

No. 696,293.

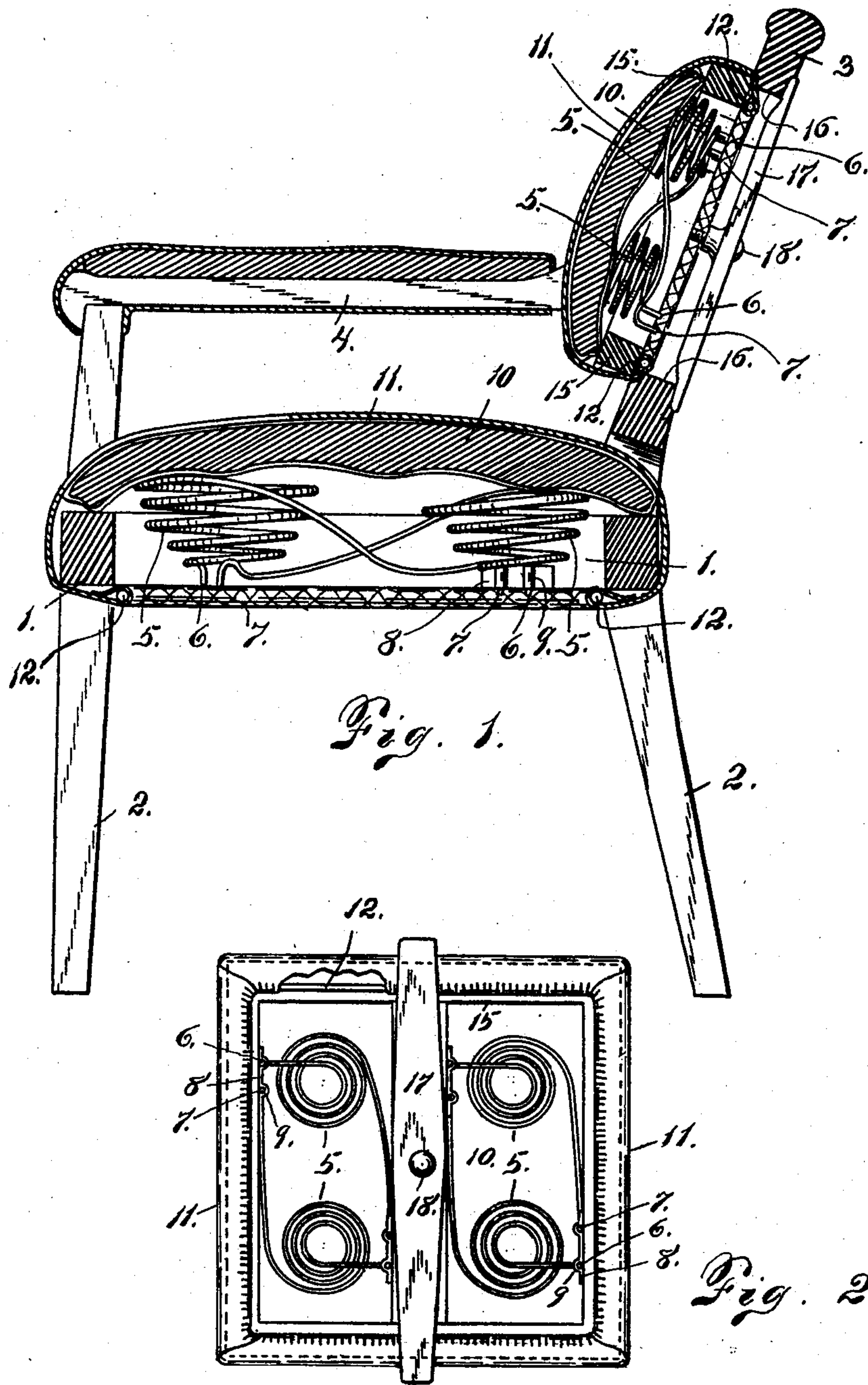
Patented Mar. 25, 1902.

G. F. WULLEN.  
UPHOLSTERED FURNITURE.

(Application filed May 4, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:  
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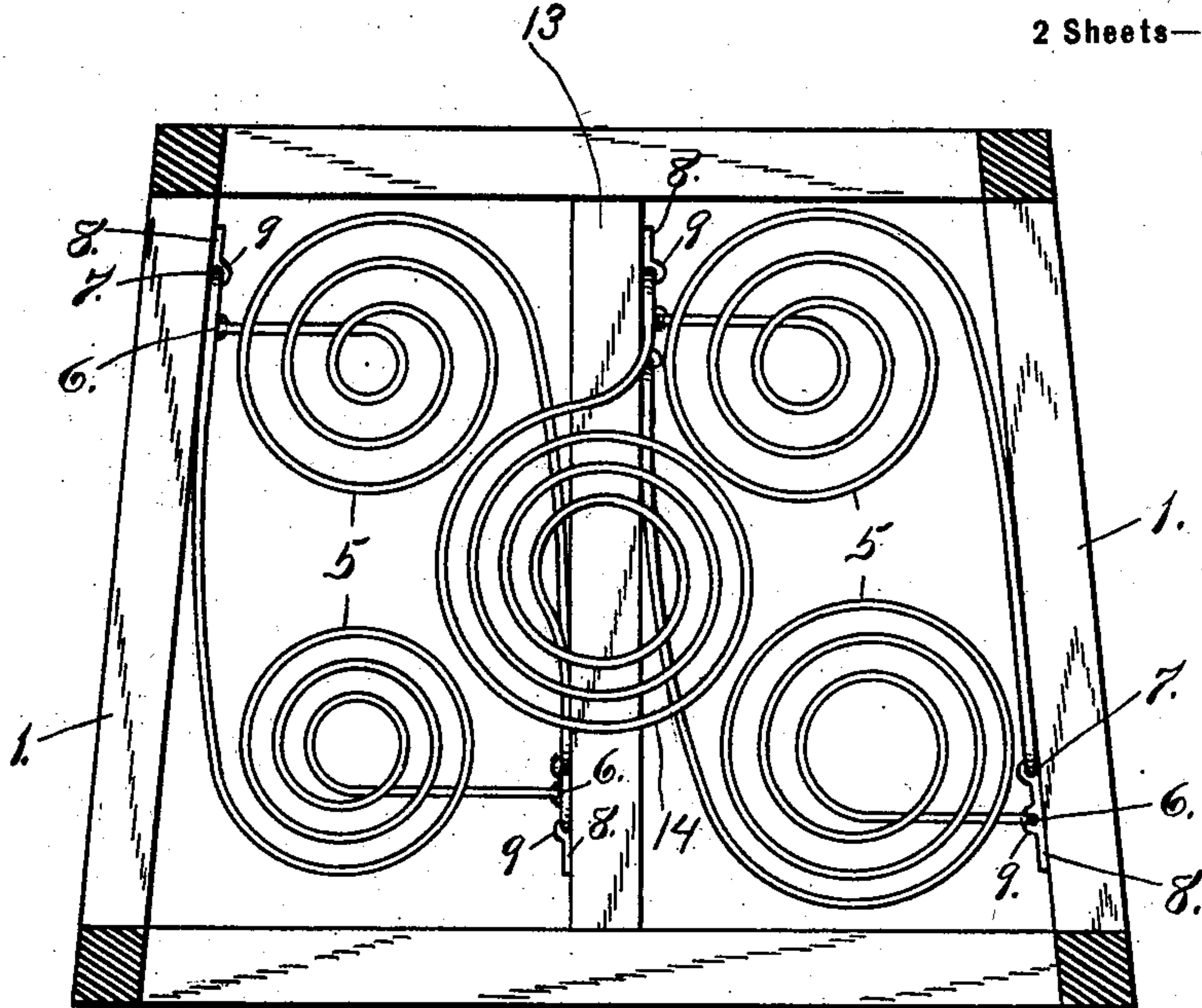


Fig. 3.

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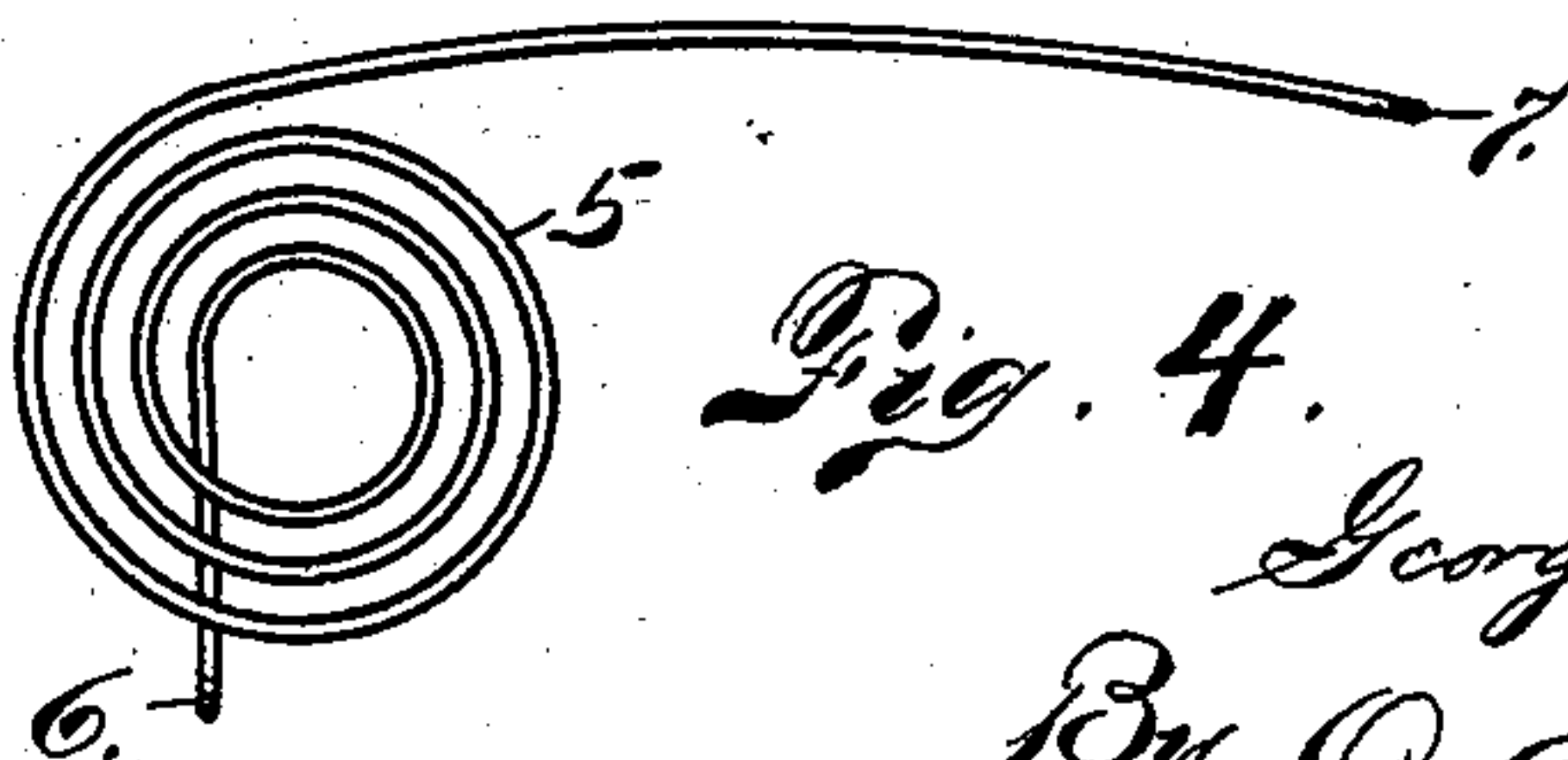


Fig. 4. Inventor.  
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# UNITED STATES PATENT OFFICE.

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## UPHOLSTERED FURNITURE.

SPECIFICATION forming part of Letters Patent No. 696,293, dated March 25, 1902.

Application filed May 4, 1900. Serial No. 15,494. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE F. WULLEN, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Upholstered Furniture; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in upholstering chairs and other spring upholstered furniture. Its object is to produce a means of upholstering furniture in which any of the springs may be removed or replaced without interfering with the adjoining ones and in which the efficiency of the springs is increased and in which the flexible cushion, covering, or other fabric used in upholstering may be removed for renovation and repairs and replaced in the frame of a chair without the aid of nails or tacks, thus preserving the rigidity of the wooden frame and its polished or finished surface.

To that end it consists, first, in a novel arrangement of the coil-wire springs, the ends of which are disposed at right angles to each other and adapted to be secured without the customary weaving or strapping; second, in the arrangement of a wire frame located under the spring-frame and to which the cushion-covering is sewed, and, third, in the introduction of a separately-covered flexible cushion placed between the springs and covering.

The invention further consists in other details of its arrangements and combination of parts, all of which I will now proceed to definitely describe and then point out in the claims that which I believe to be novel.

In the drawings, Figure 1 is a central vertical section of a chair upholstered according to my invention. Fig. 2 is a detail view of the same, showing a rear view of the cushioned back portion. Fig. 3 is a top plan view of the seat portion with soft cushion and cover

removed, and Fig. 4 is a detail top plan view of one of the springs.

Referring to the drawings, in Fig. 1 is shown the ordinary design of a chair with seat-frame 1, legs 2, back 3, and arms 4. Mounted in the seat-frame 1 are the springs 5. These springs 5 (a detail of which is shown in Fig. 4) are coiled in the usual manner, but have their ends 6 and 7 project outwardly from the coils and at right angles to each other. These ends 6 and 7 project sufficiently beyond the body of the coil to permit them to be rigidly secured to the frame of the chair without interfering with the action of the spring. In fact, the elasticity of the springs is increased by reason of the bowed-spring action in the outwardly-projecting portions. To removably secure these ends 6 and 7 to the frame, I have provided the small plates or fittings 8, which when secured in place form the small sleeves 9 for the reception of the ends of the spring. The primary object in securing these ends at an angle to each other, or in opposite directions, is to secure the coils from tilting or becoming displaced laterally, and as the strapping or weaving is dispensed with the full action of the coil is preserved. Over the coil-springs 5 is placed the cushion 10, which may be made of hair, tow, or any desired material, which is shaped and made into a separate cushion with cloth covering. The cushion 10 is then placed loosely over the springs 5 and a cover 11 fitted over it. This cover 11 is cut sufficiently large to be fitted over the cushion 10 and extend down and around the frame 1 to the wire frame 12, where it is drawn to an even fit and sewed to said wire frame, as shown in the drawings.

The number of springs in a cushion and their relative position to one another vary according to the dimensions and shape of cushion or frame in which they are to be fitted.

In the present seat-cushion, as shown in the top plan view in Fig. 3, a partition or cross-piece 13 divides the frame 1, and over this cross-piece I have placed a central spring 14, the ends of which in this instance project diametrically opposite each other, which also holds the coil from lateral displacement.



The cushion in the back of the chair, as shown in Fig. 1, is made removable. To accomplish this, the upholstering, which is similar to that in the seat portion just described, is mounted in an auxiliary frame 15, which is slightly larger than the opening 16 in the back of the chair, and the frame 15 is secured against this opening by the spring-arm 17, which is pivoted, as at 18, to the cross-piece of the frame 15 and when in locked position has its ends engage the rear face of the back of the chair. The seat portion might also be secured in this manner by upholstering its cushion in a separate frame, thus enabling all the upholstering to be readily removed for repairs or renovating and avoiding the necessity of carting the body of the chair. The springs 5, cushion 10, cover 11, and wire frame 12 of the auxiliary frame 15 are all similar to those described and shown in the frame 1.

In operation it will be seen that a piece of furniture arranged according to my invention may be upholstered by simply placing the springs 5 and cushion 10 in position and sewing the cover to the wire frame 12, and if it is desired to replace a spring its ends 6 and 7 are simply withdrawn from the sleeves 9 and another spring put in its place.

If it is desired to renovate the cushion 10, the cover may readily be removed by cutting the thread where it is sewed to the wire frame 12, the cushion 10 renovated and again placed over the springs 5, and the cover again sewed to the wire frame.

It will be seen that in the above operation the only tools required are a needle and thread, and it is not essential to be skilled in the art of upholstering to perform the work. The wire frame 12 might be substituted by four or more pieces of wire secured to the frame and running parallel with its outer edge.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a chair or other piece of furniture, an upholstered cushion consisting of an open frame, a series of coiled springs mounted in said frame, a flexible cushion resting over said springs, and a covering adapted to be fitted over said cushion and springs, a wire frame located under the cushion-frame and being of a smaller area than said cushion-frame and to which the edges of the covering are sewed, substantially as shown and for the purpose stated.

2. In a chair or other piece of upholstered furniture, an upholstered cushion, consisting of a frame; a series of springs removably mounted within the frame, a flexible cushion disposed above the springs, a wire frame disposed beneath the springs and a covering secured to the wire frame and adapted to fit over the cushion and the springs.

3. In a chair or other piece of upholstered furniture, an upholstered cushion, consisting

of an open frame, a supplemental frame, springs mounted in the supplemental frame, a wire frame disposed between the aforesaid frames, means for connecting the three frames together and means for covering the springs.

4. In a chair or other piece of upholstered furniture, an upholstered cushion, consisting of an open frame, a supplemental frame, a wire frame disposed between the aforesaid frames, conical, convolute springs mounted within the supplemental frame, a cushion disposed over the springs, and a covering secured to the wire frame and adapted to fit over the supplemental frame and the cushion and the springs.

5. In a chair or other piece of upholstered furniture, an upholstered cushion, consisting of a frame, a supplemental frame adapted to carry springs and a cushion, a wire frame disposed between the aforesaid frames, a covering secured to the wire frame and adapted to be fitted over the cushion and the springs, and said frames being removably secured together.

6. In a chair or other piece of upholstered furniture, an upholstered cushion, consisting of a frame divided into sections, pairs of plates in each section disposed diagonally opposite each other, and pairs of springs mounted within each section of the frame, the upper end of each spring being fitted within the plate in which the lower end of its companion spring is fitted.

7. In a chair or other piece of upholstered furniture, an upholstered cushion, consisting of a frame divided into sections, pairs of conical, convolute springs mounted within each section of the frame, pairs of plates in each section and disposed diagonally opposite each other, the upper end of each spring being fitted within the plate in which the lower end of its companion spring is fitted.

8. In a chair or other piece of upholstered furniture, an upholstered cushion, consisting of a frame divided into sections, a pair of plates in each section of the frame and disposed diagonally opposite each other, pairs of springs mounted within each section, the upper end of each spring being fitted within the plate in which the lower end of its companion spring is fitted, a wire frame disposed beneath the aforesaid frame, and a covering secured to the wire frame and adapted to extend over the first-mentioned frame.

9. In a chair or other piece of upholstered furniture, an upholstered cushion, a frame, means for dividing the frame into sections, springs mounted within each section of the frame, another spring mounted upon the said dividing means, the ends of the last-mentioned spring projecting diametrically opposite each other and secured to the sides of the dividing means, a wire frame disposed beneath the aforesaid frame, and means connected with the latter for covering the cushion and the springs.

10. In a chair or other piece of upholstered



furniture comprising a frame, a supplemental frame adapted to carry springs and a cushion, another frame disposed between the afore-said frames, the last-mentioned frame being  
5 spaced from the other frames, means for removably securing the three frames together, and means for covering the springs and the cushion.

10 11. In a chair or other piece of upholstered furniture comprising a frame, means for dividing the frame into sections, springs mounted within each section of the frame, another spring mounted upon said dividing means and

secured thereto, a cushion mounted upon the springs, a second frame spaced from the first- 15 mentioned frame, and means connected with the second frame for covering the springs and the cushion.

In testimony whereof I have signed my name to this specification in the presence of 20 two subscribing witnesses.

GEORGE F. WULLEN.

Witnesses:

O. E. HODDICK,  
P. L. STELLWAGEN.