March 1, 1949. M. FOX 2,463,257

RESILIENT MOUNTING MEANS FOR TILTING CHAIRS

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Fig. 1.

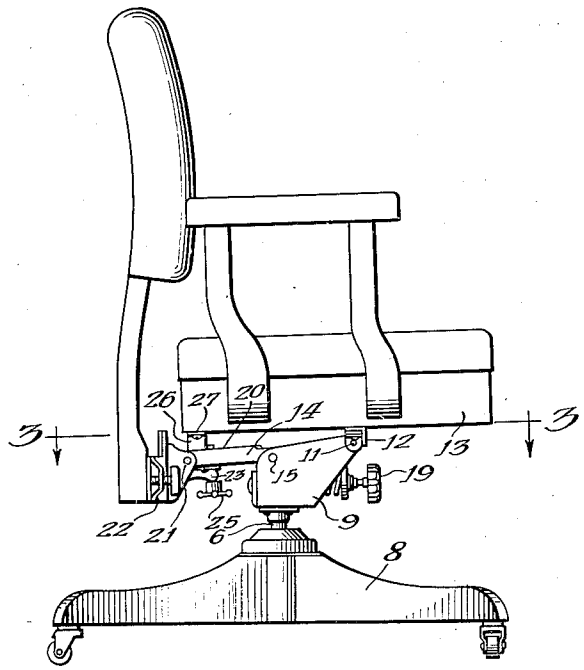
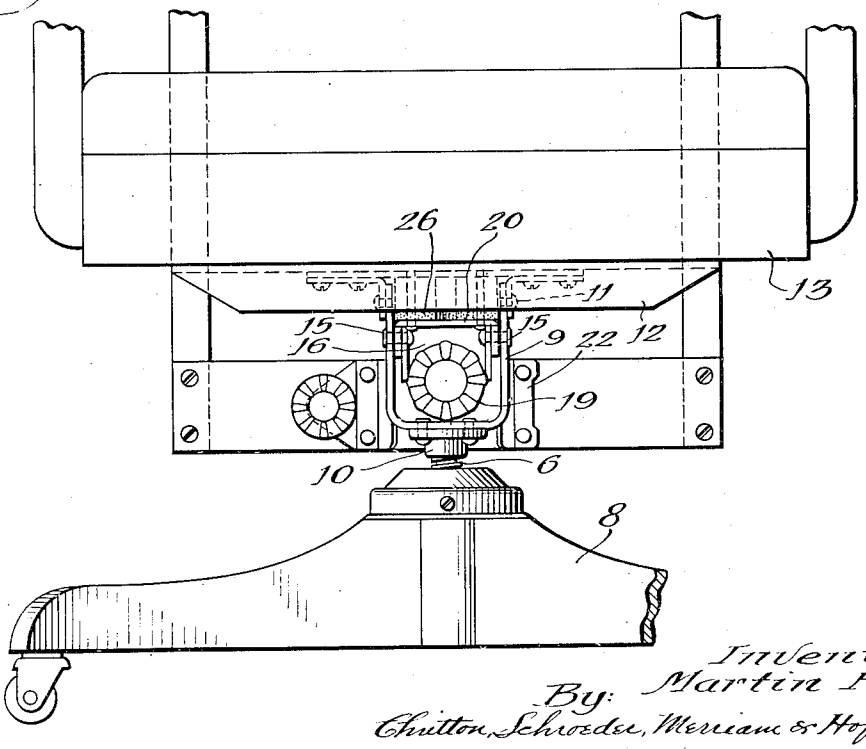


Fig. 2.



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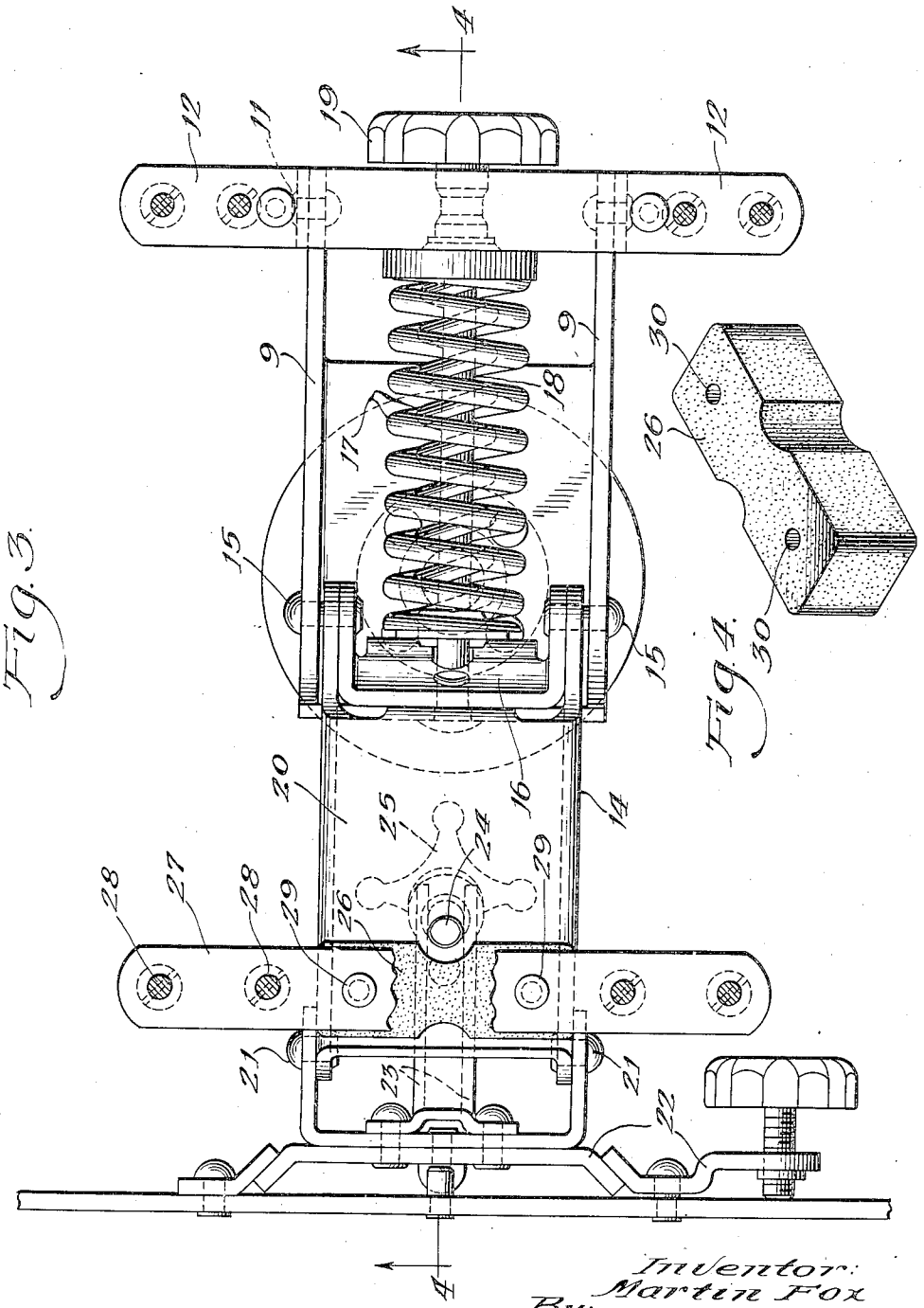


Fig. 3.

Fig. 4.

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Filed June 25, 1947 3 Sheets-Sheet 3

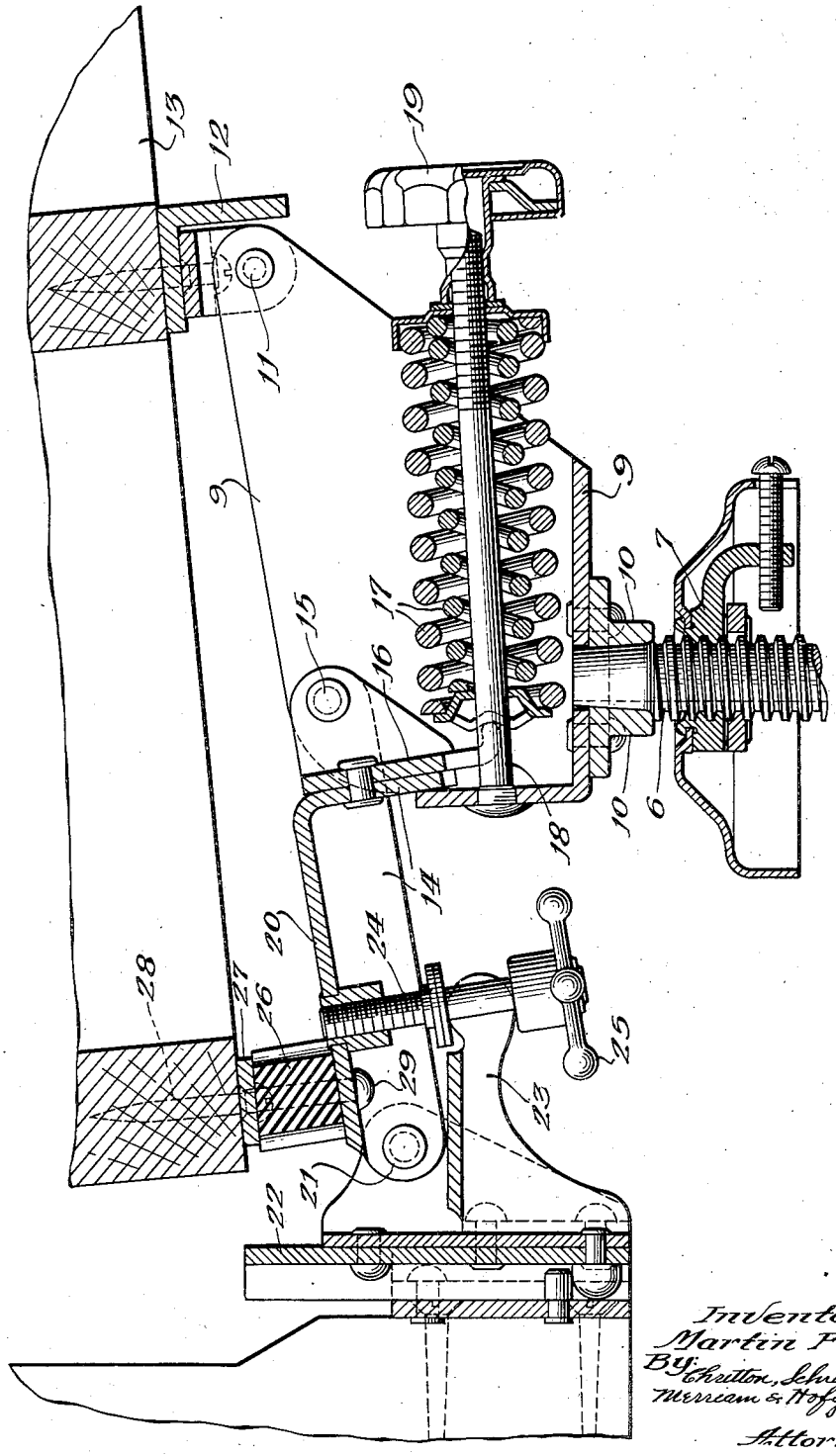


Fig. 5.

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RESILIENT MOUNTING MEANS FOR TILTING CHAIRS

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Application June 25, 1947, Serial No. 756,837

4 Claims. (Cl. 155—77)

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This invention relates to chair irons for swivel chairs wherein the back member and seat are resiliently mounted.

The primary object of the invention is to provide a chair iron of simplified construction, wherein lost-motion connections are avoided and the seat member is provided with a cushioned support in addition to the usual spring-held support.

A further object of the invention is to reduce the number of pivotal connections, so that there is less chance for wear to occur and squeaks to develop.

The invention is illustrated in a preferred embodiment in the accompanying drawings, in which—

Figure 1 is a side elevational view of an office chair equipped with the improved chair iron; Fig. 2 is a fragmentary front elevational view of the chair; Fig. 3 is a plan sectional view, taken as indicated at line 3—3 of Fig. 1; Fig. 4 is a perspective view of the cushion member; and Fig. 5 is a fragmentary vertical sectional view, taken as indicated at line 4—4 of Fig. 3.

In the embodiment illustrated, a threaded post 6 is adapted to fit in a height adjusting nut 7 mounted in a chair base 8. A head 9 is of U-shaped cross section and is riveted to a bracket 10 which is fixed to the top of the post 6. The head has a pair of forwardly extending arms which make a hinge connection, as indicated at 11, with a bracket 12 which is adapted to be secured to the front portion of the seat member 13.

A bell crank member 14 is pivotally connected to the head 9, as indicated at 15, and has a downwardly extending bifurcated arm 16 which is urged rearwardly by compression springs 17 whose tension may be adjusted by a bolt 18 having its head secured in an upwardly extending portion of the head 9 and is provided at its other end with a knob 19.

The bell crank also has a rearwardly extending arm 20, to which is pivotally connected at 21 a back-supporting bracket 22. The bracket has a forwardly extending arm 23 which is bifurcated and engaged by an adjusting screw 24 which makes a threaded connection with the crank arm 20 and is provided with a hand knob 25.

A block of rubber-like material 26 is surmounted by a metal cross bar 27 which is adapted

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to be secured to the rear portion of the seat member 13 by screws 28. A pair of studs 29, with heads at opposite ends, extend loosely through holes 30 in the cushion member 26 and through the crank arm 20 and the cross bar 27. These studs prevent the rear portion of the seat member from being lifted away from the chair iron. However as best shown in Figs. 1 and 5, the rear portion of the seat member rests on the yielding cushion 26, and in addition to the springiness provided by the springs 17 the rear portion of the seat member is further cushioned by the member 26.

When the chair iron is installed in a chair, a toggle-like leverage is set up between the seat member 13, the head 9 and the rearwardly extending crank arm 20. As the pivotal connections at 11 and 15 are fixed, a yielding connection is needed at the rear of the seat member. The block of rubber-like material 26 is sufficient to accommodate that slight movement.

The foregoing detailed description is given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, for some modifications will be obvious to those skilled in the art.

I claim:

1. A chair iron comprising: a post having a fixed head extending forwardly and provided with a front hinge connection for a seat member; a bell crank member pivotally connected to the rear portion of said head and having a downwardly extending arm and a rearwardly extending arm; spring means on said head urging said downwardly extending arm rearwardly; and a cushion member disposed between said rearwardly extending crank arm and the rear portion of the seat member.

2. A device as specified in claim 1, in which the cushion member comprises a block of rubber-like material.

3. A device as specified in claim 1, in which the cushion member comprises a block of rubber-like material surmounted by a metal cross bar adapted to be secured to the rear portion of a seat member, and loose fastening means are provided extending through the rearwardly extending crank arm, said cushion member and said cross bar.

4. A chair iron comprising: a post having a fixed head extending forwardly and provided with

a front hinge connection for a seat member; a bell crank member pivotally connected to the rear portion of said head and having a downwardly extending arm and a rearwardly extending arm; spring means on said head urging said downwardly extending arm rearwardly; a back-supporting bracket hinged to said rearwardly extending crank arm; means for adjusting the angle of said bracket with respect to the rear crank arm; and a block of rubber-like material mounted on the top of said rearwardly extending crank arm and adapted to support the rear portion of the seat member.

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