

(No Model.)

A. J. LYTLE.
SPRING MATTRESS, PILLOW, &c.

No. 401,287.

Patented Apr. 9, 1889.

FIG. 1.

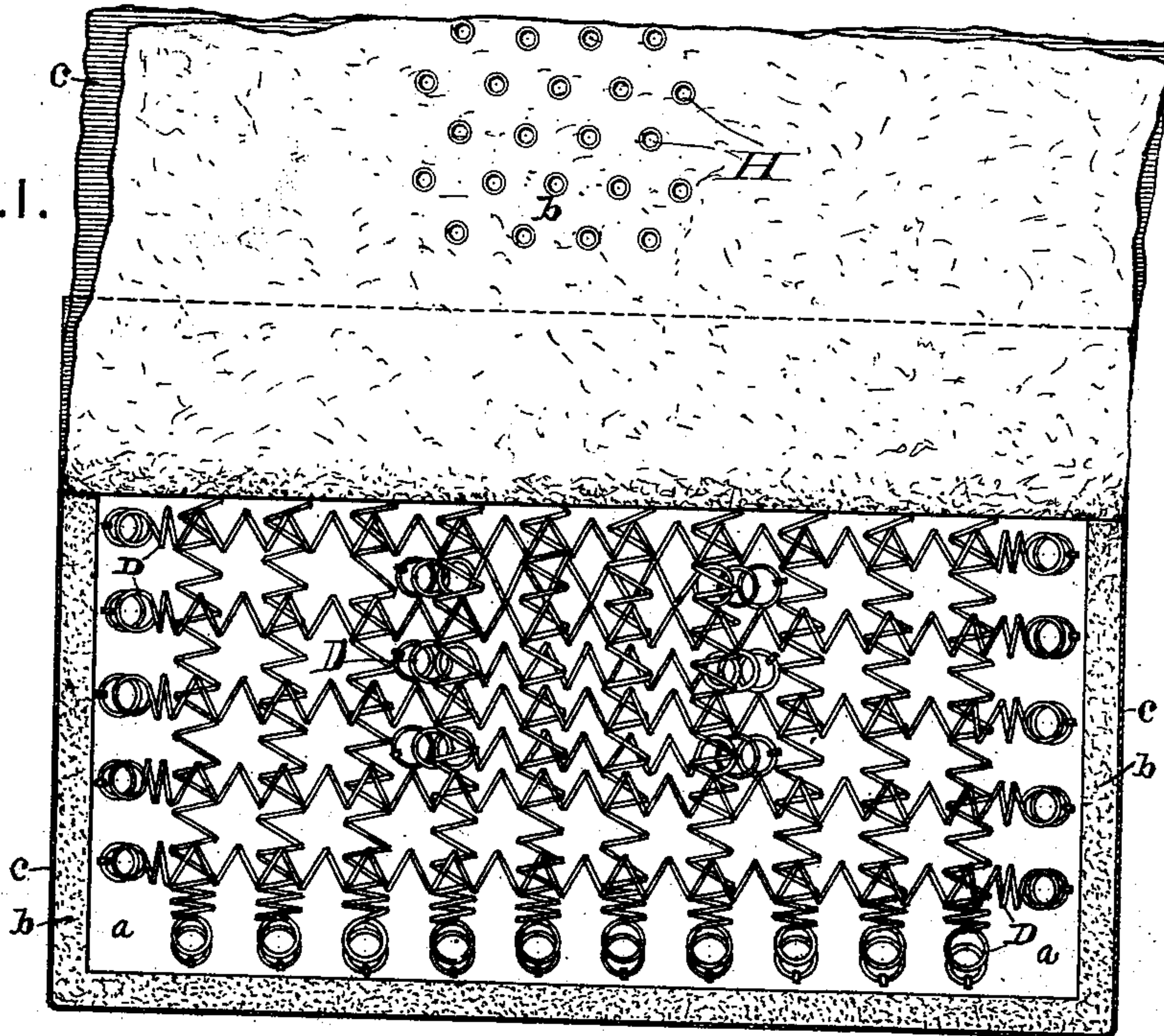


FIG. 2.

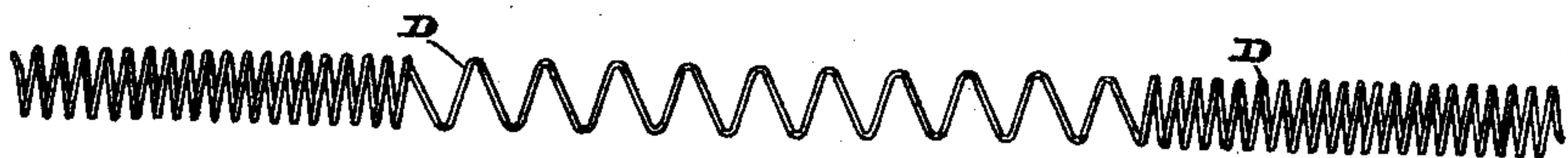
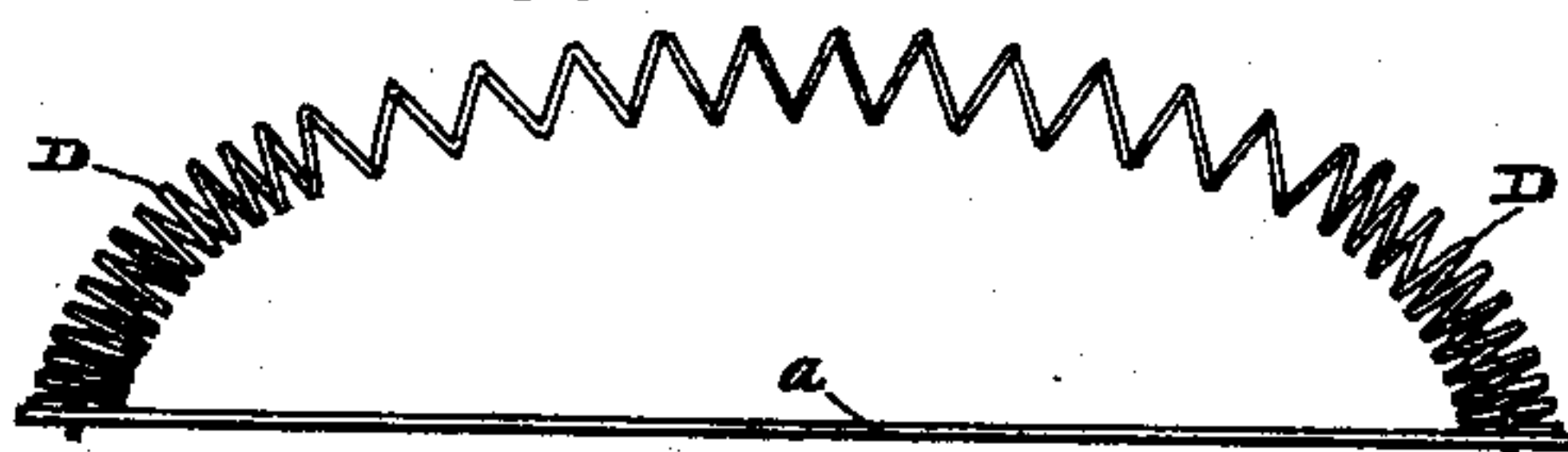


FIG. 3.



Witnesses

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SPECIFICATION forming part of Letters Patent No. 401,287, dated April 9, 1889.

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To all whom it may concern:

Be it known that I, ANDREW JACKSON LYTLE, a citizen of the United States, residing at Hillsborough, in the county of Highland and State of Ohio, have invented new and useful Improvements in Spring-Pillows, Spring-Mattresses, and other Spring-Cushioned Articles, of which the following is a specification.

My invention relates to the formation of spring-pillows, spring-mattresses, and other spring-cushioned articles by using the herein described and illustrated peculiarly-formed spiral spring attached to a base as their vibratory mechanism, and cotton-batting or other suitable soft and pliable material as a covering for said springs, and, if desired, an outer covering or tick of any suitable material.

The object of my invention is to provide cheap and durable spring-cushioned articles that will combine a universal vibratory motion, great susceptibility to pressure on all of its parts, with light weight, and a soft pliable surface or exterior. This object I attain by the following-described mechanism, illustrated by the accompanying drawings, in which—

Figure 1 is a front view of a sleeping-pillow standing upright and having the padding and outer covering laid back from over its upper side, showing the springs used in my invention attached to a base, their form after attachment, and the manner of interlocking them to give them stability and position. Fig. 2 is a view of one of the peculiarly-formed spiral springs that is a part of my invention. Fig. 3 is a view of one of the peculiarly-formed spiral springs that is a part of my invention attached to a section of the base, showing the attachment of the spring to the base, and the form of the spring after attachment when in position as one of the several springs of any spring-cushioned article.

Similar letters refer to similar parts throughout the drawings.

The spring-pillow, spring-mattress, or other spring-cushioned article consists of a base, *a*, a number of the peculiarly-formed spiral springs, *D*, Fig. 2, a pad, *b*, of cotton-batting or other suitable material, and, if desired, a tick or cover, *c*, of suitable material for said article.

The spiral spring *D* should be made of spring-wire, of suitable size, having the coils of the said spring at each end and for a short distance therefrom much closer together than the intervening coils of the same, thereby giving to said spring greater resistance to pressure on its middle part than on either end of the same, thereby equalizing any pressure on the pillow or other article, and giving to every part of said spring its required vibratory motion. The base *a* may be made of wood, pasteboard, straw-board, or other suitable material that will give sufficient resistance to hold the springs securely in their required fastening, and may be made in one solid piece or in several slats. The pad *b*, Fig. 1, may be made of cotton-batting or other soft pliable and suitable material, and made of such a size as to completely cover the springs *D* and base *a* after they have been formed into the desired shape, and of such a shape as to give the covered pillow or other article the required size and shape. The tick or outer covering, *c*, should be made of material suitable for the use for which the particular article may be made; or said tick or covering *c* may be dispensed with whenever the pad *b* serves the purpose of pad and outer covering. However, when said outer covering, *c*, is used, it should be of such a size and shape as to neatly inclose the article for which it is made.

The invention herein described and illustrated admits of being formed into sleeping-pillows, dress-pillows, bed-mattresses, spring-cushions for buggy, carriage, and car seats and seat-backs, rocking-chair and invalid-chair seats and backs, and for all other purposes wherein a spring-cushioned article is adapted to be used.

The following is the mode of formation of a sleeping-pillow: In making any of the other spring-cushioned articles it is only necessary that a greater or less number, as desired, of the peculiarly-formed spiral springs *D*, made from wire of the desired size, be used, and the other parts increased or diminished in size and shape accordingly, as the principle involved in the mode of formation is precisely the same as in the formation of a sleeping-pillow.

In the formation of the sleeping-pillow one

lot of the peculiarly-formed spiral springs D, Figs. 2 and 3, of the desired length and strength and size, are taken and their ends securely fastened to central parts of the base *a*. These
 5 springs give to the central part of the pillow or other spring-cushioned article the requisite support. Now another lot of these springs are taken and their ends securely fastened to opposite sides of the base *a*, passing them over
 10 the top of the arc formed by the springs previously set. This lot of springs should be of different lengths, so that when placed in position they will give to the partially-formed pillow or other article the desired oval shape.
 15 When these are in position, still another lot of said springs of different lengths, for the same reason and purpose above stated, are taken and their ends securely fastened to the ends of the base *a*. These springs are passed
 20 over the top and outside of the others already in position, and are interlocked into them by being tightly drawn down on them, with the coil of one spring fitting down into the coil of another. The pillow or other article is now
 25 ready for the pad *b*. This having been made, as herein set forth, of the requisite size and shape, is placed over and around said pillow, so as to completely inclose it and give to the finished pillow or other article its desired
 30 shape. In this position it is securely fastened.

In manufacturing spring-cushions for buggy and car seats and the like, where only one side is subjected to use, only one-half of the above
 35 pad *b* need be used, this being securely fastened around and to the edge of the base *a*. The pillow or other article is now in a finished condition if the outer covering of the pad has been made of the material designed to be used
 40 as the exterior surface of said pillow or other

article; but if the pad has been covered with material not suitable for the surface-covering of the particular article then a tick or covering made to neatly fit and cover the article is placed over and around the same, securely
 45 fastening said covering to the edge of the base *a*.

It is designed to provide the pad and covering of this my invention with eyelet-holes, for the purpose of ventilation. In forming the
 50 pad *b* a sheet of cotton-batting or other suitable material is taken and covered with muslin, drilling, cloth, leather, or other desired and suitable material, and then quilted, knotted, or in any other convenient manner se-
 55 cured in the shape of the required pad.

The manner of using my invention is similar to the common use of such articles.

What I claim as my invention, and desire to secure by Letters Patent, is—
 60

1. In a spring-mattress or the like, the combination, with the spring D, having the closely-coiled end portions and the intervening integral portion formed of expanded coils, of the base *a*, connected to the outer ends of the
 65 closely-coiled portions, substantially as specified.

2. In a spring-mattress, the combination, with the springs D, having the closely-coiled end portions and the intervening portions
 70 formed of integral expanded coils, of the base *a*, connected to the outer ends of the closely-coiled portions, and the pad *b*, provided with eyelet-holes and covering said springs, substantially as specified.

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Witnesses:

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