

W. B. Judson,

Bed Bottom.

No. 107,383.

Patented Sept. 13. 1870.

Fig. 1

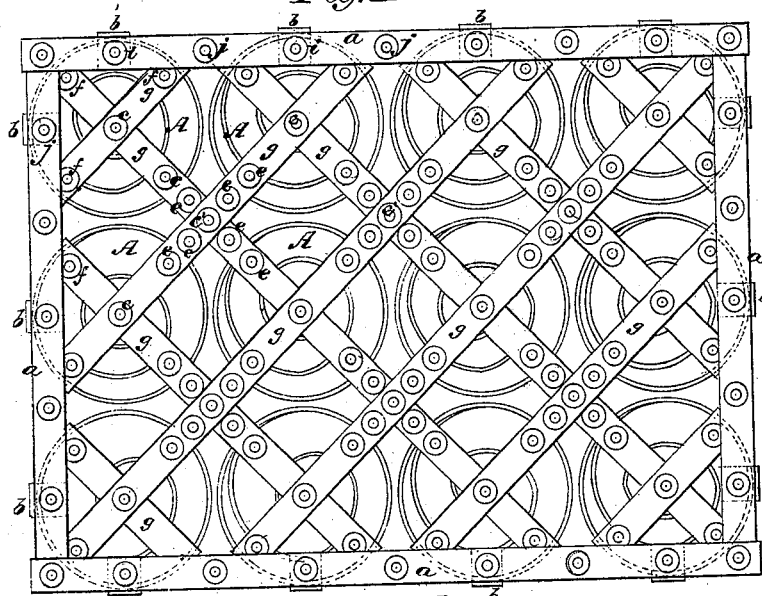


Fig. 2

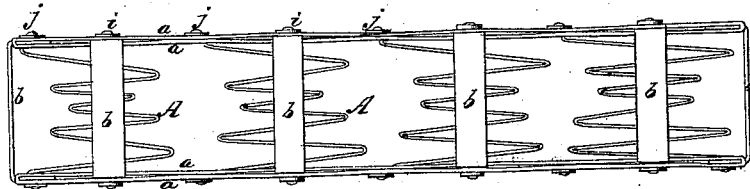
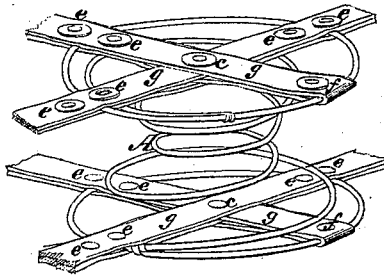


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM B. JUDSON, OF POUGHKEEPSIE, NEW YORK.

IMPROVED SPRING-MATTRESS.

Specification forming part of Letters Patent No. 107,383, dated September 13, 1870.

To all whom it may concern:

Be it known that I, WILLIAM B. JUDSON, of Poughkeepsie, in the county of Dutchess and State of New York, have invented a new and Improved Spring-Mattress; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 is a plan view of the mattress complete. Fig. 2 is an edge or side view of the same. Fig. 3 is a perspective view of one spring having strips applied to its two ends.

Similar letters of reference indicate corresponding parts in the three figures.

This invention relates to an improvement in the manufacture of spiral-spring mattresses, whereby the springs are secured and held in their places in a firmer and more durable manner than hitherto, and prevented from liability to slip from their fastenings. At the same time the mattresses produced will be flexible, and may be easily folded or rolled into a compact state for transportation.

The nature of my invention consists in securing the spiral springs in place by means of narrow strips or straps of any suitable material, which strips are applied in two thicknesses to the spring-wire, and the wire confined by means of rivets, as will be hereinafter explained.

To enable others skilled in the art to understand my invention, I will describe it.

In the accompanying drawing, Fig. 1, I have represented a spring-mattress constructed by my improved mode, having narrow strips *g g* arranged diagonally to the side and end strips *a a*; but it will be obvious, from the following description, that the strips *g* may be arranged at right angles to the strips *a*.

All the strips composing the skeleton flexible frame of the mattress are double thickness, except the side and end connecting-strips *b b*, which are of single thickness.

The strips may be made of rubber, leather, cotton, linen, or of any other suitable material possessing flexibility and strength.

The springs *A* are of the well-known spiral kind used in mattresses—that is to say, they are contracted at the middle of their length and expanded at their extremities.

The border strips *a a* are connected together at their ends by means of rivets and washers, and between the two thicknesses of each border strip at proper distances apart the springs *A* and connecting-strips *b* are secured by means of rivets and washers *i*, between which the said two thicknesses are secured together by the rivets and washers *j*.

The two thicknesses composing each one of the diagonal ties *g* receive between them the terminal wires of the springs, across which latter the strips are arranged diametrically and at right angles to each other. The strips being thus arranged, they are secured to the springs inside and out by means of rivets and washers *e e*, and at the center of each spring, where the strips *g g* cross, a rivet and washer, *c*, are applied to fasten the strips at such point. Also, where the straps, strips, and ties cross outside of or between the springs *A* they are secured together by rivets and washers *c'*.

It will be seen that each end of each spring *A* is held at four points opposite each other by means of the rivets and straps, rivets being inside as well as outside of the spring at each point of the fastening, and a strap above and one below at such point. The springs are thus firmly held, and cannot slip out from their fastenings, nor the fastenings become displaced. The strips operate as ties and braces to keep the ends of the spring apart and at uniform distances from one another. At the same time the strips constitute a flexible frame, which will allow the mattress to be either folded or rolled up into a small space.

It will be observed, by reference to Fig. 1, that the ties *g* are not riveted to the side and end strips *a*, but that the outside springs *A* are connected to the strips by the same rivets used to fasten the connecting-strips *b* to said strips *a*.

Having described my invention, I claim as a new article of manufacture—

A spring-mattress in which the springs are confined in position by means of strips and rivets, in the manner substantially as shown and described.

WILLIAM B. JUDSON.

Witnesses:

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