

S. P. Kittle

Bed Head-Section,

N<sup>o</sup> 44,960.

Patented Nov. 8, 1864.

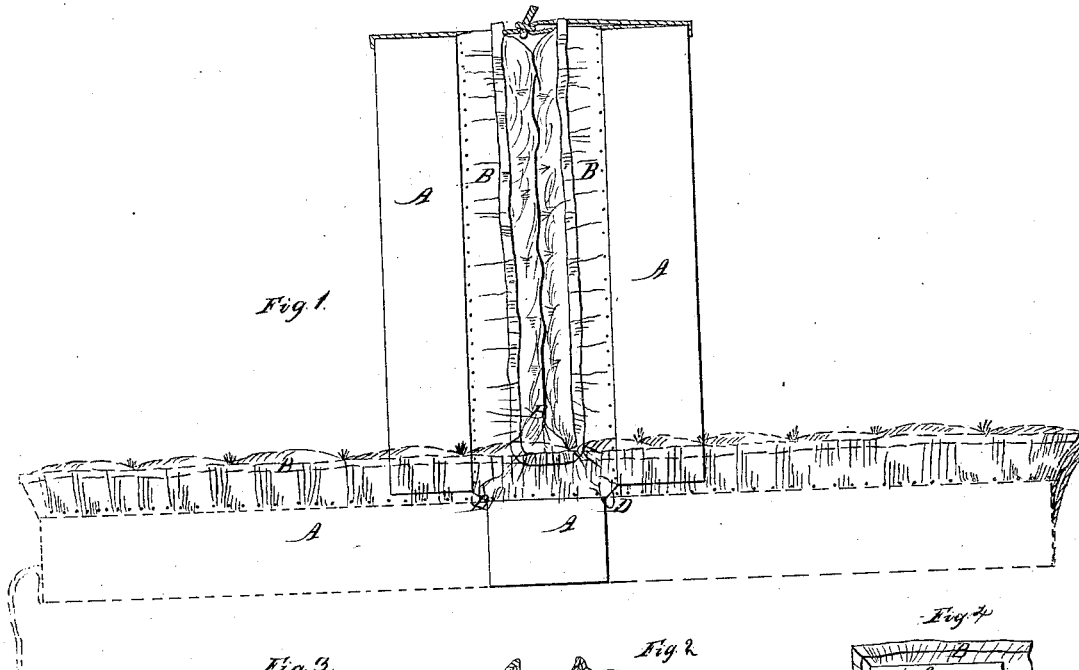


Fig. 1.

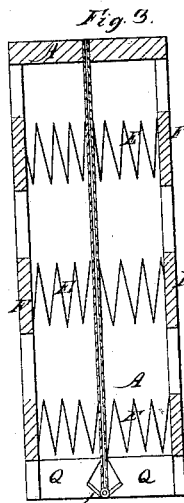


Fig. 3.

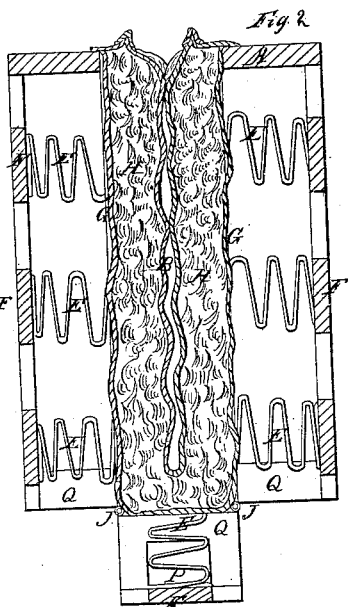


Fig. 2.

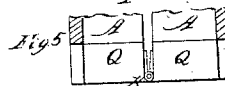


Fig. 5.

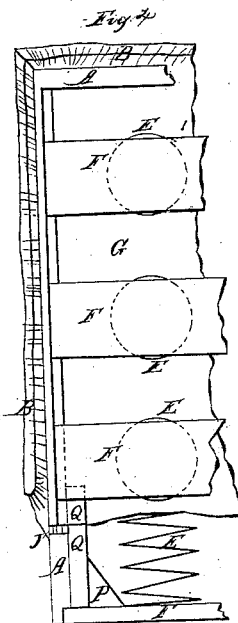


Fig. 4.

Witnesses.  
 John P. Hughes  
 James P. Graham

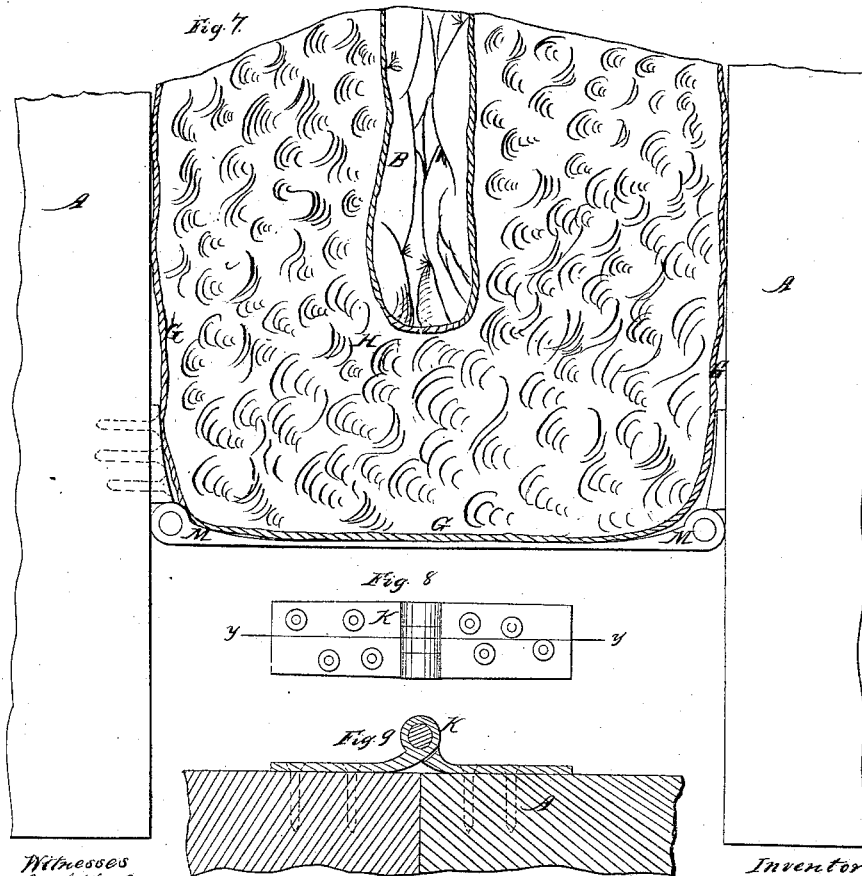
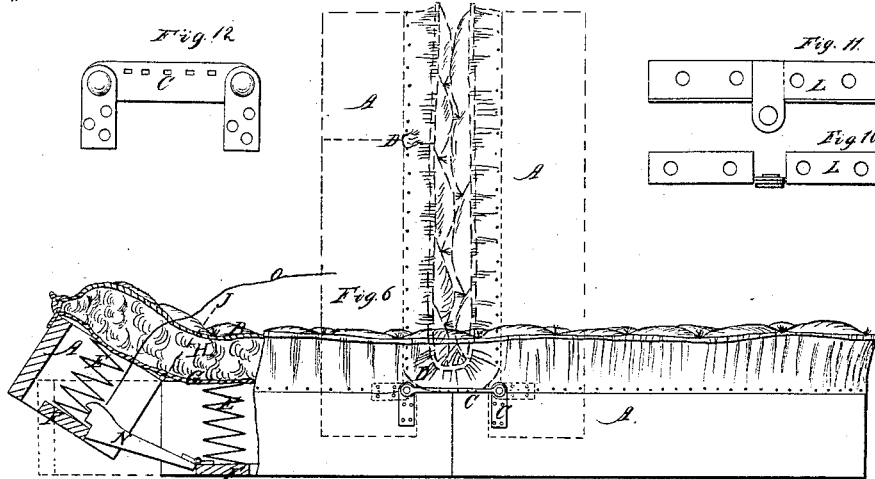
Inventor.  
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# UNITED STATES PATENT OFFICE.

SAMUEL P. KITTLE, OF BROOKLYN, NEW YORK.

## IMPROVED SPRING-MATTRESS.

Specification forming part of Letters Patent No. 44,960, dated November 8, 1864.

*To all whom it may concern:*

Be it known that I, SAMUEL P. KITTLE, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Box Spring-Mattresses; and I do hereby declare the following to be full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to the arrangements for folding a box spring-mattress, for bracing and strengthening the necessary parts, for elevating, supporting, and lowering the head part or bolster, as hereinafter more fully described.

In the drawings, Figure 1 is a side view of the mattress folded, and also showing (in red lines) the same extended horizontally. Fig. 2 is a vertical longitudinal section of the same when folded. Fig. 3 is a vertical longitudinal section of the same in skeleton or with light covering, and showing one mode of attaching the hinges. Fig. 4 is a partial bottom view of the mattress when folded. Fig. 5 is a vertical horizontal section of the box of the mattress, showing another form of hinge for folding the same. Fig. 6 is a side view of the mattress, with part of the box removed to show the ratchet catch for supporting the head or bolster when raised, and showing (in red lines) the position of the parts when folded, and also showing another form or modification of the hinges upon which the parts of the mattress are pivoted. Fig. 7 is a vertical longitudinal section of the mattress at the point where it is folded, showing another form of the hinges for folding in the stuffing. Fig. 8 is a top view of a hinge for folding the mattress when the springs are covered lightly. Fig. 9 is a section of the same through the line *y y*, showing the form and the position of said hinge when attached to the box. Fig. 10 is a top view, and Fig. 11 is an inverted side view, of another form of hinge for accomplishing the same thing, said hinge being fastened to the edge and side of the box for securing additional strength. Fig. 12 is a side view of a double-jointed hinge which furnishes two pivoting-points for folding the mattress when thickly covered or stuffed.

A is the box containing the springs, and to

which are attached the cases containing the stuffing.

B is the outer case, beneath and within which is the stuffing, said case being attached to the side of the box all round, or to the box and hinges, when the hinges are similar to the hinges represented at C, Figs. 6 and 12, with tacks, or in any other suitable way, care being taken to attach the case to the box in gathers, or with a gore at the hinges or points where the mattress is folded, in order to preserve the case from being strained or torn in folding, as represented at the points D, Figs. 1 and 6.

E are the springs, resting upon the slats F, which slats run across the box, and are secured to the box in the usual way, the upper ends of said springs being kept in place by cords or by securing them to the under case, G, which covers the springs E, is attached to the edges of the box A, and intervenes between the springs E and the stuffing H. By attaching the cases G and B to the edge and side of the box in the manner above described, I am enabled to produce a neat, close, and serviceable receptacle for the stuffing, to make allowance for the extension required at the pivoting points, and at the same time I require less material than when the cases are attached to the box in the ordinary way, thus making a better article at a cheaper rate.

I, J, and K are different forms or modifications of hinges for folding the mattress when lightly covered.

L, Figs. 10 and 11, is another modification of the hinge for folding the mattress when lightly covered, the hinge being fastened both to the edge and side of the box for greater stability.

C is one form of hinge for folding in the stuffing when the mattress is heavily stuffed, bringing the pivoting-points at the distance from each other of about twice the thickness of the stuffing; and allowing the cases which contain the stuffing to be attached to the bar or long arm of the hinge C, which extends from one of the pivoting-points to the other, and which strengthens the box where it is cut, and prevents the sagging of the cases and the consequent disarrangement of the springs at the very point where they may be liable to the greatest pressure and require to be most firmly secured.

M is another form or modification of hinge for accomplishing the same purpose.

N is a ratchet-catch for holding the head or bolster at the required elevation, said catch being hinged to the slat which supports the springs, which is next below the part to be elevated, and it holds the elevated part in position by catching upon the slat in said elevated part.

O is the cord by which the catch N may be raised and the bolster lowered one notch or more as required from the upper side of the mattress, said catch being so constructed and arranged as to fall into and retain its place in elevating the bolster.

P is a triangular block or brace placed in the angle between the slat F and the side of the box A, where the said box is weakened by the cut or cuts for folding, in order to give the requisite strength to that part of the box.

Q is a rectangular block or stiffening-piece applied in the same place for the same purpose. Sometimes it may be advisable to use both forms of stiffeners. Sometimes one form and sometimes the other may be preferable, this depending entirely upon the circumstances of each case, and the material of which and the manner in which the box and slats may be constructed.

I claim—

1. The hinging or pivoting the box which

contains the springs at two points on each side at the distance apart of twice the thickness of the stuffing, so that the parts of the box which are folded together may be parallel to each other, the stuffing being inclosed between them, substantially as and for the purpose set forth.

2. The hinging or pivoting the box which contains the springs at the central point of each side, so that the parts of the box which are folded together may be parallel to each other, the thin covering or stuffing being between them, in combination with the braces or strengthening-pieces P or Q, substantially as and for the purpose set forth.

3. Combining the central portion of the double hinge C, or its equivalent, with the ticking of the mattress, in the manner described—that is to say, the said ticking being gathered at each of the joints of the said hinge, and secured to and along the middle section thereof, substantially as set forth.

4. The combination and arrangement of the catch N with the adjacent slats F and F of the box A, substantially as and for the purpose set forth.

S. P. KITTLE.

Witnesses:

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