(No Model.)

J. A. WIDEMANN.

SPRING FOR MATTRESSES.

No. 265,201. Patented Sept. 26, 1882.

Fig. 1.

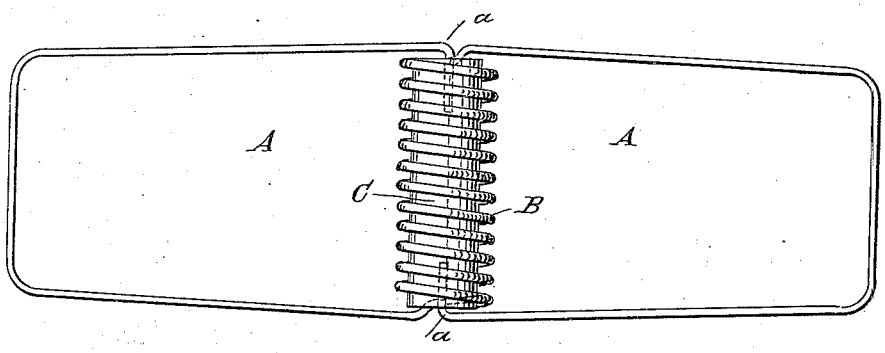


Fig. 2.

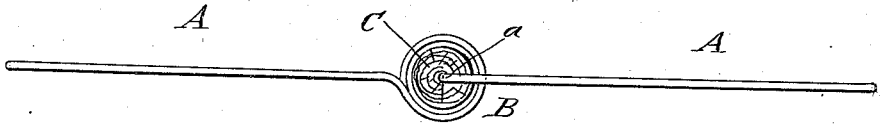


Fig. 3.

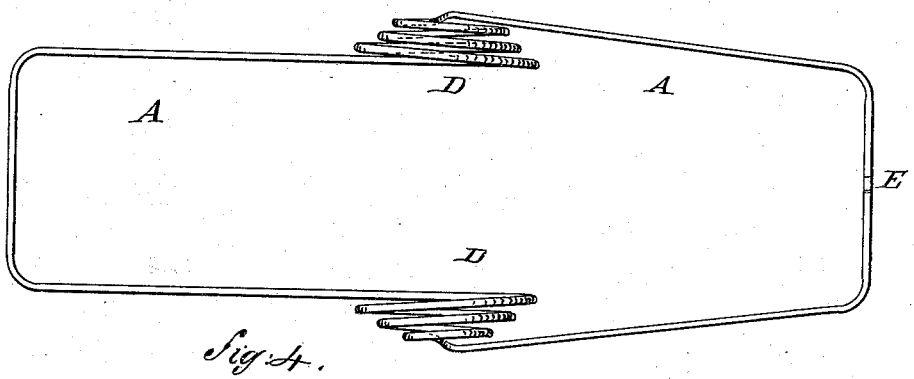
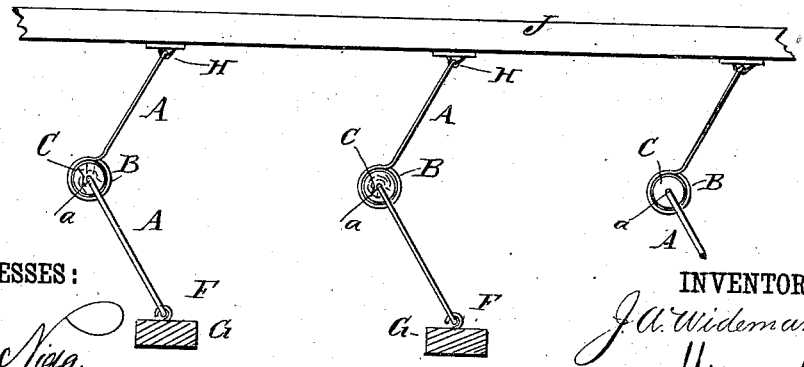


Fig. 4.



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JOSEPH A. WIDEMANN, OF BASLE, SWITZERLAND.

SPRING FOR MATTRESSES.

SPECIFICATION forming part of Letters Patent No. 265,201, dated September 26, 1882.

Application filed August 8, 1882. (No model.) Patented in Belgium February 2, 1882, No. 56,951.

To all whom it may concern:

Be it known that I, JOSEPH ALOIS WIDEMANN, of Basle, in the Republic of Switzerland, have invented a new and useful improvement in spring devices to be used as a substitute for bed-springs, for upholstery, and the like, of which the following is a specification.

The object of my invention is to provide a new and improved spring for mattresses, upholstery, &c., which spring is of simple construction and is strong and durable.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved spring for upholstery. Fig. 2 is a longitudinal elevation of the same. Fig. 3 is a plan view of a modification of the same. Fig. 4 is a longitudinal elevation of a series of my improved springs, showing them partly compressed, and showing the manner of securing them.

A wire is bent to form two U-shaped frames, A, united at their inner open ends by a transverse spiral spring, B, the two opposite ends, *a*, of the wire being at opposite ends of the said spiral spring, which forms a spring hinged at the inner or open ends of the frames A, which spring always has the tendency to hold the two frames A in one straight line—that is, in one plane. A cylindrical block, C, of wood is introduced into the spiral spring B, and the ends *a* of the wire, which are bent rectangularly, are driven into the ends of the block or rod C. If desired, the spring can be formed by providing spiral springs D at the middle of the long sides of a quadrangle, as shown in Fig. 3. The quadrangle and springs D are all made of one piece of wire, the ends of which must be twisted together or otherwise united at E or at some other part of the quadrangle. The spiral springs D also form spring-hinges, which have the tendency to hold the quadrangle in one plane. The lower ends of the above-described springs are held by means of hooks or staples F to the bottom slats, G, and the upper ends of the said springs are held by means of staples or hooks H to the top slats, J. If pressure is exerted on the springs from above, they fold or bend at the spring's joints and form an angle, the size of which decreases with the increase of pressure. As soon as the pressure is removed the springs or frames are immediately straightened by their spring-joints. If the upholstery is to have a rounded upper surface, the cloth or covering is drawn in such a manner that the angles of the springs will decrease from the middle toward the edges of the upholstery—that is, the springs at the edges will be compressed more than those at the middle. The frames A need not necessarily be U-shaped, but can have any other suitable shape, as may be desired or as circumstances may require. The block C prevents twisting and displacement of the spring, and always retains the same in the proper position in relation to the frames A.

I am aware that it is not new to make a spring of a single piece of wire coiled in the middle and looped at the wire ends; but

What I do claim as new is—

1. A one-piece middle-coiled wire spring for mattresses, having both ends formed into rectangular or nearly-rectangular frames A A, whereby they may be applied between the top and bottom slats, as described.

2. In an upholstery-spring, the combination, with the frames A, of the transverse spiral spring B at the inner or open ends of the same, the block C, inserted into the said spring, and the bent ends *a* of the wire, forming the frames A and spring B, which bent ends *a* are driven into the ends of the block C, substantially as herein shown and described, and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH ALOIS WIDEMANN.

Witnesses:

HENRY HOFACKER,

EMANUEL BÜRGY.