

(No Model.)

E. A. CLEVELAND.
BED BOTTOM.

No. 440,393.

Patented Nov. 11, 1890.

Fig. 1.

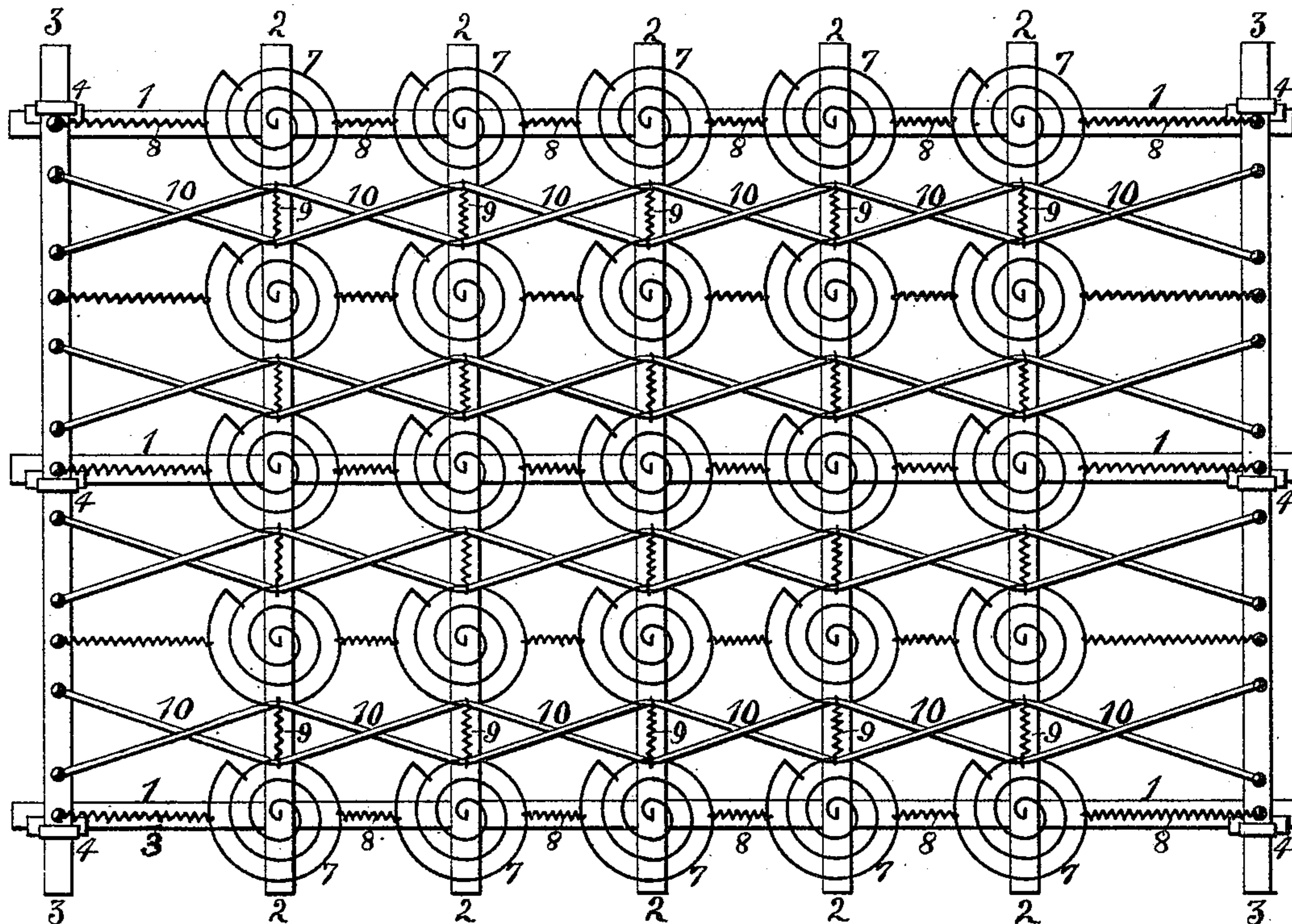
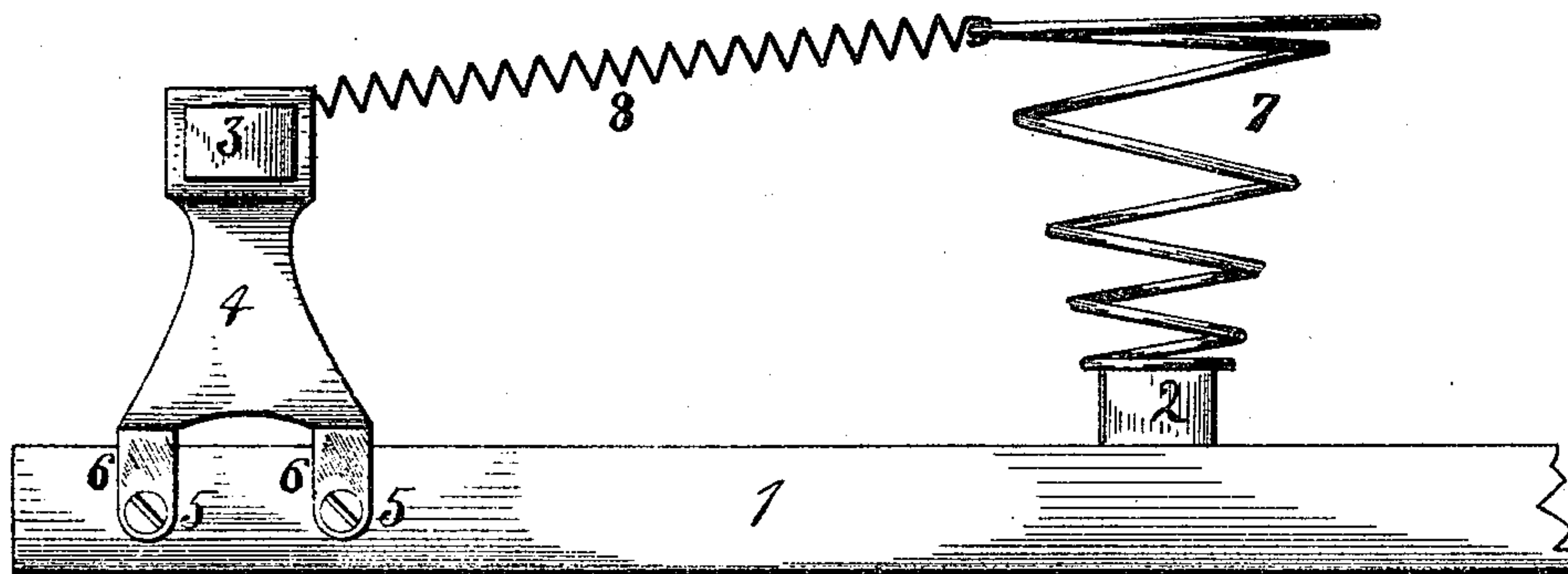


Fig. 2.



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UNITED STATES PATENT OFFICE.

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BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 440,393, dated November 11, 1890.

Application filed October 5, 1889. Serial No. 326,143. (No model.)

To all whom it may concern:

Be it known that I, ELIAS A. CLEAVELAND, a citizen of the United States, residing at Belvidere, in the county of Boone and State of Illinois, have invented certain new and useful Improvements in Bed-Bottoms, of which the following is a specification.

The object of this invention is to construct a bed-bottom composed of spiral springs laced together by a lacing, which may be taken up to bring the springs closer together, thereby forming a connection between the springs, so that pressure upon them will be more uniformly distributed over the entire surface.

The further object is to elevate the end bars to nearly on a level with the top of the springs and a connection between the springs and end bars, whereby two rows of springs are dispensed with and a better bed produced.

In the accompanying drawings, Figure 1 is a top view of a bed embodying my improvements. Fig. 2 is a side elevation of one of the elevated end bars, showing its connection with the springs.

The frame-work of the bed is composed of lengthwise beams 1, held separated by cross-bars 2 at proper intervals.

The end bars 3 are elevated above the lengthwise beams 1 to nearly the height of the springs, and are thus held by brackets 4, secured to the lengthwise beams by screws 5 passing through their feet 6. Their upper portions are in socket form and receive the end bars.

Upon the transverse bars 2 are secured spiral springs 7, of the form unusually employed in this class of beds. These springs are linked together by lengthwise coiled springs 8 and transverse coil-springs 9, as shown. The coil-springs 8 also connect the end rows of spiral springs with the end bars 3.

To one of the end bars are secured lacings 10, which are first crossed, then passed through the upper coil of two adjacent springs, again crossed and passed through the upper coils of the next two adjacent springs, and so on until all the springs in that row are laced together, when the lacings are tacked or otherwise secured to the other end bar. The remaining springs are similarly laced, as clearly shown in the drawings. By thus lacing the

springs together I produce a bed free from all metallic ring common in this class of beds. Should the springs begin to sag, they may be brought back to place by drawing on the lacing and taking up the slack at the point of their connection with the end bars.

When the bed is designed for light persons, I may omit the transverse coil-springs 9, as the lacings will be sufficient to sustain the weight.

By this arrangement of the parts and the employment of the elevated end bars I am able to make a desirable and elastic bed with two less rows of springs than is commonly used, and in use the springs will be compressed until they assume a level with the end bars, and the person occupying the bed will assume a horizontal position, while in the bed employing two more rows of springs the head and foot ends are always highest and the center depressed.

The material for lacing may be of different kinds, according to the price of the bed. I have found that tape makes a cheap and durable lacing.

I claim as my invention—

1. In combination, a spring bed-bottom composed of spiral springs and elevated head and foot supports and flexible lacings laced alternately through the rows of springs and secured at each end to the supports, substantially as set forth.

2. In combination, a spring bed-bottom composed of spiral springs and elevated head and foot supports and flexible lacings laced alternately through the rows of springs and adjustably secured to the supports, substantially as set forth.

3. In a bed-bottom, the combination, with the spiral springs, of spring-connections between said springs and flexible lacings laced alternately through the springs and connected to elevated head and foot supports, substantially as set forth.

4. In a bed-bottom, the combination, with the spiral springs, of spring-connections between said springs and flexible lacings laced alternately through the spiral springs and adjustably connected to elevated head and foot supports, substantially as set forth.

5. In combination, a spring bed-bottom and

lacings laced alternately through the rows of the springs of said bottom and secured at each end to a stationary support, substantially as set forth.

- 5 6. In combination, a spring bed-bottom and lacings laced alternately through the rows of the springs of said bottom and adjustably se-

cured to a stationary support, substantially as set forth.

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Witnesses:

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