

H. BENEDICT.

Improvement in Spring Bed Bottoms.

No. 122,698.

Patented Jan. 16, 1872.

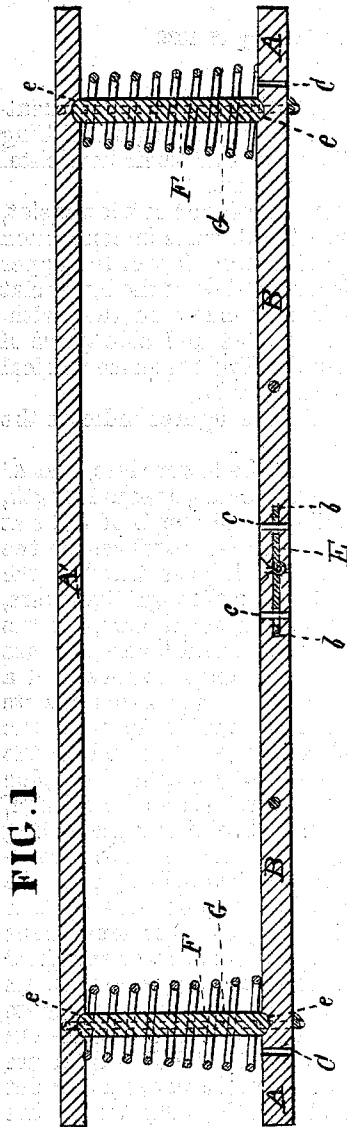


FIG. 1

FIG. 2

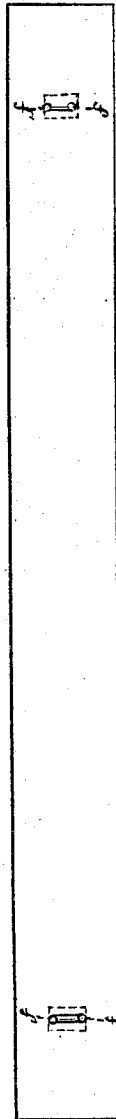


FIG. 3

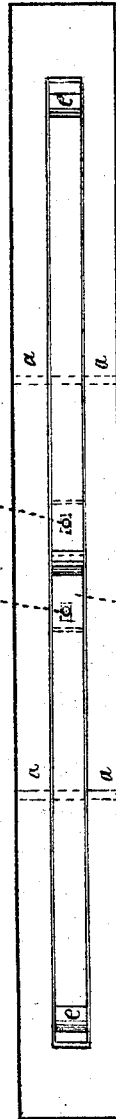


FIG. 4



FIG. 5

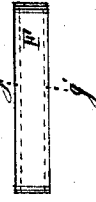
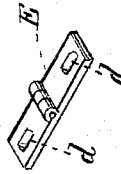


FIG. 6



WITNESSES

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HARMON BENEDICT, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN BED-BOTTOMS.

Specification forming part of Letters Patent No. 122,698, dated January 16, 1872.

Specification describing certain Improvements in Spring Bed-Bottoms invented by HARMON BENEDICT, of the city of Philadelphia and State of Pennsylvania.

The object of this invention is the accomplishment of the great desideratum of having the bed-bottom retain its level or horizontal position crosswise of the bed under all circumstances.

In the use of other bottoms the part on which a person lies yields most to the weight resting upon it; consequently the bottom is tilted if the occupant is lying at one side of the bed; or, if in the middle, a trough-form is given to it. Or if two persons of unequal weight are occupying the same bed, the side the heavier one is on will, of course, sink lower than the other; and hence, whether the bottom is for either a single or double bed, it is thrown out of its normal position.

The nature of my invention, by which the object in view is fully attained, consists of a series of pairs of slats of peculiar construction and parts in connection, as hereinafter described. The slats are placed crosswise of the bedstead in the usual manner. Each bottom slat has a vertical slot nearly throughout its entire length, there being only a sufficient portion of the ends left standing to preserve the proper degree of strength and permanency to those parts. In the slot are placed two levers of equal length, connected in the middle by means of a slip-hinge, to allow the changing in the position of the levers as they turn on fulcrum-pins placed horizontally through them and the cheeks of the slat. There are cross-grooves or depressions in the under side of the upper slat to receive the ends of uprights which separate the slats the required distance for placing a spring or springs to give the proper elasticity to the bottom. The said uprights are held in position between the lever and the upper slat and allowed to change from or to a vertical position, as the position of the levers is changed, by means of straps or other device, as hereinafter described.

It will readily be seen that, the levers being connected with each other at their inner ends, and at their outer ends with the upper slats, as described, and having fulcrums at uniform distances, they must have equal motions at all times, no matter how unequal the upper

slats may be weighted, and that, consequently, there must be a uniform rising and falling of each end of the slats, and their horizontal position thereby preserved.

Figure 1 is a vertical section of a lower slat, A, and upper slat A', and parts in connection therewith. Fig. 2 is a plan view of the upper slat A'. Fig. 3 is a like view of the lower slat A and levers B B in connection therewith. Figs. 4 and 5 are an edge and side views of one of the uprights F. Fig. 6 is an isometrical view of one of the hinges E.

Like letters in all the figures indicate the same parts.

A represents one of the lower slats, and A' an upper slat. B B are levers, of equal length, situated in the longitudinal slot C of the slat A, and supported at equal distances by the fulcrum-pins D D, which pass through the cheeks *a a* of the slat and through the levers, having free play in the latter to admit of the motion of the same. The said levers B B are connected at their inner ends by means of a hinge, E, which is placed in the horizontal slots *b b* that are sufficiently large to admit of the free movement of the hinge. The ends of the hinge are kept in position by means of the pins *c c*, which pass through slots *d d* of the hinge, which are seen in Fig. 6, whereby the sliding movement of the ends of the hinge is provided for, thus allowing the levers full play in the vertical movements of the upper slat A'. The levers B B have circular grooves or depressions *ee* in their upper sides at their outer ends, and the upper slat A' has like depressions in its under side to receive the ends of the uprights F F, which are rounded to fit them, as seen in the vertical section, Fig. 1. The uprights are held in place between the levers and the slat A' by means of straps G. The straps are passed through holes *f* in the slat, which are represented in Fig. 2, the middle portion being sunk in the face of the same and bedded in grooves *j* of the uprights, which are seen in Fig. 4. Their ends then are passed over the edges of the levers B, and twisted around the bottom of the levers, or otherwise secured. The uprights being thus connected with the levers and the upper slat A', their ends have a free partial turn in the depressions *ee*, so as to admit of a free movement of the levers. Other modes may be adopted for securing the

uprights to the lever and slat; as, for instance, mortises and tenons and connecting-pins or hinges. I prefer, however, the mode above represented, as it gives the greatest possible width of bearing to the joints. H H are spiral springs between the slats A and A', as seen in Fig. 1, which sustain the upper slat and superincumbent weight.

I have represented a single pair of slats; yet it will be understood that there is a series of pairs throughout the whole length of the

bedstead, the lower slats being connected with the side rails in the usual manner.

What I claim as my invention is—

The slotted slat A and hinged levers B B, in combination with the jointed uprights F F, straps G G, and upper slat A', constructed and arranged substantially in the manner and for the purpose specified.

Witnesses: HARMON BENEDICT.

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