(No Model.)

E. P. FOWLER.

SPRING BED.

No. 262,658. Patented Aug. 15, 1882.

Fig. 1.

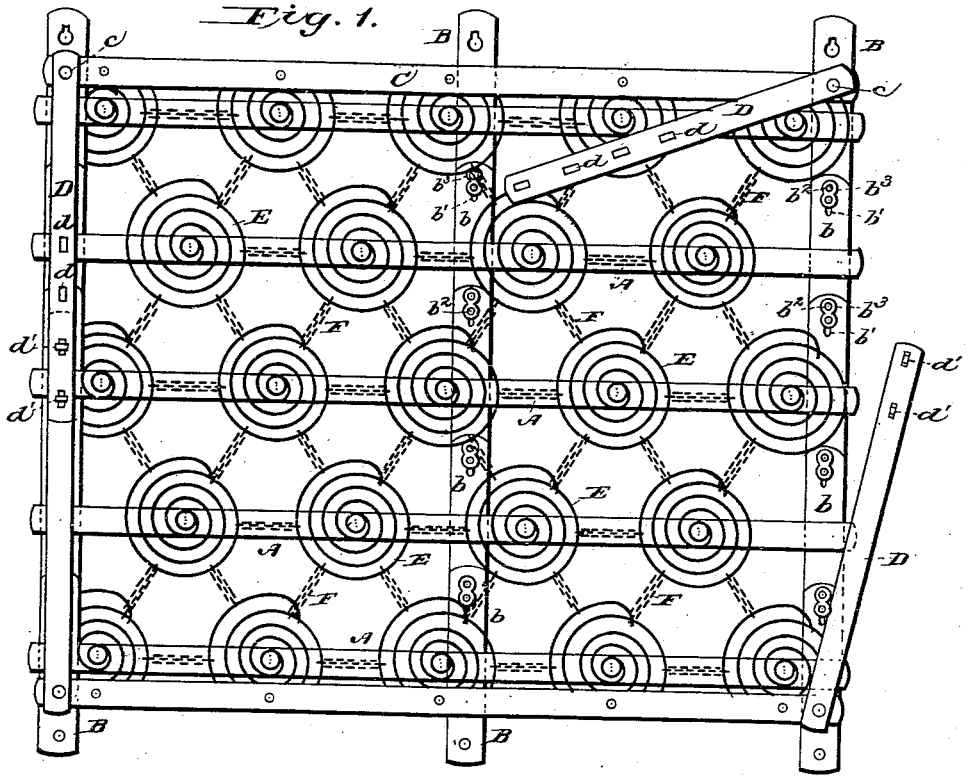


Fig. 2.

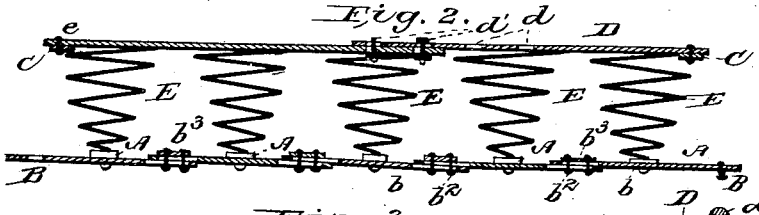


Fig. 3.

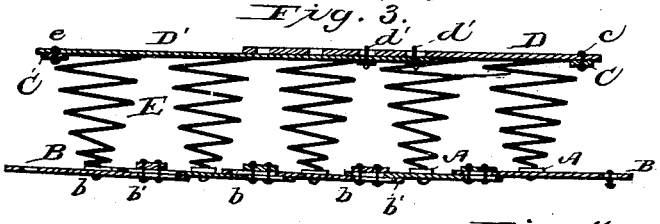


Fig. 4.

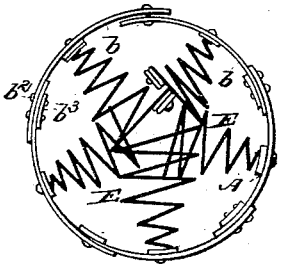


Fig. 5.

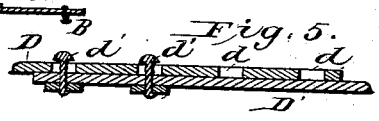
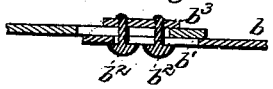


Fig. 6.



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UNITED STATES PATENT OFFICE.

EDWIN P. FOWLER, OF BROOKLYN, NEW YORK.

SPRING-BED.

SPECIFICATION forming part of Letters Patent No. 262,658, dated August 15, 1882.

Application filed March 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWIN P. FOWLER, of Brooklyn, in the county of Kings and State of New York, a citizen of the United States, have invented new and useful Improvements in Spring Bed-Bottoms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters or figures of reference marked thereon.

My invention relates to the construction of that class of spring bed-bottoms which are adapted to be rolled up, and which may be contracted or expanded to fit bedsteads of various sizes.

The invention consists in the construction whereby the bed can be contracted or expanded in its width, so as to be adjusted to bedsteads of various widths.

The invention is illustrated in the accompanying drawings, wherein Figure 1 is a top or plan view. Fig. 2 is an end view, showing the bed at full width; Fig. 3, a like view, showing the bed contracted. Fig. 4 shows the bed rolled up. Figs. 5 and 6 are details of construction, and will be referred to in proper connection.

The parts are indicated by letters of reference as follows:

A A A A A A are the longitudinal slats on which the springs are fastened. B B B are the transverse slats, and are formed of sections *b b*, &c. C C are top side longitudinal stay-slats. D D′ D D′ are top end transverse stay-slats. E E, &c., are the springs. F F F, &c., are the chains which bind the springs together. The strips B B B are flexible, so that the bed can be rolled up, as shown in Fig. 4.

I am aware that spring-beds have heretofore been made which had some or all of the following features: the slats A, to which are attached the springs, mounted on flexible transverse slats, so that the bed can be rolled up; also, the above construction with the said flexible slats made of two sections and adapted to slip or telescope together, so as to adjust the width of the bed; also, the first-named construction with top end transverse stays, which can be swung around and permit the bed to be rolled up.

In the following I shall fully set out what my present construction is and how it differs from previous constructions.

With the construction of the springs, the manner of attaching the same to the strips A, the construction of the strips A, and the manner of attaching the same to the transverse strips, the longitudinal stays C, and the chains F this invention has nothing to do, and therefore I shall not describe them further, except to say that when the width of the bed-bottom is contracted the slack of the chain by its own weight falls between the springs and does not interfere with the upper surface of the bed.

My invention relates wholly to the construction of the transverse strips B B B and the transverse top stays, D D′, and the combination of the same as constructed with the other features of the bed.

The strips B are made of a series of sections, *b b b b b*, of thin elastic metal. These sections are joined together so as to slide upon each other, and thereby lengthen or shorten the strip. The manner in which they are joined is fully shown in Fig. 6. The ends of the sections *b* are provided with slots *b′*. Rivets b^2 b^2 pass through these slots and fasten in a plate, b^3. This gives a joint which cannot turn laterally, but can slide together as far as the slots will permit. There being at each point where the sections are connected one of these joints, making in all a number of them in each slat, the distance which the slat can expand or contract is considerable. It will be seen from the drawings that I put such a joint between each of the longitudinal slats. This is not necessarily essential, but is very desirable, as by it the distance between the rows of springs can be kept uniform; or, if wanted, the springs can be arranged closer together on one side of the bed than on the other in order to accommodate the bed to persons of different weight when both are occupying the same bed. When the sliding joint in the flexible strip is at one point only, as shown in my patent of November 9, 1880, No. 234,262, the distance between the outside rows of springs is not changed when the bed is contracted, but the central rows are brought much nearer together. This, however, makes the central part of the bed stiffer than the outside, and the result is it will not be as comfortable to sleep on as where the

springs are distributed evenly, as they can be by the present construction. The end cross-stays on the top of the bed are made of two parts, D D′, each of which is pivoted to the side or corner of the bed, and when the bed is rolled up are swung around onto the side stays, C.

As I have before stated, there is nothing new in the use of swinging end stay-pieces. See patent to Oberndorfer, April 5, 1881, No. 239,829; but such a bar as is there shown could not be used on a bed made to be adjusted to the width of the bedstead. I have therefore provided the following construction: The bars are divided into two parts, D D, and made so as to be adjusted to the width of the bed. These two parts could be made so as to slide upon each other, and one only of them be pivoted to the bed; but it would require some special clutch or clamp or fastening to hold them at the desired point of extension in order to get the best staying effect. I have deemed it best to pivot each section D D′ to the bed, as at *c c*, and make the loose ends so they can be attached together at various points. To do this I put on one of the bars, D′, two key-studs or buttons, *d′ d′*, say an inch apart. On the other bar, D, I put a series of holes, *d d d d*, more or less, also an inch apart. It will be seen that the buttons on the bar D′ can be entered into two of the holes every inch of expansion or contraction of the bed. The buttons are made to turn, and, as their heads are longer than the holes *d* are wide, they will, when turned, lock the two bars together. In the drawings I have shown these buttons as on top of the bars in order to more clearly illustrate them; but in actual construction they had better be below, so as not to wear the bedding.

Many of the parts of my construction may be used in other relations than as shown. For instance, in a bed which is not adapted to be rolled up, but which is made adjustable in width, it will be desirable to use my joint in the cross-slats, and also to use such a joint, or one serving the same purpose, between each longitudinal slat; and when cross top stays are used in such beds it is just as desirable that they be made adjustable in the middle as when used in a rolling bed.

What I claim as new is—

1. In a spring-bed, a bottom frame-work consisting of longitudinal slats and cross-slats, which latter are composed of sections *b b b*, &c., provided with slots *b′ b′* at their ends, and joined together by pivots or bolts b^2 b^2, which pass through said slots and permit the sections to move lengthwise upon each other, substantially as and for the purposes set forth.

2. In a spring-bed, a bottom frame-work consisting of longitudinal slats and cross-slats, which latter are composed of sections *b b b*, &c., each of which sections is attached to one of the longitudinal slats, and are connected together between the longitudinal slats by a slip-joint, whereby the said frame-work can be adjusted in width and the longitudinal slats can be adjusted at uniform distances apart in any of the various adjustments of the width of the frame-work, as set forth.

3. In a spring-bed wherein the bottom frame-work is constructed so as to be adjusted to various widths, the combination therewith of cross top stay-strips which are made to be adjusted in length so as to coincide with the width of the frame-work, substantially as set forth.

4. In a spring-bed which is adapted to be rolled up, cross top stay-strips formed of two parts pivoted to the side of the bed, and adapted to be attached together when the bed is unrolled, substantially as described.

5. In a spring-bed which is adapted to be rolled up, and also to be adjusted to various widths, a top cross stay-strip formed of two parts, D D′, pivoted to the side of the bed, the part D having a series of holes, *d*, and part D′ having a series of lugs, *d′*, for the purpose set forth.

6. In a spring bed-bottom, the combination, substantially as set forth, of the following elements: longitudinal slats, on which are mounted the springs of the bed; transverse slats, to which the said longitudinal slats are attached, and which are adjustable in length, and are sufficiently pliant to permit the bed to be rolled up; longitudinal top stay-strips along the sides of said bed; and, finally, transverse top stay-strips at the ends of said bed, which are pivoted and can lie parallel with the longitudinal stay-strips when the bed is rolled up, and can lie across the bed when opened, and are adjustable in length, so as to coincide with the width to which the bed may be adjusted.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of February, 1882.

EDWIN P. FOWLER.

Witnesses:
A. S. CLARK,
M. F. HALLECK.