

L. PATRIC.

Improvement in Upholstery Springs.

No. 133,115.

Patented Nov. 19, 1872.

Fig. 1.

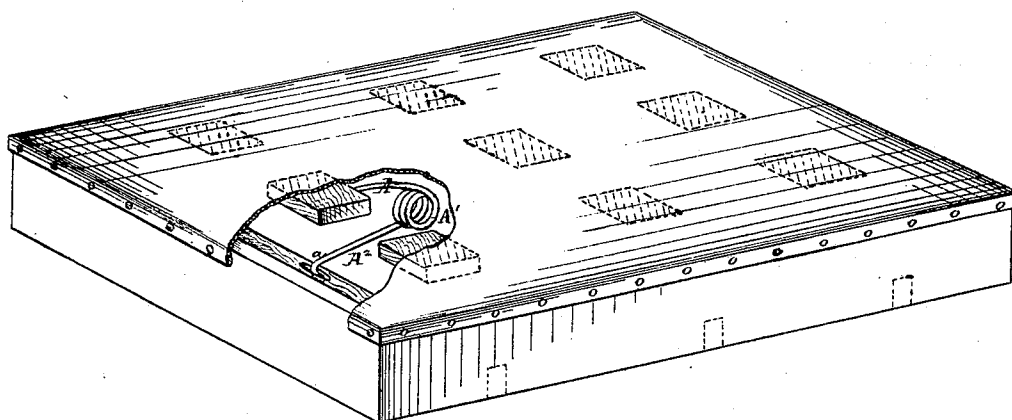


Fig. 2.

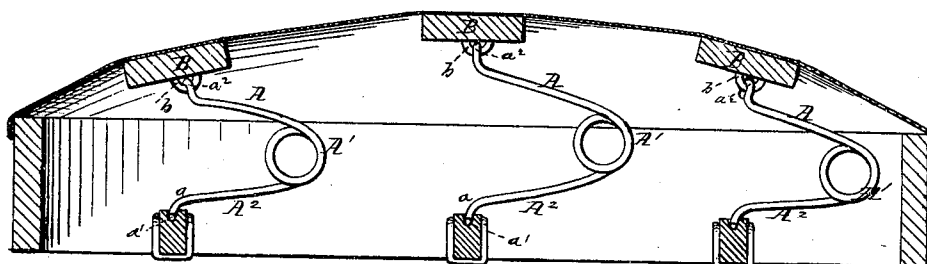
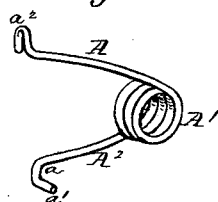


Fig. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

LEWIS PATRIC, OF SPRINGFIELD, OHIO.

## IMPROVEMENT IN UPHOLSTERY SPRINGS.

Specification forming part of Letters Patent No. 133,115, dated November 19, 1872.

*To all whom it may concern:*

Be it known that I, LEWIS PATRIC, of Springfield, county of Clark, State of Ohio, have invented a new and useful Improvement in Upholstery Spring, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a perspective view of a spring-bed composed of my improved springs, with a portion of the webbing or canvas broken away to show the spring; Fig. 2 is a vertical longitudinal section; and Fig. 3 is a detached view of one of the springs, with the cap or block removed.

Similar letters of reference denote corresponding parts in all the figures.

The object of the invention is to produce a spring equally well adapted for use in chairs, car-seats, lounges, and that class of work where a number of single springs, each with a single cap or block, are required, or for use in spring-beds with single caps, or with slats extending across the bed, either longitudinally or transversely, and also to make a spring which will permit a perfect freedom of movement in the cap or slat without any strain upon either portion of said spring or cap. To this end the first part of the invention consists in making the free end of the upper arm of coiled spring in the form of a hook, and then connecting said arm with the cap, block, or slat by means of a staple inserted in the lower side of said cap, block, or slat in such manner that they may be tilted or rocked in either direction without bending the wire of which the spring is made. The second part of the invention consists in providing the free end of the lower arm of the spring with an angular pivot adapted to rest in a suitable seat cut for its reception in the spring support in such manner as to prevent the spring from swiveling, and thus retain it (the spring) always in a proper working position.

In the drawing, A A<sup>1</sup> A<sup>2</sup> represent the spring, in which A is the upper arm, A<sup>1</sup> the coil, formed of any desired number of convolutions, and A<sup>2</sup> the lower arm. The lower arm is provided with a right-angled shank, a a<sup>1</sup>, adapted to rest in a gain or seat in the spring-support, and thus maintain it (the

spring) in its proper position. The end of the upper arm A is bent into a hook, a<sup>2</sup>, and by preference I arrange both shanks of the hook in a vertical plane at right angles to the vertical plane of the arm. B is the block or cap, usually made of wood, and provided centrally upon the under side with a staple, b, with which the hook a<sup>2</sup> is made to engage when the parts are in proper working relation, as shown in Figs. 1 and 2.

In practice I usually cut a seat in the under side of the blocks to receive the head of the hook.

It will be observed in Fig. 2 that the horizontal portion a<sup>1</sup> of the shank rests in the spring support, the vertical portion a being of such length as to keep the arm A<sup>2</sup> entirely above said support, thus preventing any chafing of parts.

In the drawing I have shown my spring as applied to a spring-bed, the caps being held in their respective positions by means of a canvas; and it will be seen that they can be tilted in either direction without wrenching or twisting either the shank a a<sup>1</sup> or the hook a<sup>2</sup>.

Slats may be substituted for the caps B, but the latter are regarded as being preferable, as they will yield in any direction, and will, therefore, conform more readily to the body of the person who occupies the bed.

I am aware that slots or seats have been cut in bed-slats for the reception of the upper arm of the springs, the end of said arm being formed into a hook and made to engage with the slat; but in all former constructions the slat was supported upon the lateral shank of the arm; hence the spring was not adapted to be used in connection with caps which are required to tilt in all directions. But as my caps are supported upon the upper point or elbow of the hook they are entirely free to rock either way. I also regard the horizontal pivot-shank of the lower arm as being of great importance, as it effectually prevents the spring from being swung out of place, without interfering at all with its vertical vibrations, thus making each spring entirely independent of the others in this respect.

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

The herein-described upholstery spring, consisting of the arms  $A$   $A^2$ , united by the convolutions  $A^1$ , and provided with the angular shank-pivot  $a^1$ , in combination with the cap  $B$ , or a slat supported upon the upper end of the spring, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand this 5th day of July, A. D. 1872.

LEWIS PATRIC.

Witnesses:

A. P. LINN COCHRAN,  
T. J. PRINGLE.