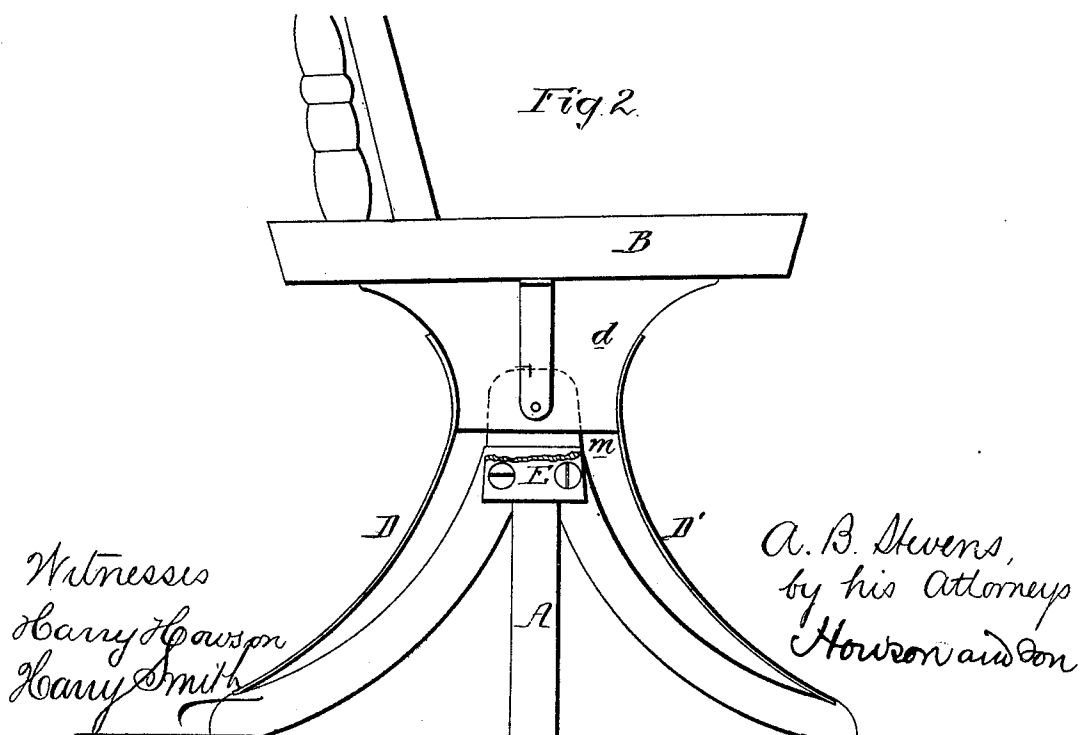
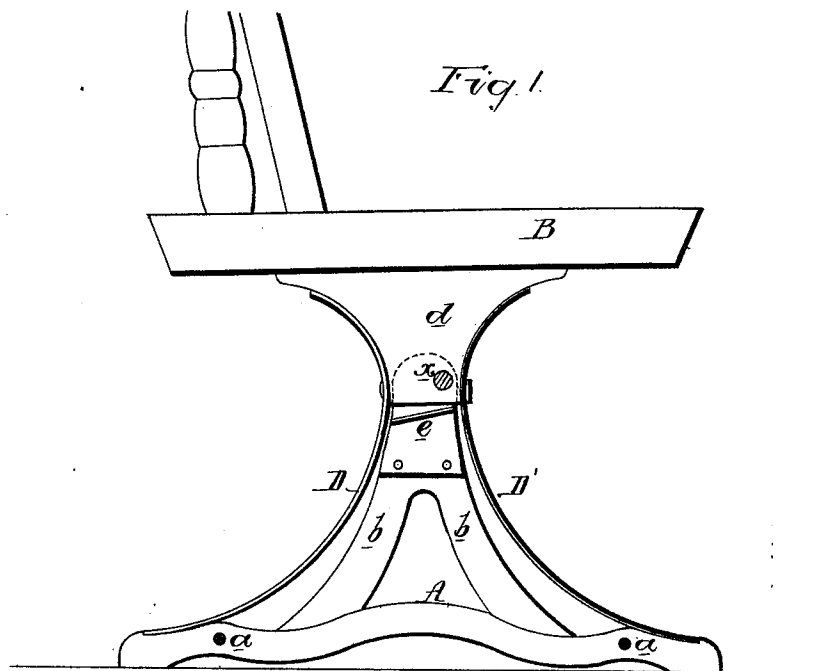


A. B. STEVENS.
SPRING TILTING-CHAIR.

No. 175,195.

Patented March 21, 1876.



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Fig. 3.

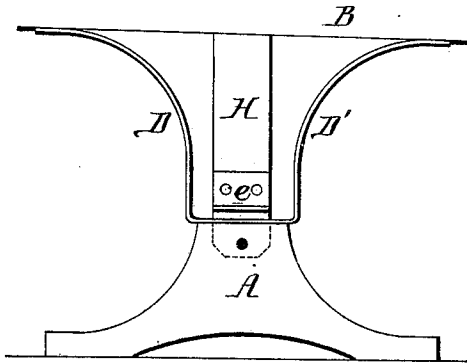


Fig. 4.

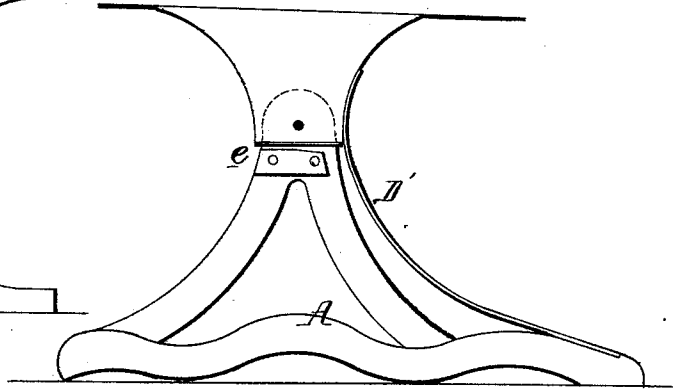


Fig. 5.

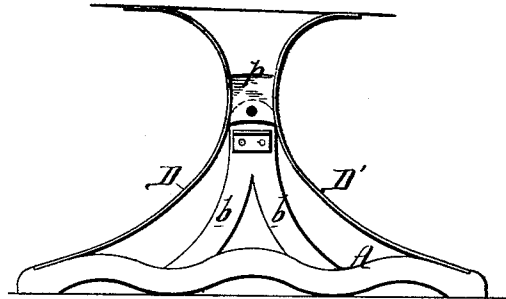


Fig. 7.

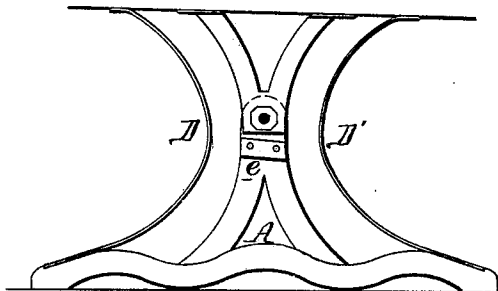
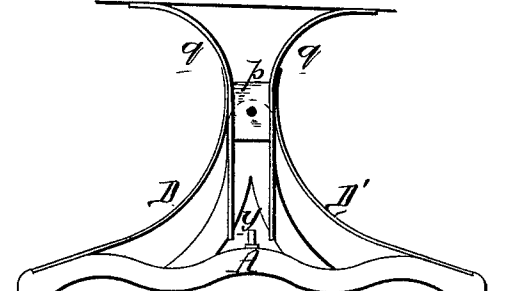


Fig. 6.



Witnesses
Harry Howson & Co.
Harry Smith

A. B. Stevens
by his Attorneys
Howson and Son

UNITED STATES PATENT OFFICE

ASHER B. STEVENS, OF PHILADELPHIA, PENNSYLVANIA; ASSIGNOR TO
HENRY S. HALE, ARTEMAS KILBURN, J. WARREN HALE, CHENEY KIL-
BURN, AND WARREN HALE, OF SAME PLACE.

IMPROVEMENT IN SPRING TILTING CHAIRS.

Specification forming part of Letters Patent No. **175,195**, dated March 21, 1876; application filed
February 21, 1876.

To all whom it may concern:

Be it known that I, ASHER B. STEVENS, of Philadelphia, Pennsylvania, have invented certain Improvements in Spring Tilting Chairs, of which the following is a specification:

My invention relates to improvements in the chair for which Letters Patent No. 171,186 were granted to me and my assignees on the 14th of December, 1875; and the object of my invention is to combine a seat, pivoted to a base or stand, with the springs described in the said patent, so that while a more substantial support is afforded for the seat, the springs will afford the desired ease and comfort to the occupant of the chair.

In Figure 1, Sheet 1, of the accompanying drawings, the main support of the chair consists of two frames, A, connected together by tie-rods *a*.

Attached to or forming part of each frame is a plate, *b*, the upper end of which is hinged at *x* to a projection, *d*, on the under side of the seat B. To each projection *d* are secured the upper ends of the two curved springs D D', which are similar to those described in the aforesaid patent, and the lower ends of which are secured to the frame or base A, as shown. In my former patent these springs formed the sole support for the seat, but I have found that a more substantial support can be made by pivoting the seat to the base, and combining with both the springs D D', in the manner described. Many different arrangements of stops for limiting the vibration of the seat may be adopted. In Fig. 1 a plate with a projecting lip, *e*, is secured to each plate *b*, the contact of the lower end of the projection *d* with this lip limiting the tilting movement of the seat in either direction. In the chair last described there are four springs, but in the view below, Fig. 2, there are but two springs, the frame or base in this case consisting of four

legs, united at the top to plates E, which are hinged to a single projection, *d*, on the under side of the seat. The tilting movement is limited in this instance by the upper end *m* of the base or frame A. In Fig. 3, Sheet 2, the base is composed of two parts, A, to each of which is pivoted a plate, H, secured to the under side of the seat B, which is connected to the base by two springs, D D', made in one piece, the vibration of the seat being limited by a lip, *e*, on each of the said plates H. The modification, Fig. 4, is substantially like the device shown in Fig. 1, Sheet 1, with this exception, that but one spring, D', is shown in connection with each frame or support, the springs being in front of the chair, the seat of which, however, can be tilted both forward and backward, the stop *e* preventing excessive tilting of the seat in either direction. In Fig. 5 the springs D and D' extend from the base to the seat, and are connected by a block, *p*, which is pivoted to the plate *b* of the base. In Fig. 6 curved plates *q q* are secured to the under side of the seat, and are connected together and to the springs D D' by a block, *p*, the said plates *q q* being carried downward, and serving, with a pin, *y*, on the base, to limit the vibration of the seat. The modification, Fig. 7, will be readily understood without explanation.

I claim as my invention—

The combination, in a spring tilting chair, of a base, A, and seat, B, pivoted together, with the curved springs D D' secured to the base and to the seat, all as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ASHER B. STEVENS.

Witnesses:

HARRY SMITH,
HARRY HOWSON, Jr.