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Patented Dec. 9, 1902.

L. H. LAWHON.

SPRING STRUCTURE FOR BED OR SEAT BOTTOMS.

(Application filed July 3, 1902.)

(No Model.)

Fig. 1.

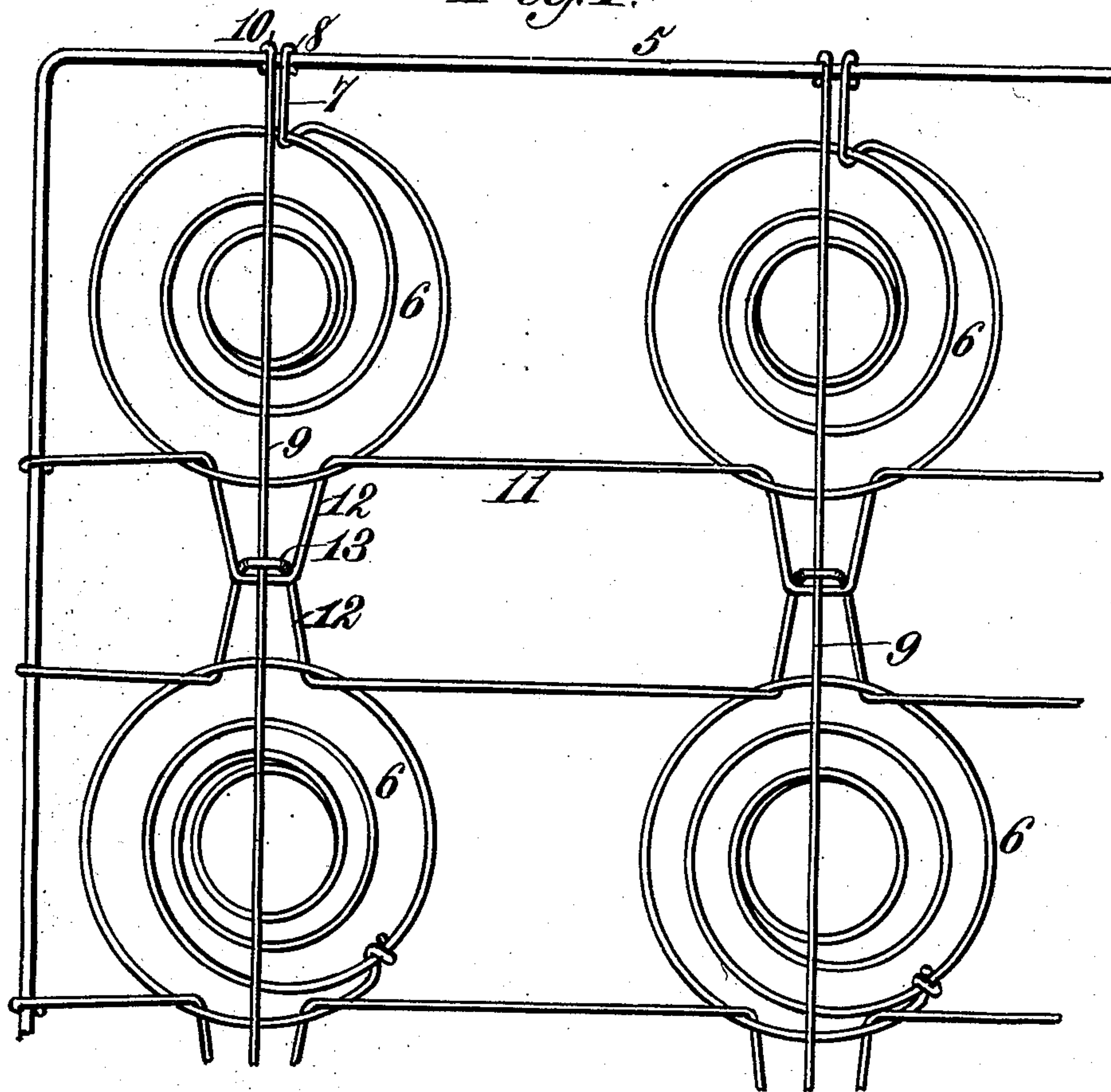
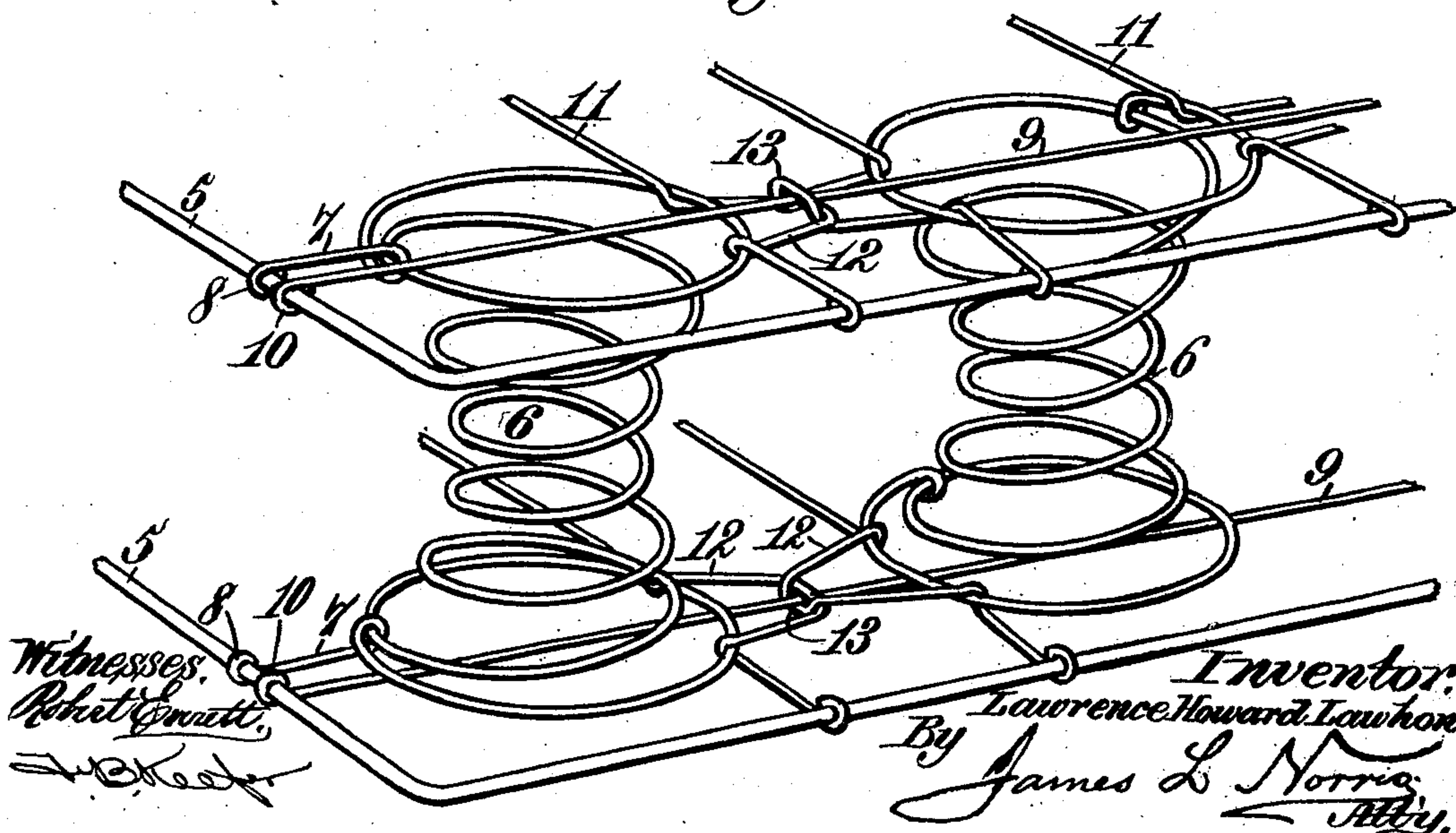


Fig. 2.



Witnesses.
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SPRING STRUCTURE FOR BED OR SEAT BOTTOMS.

SPECIFICATION forming part of Letters Patent No. 715,489, dated December 9, 1902.

Application filed July 3, 1902. Serial No. 114,282. (No model.)

To all whom it may concern:

Be it known that I, LAWRENCE HOWARD LAWHON, a citizen of the United States, residing at Mobile, in the county of Mobile and State of Alabama, have invented new and useful Improvements in Spring Structures for Bed or Seat Bottoms, of which the following is a specification.

This invention relates to a spring structure that is capable of efficient use in many different connections, but which is especially adapted for employment as a bed or seat bottom; and the object of the invention is to provide a simple device of this kind which presents upon its upper and lower sides no unusual protrusions and which is relatively strong and which can be easily and inexpensively made.

The improved spring structure includes in its make up a series of rows of springs and braces connected with the rows and with each other at different points in their length, said braces being adapted to tie the springs against lateral motion, and these braces consist, preferably, of wires, as the same may be readily shaped to the proper form, and they have loops at proper intervals passing through the outermost coils of the springs and adapted to be engaged with each other, whereby the desired result is secured.

Other objects and advantages of the invention will be set forth in the following description, while the novelty thereof will constitute the basis of the claims succeeding such description, and said invention is clearly illustrated in the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a plan view of a spring structure including my improvements. Fig. 2 is a perspective view of certain of the springs with their intermediate portions broken out and intended especially to show the engagement of the interlocked brace-wires.

Like characters refer to like parts in both figures of the drawings.

I desire to state that I do not intend to limit myself to the use of the improved spring structure in any particular article, for it may be employed with facility in connection with various kinds of furniture and in different kinds

of seat-bottoms. Said spring structure is shown as including in its organization the superposed frame members 5, which may be of any suitable shape or material. Preferably wire is used to make the same. The springs are denoted by 6, and they are shown as arranged in rows, the outermost convolutions of the springs having projections 7, which terminate in eyes 8 to receive the superposed frame members 5. The terminal convolutions or coils of springs are centrally crossed upon their outer sides by the wires 9, constituting keys therefor and which hold them against longitudinal displacement, the said key-wires terminating in eyes 10 to receive the frame members.

I provide means for locking the springs themselves against side motion, and for securing this function brace-wires 11 are shown, the same being connected at their ends with the frame members 5. These brace-wires are arranged in pairs in parallelism with each other, and it will be seen that they are disposed at right angles to the key-wires 9. The brace-wires 11 have bent therefrom loops or substantially U-shaped extensions 12, which, it will be seen, are passed through the terminal coils of the springs, the loops of one brace-wire engaging the loops upon the adjacent and cooperating brace-wire, so that the two braces are interlocked and maintained thereby in absolute parallelism, the result being that the springs cannot move relatively to each other. The braces 11, it will be seen, are in engagement with the terminal coils of the springs, and to secure proper engagement between the pair of engaging loops I provide at the ends of the loops on one brace offsets or hooks 13, which are seated between the branches of the coacting loops. It will be therefore evident that as the braces 11 engage the springs and as they engage each other such springs will be held against lateral motion in all directions, the key-wires 9 of course preventing longitudinal movement of such springs.

In order to increase the stability of the device, I pass the key-wires 9, which, it will be remembered, cross the outer ends of the springs 6, through the offsets or hooks 13 of one

series of loops 12 and into engagement with the outer sides of the cross-pieces of the other series of loops. This also prevents positively the disengagement of the coacting loops 12.

5 It will be seen that the improved structure is simple, it can be quickly made up, and the springs are absolutely held against movement in all directions by the several wires.

10 The invention is not limited to the exact construction hereinbefore set forth, for many variations may be adapted within the scope of my claims.

Having described my invention, what I claim is—

15 1. In a spring structure, a series of springs, braces connected with the respective springs and having engaging loops in pairs at different points in their length and one loop of each pair having an offset, and key-wires en-

gaging the springs and extending through 20 said offsets.

2. In a spring structure, rows of springs, parallel brace-wires provided with loops extending through the terminal coils of the springs, the loops of one brace-wire being in 25 engagement with the loops of the other brace-wire, and the loops of one brace-wire having offsets, and key-wires crossing the terminal coils of said springs, and extending through 30 said offsets.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LAWRENCE HOWARD LAWTON.

Witnesses:

W. S. McDUFFIE,

J. C. SMITH.