H. H. PAINE. OFFICE CHAIR.

(Application filed Aug. 16, 1900.)

(Ne Model.) Fig:6 Fig 24 Fig:5 Wirnesses: Inventor. Ssewy Ss. Same. Chas a. Valter.

United States Patent Office.

HENRY H. PAINE, OF PHILADELPHIA, PENNSYLVANIA.

OFFICE-CHAIR.

SPECIFICATION forming part of Letters Patent No. 666,110, dated January 15, 1901.

Application filed August 16, 1900. Serial No. 27,027. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. PAINE, a citizen of the United States, and a resident of the city and county of Philadelphia, State of 5 Pennsylvania, have invented certain new and useful Improvements in Office-Chairs, of which the following is a specification.

My invention relates to improvements in office-chairs, and more particularly to imro provements in the base upon which the chair rests and in the tilting arrangement which connects the base and the chair-seat, the object of my invention being to simplify and

cheapen these constructions.

In the accompanying drawings, forming part of this specification, and in which similar letters of reference indicate similar parts throughout the several views, Figure 1 is a front elevation of a chair-seat furnished with 20 my improved tilting arrangement and base, the upper part of the latter being shown in section; Fig. 2, a plan on a small scale of the spider of the tilting arrangement; Fig. 3, a side elevation of Fig. 2; Fig. 4, a side eleva-25 tion of bracket engaging top of bearings carried upon ends of main arms of spider; Fig. 5, a front elevation of Fig. 4; Fig. 6, a side elevation of tension-spring for tilting apparatus.

L, Fig. 1, is a seat of a chair, and M brackets 30 secured at opposite sides of the bottom of the chair-seat and furnished with inwardly-projecting arms N, the under sides of which are concave in shape.

C is a four-armed spider, two of the oppo-35 site arms of which are furnished with short shafts O, adapted to engage the concaved un-

der parts of the arms N.

B represents coil-springs surrounding arms N and shafts O, the ends of which bear one 40 against the bottom of the chair-top and the other against a tension-adjusting screw A, which is carried by the rearwardly-extending

lugs P, carried by the arms R of spider C. The springs B, surrounding arms N and shafts O not only act as the means for normally re- 45 turning the seat to its horizontal position, but serve as the means for securing the seat to the spider. The arms T of the spider, which are placed at right angles to the arms R, serve as stops for limiting the tilting movements of 50 the chair.

D is a screw upon which the spider C is carried. The upper part of this screw has a

groove E cut around it.

F is a thumb-screw carried by spider C, the 55 point of which is adapted to enter groove E to lock the spider to this screw in order that the screw may be turned by turning the chair to raise or lower this latter or to serve as a stop to attach the spider to the screw, while 60 permitting the free turning of the former on the latter without revolving the latter.

G is a thumb-screw passing through base H, by means of which the screw D may be locked

to the base.

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

The combination with a chair of a spider having oppositely-extending arms carrying 70 journals as described, brackets furnished with bearings carried by the chair-seat against the bottoms of which the tops of the journals of said spider bear, coil-springs surrounding and preventing said bearings and journals from 75 separating, the ends of said springs extending backward from the coiled part, one end adapted to bear against the bottom of the seat and the other against an adjusting-screw carried by the spider-arms, and the said screw.

HENRY H. PAINE.

Witnesses:

GEORGE W. SELTZER, CHARLES A. RUTTER.