

No. 735,006.

PATENTED JULY 28, 1903.

J. WATKINS.
SPRING FOR BEDS, COUCHES, &c.
APPLICATION FILED MAY 24, 1902.

NO MODEL.

Fig. 1.

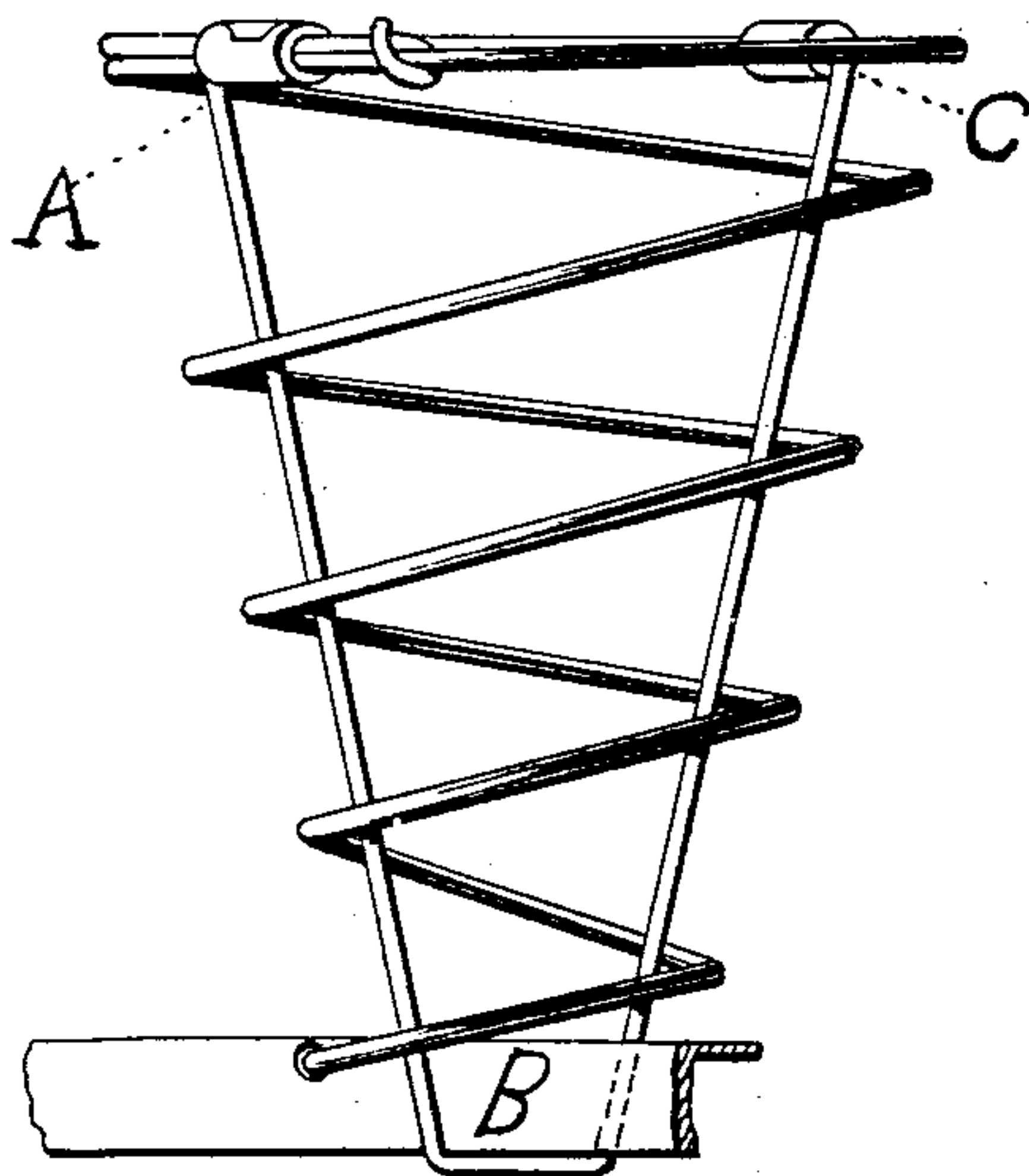


Fig. 2.

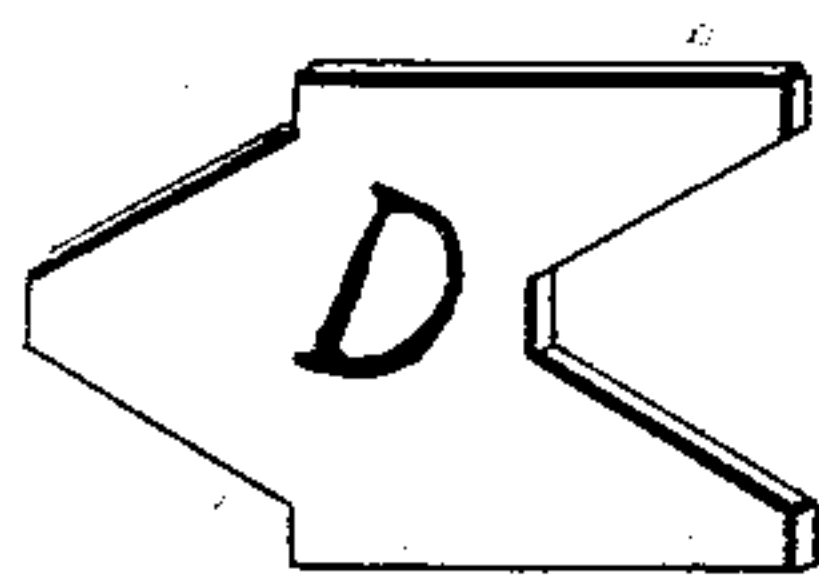
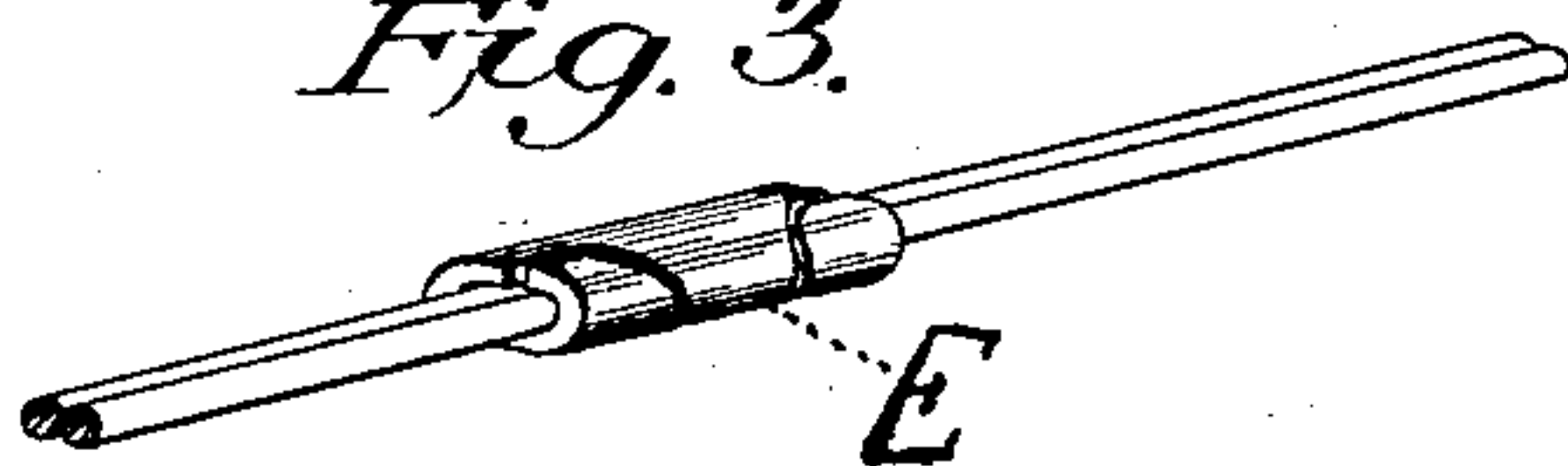


Fig. 3.



Witnesses:

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JOEL WATKINS, OF JOLIET, ILLINOIS.

SPRING FOR BEDS, COUCHES, &c.

SPECIFICATION forming part of Letters Patent No. 735,006, dated July 28, 1903.

Application filed May 24, 1902. Serial No. 108,882. (No model.)

To all whom it may concern:

Be it known that I, JOEL WATKINS, a citizen of the United States, residing at Joliet, in the county of Will and State of Illinois, have invented a new and useful Improvement in Springs for Beds, Couches, and other Such Articles of Household Furniture, of which the following is a specification.

My objects are, first, to furnish a good and practicable means by which the springs of beds, couches, and such furniture may be kept at proper tension, which means I call a "tension-wire;" second, to furnish a simple, cheap, and secure means to fasten the ends of the said tension-wire to the said springs, as hereinafter described. I accomplish this by means of the contrivance shown in the accompanying drawings, in which—

Figure 1 is a view of a spiral spring with the tension-wire attached to the same in position as when in use. Fig. 2 shows the clamp used to fasten the tension-wire to the spring. Fig. 3 shows two wires clamped together in the manner in which the end of the tension-wire is fastened to the strand of the spring at the top of the same.

Heretofore the springs in furniture have been tied down with twine to keep them at proper tension. The use of twine for this purpose has been unsatisfactory, for the reason that it would wear out by friction and would also rot quickly and give way. It has not been possible to use wire, for the reason that no method was thought of except to fasten the wire to the top of the spring and also to the slat. When this was done, it (the fastening-wire) would have to bear the load of the couch or whatever it might be, and the springs would be held rigid. They could not go up, but neither could they go down, and they would therefore be useless so far as giving any elasticity to the furniture was concerned.

I fasten the end of a piece of wire A (see Fig. 1) part way around and to the top coil of the spring and then pass the wire down inside the same and under the slat B, (see Fig. 1,) then up inside the other side of the spring to the top coil of the same, and fasten the other end of the wire C (see Fig. 1) thereto. This wire I call the "tension-wire," and the same is not fastened to the slat.

By the above arrangement when the couch or bed is in use, when there is weight on it, and when the springs are pressed down, the tension-wire goes down clear away from the bottom of the slat, and when the weight is removed then the strength of the spring raises the tension-wire again until the same rests against the lower side of the slat.

I use a flat clamp to attach the tension-wire to the spring. The clamp is shown as D. (See Fig. 2.) This clamp is made as follows: I take a thin strip of iron of any length and of the width which I desire the clamp to be. Then I clip off the end of this strip of iron in the shape shown in the single pointed end of the clamp D. (See Fig. 2.) Then I find what length of clamp is needed, (according to the thickness of the objects to be clamped together,) and I cut the iron off again in the same shape and in the same way as at first and one clamp is made. Then each additional cut makes another clamp. The advantage of this clamp is that no material whatever is wasted in making it (except the little bit at each end of a long piece of iron) and also that they fit together perfectly and smoothly when in use, leaving no gaps or points to stick out and catch anything. The appearance of the clamp when fastening wires together is shown in Fig. 3 and is designated E.

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

1. In a tension-brace for spiral springs, the combination with a spiral spring having a support secured to the lower coil of the same, of a tension-brace inclosed and vertically movable within the coils of the spring and secured to the top coil of said spring, substantially as specified.

2. In a tension-brace for spiral springs, the combination with a spiral spring secured to a support, of a tension-brace mounted within and on opposite sides of the spring and extending part way around the upper coil thereof, and clamps for securing the brace to said upper coil of the spring said brace having a vertical movement within and below said support, substantially as specified.

JOEL WATKINS.

Witnesses:

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