

HENRY F. HOWELL.
Improvement in Spring Bed-Bottoms.
No. 128,043. Patented June 18, 1872.

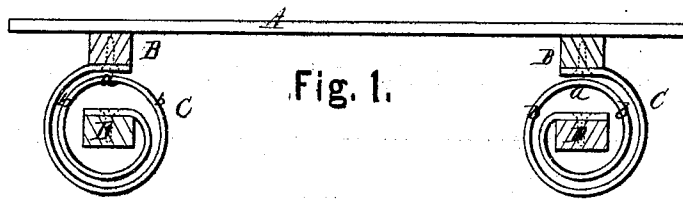


Fig. 1.

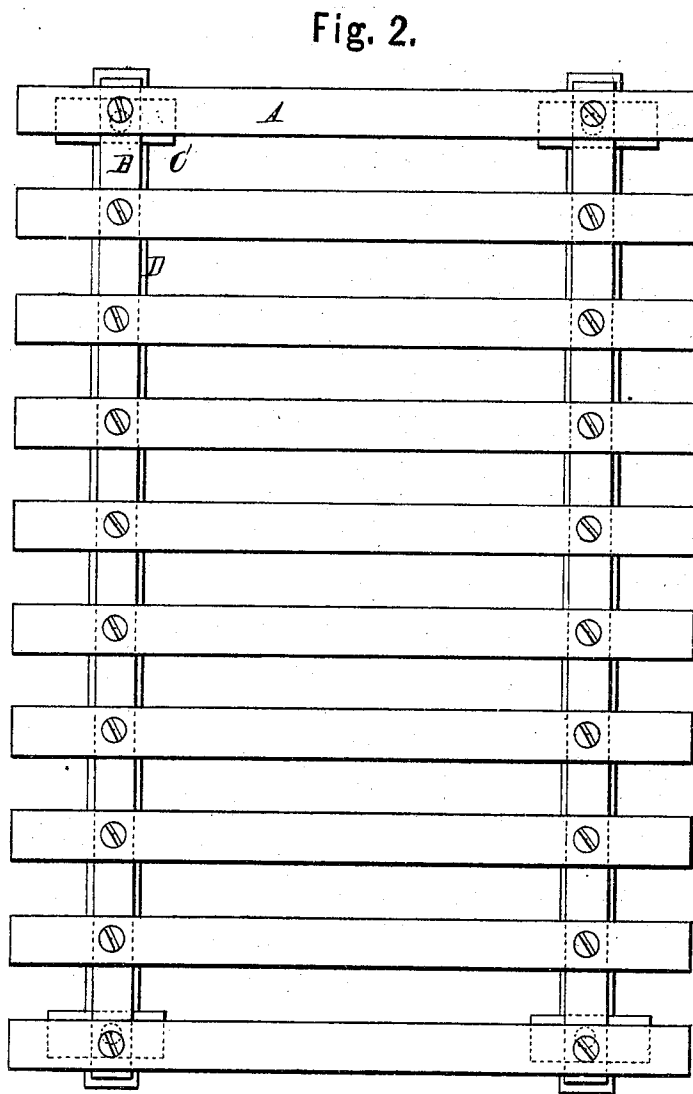


Fig. 2.

WITNESSES.

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UNITED STATES PATENT OFFICE.

HENRY F. HOWELL, OF MT. PLEASANT, IOWA.

IMPROVEMENT IN SPRING BED-BOTTOMS.

Specification forming part of Letters Patent No. 128,043, dated June 18, 1872.

To all whom it may concern:

Be it known that I, HENRY F. HOWELL, of Mt. Pleasant, in the county of Henry and State of Iowa, have invented a new and valuable Improvement in Spring Bed-Bottoms; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a sectional view of my invention. Fig. 2 is a plan view of the same.

This invention has relation to spring bed-bottoms; and consists in the construction and novel arrangement of the springs, as and for the purpose hereinafter described.

In the drawing, A represents the bed-slats attached near their ends to the longitudinal bars B. C designates volute springs made of thin plates of steel and bent into exactly two full coils each. The outer ends of the springs are secured to the under sides of the bars B, while the inner ends are secured to the upper surfaces of the bars D, which pass directly through the centers of the volutes. The springs rest on the frame of the bedstead. The object in constructing and arranging them as above specified is to enable them to increase in power according as they are depressed. In this way the springs will be capable of bearing heavy weights without losing their elasticity or being injured. The springs increase in pow-

er gradually by contraction of the coils, which causes them to work easily and without sudden jar or shock. The weight at first acts on the outer coil, which sinks until the second coil comes in contact with the under surface of the bar B. The weight now also acts on the second coil at *a*, compressing it until its sides at *b* come in contact with the upper angles of the bar D, whereupon a third purchase is obtained by the action upon the coil of the bar D, which, together with the pressure at *a*, tends to flatten the coil. It will thus be seen that the strength of the different parts of the spring combine gradually and thus compensate for the increasing weight. The elasticity of the bed-bottom is, consequently, the same under all weights. As a support to the bars B, and as means for preventing their horizontal movement, cords or wires may be stretched from them to the middle parts of the bed-rails.

What I claim as my invention, and desire to secure by Letters Patent, is—

The improved spring bed-bottom having the slats A attached to the bars B, and the double coiled volute springs C *a b* attached to the bars B and D, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY FRANKLIN HOWELL.

Witnesses:

HORTON J. HOWARD,
O. H. SNYDER.