

N. J. Willis,

Bed Bottom,

No 61,374,

Patented Jan. 22, 1867.

Fig. 1.

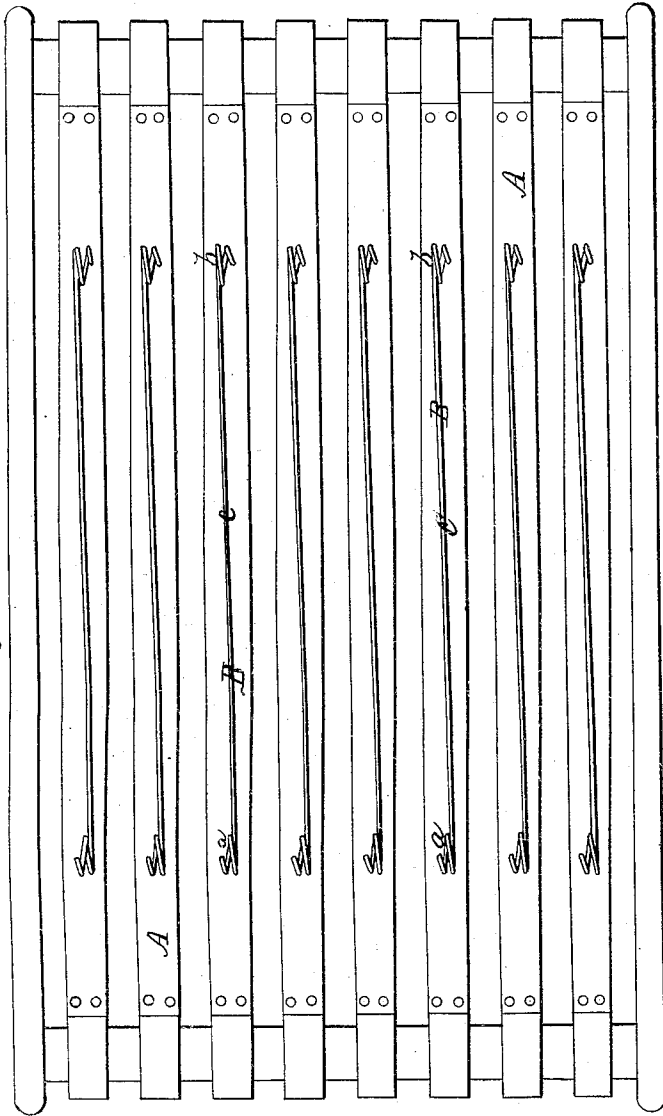
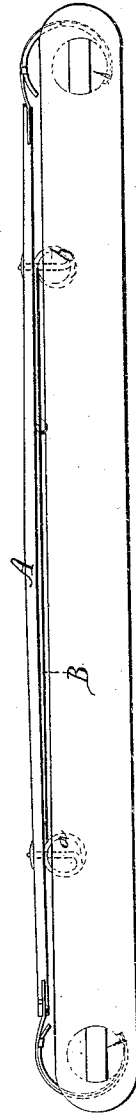


Fig. 2.



Witnesses:

*G. H. Andrews.
Samuel N. P. P. P.*

Inventor!

*Nemiel J Willis
by his attorney
R. H. Adley*

United States Patent Office.

NEWIEL J. WILLIS, OF WALTHAM, ASSIGNOR TO HIMSELF AND AMMI BROWN, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 61,374, dated January 22, 1867.

IMPROVED BED BOTTOM.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL PERSONS TO WHOM THESE PRESENTS SHALL COME:

Be it known that I, NEWIEL J. WILLIS, of Waltham, in the county of Middlesex, and State of Massachusetts, have made a new and useful invention having reference to Slats of Bed Bottoms; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is an underside view; and

Figure 2, a side elevation of a bed-bottom slat, provided with my invention or improved slat strengthener, the purpose of which is to give strength and elasticity to the slat and prevent it from sagging at its middle.

On September 27, 1859, Letters Patent were granted to Tyler Howe for a bedstead slat, consisting of a common wooden bar or slat and a "lifter," applied to such slat lengthwise, such lifter being a wire fastened at one end to the under side of the slat, and supported at or near the other end by a clasp going across the rod and nailed or screwed to the slat. This lifter operates only by its lateral elasticity, and therefore while in use is liable to become bent and sagged, so as after awhile to lose most if not all its elasticity.

My improved device operates by tensile strain and the conjoint action of two coiled springs. It consists of a long wire laid lengthwise along the under side of the slat and coiled so as to form a spring near each end, the extremities of the wire being inserted and fixed in the slat, the same being as exhibited in the drawings, in which *A* is the wooden slat, and *B* is the elastic strengthener, the coils or springs of the latter and the parts thereof extended from the slat, being as exhibited at *a a* and *b b*. The middle portion *c* of the wire, or that between the coils, simply lies against the lower surface of the slat.

From the above it will be seen that in the application of my improved device to the slat, such device is fixed at both its opposite ends in or to the slat, and consequently, when the slat is bent downward by a weight acting on or about on its middle, there must be a tensile strain induced on the part *c* and the springs *a a*, these springs operating by their draught on the part *c* to elevate the slat, or restore it to its normal condition, after the force of depression may have been removed from it.

I do not claim the combination of a bedstead slat and a "lifter" for the purpose of keeping the slat bent upward, the whole being constructed and so as to operate as described in the aforesaid patent; nor do I claim a slat lifter as made and applied to a slat represented in the United States Patent No. 47,797, granted to P. G. Chase, in which case the slat is arched, and supported on the lifter at intervals by blocks or projections, in order that the spring or springs of the lifter may not interfere with the slat. My improvement renders such blocks and arching of the slat unnecessary, as under my construction of the lifter and arrangement of it relatively to the slat, it not only serves to support the slat along the major part of its length, but the springs are arranged so as to wholly project below the slat and the bearing part *c* of the lifter, such arrangement of the springs rendering all bearing blocks unnecessary.

I would remark that by my improvement I am enabled to attain the advantages of the invention of the said Howe, and those of the invention of the said Chase, without the disadvantages incident to the latter.

Therefore what I claim as my invention, is—

The improved construction of the slat lifter *B*, and arrangement of it and its springs relatively to the slat *A*, the whole being as described; the part *c* of such lifter under such arrangement being made throughout its length to bear against the under side of the slat, and the springs to extend wholly below the part *c* and the slat, as explained.

NEWIEL J. WILLIS.

Witnesses:

R. H. EDDY,
F. P. HALE, Jr.