E. S. FIELD.

SPRING BED-BOTTOMS.

No. 187,463. Patented Feb. 20, 1877.

Fig. 1.

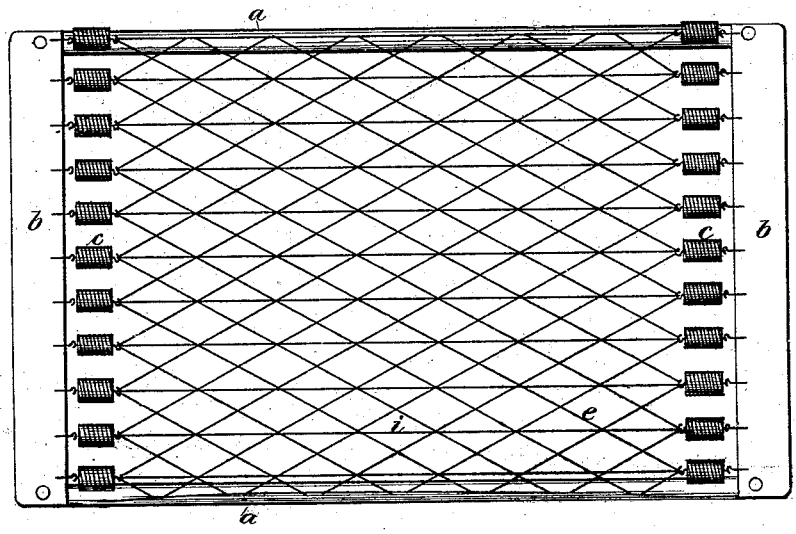


Fig. 2.

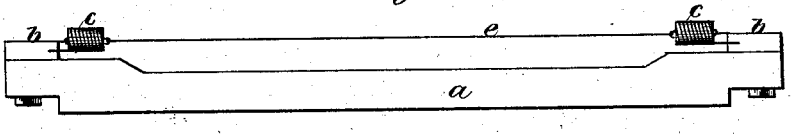


Fig. 4.

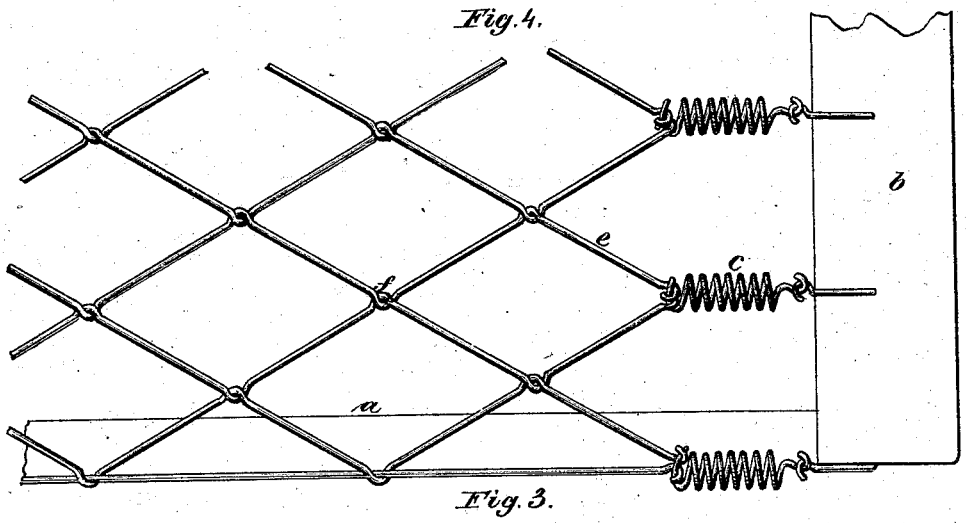
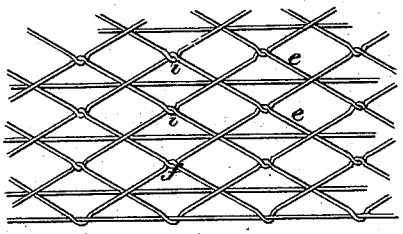


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

EDWIN S. FIELD, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN SPRING BED-BOTTOMS.

Specification forming part of Letters Patent No. **187,463**, dated February 20, 1877; application filed June 5, 1876.

To all whom it may concern:

Be it known that I, EDWIN S. FIELD, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements Pertaining to Spring Bed-Bottoms, of which the following is a specification, reference being had to the accompanying drawings, where—

Figure 1 is a top view, giving the general effect only. Fig. 2 is a side view. Fig. 3 is a top view of a part of the bed-bottom, showing the details of the method of connecting the wires. Fig. 4 is a top view of a part of a bed-bottom, showing a modified method of connecting the wires.

The invention consists in the formation of a wire fabric for a bed-bottom of wires, each of which runs the length of the bed, and is so angulated and so connected at the angles with the other angulated wires as to form diamond-shaped figures in the interspaces, the whole fabric so formed being attached at the end or ends to springs, which render the fabric longitudinally elastic.

The invention further consists in the combination of the mechanical elements or factors just described with other wires non-angulated, which run straight across the length of the bed.

The letters *a a* denote the side rails of a bed-frame, and *b b* the end rails. To the end rails are attached the helical extension-springs *c*, those upon one end rail corresponding in position to those upon the other end rail. From each spring there runs to the corresponding springs at the other end of the bed a regularly angulated wire, *e*, connected at each of its angles with the angles of a similarly-angulated wire, so that the interspaces are diamond-shaped.

In Fig. 3 I have shown these diamond-shaped interspaces intersecting or overlapping each other, so as to form four smaller diamond-shaped interspaces within, and of each one of the diamond-shaped interspaces formed by connected angles.

In Fig. 4 I show the sides of the connected angles having less length, so that the diamond-shaped interspaces formed by connected angles do not overlap or intersect. The connection at the angles is made simply by running one wire around the other, each of the wires having a dentation, *f*, at this point, which interlock, and keep one wire from slipping endwise from the other. This simple method of connecting the wires at the angles forms an essential feature of the fabric and of the invention. Thus much for the first part of my invention.

The second part of my invention consists in combining a fabric, such as I have just described, with straight wires *i*, each running the length of the bed from each spring to its corresponding spring at the other end of the bed.

Both parts of this invention have been put to practical use by me; and I have found that these straight wires add stability and strength to the fabric when it is put to hard use by heavy persons.

I am aware that various kinds of wire nettings have been used for bed-bottoms, and I do not claim as my invention fabrics not having all the features herein described as essential—to wit: there must be springs at the end or ends to make the fabric elastic; the angulated wires must run continuous from one end of the bed to the other; the interspaces formed by connected angles must be diamond-shaped; the connections at the angles must be formed by simply running one wire around the other, preferably making use of the dentation at the angles.

In view of these limitations, I claim as my invention—

1. A bed-bottom composed of continuous angulated wires *e*, connected at the angles by simply running one wire around the other, with springs at the ends, substantially as described.

2. In combination, the continuous angulated wires *e*, connected at the angles by simply running one wire around the other, the end springs *c*, and the continuous straight wires *i*, substantially as described.

EDWIN S. FIELD.

Witnesses:

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