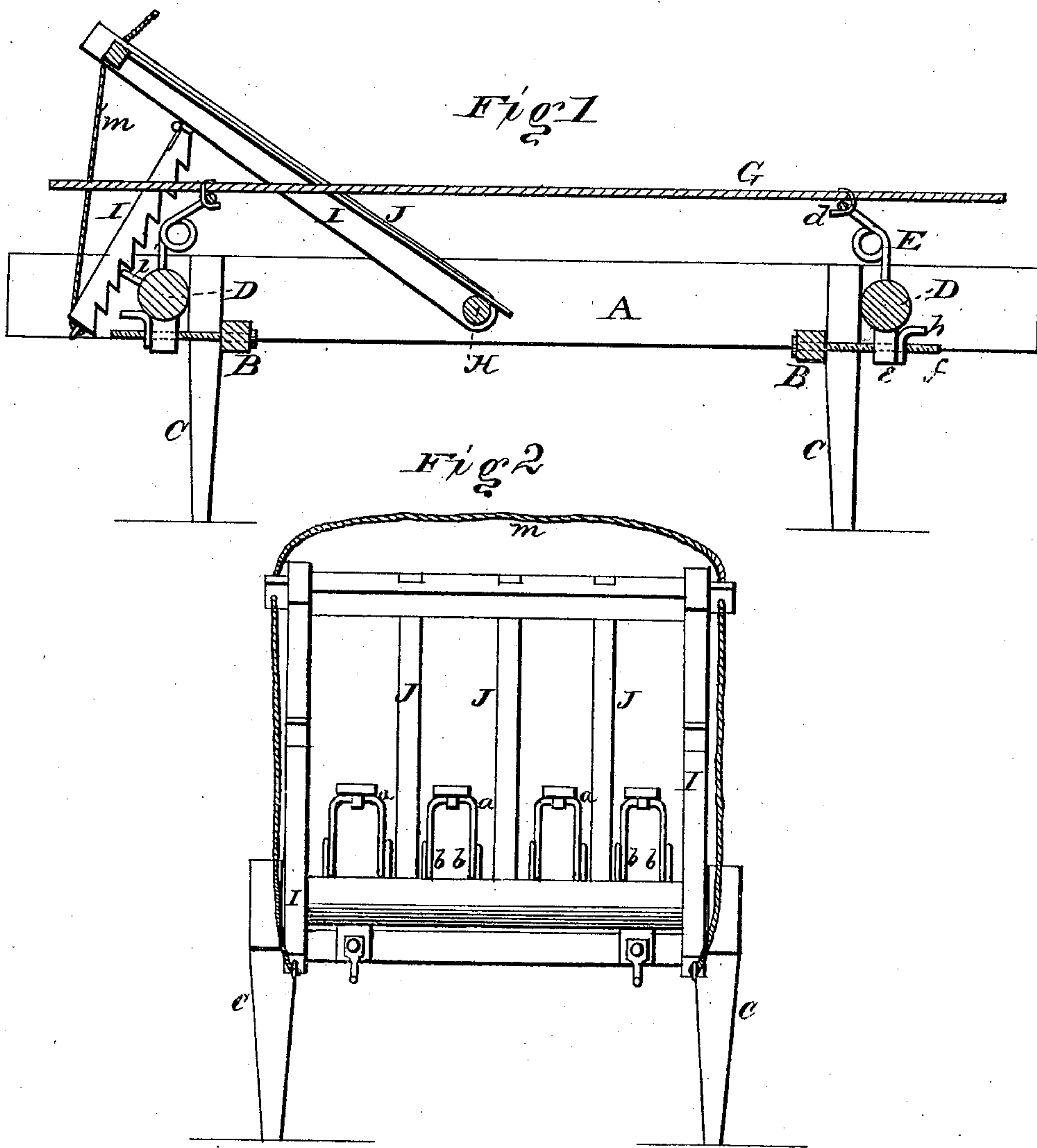


F. J. UNDERWOOD.  
INVALID SPRING-BEDS.

No. 185,368.

Patented Dec. 12, 1876.



WITNESSES  
F. L. Curand  
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# UNITED STATES PATENT OFFICE.

FLAVIUS J. UNDERWOOD, OF NORTH SPRINGFIELD, MISSOURI.

## IMPROVEMENT IN INVALID-BEDS.

Specification forming part of Letters Patent No. 185,368, dated December 12, 1876; application filed May 10, 1876.

*To all whom it may concern:*

Be it known that I, FLAVIUS JOSEPHUS UNDERWOOD, of North Springfield, in the county of Greene and State of Missouri, have invented certain new and useful Improvements in Invalid Spring-Beds; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of my invention consists in the construction and arrangement of an invalid spring-bed, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal vertical section of my spring-bed. Fig. 2 is an end elevation of the same.

A A represent two parallel side rails connected by cross-bars B B and supported upon legs C C, or this frame may be the ordinary frame-work of a bedstead. D D represent two rollers, having their journal-bearings in the rails A A, near their ends. In each roller D are secured a series of wire springs, E, each of which forms a center loop, *a*, with two coils, *b b*, at the ends, and the ends of the wire fastened in the roller. On these springs E are supported the slats G by the loops *a* taking into hooks *d* on the under sides of the slats, as shown. Each roller D has on its under side two projecting lugs, *e e*, through each of which passes a bolt, *f*, said bolt being

first passed through the cross-bar B, and a thumb-nut, *h*, is placed on the end of said bolt. By screwing up or loosening the thumb-nuts *h* the roller D is turned in its bearings, whereby the tension of the springs E can be easily regulated according to the weight of the person occupying the bed, or according as more or less spring is desired. At the head of the bed, on a roller, H, is pivoted a frame, I, having a series of spring-slats, J, attached to its outer end, the inner free ends of said slats resting upon the roller H. To each side of the frame I is hinged a ratchet-bar, L, which takes into a staple, *i*, on the roller D, for holding the adjustable head-frame at any angle desired. A cord, *m*, is attached to the ratchet-bars and passes over the top of the frame, by means of which said ratchet-bars are easily adjusted, as required.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the slats G and springs E, the pivoted rollers D carrying the springs, and made adjustable on their pivots, for the purposes herein set forth.

2. The roller D, having projecting lugs *e*, the bolts *f*, and thumb-nuts *h*, in combination with the springs E and slats G, as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

F. J. UNDERWOOD.

Witnesses:

R. S. McELHANY,  
LEE HOLLAND.