

(No Model.)

D. F. MITCHEL.

BED SPRING.

No. 264,468.

Patented Sept. 19, 1882.

Fig. 1.

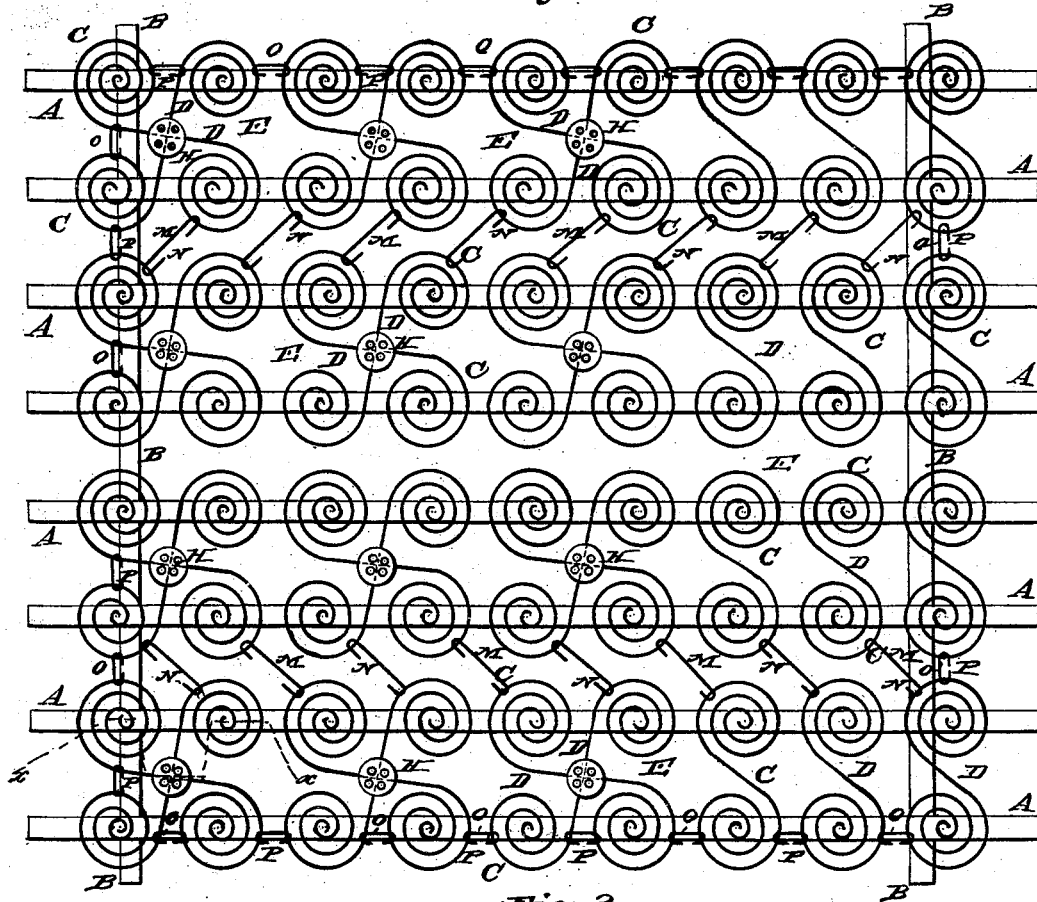
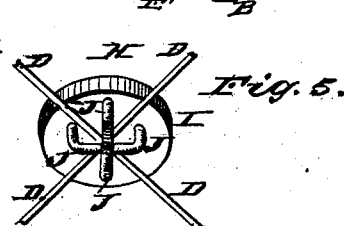
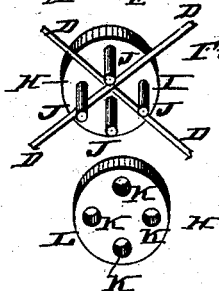
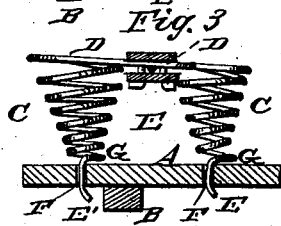
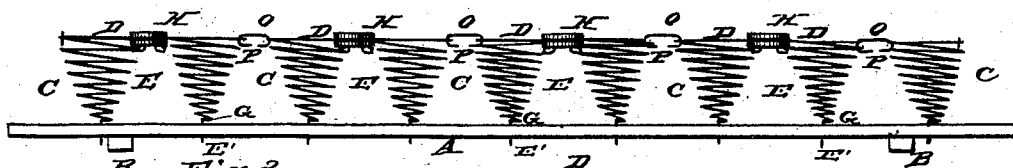


Fig. 2.



Witnesses:

Phil. C. Dietrich

J. R. Little

Inventor:

D. F. Mitchel
by Adams & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

DANIEL F. MITCHEL, OF FERNDALE, CALIFORNIA.

BED-SPRING.

SPECIFICATION forming part of Letters Patent No. 264,468, dated September 19, 1882.

Application filed July 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, DANIEL F. MITCHEL, of Ferndale, in the county of Humboldt and State of California, have invented certain new and useful Improvements in Bed-Springs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to bed-springs; and it consists in certain improvements in the construction and operation of the same, as will be hereinafter set forth and claimed.

In the drawings, Figure 1 is a top view of a bed-bottom equipped with my improved arrangement of springs; Fig. 2, a side view thereof; Fig. 3, a vertical longitudinal sectional view on the line *x x*, Fig. 1; Fig. 4, a detail view, illustrating the fastening and its mode of connection; and Fig. 5, a like view of a modification.

Referring to the drawings, A designates the longitudinal parallel slats of a bed-bottom, which are connected at their ends by cross-slats B B. On slats A are arranged twin bed-springs C C, having a diagonal cross-connecting portion, D, the twin springs being so arranged that their portions D will cross each other, thus forming a separate quadruple arrangement of springs E, extending in a longitudinal series down each two slats A A. At the bottom of the bed the twin springs may be arranged separately, as shown, and also constructed of more flexible wire than those forming the quadruple series in the body of the bed. The function of this arrangement is that the whole surface of the bed, notwithstanding the unequal weight at the different portions, will sink proportionately, as the heavy weight of the trunk, shoulders, and head of the body will depress the stronger spring arrangement to about the same level as the lighter weight of the feet and limbs will depress the more elastic foot-spring portion. Each spring C is secured to the slat by a shank, E', which passes through a perforation, F, in the slat, the spring being supported on the latter by a shoulder, G, formed in its wire above shank E.

H designates a fastening for securing the twin springs of a quadruple series together at

the point where their connecting portions D cross. This fastening comprises a top plate or disk, I, having on its under side four short rivet-shanks, J, between which portions D pass. Rivets J pass through perforations K in an under clamping plate or disk, L, and are clinched against the under side of said plate to secure plates I and L together. This forms a very durable and efficient fastening, and yet admits of play of the springs.

In the modification shown in Fig. 5 the under plate, L, is simply dispensed with, and the rivets clinched against the under side of spring portions D, which in some cases serves equally as well as the complete fastening above described.

The two longitudinal series of quadruple springs at each side of the bed are connected by diagonally-disposed rods M, having hooked ends N N, by which they are connected to the springs. The series are unconnected at the center of the bed, so that it is divided into two separate and independent sections. Therefore when two persons occupy the bed the movements of one interfere in no way with the other half of the bed. At the same time the flexibility is not decreased.

The springs around the edge of the bed are preferably connected by rods O, having hooked ends P P for securing to the springs. Thus a strong edge series is formed, inclosing the central portion.

The operation and advantages of the device will be readily understood. It is simple, compact, durable, inexpensive, and efficient. If desired, a canvas covering may be applied, slack being left to allow for depression of the springs.

I claim and desire to secure by Letters Patent—

1. A spring bed-bottom having the arrangement of strong springs at the top and main portion and lighter or more flexible springs at the foot, as set forth.

2. A bed-bottom having the main portion formed of twin springs connected together in quadruple sections and the foot or lower portion formed of separate and independent twin springs, whereby it is more flexible and will give more readily than the main portion, as and for the purpose set forth.

3. In a bed-bottom, the combination, with the slats having the perforations, of the springs

having a shank at their lower ends to fit therein, and a supporting-shoulder formed above said shank, as set forth.

4. In a bed-bottom, the combination, with
5 the quadruple series formed of two twin springs having their connecting portions extending diagonally and crossing each other, of the securing plate or disk having rivet-shanks on its
10 under side, between which the connecting portions pass, and the perforated bottom clamping-plate under which the rivets are clinched, as set forth.

5. In a bed-bottom composed of longitudinal series of springs, the combination, with the
15 side series, of diagonally-disposed connecting-rods having hooked ends, the series being un-

connected at the center, so that the bed is divided into two sections separate and independent, as set forth.

6. A bed-bottom composed of longitudinal 20 series of springs connected together at the sides, but unconnected at the center, so that the bed is divided into two separate and independent sections, as set forth.

In testimony that I claim the foregoing as 25 my own I have hereto affixed my signature in presence of two witnesses.

DANIEL F. MITCHEL.

Witnesses:

D. A. DYER,

E. WEAVER.