

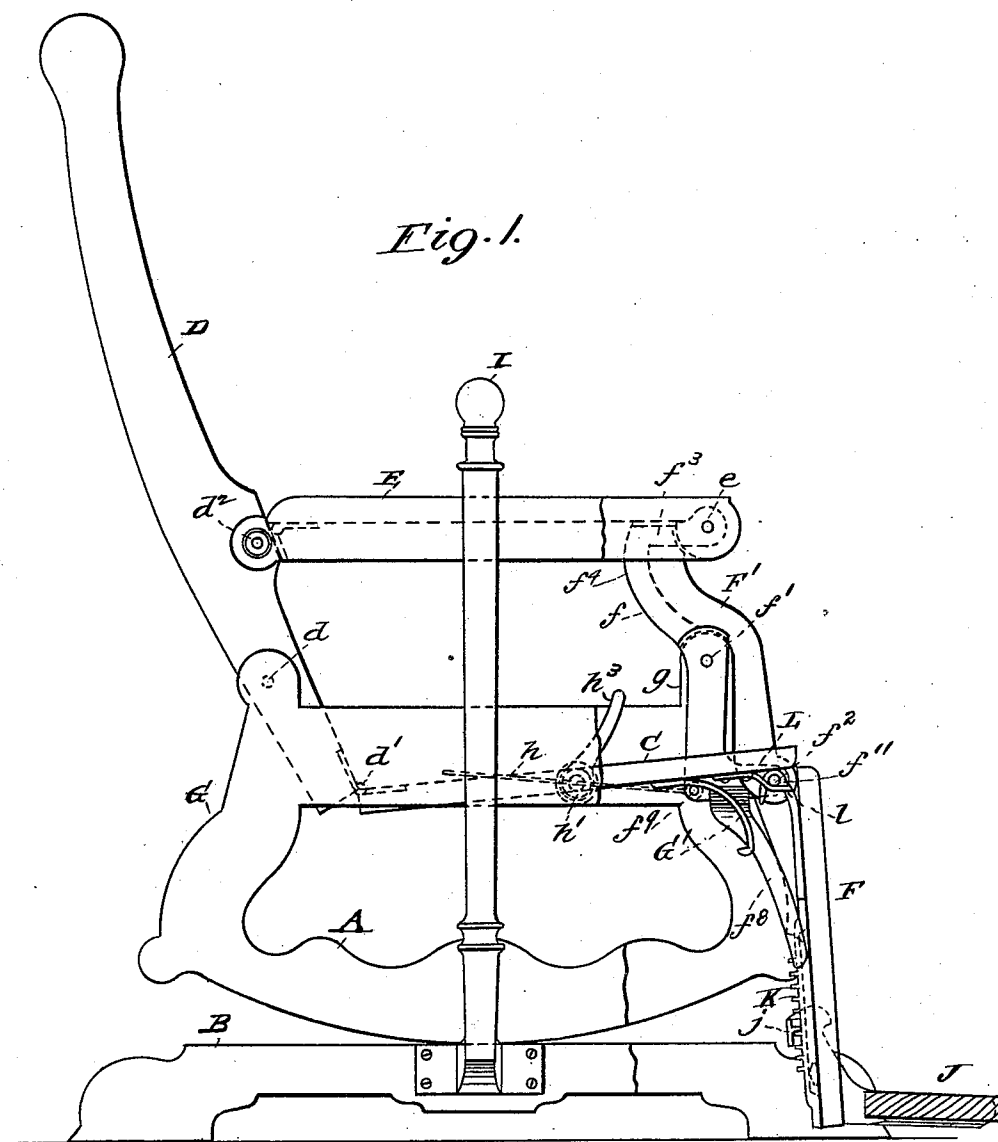
(No Model.)

4 Sheets—Sheet 1.

P. FLOWERS.  
CHAIR.

No. 463,600.

Patented Nov. 17, 1891.



WITNESSES  
*Edward L. Currie*  
*A. Bonville*

INVENTOR  
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*by C. D. Moody*  
*his atty.*

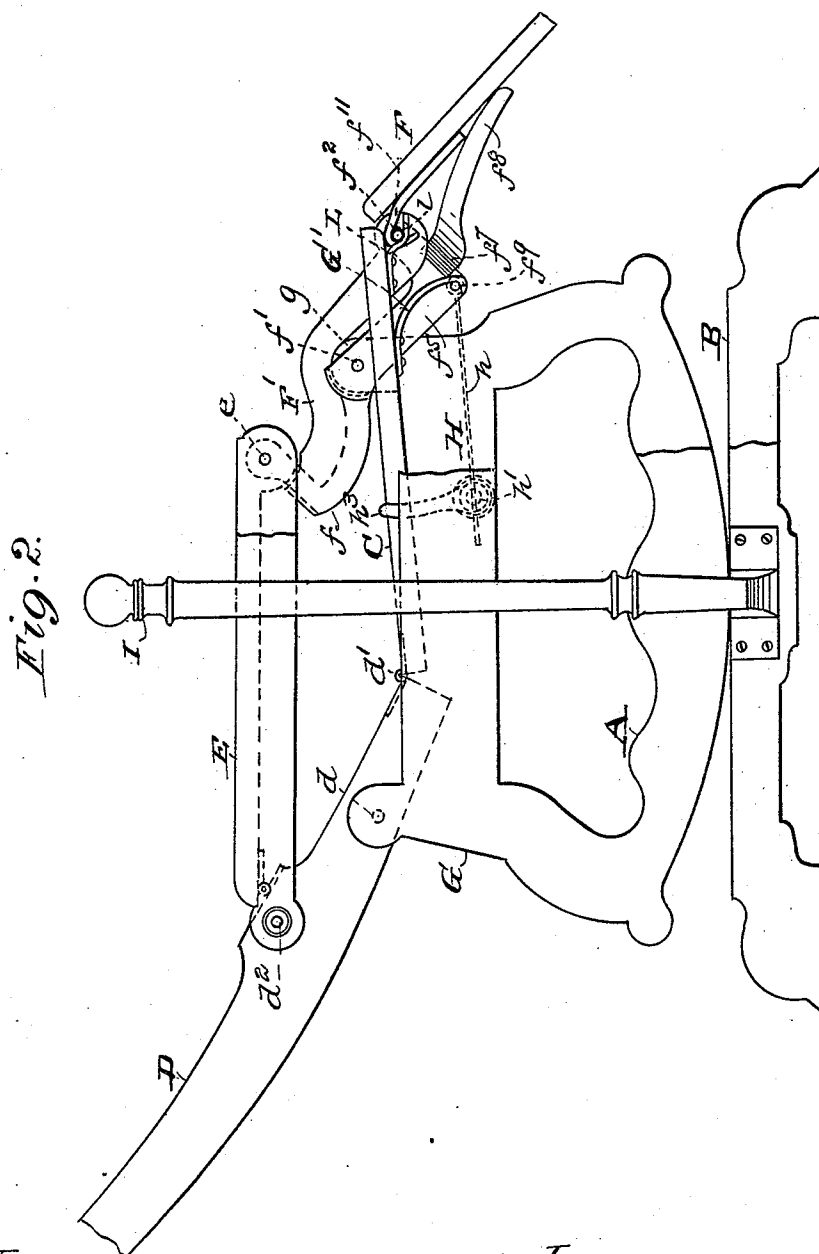
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CHAIR.

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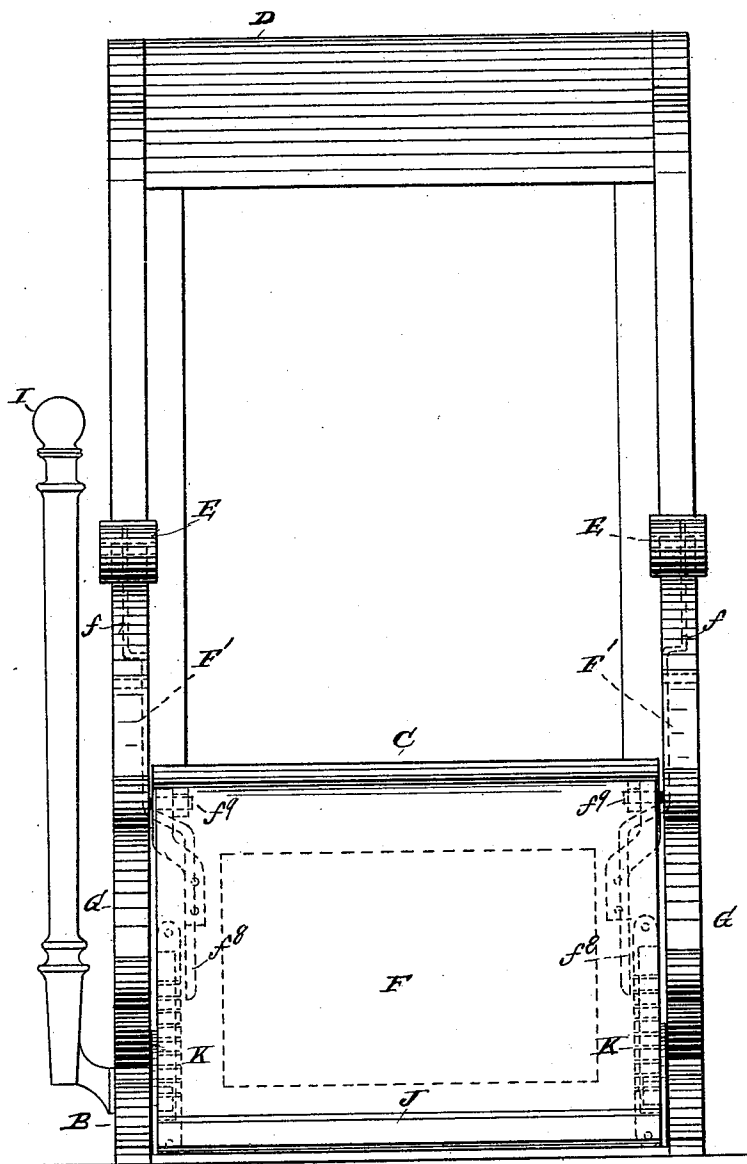
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*Fig. 3.*



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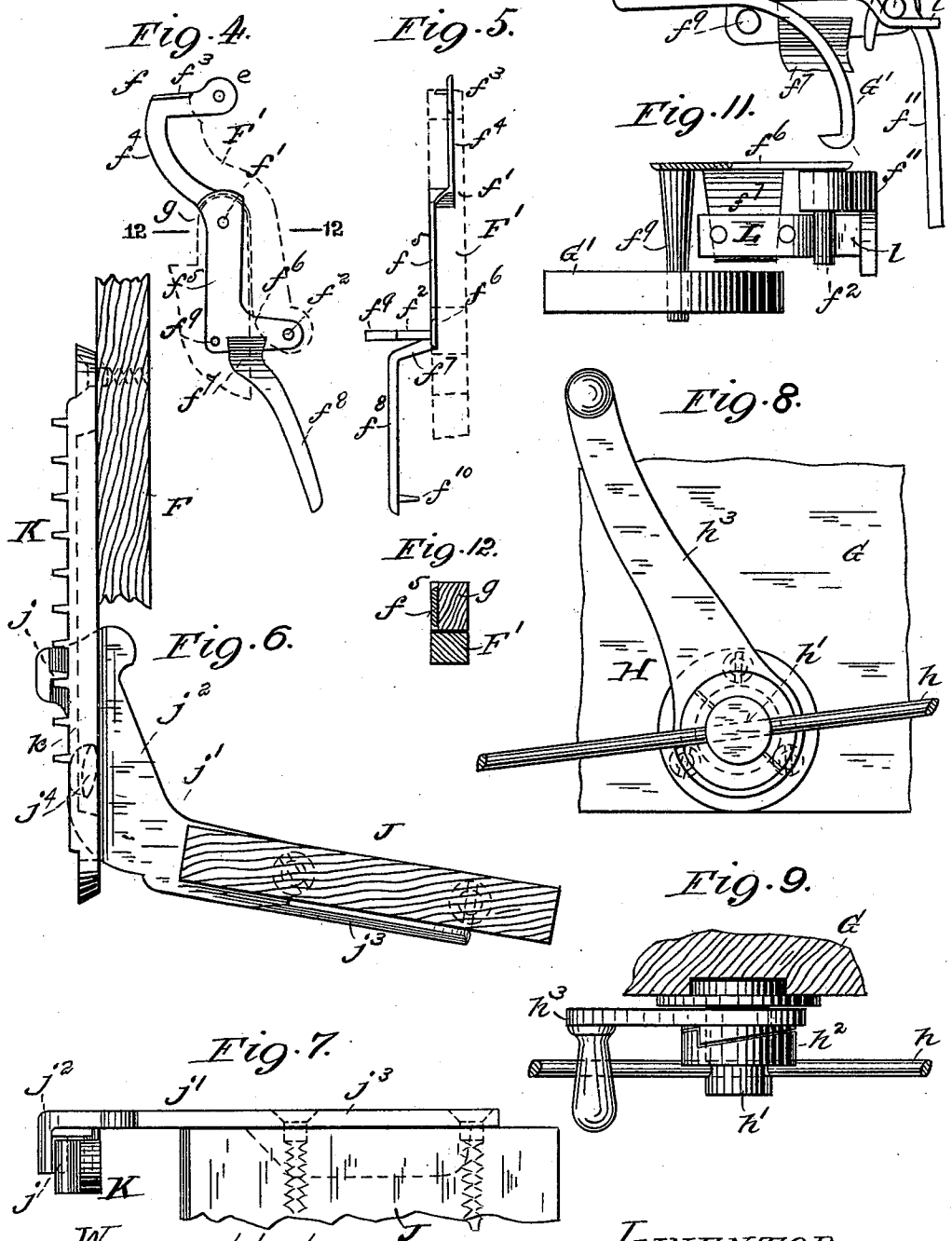
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# UNITED STATES PATENT OFFICE.

PHILIP FLOWERS, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO  
HENRY GIESELMANN, OF SAME PLACE.

## CHAIR.

**SPECIFICATION** forming part of Letters Patent No. 463,600, dated November 17, 1891.

Application filed February 5, 1891. Serial No. 380,394. (No model.)

*To all whom it may concern:*

Be it known that I, PHILIP FLOWERS, of St. Louis, Missouri, have made a new and useful Improvement in Chairs, of which the following is a full, clear, and exact description.

The improvement is adaptable to several forms of chairs—to household-chairs, car-chairs, and other chairs which it is desired to have recline.

The improvement relates, mainly, to the means employed in effecting the reclination of the chair, substantially as is hereinafter set forth and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is a side elevation of a chair having the improvement, portions being broken away and in section; Fig. 2, a side elevation, the chair being inclined; Fig. 3, a front elevation of the chair upright, and Figs. 4 to 12 details, Fig. 4 being an inside elevation of one of the irons used at the front, and respectively at the sides, of the chair for operating the leg-rest and for other purposes; Fig. 5, a rear edge elevation of the same; Fig. 6, an end elevation of the foot-rest, including the coacting part; Fig. 7, a plan of the parts of Fig. 6; Fig. 8, a side elevation of the lock; Fig. 9, a plan of the same; Fig. 10, a side elevation showing that portion of the iron of Figs. 4 and 5, and including the coacting hooks which lead from the seat and leg-rest; Fig. 11, a plan of the parts of Fig. 10, and Fig. 12 a section on the line 12 12 of Fig. 4. The last-named views, Figs. 4 to 12, are upon various scales. In Figs. 4 and 5 the adjacent wood-work is indicated by the broken lines.

The same letters of reference denote the same parts.

Saving as the chair may be modified or supplemented by the improvement under consideration it is of the customary construction. It may have, so far as many of its features are concerned, a fixed base, may be made to rock directly upon the floor, or to rock upon a base. The chair illustrated is of the last-named type, the chair having rockers A, adapted to be rocked upon a base B. The seat of the

chair is shown at C, and D represents the chair-back, E E the arms, and F the leg-rest. The back is jointed to the seat-frame G at  $d$ , to the seat C at  $d'$ , and to the arm E at  $d''$ . The arms E, at or toward the forward end thereof, are respectively jointed to what may be termed the "leg-rest bars"  $ff$ . These bars in turn are pivoted at  $f'$  to the posts  $g g$ , respectively, of the seat-frame, and they serve to connect the arms E at the forward end thereof with the seat-frame, to assist in supporting the leg-rest F, and to support the seat C at the forward end thereof, to which end the leg-rest bars are jointed. Owing to the seat-frame, back, arms, and leg-rest bars being jointed together, as described, the back can be turned upward and downward and the seat and leg-rest lowered and raised, substantially as shown in Figs. 1 and 2, respectively. As thus far described the construction is somewhat similar to what has been used; but in the construction referred to the seat, as the chair-back is shifted, rides upon bearings upon the leg-rest bars, and in consequence of this the position of the seat with reference to the leg-rest bars is changed in the adjustment of the chair. In the present chair the seat maintains a constant relation to the leg-rest bars, and at its forward end the seat is connected with the pins  $f^2 f^2$  upon the leg-rest bars, respectively, substantially as shown. The leg-rest bars serve other purposes. Their special form is shown more distinctly in Figs. 4 and 5. Commencing at the upper end thereof and looking toward the inner side thereof, as in Fig. 4, the bar from the position of the joint  $e$ , which unites the bar and the arm E, extends backward, substantially as shown at  $f^3$ , and thence downward and forward, substantially as shown at  $f^4$ , to the position of the pivot  $f'$ . The bar thence extends downward, substantially as shown at  $f^5$ , and thence forward, substantially as shown at  $f^6$ , to the position of the pin  $f^2$ . From the part  $f^6$  an arm of the bar extends downward and forward, the arm in question extending from the part  $f^6$  first horizontally, or nearly horizontally, inward, substantially as shown at  $f^7$ , and

thence downward and forward, substantially as shown at  $f^3$ . The portion  $f^3$ , as seen in Fig. 5, is arranged in a plane farther inward than that of the part  $f^4$ . At the angle of the parts  $f^5 f^6$  the bar is provided with an inwardly-extending stud  $f^9$  and at the lower end of the part  $f^8$  in an outwardly-extending stud  $f^{10}$ .

In addition to serving as a means for jointing the seat to the leg-rest bars the pins  $f^2 f^2$  serve also to connect the leg-rest with the leg-rest bars, the leg-rest being provided with hooks  $f^{11}$ , which hang upon said pins, substantially as shown, and preferably on the outside of the irons L, used in jointing the seat to said pins. The seat at its sides, respectively, and toward its forward end is provided with hooks  $G'$ , which extend from the seat forward and downward, substantially as shown. These hooks coact with the studs  $f^9$  upon the leg-rest bars. When the chair is adjusted in its upright position, Fig. 1, the hooks extend downward and forward from the position of the studs; but when the chair is reclined, Fig. 2, the hooks engage with the studs.

An additional feature is the lock H, consisting of a rod  $h$ , jointed at its forward end to some part, such as the stud  $f^9$  upon the leg-rest bar, and extending thence backward and through a perforated bearing  $h'$ , attached to the seat-frame and provided with a cam  $h^2$ , with which coacts a journaled cam-lever  $h^3$ . After the chair has been adjusted it can be locked by turning the cam-lever to wedge the cam  $h^2$  against the rod  $h$  sufficiently to tighten it in the bearing  $h'$ . The lower portion—namely, the part  $f^8$ —of the leg-rest bars serves to support the leg-rest when the chair is reclined, substantially as shown. To enable the described movable parts of the chair to work properly upon each other, the distance between the joint  $e$  and the joint  $f'$ , the distance between the joint  $f'$  and the joint  $f^2$ , and the distance between the joint  $d$  and the joint  $d'$  are the same. This rule, however, can be and is deviated from in chairs for larger persons, and the distance between the joint  $e$  and the joint  $f'$  be made longer than the distance between the joint  $f'$  and the joint  $f^2$ .

An additional feature is the standard I. It is attached at the side of the chair to the base, and extends thence upward to within reach of the occupant of the chair, who, by grasping and drawing upon the standard, can readily rock the chair upon its base.

A remaining feature of the construction is the mode of adjusting the foot-rest J upon the leg-rest. The leg-rest is provided with rack-bars K K and the foot-rest is provided with coacting teeth  $j j$ . The teeth are attached, respectively, to arms  $j' j'$ , which are secured to the foot-rest at the ends, respectively, thereof, and which are shaped and arranged to in-

close and to be slipped upon the rack-bars, respectively, at the outer edge thereof, substantially as shown. Each arm is of the right-angular shape shown, the portion  $j^2$  of which slides upon the rack-bar and the portion  $j^3$  is attached to the foot-rest. The tooth  $j$  is attached to the arm portion  $j^2$  toward the outer end thereof.

To adjust the foot-rest it is turned upon the rack-bars sufficiently to disengage the teeth  $j j$  and is then slipped upon the rack-bars to the proper point thereon, and then by allowing the foot-rest to rock backward to bring the teeth  $j j$  into engagement again with the rack-bars the foot-rest is secured.

To enable the foot-rest to be thus slipped and rocked upon the rack-bars, each arm portion  $j^2$  is provided with a stud  $j^4$ , which projects inward to ride upon a ledge  $k$  upon the rack-bar. The tooth  $j$  and the stud  $j^4$  not being opposite each other, but relatively arranged as shown substantially in Fig. 6, the foot-rest can be rocked upon the rack-bar to effect the engagement and disengagement of the tooth. When the tooth is engaged, the weight of the foot-rest serves to keep it in engagement.

The preferred mode of connecting the seat at its forward end with the leg-rest bars is by means of the irons L L and the pins  $f^2 f^2$ . The irons are attached to the seat, and at the outer end  $l$  thereof they extend to come beneath the pins  $f^2 f^2$ , respectively, and substantially as shown in Figs. 10 and 11 more distinctly. In Figs. 1 and 2 the ends  $l$  are modified slightly in shape; but in either case the seat at its forward end cannot, by reason of the engagement of the irons with the pins, as described, be uplifted. The part  $f^8$  and stud  $f^{10}$  of the leg-rest bars serve to uplift and sustain the leg-rest when the chair is reclined. This position is indicated in Fig. 2. To give a finish to the leg-rest bars at the upper part thereof pieces  $F' F'$  are attached to the bars respectively.

I claim—

1. The combination, with the chair-arms, the seat-frame posts, and the seat having connected to its under side at the forward edge the angle-irons, of the leg-rest bars pivoted to the forward ends of the arms and to the forward seat-frame posts and having a forwardly-extended portion  $f^6$ , provided with pins or studs engaged from below by the angle-irons, and the leg-rest having their suspending hooks also engaging said studs or pins, said leg-rest bars being extended downward and forward to support said leg-rest when the chair is reclined, substantially as set forth.

2. The combination of the seat-frame, the arms, the leg-rest bars pivoted to said arms and seat-frame, and the leg-rest, said leg-rest being hung upon bearings upon said leg-rest bars, and said leg-rest bars being extended downward and forward to support said leg-

rest when the chair is reclined, substantially as described.

3. The combination, with the seat provided upon its under side with the angle-irons, the  
5 leg-rest bars provided with pins or studs engaged by said angle-irons from the under side, and the leg-rests having their suspending hooks also engaging said studs or pins, said leg-rest bars being extended downward

and forward to support said leg-rest when the chair is in its reclined position, substantially as specified.

Witness my hand this 22d day of January, 1891.

PHILIP FLOWERS.

Witnesses:

C. D. MOODY,

HENRY GIESELMANN.