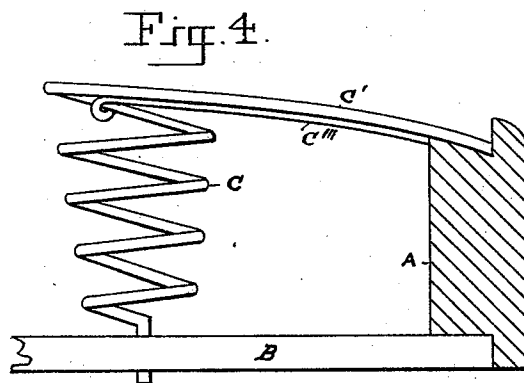
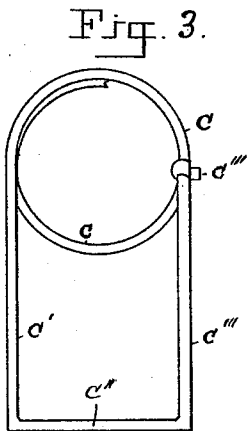
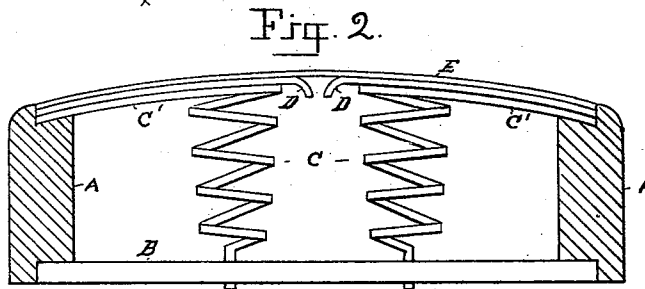
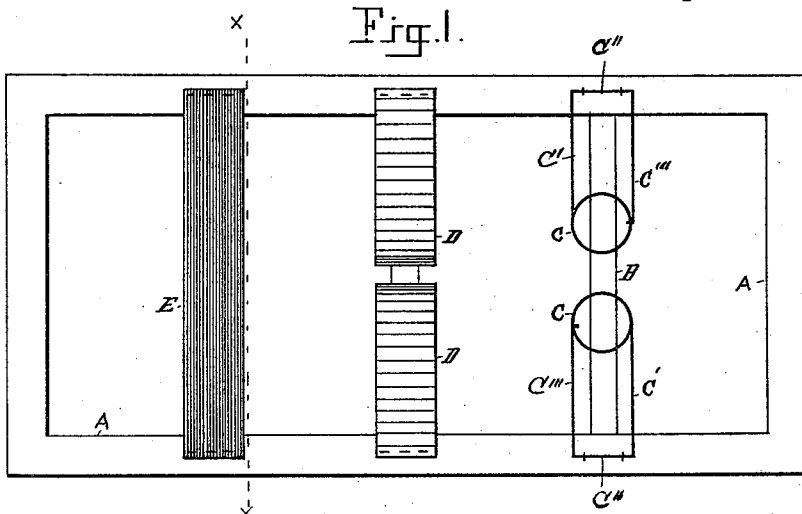


(No Model.)

G. E. HOWARD.
SPRING SEAT.

No. 536,725.

Patented Apr. 2, 1895.



Witnesses.

Amos Hadley
Charles T. Bell

Inventor.

George E. Howard.
A. Bell.
att'y.

UNITED STATES PATENT OFFICE.

GEORGE E. HOWARD, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE SCARRITT FURNITURE COMPANY, OF SAME PLACE.

SPRING-SEAT.

SPECIFICATION forming part of Letters Patent No. 536,725, dated April 2, 1895.

Application filed August 28, 1894. Serial No. 521,481. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. HOWARD, a citizen of the United States, and a resident of St. Louis, State of Missouri, have invented certain new and useful Improvements in Spring-Seats, of which the following is a specification.

My invention relates to spring seats, and has special reference to the means employed to support the spiral springs used therein, and to retain them firmly in position within the seat frame.

Where spiral springs are held in place by tie bands, either of metal or webbing, there is a liability of the springs becoming detached from the bands, and falling over when compressed. If the springs are held together by links, the breaking of a single link is apt to derange the entire series of springs, thus rendering the seat unfit for use until repaired. I prevent this liability by making the top support of the spring an integral part of the spring itself, the wire forming the upper coil of the spring being so bent as to form an elongated extension, secured, at its end, to the seat frame, as will be hereinafter more fully set forth and described.

In the drawings: Figure 1, is a plan view of my improved spring seat showing the springs, the cap plates, and the webbing which covers the springs and plate. Fig. 2, is a vertical cross section of the seat frame, drawn on line *x, x*, of Fig. 1. Fig. 3, is a top view of the spiral spring, showing the extension formed thereon. Fig. 4, is a vertical cross section of one of the bars of the seat frame, showing one of the improved springs, and cap plate attached thereto, and a portion of the supporting cross bar on which the spring rests. In the drawings like letters refer to like parts.

A, is the seat frame, and B, the cross bars, on which the springs rest, secured thereon.

C is the spiral spring, with the extension support and the extension support is made from the same wire as the spring and this is done by continuing the wire of the top coil out in nearly a straight line and the plane of the coil bent but slightly downward to form an arm C', then bent at right angle to form the intermediate connecting part C'', and then turned back at right angle to form the arm C''' with its end secured to the upper coil of the spring. This extension support is

secured to the seat frame by staples, or otherwise, passing over the intermediate part C'' as shown in Figs. 1, 2, and 4. Through this support the spring is held securely in place, and all tendency on the part of the cap plate to sag between the spring and the seat frame is prevented; and that each spring is independently provided with an extension support so that each may be individually removed and replaced without disturbing any of the others.

The cap plate D, is preferably formed of sheet metal, and secured to the spring extension and extends from the seat frame to, and slightly beyond, the top coil of spring C. The free end of the plate is slightly curved downward so as to form a rounded edge, thus preventing the metal from cutting the webbing or the upholstery which covers it. These cap plates, which extend over the springs from each side of the seat frame, are sufficiently separated at their ends in the center of the seat to allow free play to the cap plates when the springs are compressed.

The webbing E, covering the cap plates, is secured at its ends to the seat frame. It serves to give the proper shape to the spring section and to prevent the upholstery from being cut by contact with the metal plate.

What I claim as new and of my own invention, for which I ask Letters Patent of the United States, is—

In a spring seat, the combination of the seat frame A, and springs C within the frame each of said springs having the wire of its top coil continued outward in about a straight line and the plane of the coil to form an arm C', then bent to form an intermediate connecting part C'' and then turned back to form the arm C''' with its end secured to the said top coil, the said arm C', part C'', and arm C''' constituting a support for the spring and secured to the frame, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 14th day of August, 1894.

GEO. E. HOWARD.

Witnesses:

EDWARD RORMER,
AUGUST KRIEGER.