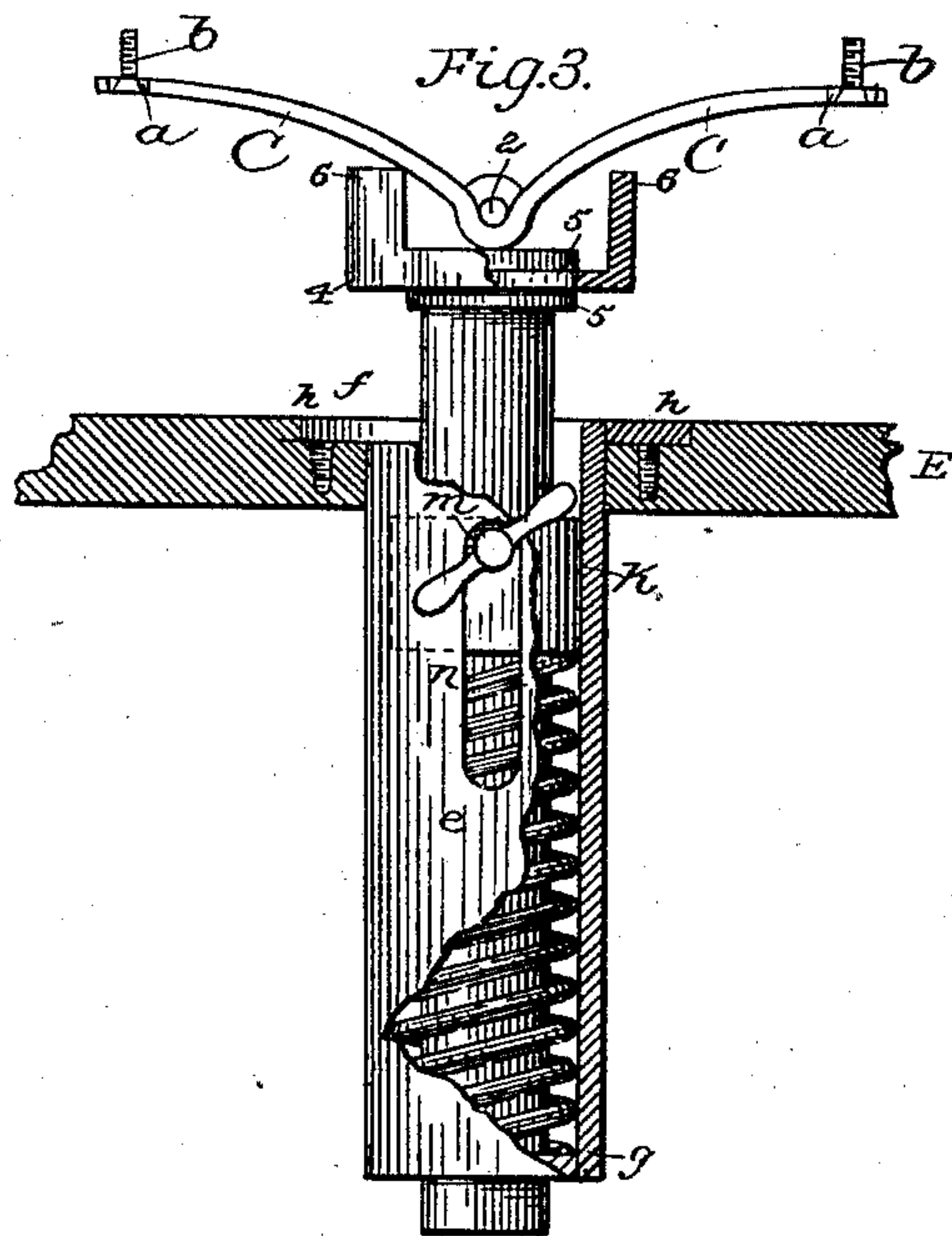
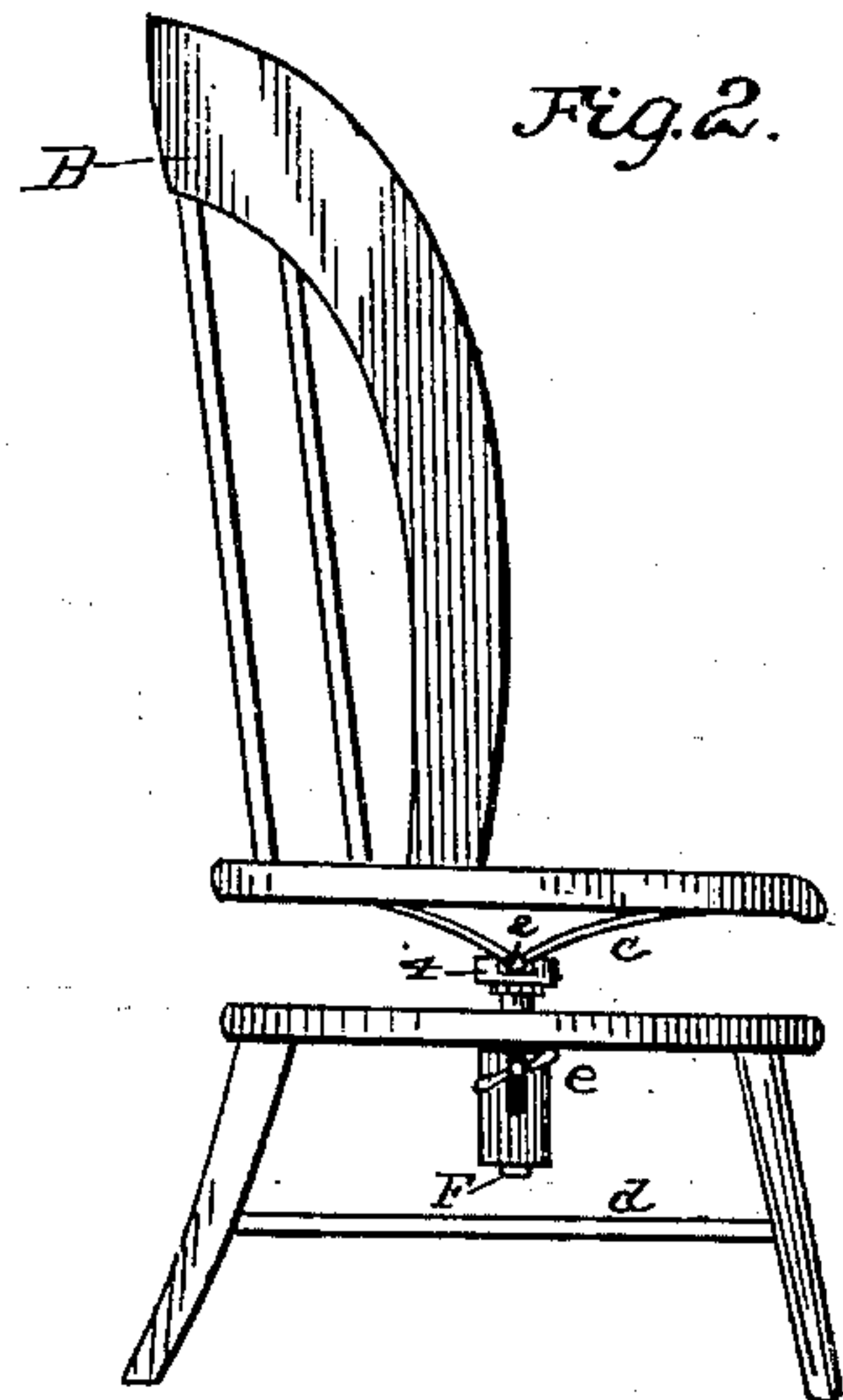
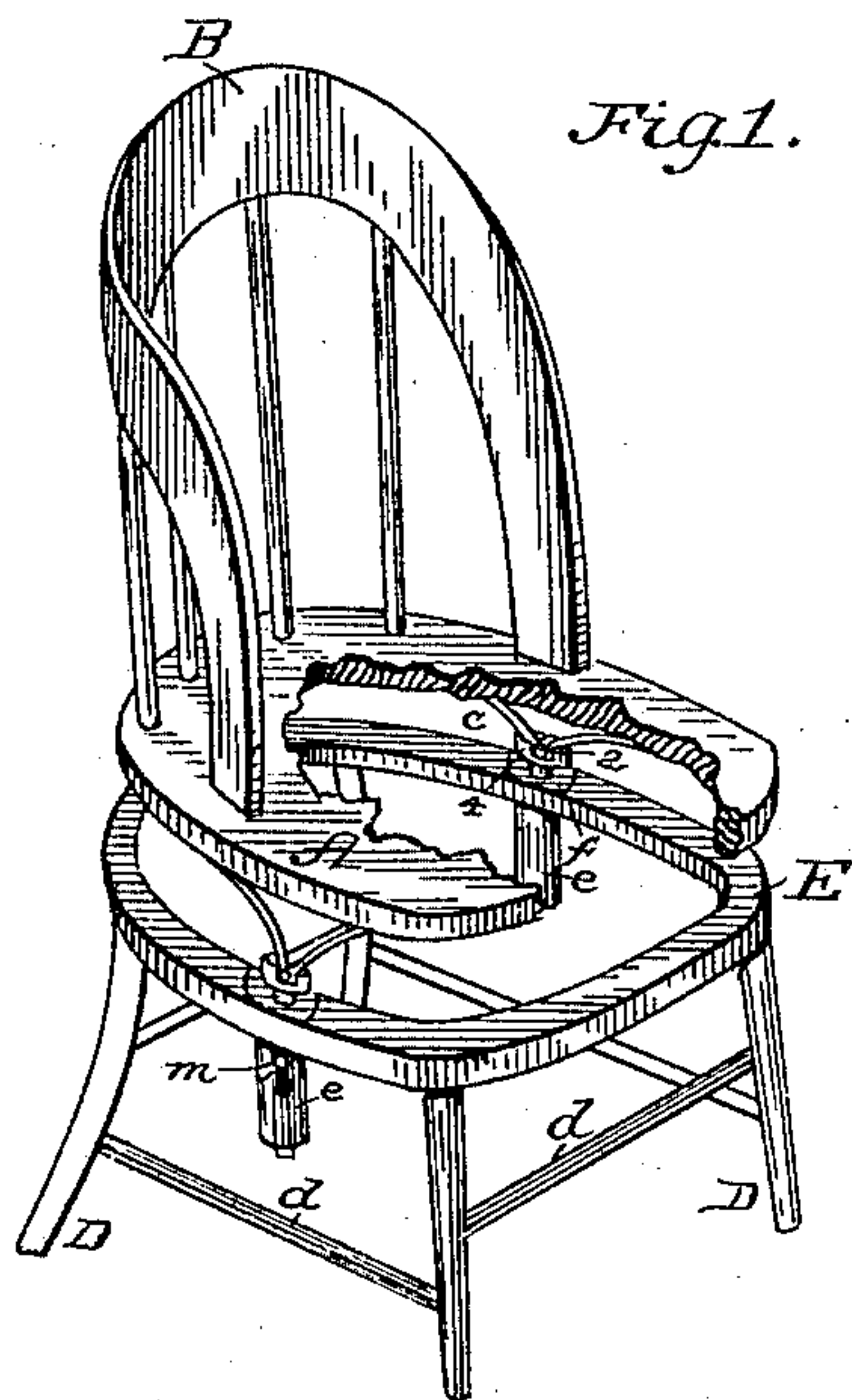


(No Model.)

S. L. SAUNDERS.
CHAIR.

No. 257,390.

Patented May 2, 1882.



Attest.
Wm. D. Dugan
L. W. Dugan

Inventor:
Samuell L. Saunders
by *Ellis Spear*
Attorney

UNITED STATES PATENT OFFICE.

SAMUELL L. SAUNDERS, OF LYNN, MASSACHUSETTS.

CHAIR.

SPECIFICATION forming part of Letters Patent No. 257,390, dated May 2, 1882.

Application filed November 17, 1881. (No model.)

To all whom it may concern:

Be it known that I, SAMUELL L. SAUNDERS, of Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Chairs, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to the construction of chairs for the use of sewing-machine operatives and other sitting operatives, and has for its object to provide a chair of such construction that the seat thereof shall be readily adjustable in height, shall yield vertically upon its supporting-frame, and be capable of being slightly tilted forward or backward to render it more readily adapted to the requirements of different operators and to the different positions of the operators while at work.

The invention consists in certain details of construction and combination, all hereinafter fully set forth and specifically claimed.

Figure 1 of the accompanying drawings is a perspective view of a chair constructed in accordance with my invention. Fig. 2 is a side elevation. Fig. 3 is a vertical sectional elevation of the mechanism for supporting and varying the height of the seat, and for arresting the rocking or tilting movement thereof, the seat and back being removed and the other parts broken away, the better to permit the drawing to be made on an enlarged scale.

The chair-seat A and the back B are both of ordinary construction. The seat A, instead of having legs set in its under side in the usual way, has secured thereto two elliptic or leaf springs, C C, by means of screws *b b*, which pass through slots *a a*, formed in each end of said springs, said slots serving to permit a slight endwise movement or elongation of said spring when it is depressed by the weight of a person sitting upon the seat.

The chair-legs D and cross-rounds *d* are constructed in the usual manner; but the legs, instead of being attached directly to the chair-seat in the usual way, are set in the under side of the skeleton frame E.

The skeleton frame E is provided with an orifice on each side thereof, in which are fitted metal tubes *e e*. The flange *f* prevents the tubes from passing completely through the orifice, while the screws *h*, passing through

holes in the flange into the wood of the frame, serve to keep the tubes in position. Each tube *e* has an interior diameter somewhat larger than the diameter of the rod F, except at its extreme lower end, where its diameter is reduced to fit the diameter of said rod, so as to form a bearing therefor, and also to form a shoulder, *g*, against which the bottom end of the spiral spring *i*, which surrounds the rod F, between it and the tube *e*, bears, the opposite end of said spring bearing against the adjustable collar or sleeve *k*, surrounding said rod F, and filling the space between it and the upper end of the tube *e*. The spring *i* tends to push the rod F upward and project it farther out of the upper end of the tube *e*; but this tendency is counteracted by the screw *m* coming in contact with the tube at the upper end of the slot *n*. The collar or sleeve *k* is prevented from sliding on the rod F by means of the set-screw *m*, which passes through the collar and bears against the rod.

The seat A, instead of being attached directly to the chair-base in the usual way, is mounted upon the ends of the rods F F through the medium of the springs C C, which, being curved or bent, as shown in Fig. 3, bear at or near the middle of their length upon the ends of the rods F, to which they are loosely secured by means of pins 2 2, which make fast in suitable ears projecting upward from the rods. Said springs are slightly depressed or grooved to receive the pins 2 2, as shown, so as to prevent any sliding of the springs.

Upon the rod F, at or near the end thereof, is a disk, 4, adapted to turn on the rod between fixed collars 5 5. Said disk is provided with upward-projecting ears or pins 6 6, which, when brought into position shown in Fig. 3, bear upward against the spring-rockers C C, so as to prevent the tilting movement of the seat.

It must now be evident that when the weight of the operator is placed upon the seat A the springs *i* will yield and allow the rod F to move downward through the tube *e* till the tension of the combined springs shall be sufficient to sustain the load.

The height of the chair-seat A may be readily varied by changing the position of the sleeves *k* upon the rods F by means of the screws *m*, in an obvious manner.

The tilting or rocking movement of the seat may be stopped by turning the disk 4, so as to bring the ears 6 6 under the springs, as shown in Fig. 3.

5 What I claim is—

1. In a chair, the combination of the seat A, the supporting legs and frame, the spring-rockers, and an independent yielding or elastic support for the chair-seat between the seat-
10 frame and rockers, the seat having both a rocking and a vertical movement.

2. In a chair, the combination of the rigid supporting legs and frame, the vertical yielding spring-support, and the spring-rockers
15 mounted upon such vertical support and carrying the chair-seat.

3. In combination, a chair-seat, A, the rigid frame and legs, the sliding rods F, having the spiral spring, and the supporting springs or rockers mounted upon the sliding rods. 20

4. The combination of the frame E, the tubes e, the sliding rod f, having collar or shoulder, the spring inclosed by the tube, the springs c c, and the adjustable ears 4.

In testimony whereof I affix my name hereto. 25

SAMUELL L. SAUNDERS.

Witnesses:

BENJ. K. PRENTISS, Jr.,
C. B. TUTTLE.