

(No Model.)

W. S. FOSTER.

COMBINED SPIRAL SPRING AND SUPPORT.

No. 486,773.

Patented Nov. 22, 1892.

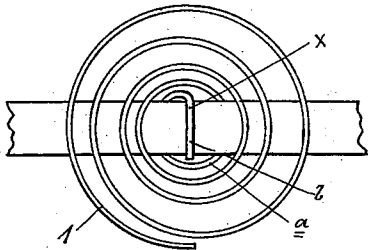


Fig. 1.

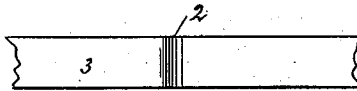


Fig. 3.

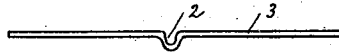


Fig. 4.

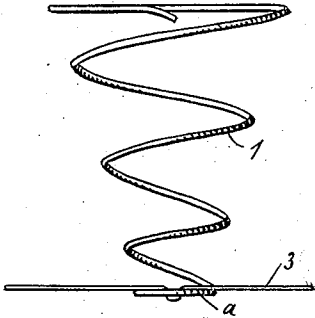


Fig. 2.

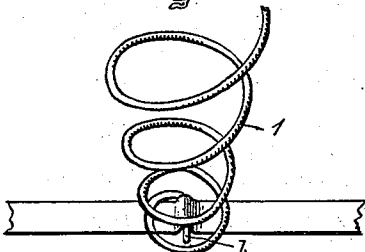


Fig. 6.

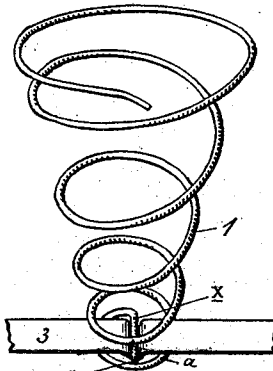


Fig. 5.

WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM S. FOSTER, OF UTICA, NEW YORK, ASSIGNOR TO FOSTER BROS.,
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COMBINED SPIRAL SPRING AND SUPPORT.

SPECIFICATION forming part of Letters Patent No. 486,773, dated November 22, 1892.

Application filed April 21, 1892. Serial No. 429,997. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. FOSTER, of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in a Combined Spiral Spring and Support; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form part of this specification.

My present invention relates to an improvement in the manner of securing a spring, and more particularly a spiral spring, adapted for use in a spring-bed, lounge, car-seat, or similar devices, the spring being secured, preferably, to a strip of metal constituting a frame, although the frame could be equally well formed of separate or distinct pieces, to which the strips would be secured for the purpose of securing the spring only.

In the drawings, Figure 1 shows a plan view of a portion of a conical spiral spring and a portion of a securing-strip, forming, also, a part of the frame, as before set forth. Fig. 2 shows from the side the same parts shown in Fig. 1. Fig. 3 shows a plan view of a section of the securing-strip. Fig. 4 shows an edge view of the same. Fig. 5 shows the combined strip and spring in perspective. Fig. 6 shows a different manner of securing the spring onto the strip.

Referring more specifically to the reference-numerals marked on the drawings, in a more particular description of the device, 1 indicates a conical spiral spring adapted for use, as before stated, terminating at one end in a convolution *a*, which is flat or plain, or nearly so. The final end of the wire forming the spring forms a supporting or securing bar or projection *b*, which projects diametrically across the convolution *a* and preferably lies in the same plane as the convolution *a*. The supporting or securing projection *b* is adapted to engage in a transverse groove, depression, or offset 2, provided in metallic supporting or holding strip 3. The strip 3 is preferably of a width to be received between

the shoulder *x* at the secured end of the projection and the opposite side of the convolution *a*. The depth of the depression 2 and the thickness of strip 3 are preferably relatively such that the projection *b* has to be sprung out of the plane of the convolution to permit the strip 3 to be engaged between the projection *b* and the convolution *a*, either in the manner shown in Figs. 1, 2, and 5, in which the convolution *a* is on the opposite side of the strip from the rest of the spring or in the manner shown in Fig. 6, in which the projection *b* is on the opposite side of the strip from the rest of the spring. I prefer the former arrangement, as when weight is placed on the spring, as shown, the supporting-point is in central line of the spring, and there is no tendency to throw or tilt the spring out of vertical position. It will be observed that the spring cannot become disengaged in use, for the projection on the strip made in forming the depression will become engaged with the convolution of the spring. It is evident that the upper or lower end of a spiral spring, or both ends, may be secured in this manner.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a spiral spring having a diametrically-extending end and a strip having a depression adapted to receive the end, substantially as set forth.

2. The combination of a spiral spring having an end extending diametrically across the end convolution of the spring and a securing-strip having a depression adapted to receive the end of the spring and be clamped between the projecting end and the end convolution, substantially as set forth.

3. The combination of a spiral spring having a plain end convolution and the end of the wire forming the spring projecting into the vertical center of the spring and a securing or supporting strip having a depression or offset adapted to receive the end of the wire, the strip being clamped between the end of the wire and the end convolution, substantially as set forth.

4. The combination of a spiral spring having a plain end convolution and a supporting end projecting diametrically across the end

convolution and a supporting-strip having a
transverse offset adapted to receive the sup-
porting end, the strip being clamped between
the supporting end on the side of the spring
5 and the end convolution on the opposite side
of the strip from the spring, substantially as
set forth.

In witness whereof I have affixed my signa-
ture in presence of two witnesses.

WILLIAM S. FOSTER.

Witnesses:

RICH. A. GEORGE,
JOSIAH PERRY.