

J. H. FRIZELLE.  
 SPRING BED-BOTTOMS.

No. 189,553.

Patented April 17, 1877.

Fig. 3

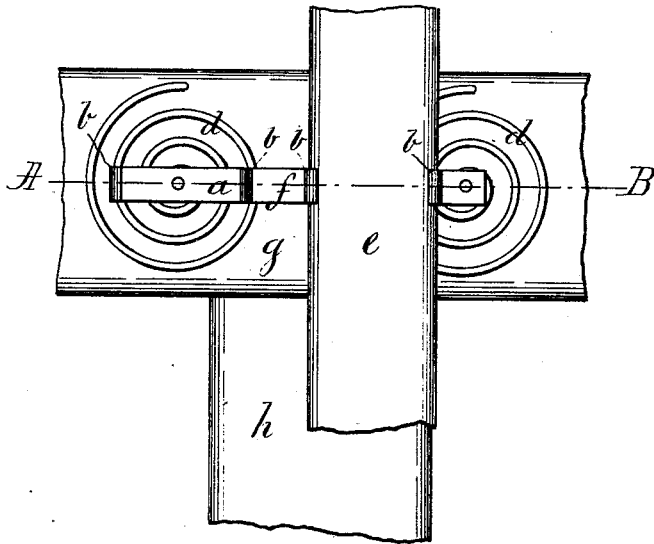


Fig. 1

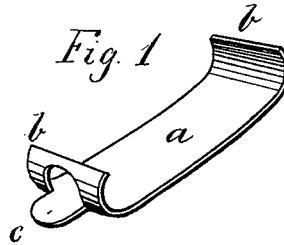


Fig. 2.

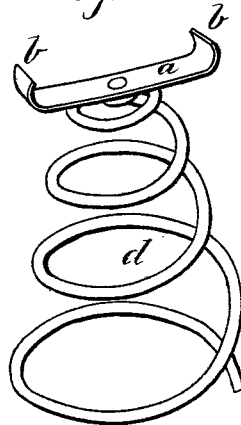
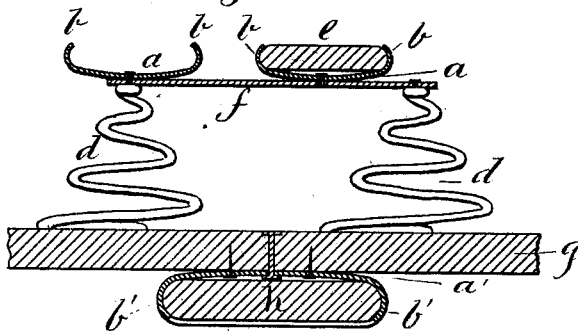


Fig. 4.



Witnesses:

Henry Chadbourn  
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Inventor:

James H. Frizelle  
 by  
 Alban Anderson.  
 his atty.

# UNITED STATES PATENT OFFICE.

JAMES H. FRIZELLE, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN SPRING BED-BOTTOMS.

Specification forming part of Letters Patent No. **189,553**, dated April 17, 1877; application filed January 26, 1877.

*To all whom it may concern:*

Be it known that I, JAMES H. FRIZELLE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Spring Bed-Bottoms and Furniture-Springs Fasteners; and I do hereby declare that the following is a full, clear, and exact description thereof, 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, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in spring bed-bottoms and furniture-spring fasteners; and consists of an semi-elliptic metallic spring-plate having its extremities curved upward, forming lips, between which the slats are secured to the springs, either directly or by having the metallic semi-elliptic fasteners secured to a flexible connecting-strap, that is attached to the springs.

My improved fasteners are also to be used for the purpose of securing the spring-rail to the framing-stile in an adjustable manner, so that the spring-rails can be adjusted to and from each other on the framing-stiles according to the weight of the person occupying the bed. In this case the semi-elliptic spring-fasteners are secured to the under side of the spring-rails, and embrace the framing-stiles.

The semi-elliptic spring-fastener may be provided or not with a lug or side projection, for the purpose of removing it from the slat, rail, or stile, as may be desired.

In the accompanying drawings, Figure 1 represents a perspective view of my improved elliptic spring-fastener. Fig. 2 represents a perspective view of the same secured to a spring. Fig. 3 represents a plan view of a slat, flexible strap or connection, fasteners, springs, spring-rail, and framing-stile; and Fig. 4 represents a cross-section on the line A B. (Shown in Fig. 3.)

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

*a* represents the semi-elliptic spring-fastener curved upward in each of its ends, form-

ing lips *b b*, by which the slat, spring-rail, or framing-stile is secured to the fastener in a quick, easy, and efficient manner.

The fastener may be provided with a lug or projection, *c*, (shown in Fig. 1,) in one or both ends, for the purpose of taking hold of when the fastener is to be put on or taken off the slats or rails; but such lug or lugs may be dispensed with, and the fastener has then the appearance as shown in Figs. 2 and 4.

In Fig. 2 the fastener is shown as being riveted to a spring, *d*, which spring is shown as being a coiled conoidal one; but any other of the well-known forms of springs may be used in combination with my improved fastener.

In Figs. 3 and 4, *e* represents a slat of a bed-bottom inserted between the lips of the semi-elliptical spring-fastening.

In said figures, *f* represents the spring strap or connection, to which the fasteners may be secured at intervals, as shown, the said strap or connection being secured to the upper ends of the springs *d d*, the lower ends of which are secured to the spring-rail *g*.

*h*, in Figs. 3 and 4, represents the framing-stile, on which the spring-rail is made adjustable horizontally or longitudinally by securing to the under side of said spring-rail the semi-elliptic spring-fastener *a'*, (similar to the fastener *a*, shown in Fig. 2,) between the curved lips *b' b'* of which the framing-stile *h* is inserted, by which I am able to adjust the position of the spring-rails in relation to the framing-stile in a horizontal plane, as may be required.

My invention is also, to equal advantage, applicable to furniture, such as sofas, lounges, and chairs.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent, and claim—

1. The herein-described spring slat-fastener *a b b*, having the lug or projection *c*, as set forth.
2. In combination with the spring slat-fastener *a b b*, a coiled or other spring, as and for the purpose set forth.

3. The combination, with the slat-fastener *a b b*, as described, of the flexible strap or connection *f*, as set forth.

4. The combination, with the slat-fastener *a b b* and its flexible strap *f*, as described, of conoidal or spiral springs *d d*, substantially as set forth.

5. The combination of the fastener *a' b' b'*, the spring-rail *g*, and the framing-stile *h*, substantially as and for the purpose set forth.

6. The combination of the slat-fastener *a b b*, slats *e e*, straps *f*, springs *d d*, rails *g g*, and stile *h*, as and for the purpose set forth.

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

JAMES H. FRIZELLE.

Witnesses:

ALBAN ANDRÉN,  
HENRY CHADBOURNE.