No. 673,578. Patented May 7, 1901.

S. W. JOHNSON.

CHAIR.

(Application filed Dec. 4, 1900.)

(No Model.)

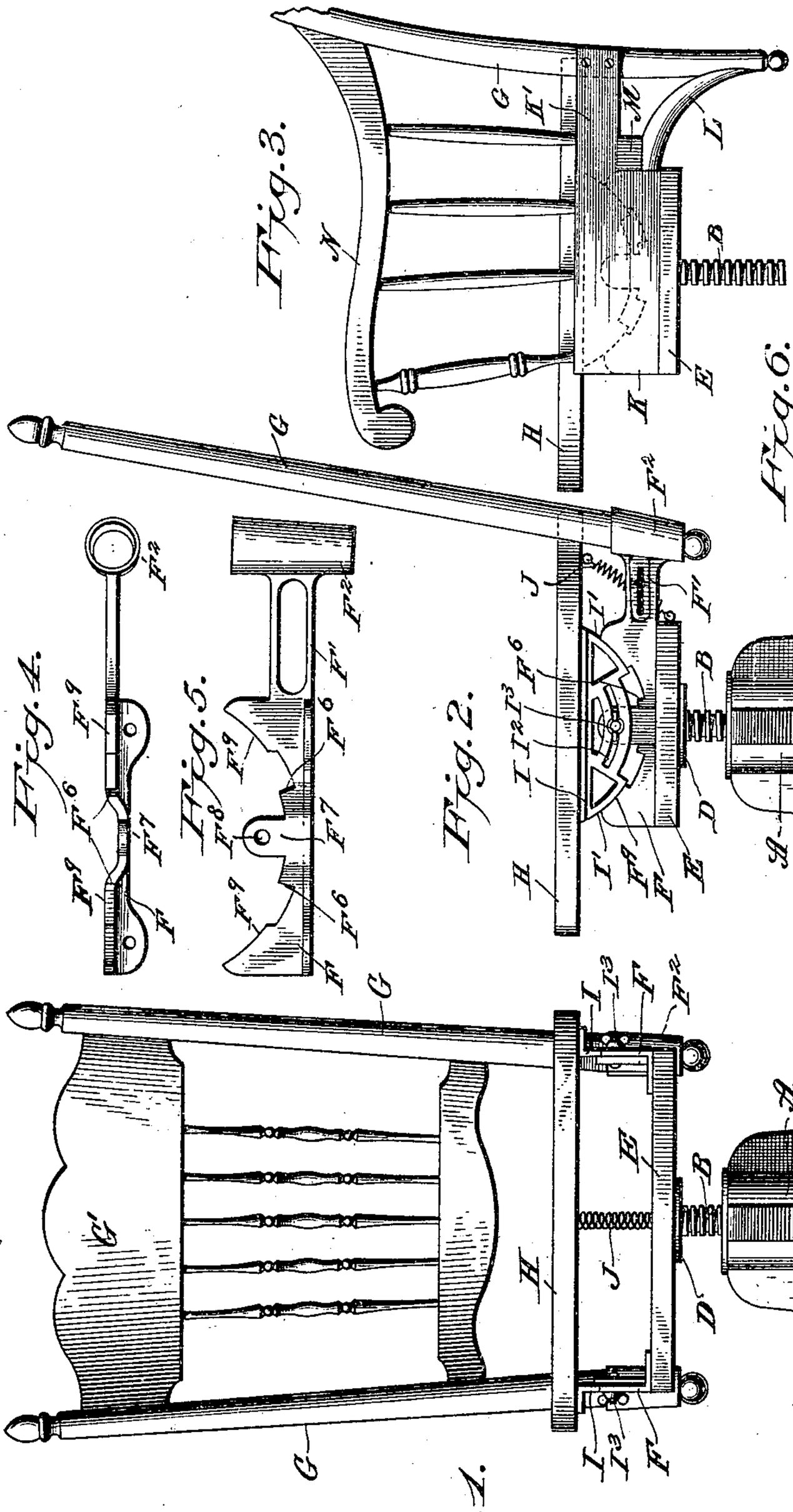

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 2.

Fig. 6.

Fig. 1.

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UNITED STATES PATENT OFFICE.

SAMUEL W. JOHNSON, OF NEWPORT NEWS, VIRGINIA.

CHAIR.

SPECIFICATION forming part of Letters Patent No. 673,578, dated May 7, 1901.

Application filed December 4, 1900. Serial No. 38,650. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL W. JOHNSON, a citizen of the United States, residing at Newport News, in the county of Warwick and State of Virginia, have invented new and useful Improvements in Chairs, of which the following is a specification.

This invention relates to improvements in chairs, and has particular reference to certain improvements of those constructions of chairs made the subjects-matter of certain prior United States patents granted me—to wit, No. 633,087, dated September 12, 1899, and No. 657,875, dated September 11, 1900.

The main objects of my present invention are to provide a cheap and economical construction of chair wherein the advantages of the tilting and revolving seats illustrated and described in the patents hereinbefore referred to are retained, and in addition to obtain the advantage of having the back thereof revolve, yet not tilt with the seat, so that I gain all the advantages heretofore described which arise from a seat tilting independent of the back, such as ready adaptation to any of the various positions the occupant may assume, and yet the chair as a whole may be revolved.

A further object is to provide a new and improved means for limiting the tilting motion of the seat, and also for securing said seat, when it is desired to permanently adjust the same, at any point of its inclination or tilt.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a front elevation of a chair embodying my improvements. Fig. 2 is a side elevation of the same. Fig. 3 is a side elevation of a slightly-modified construction of chair, one wherein arms are provided. Figs. 4 and 5 are a top plan and side elevation, respectively, of one of the rest-bars employed and upon which the seat tilts, illustrating a modification of the same. Fig. 6 is a detail in elevation of one of the guide rest-bars.

Similar letters of reference indicate similar parts in all the figures of the drawings.

The base of the chair may be of any style desired, but in this instance consists of the central casting or socket A, threaded or not, to receive the usual spindle or screw B, and otherwise formed to accommodate the radiating legs C. At the upper end of the screw or spindle is located a head or flange D, which is secured in any suitable manner to the under side and at the center of a platform E.

At each side of the platform and parallel to the opposite side edges thereof is secured a rest-bar F. The bar F is preferably angular in cross-section, and the lower branch or base forms a securing-flange, through which screws may be passed into the platform E and by means of which the two are rigidly held together. The rear ends of the rest-bars F may be extended and reduced to form extensions or arms F′, which may terminate in eyes or sockets F^2, the latter designed to receive the lower ends of the side standards G of a chair-back G′. These arms or extensions F′ may be made rigid, Figs. 4 and 5, but preferably are not so formed, but, as illustrated in Figs. 1, 2, and 6, wherein they are composed of two overlapping members F^3 F^4, connected by an ordinary bolt-and-slot connection F^5. In this manner the chair-back may be adjusted at any desired distance from the seat and then secured, a very important and advantageous point in my invention.

That portion of each of the two rest-bars F which is immediately above the platform E is at its upper edge and at opposite ends provided with curved or segmental guide-recesses F^9, occurring at each side of the center thereof. Between these guide-recesses stop-shoulders F^6 are also formed, and rising from the center of each guide rest-bar between the stop-shoulders and offset laterally from the same is a post F^7, in which is formed an opening F^8.

The seat H surmounts the rest-bars F and may be somewhat reduced, as shown, at its rear end, so as to engage loosely between the side standards G, whereby the latter may form a guide for the seat during the vertical vibrations of the latter.

To the under side of the seat H are secured in vertical alinement with the rest-bars F rockers I, each of which is preferably angular in cross-section and has its bottom edge formed at each side of its center with segmental or curved bearing-faces I′, which operate upon and conform to the segmental guides of the rest-bars F, the inner ends of the said bearing-faces I′ being in alinement with and therefore adapted to abut against the stop-shoulders F^6. The upper edges or flanges

of the rockers permit of the passage therethrough of screws, whereby the said seat and the rockers are firmly secured together. Between the bearing-faces of each rocker the latter may be formed with a segmental slot I^2, the same being opposite to and therefore registering with the hole F^8 in the post F^7, whereby the rockers and rest-bars are adapted to be adjustably connected by means of ordinary binding-bolts I^3, passed through the slots and into the holes.

To improve the appearance of the chair by always maintaining the seat thereof in a horizontal position when unoccupied, I may employ a return-spring J, the opposite ends of which are attached to the under side near the rear end of the seat and to the platform E. This spring is not sufficiently strong to interfere with the free operation of the tilting seat as the same changes its position to agree with the position of the occupant, as described at length in the patents referred to, but is simply intended to return the seat to a substantially horizontal position when the latter has been occupied, tilted, and subsequently vacated.

In Fig. 3 I have illustrated the application of my invention to an arm-chair. Of course the seat tilting independent of the back precludes the possibility of connecting the seat and back by the arms. To avoid this, I may employ side pieces K, securing the same to the opposite side edges of the platform E outside the rest-bars, the said side pieces being preferably extended rearward beyond the platform in the form of reduced extensions K′ and secured by screws or other means to the standards G of the chair-back. In this latter construction the rest-bars may not be formed with the rearward extensions F′. In the present instance I have herein omitted them and in their stead have substituted diagonal braces L, connecting the ends thereof to the lower ends of the standards G and to a cross-piece M, located under, secured to, and connecting the side pieces K. The arm N of the chair is secured to the standards G and the spindles supporting the same to the upper edges of the side pieces K.

It will be observed that the chair-seat may be tilted vertically, and will thus automatically conform to the position and proportion of the occupant thereof, the seat only being limited by the bearing-faces coming in contact with the stop-shoulders; that the seat thus tilted may be secured so as to remain in that adjusted position; that when not so secured it will automatically return to a horizontal position, and, finally, that the seat and back, while independent so far as the tilting action of the seat is concerned, yet will revolve together, as is the case with the ordinary revolving chair.

Having described my invention, what I claim is—

1. In a chair, the combination with a swiveled support, of a back carried thereby and adapted to move therewith, and a seat also carried by the support and adapted for like movement, said seat being independent of the back, and means for supporting the seat for vertical rocking or tilting.

2. The combination, in a chair, of a seat, a pair of rockers secured thereunder and provided each with a segmental slot, opposite guide rest-bars recessed to receive said rockers and each provided with an offset perforated post, and binding-bolts passed through the slots and engaged by the perforations.

3. In a chair, the combination with a seat, and the depending rockers I, provided with bearing-surfaces I′, and curved slots I^2, of the guide rest-bars F, recessed as at F^9, and provided with the intermediate stop-shoulders F^6 and offset posts F^7, perforated as at F^8, and the binding-bolts I^3.

4. In a chair, the combination with the seat, and rockers therefor, of guide rest-bars mounted in the chair-frame and designed to receive said rockers, and a chair-back secured to the said guide rest-bars.

5. In a chair, the combination with the seat, and rockers therefor, of guide rest-bars mounted in the chair-frame and designed to receive said rockers, said guide rest-bars having their rear ends extended to form arms and terminating in eyes, and the chair-back having its side standards located in said eyes.

6. In a chair, the combination with a base, a swiveled support, a platform mounted thereon, and a back carried by said platform, of a seat independent of the back, and means for supporting said seat for vertical tilting upon said platform.

7. In a chair, the combination, with the seat, rockers therefor, a chair-frame and guide rest-bars mounted therein and receiving said rockers, and a chair-back independent of the seat and frame and adjustably secured with relation to the seat to said guide rest-bars.

8. In a chair, the combination with a seat, and rockers for the same, of a chair-frame, guide rest-bars receiving said rockers, said rest-bars having their rear ends extended, a pair of plates adjustably mounted on said extended ends, and a chair-back supported by said plates.

9. In a chair, the combination with a seat, and rockers for the same, of a chair-frame, guide rest-bars receiving said rockers, said rest-bars having their rear ends extended, a pair of slotted plates adjustably mounted on said extended ends and terminating in eyes or sockets, a chair-back having its standards seated in the sockets, and adjusting-bolts passed through the said extended ends of the guide-bars and slots of the plates, whereby the latter are adjustable.

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

SAMUEL W. JOHNSON.

Witnesses:

REBECCA T. JOHNSON,

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