for the spindle B and provided with holes *c*, arranged in a circle around the spindle-hole. The revoluble seat-support C has the depending spindle B attached. The seat-support rests upon the circular cap-plate *b*. It will be seen that the seat-support C may readily turn in a horizontal plane. The seat-support has at two opposite sides upright standards *d*, which have pivots *d'*, that support the chair-seat frame D, thus allowing the latter to tilt, as indicated by broken lines in Fig. 1. The seat-support C at the rear has an upward-curved rigid arm C', provided at its top with a slotted guide *e*

and two rollers or pins *e'*, extending across the slot.

The back E of the chair is pivoted at each side by pivot-pins *f* to rear-curving arms *g* on the side arms F, and the said back carries at its lower end a downward-curved rigid arm *h*, which passes freely in the slotted guide *e* of the arm C'. This down-curved arm *h* also passes between the said cross-pins *e'* and at its lower end has a hook *h'*, which serves to limit the forward tilt of the back E on its pivots *f* by engaging one of the said pins *e'*. By this construction when the seat-support C and back of the chair are tilted backward the relative position of the back with respect to the seat is automatically changed.

The chair-seat frame D at its front and lower side has a downward-curved rack-bar *i*, and a pawl-lever G has three arms *j j' j''*, the lower arm *j* being secured by a pivot-pin *k* to the revoluble seat-support C, occupying a slot *o* in said support, the upper arm *j'* serving as a pawl to engage the teeth of the said curved rack-bar *i*, and the rear projecting arm *j''* extending directly over the upper end of the tubular vertical spindle B, where it is engaged by a rod *l*, that extends down through the said spindle. The lower end of this rod *l* is connected with a treadle-lever H, located below the base center A' and within the space circumscribed by the spreading feet A. The treadle-lever H is pivoted by a joint *m* to a lateral arm attached to the lower end of the tubular spindle B. A suitable spring *n* is under the rear projecting arm *j''* of the pawl-lever and normally presses said arm upward, and thereby causes the pawl-arm *j'* to engage the rack-bar *i*. By depressing the treadle H the pawl-arm *j'* will release from the rack-bar *i*, and then the chair-seat frame D may be tilted.

A vertically-movable stop-pin *c'* is carried by the seat-support C and is arranged to engage any one of the holes *c* of the circle in the cap-plate *b*. The stop-pin is seen in Figs. 2 and 3, but is not seen in Fig. 1, because its position on the chair is on the side that is removed in making that sectional view. This stop-pin serves to hold the seat-support and chair-seat from rotating and by its adjustment in different holes *c* will permit of fixing the chair-seat partly turned in any position.



A horizontal rock-shaft  $p$  has two bearings, one at  $q$  on an upward-curved arm I, which projects from the side of the revoluble seat-support C, and the other bearing  $q'$  on top of the seat-support. The outer end of the rock-shaft  $p$  has a crank-arm  $p'$ , which has position outside of the seat-frame D. This rock-shaft has a cam  $r$ , which takes under a flanged head  $c^2$  on the stop-pin and serves to raise the latter and disengage it from the hole  $c$  it may be occupying in the circular cap-plate  $b$ . A spiral spring  $s$  is around the stop-pin  $c'$  and bears downward on a cross-pin  $s'$ , which extends through the stop-pin, and thus the said spring  $s$  keeps the stop-pin normally pressed down. By throwing the crank-arm  $p'$  toward the front to its farthest extent the stop-pin  $c'$  may be raised in order to turn the chair on its spindle B. It is to be understood that the seat-support C, seat-frame D, with its rack-bar  $i$ , pawl-lever G, vertical rod  $l$ , tubular spindle B, and treadle-lever H will all revolve together on the base center  $A'$ .

The chair-seat frame D at the front has a rigidly-fixed depending frame comprising two down side bars J and a cross-bar J', connecting the two. A vertical leg-rest L and horizontal platform N are rigidly connected and form a right angle, as shown in Fig. 1. The leg-rest L is attached between the two side bars J by pivots  $t$ , and said leg-rest has no connection with the chair-seat frame other than through the pivots  $t$ . The upper end of the leg-rest L is connected with the seat-support C by a link-rod  $x$ , whose end is jointed to the leg-rest by a pin  $x'$  and to the support by a pin  $x^2$ . This link-rod  $x$  serves to tilt the leg-rest relative to the down side bars J when the chair-seat frame D and said side bars are tilted back on pivots  $d'$ . The top of the leg-rest in the present instance has a slot  $i'$ , which makes room for the curved rack-bar on the chair-seat frame when the chair-body is tilted back, as in broken lines in Fig. 1.

At the front edge of the horizontal platform N is a joint  $u$ , by which the foot-rest P is pivoted. This foot-rest consists of a suitable cushioned bar or roller mounted on two prongs P', approximately V-shaped. The united lower ends of these prongs have ears  $u'$ , which form part of the said joint. A downward-projecting arm  $w$  is rigidly attached at the united ends of the prongs P', and said arm extends down from the joint and below the horizontal platform N. A link-rod Q, below said platform, connects the down arm  $w$  of the foot-rest with the cross-bar J' of the rigid depending frame. The construction here described and shown has the effect to place the foot-rest P in a certain relative position with respect to the leg-rest L when the chair is not tilted, (see full lines in Fig. 1;) but when the chair is tilted on its pivots  $d'$  then the position of the foot-rest P with respect to the leg-rest L is changed and is farther away from the latter, as indicated by broken lines in the

same figure, so that a person reclining and stretched at full length may have the foot-rest come at the desired distance to properly support the legs.

The rock-shaft  $p$  has another cam  $y$ , which bears upon the rear projecting arm  $j^2$  of the pawl-lever G. This cam is inoperative when the rock-shaft turns forward in the direction to work the other cam  $r$ . When turned forward in the inoperative position, a lug  $y'$  on the cam comes in contact with the top of a standard  $z$  and is thereby prevented from turning any farther; but when the rock-shaft turns in the opposite direction—i. e., backward—the cam  $y$  forces down the arm  $j^2$  of the pawl-lever and releases the pawl end  $j'$  from the rack-bar  $i$ . When turned in the backward direction, the rock-shaft and cam  $r$  have no effect on the stop-pin  $c'$ . Thus the rock-shaft and cam  $y$  will serve as a substitute for the treadle-lever mechanism.

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

1. In a chair the combination of a seat-support, C, having at opposite sides an upright standard,  $d$ ; an upward-curved rigid arm, C', attached at the rear of the seat-support and said arm provided at its top with a slotted guide,  $e$ , and two pins extending across the slot; a chair-seat frame secured by pivots,  $d'$ , to the said two upright standards and having side arms, F; a back, E, pivoted to the said side arms; and a downward-curved arm,  $h$ , attached by its upper end to the pivoted back and passing freely in the said slotted guide and provided at its lower end with a hook,  $h'$ , whereby the relative position of the back with respect to the seat is automatically changed when the chair is tilted, substantially as described.

2. In a chair the combination of a base center having a vertical spindle-hole; a seat-support, C, having a tubular spindle fitting in said hole; a seat-frame, D, pivoted on the seat-support so as to tilt and provided at its front with a downward rock-bar,  $i$ ; a pawl-lever, G, having three arms—the lower one pivoted to the seat-support, the upper one serving as a pawl and engaging the said rack-bar, and a rear projecting one having its end over the tubular spindle; a treadle-lever, H, carried by the tubular spindle; a rod,  $l$ , within the said tubular spindle and connecting the rear arm of the pawl-lever with the treadle-lever; and a spring,  $n$ , under the rear arm of the pawl-lever.

3. In a chair, the combination of a seat-support, C; a chair-seat frame pivoted on said seat-support so as to tilt; a rigidly-fixed frame attached to the chair-seat frame and comprising two down-projecting side bars, J, and a cross-bar, J', connecting them; a vertical leg-rest, L, centrally pivoted between the said two down side bars and having a platform, N, rigidly connected and forming a right an-



gle; a link-rod,  $x$ , connecting the upper end  
of the leg-rest with the said seat-support  
whereby the leg-rest will be tilted relative to  
the down side bars; a foot-rest, P, mounted  
5 on uprights which are pivoted at the front of  
the said platform and has an arm,  $w$ , project-  
ing down below the platform; and a link-rod,  
Q, below the platform connecting the said

arm with the cross-bar, J', of the depending  
rigid fixed frame.

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

FRANCIS DE FONTES.

Witnesses:

CHARLES B. MANN, Jr.,  
GEO. KOETHER.

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