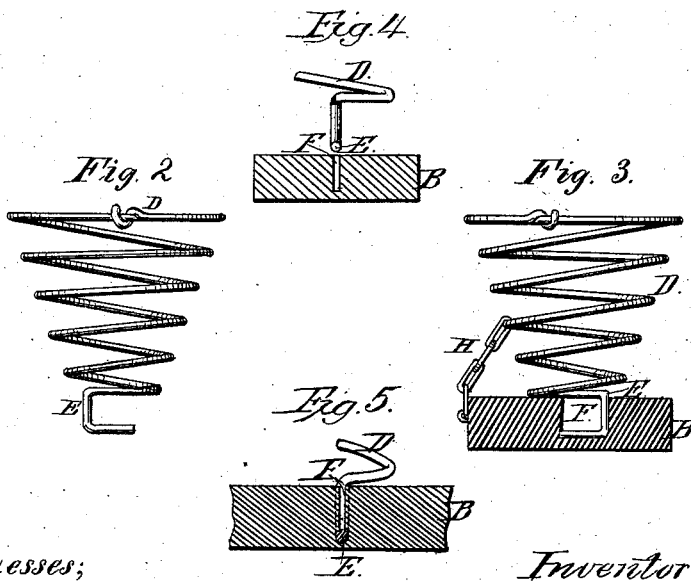
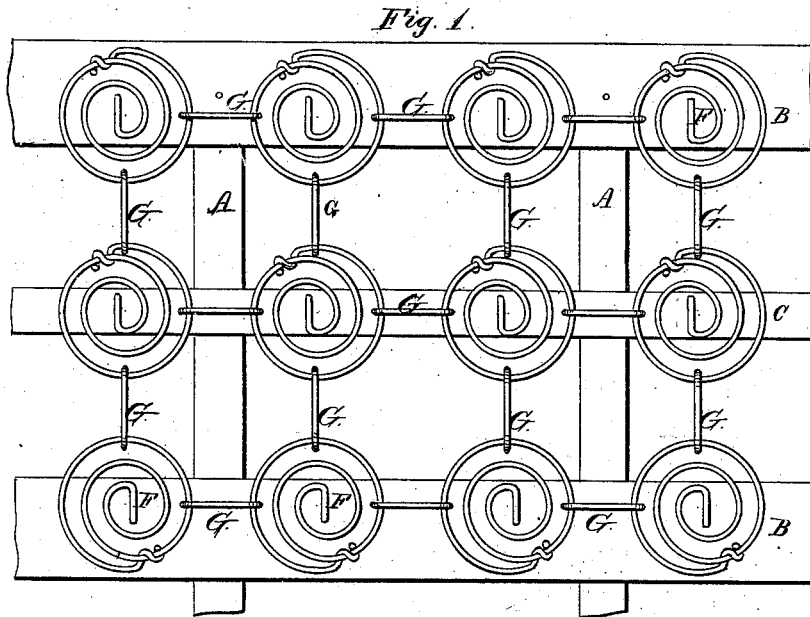


H. WINGER.
 SPRING BED-BOTTOMS.

No. 194,795.

Patented Sept. 4, 1877.



Witnesses;
 Charles Schlutt
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UNITED STATES PATENT OFFICE.

HENRY WINGER, OF MARSHALLVILLE, OHIO.

IMPROVEMENT IN SPRING BED-BOTTOMS.

Specification forming part of Letters Patent No. **194,795**, dated September 4, 1877; application filed March 31, 1877.

To all whom it may concern:

Be it known that I, HENRY WINGER, of Marshallville, in the county of Wayne and State of Ohio, have invented a new and useful Improvement in Spring Bed - Bottoms, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a plan view of a portion of a bed-bottom embodying my invention. Fig. 2 is a view of one of my conical spiral springs, showing the formation of the fastening-dowel at the lower end thereof. Fig. 3 is a view of the spring and slat, partly in section, showing the dowel in position in the incision or mortise in the slat, and the spring also secured to the slat by a brace attached to the spring and to the edge of the slat; and Figs. 4 and 5 are detail views, showing the manner of securing the dowel in the slat.

The object of my invention is to furnish a device by which to attach single-cone coiled-wire springs to wooden slats or frames for a spring bed-bottom.

In the drawings, A A are wooden cross-slats. B B and C are wooden slats attached to A A, and to which the springs D are secured by means of the dowel E, inserted in the incisions or mortises F, as shown in Figs. 3 and 4.

The conical spiral springs D are each made of suitable wire, terminating at their lower ends in a dowel, E.

The dowel E is formed by a continuation of the lower coil of the wire turned horizontally toward or past the center of the coil; then turned directly down; then again horizontally, terminating under the first horizontal part of the dowel described.

The springs D are attached to slats B and C, by forcing the dowel E into the incision

or mortise F. The mortise or incision being smaller than the wire of the dowel E, as shown in Fig. 4, after the dowel E is forced into the mortise, the wood will recede against and over the wire forming the dowel E, as shown in Fig. 5, thus holding the springs securely to the slats.

The slats B are wide enough to give a base for the braces H, extending from the outer edge of slats B to the upper part of springs D, the outer rows of springs being thus braced, and the springs are connected at their tops by metallic links G, as clearly seen in the drawing.

The braces H are preferably made of metallic links, but other material allowing similar action may be used, thus making a strong, durable, and comfortable bed-bottom.

The application of my device for fastening springs to wooden frames is not confined to single-cone bed-springs. It is obvious that double-cone as well as other springs may be fastened in the same manner.

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

1. The springs D, having the dowels E formed on the lower ends thereof, in combination with the slats B C, having the incisions or mortises F therein to receive the dowels E, substantially as and for the purposes described.

2. The combination of the springs D formed with the dowels E, the slats A B C, the links G, and the braces H, all substantially as shown and described.

HENRY WINGER.

Witnesses:

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