(No Model.) 2 Sheets—Sheet 1.

H. A. MUELLER.

BED BOTTOM.

No. 272,076. Patented Feb. 13, 1883.

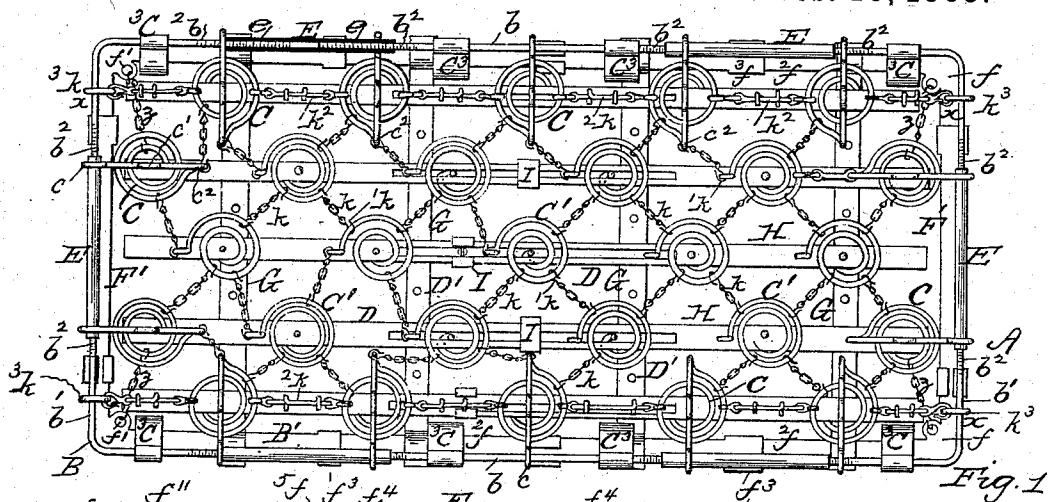


Fig. 1



Fig. 2

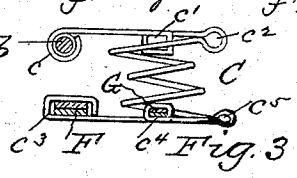


Fig. 3

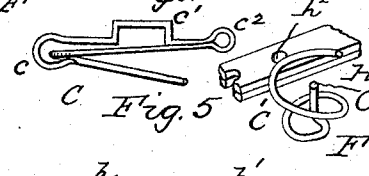


Fig. 5

Fig. 6

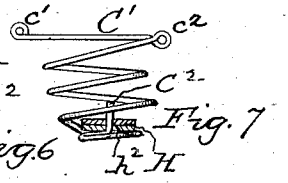


Fig. 7

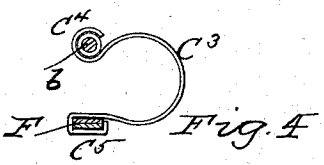


Fig. 4

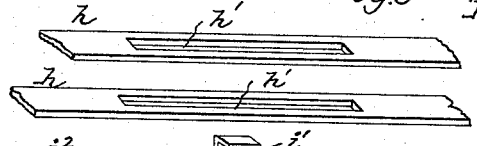


Fig. 8

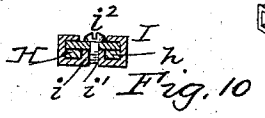


Fig. 10

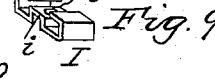


Fig. 9

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(No Model.) 2 Sheets—Sheet 2.

H. A. MUELLER.

BED BOTTOM.

No. 272,076. Patented Feb. 13, 1883.

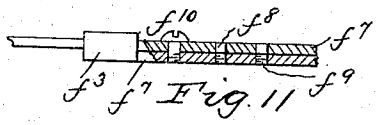


Fig. 11

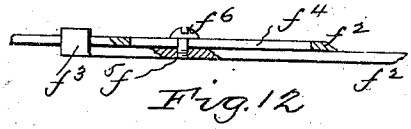


Fig. 12

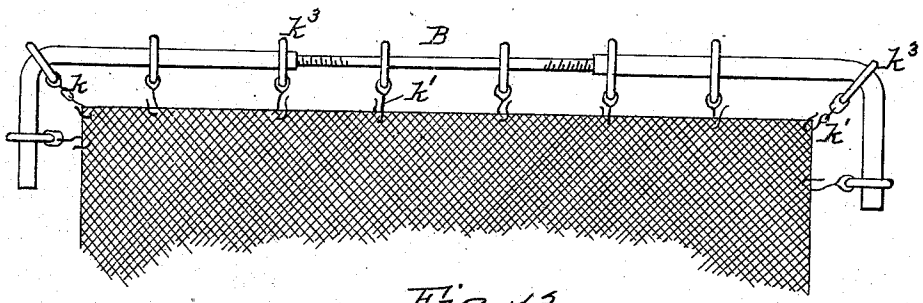


Fig. 13

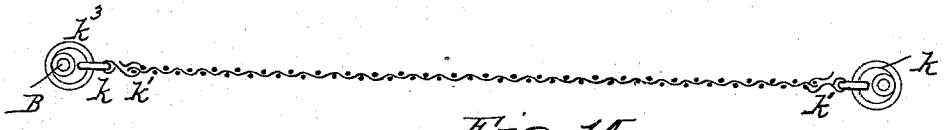


Fig. 14

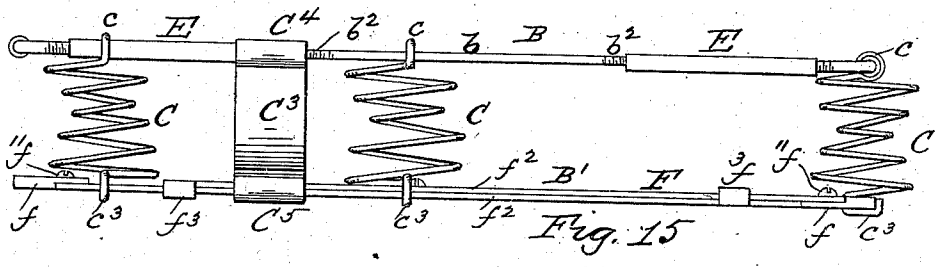


Fig. 15

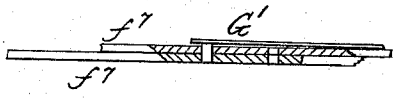


Fig. 16

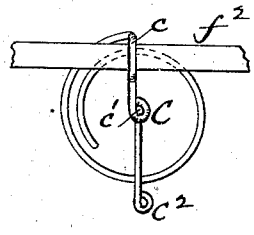


Fig. 17

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UNITED STATES PATENT OFFICE.

HENRY A. MUELLER, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO FREDERICK P. WIEDERSUM, WILLIAM J. WIEDERSUM, AND MARIA WIEDERSUM, ALL OF NEW YORK, N. Y.

BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 272,076, dated February 13, 1883.

Application filed December 14, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. MUELLER, a citizen of the United States, residing at New Haven, in the State of Connecticut, have invented certain new and useful Improvements in Bed-Bottoms, of which the following is a specification, reference being had therein to the accompanying drawings, wherein—

Figure 1 is a plan of my invention. Fig. 2 is a plan of the lower frame of the bed-bottom. Figs. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 are detail views. Fig. 13 is a broken plan of a modification. Fig. 14 is an elevation of same. Fig. 15 is a side view of the bed-bottom, and Figs. 16 and 17 are detail views.

My invention has for its object to provide a bed-bottom which is capable of adjustment both longitudinally and transversely, so that it can be made to fit any size of bedstead.

My invention accordingly consists of the novel combination, arrangement, and construction of parts, as hereinafter more particularly described and claimed.

Referring to the accompanying drawings, A represents a bed-bottom composed of upper and lower frames, B B′, respectively, springs C C′, and slats or bars D D′. The frame B is composed of side and end rods, *b b′*, respectively, having reversely-threaded ends b^2, which are connected together by sleeves or unions E, having right and left threads, *e*, corresponding to those on the ends b^2, so that when said sleeves are turned the frame B is expanded or contracted longitudinally or laterally, as desired. The frame B′ is composed of corners *f f*, having eyes or openings *f′*, as shown in Fig. 2, and side and end slats or bars, F F′, respectively. Said slats F are composed of a series of sections, f^2 f^2, which slide upon each other and are held in line by means of sleeves f^3, which may be formed integral therewith, as illustrated; or they may be loose or sliding sleeves. One or more of the sections f^2 are formed with slots f^4, while the others have threaded or tapped openings f^5, into which pass screws f^6 f^6, as more plainly shown in Fig. 12, so that when said side slats are adjusted to the desired length they are maintained in such position by tightening the screws f^6. The ends F′ consist of two sections or strips sliding upon one another and kept in place by sleeves f^3, as above described for the sides F. One of the sections, f^7, has a series of unthreaded or plain openings, f^8, and the other a series of threaded apertures, f^9, as more fully set forth in Fig. 11, so that when adjusted in length they are rigidly held together by screws f^{10}. The sides and ends F F′ are connected to the corner-pieces *f* by screws f^{11}; or any other suitable fastening may be employed. The sides F are also connected together by means of bars G G, composed of strips *g g*, having loops *g′ g′*, through which the sides F pass, and are provided with openings g^2 and fastening-screws g^3, as and for the purpose described, for the openings and screws in the ends F′.

H H represent longitudinal bars, resting on the cross-strips G G, and are composed of sections *h h*, having slots *h′*. Around said bars is passed a loop, I, made in the form of a letter **E**, the part *i* thereof having a threaded opening, *i′*, and entering the slots *h′* in said bars. When the latter are adjusted in length and the screws i^2 tightened the loop I and strips *h h* are firmly held together in their adjusted positions. Such described construction of said loop is more plainly shown in Figs. 8, 9, and 10. The bars H are also provided with holes h^2, as and for the purpose hereinafter set forth.

If desired, the cross-bars G may be dispensed with, and the bars H be provided with loops *g′ g′* for the ends F′ to pass through. So, too, instead of employing the screws f^6 f^{10}, a spring hook or pin, G′, may be used, as plainly shown in Fig. 16.

The springs C, which are located around the edges of the bed-bottom, have upper loops, *c c′* c^2, and lower loops or eyes, c^3 c^4 c^5, which may be round or oblong to correspond to the outline of the frame or slat passing therethrough, as plainly shown in Fig. 3. The sides and ends of the upper and lower frames pass respectively through the loops *c* c^3, so that said parts are thereby all relatively secured together.

The springs C′ have upwardly-projecting pins C^2 at their bottoms, (see Figs. 6 and 7,) which are designed to enter the openings h^2 in

bars H, and when inserted therein and the springs rotated their lower coils embrace said bars, and are thereby held in position without riveting or other permanent fastening. Hence they are readily removed from and replaced upon the bars H when the size of the bed-bottom is adjusted.

C^3 C^3 represent broad flat springs, having looped ends C^4 C^5 for the passage of the side bars of the frames B B′. These springs are located on the long sides of the bed-bottom, as shown in Fig. 1, for the purpose of imparting additional strength and elasticity to the bed-bottom at said parts. The connection of said springs with the bed-bottom is more plainly indicated in Fig. 4. The springs C C′ are further connected to each other and to the frames by means of chains *k* and snap or spring hooks *k′*. (See Fig. 1.) In lieu of the chains, sliding rods k^2 may be used, and rings or eyes k^3 may be placed upon the frames B B′ wherever needed for the snap or spring hooks, as shown at *x*, Fig. 1. A chain-connection is also made between the corners *f* and the springs, as shown at *z z*, Fig. 1, and for this reason said corners are provided with the openings *f′*, as above set forth. The snap or spring hooks are designed to enter the loops c' c^2 c^5 of springs C, and the springs C′ are also provided with corresponding loops, c' c^2, for like purpose. If desired, however, the snaps may connect with the coils of the springs. Such connections are fully shown in Fig. 1. The springs C C′ may therefore be formed with two or more loops, as desired. So, too, the springs C may be arranged in respect to the frames B B′ as shown in Figs. 15 and 17, in which case the frames are not only connected with the springs, but they also rest directly thereon.

In Figs. 13 and 14, I have shown my improvements applied to a woven-wire, tick, or other bottom, said wire or tick being secured to frame B by means of the rings k^3, chains *k*, and snap or spring hooks *k′*.

A bed-bottom constructed as above described can be altered to any given size, so that it may be readily made to fit either a single or a double bedstead, and when its parts are adjusted in due relation they are firmly maintained in position.

I have shown and described different modes of fastening for the sides and ends of the frames, and for the longitudinal and transverse slats; but I do not confine myself to any particular fastening for any of said parts, as various means may be used therefor without departing from the spirit of my invention. For instance, the right and left screw connection in the ends of frames B may be dispensed with, and in lieu thereof notches may be formed on the rods *b′*, and the sleeves E provided with an opening through which passes a spring or snap catch to engage with one of said notches, substantially as shown for the bars or strips f^7 in Fig. 16. So, too, the ends of said frames B B′ may be dispensed with, in which case only their sides will be used, and the bed-bottom will still have an adjustment both in length and width.

If desired, the loops *c* on the springs C may be formed in the shape of a spring or snap hook, as shown in Fig. 5.

What I claim is—

1. A bed-bottom composed of side and end bars adapted and designed to be adjusted longitudinally and laterally, substantially as shown and described.

2. A bed-bottom composed of side and end bars capable of being extended or contracted, in combination with means for retaining said parts in their adjusted positions, substantially as shown and described.

3. A bed-bottom composed of an upper and a lower frame capable of longitudinal and lateral adjustment, springs attached thereto, and a slat bottom, substantially as shown and described.

4. The combination, in a bed-bottom, of upper and lower frames which are capable of longitudinal and lateral adjustment, means for holding said frames in their adjusted positions, and springs secured to said frames and to bottom slats composed of sliding or adjustable sections, substantially as shown and described.

5. The combination, in a bed-bottom, of upper and lower frames capable of longitudinal and lateral adjustment, means for maintaining such adjustment, springs secured to said frames and to adjustable bottom slats, and chains with spring or snap hooks, substantially as shown and described.

6. In combination with a laterally and longitudinally adjustable bed-bottom, a series of adjustable slats having looped ends, substantially as shown and described.

7. In combination with the frames B B′, the springs C C′, having two or more loops, c' c^2, and chains *k*, with snap or spring hooks *k′*, substantially as shown and described.

8. In combination with a frame capable of lateral and longitudinal adjustment, a spring or flexible bottom connected to said frame by means of chains and spring or snap hooks, substantially as shown and described.

9. In combination with the frames B B′, the springs C C′ C^3, adjustable slats H H, and cross-bars G, substantially as shown and described.

10. The combination of frames B B′, having longitudinal and lateral adjustment, springs C C′, having two or more loops, c' c^2, bars H H, and chains *k*, with snap or spring hooks *k′*, substantially as shown and described.

11. A bed-spring having one or more loops at its upper extremity and an upwardly-projecting pin at its lower end, substantially as shown and described.

12. A bed-bottom composed of frames having sectional sides and ends, and springs secured thereto and to sectional bottom slats, substantially as shown and described.

13. In a bed-bottom, the combination of frame

B, composed of bars *b b'*, having reversely-threaded ends b^2, and sleeves E, with right and left threads, the frame B', having sectional sides and ends, with fastening mechanism, the adjustable slats H, and springs C C', substantially as shown and described.

14. The combination, with the adjustable bars or slats H, having openings h^2, of the springs C', having pin C^2, substantially as shown and described.

15. The frame B', having adjustable side and end bars, with corners *f*, having openings *f'*, substantially as shown and described.

16. A bed-bottom composed of springs, supporting-slats, and upper and lower side bars which have a longitudinal adjustment, and means for holding them in their adjusted positions, whereby said bed-bottom is capable of adjustment, in length and width, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY A. MUELLER.

Witnesses:

S. J. VAN STAVOREN,

CHAS. F. VAN HORN.