

D. H. MATHIAS & C. VAN DERZEE.
Bed-Bottoms.

No. 147,778.

Patented Feb. 24, 1874.

Fig. 1.

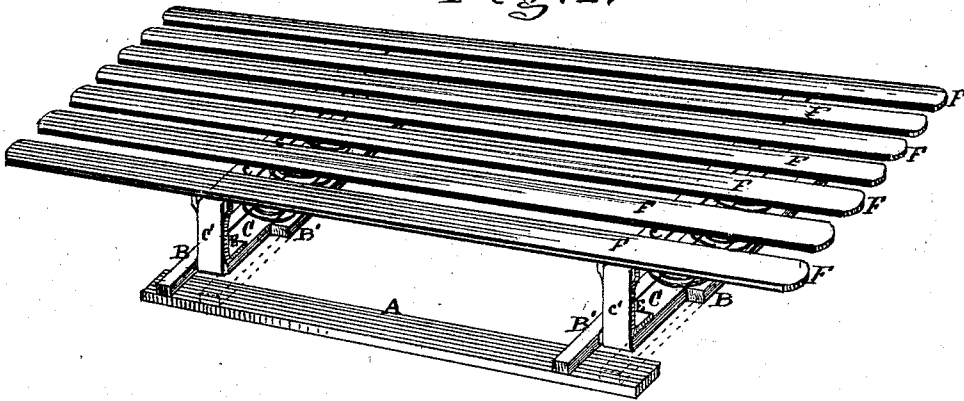


Fig. 2.

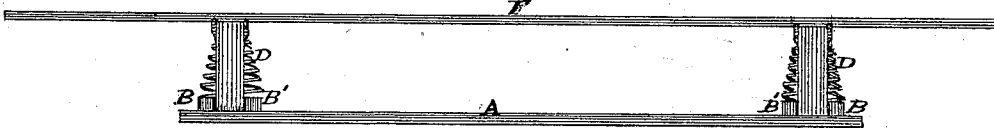


Fig. 3.

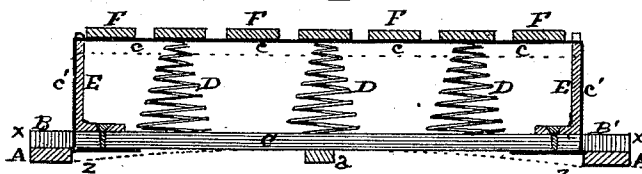
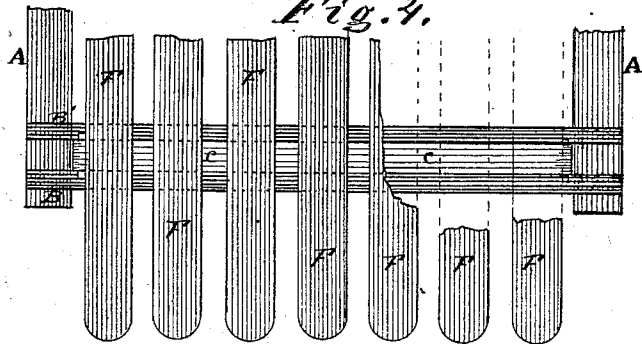


Fig. 4.



Witnesses { Geo. A. Thompson,
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David H. Mathias
Cornelius Van Derzee
By their Attorneys
Chas. Selkirk

UNITED STATES PATENT OFFICE.

DAVID H. MATHIAS AND CORNELIUS VAN DERZEE, OF ALBANY, NEW YORK,
ASSIGNORS OF ONE-THIRD THEIR RIGHT TO DAVID DOREMUS, OF SAME
PLACE.

IMPROVEMENT IN BED-BOTTOMS.

Specification forming part of Letters Patent No. **147,778**, dated February 24, 1874; application filed
May 16, 1873.

To all whom it may concern:

Be it known that we, DAVID H. MATHIAS and CORNELIUS VAN DERZEE, both of the city and county of Albany and State of New York, have invented a new and useful Improvement in Bed-Bottoms; and we hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a view in perspective, Fig. 2 is a side elevation, Fig. 3 is a transverse sectional view, and Fig. 4 is a sectional plan view, of our invention.

It has been customary to construct bed-bottoms of flexible slats secured to and held together by flexible straps, and supported by helical springs in such a manner as to give a vertically-oscillating movement to the floor composed of the said slats. They have also been constructed by placing fixed standards at the head and foot of the bed, and stretching the flexible straps over these, the helical springs intervening and supporting the slats, as before. This construction also gives the vertically-oscillating movement to the slatted floor. In another construction, spring-bars consisting of two leaves or bars, united by adjustable loops for regulating the tension of the bars, have been used to support the slatted floor, permitting only a vertical movement. In the latter instance there is no oscillating movement of the slatted floor. In the two former instances the central depression of the slatted floor is far greater than at its edges, thereby making it extremely difficult for two persons, or even one, to rest easily thereon. To remedy these defects, and to cause the central depression or sagging to be no greater in the center of the floor than at the edges thereof, is the object of our invention; and to this end it consists of a spring-bar provided at each end with a rigid standard, over which is stretched a flexible strap, to which the slats are secured, supported between the standards by a series of helical springs interposed between the spring-bar and the flexible strap, so combined with two long or rigid bars having end bearings upon side rails or the rails of the bed that the spring-bar will be supported between the two rigid bars at the longitudinal

center of the three, the object being to distribute the pressure between the spring-bar and the series of helical springs, thereby permitting the slatted floor to adapt itself to the conformation of the body, and also preventing a greater depression at its center than at its edges.

In the accompanying drawing, A A represent the side rails of the frame or the side rails of the bed. B B' are the rigid bars used in pairs at each end of the frame. A spring-bar, C, provided with rigid standards E, is placed between the rigid bars B B', and secured thereto at the longitudinal center *a* of the three, thus giving the ends of the spring-bar C, and consequently the standards E E, vertical play. The flexible strap *c'* is stretched over the standards E E', which are notched in their top to retain it, and secured to the under side of the ends of the spring-bar C. The bases of the helical springs D rest upon and are secured to the rigid bars B B'. The tops of the helical springs D are secured to and support the flexible strap *c'*. The slats F F are placed upon and secured to the flexible strap *c'*. The dotted line *c* shows the vertical play of the slatted floor. It has no lateral play. The dotted line *z* shows the play of the spring-bar C.

The Letters Patent to Oskar F. A. Faulkner for a bed-bottom, No. 129,218, shows a spring-bar, the tension of which is regulated by adjustable loops, and the slatted floor is connected thereto by standards sitting loosely in the ends of the spring-bar. We make no claim to the invention set forth in said Letters Patent No. 129,218.

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

The spring-bar C, provided with the standards E E, over which is stretched the flexible strap *c'*, in combination with the rigid bars B B', having end bearings A A, helical springs D, and slats F, constructed and operating substantially as and for the purposes hereinbefore set forth.

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Witnesses:

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