

A. Hitchcock,

Bed Bottom.

N^o 54,545.

Patented May 8, 1866.

Fig. 1.

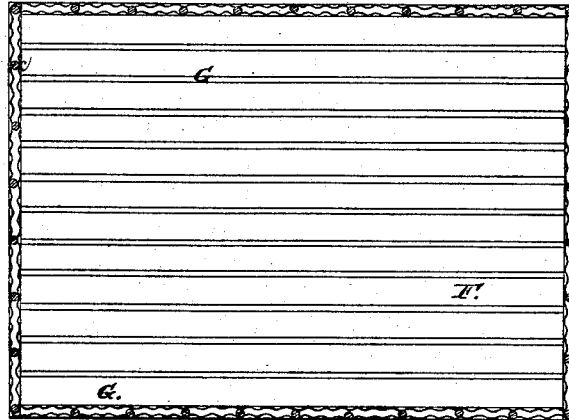


Fig. 2.

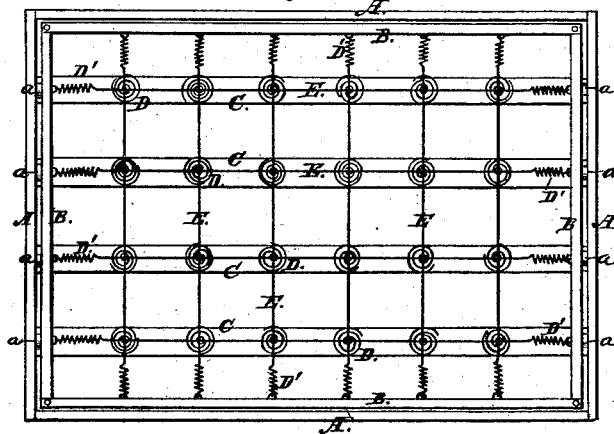
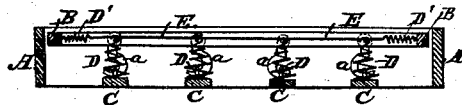


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

ABNER HITCHCOCK, OF WAYNE COUNTY, MICHIGAN.

IMPROVED BED-BOTTOM.

Specification forming part of Letters Patent No. 54,545, dated May 8, 1866.

To all whom it may concern:

Be it known that I, ABNER HITCHCOCK, of Wayne county, in the State of Michigan, have invented a new and useful Improvement in 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.

Figure 1 of the accompanying drawings is a plan of the improved bed. Fig. 2 is a sectional plan, showing the arrangement of the springs and the supporting-wires of the bed. Fig. 3 is a vertical transverse section through the axis of the bed.

This invention relates, first, to the arrangement of the spiral springs for supporting the bed and the transverse and longitudinal wires and the spiral springs by means of which they are connected with the supporting-frame; also, the arrangement and construction of the frame which supports and connects the whole arrangement of springs and wires.

This invention furthermore relates to a water-proof covering which is spread over the mattress and attached to the supporting-frame.

To enable those skilled in the art to make and use my improved bed, I will proceed to describe its construction and operation.

A is a rectangular frame of wood, which is made to fit in any ordinary bedstead so as to rest upon the slats, which usually form the bottom thereof. This frame should be constructed of thin boards or planks, not usually more than four to eight inches wide, and placed with their flat surfaces in the vertical planes.

B is a rectangular frame fitted to slide easily up or down within the frame A. The pieces of timber of which this latter frame are constructed should be much smaller than those used in the construction of the frame A, and should be strongly framed together at the corners.

C are longitudinal beams, fitted into the bottom edge of the frame A in such a manner as to prevent any longitudinal or lateral motion between these parts. These beams may be connected with the frame A by means of the hooks *a* or some other equivalent means, whereby the parts may be easily disunited and the beams removed. A staple, for in-

stance, might be attached to the frame A and extend down through a mortise in the beam, which could then be secured to it by means of a pin or key driven through the staple. The hooks *a* might be placed outside of the frame A, and in this position would possibly be more out of the way of the vertical motion of the frame B, as will be hereinafter more fully described.

There are spiral springs D erected upon the beams C at regular intervals. These springs should be conical in form, and are not unlike, either in form, construction, or operation, those used in ordinary upholstery. There are also small spiral springs D' attached to the side and end pieces of the frame B, as shown in Figs. 2 and 3, so that the wires E, drawn tightly from one of the springs D' to another of the same set on the opposite side of the frame, will pass directly over the apices of the cone-springs D, into which they should be woven to serve the purpose of guides or stays. The wires E cross the frame B in both directions, as clearly shown in Fig. 2.

The intersections of the wires E may be fastened rigidly to the cone-springs, so that this point can only have a vertical motion, or the spiral spring D may be constructed so as to overlap the two wires E and yield in the direction of either side or end. This latter construction may be found to be preferable as affording an increased amount of elasticity.

The frame B, resting only on the springs D, will yield readily to the slightest pressure upon it, and will slide easily up or down within the frame A.

A mattress, F, of very light construction may be used on top of the net-work formed of the wires E. This mattress may be made much lighter than those usually employed on spring-beds, as the wires E will not present a hard substance which can be felt through the mattress, like the wooden pieces now in common use. A water-proof covering, G, is covered over the mattress and attached to the frame A by means of the tacks *c* or other equivalent means. Button-holes may be worked in the edge of this covering to hook over the hooks or tacks *c*, or the connection may be made in many other ways which will allow the covering to be removed at pleasure. The use of this covering will be to protect

the mattress from soil in the case of obstetrical operations or nursery-beds. It may be formed of india-rubber cloth, oil-cloth, or any other water-proof fabric.

Having described my invention, what I claim is—

The combination and arrangement of the

frames A and B, the springs D and D', the beams C, and the cross-wires E, substantially as and for the purpose set forth.

ABNER HITCHCOCK.

Witnesses:

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