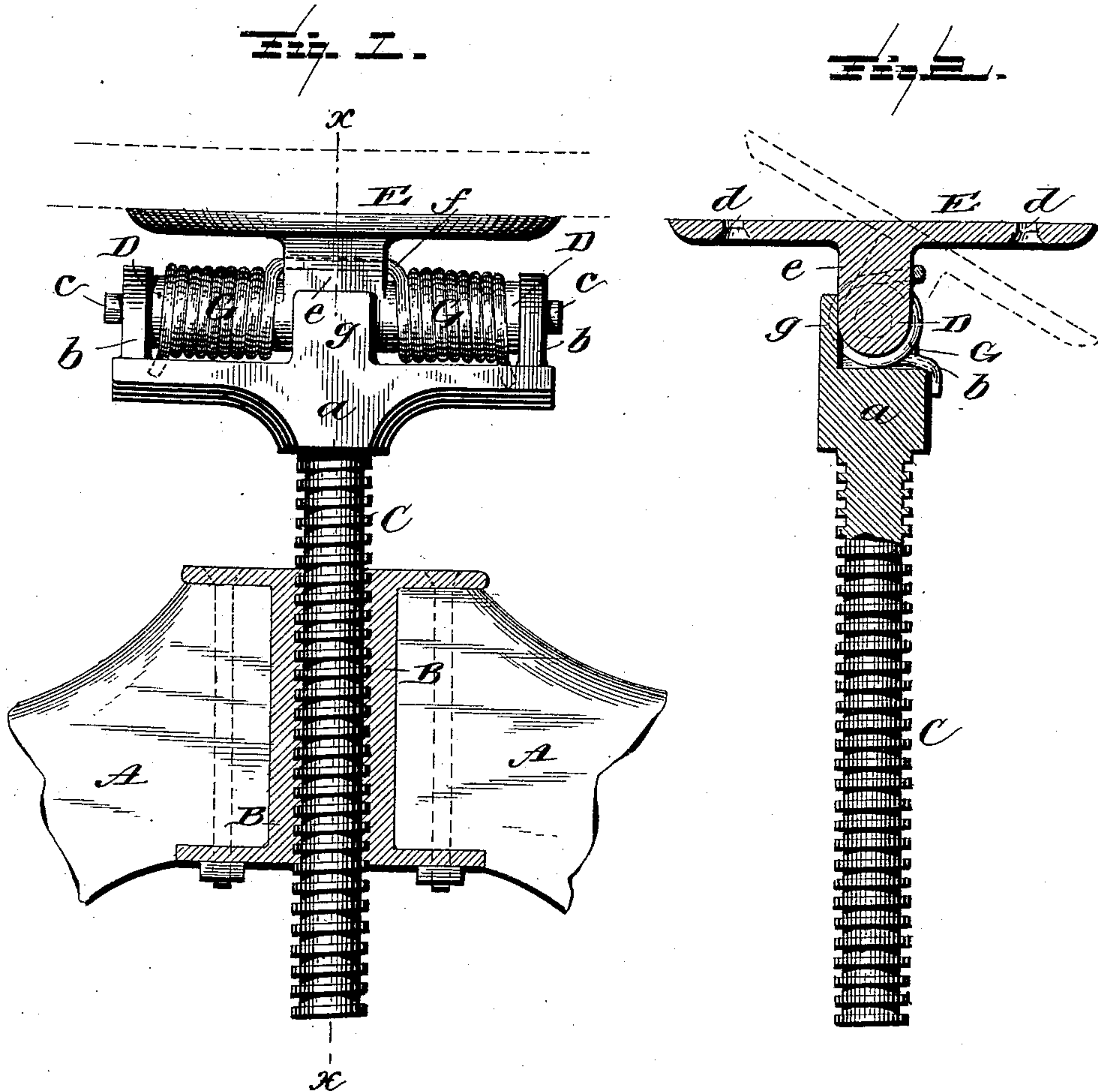


(No Model.)

R. HENDRICKSON.
SPRING ATTACHMENT FOR TILTING CHAIRS.

No. 444,355.

Patented Jan. 6, 1891.



Witnesses
L. C. Hulls
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ROBERT HENDRICKSON, OF MERIDEN, CONNECTICUT, ASSIGNOR TO FOSTER,
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SPRING ATTACHMENT FOR TILTING CHAIRS.

SPECIFICATION forming part of Letters Patent No. 444,355, dated January 6, 1891.

Application filed July 11, 1890. Serial No. 358,456. (No model.)

To all whom it may concern:

Be it known that I, ROBERT HENDRICKSON, a citizen of the United States, residing at Meriden, in the county of New Haven, State

of Connecticut, have invented certain new and useful Improvements in Spring Attachments for Tilting Chairs, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in spring attachments for tilting chairs; and it has for its object, among others, to provide a simple, cheap, durable, and efficient spring attachment which will allow of ready tilting of the chair-seat, and yet prevent too much movement in either direction. I provide a casting with a vertical lug, which serves as a stop to limit the forward movement of the chair. I form the spring of a single piece of wire, the two series of coils or convolutes being connected by a portion of the wire which has a bearing against a lug on the seat-support.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a front view illustrating my improvements, with parts in section. Fig. 2 is a view at right angles to Fig. 1 on the line x thereof, with parts in section.

Like letters of reference indicate like parts in both views.

Referring now to the details of the drawings by letter, A designates portions of the legs of a chair of known construction, and B is a metallic interiorly-threaded casting secured to the legs in the usual manner and adapted to receive the threaded rod or spindle C. This spindle is adapted to be adjusted vertically to raise or lower the chair-seat, as usual, and is formed at its upper end with a horizontal arm or portion a , which at its ends is provided with lugs b , in which the pintles c of the drum D are journaled, as shown.

This drum or cylindrical portion is formed

integral with the seat-supporting plate E, which is provided with suitable holes d , by which it may be secured to the seat by any suitable means. There is a vertical web e connecting the cylindrical portion and the plate E, as shown in both views, and against the rear face of this web the horizontal connecting portion f of the spring G is designed to bear. This spring is formed of suitable-sized wire, and is coiled around the cylindrical portion D upon opposite sides of the vertical web, the ends of the wire being suitably disposed—as, for instance, by being brought to bear against the rear face of the horizontal portion of the spindle, as indicated by dotted lines in Fig. 1.

The horizontal portion of the spindle is formed with a vertical lug g , arranged centrally upon its front face, as shown, and against which the vertical web of the seat-support is designed to contact as the seat assumes its horizontal position and prevents it from tilting forward beyond a horizontal.

What I claim as new is—

1. The combination, with the spindle having horizontal portion provided with lugs, of the seat-support having integral cylindrical portion provided with pintles journaled in said lugs, and a vertical integral connecting-web, and the spring coiled around the cylindrical portion and having a horizontal connecting portion bearing against said web, as set forth.

2. The combination, with the spindle formed with horizontal portion having lugs and vertical central lug g , of the seat-support having integral cylindrical portion and vertical web, and the spring coiled around the cylindrical portion, with a connecting portion bearing against the web and the ends of the spring bearing against the rear face of the horizontal portion of the spindle, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT HENDRICKSON.

Witnesses:

A. L. STEVENS,
F. A. STEVENS.