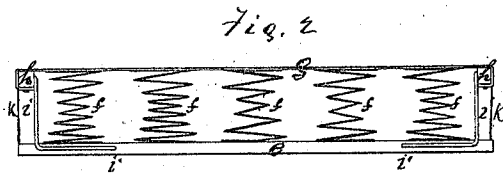
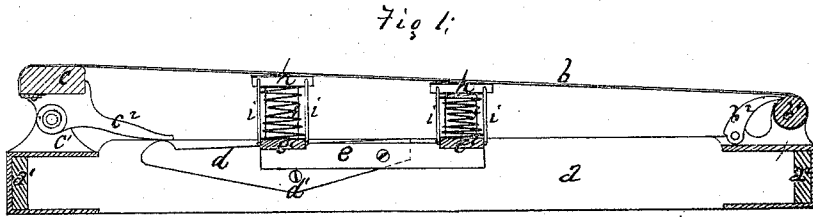


J. JOHNSON.

Improvement in Spring Bed-Bottoms.

No. 128,886.

Patented July 9, 1872.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN JOHNSON, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN SPRING BED-BOTTOMS.

Specification forming part of Letters Patent No. 128,886, dated July 9, 1872.

SPECIFICATION.

I, JOHN JOHNSON, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Spring Beds, of which the following is a specification, reference being had to the accompanying drawing, in which—

Figure 1 is a central vertical longitudinal section of a bed bearing my improvement. Fig. 2 is a detached view of the cross-bar with springs, &c., which forms a part of this invention.

This invention is, in one of its features, simply an improvement on the beds described and claimed in Letters Patent issued to me, dated, respectively, August 15, 1871, and November 14, 1871. The other and independent feature consists in a new arrangement and construction for making use of the common bed-springs.

The letter *a* indicates one of the side rails of the frame; *a'*, the head rail; and *a''*, the foot rail, all properly connected and fastened together. The letter *b* indicates the canvas, fastened at the foot to the roll *b'*, which is hung by its ends in bearings, and has upon one or both ends a ratch into which the pawl *b''* catches, thereby availing to give any desired strain to the canvas. This canvas is attached at the head of the bed to the rocking-head piece *c*, pivoted by its ends upon standards *c'*, and having at its ends projecting arms *c''*, which overhang and rest upon levers *d*, which are pivoted at *d'* to the side rails. So far this description coincides substantially with the descriptions contained in said former Letters Patent.

The improvement is this: To the ends of the levers *d* I pivot levers *e*, which are connected by the cross-pieces *e' e'*, and upon these cross-pieces I put an arrangement of springs, best seen in Fig. 2, which is a full length side elevation of one of these cross-pieces bearing my new arrangement of springs.

The letters *f* indicate the wire springs, which are attached at the foot to the cross-piece *e*

and by the top to the strap *g*, which may be of cloth, leather, or any proper material. This strap is attached by its ends to the bars *h*, which are hinged or pivoted by the cranked arms *i* to the cross-piece *e*, the hinge or pivot-point being at *i'*. In the drawing these cranked arms are shown as made of large wire, and the hinge or pivot is made by bending the end of the wire inward and inserting it in a corresponding hole in the side of the cross-piece. The cords *k*, running from the bars *h* to the cross-piece *e*, confine these bars from rising too high.

It is contemplated to use this arrangement of cross-piece and springs not only in the connection shown but independently of all the other apparatus, except the frame of the bed, the cross-pieces being attached to the side or end rails of the frame by screws driven through the ends of the cross-pieces into the frame.

While this arrangement of springs can well be used upon the ends of the lever *e* it is not essential that they should, as the canvas might rest directly upon the cross-pieces *e'*, they being raised high enough for that purpose. Spiral or other springs may be used.

These explanations are made for the purpose of bringing out the two distinct features of the invention.

I claim as my invention—

1. As an improvement upon the devices described and claimed in my said former Letters Patent, the combination of the rocking head-piece *c*, arms *c''*, levers *d*, and levers *e*, connected by the cross-pieces *e' e'*, substantially as described, and for the purposes set forth.

2. The combination of the cross-piece *e'*, the springs *f*, the strap *g*, and the bars *h h*, hinged to the cross-piece by the arms *i*, substantially as described, and for the purposes set forth.

JOHN JOHNSON.

Witnesses:

WM. E. SIMONDS,
JAMES F. COMSTOCK.