

(No Model.)

H. C. FARRELL.  
MATTRESS.

No. 414,390.

Patented Nov. 5, 1889.

Fig. 1.

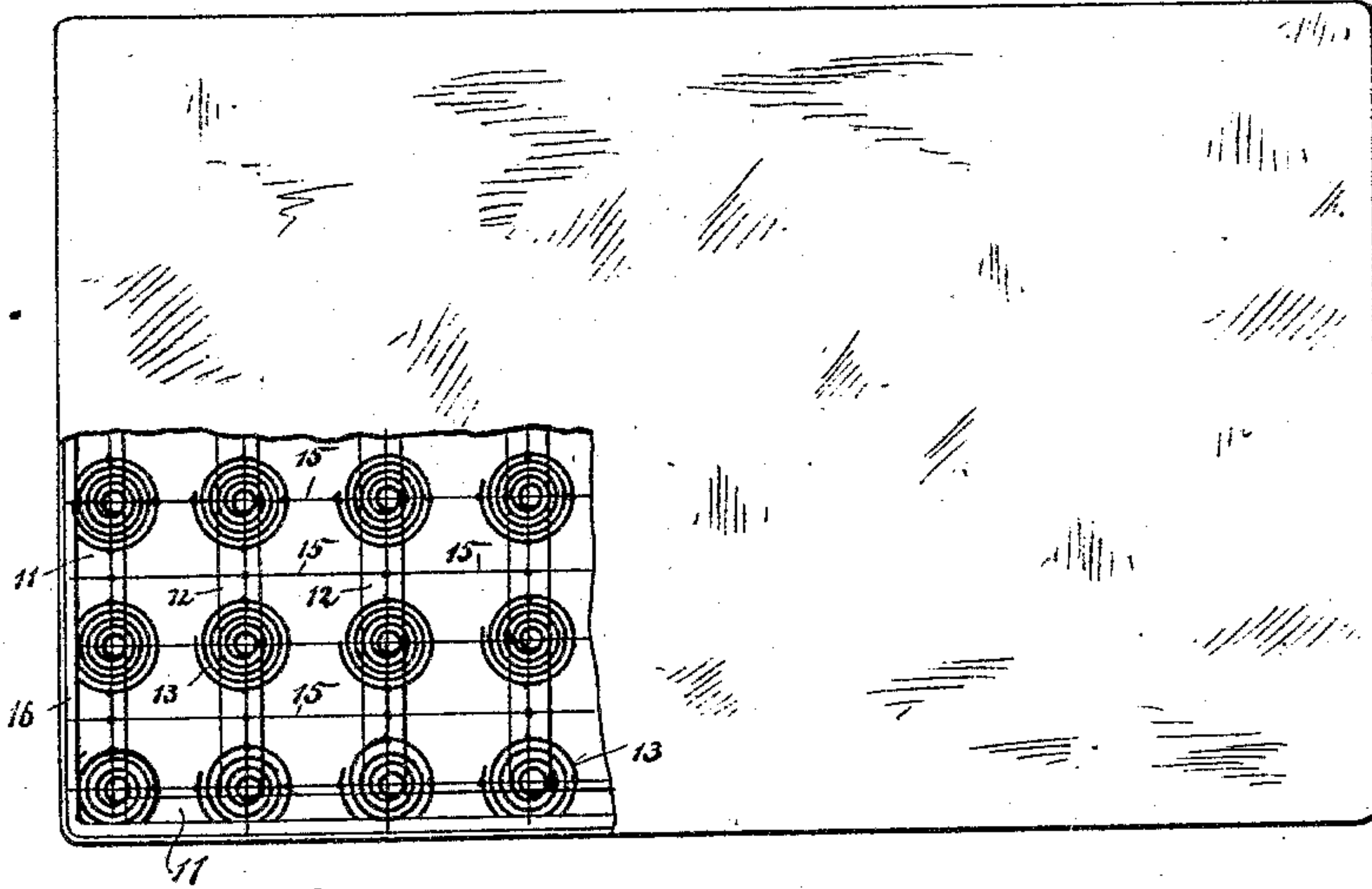


Fig. 2.

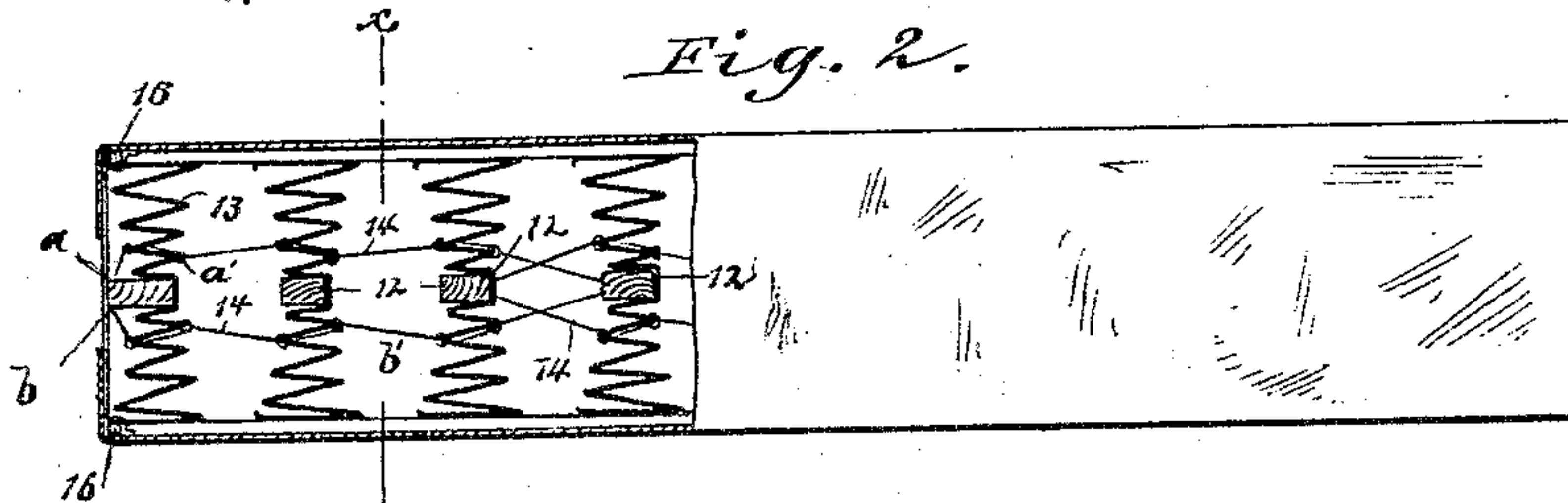


Fig. 3.

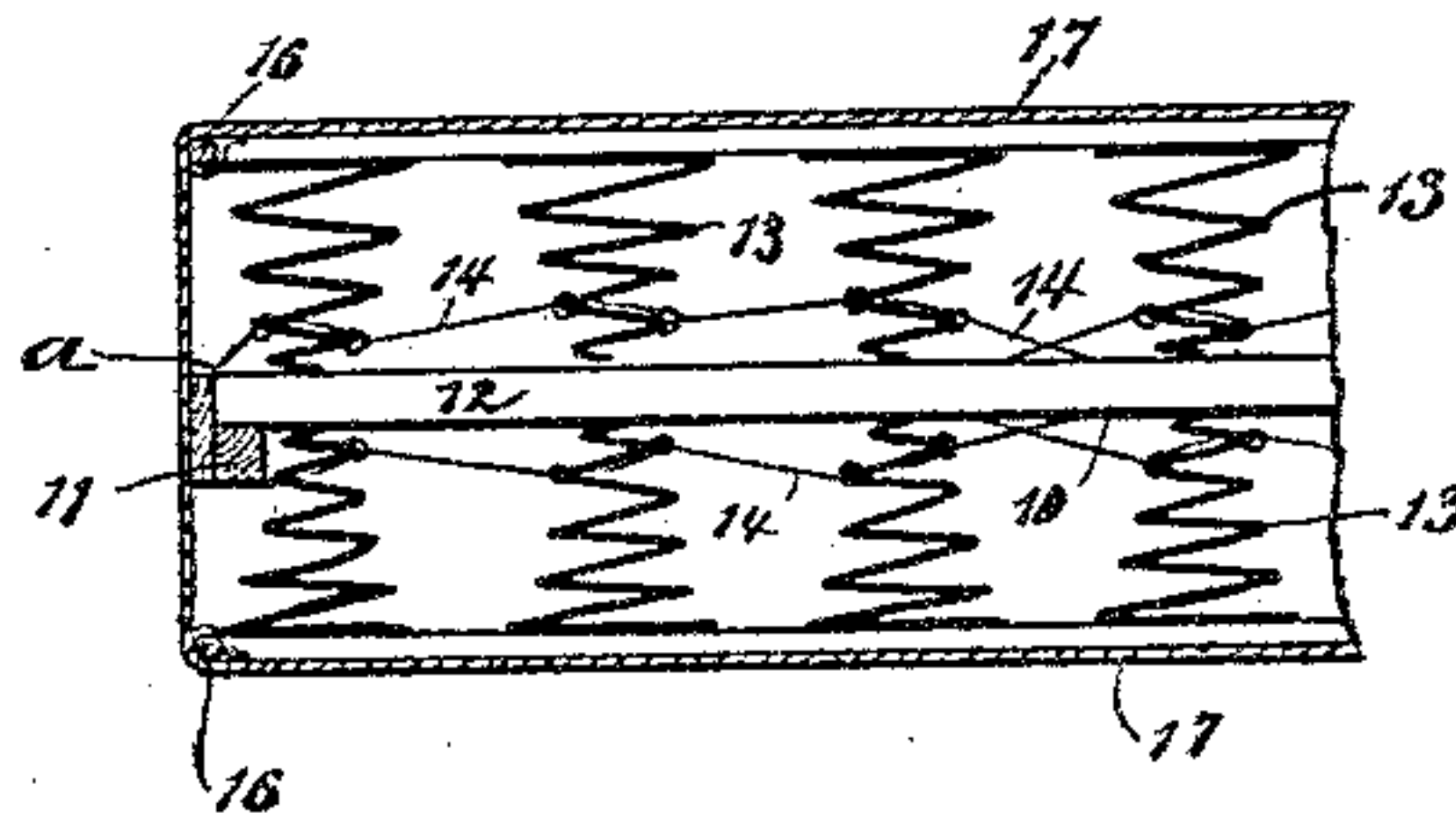
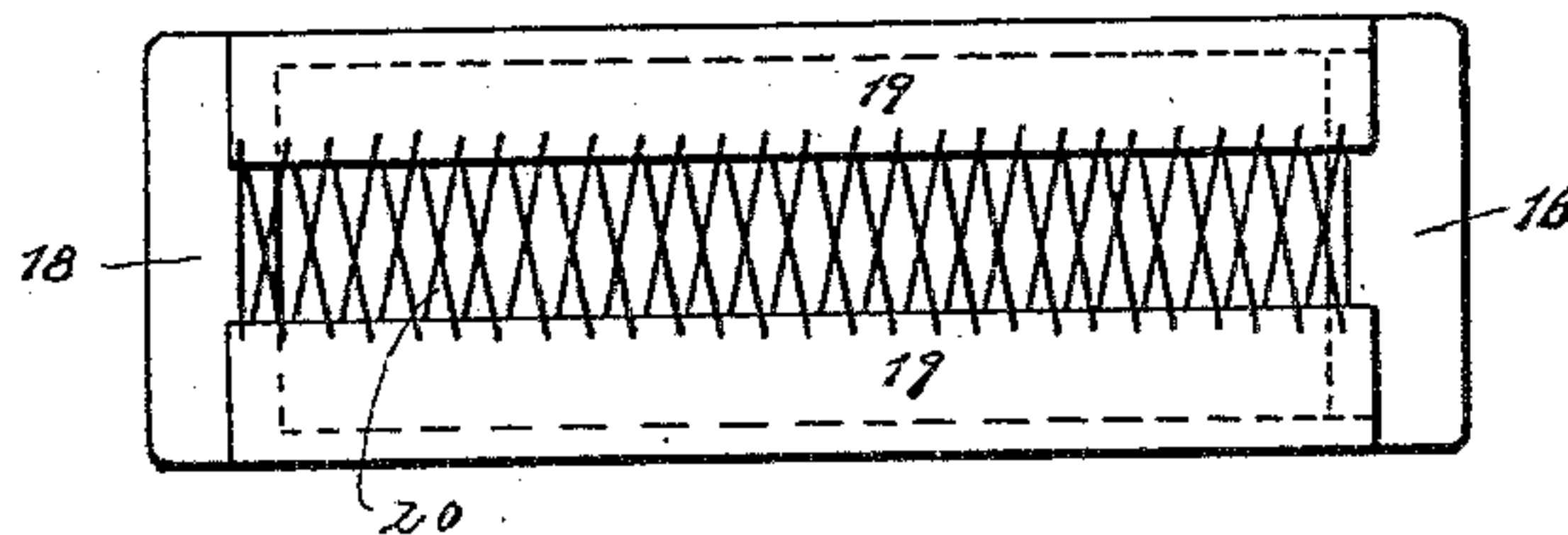


Fig. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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SAME PLACE.

## MATTRESS.

SPECIFICATION forming part of Letters Patent No. 414,390, dated November 5, 1889.

Application filed March 21, 1889. Serial No. 304,096. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. FARRELL, of the city, county, and State of New York, have invented a new and useful Improvement in  
5 Mattresses, of which the following is a full, clear, and exact description.

My invention relates to an improvement in spring-mattresses, and has for its object to so construct a mattress of this type that ample  
10 provision will be made for the tightening or drawing taut of the tops of the casing or cover, and for the passage of air from the mattress when in use, and wherein a circulation of the air will be obtained through the  
15 mattress at all times.

The springs are connected, preferably, by the cords 14 15; but as this arrangement forms no part of the present invention a more detailed description need not be given.

20 I will now proceed to describe my improvement, which relates to the casing or cover.

17 represents my improved casing constructed, as will presently appear, so that its top and bottom may be drawn taut at any  
25 time, and so that the air may be easily expelled therefrom when the bed is occupied, thereby allowing the full force of the springs to be brought into play, which could not be done with an air-tight casing.

30 The invention consists in the novel construction and combination of the several parts, as will be hereinafter more fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying  
35 drawings, forming a part of this specification, in which similar letters and figures of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improved  
40 mattress, with a portion of the cover at one end broken away. Fig. 2 is a side elevation of the mattress, a portion of the mattress-cover being also broken away. Fig. 3 is a vertical section on line  $x x$  through a portion of  
45 the width of the mattress, and Fig. 4 is an end view of the completed mattress.

In carrying out the invention a skeleton frame 10 is built up, conforming to the de-

sired contour of the mattress to be made, and consisting of a rectangular border-frame 50 11, preferably made up of light strips of wood properly united and a series of transverse spaced strips 12 of like material.

Upon the several strips or beams constituting the frame 10, which for convenience I 55 call the "intermediate mattress-frame," since it is designed to occupy a central position in the completed mattress, a series of double volute spiral springs 13 is secured, at proper intervals, which springs are preferably so ar- 60 ranged as to be in parallel series both longitudinally and transversely of the frame, as illustrated in Fig. 1. These springs are secured to the several beams of the frame, preferably by passing the beam between the 65 central coils and attaching said coils to said beams, as illustrated in Fig. 2, whereby one spiral section of each spring will project upward, and the other spiral section will project downward from each beam. These springs 70 are not claimed in this application, but form the subject-matter of my application, Serial No. 299,731, filed February 13, 1889.

The ends of the casing or cover, as best shown in Fig. 4, are so cut that the sides at 75 the ends, as illustrated at 18 in Fig. 4, will be covered, and an apron 19 be formed at the top and bottom, which aprons are of such length that a space will intervene the opposite edges of the top and bottom aprons. 80 The two end aprons are now united by passing a cord or a series of cords through the same in the manner of a lacing, as illustrated at 20 in Fig. 4. It will be observed by reference to this figure that while an open space 85 at the ends is formed the lacing which unites the aprons and keeps them in position gives the proper tension to the tops and also serves to ornament the ends of the mattress and to partially cover the opening therein. 90

I desire it distinctly understood that my invention is not confined to the manufacture of reversible mattresses, as shown in the drawings, such form being only illustrated as being the most difficult to perfect, as the 95 manner of cording and the open ends or sides

are applicable to all forms and styles of mattresses in the construction of which springs are employed.

Having thus described my invention, I claim  
5 as new and desire to secure by Letters Patent—

As an improved article of manufacture, a spring-mattress provided with a casing or cover having top and bottom aprons at the sides or ends of such width that a space will

intervene, the opposed edges of the said aprons to and cords, or their equivalent, laced through the said aprons to unite the opposed edges and draw the top and bottom of the casing taut, as and for the purpose specified.

HENRY C. FARRELL.

Witnesses:

WILLIAM H. RIBLET,  
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