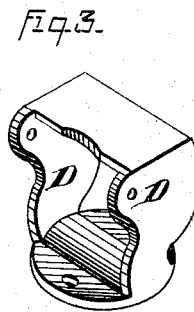
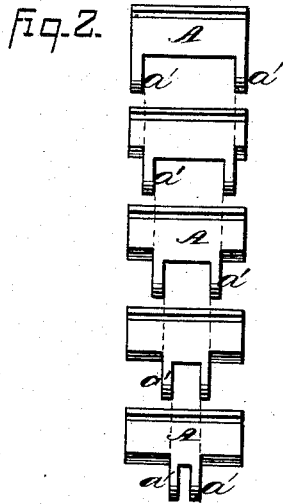
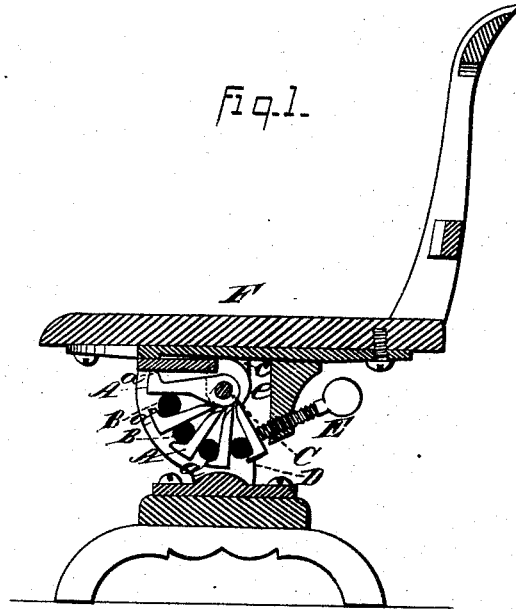


W. GARDNER.
Tilting-Chair.

No. 160,764.

Patented March 16, 1875.



WITNESSES

Jas. E. Hutchinson
J. V. Foster.

INVENTOR.

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UNITED STATES PATENT OFFICE.

WILLIAM GARDNER, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF HIS
RIGHT TO OLIVER L. GARDNER, OF SAME PLACE.

IMPROVEMENT IN TILTING CHAIRS.

Specification forming part of Letters Patent No. **160,764**, dated March 16, 1875; application filed
December 26, 1874.

To all whom it may concern:

Be it known that I, WILLIAM GARDNER, of the city, county, and State of New York, have invented certain new and useful Improvements in Tilting Chairs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a sectional elevation of my improved tilting chair. Fig. 2 is a view in elevation of a series of plates between which are interposed springs to give my chair its tilting motion, and Fig. 3 is a perspective view of the frame upon which the seat is mounted.

Corresponding parts in the several figures are designated by like letters.

This invention relates to a certain improvement in tilting chairs; and it consists of a frame upon which the chair-seat is mounted by an axis upon which swing a series of plates arranged in the form of the arc of a circle, with interposed pieces of rubber, or springs held in place by the frame and an adjusting-screw or pendant depending from the chair-seat; and it further consists in providing the plates with projections or toes for limiting their movement relatively, &c., substantially as hereinafter more fully set forth.

In the annexed drawing, D refers to a frame secured in any known way to the chair-legs, and upon which the chair-seat F is mounted by an axis, C, and the lugs *c* depending therefrom. Upon the axis C, within the frame D, swing a series of plates, A A, arranged, with their interposed pieces of rubber or springs B B in the form of the arc of a circle, the projection or toe of the upper plate bearing

against the under side of the top of the frame D, and the lower or rear plate being pressed, either directly by the pendant *e* of the chair-seat F, or an adjusting-screw E working in said pendant, substantially as shown in Fig. 1.

By this arrangement or disposition of parts the full pressure of each spring is exerted in a line with the arc described by the seat in its movement, thus utilizing each spring to its fullest extent, and giving greater resiliency to the seat, &c.

The free ends of the plates A A are provided with projections or toes *a a*, so constructed thereon as to limit their movement relatively, or with reference to each other, and the seat to act in the capacity of stops to the backward movement of the latter, and to assist in retaining the springs in place in between the plates.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is—

1. The frame D, upon which the chair-seat is mounted by an axis, C, upon which swing a series of plates, A A, arranged, with their interposed pieces of rubber or springs B B, in the form of the arc of a circle, held in place by the said frame and the pendant *e*, substantially as and for the purpose set forth.

2. The plates A A, with the projections or toes *a a*, in combination with the springs B B, axis C, frame D, and pendant *e*, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

WILLIAM GARDNER.

Witnesses:

DAVID THORNTON,
FRANK MERRITT.