D. W. Burbank,

Bed Bottom,

No. 55,462. Patented June 12, 1866.

Fig: 1

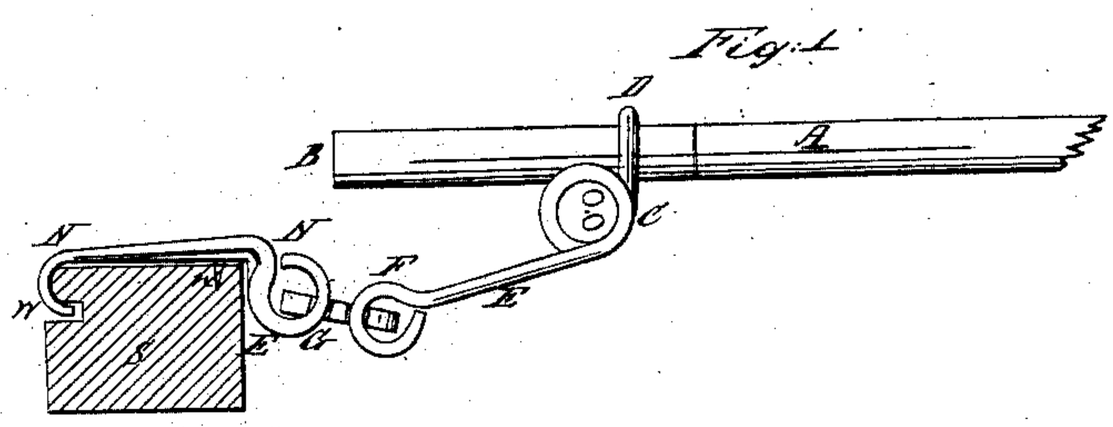


Fig: 2

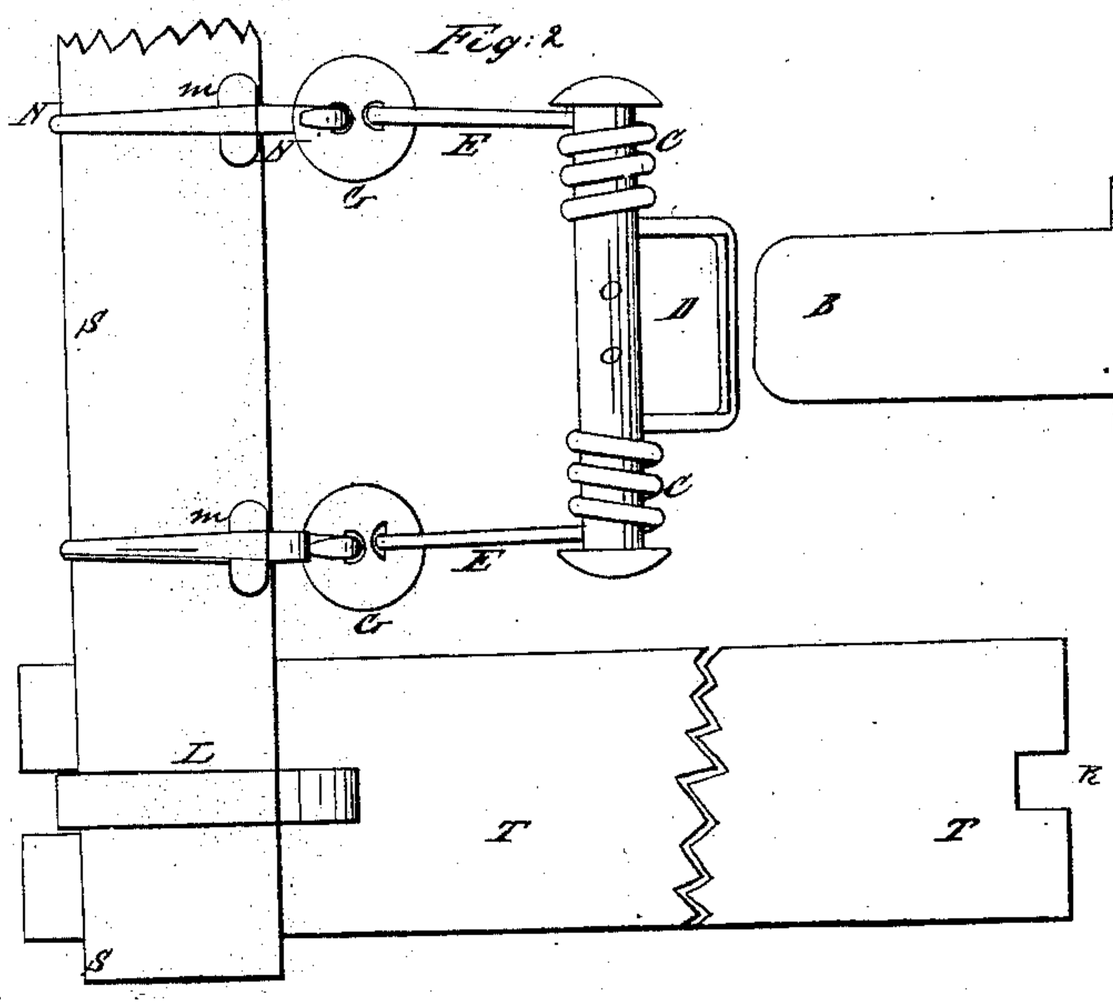
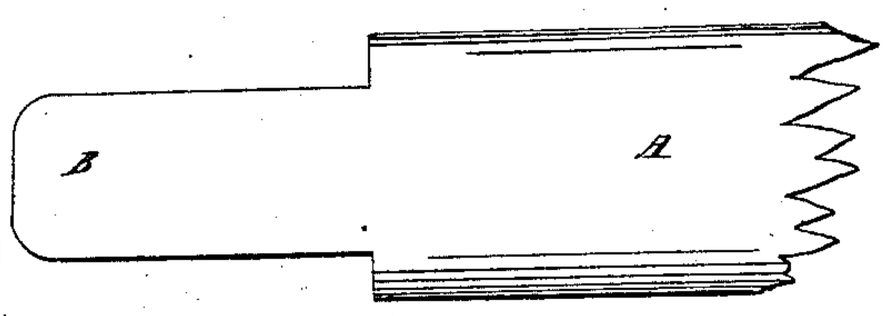


Fig: 3



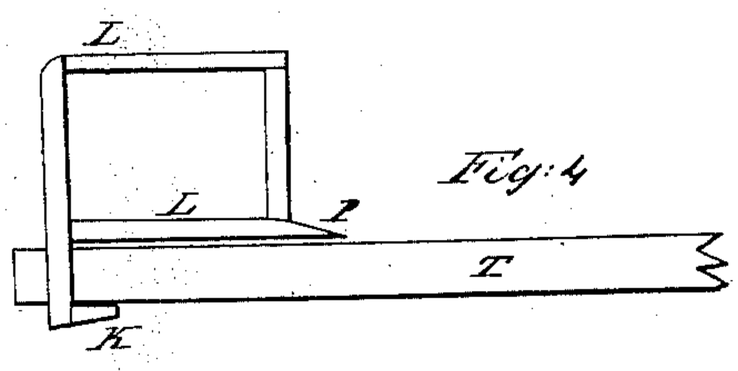


Fig: 4

Witnesses

A. G. Brown

L. Laderer

Inventor

Daniel W. Burbank

UNITED STATES PATENT OFFICE.

DANIEL W. BURBANK, OF NEW YORK, N. Y.

IMPROVED BED-BOTTOM.

Specification forming part of Letters Patent No. **55,462**, dated June 12, 1866.

To all whom it may concern:

Be it known that I, DANIEL W. BURBANK, of the city of New York, in the State of New York, have invented a new and Improved Spring Bed-Bottom; and I do hereby declare that the following is a clear, full, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 represents a side elevation of the spring, slat, link, hook, and a section of end rail. Figs. 2 and 3 represent a top view of the spring, the end of slat, and part of the frame; also the corner lock or clamp of said frame. Fig. 4 represents a sectional view taken through the corner lock or clamp and side rail or bar of the frame.

The same letters of reference are applied to similar parts of the bottom in the different figures.

A represents the slat upon which the mattress or bed rests, and its end B is cut or tenoned off at each edge, so as to allow it to pass freely into the loop of the spring D C C, and thus extend over and beyond the coils of the spring and furnish a sure support for the mattress, thereby keeping it up from the springs.

The spring C C D E is constructed of one continuous piece of wire, and is coiled around the mandrel O O, care being taken to have the wire wound in such manner as to keep the coils apart, and each turn separated from the other by a sufficient space to insure freedom of action, and thus prevent the noise that would otherwise be produced if the wire were allowed to touch at any point. Between the two coils of springs the wire is carried up into a loop large enough to admit of the end of the slat B to pass between the wire and the mandrel O O, and of sufficient breadth to allow the slat to pass between the coils of spring.

The arms E E act as levers to the springs, and are connected with a link of leather or other suitable material, which forms a connection between the arm of the spring and the hook N N. This hook should be made of iron, and is cast with a spur or brad, *n*, to prick into the wood, and ears or lugs *m*, to prevent the rocking motion that a swinging motion of the slat and spring would otherwise produce, as is shown in Fig. 1. This is a double hook, one end, N, connecting with the link G, and the reverse end, N *w*, entering a groove formed for that purpose along the outer edge of the end rails, S T.

The bair or rail T is the lower or foundation piece, and has mortises made in each end, or sometimes notches made in each end, as at R, into which is inserted the hook of the corner lock or clamp, L L. The bar T T should be just thick enough to allow the hook K to clasp it. Then, when it is slipped in place, as in Fig. 4, it cannot be removed without first pushing it out toward the end of the bar. The projecting end P serves to keep the corners of the casting from too great strain, owing to the tendency to roll over when the rail S S is in place through the casting L, as at R L, Fig. 2.

The mandrel which supports the springs has a head or flange on both ends, so that it is impossible to get it out of place.

The drawings show but one end of slat A; but both ends are exactly alike, and all of the springs and slats are alike for both the head and foot of the bed, and a sufficient number of springs and slats can be used or placed side by side until the whole breadth is covered. A casting, L, is used at each corner, thus making four of them, and for an average-breadth bed ten springs at each end of the frame and ten slats, all arranged transversely from the head to the foot of the bed.

The operation of my spring-bed foundation or bottom is as follows: The side rails being placed down first, the castings are put in place at the ends of them. Then insert the end rails. These must be cut to fit the bed first. Then let the end S enter the casting at each corner. The hook N N, and with it the spring, is then placed on the rail, the hook N *w* being first put in place. Then drop the end N, when the peculiar shape of the back or shoulder of the hook G N comes in contact with the corner of the rail and forces the hook N *w* firmly in the position designed for it, by which time the spur *n* will be down to the top of the rail, and a slight pressure will cause it to enter and thus securely hold the hook from moving; and it is obvious that it can only be removed by raising the end N sufficiently, when it is free at once.

Now, it will be readily perceived that when the springs are placed upon the rails at equal distances apart and the slats A A inserted within the loop D of a spring at each end of the frame, thus running the length of the bed, and being made of suitable length to draw the spring C C D up tight, by the time the tenon B has passed its full length into the loop there will be a strong tendency to draw the end rails together, and so force the casting L L at the corners still tighter into the notches R; and inasmuch as the arms E of the spring are not at right angles with the loop, the leverage caused by the strain upon them causes the loop to lock down tight on the slat B; and it is evident that this tendency to lock fast to the slat will increase with the pressure that may be laid on the slat.

Each slat being separate and independent of its fellow, the bottom will conform itself exactly to the form of the body, and the coils of the spring and arms E, being well out upon each side of the slat, tend to keep a firm and yet elastic support.

It is a peculiar feature of this arrangement that no screws, nails, or rivets whatever are used, and yet when it is all put together it can be transported and thrown about in the same manner as a mattress, and only be got apart by beginning at the right place.

What I claim, and desire to secure by Letters Patent, is—

1. The combination of a double helical spring, C C, with the double-headed mandrel O O and the arm E E, when the coils of the spring are wound apart so that no part touches another part, substantially as specified.

2. The enlarged loop D, in combination with the slat B and mandrel O, as specified.

3. The double hook N N, in combination with the spring and rail, as specified.

4. The corner lock, L L K, in combination with the frame, slats, and springs, substantially as set forth.

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Witnesses:

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S. KAUFMAN.