

(No Model.)

E. A. JONES.

BED SPRING.

No. 276,421.

Patented Apr. 24, 1883.

Fig. 1.

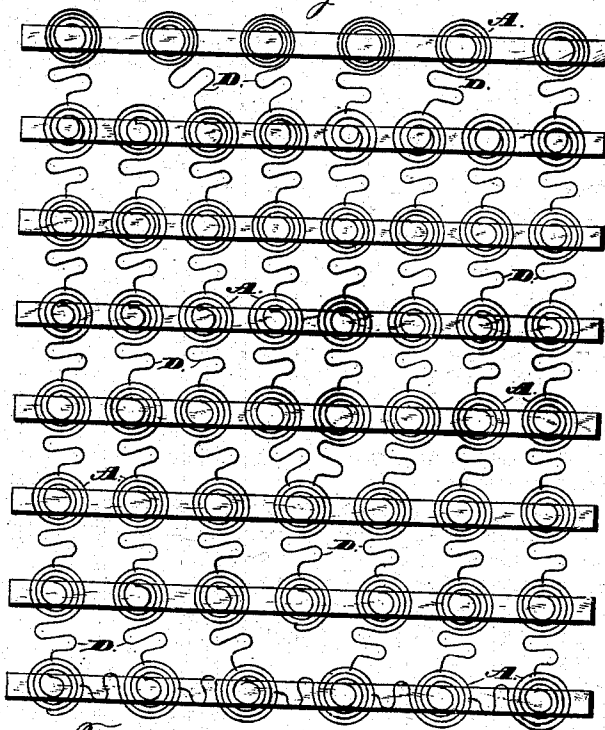


Fig. 2.

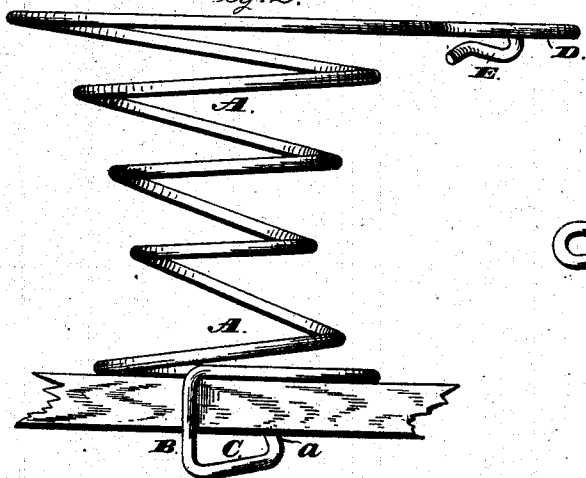
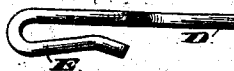


Fig. 3.



WITNESSES

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EDGAR A. JONES, OF THREE RIVERS, MICHIGAN.

BED-SPRING.

SPECIFICATION forming part of Letters Patent No. 276,421, dated April 24, 1883.

Application filed February 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDGAR A. JONES, of Three Rivers, in the county of St. Joseph and State of Michigan, have invented certain new and useful Improvements in Bed-Springs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to an improvement in springs for bed-bottoms, the object of the same being to provide a device of this character which shall combine simplicity and economy in construction with durability and efficiency in use; and with these ends in view my invention consists in certain details in construction and combinations of parts, as will be more fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 represents a plan view of a bed-bottom composed of the improved springs. Fig. 2 is a side view of one of the springs secured to a slat, and Fig. 3 shows an enlarged view of the hooked end of the lateral extension of the spring.

The springs A are made of ordinary bed-spring wire, and can be of any desired size and shape, and each is provided at its lower end with the spring-clamp B, by means of which it is securely held in position on the bed-slat without any danger or liability of working loose. The spring-clamps are made integral with the spring proper, and each is formed by bending the lower coil downward a sufficient distance, and then inward, and terminating in an upwardly-projecting end, which latter is situated approximately in the vertical center of the spring. The space between the upwardly-projecting end of the clamp and the lower coil of the spring is slightly smaller than the slat, so that it becomes necessary, when securing the springs to the slats, to widen the space, which is done by introducing one or more fingers in the loop C and drawing the spring-clamp downward. When the spring is in position the loop is released, and the upwardly-projecting end of the clamp engages with the lower face of the slat and holds the spring in position without any danger of acci-

dental displacement. By forming the clamp so that the upwardly-projecting end *a* thereof will occupy a position approximately in the vertical center of the spring, the spring can be turned on the slat without danger of working out of position. The upper coil of the spring terminates in a lateral extension or projection, D, which latter is so curved or bent as to nearly fill up the space between the springs, and at the same time form a connection with the next adjoining spring. This extension can be bent in any desired form, and terminates in the spring-hook E, which latter is also formed integral with the spring. This hook E is provided with an open flaring mouth, which enables it to readily engage the top coil of the next spring, but gradually decreases in size as it proceeds backward until it becomes narrower than the diameter of the wire. The hook then widens again, so as to form a loose joint or connection with the next spring. When it is desired to secure one spring to another the mouth spring-hook E is placed against the top coil of the preceding spring, and by simply pulling thereon the spring-hook is forced over the top coil of the spring, and is retained thereon against accidental displacement.

I prefer to construct my springs with wide bases, so as to prevent them from tilting; but springs of any design can be employed, and when secured in position, as described, will perform their functions in a satisfactory manner.

When it is desired to place the springs in position on the slats to form the bed-bottom the operation can be begun at any portion of the bed, as the connections between the springs are such that any one can be removed or placed in position without disturbing the others; but, for the sake of convenience, I will describe the manner of putting the springs on, starting from the head. The first row of springs is first placed in position, and secured by the spring-clamps in the manner before described, and the second row is also put on in a similar manner. The lateral extensions of the first row are then secured to the top coils of the springs of the second row, and the third row is then placed in position

and secured to the extensions of the second row, as before described, and so on throughout the entire bed. When the last slat is reached the springs to be placed thereon are slightly uncoiled, so as to enable the arms thereof to be connected to the next adjacent spring on the same slat. The last spring on this slat is without an arm, and is held in place by the front and side springs; or, instead of securing the springs together as they are put on, the entire set can be first secured to the slats, and then secured together afterward. One advantage my improved springs possess over the springs now ordinarily used is that any one spring of the entire set can be removed from position without disturbing the others.

In all beds the greater part of the weight falls on three or four of the middle slats, while the end slats sustain a comparatively small proportion of the weight; and hence it is not necessary that as many springs should be employed on these end slats as on the middle slats. In the springs ordinarily employed it has been necessary, owing to their structure and manner of securing them together, to use as many on the end slats as there are on the middle slats; but by the use of my improvement the number of springs on the end slats can be decreased, while the middle slats retain their usual number of springs, thereby enabling me to decrease the number to the bed without affecting the efficiency thereof. When this method is employed the lateral extensions of two springs are secured to the upper coil of the same spring at suitable intervals throughout the bottom. The space between the several springs is filled by

the curved extensions, and the flexible joint between the springs enables them to rise and fall without noise.

These springs can be manufactured at a small initial cost, and applied to a bed without the use of skilled labor, and are therefore specially adapted to be made and sold by persons of ordinary capability and limited capital. They are simple in construction and durable and efficient in use.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A spiral bed-spring having its lower portion bent to form a spring-clamp having an upwardly-projecting end practically in line with the axis of the spring, substantially as described, and for the purpose set forth.

2. A spiral bed-spring having the end of its upper coil extended laterally and bent alternately in opposite directions, its outer end being provided with a hook to engage an adjacent spring, substantially as described.

3. A spring-bed formed of spiral springs, each having the end of its upper coil extended laterally and bent alternately in opposite directions, or in zigzag form, and terminating in a hook, the hook of each spring engaging the top coil of an adjacent spring, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

EDGAR A. JONES.

Witnesses:

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