

(No Model.)

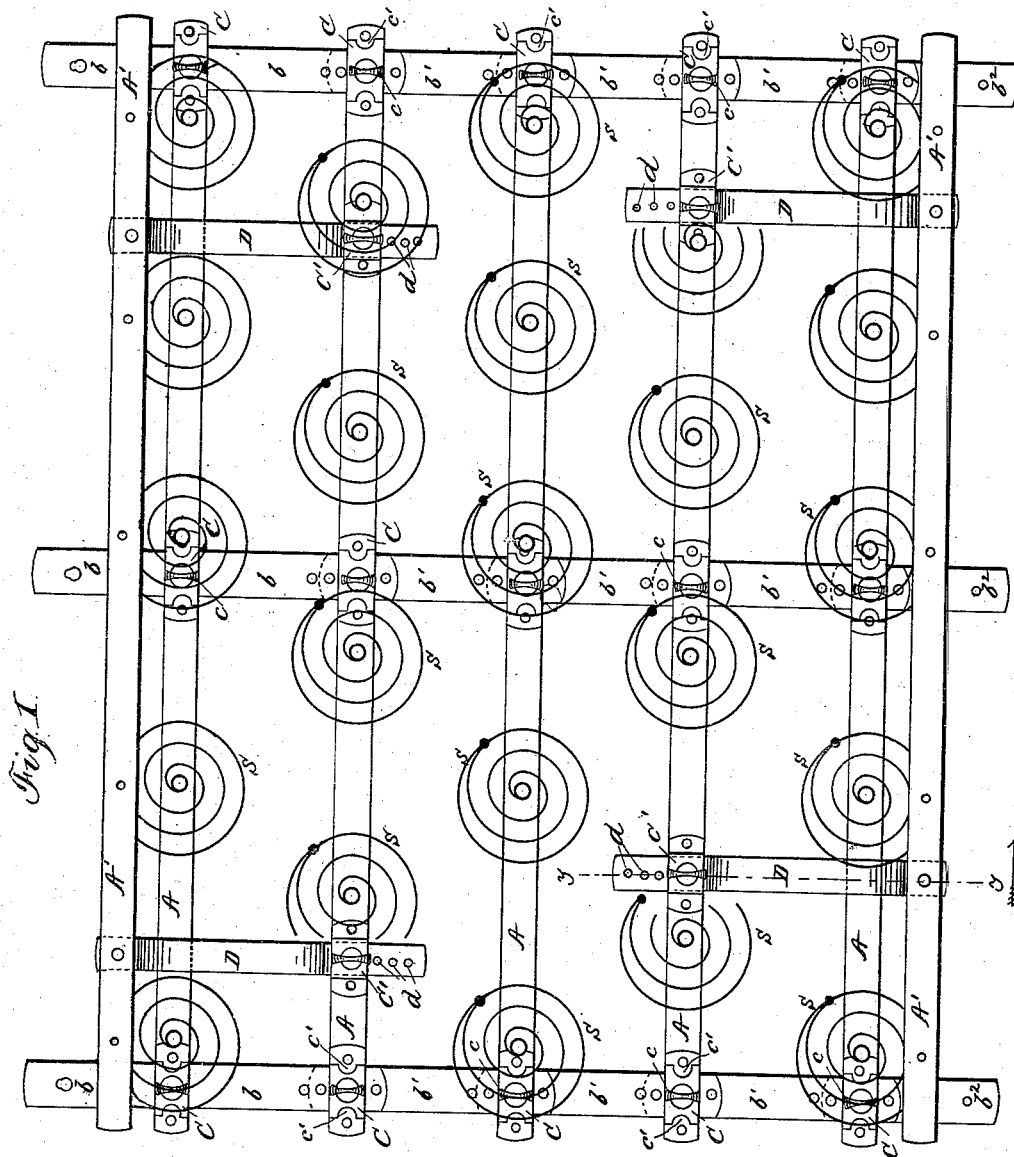
2 Sheets—Sheet 1.

M. N. LOVELL.

ADJUSTABLE SPRING BED BOTTOM.

No. 265,116.

Patented Sept. 26, 1882.



Witnesses.

W. R. Edilen, Del.
L. C. Hallock

Inventor.

M. N. Lovell

Per Hallock & Hallock

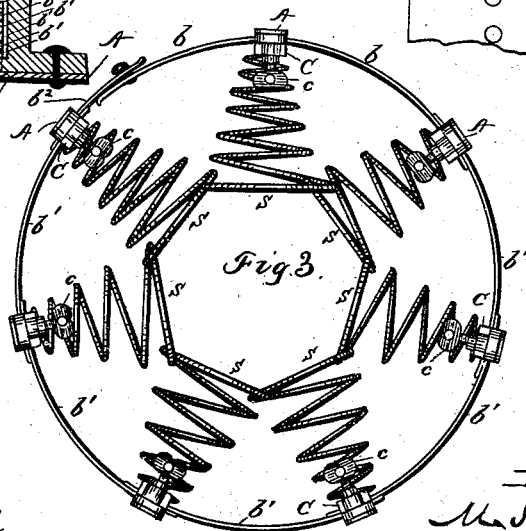
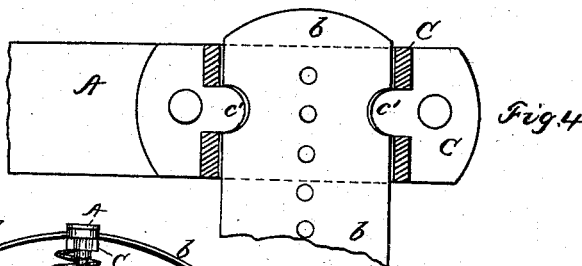
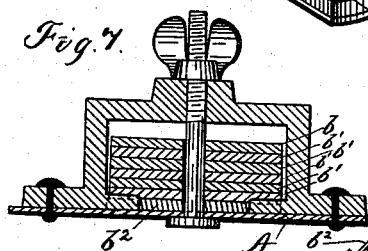
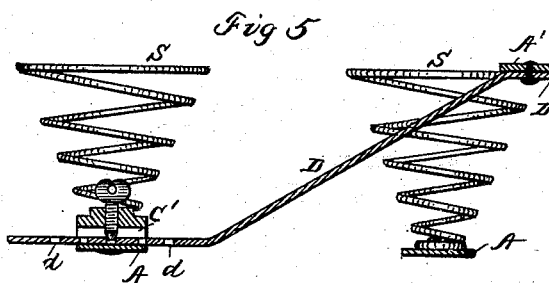
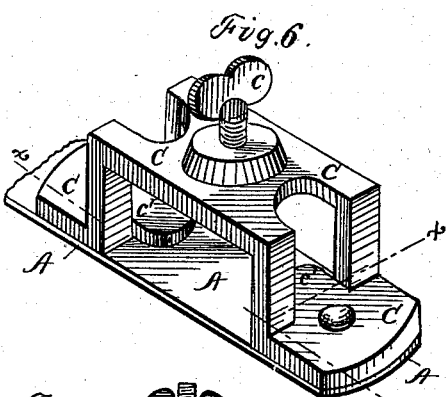
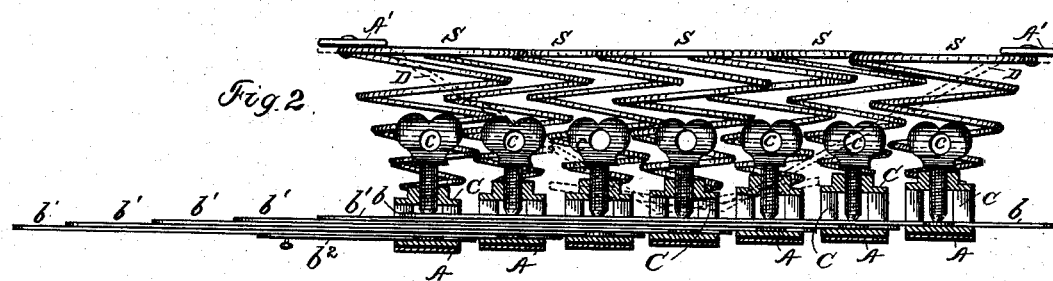
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UNITED STATES PATENT OFFICE.

MELVIN N. LOVELL, OF ERIE, PENNSYLVANIA, ASSIGNOR TO THE LOVELL MANUFACTURING COMPANY, (LIMITED,) OF SAME PLACE.

ADJUSTABLE SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 265,116, dated September 26, 1882.

Application filed July 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, MELVIN N. LOVELL, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Spring Bed-Bottoms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to the construction of spring bed-bottoms; and it consists in providing means whereby the said bed-bottom may be adjusted as to width, may be rolled up into a roll, or may be brought into still more compact form by having its parts shoved up close together, all as will hereinafter be described and claimed.

I am aware that adjustable spring bed-bottoms are common, also those which will roll up into a roll, and also those that will collapse together. I am also aware that such bed-bottoms have been made so as to be both adjustable and capable of rolling up into a roll, and that most collapsing bed-bottoms are by their nature adjustable; but I am not aware of any construction by which the bed can be brought into small compass both by rolling and by collapsing, as desired. It is true that an adjustable roll-up bed-bottom can be brought into somewhat smaller compass laterally, but not in anything like a sufficient degree to accomplish any useful purpose, further than that it can be fitted to various widths of bedsteads, and not for the purpose for which beds are made to collapse or roll up. The object in having a bed collapse or roll up is to bring it into as small a compass as possible for shipping or for handling about the house when necessary. A spring bed-bottom which is made to collapse properly will occupy less space, pack into crates more compactly, and is better adapted for shipping purposes than one which rolls up into a roll; but a bed which collapses should be also provided with means by which, when it is properly adjusted to a bedstead, it can be securely clamped and held in that position; but if such a bed has no means by which it can be rolled up it must be handled about the house as if it were rigid, or else have its ad-

justments unclamped and be collapsed for handling, and then readjusted and reclamped when replaced on the bedstead. A truly perfect bed-bottom must be capable of collapsing for shipment, adjustable to various widths of bedstead, capable of being firmly clamped and braced when properly adjusted, and, finally, capable of being rolled up for the ordinary handling about the house.

In the construction here shown all the above features are embodied without sacrificing any other desirable feature, and this constitutes the essential object of this invention.

The minor features or objects of this invention will appear from the following general description and claims.

The invention is illustrated in the accompanying drawings as follows:

Figure 1 is a plan view of the bed-bottom. Fig. 2 is an end view, showing the bed collapsed, the parts C C being in section, however. Fig. 3 shows an end view of the bed rolled up; and Figs. 4, 5, 6, 7 show details of construction which will be referred to in proper connection hereinafter.

As is common in this class of beds, the main parts consist of longitudinal slats A A A, &c., to which the springs S are attached, transverse strips to which the longitudinal strips are attached, upper stay-strips, A', along the outer edge of the outer row of springs, and braces D, holding said strips A' in proper place. The springs S are connected or stayed together throughout the bed by any desirable means (not shown here, however,) such as links, chains, tapes, &c.

The improvements in the construction are found, first, in the transverse strips; second, in the manner of connecting the transverse strips with the longitudinal strips; third, in the construction and adjustment of the braces D.

The transverse strips are formed of a series of sections, b, b', b'', and b³, which are preferably made of steel. There are as many of these sections as there are longitudinal strips A, and each of them may be firmly or detachably connected to said strip A, and I show them detachably connected. On each of the longitudinal strips, at the point where the transverse strip crosses it, I place a clip, C, which is

shown clearly in detail—in Fig. 6 in perspective, in Fig. 4 in horizontal section, and in Fig. 2 in vertical section. This clip is preferably made of cast metal, but may be struck up out of wrought metal. It is firmly riveted to the strip A. Within its housing are two lugs, c' , which fit into notches on the sides of the section b of the cross-strip. It is also provided with a clamping-screw, c , by which the sections b can be firmly clamped within the clip. The clip is made sufficiently high to receive several sections, b , at once, which it is required to do when the bed is collapsed, as shown in Fig. 2. When the bed is extended there are in each clip except the first one on one side two sections. The said first strip is notched, and lies between the lugs c' of clip C, and is thereby detachably connected with the clip and strip A, to which it is riveted, and the opposite end of the section which is similarly connected to an adjoining strip, A, and these two sections are then clamped by the screw c at such a position as will bring the strips A the desired distance apart. Another form of clip is shown in Fig. 7, which differs from the one in Fig. 6 principally in the fact that the sections are held therein by a screw-bolt passing through them in place of a binding-screw. The bed is collapsed by loosening the binding-screws and telescoping the sections, as shown in Fig. 2. It is adjusted to any desired width by drawing the longitudinal strips A the proper distance apart and clamping the sections b , &c., together by the binding-screws c . It can be adjusted to different widths, or so as to have more springs on one side of the bed than on the other. For shipping purposes all the sections b can be removed from the clips and the longitudinal strips A, with the springs thereon, be packed in as small a compass as possible. The dealer, by having a supply of strips A, with springs thereon, and sections b , &c., on hand, can make up a bed-bottom to any width desired, and he can at all times adjust the beds to properly fit the bedsteads of his customers. When the bed is thus adjusted it requires no changing unless put upon some other bedstead of different dimensions. The segments b , &c., being of thin steel, are flexible, and the bed can be rolled up, as shown in Fig. 3, at whatever width it may be adjusted. D D D D are braces for holding the upper longitudinal slats, A', in proper place. Fig. 5 shows one of these in longitudinal section on the line $y y$ in Fig. 1. The upper ends of these braces are riveted or otherwise clamped to the strips A'. Their lower ends are adjustable within a clip, C', on one of the inner strips A. When the bed is collapsed, as shown in Fig. 2, these braces are released from the clips C', and they take the position shown in Fig. 2 by dotted lines. When the bed is prepared for use—that is, fitted to the bedstead—the braces are adjusted so as to hold the strip A' in proper position, and then clamped in place by a jam-screw, like those

in clips C. An important result of the construction of the transverse strips, as shown, is that if any of the sections become injured or broken they can be quickly and readily removed and a new one inserted. The whole bed may be said to be made of sections, each section consisting of a longitudinal strip, A, on which is a line or row of springs, and the sections of the transverse strip, which are connected with it and extend from it on one side at right angles. The bed is formed by putting a certain number of these sections together. The two outer sections differ from the inner ones by having the strips A' and the braces D; but the inner sections are all alike, and one may be substituted for the other, or one removed, and the bed thus made narrower, or an extra one inserted, and the bed thus be made wider; or, if the springs on some of the inner ones become sunken, as will be the case after much wear, a new section—that is, a longitudinal strip with springs and clips all in place—can be substituted for the section having the sunken springs. All these changes can be made by simply loosening the clamping-screws c and removing the sections of the transverse strips from the clips.

I am aware that bed-bottoms have been provided with adjustable transverse slats unattached to each other and provided with set-screws for holding them in place.

I am also aware that transverse strips have been provided with clips fastened permanently to their ends, and these I do not claim; but

What I claim as new is—

1. A spring bed-bottom formed of sections, consisting of a longitudinal strip, A, having thereon a line of springs, S, sections of the transverse strips connected with and extending laterally from said strip A, and clips or clamps for detachably connecting said sections of the transverse strips with those on an adjoining section of the bed, substantially as and for the purposes set forth.

2. In a spring bed-bottom, the transverse strips, made of sections, which are detachably attached together and to the longitudinal strips, whereby any one of said sections of said strip or all of them can be readily removed and replaced, substantially as set forth.

3. In a spring bed-bottom, the transverse strips, made of sections, which are severally connected with the longitudinal strips, and are detachably connected together by clips in a manner substantially as set forth, whereby the width of said bed can be adjusted by the adjustment of said sections within said clips.

4. In a spring bed-bottom which is made of sections, consisting of a longitudinal strip having thereon a line of springs and a section of the transverse strip detachably connected therewith and extending therefrom laterally, the combination therewith of securing clamps or clips placed at the intersection of the sections of the transverse strips with the longi-

5 longitudinal strips, and of sufficient capacity to admit of several of the said sections of the transverse strips sliding upon each other therein, substantially as shown, whereby the several
10 sections composing said bed can be brought in close proximity with each other, for the purposes mentioned.

15 5. In a spring bed-bottom, the transverse strips, made of sections of flexible metallic bars, which are detachably connected together and with the longitudinal strips severally, and are adjustable one upon the other, so as to regulate their aggregate length, substantially as shown, whereby the said bed-bottom is adjustable in width and may be rolled up into a roll, collapsed together, or sectionally disconnected, as set forth.

20 6. In a spring bed-bottom, the transverse slats or strips, made of sections of flexible metallic bars, adjustably connected together by securing-clips in a manner substantially as set forth, whereby the said bed may be adjusted as to width and may be rolled up without affecting the said adjustment.

25 7. In a spring bed-bottom, the combination

of longitudinal slats A, supporting the springs S, the transverse slats formed of sections *b b'*, &c., the clips C, and the clamping-screws *c*, all substantially as and for the purposes mentioned.

30 8. In a spring bed-bottom, the combination of the strips A, clips C, with lugs *c'*, with the notched sections *b b'*, &c., substantially as shown.

35 9. In a spring bed-bottom, a brace for staying the outer rows of springs, which has its inner end adjustably connected with one of the inner lower longitudinal strips, substantially as shown.

40 10. In a spring bed-bottom, the combination of the strips A, supporting the springs, the strips A' on the top of the outer row of springs, the brace D, and adjusting clamping-clip C' on the inner strips, A, as shown.

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

MELVIN N. LOVELL.

Witnesses:

JNO. K. HALLOCK,
JACOB F. WALTHER.