Vanhorn & Pack,

Bed Bottom,

No. 81,120. Patented Aug. 18, 1868.

Fig: 1.

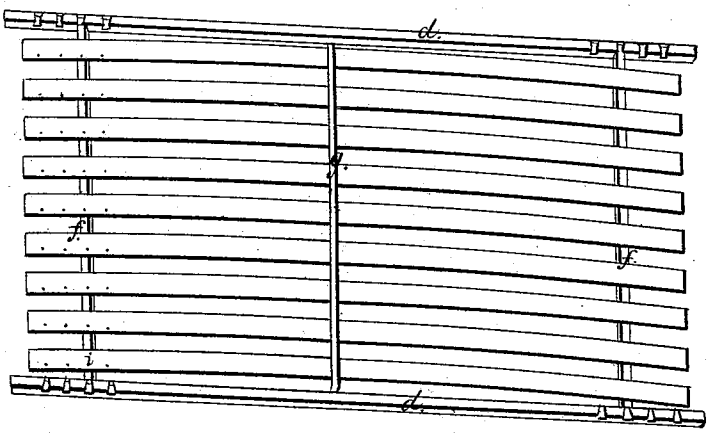


Fig: 2.

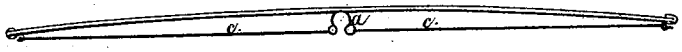
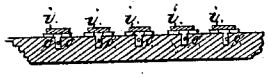


Fig: 3.



Fig: 4.



Witnesses;

W. M. Goodwin,
Edw. D. Adler.

Inventor;

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UNITED STATES PATENT OFFICE.

JOSEPH SCOTT VANHORN AND WILLIAM H. PACK, OF JERSEY CITY, N. J.

IMPROVED SPRING-SLAT BED-BOTTOM.

Specification forming part of Letters Patent No. **81,120**, dated August 18, 1868.

To all whom it may concern:

Be it known that we, JOSEPH SCOTT VANHORN and WILLIAM H. PACK, of Jersey City, in the county of Hudson and State of New Jersey, have made certain Improvements in Spring-Slat Bed-Bottoms; and we do hereby declare the following to be a full and exact description of the same, reference being had to the drawings accompanying this specification, and making part of the same.

The nature of our improvement consists in the employment, in a spring-slat bed-bottom, of a spring of peculiar construction, and applied to the slat in a new and improved way, and also in combining with such spring a jointed or detachable frame-work, having its end pieces so made as to be readily shifted to or from the ends of a bedstead, for the purpose of lengthening or shortening the space between the bearings of the slats, to adapt them for sustaining more or less weight, as may be required.

In the drawings, Figure 1 represents the bed-bottom in its frame; Fig. 2, an edge view of one of the curved or camber slats, with the spring supporting its crest or center; Fig. 3, a flat view of the under side of the same; and Fig. 4, an end view of the series of slats, each resting on pieces of an elastic substance, to prevent creaking or noise.

The same letters refer to the same parts in each figure.

The spring *a* is made from a flat strip or sheet of steel or other suitable metal, and is so formed and applied that the slat *b* rests, at or near its center, upon the top of the spring, when the needed tension is given by connecting the slat with the spring by means of the rods *c c*, this top rest rendering needless any chucks, blocks, or cleats in addition to the spring, and to be interposed between the rods and the slat by way of supporting the latter. The rods *c c* are shown as connected at one end by hooks or eyes to the central spring, and their other ends are connected by hooks or clasps to the ends of the slats. It is not, however, essential to the proper action of the slat and spring that the rods *c c* should be connected with the slat at or near their ends, as shown in the drawings; but the slat and spring may be so proportioned to each other as to allow the attachment of the rods to the slat to be half-way or at some other intermediate point between the spring and the ends of the slat, the essential features being that the spring be so formed and sustained that the slat shall rest upon it, and yet that it shall still be free to yield and to descend under pressure, and also at the same time perform the duty which in some styles of bed-bottoms devolves upon non-yielding cleats or solid pieces, upon which the slats rest centrally or elsewhere, and which cleats or blocks are liable to displacement, and thus to render the bed-bottom useless.

Provision is made in the frame on which the slats rest, by having its side rails *d d* connected, by dovetails *e e*, with the end pieces *f f*, for placing the support of the slats at just the proper distance from their ends required for bearing more or less pressure without too much or too little stress on the slat or spring, a pin, *i*, on the end piece *f* passing through or into each slat, serving to prevent it from sliding from its proper place of bearing. The construction shown admits of this change of position of the end pieces *f* without any obstruction offered by the rods *c*, rabbets or cuts being made in the pieces *f* deep enough to receive the rods, no matter how far *f* may be shifted from the ends of the slats. On the upper edge of the rails *f f*, immediately under the slats, we secure any suitable soft, yielding substance that will allow the motion of the springing of the slat without the annoyance of unpleasant noise. This is shown at *o* in Fig. 4.

To confine the slats to the frame for transportation, or to prevent their rebounding out of place when in use, we place an elastic strap, *g*, across them, buttoning or fastening it to the side pieces *d d*.

It will now be observed that when the bedstead is once put together, the two ends of the slats are free, and at the points where they are supported upon the cross-pieces they cannot descend under the pressure or weight put upon the bedstead, but that for the whole distance between that they do yield to pressure; but as the slat is arched, and the crown of the arch reposes directly on the spring, (the latter being of course made of sufficient strength for that purpose,) the spring yielding does not permit the slat to become concave or lower

at its center. When, however, the bed is to sustain a greater than ordinary weight, the mere shifting of one or both of the cross-bars *f f* nearer to the spring provides for this weight, whatever it may be, a sufficient number of dovetailed cuts in the side rails being made to admit the shifting of the end or cross bars to any position desired.

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

1. The spring *a*, constructed substantially as shown, and applied, as a central bearing for a bed-slat, in the crown of its arch, substantially as set forth.

2. The combination, with the springs *a* and the arched slats, of the adjustable pieces *f f*, arranged to be shifted in the side pieces, substantially as and for the purpose described.

3. The combination of the rods *c* and hooks or clasps *k* with the slat and its central supporting-spring, substantially as and for the purpose described.

JOS. SCOTT VANHORN.
WM. H. PACK.

Witnesses:
W. M. GOODING,
EDWARD COLLVER.