(No Model.)

J. ROSE.

SPRING BED BOTTOM.

No. 419,218. Patented Jan. 14, 1890.

Fig. 1.

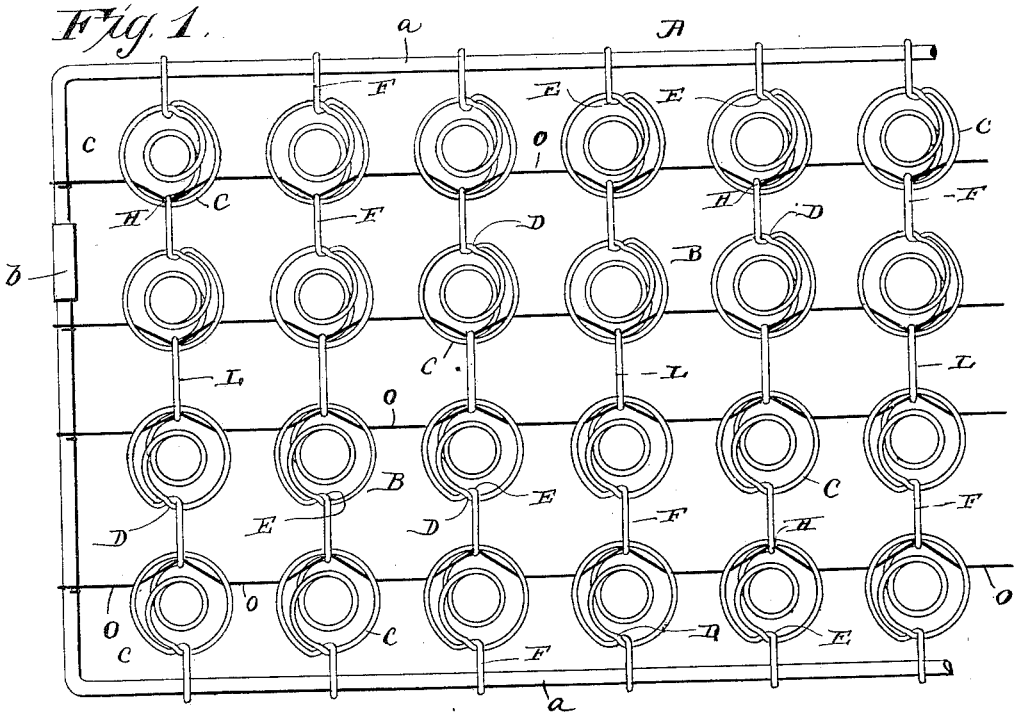


Fig. 2.

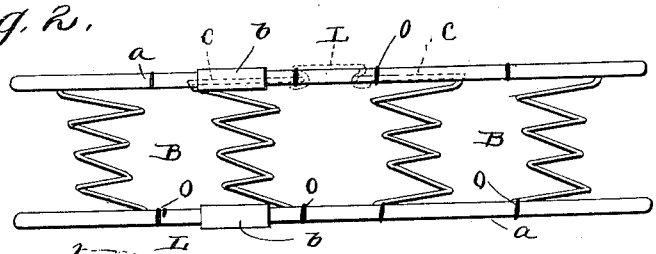
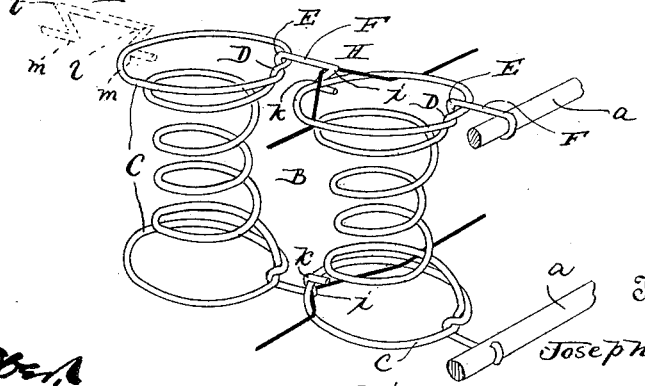


Fig. 3.



Witnesses

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Inventor

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UNITED STATES PATENT OFFICE.

JOSEPH ROSE, OF MEMPHIS, TENNESSEE.

SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 419,218, dated January 14, 1890.

Application filed February 21, 1889. Serial No. 300,645. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH ROSE, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Improvement in Spring Bed-Bottoms, of which the following is a specification.

This invention relates to spring bed-bottoms; and it has for its object to provide a device which shall be simple, light, and durable, and in which the wire springs shall be so connected and combined with a wire frame that there shall be no sharp projecting ends or corners, and in such a manner that the springs shall retain their proper shape and their elasticity.

The invention consists in the improved construction of the springs and the method of connecting the same with each other and with the wire frame, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a top view of a bed-bottom embodying my improvements. Fig. 2 is an end view of the same. Fig. 3 is a perspective detail view showing two of the springs and a portion of the frame adjacent thereto.

The same letters refer to the same parts in all the figures.

A designates the frame, and B B the springs, of my improved bed-bottom. The springs are all constructed alike, and the description of one will suffice for the rest. The said springs are of the kind generally known as "duplex," or tapering from both ends toward the center. The top and bottom coils C C of the said springs are provided at the points where they are to be locked with vertical shoulders or offsets D D. The ends of the said upper and lower coils are then passed from the outside around the said shoulders and up over the top, and thence in an outward direction, forming the loops E E, engaging the shoulders D D and constituting a perfect lock or joint, which positively prevents the said top and bottom coils from either collapsing or spreading, and consequently retains the springs in their proper shape. The ends of the wire of which the spring is formed are extended outwardly, so as to form arms F F parallel to and one directly above the other. At the outer ends of the said arms are formed the double hooks H H, facing each other and composed each of an inwardly-facing hook *i* and an outwardly-facing hook *k*. The frame is composed of two rectangular wire frames *a a*, each formed by bending a metallic rod or wire to the proper size and shape and connecting its ends by means of a tubular sleeve or clasp *b*.

In connecting the springs with each other and with the frame the two outer longitudinal rows of the springs (denoted by *c c*) are first arranged with their arms F facing outwardly, the hooks at the outer ends of the said arms being clinched over the sides of the top and bottom flanges *a a*, to which the said springs are thus attached. The springs forming the next succeeding rows are then placed adjacent to the outer springs, with their outwardly-facing hooks adjusted over the top and bottom coils of the said outer springs. Additional rows of springs are then placed in position in like manner, until the desired number of springs have been placed in the frame, after which the top and bottom coils of the two longitudinal central rows of springs are connected by means of clips L, the ends of which are provided with inwardly-facing hooks *l* and outwardly-facing hooks *m*, in which latter the top and bottom coils of the springs are adjusted. Binding-wires O are next passed longitudinally from one end of the frames *a* to the other, the ends of said wires being first attached to the end of the frame, next passed under the top coils and over the bottom coils of the adjacent springs, next through the inwardly-facing hooks of the arms F and clips L, respectively, next under the top coils and over the bottom coils of the springs and into the next springs, through the coils of which they are threaded in like manner, as well as through the inwardly-facing hooks of the arms F and clips L, the ends of the wires being finally attached to the opposite ends of the frames *a a*. It will be seen that by this construction the several springs constituting the bed-bottom are not directly hooked together, but merely have their top and bottom coils adjusted in the outwardly-facing hooks of the arms F or

clips L adjacent to said springs, the binding-wires O serving to retain the springs in their relative positions by being threaded, as described, through the top and bottom coils of the springs and the inwardly-facing hooks of the arms F and clips L. By this construction an exceedingly elastic and comfortable bed-bottom is produced. The springs are so connected and braced to each other and to the frame as to prevent their being displaced or thrown out of shape. Sharp projecting ends or corners are avoided and the bed-bottom may be produced easily and at a comparatively small cost of manufacture.

I am aware that springs have been constructed with parallel arms extending outwardly from their upper and lower coils and provided with offsets or double bends extending in the same direction and adapted to support the top and bottom coils of adjacent springs, and that the same have been used in combination with connecting-wires. By my improvement the double inwardly and outwardly facing hooks are substituted for the offsets or double bends, and a firmer and more durable connection is thereby effected.

I am also aware that the end of a spring has been twisted around the top or bottom coil and extended laterally for the purpose of forming a lock-joint and a laterally-extending arm. Such construction, however, is not found effective in preventing the top and bottom coils of the spring from either spreading or collapsing, while by my improved construction such accidents are effectually prevented.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. In a bed-bottom, the herein-described springs, the top and bottom coils of which are provided at the points where they are to be locked with vertical shoulders or offsets, the ends of said coils being passed from the outside around the said shoulders, around the coil, and thence in an outward direction, thus forming loops engaging the shoulders or offsets and outwardly-extending arms, and the inwardly and outwardly facing double hooks at the outer ends of said arms, substantially as set forth.

2. In a bed-bottom, the herein-described springs, the top and bottom coils of which are provided at the points where they are to be locked with vertical shoulders or offsets, the ends of said coils being passed from the outside around the said shoulders, around the coil, and thence in an outward direction, thus forming loops engaging the shoulders or offsets and outwardly-extending arms, and the inwardly and outwardly facing double hooks at the outer ends of said arms, in combination with the top and bottom frames, the center clips having inwardly and outwardly facing double hooks formed at both ends, and the connecting-wires, all arranged and operating substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOSEPH ROSE.

Witnesses:
A. L. MENGTLER,
J. H. BOONE.