

J. J. LUCAS.

BED-BOTTOM.

No. 189,943.

Patented April 24, 1877.

FIG. 1.

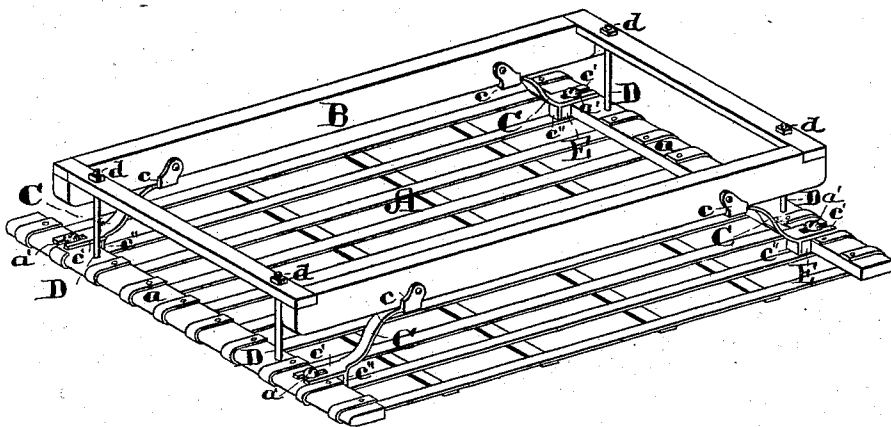
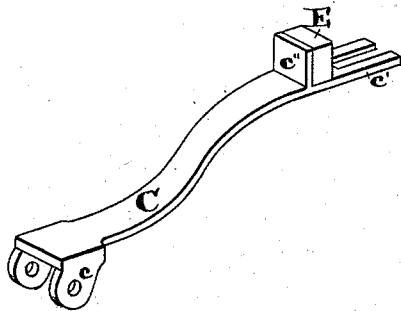


FIG. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN BED-BOTTOMS.

Specification forming part of Letters Patent No. 189,943, dated April 24, 1877; application filed February 10, 1877.

To all whom it may concern:

Be it known that I, JOHN J. LUCAS, a resident of Belleville, Illinois, have made new and useful Improvements in Bed-Bottoms, of which the following is a full, clear, and exact description, reference being had to the annexed drawing, making part of this specification, in which—

Figure 1 is a view in perspective of the invention, shown bottom upward, and Fig. 2, a perspective, showing one of the arms used in supporting the mattress.

The same letters denote the same parts.

Mattresses, like the "woven wire," that are supported at the ends only, are apt in use to become stretched to such an extent as to require tightening.

The present invention relates to an efficient means for reinstating the tension in these mattresses. It further has reference to the means used in imparting elasticity in a longitudinal direction to the mattress.

Referring to the annexed drawing, A represents the mattress proper. It may be made of any suitable material—woven wire, cane, metallic strips, cord, or any substance that can be stretched over the end rails *a a*, which are of the customary shape. B represents the frame that serves as the base of the structure. C C C C represent braces or arms, that support the mattress and connect it with the frame beneath, and more particularly in the following manner: Two of the arms are arranged toward one end of the bottom and two toward the other end. At their lower ends *c c c c* they are pivoted to the frame B; thence, extending upward and outward, (one set of arms inclining one way and the other set the other way,) the end rails rest upon their outer ends *c' c' c' c'*. The arms are similarly provided with shoulders *c'' c'' c'' c''* that extend upward from the upper side of the braces at a point inside the bearings *c' c' c' c'* and serve to press either directly or indirectly, as hereinafter explained, against the inner edges of the end rails *a a*. Now, when the mattress needs tightening, it is drawn directly downward toward the frame B by a force applied to the end rails *a a*. The effect of this movement is to depress the outer ends of the arms

C C C C; and, as the latter are moving on a circle whose center is the point, where the arm is pivoted to the frame to bring the shoulders *c'' c'' c'' c''* against the end rails *a a*, and in so doing to elongate the mattress and give it the desired tension. Unless, however, the end rails are held down, they will draw up again. To secure them in the proper position, and to provide an efficient means for adjusting them, I preferably employ the bolts D D D D. They are passed from the frame B at points, respectively, without the points of the attachment of the arms C C C C thereto upward through the end rails *a a*. They are suitably formed and attached to the rails and frame, so that by turning the nuts *d d d d* the mattress can be drawn down and held as desired. Instead of allowing the shoulders *c'' c'' c'' c''* to bear directly against the end rails, I, preferably, interpose springs E E E E between the shoulders and rails. They are, preferably, of rubber, and they serve to relieve the rigidity of the structure, especially when the mattress is formed of metallic strips.

In carrying out the invention, I do not desire to be confined to the particular form of arm shown, or to the manner of connecting it with the frame or mattress, as other forms of pivoted supports will answer provided the mattress can be strained over them by a force applied on the outer side thereof. The bearings *c' c' c' c'* are, preferably, slotted to receive bolts *a' a' a' a'* that serve to connect these parts more efficiently.

What I claim is—

1. The combination of the mattress A, frame B, arms C C C C, and bolts D D D D, substantially as described.

2. The arms C C C C, having the shoulders *c'' c'' c'' c''*, in combination with the end rails *a a*, and springs E E E E, substantially as described.

3. The combination of the end rails *a a* and the pivoted supports C C C C, having the bearings *c' c' c' c'*, the former being movable upon the latter, substantially as described.

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Witnesses:

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