

L.L. Tingley,

Bed Bottom.

N^o 54,443.

Patented May 1, 1866.

Fig 1,

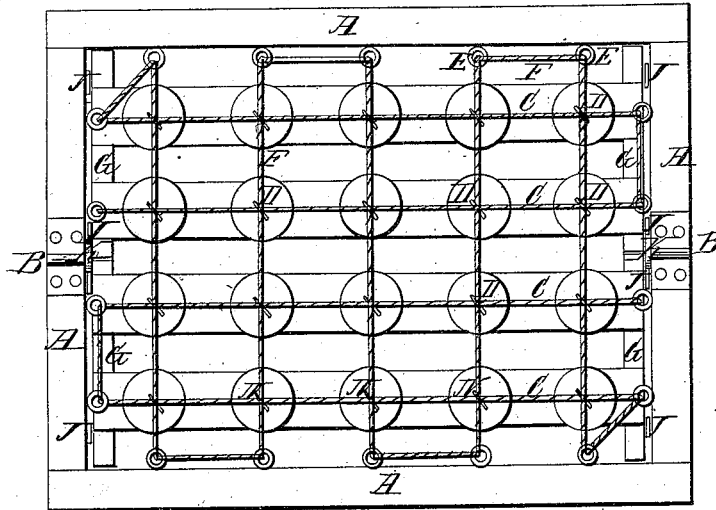


Fig 2,

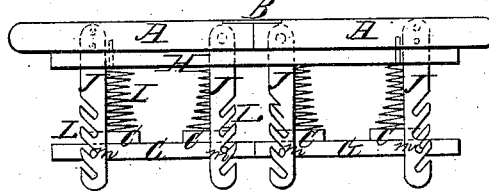
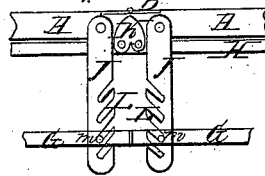


Fig 3



Witnesses

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UNITED STATES PATENT OFFICE.

LYMAN L. TINGLEY, OF PAWTUCKET, RHODE ISLAND.

IMPROVED SPRING BED-BOTTOM.

Specification forming part of Letters Patent No. 54,443, dated May 1, 1866.

To all whom it may concern:

Be it known that I, LYMAN L. TINGLEY, of Pawtucket, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Spring Bed-Bottoms; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is plan view of a spring bed-bottom made according to my invention. Fig. 2 is an end view thereof. Fig. 3 is an inside view of a part thereof, including the joint.

Similar letters of reference indicate like parts.

The object of this invention is to improve spring bed-bottoms; and the invention consists in several particulars, one of which is making it capable of being folded, for convenience of carriage and storage, along the middle of its length; another is adjusting the springs to a greater or less tension on either side, or half of the bed independent of the other side, so as to keep both sides at about the same elevation notwithstanding any difference in the weight of the occupants; another is connecting the tops of the springs by a system of cording to keep them vertical; another is taking the strain, when the bed is occupied, off the hinges by means of heart-plates interposed between two of the bars that serve to adjust the tension of the springs.

A A designate two equal divisions of the frame of the bed-bottom, hinged to each other at B B, the hinges being applied on the upper surface of the end pieces, so that the divisions may be folded over upon one another. When the divisions are to be kept spread out they may be held in that position by bars H extending beneath the divided ends of the frame, or the frame may be kept extended by its own weight, the frame resting directly upon the side and end rails of a bedstead. From the inner faces of the end pieces of the frame extend bars J, two on each division at each end of the frame. They are slotted, as seen at L, by slots inclining downward, said slots being made at different heights. They receive pins *m*, that project from the adjacent edges of cross-pieces G, which form the ends of the spring-frames. The cross-pieces G are made in divi-

sions like the ends of the frame A, so that when the bed-bottom is folded over on itself the springs will still be held in place.

The letters C designate boards which extend lengthwise of the bed-bottom, their length being equal to the distance between the inner faces of the opposite ends of the frame A, and they rest upon and are fastened to the cross-pieces G. The spiral volute springs I rest upon said boards, and the upper ends of said springs are severally covered by and connected to disks D, which, when the springs are not compressed, are about level with the frame A. The springs are held upright by means of a cord or cords, F, which are rove lengthwise and also crosswise of the bed-bottom, passing through eyebolts E on the inner side of the side and end pieces of frame A, and through staples N on the top of the disks D.

From this construction it follows that the springs will be kept in place, and will be prevented from leaning in any direction from the effects of use. It will be observed that the cord F is free to run or to be drawn through the eyebolts, whereby, when any great pressure comes on some of the springs and depresses them the cord will be free to run through the eyebolts, and so not interfere with the free action of the springs. If the cord were fixed to the eyebolts so as to be capable of running through them, the springs would be limited in their vertical movements to the distance allowed by the change of the cord from about a horizontal to an inclined position, and by the stretching of the cord.

The weight of the occupants of the bed-bottom is sustained by the frame A through the slotted bars J, the pins *m* of the cross-pieces G, the bottom boards C, and the springs I. If the pins *m* are set in slots L of the bars which are at the same height, the two divisions of the bed-bottom will be at the same elevation, and the tops of the springs or their covering-disks D will be about in the same horizontal plane. When the bed is used by two persons of unequal weight the springs of one division will be depressed to a greater extent than the other, and since the springs are connected at top the upper surface of the bed will become inclined and uneven. My invention is designed to remedy this difficulty and to remove this objection to the use of spring-beds, and for this purpose I support the divisions of

the bed-bottom on the slotted bars J, the pins *m* on the cross-pieces G of that division of the bed-bottom which is to be used by the heavier occupant being placed in slots L which are at a greater elevation than those in which the pins *m* of the other division are placed. By this means the springs of one division are compressed to a greater degree than those of the other, and are consequently stiffened so that they will not be depressed when occupied to as great a degree as when the pins *m* are left in the lowest slots of the bars J. The adjustments of the two divisions of the bed-bottom are to be made to suit the weights to be borne up by them, respectively, to the end that whatever the difference in the weight may be the top of the bed will remain horizontal, or nearly so.

The outer slotted bars of each division of the bed-bottom are secured to the frame A by two bolts, the upper one of which goes through a horizontal slot in such bars, so as to allow a slight outward motion to be given to those bars when the pins *m* are to be changed. The inner bars of each division have only one bolt in this example, and their inner edges bear, when the frame A is extended, against the

opposite edges of a heart-plate, K, bolted to the extension-bars H H. The object of this device is to take the strain off from the hinges B, and to keep the divisions of the frame vertical when one of them is raised to a higher level than the other, and so prevent the higher one from swinging in over the lower.

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

1. Connecting the tops of the several springs of a spring bed-bottom by a cord going loosely through eyebolts in the inside faces of the frame A, substantially as described.

2. Adjusting the springs of a bed-bottom so as to prevent unevenness when there is a disparity in the weight of its occupants, in the manner substantially as described.

3. The heart-plates K, in combination with the inside slotted bars, J, on each end of the frame, substantially as and for the purpose above described.

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Witnesses:

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CYRUS E. LAPHAM.