

(No Model.)

J. E. WAKEFIELD.
Folding Tilting Chair.

No. 235,184.

Patented Dec. 7, 1880.

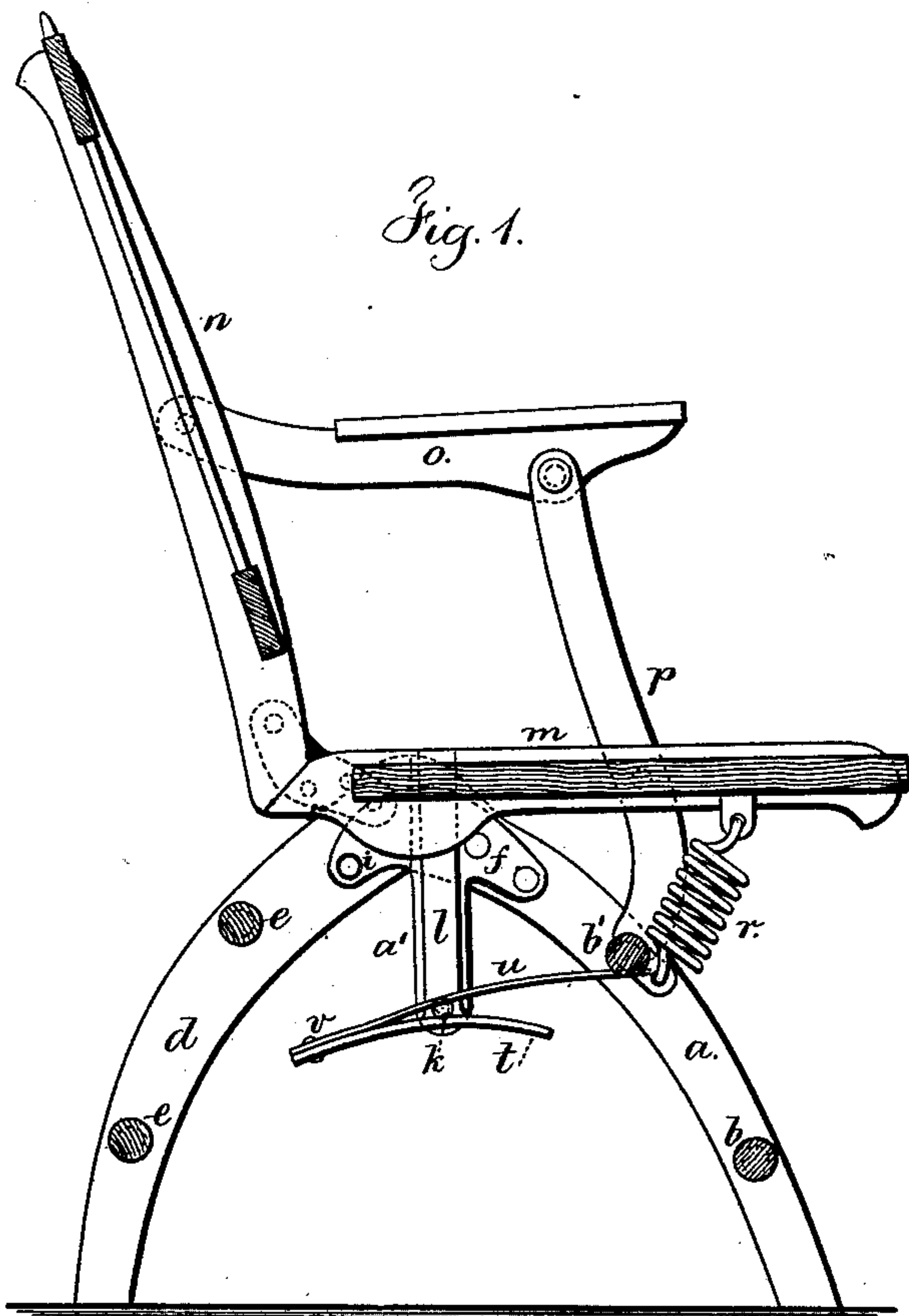


Fig. 1.

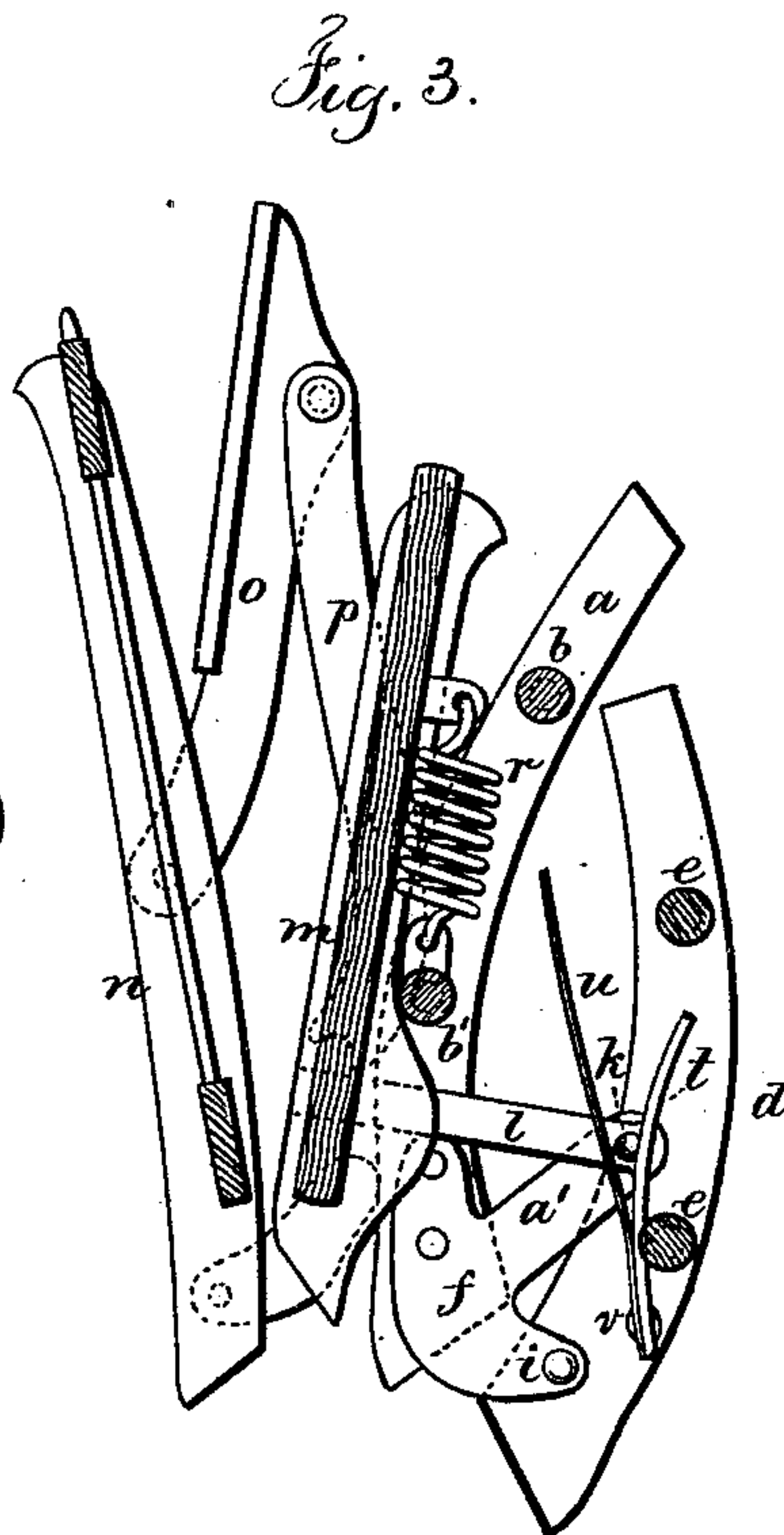


Fig. 3.

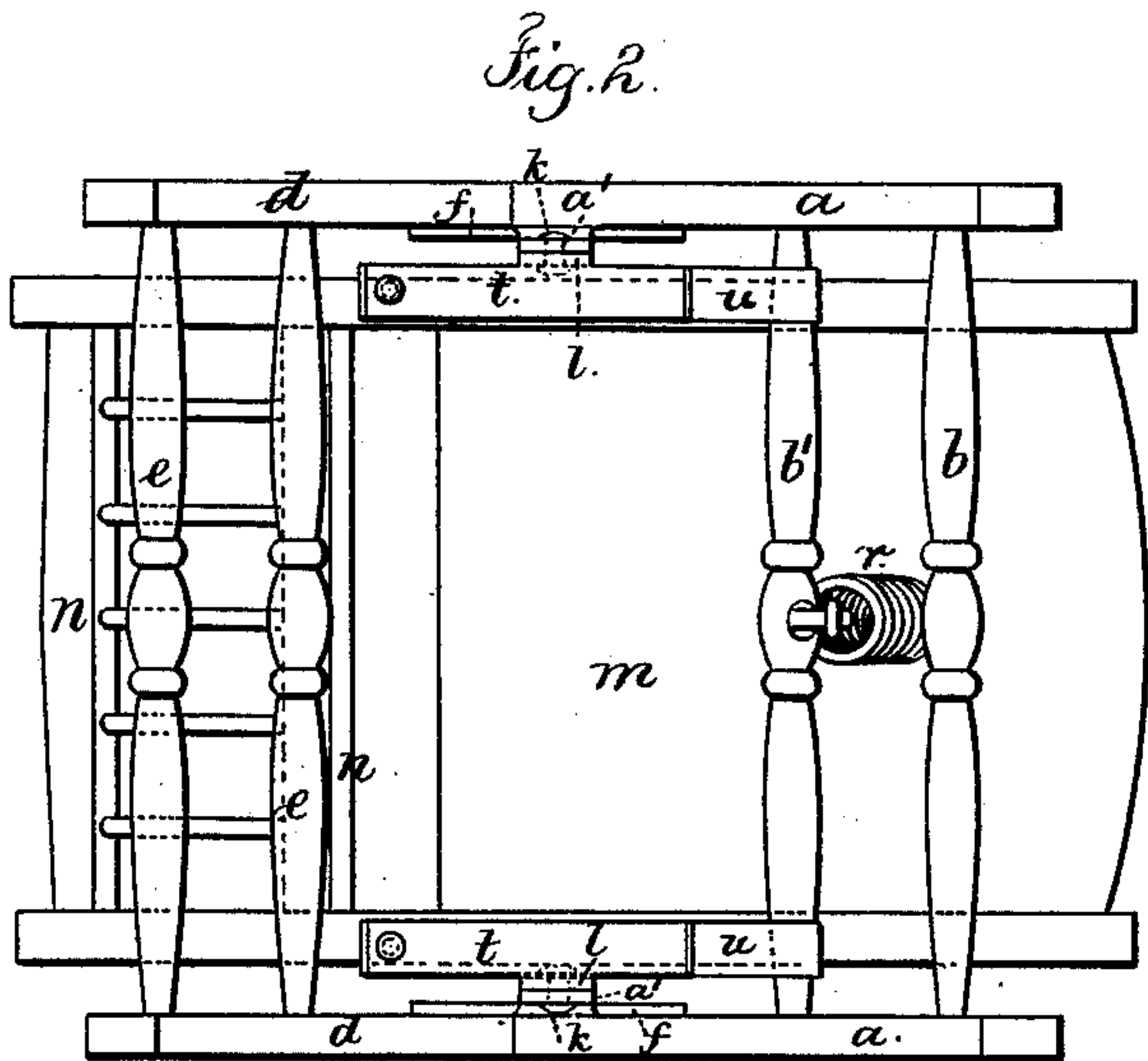


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN E. WAKEFIELD, OF WORCESTER, MASSACHUSETTS.

FOLDING TILTING CHAIR.

SPECIFICATION forming part of Letters Patent No. 235,184, dated December 7, 1880.

Application filed March 22, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. WAKEFIELD, of Worcester, in the county of Worcester and State of Massachusetts, have invented an Improvement in Folding Tilting Chairs, of which the following is a specification.

In an application dated October 24, 1879, I have represented a folding tilting chair in which the leg-frames are hinged together at the upper ends and the pivoted seat is hinged to the back, and there are arm-pieces and stop-bars pivoted to the arm-pieces and seat and serving to arrest the forward and downward movement of the back and seat.

In my present invention I make use of similar seat, back, arms, and stop-bars; but I have improved the chair by pivoting the seat upon suspending-bars in such a manner as to introduce springs between the rails of the folding legs and the seat and upon saddles moving with the seat, so as to apply more or less spring-power to return the seat to its normal position.

In the drawings, Figure 1 is a vertical section of the chair complete. Fig. 2 is an inverted plan of the same, and Fig. 3 is a section of the chair partially folded.

The front legs, *a a*, are united by the cross-rails *b b'*, and the back legs, *d d*, are connected by the rails *e*.

The pairs of leg-frames are pivoted together at the top, and for this purpose hinge-plates *f* are attached to the front legs, *a a*, and the back legs are pivoted upon them at *i*. These hinge-plates are extended downwardly as suspending-bars *a'* to near the level of the rail *b'*, and terminate in pivots *k*, by which the metal leg-plates *l* of the seat are connected to the suspending-bars *a'*, and upon these pivots *k* the seat *m*, back *n*, arms *o*, and stop-bars *p* can swing backwardly. The lower ends of the stop-bars *p*, resting upon the cross-rail *b'*, limit the forward movement of the chair seat and back, as in aforesaid application, and when the seat has been lifted the back can be folded downwardly, as therein described.

By placing the pivots *k* at about the same

level as the rail *b'*, the seat will fold downwardly toward the cross-rail *b'*, but it will at the same time swing toward the cross-rail *b* in such a manner that the helical spring *r*, between the rail *b'*, and the under side of the chair-seat, will not interfere with the chair folding, neither will the spring be strained in folding; but when the chair is in position for use the spring *r* will be strained as the chair is tipped backwardly, and it will draw it forwardly again.

At the lower ends of the leg-plates *l* of the seat there are saddle-pieces *t* in the form of arcs of circles. At the back ends of these saddles the straight or nearly straight springs *u* are pivoted, and the forward ends pass under the cross-rail *b'*; hence when the chair is tilted or rocked these springs *u* are bent upon the surfaces of the saddles as said saddles rock beneath the springs. These springs can be swung around on the pivots *v* parallel or nearly so to the bars *e e* when it is desired to lessen spring-power that acts to return the chair to its normal position.

The positions that the parts assume in folding are illustrated in Fig. 3. It is preferable to close the legs *d* toward the legs *a* after the other parts of the chair are folded, or nearly so, and to open the legs before the other parts of the chair are unfolded.

I claim as my invention—

1. The combination, in the folding tilting chair, of the legs *a d*, rail *b'*, hinge *i*, plates *f*, suspending-bars *a'*, leg-plates *l*, seat *m*, and stop *p*, and the helical spring between the seat and the rail *b'*, substantially as set forth.

2. In the folding tilting chair, the combination, with the seat *m*, legs *a d*, hinge-plates *f*, and suspending-bar *a'*, of the seat leg-plates *l*, pivoted to *a'*, the curved saddles *t*, and springs *u*, substantially as set forth.

Signed by me this 15th day of March, A. D. 1880.

JOHN E. WAKEFIELD.

Witnesses:

HENRY BACON,
FRDK. J. BARNARD.