

W. M. Arthur,

Bed Bottom.

No. 104,048.

Patented Jun. 7. 1890

FIG. 1.

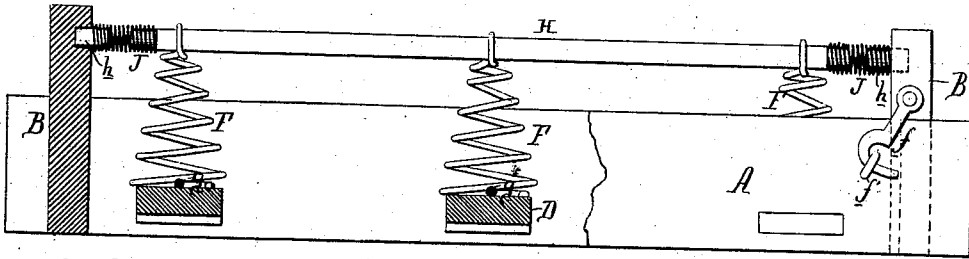


FIG. 2.

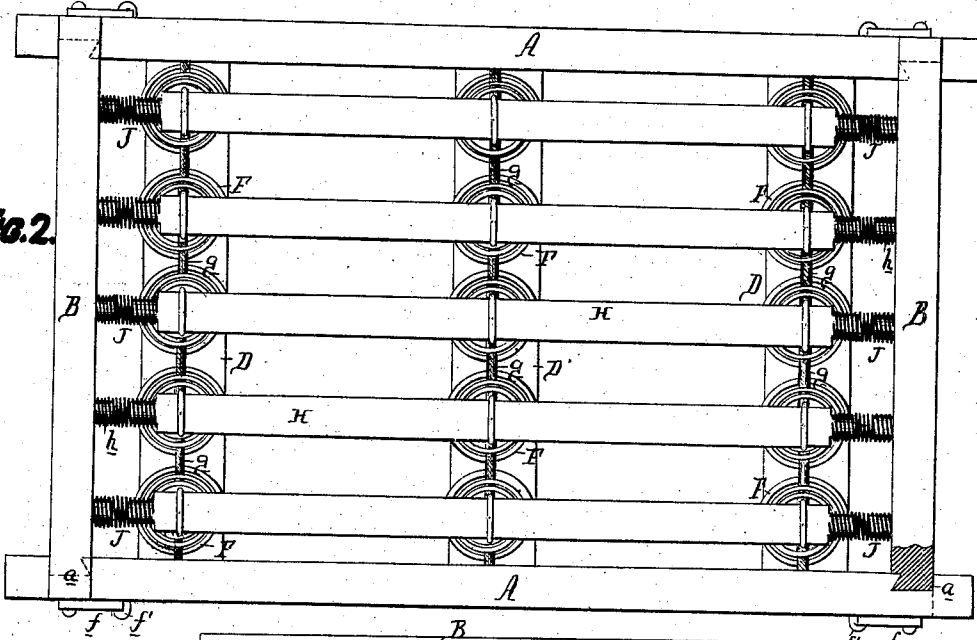


FIG. 3.

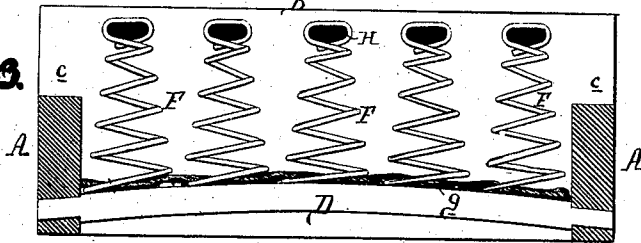


FIG. 4.

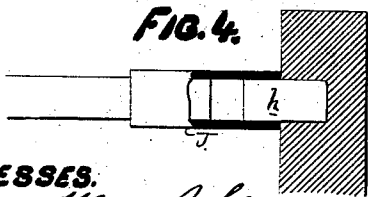
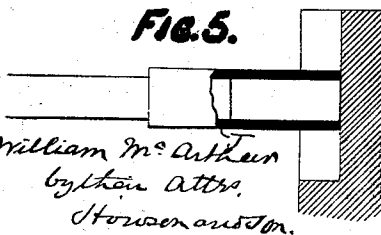


FIG. 5.



WITNESSES.

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WILLIAM McARTHUR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
HIMSELF AND JAMES AKIN SMITH, OF SAME PLACE.

Letters Patent No. 104,048, dated June 7, 1870.

IMPROVED SPRING BED-BOTTOM.

The Schedule referred to in these Letters Patent and making part of the same.

I, WILLIAM McARTHUR, of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented an Improved Spring Bottom for Bedsteads, of which the following is a specification.

Nature and Object of the Invention.

My invention consists of a bed-bottom in which certain slats, vertical and horizontal springs, cross-pieces and pads are arranged as fully described hereafter, so as to produce a bed-bottom that is elastic, durable, and simple in its construction, and which may be readily put together, or taken apart for storage or transportation.

Description of the Accompanying Drawing.

Figure 1 is a side view, partly in section, of my improved spring bottom for bedsteads;

Figure 2, a plan view of the same;

Figure 3, a transverse sectional view; and

Figures 4 and 5, enlarged detached views of modifications.

General Description.

The frame for the support of the slats and springs consists of side-pieces A A and end-pieces B B, the latter having dovetailed ends, *a*, adapted to correspondingly dovetailed recesses in the side-pieces.

The end-pieces have also abrupt shoulders, *c*, fig. 3, which overlap and rest upon the upper edges of the side-pieces, and the frame, when thus fitted together, is prevented from accidentally coming apart by hooks, *f*, of the end-pieces adapted to staples, *f'*, of the side-pieces.

The cross-pieces D D D, which support the springs F, are merely fitted, at their opposite ends, into openings formed in the side-pieces A A of the frame, so that they may be readily detached when the latter is taken apart, and each of the said cross-pieces is slightly curved or arched, as best observed in fig. 3, so as to better resist the strain to which it is subjected, and to prevent the bed from sagging downward in the center.

The springs F, which are of a conical form, are secured to the cross-pieces D in single rows, and in any suitable manner, and they are prevented from rattling upon the cross-pieces when suddenly contracted or depressed, by means of a cord or rope, *h*, which extends along each cross-piece and between the lower coils of each spring. But three cross-pieces, with their springs, are shown in the drawing, but any desired number may be used.

The springs, instead of being inverted, as is usual in this class of bedsteads, rest with their extended

bases upon the cross-pieces D, so as to be better able to support and prevent any lateral swaying of the slats H, which are attached to their upper ends. The springs are merely bent with a single turn at their upper ends, so as to embrace the slats, but so loosely that the latter can be drawn longitudinally through them, when the several parts of the bed are to be detached from each other.

In order to prevent any lateral strain upon, and consequent twisting of the springs, by a longitudinal movement of the slats, each of the latter is provided, at its opposite ends, with thrust-springs, T, of spirally-coiled wire, which bear against the end-pieces B B of the frame.

These thrust-springs are attached to the rounded ends of the slats, and have each a pin or cork, *h*, which is inserted into a recess in the end-piece, the said springs thus steadying and preventing any longitudinal swaying of the slats, but offering no obstruction whatever to the free vertical movement of the latter.

Instead of forming these thrust-springs of coiled wire, lengths of gum tubing or blocks of solid gum, suitably attached to the slats, might be used, as shown in figs. 4 and 5.

In fig. 4, the gum tube is attached to the slats, and has a plug or pin, *h*, adapted to the end-piece, in the same manner as the wire springs, and, in fig. 5, the gum is arranged to slide vertically against the inner face of the end-piece, instead of being attached to the same. The wire spring might also be arranged in this latter way.

The principal advantages of my invention are, that the frame, which is one of great strength, can be quickly taken apart and put together, and the slats removed from or attached to the supporting-springs, while the rattling of the latter and unequal strains upon the same are prevented.

Claims.

1. A bed-bottom, consisting of a series of slats, H, each resting on vertical conical springs, and bearing, at each end, against horizontal springs J, as described.

2. The combination and arrangement of the curved bars D, slats H, springs F and *h*, and frame A, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM McARTHUR.

Witnesses:

FRANK B. RICHARDS,
HARRY SMITH.