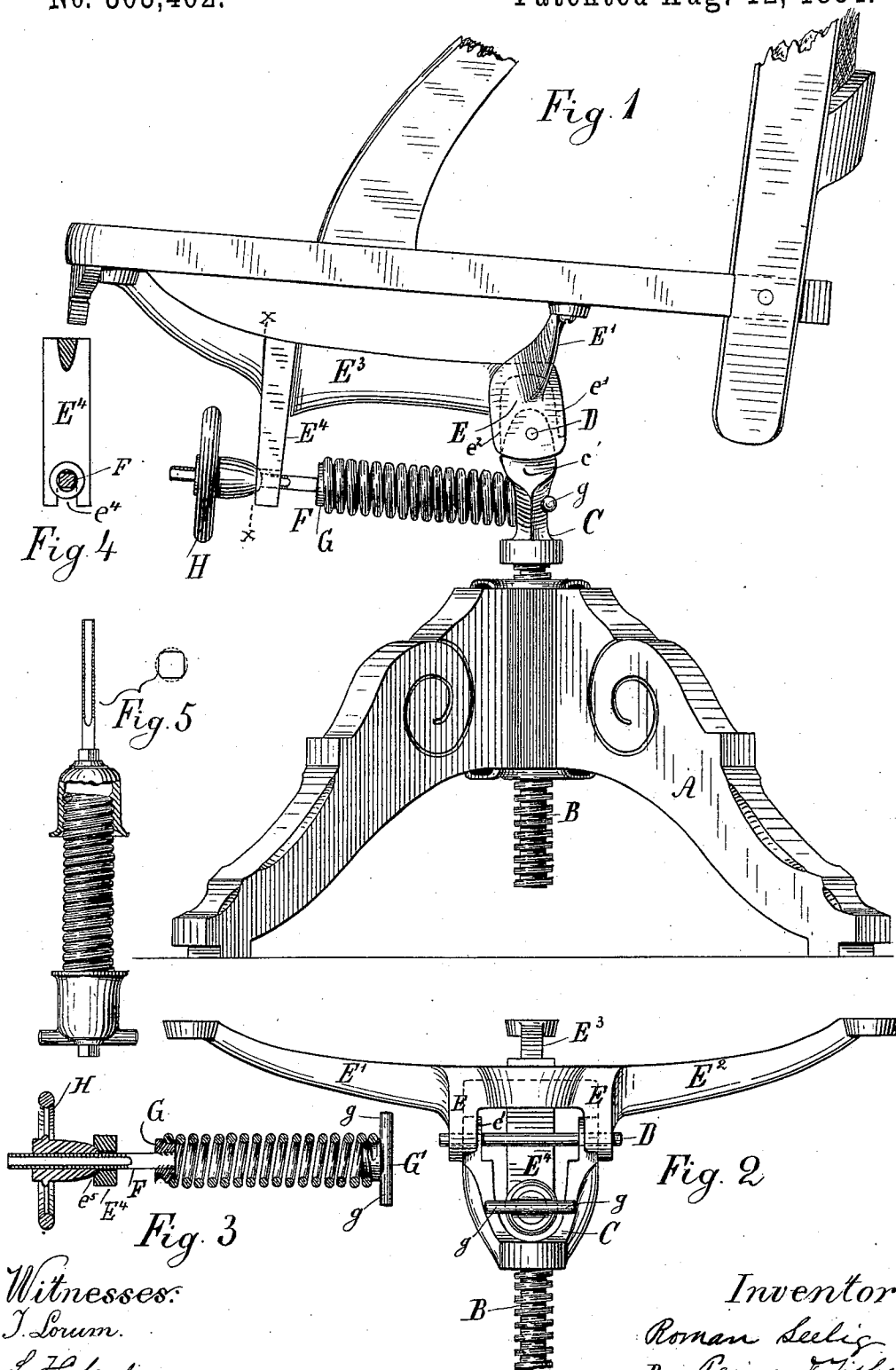


(No Model.)

R. SEELIG.
TILTING CHAIR.

No. 303,462.

Patented Aug. 12, 1884.



Witnesses:
J. Loun.
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UNITED STATES PATENT OFFICE.

ROMAN SEELIG, OF CHICAGO, ILLINOIS, ASSIGNOR TO JOSEPH W. KENNA,
OF SAME PLACE.

TILTING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 303,462, dated August 12, 1884.

Application filed June 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, ROMAN SEELIG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tilting-Chairs, of which I do declare the following to be a full, clear, and exact description.

Figure 1 is a view in side elevation of a tilting-chair of my improved construction. Fig. 2 is a view in rear elevation of the improved chair-irons detached from the base and body of the chair. Fig. 3 is a detail view in longitudinal section of the spiral spring and its adjusting mechanism; and Fig. 4, a sectional view on line *x x* of Fig. 1, showing in front elevation the spring-holding lug of the spider. Fig. 5 is a view of a modified form of connection for the chair-spring.

A designates a tripod or base, of ordinary construction, provided with a suitable threaded nut to receive the spindle B, by means of which the chair is revolved and raised and lowered. Upon the top of this spindle B, and preferably cast integral therewith, is the yoke-shaped standard C, the arms *c* of which are perforated to receive the pivot-pin D, which passes through said arms and through the outlying lug *e*, depending from the spider E, the side arms, *E'* *E''*, and front arm, *E'''*, of which are connected to the chair-seat, as shown. The lugs *e* are provided upon their inner sides with front and rear flanges, *e'* and *e''*, within which fit the inclined or rounded upper ends of the arms *c*, in such manner that the lower ends of these flanges will serve to limit the extent of the tilting movement of the chair by bearing upon the edges of the arms *c*. Depending from the arms *E'* of the spider is the extension *E'*, having in its lower end the vertical slot *e'*, and upon its front face the seat or socket *e''*. Through the slot *e'* extends the threaded square rod F, fitting snugly within the slot, and carrying upon its inner end the nut G, threaded in such manner as to enable it to screw into and firmly hold the forward end of the spiral traction-spring H. Within the seat *e''* of the lug *E'* rests the projecting hub of the threaded hand-wheel H', by which the tension of the spiral spring is adjusted.

The rear end of this spring extends between the arms of the standard C, and into it is screwed the threaded nut G', having the pivot *g*, the ends of which lie within suitable seats formed on the back of the arms *c*, and serve to retain the end of the spring, said pivots acting also, in conjunction with the rounded hub-bearing of hand-wheel H', to permit the spring to adapt itself to the various and quickly-shifting radial positions of the chair tilting about its supports without bending strain on said spring or tendency to displace it from position.

From the construction of parts, as thus defined it will be seen that when the spider is fitted upon the yoke-arms of the standard and the pivot-bolt has been inserted in its place the chair can be freely tilted, the extent of its movement being limited by the striking of the flanges *e'* and *e''* against the edges of the standard-arms *c*. If, now, the spring, with its threaded nut G and nut G', be inserted through the yoke-arms, and the arms of the nut G' be placed in their seats on the back of the yoke-arms, and the hub of the hand-wheel be placed in the seat *e''* of the nut *E'*, the chair will be held in upright position for use by the action of spiral spring. In tilting the chair the spiral spring is elongated, and its tension or strength can be regulated as desired by means of the hand-wheel H'.

The chair-irons, as thus constructed, are simple, cheap, and durable, and by arranging the spring as shown an easy tilting movement of the chair may be had.

Instead of holding the spiral spring in place by the threaded washer and casting fitting therein, this may be done by means of the interiorly-threaded cups, as clearly shown in Fig. 5.

Without wishing to restrict myself to the exact form or arrangement of parts or details of construction set out, and having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a spindle and standard secured thereto, of the spider pivoted to the standard, and having arms constructed substantially as described, whereby they may be attached to the seat of a chair, a

traction-spring connected at one end to the standard and at its other end to one of the arms of the spider, substantially as described, whereby it extends in the plane of the spider-arms, and a hand-wheel and adjusting-rod connecting the spring and the spider-arm, substantially as and for the purposes set forth.

2. The combination, with a spindle and standard secured thereto, of the spider pivoted to the standard, and having arms constructed substantially as described, one of said arms being provided with an extension, a traction-spring connected at one end to the standard and at its other end to the extension of one of the spider-arms, substantially as described, whereby it extends in the plane of the spider-arms, and a hand-wheel and adjusting-rod, as and for the purposes set forth.

3. The combination, with the base-support, the projecting spindle, and the yoke-shaped standard C, secured thereto, of the spindle having the extension E', the nut G', having arms g seated in said standard, and secured to the recoil spring, the nut G, secured at the opposite end of said spring, and provided with the adjusting-rod F, and the hand-wheel H, arranged to bear upon the extension E' of the standard, substantially as described.

In testimony whereof I have hereunto set my hand this 19th day of June, A. D. 1883.

ROMAN SEELIG.

In presence of—

JAMES H. PEIRCE.

JOSEPH O. MORRIS.