

W. C. STAPELY.
 MATTRESS.
 APPLICATION FILED JUNE 7, 1911.

1,002,006.

Patented Aug. 29, 1911.

3 SHEETS—SHEET 1.

Fig. 1.

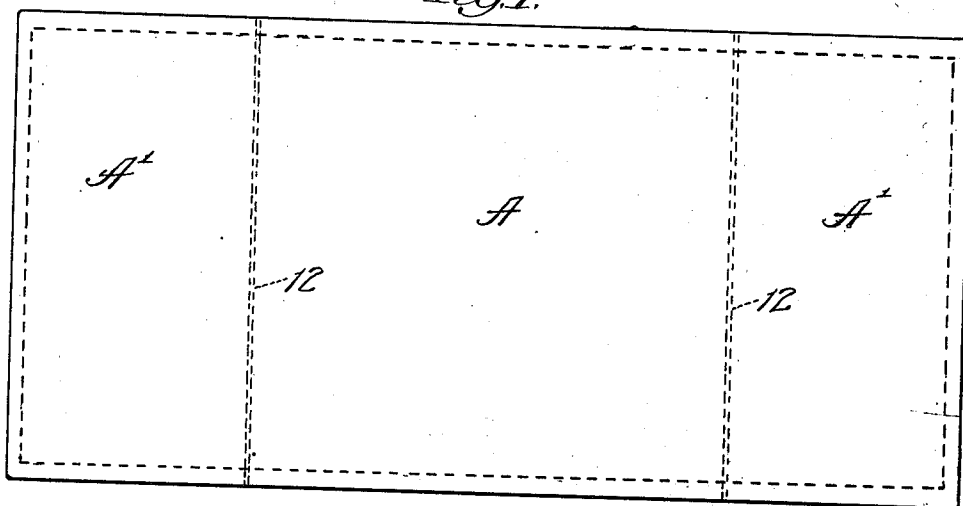


Fig. 2.

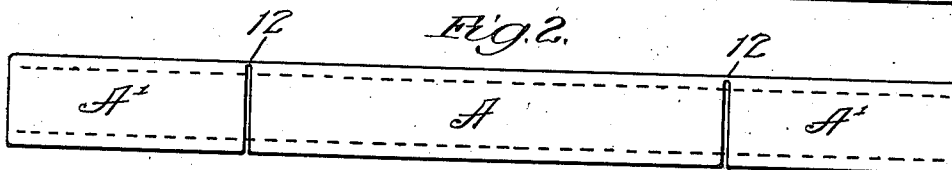


Fig. 3.

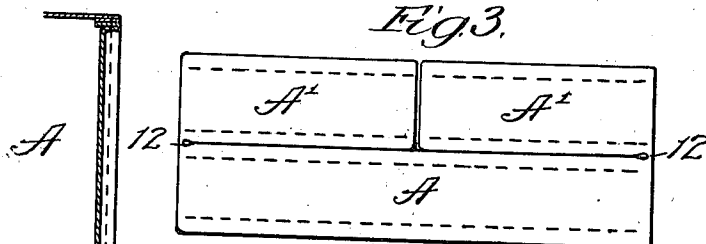


Fig. 4.

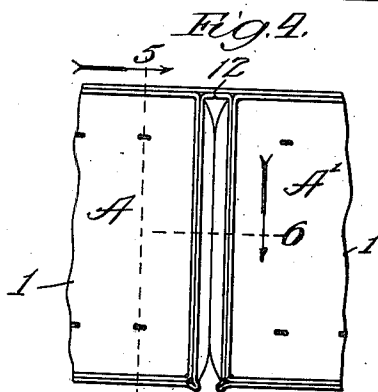


Fig. 6.

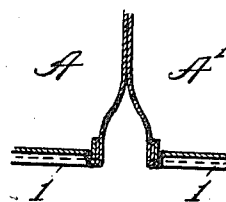
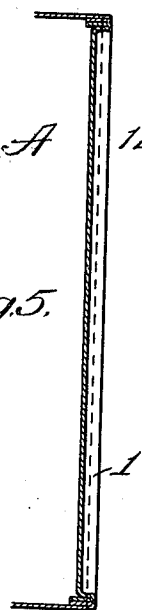


Fig. 5.



Witnesses:
 C. C. Daybird,
 Chas. H. Buel.

Inventor:

William C. Stapely.
 By J. J. Smith, R. C. Chittor, & W. H. Miles,
 Attys.

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3 SHEETS—SHEET 2.

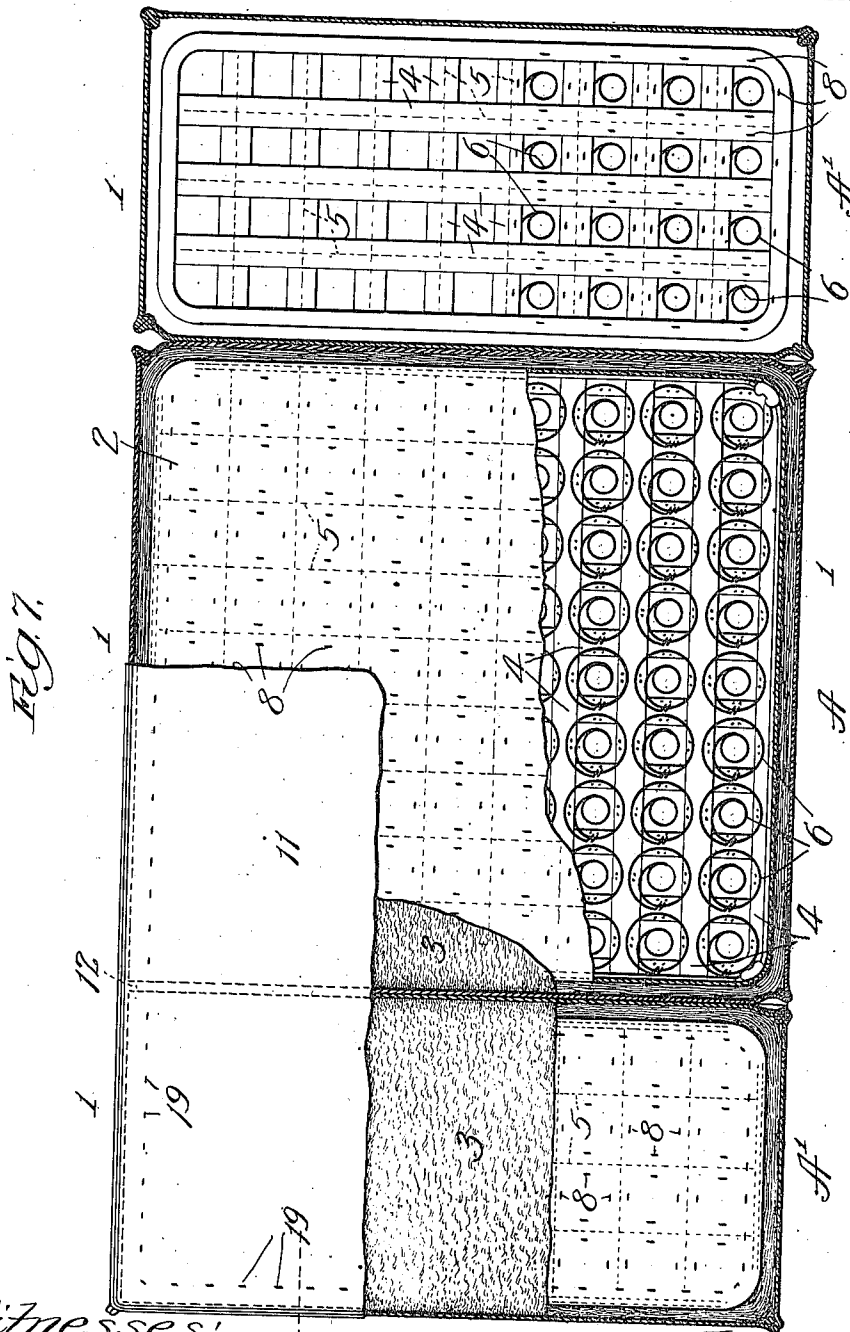


Fig. 1.

Witnesses:
Ed. J. Taylor
Chas. H. Buel

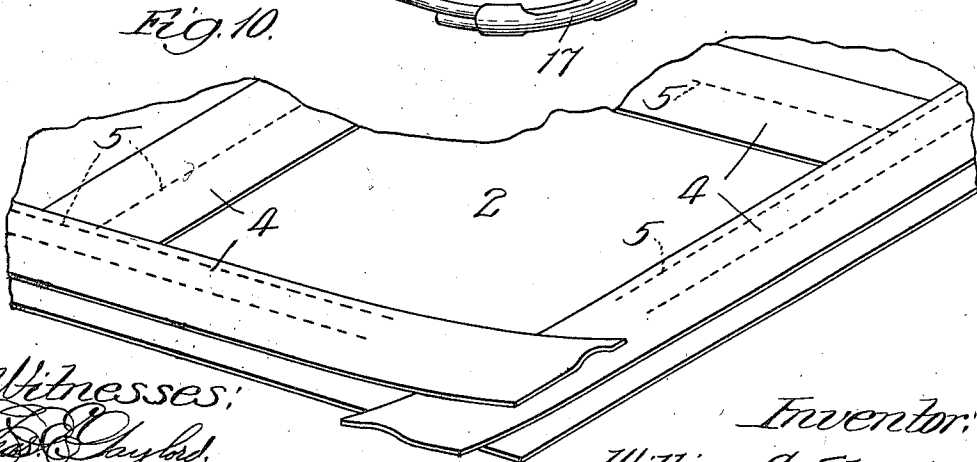
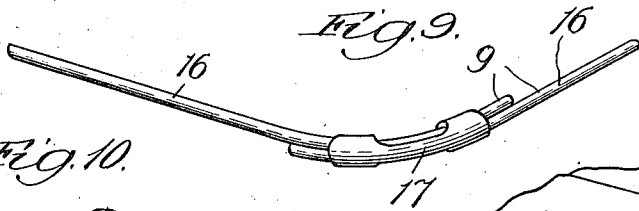
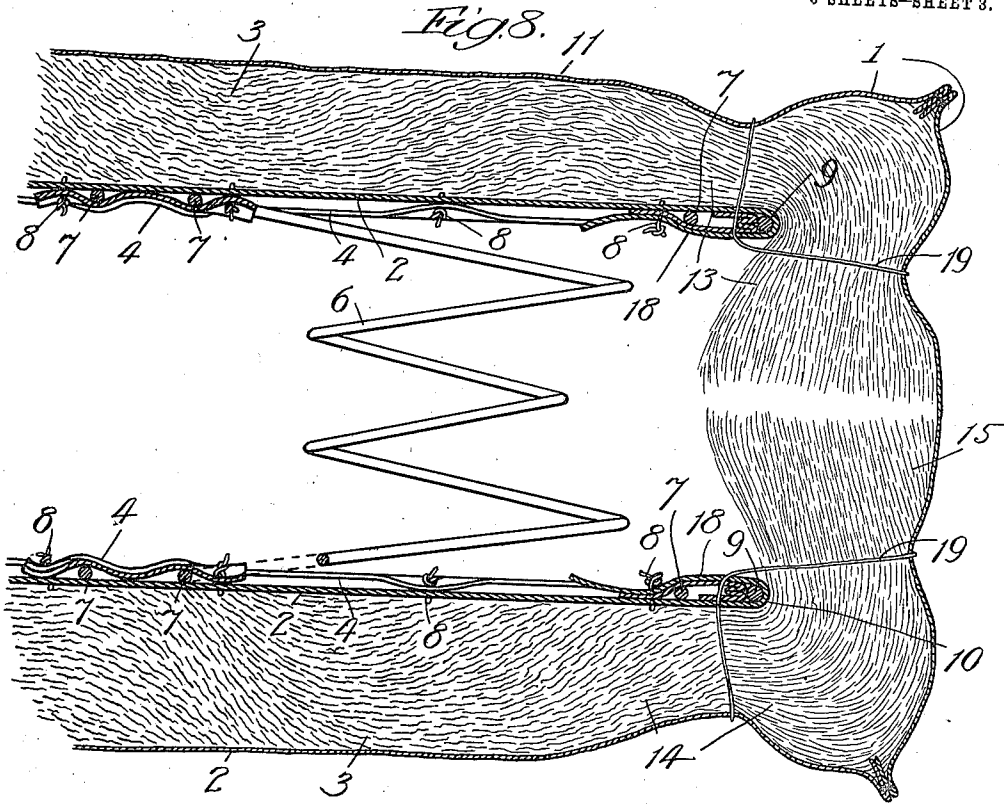
Inventor:
 William C. Stapely.
By *Byrd, Smith & Co., Attorneys*

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3 SHEETS-SHEET 3.



Witnesses:
 E. C. Claybird.
 Chas. H. Bueck.

Inventor:
 William C. Stapely.
 By J. J. Griffith, Secy, Christian & Mills,
 Attys.

UNITED STATES PATENT OFFICE.

WILLIAM C. STAPELY, OF CHICAGO, ILLINOIS.

MATTRESS.

1,002,006.

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Application filed June 7, 1911. Serial No. 631,673.

To all whom it may concern:

Be it known that I, WILLIAM C. STAPELY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Mattresses, of which the following is a specification.

My invention relates particularly to spring mattresses, and may be advantageously embodied in a folding spring mattress.

My primary object is to provide a mattress of the character indicated, of simple, durable and improved construction and well adapted to its purpose.

The invention is illustrated in its preferred embodiment in the accompanying drawings, in which—

Figure 1 represents a plan view of a mattress constructed in accordance with my invention; Fig. 2, an elevational view of the same; Fig. 3, an elevational view, showing the mattress in folded condition; Fig. 4, an enlarged broken elevational view showing the junction of two of the folding sections of the mattress; Fig. 5, an enlarged broken sectional view taken as indicated at line 5 of Fig. 4; Fig. 6, an enlarged broken horizontal section taken as indicated at line 6 of Fig. 4; Fig. 7, a view, partly in plan and partly in section, of the improved mattress, this view showing portions of the padding and foundation fabrics brokenly, and the right-hand portion of the figure showing the inner construction at the bottom side of the mattress; Fig. 8, an enlarged broken section taken as indicated at line 8 of Fig. 7; Fig. 9, a broken perspective view showing the marginal rod or wire employed; and Fig. 10, a broken perspective view showing a portion of one of the foundation sheets of fabric and the retainer-strips connected therewith.

In the form shown, the mattress comprises an intermediate mattress-section A, and end mattress-sections A' foldably connected with the intermediate section. Each section comprises a box form flexible casing 1 composed of a suitable finish-fabric such as a material ordinarily employed for ticking; upper and lower foundation sheets of fabric 2, which are of strong material, such as heavy duck or canvas; pads 3 interposed between the walls of the casing and the foundation fabrics 2; retainer-strips 4 of strong

duck or canvas, said retainer-strips being secured medially, by stitchings 5, to the inner surfaces of the foundation sheets 2; coil-springs 6, of hour-glass form, arranged in longitudinal and transverse rows and disposed between the foundation sheets of fabric with the end-rings 7 of the coils entered beneath the flaps of the retainer-strips, where they are secured in place by ties or stitches 8 which connect the flaps of the retainer-strips with the foundation fabrics 2; and marginal rods 9 secured to the margins of the foundation sheets 2, as at 10.

By preference, the upper wall 11 of the casing 1 extends throughout the full length of the mattress, that is, covers all three of the mattress-sections, thereby affording hinges 12, which enable the end-sections of the mattress to be folded on the intermediate section in the manner shown in Fig. 3. The mattress-sections are formed independently of each other, except for the hinge connections at the points 12, as will be readily understood from Figs. 2, 3 and 4.

The preferred manner of applying the padding 3 to each mattress-section, is to provide an upper sheet 13 of padding material and a lower sheet 14 of padding material, whose marginal portions 15 are bent downwardly or inwardly, that is, at right angles to the sheets of padding, so as to embrace the margins of the foundation sheets of fabric and afford padding at the edge-ports of the mattress-sections.

The marginal rod 9 with which each mattress-section is provided at each of the upper and lower foundation sheets of fabric is given a substantially rectangular form. In the illustration given, it is composed of four stiff wires 16 which have their end-ports curved and united at the corners, as by means of clips 17. Any other suitable means for uniting the wires may be employed. The marginal rods 9 are secured by folding the marginal portions of the foundation sheets of fabric about the rods, thus providing flaps 18, which, as shown in Fig. 8, are secured to the body-ports of the foundation fabrics by the corresponding stitches or ties 8. The corner portions of each mattress-section are preferably secured to the marginal portions of the foundation fabrics 2 by means of ties or stitches 19 which extend from the end or edge walls of the casing inwardly and about

the marginal rods 9, passing up or out through the foundation fabrics inside of the marginal rods, and thence through the padding and connecting with the side (top and bottom) walls of the casing.

From Fig. 7, it will be readily understood that the retainer-strips 4 are arranged to cross each other and form rectangles or spaces adapted to receive the end-rings of the coils. Thus, in the illustration given, both longitudinal and transverse retainer-strips are employed, and these strips cross each other, so that when the end-rings of the coils are inserted, they will practically be incased between the flaps of the retainer-strips and the foundation fabrics against which the coil-ends abut.

From the foregoing description it will be understood that the interior structure comprising the coil-springs, the foundation fabrics, and the marginal rods are securely, yet flexibly, joined together, independently of the casing; and that the casing and padding are securely joined to the interior structure by means of the stitches or ties 19. The ends of the coil-springs are securely anchored to the inner surfaces of the foundation fabrics; and the marginal rods 9, although not directly attached to the marginal rows of coil springs, are located adjacent thereto, and by reason of their secure connection with the strong foundation fabrics, serve to insure correct or straight edges for the corners of the mattress-sections.

A mattress of the construction described may be manufactured at moderate cost, is strong and durable, perfectly comfortable in use, and readily folded or manipulated as occasion may require.

The foregoing detailed description has been given for clearness of understanding only, and no undue limitation should be understood therefrom, but the appended claims should be construed as broadly as permissible in view of the prior art.

What I regard as new and desire to secure by Letters Patent is—

1. A mattress consisting of a structure comprising upper and lower foundation-sheets of fabric, medially secured retainer-strips of fabric applied at the inner surfaces of said sheets and spaced apart, coil-springs having end-rings entered beneath the flaps of said strips, means securing said flaps to the fabric sheets and thereby an-

choring said end-rings, and covering means for said structure.

2. A mattress consisting of a structure comprising upper and lower foundation-sheets of fabric, retainer-strips secured to said sheets of fabric at the inner surfaces thereof, coil-springs having end-rings interposed between the retainer-strips and the sheets of fabric, means securing said end-rings in position, padding material applied to the interior structure, and a casing inclosing said structure.

3. A mattress consisting of a structure comprising upper and lower foundation-sheets of fabric, medially secured retainer-strips of fabric applied at the inner surfaces of said sheets, said retainer-strips extending in two directions and crossing each other, coil-springs arranged in rows and having end-rings entered between the flaps of said strips, means securing said flaps to the fabric sheets and thereby securing said end-rings in position, pads over said foundation sheets, and a casing inclosing said pads.

4. In a structure of the character set forth, the combination of upper and lower foundation-sheets of fabric, retainer-strips secured to the inner surfaces thereof, coil-springs having end-rings interposed between the flaps of the retainer-strips and said sheets of fabric, means securing said flaps to the fabric-sheets and thereby securing said end-rings in position, independent marginal rods secured to the marginal portions of the fabric-sheets, and a casing inclosing said structure.

5. In a structure of the character set forth, the combination of a pair of upper and lower foundation-sheets of fabric, retainer-strips applied to the inner surfaces thereof, coil-springs interposed between said sheets of fabric and having their end-rings located between the retainer-strips and the fabric-sheets and secured in such location, a marginal rod connected with the marginal portion of each fabric-sheet, a pad-sheet having its marginal portions folded over the marginal rod, a casing, and ties passing through the corner-portions of the casing, the padding material and about the marginal rod, for the purpose set forth.

WILLIAM C. STAPELY.

In presence of—

R. A. RAYMOND,
R. A. SCHAEFER.