

No. 664,756.

Patented Dec. 25, 1900.

W. D. HUNT.
SPRING BED BOTTOM.

(Application filed Sept. 27, 1900.)

(No Model.)

Fig. 1

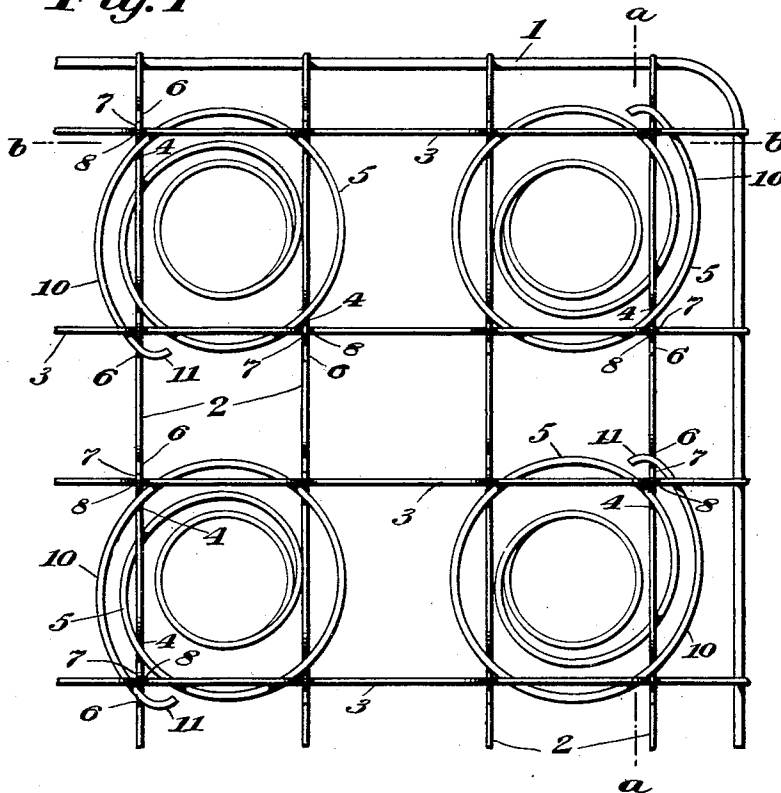


Fig. 2

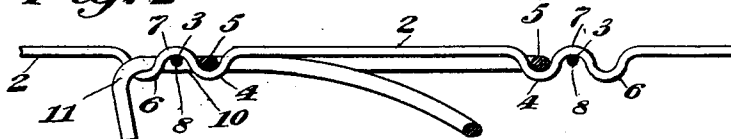
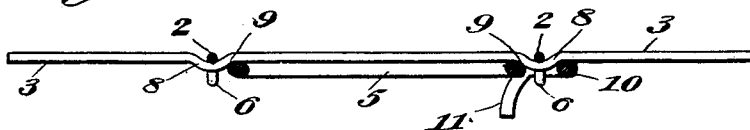


Fig. 3



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UNITED STATES PATENT OFFICE.

WARDER D. HUNT, OF CINCINNATI, OHIO, ASSIGNOR TO M. A. HUNT & CO.,
OF SAME PLACE.

SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 664,756, dated December 25, 1900.

Application filed September 27, 1900. Serial No. 31,254. (No model.)

To all whom it may concern:

Be it known that I, WARDER D. HUNT, a citizen of the United States of America, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Spring Bed-Bottoms, of which the following is a specification.

This invention relates to certain improvements in spring bed-bottoms, and has for its object to provide a bed-bottom of a simple and inexpensive nature having improved means for holding the springs thereof in place, so as to impart to the structure increased strength and rigidity of connection without detracting from the elastic qualities of the structure.

The invention consists in certain novel features of the construction, combination, and arrangement of the several parts of the improved spring bed-bottom whereby certain important advantages are attained and the device is made simpler, cheaper, and otherwise better adapted and more convenient for use, all as will be hereinafter fully set forth. The novel features of the invention will be carefully defined in the claims.

In the accompanying drawings, which serve to illustrate the invention, Figure 1 is a view showing a fragment of a spring bed-bottom made according to my invention. Fig. 2 is an enlarged sectional view taken in the plane indicated by the line *a a* in Fig. 1, and Fig. 3 is an enlarged sectional view taken in the plane indicated by the line *b b* in Fig. 1.

In the drawings, 1 indicates a rod or stiff wire extended along the edge of the bed-bottom and forming a frame therefor, said frame being usually of a rectangular form, and 2 2 indicate a set or series of wires extended parallel to each other and longitudinally across the frame. 3 3 indicate another set or series of wires transverse with respect to the wires 2 2 and also extended across the frame at right angles to said wires 2. The wires 2 and 3 do not intermesh after the manner of a woven fabric; but the wires 2 rest upon the wires 3 at each point of intersection. The wires of each series 2 and 3 are arranged in pairs, as clearly seen in Fig. 1, each pair of wires following a row of springs 5, which are

by means of said wires held in position in the bed-bottom, as will be hereinafter explained.

Each spring 5 has an end coil made in substantially circular form, and the wires 2 of each pair have at corresponding points downwardly-extended bends 4, so arranged as to take under the end coil of each spring 5, the bends 4 forming seats upon the upper faces of the wires 2, in which the end coils of the springs 5 rest and are held against lateral or sidewise movement. Each wire 2 has two such bends or seats for each spring 5 under which it passes, and the two wires 2 of each pair are spaced apart from each other, as shown in Figs. 1 and 3, so that the seats 4 are located at four substantially equidistant points in the end coil of each spring, the springs being thereby supported upon the wires 2 at four substantially equidistant points, and tilting or rocking movement of the springs independent of said wires 2 being thereby prevented. Other downward bends 6, similar to the bends 4, but outside of the end coils of the springs 5, are also produced in each wire 2 adjacent to bends 4, but slightly separated therefrom by upward bends 7, which latter form seats upon the under faces of the wires 2, which seats are located just outside of the end coils of springs 5, held in the seats or bends 4, and serve to receive the wires 3, which are arranged to pass beneath the wires 2 and over the end coils of the springs, the said end coils by being passed beneath the wires 3 and over the wires 2 serving to lock the two sets or series of wires 2 and 3 together between the four points at which the wires intersect outside of each end coil. The wires 3 being held in the seats or bends 7 upon the under sides of each of the wires 2 are thereby held against movement toward or away from each other or lengthwise of said wires 2, and in order to similarly hold the wires 2 against movement lengthwise with respect to wires 3 I provide each wire 3 at its point of intersection with each wire 2 with a downward bend 8, adapted to form a seat upon the upper face of said wire 3 to receive and interlock with the bend or seat 7 of wire 2. The portions of wires 2 and 3 between their points of intersection are arranged in the same horizontal

plane, except at bends 4 and 6, and said plane is above the planes of the end coils of the springs 5, so as to present a substantially even surface upon the bed-bottom. Inside of the end coil of each spring 5 the wires 2, which otherwise would be below the plane of said end coil, owing to the downward bends 4, are bent upward, as shown in Fig. 3, so as to produce shoulders 9 9 inside the end coil and preventing such contraction of said coil as would tend to disengage it from between the two pairs of wires 2 and 3.

The locking end 10 of the end coil of each spring 5 is extended beneath one of the wires 3 adjacent to the intersection of said wire with one of the wires 2, and said end 10 is held in the adjacent seat or bend 6 of such wire 2, beyond which the locking end is bent over, as shown at 11, in a well-known way to prevent it from being disengaged from said locking seat or bend 6. As there are four of the locking seats or bends 6 adjacent to the end coil of each spring 5, it is evident that, though but one of said bends or seats can be employed to hold the locking end 11, an advantage is attained owing to the permissibility of securing said end 11 without special care in positioning the spring 5 in the structure of the bed-bottom.

The construction of the improved bed-bottom as above set forth is extremely simple and inexpensive and affords a smooth and comparatively close mesh upon the surface of the bed-bottom, there being no projection of the springs or other parts beyond the crossed wires of which said surface is formed. Each spring 5 is also held between the wires of the two sets and is at four points in its end coil held in seats or bends, which prevent compression of the end coil such as would tend to disengage it from between the wires 2 and 3, and is held against expansion by the intersections of the wires 2 and 3 at four points substantially equidistant around said end coil. The same means also serves to hold the locking ends of the springs against disengagement from the bends or seats 6 of wires 2.

The construction of the improved bed-bottom is also such that the wires of the respective sets are held in proper arrangement by the interlocking bends or seats 7 and 8 at their intersections, said bends being held engaged by the end coils of the springs 5 being interposed between the wires of the two sets or series. It will also be obvious from the above description of my improvements that the bed-bottom is capable of some modification without material departure from the

principles and spirit of the invention, and for this reason I do not wish to be understood as limiting myself to the precise form and arrangement of the several parts herein set forth.

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

1. A bed-bottom having springs provided with end coils and wires in two sets intersecting at four points outside the end coil of each spring, one set of wires being rested on the other at each intersection, and being extended below the plane of the other set between said intersections and the end coil of each spring being held between the two sets of wires intermediate the said intersections, substantially as set forth.

2. A bed-bottom having springs provided with end coils and wires in two sets intersecting at four points adjacent to the end coil of each spring, one set of wires being rested on those of the other at each intersection and being provided with downward bends forming seats at four substantially equidistant points for the end coil of each spring, substantially as set forth.

3. A bed-bottom having springs provided with end coils having locking ends and wires in two sets intersecting at four points adjacent to the end coil of each spring, each of the wires of one set being rested on a wire of the other set at its intersection therewith and being provided on opposite sides of said intersection with downward bends one of which forms a seat to receive the end coil of the spring and the other of which is adapted to receive and hold the locking end of said end coil, substantially as set forth.

4. A bed-bottom comprising parallel rows of vertical helical springs; an open-mesh frame or fabric composed of crossed wires equidistant apart corresponding to and supporting said rows of springs, and each spring being concentric to four intersecting points in the crossed fabric; and an outer marginal frame to which the ends of the crossed wires are secured, the outer coil of each spring interlocking with the crossed wires at the said four intersecting points, substantially as set forth.

Signed at Cincinnati, Ohio, this 19th day of September, 1900.

WARDER D. HUNT.

Witnesses:

JOHN ELIAS JONES,
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