(No Model.)

H. M. HENRY.

SPRING BED BOTTOM.

No. 412,612. Patented Oct. 8, 1889.

Fig. 1.

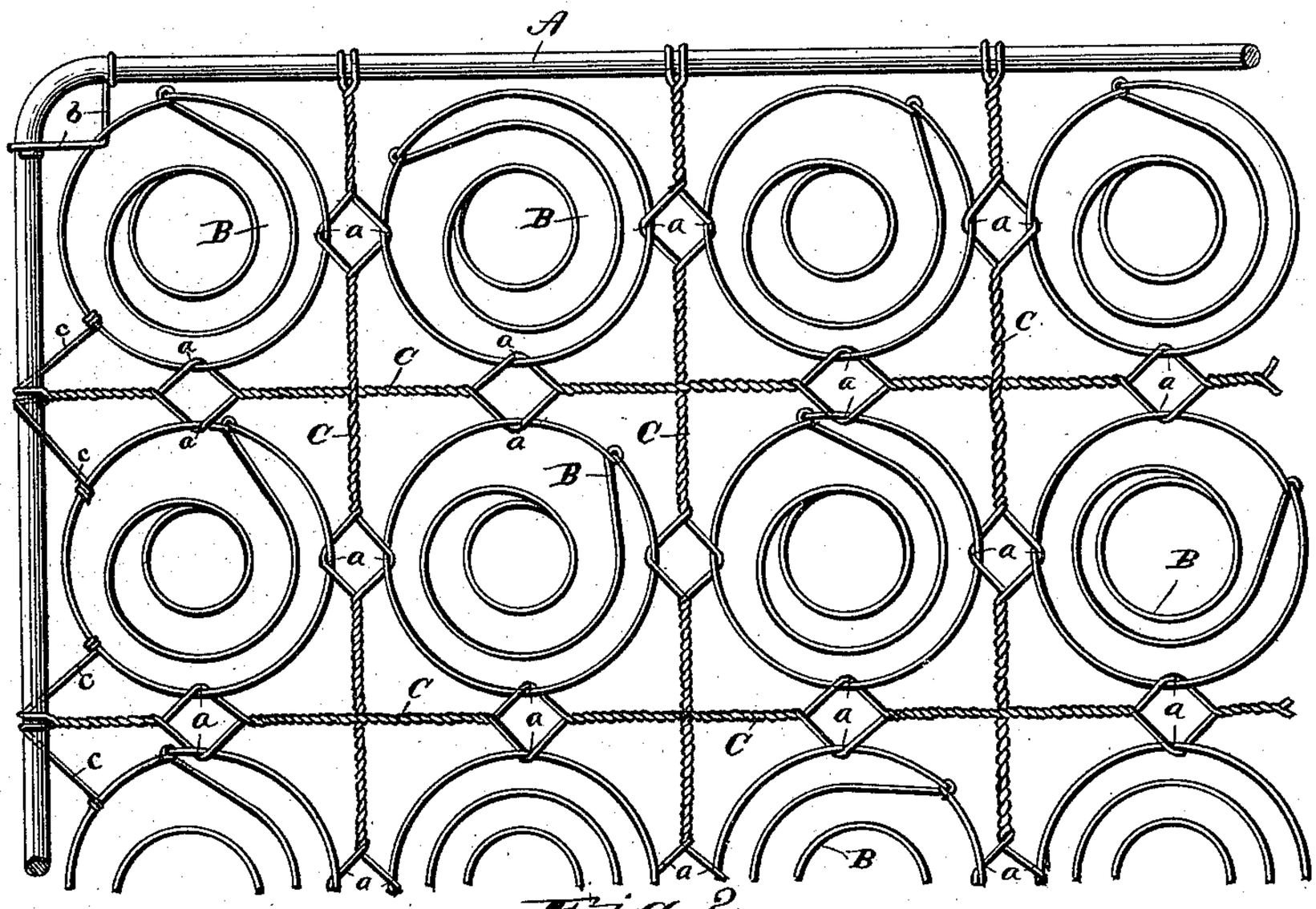


Fig. 2.

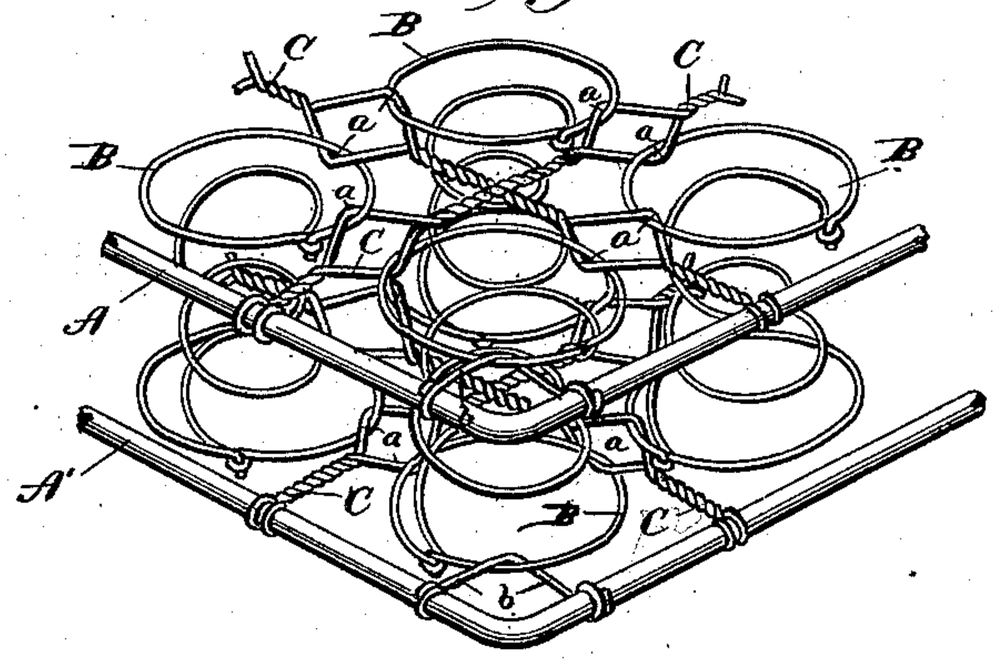
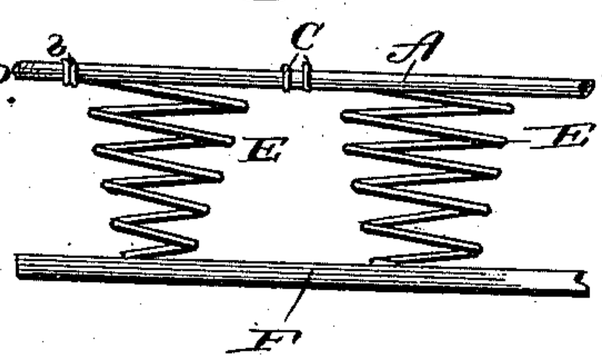


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY M. HENRY, OF ST. LOUIS, MISSOURI.

SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 412,612, dated October 8, 1889.

Application filed May 21, 1889. Serial No. 311,530. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. HENRY, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Spring Bed-Bottoms, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 represents a plan view of a portion of my improved spring-bed; Fig. 2, a detail perspective view of a portion thereof, and Fig. 3 a detail side elevation of a modification.

The invention relates to that class of bed-bottoms wherein the coil-springs are arranged and secured in series in a vertical position for the support of the mattress.

The object of the present invention is to provide an exceedingly simple and strong arrangement of intersecting twisted tie-wires, whereby the springs will be effectually prevented from shifting laterally without impairing to any appreciable extent the resiliency of the same, as will be more fully hereinafter set forth.

In the drawings annexed, A A′ designate, respectively, the top and bottom frames of the bed-bottom, and B the double conical spiral springs secured to the said frames.

My improved tie-wires C each consist of two strands of strong stout wire twisted together the greater part of their length and secured at their ends to the side bars of the frames. One of these tie-wires C is passed both transversely and longitudinally of the bed-bottom between each row or series of springs, the twisted portions of the wires intersecting each other at points about equal distances from the tops of the springs. Where the twisted tie-wires pass between the springs they are separated and formed into oppositely-projecting loops *a a*, through which the upper and lower coils of the springs pass. The tie-wires, when drawn taut, will serve to effectually hold the springs in a perfectly-upright position. The bottoms of the springs are secured to the bottom frame in the same manner as the tops of the springs are secured to the top frame. Auxiliary wire stays *b* secure the corner springs to the frames.

When secured in the manner described, the springs will require no other supports whatever, the twisted intersecting wires serving to support them without additional means.

The essential feature of the invention is that the end coils of each spring, except the border coils, will be braced and secured at four different points, thereby precluding the possibility of the springs becoming displaced or bent by the movements of the occupant of the bed.

Instead of attaching the ends of the stay-wires directly to the frames, as shown at top of Fig. 1, the parts of the stay-wires may be separated, and, after being passed or wrapped around the frame-bar once or twice, carried into the end coils of the springs and attached thereto, as shown at *c* to the left of Fig. 1, thereby bracing the border springs against lateral movement.

As shown in Fig. 3, I may use single conical springs E and attach their lower ends to slats F, instead of employing two of the frames A.

Having thus fully described my invention, what I claim is—

1. In a spring bed-bottom, the combination of a frame A, bed-springs B, arranged in transverse and longitudinal rows within the said frame, and the longitudinal and transverse tie-wires C, extending entirely across the frame and securely fastened to the same at their ends, these tie-wires being arranged between the rows of springs, so as to intersect each other, and being constructed each of two strands of wire tightly twisted together, loops *a a* being formed by separating the strands of the tie, these loops receiving the end coils of the springs, as shown, whereby the entire bed of springs will be firmly connected together and to the frame, thereby preventing lateral movement of the springs in all directions, substantially as described.

2. The combination of a frame, springs arranged in rows within the frame, and the parallel intersecting tie-wires C, secured to said

frame and composed of twisted wire strands, the ends *c c* of these tie-wires being wrapped around the frame and turned inwardly and secured to the top coils of the border springs, and loops *a a* being formed in the said tie-wires and connected to the top coils of the springs, whereby each spring is securely braced at four different points, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY M. HENRY.

Witnesses:
W. I. HENRY,
G. A. ROSS.