

H. A. GASTON.
Spring Mattresses.

No. 137,673.

Patented April 8, 1873.

Fig. 1.

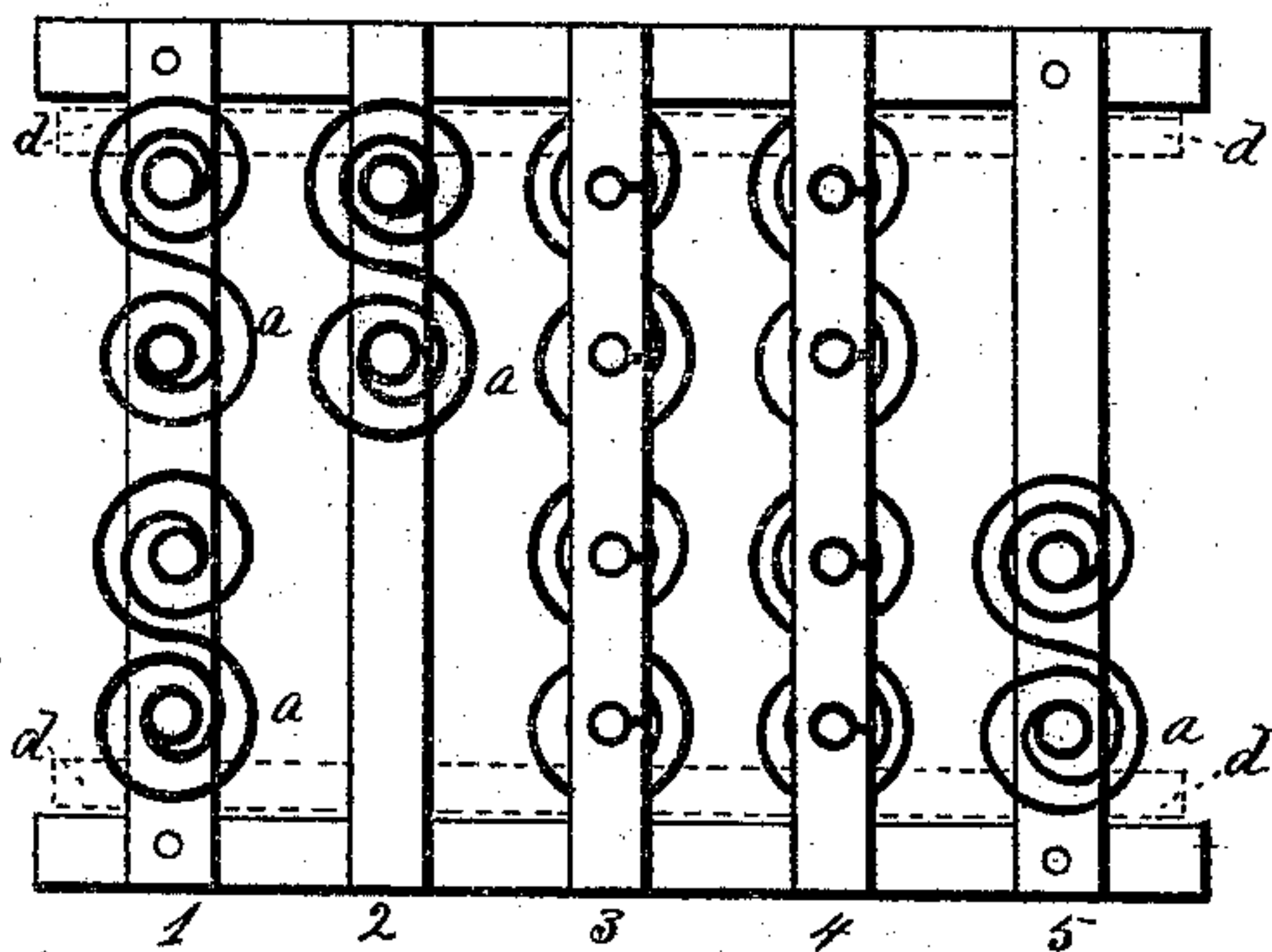


Fig. 2.

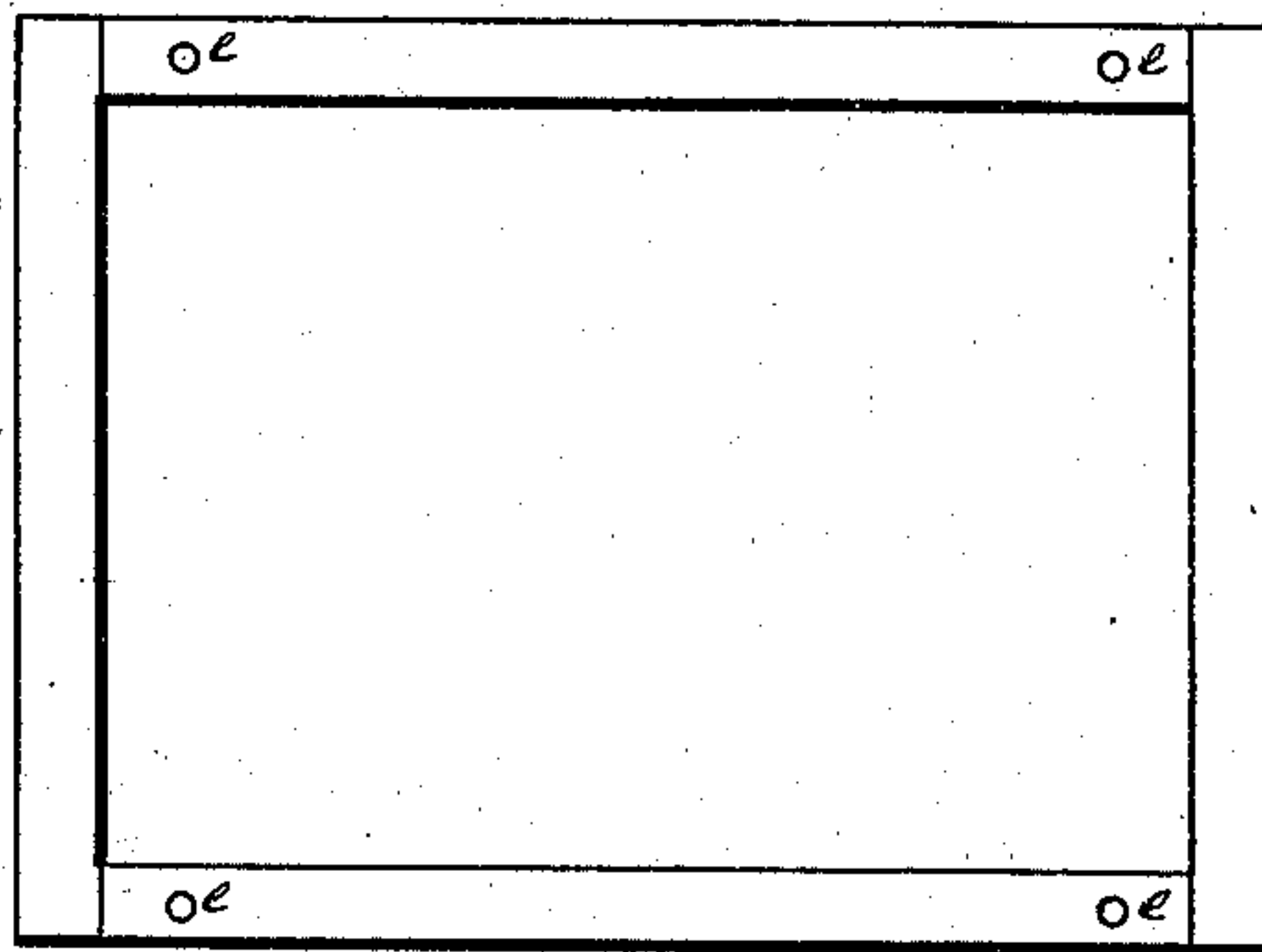


Fig. 3.

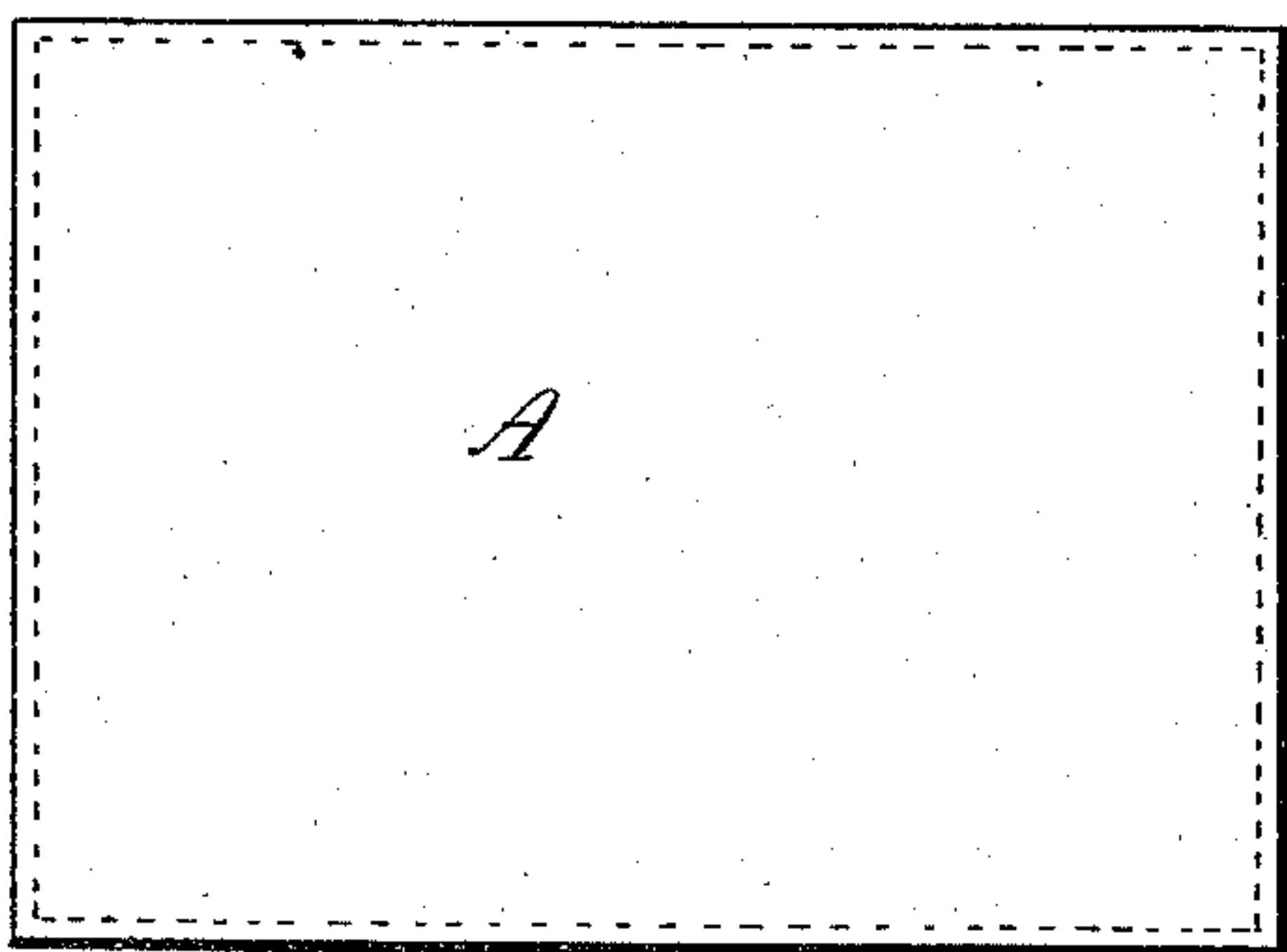


Fig. 4.

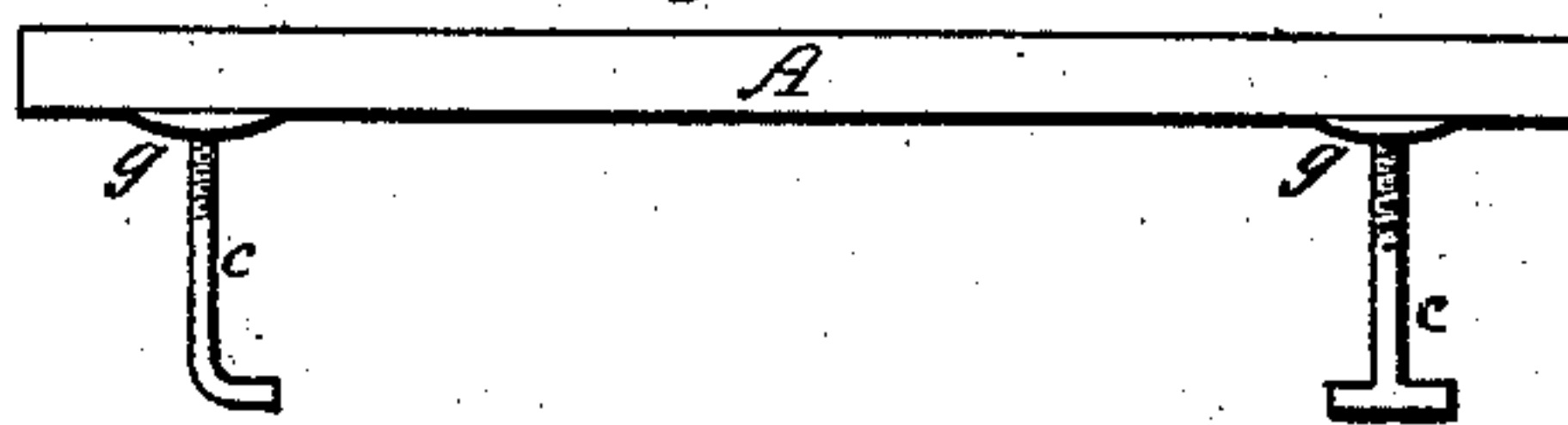


Fig. 5.

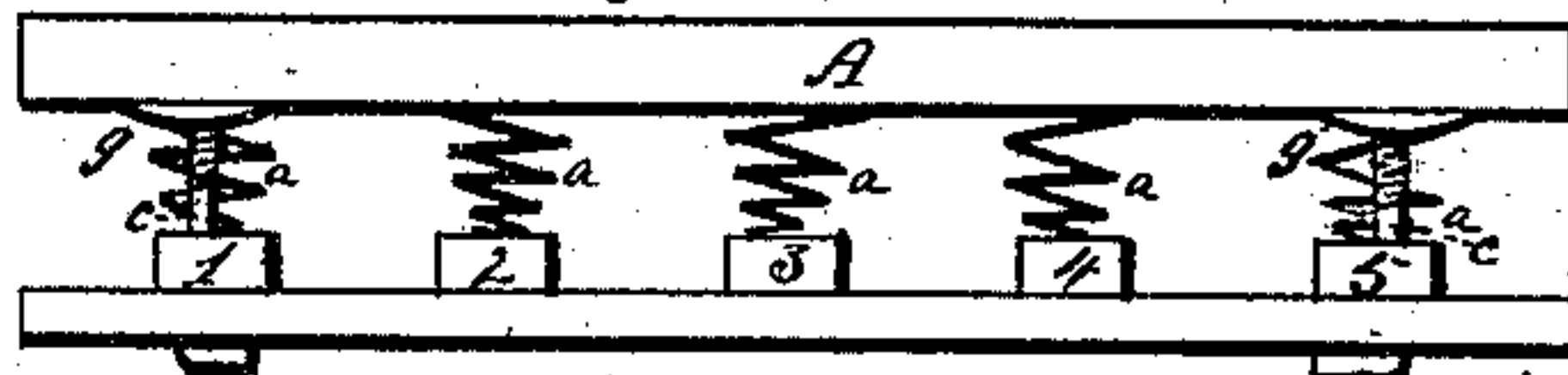


Fig. 6.



Fig. 8.

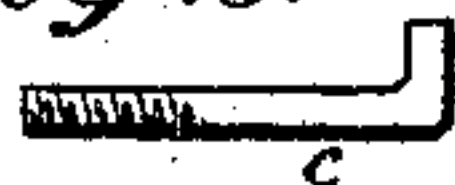
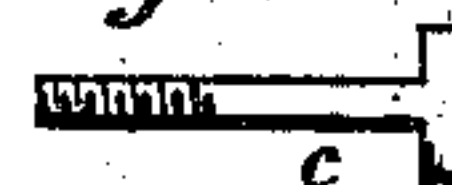


Fig. 7.



Fig. 9.



Witnesses.

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HENRY A. GASTON, OF SAN JOSÉ, CALIFORNIA.

IMPROVEMENT IN SPRING-MATTRESSES.

Specification forming part of Letters Patent No. **137,673**, dated April 8, 1873; application filed November 5, 1872.

To all whom it may concern:

Be it known that I, HENRY A. GASTON, of the town of San José, county of Santa Clara and State of California, have invented certain new and useful Improvements in Spring-Mattresses; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing making a part of this specification, in which—

Figure 1 represents the slats in a common bedstead, with four of my springs standing upon them, while others hang under the slats numbered 3 and 4, to show the bottom of my spring. Fig. 2 is a frame determining the size of the top of my mattress, and is provided with four novel orifices, *e e e e*. Fig. 3 represents the same frame covered with cloth of any kind. Fig. 4 is a horizontal and side view of the same frame and cover, showing thicknesses of material added to the frame at *g g*, and also showing novel guiding rods, bolts, or brackets *c c*. Fig. 5 is a side view of my mattress attached to the slats of a common bedstead. Fig. 6 is a vertical view of my spring, showing a part of its novel terminations. Fig. 7 is a side view of the same, showing its novel C-clevis fastenings *b b*. Figs. 8 and 9 are views of my novel rods, bolts, or brackets used to prevent the swaying of the top of my mattress and to regulate the heights of its surface.

The same letters refer to like parts of the mattress in all the figures.

The slats are numbered from 1 to 7. The dotted lines under the slats in Fig. 1 represent slats or bars to which the common slats may be nailed or screwed when desired, or for the purpose of moving the mattress as a unit. *a a*, &c., are double spiral springs made of wire, the bases of which terminate in two coils or rings just far enough apart to admit between them, under pressure, a common bedstead-slat, which rings are connected with each other by the same wire continued in the form of a C-clevis, whose concave, when in position in the mattress, presses upon the corners of the slat upon which it is placed.

In Figs. 4, 5, 8, and 9 *c c c c* are novel rods, (say of iron, three-eighths of an inch in diameter and from nine to twelve inches in length,) the upper ends of which terminate in a screw.

The orifices *e e e e* in Fig. 2 are provided to receive into them the screws above named, and are of a smaller diameter than such screws, (say one-fourth of an inch in diameter.) The orifices *d d d d*, through slats 1 and 7 in Fig. 1, are provided to receive through them freely from below the rods mentioned above and have a greater diameter than such rods, say a diameter of half an inch. *g g* are thicknesses of material added to the under side of the frame shown in Figs. 2, 3, 4, and 5, and are also provided with the orifices *e e e e*, by which novel contrivance the height of either end or side of the mattress can be slightly lowered or raised, and the sensitiveness of the springs may be adjusted. *o o* are the openings of the novel C-clevis fastening of the springs *a*, and may be turned to clasp each the same slat, on the same side or on opposite sides, or to clasp contiguous slats, as represented in Fig. 1. The slats 3 and 4, in Fig. 1, are represented inverted, to show the bottom ring of my novel C-clevis fastening of the spring. Suppose, now, that the half-inch holes *d d d d* be bored through the proper slats of a common bedstead, and that any desired number of the springs *a* are slipped onto the slats vertically. Even without other fastening than the clasp of the strong C-clevis the springs would stand quite firmly, for the circular bend of the wire in forming the clevis preserves the strength and elasticity of the wire, while a square bend injures both; and if my spring be pressed over in any direction, the pressure being again removed, the elasticity of the clevis-fastening, terminating with its elastic rings, instantly brings the spring back to its vertical position; yet experience has shown that the tops of springs are too easily swayed. To prevent this, suppose that, now, we place upon the platform presented by my springs the frame (Fig. 2) upon which we have fastened, by tacks or otherwise, the cover A, Fig. 3. Now, suppose we extend upward through the holes *d d d d* and screw into the holes *e e e e* the novel rods *c c c c*. By this novel contrivance we prevent the swaying of the top of the mattress beyond, say, one-fourth of an inch, and yet preserve to the bed all the elasticity of the springs, for the rods *c*, though firm in the frame at *e*, are free to move downward through *d*, but can go up only until the bracket or head of *c* strikes

the under side of the slat. At the same time another advantage is gained by this novel contrivance, for, if a person sit down on the side of the mattress, no one nor two of the springs has to sustain the person's weight, but all the springs sustain a part, for the rods *c* upon the opposite side of the mattress become a fulcrum and all the springs become a resisting-power through the covering *A* attached to the frame. When I desire to make the springs immovable at top and bottom I drive a single tack into the slat against each upper coil of the clevis-fastening, which holds the base firmly, and a stitch through the cover *A* and around the upper coil of each spring firmly fastens the top. All tying of springs is dispensed with.

I am aware that double-coiled spiral springs have been long in use, and therefore do not claim that feature as my invention; but my springs differ from those in this, that my springs terminate at their base in the novel but very valuable **C**-clevis fastening *b*, while those do

not. I am also aware that there is a single-coiled spiral spring in use which fastens upon the common slat of a bedstead; but that is a single coil only, and terminates in a square fastening, whereby the wire is weakened and often broken in bending, while mine is a curved bending, whereby the strength and the elasticity of the wire are both preserved. Mine, too, being a double spring, stands much firmer on its bases than the single-coiled spring, while the coils in mine mutually sustain and balance each other.

I claim as my invention the following features only:

The combination of the upper and lower frames, the double-coiled springs with a clevis-termination, and the guide-rods *c*, constructed as described, and for the purposes set forth.

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Witnesses:

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