

(No Model.)

D. J. POWERS.
SPRING BED BOTTOM.

No. 386,846.

Patented July 31, 1888.

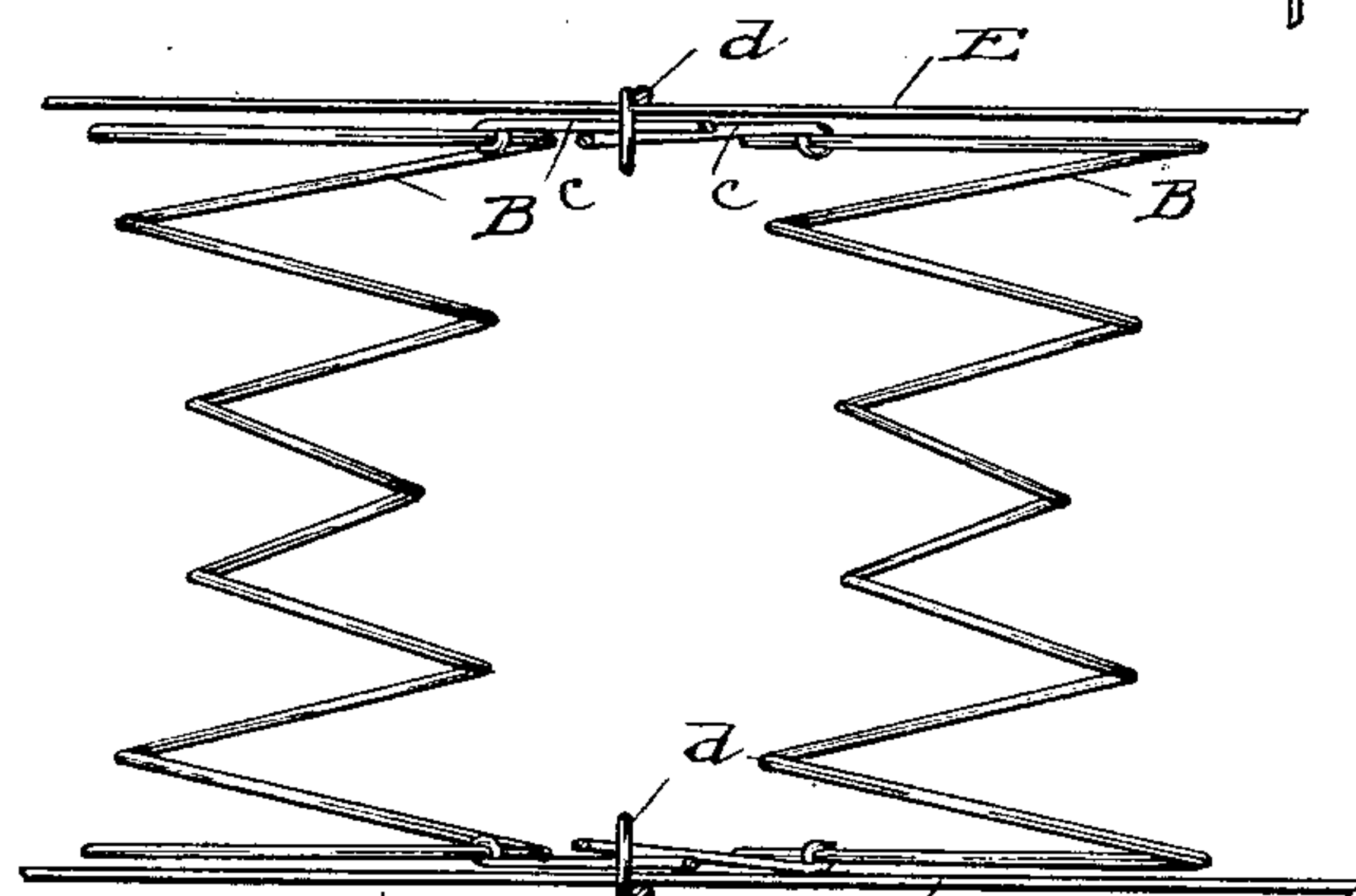
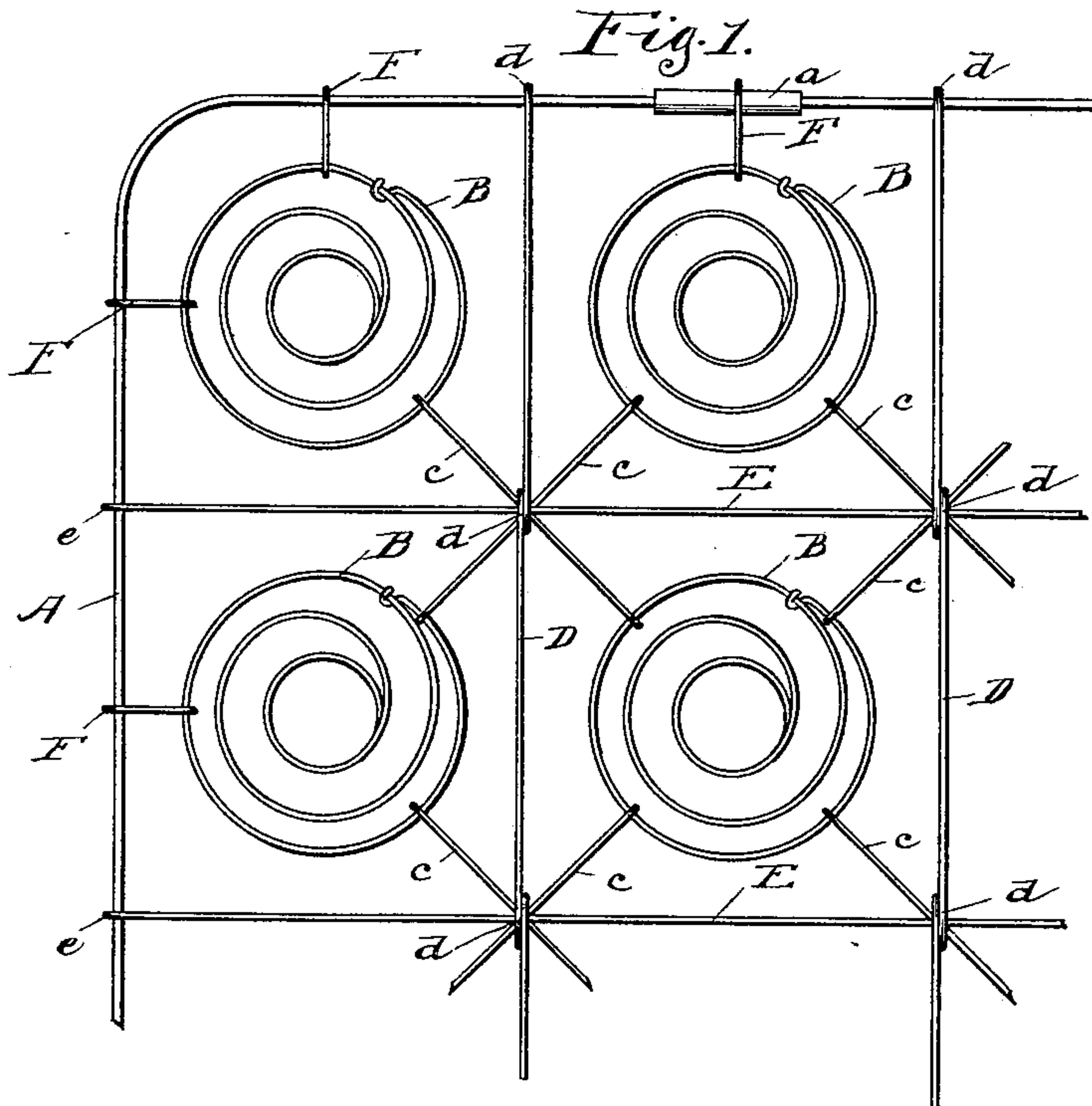


Fig. 2.

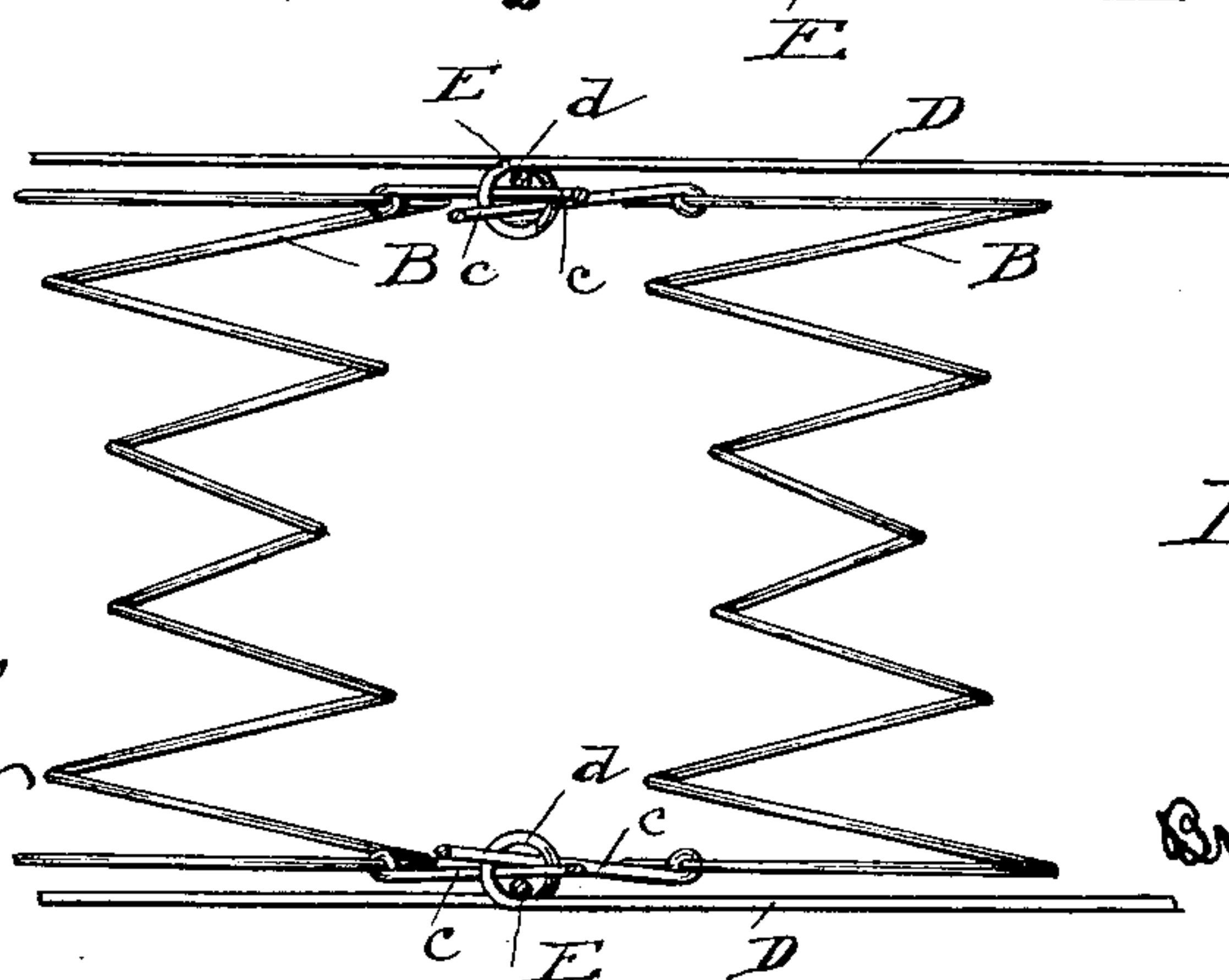


Fig. 3.

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SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 386,846, dated July 31, 1888.

Application filed September 24, 1887. Serial No. 250,569. (No model.)

To all whom it may concern:

Be it known that I, DAVID J. POWERS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Spring Bed-Bottoms, which I desire to protect by Letters Patent of the United States, and of which the following is a specification.

My invention relates to the construction and arrangement of the several parts constituting a spring bed-bottom, wherein greater durability than usual is obtained, and whereby both sides of the bed-bottom are identical in construction, thus rendering it reversible.

In the accompanying drawings, Figure 1 is a plan view of a portion of the bed-bottom. Fig. 2 is an end elevation of a portion equal to that shown in Fig. 1. Fig. 3 is a side elevation of the same.

The portions constituting the marginal basis of the structure consist of two wires, A, upper and lower, respectively. These wires are preferably each formed of a single piece of No. 5 wire, and united at their ends by a sleeve, *a*. From end to end of these quadrilateral primary wires are drawn at regular intervals longitudinal wires D, that have their ends looped or hooked around said wires A. The latter wires have loops *d* formed at uniform distances throughout their lengths, preferably corresponding to the intervals between transverse wires. At right angles to wires D are placed wires E, that pass through the loops *d* and are respectively looped on or secured to the corresponding sides of the primary wire A. Thus the space within the wires A is divided into areas of equal dimensions. Within each of these areas is placed a spiral spring, B, uniform in diameter at its ends and contracted centrally of its length. This latter feature, however, is not essential to the successful operation of the spring. The springs are secured to the wires A, respectively, by means of directly-connecting loops, consisting of short pieces of wire, F, having hooks formed at their ends, each of the corner springs having two such connections. In an interior direction and conjointly with the several interior

springs, diagonally-placed loops or links *c* constitute ties. The latter extend through the loops *d* of the wires D, where they intersect or converge. Thus the interior springs each are stayed in four directions. Loops *d* may of course be formed in the transverse series of wires E, or partly in one and partly in the other, though I prefer the formation shown.

In the production of a bed-bottom, as above described, the greatest simplicity of construction is attained, combined with maximum elasticity and the advantage of duplicated or reversible sides.

Having thus described my invention, what I claim is—

1. In a spring bed-bottom, a series of longitudinal wires secured at their respective ends to opposite ends of the structure, a series of transverse wires also secured to the sides of the structure, corresponding to their direction, one series of which is provided with loops at intervals throughout their length, and the wires of the other series inserted through said loops, and a series of spiral springs located within the areas or squares outlined by the two series aforesaid, the outer rows of which are partly secured by wire loops direct to the marginal portions, and conjointly with the interior rows of springs are tied or stayed by wire hooks or links that pass through the loops of the transverse or longitudinal wires aforesaid, two of which tie-wires intersect or converge at said loops and serve to connect springs occupying positions diagonally adjacent to each other, substantially as set forth.

2. In a spring bed-bottom, a series of longitudinal wires secured at their respective ends to opposite ends of the structure, a series of transverse wires also secured to the sides of the structure, corresponding to their direction, one series of which is provided with loops at intervals throughout their length, and the wires of the other series inserted through said loops, and a series of spiral springs respectively located within the areas or squares outlined by the two series aforesaid, the outer rows of which are partly secured by wire loops direct to the marginal wires, and conjointly with the interior rows of springs are

5 tied or stayed by wire hooks or rods that pass through the loops of the transverse or longitudinal wires aforesaid, two of which tie-wires intersect or converge at said loops and serve to connect springs occupying positions diagonally adjacent to each other, in combination with two or more principal marginal

wires of quadrilateral form, substantially as described.

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