

No. 754,835.

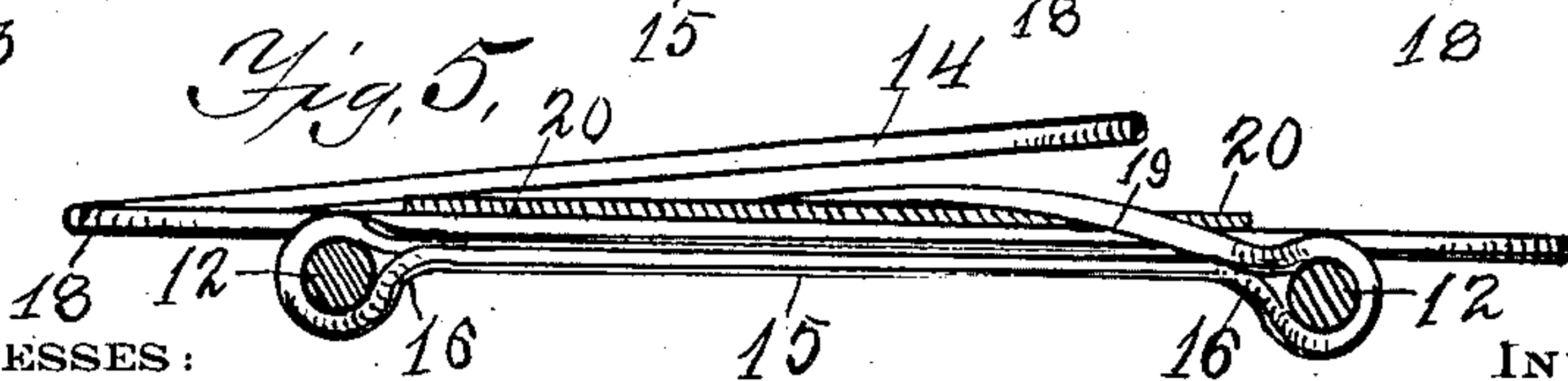
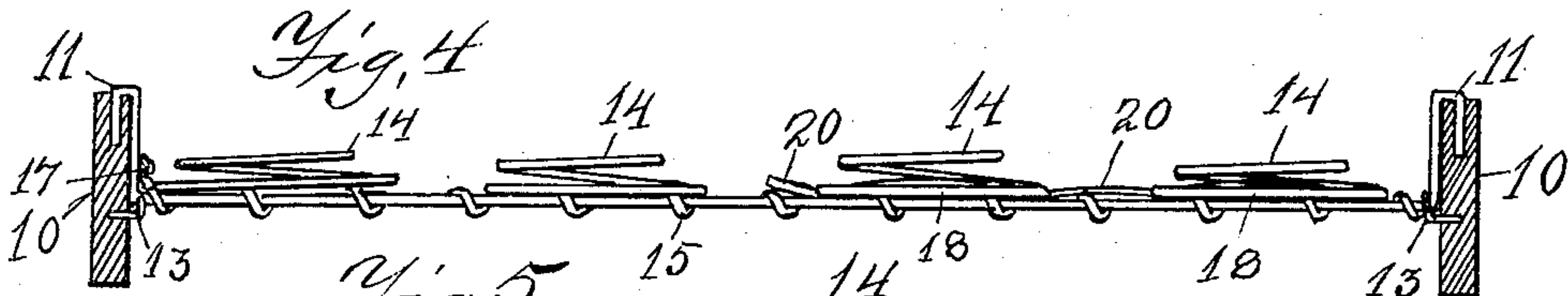
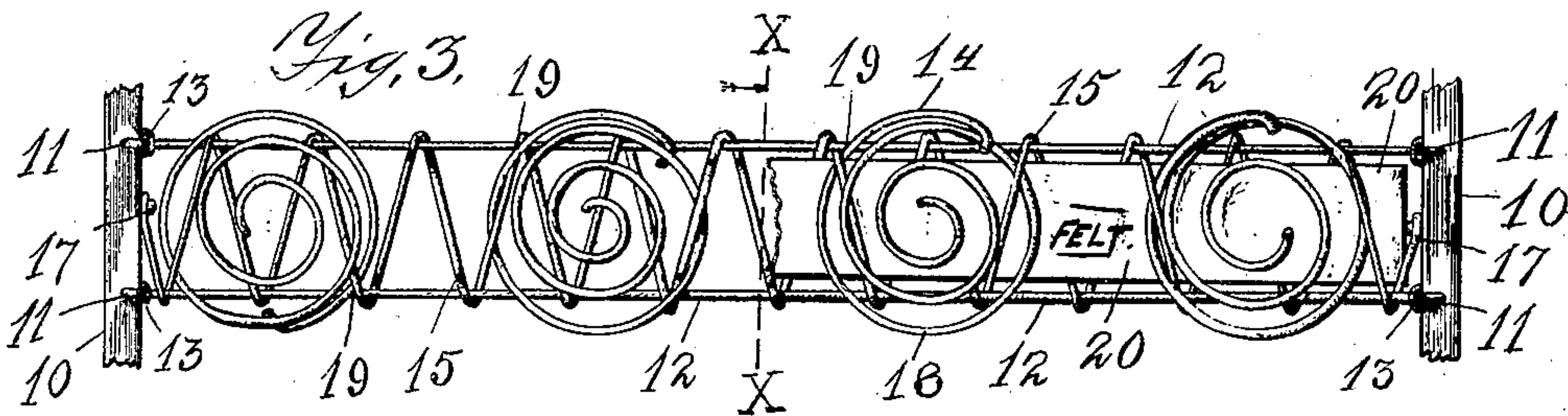
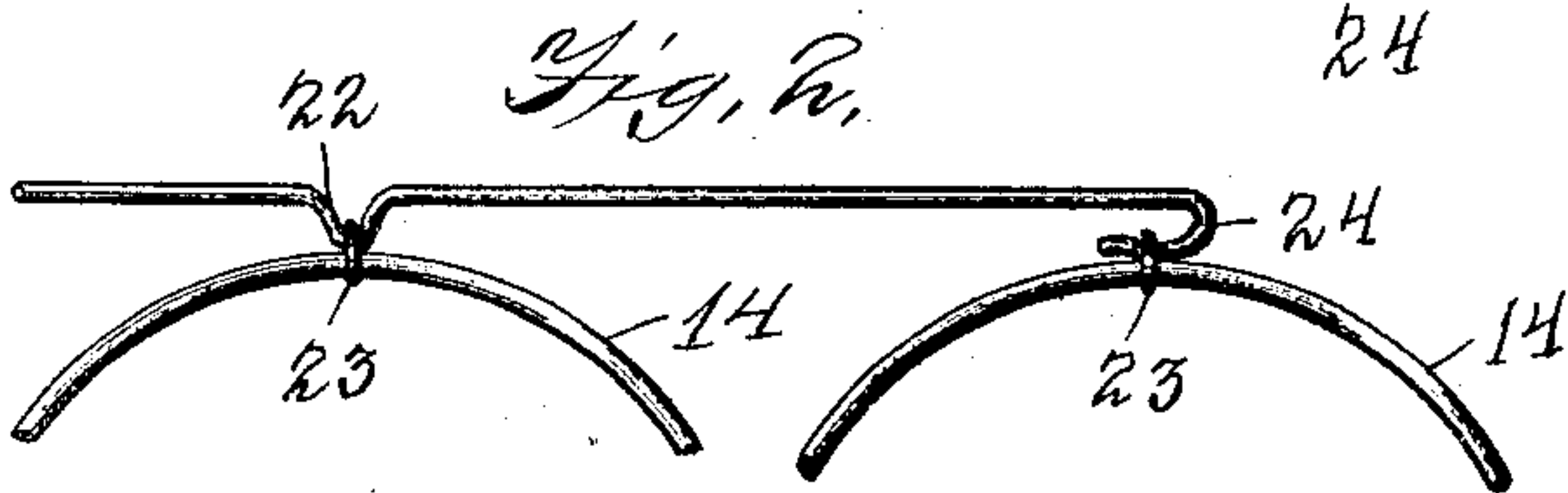
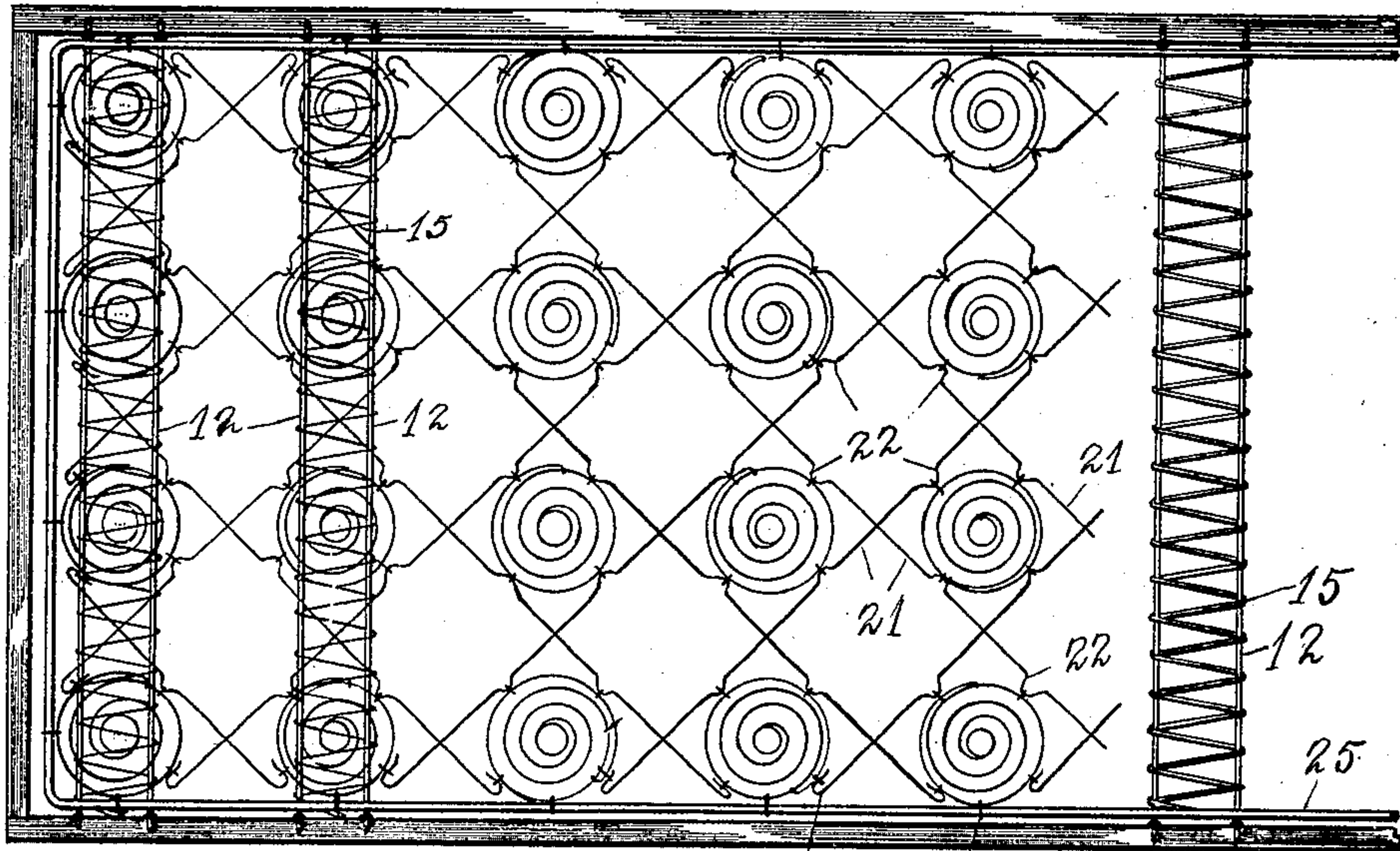
PATENTED MAR. 15, 1904.

E. A. ANDERSON.
COUCH SPRING.

APPLICATION FILED DEC. 10, 1902.

NO MODEL.

Fig. 1.



WITNESSES:

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ERNEST A. ANDERSON, OF JAMESTOWN, NEW YORK.

COUCH-SPRING.

SPECIFICATION forming part of Letters Patent No. 754,835, dated March 15, 1904.

Application filed December 10, 1902. Serial No. 134,642. (No model.)

To all whom it may concern:

Be it known that I, ERNEST A. ANDERSON, a citizen of the United States, and a resident of Jamestown, in the county of Chautauqua and State of New York, have invented a new and useful Couch-Spring, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to metallic spring-bottoms for lounges and like articles of furniture in which the cone springs are supported upon cross-wires; and the objects of my improvement are, first, to provide a wire slat for supporting the springs and staying the frame, and, second, to provide a wire connection for the tops of the springs, whereby each spring has a certain freedom of action, yet is supported by and connected on all sides with the adjacent springs.

In the drawings, Figure 1 is a plan view of part of a couch-frame having my spring-bottom thereon, the two vertical rows to the left showing the complete spring-bottom, the three middle rows showing the cone springs and my connecting-wire for the tops of the same, and on the right is a plan view of my wire slat without any springs thereon. Fig. 2 is a detail showing the usual manner of attaching my connecting-wire to the springs. Fig. 3 is a plan view of wire slat attached to the frame having the lower portion of the cone springs secured thereon and a portion of the deadening-strip woven therein. Fig. 4 is a side elevation of the parts shown in Fig. 3 with the side rails in section and showing the usual method of attaching my wire slat to the rails. Fig. 5 is a sectional view at line X X in Fig. 3.

Similar numerals refer to similar parts in the several views.

The numeral 10 is the frame. The ends 11 of the large sustaining cross-wires 12 of my wire slat are usually bent at right angles and inserted into the upper edge of the frame 10, as shown in Fig. 4. The wires 12 are then carried down toward the lower edge of the frame and extended out at right angles from the frame-piece 10 and across to the opposite frame-piece, where they are fastened in like

manner. I usually use an angled staple 13 for attaching wires 12 at their lower angle to the frame-piece. Wires 12 are placed the correct distance apart to best support the lower ends of the cone spring 14.

A stiff wire 15 is wound about or interlacing with the wires 12 from end to end and is bent up tightly around wires 12, as shown at 16 in Fig. 5, so as to form a flat upper surface. The ends of wire 15 are secured to the frame-pieces at 17. This stretches the wire 15 firmly into position upon the wires 12 and holds the springs. The bottom wires 18 of springs 14 are turned under the stiff interlacing wires 15, as at 19, on each side of the spring, so that the cone springs are held firmly in position upon supporting cross-wires. It is recognized that in all metallic spring-bottoms the clicking of the metal parts as the springs are compressed is objectionable. I therefore insert a deadening-strip 20, of felt or other suitable material, through and over the wires 15. It will now be seen that the springs as they compress will strike strip 20, avoiding all sound.

The tops of the cone springs 14 are connected by wires 21, which run diagonally between the springs in each direction, and I make a bend or return curve opposite the point of contact with each spring and unite the central portion of the bend to the spring by a simple wire loop 23, as clearly shown in Fig. 2. Bend 22 in the connecting-wire allows spring 14 to be depressed for some distance without drawing upon the connecting-wires, since the bends 22 will turn downward from their normal horizontal position. This gives a certain degree of freedom of action to spring 14, while the spring is held on all sides and from all directions and a complete wire top is made for supporting the mattress. The ends 24 of the connecting-wires 21 are given a return-bend, as shown, and the bend connected by wire loop 23 in order that the outer row of springs may have the same freedom of action as the central springs. A heavy edge wire 25 is secured to this outer row of springs by wire loops 23 to give a stiff supporting edge to my spring-bottom.

It is apparent that the bend 22 in connect-

ing-wire 21 prevents the loop 23 from slipping along the wire, and thus displacing the spring; also, that the draw of the connecting-wires 21 is in all directions. It is obvious that my wire
 5 slat can be used for a bed-slat and that it has great supporting strength. Being attached to the frame-pieces on each side and made of large-sized wire, the slats do not need length-wise attachment to each other. The stiff inter-
 10 lacing wire 15 is not usually wound around both the wires 12, but after surrounding one is passed in between the two wires 12 and then around the opposite wire, thus forming an interlace which when stamped upward into place
 15 by a suitable die surrounds the wires 12, as shown at 16 in Fig. 5, and firmly holds the slat in form and makes the upper side flat to support the springs. It is also apparent that my bed-slats may be made complete, as shown,
 20 and then attached to the frame, which is usually the simplest and cheapest manner of manufacture. The hooked ends of the side wires may embrace the side rails without being inserted in the upper edge, or any other method
 25 of attachment may be employed for my wire slat without departing from the purpose of my invention. In like manner the interlacing wire may be fastened to the side wires at each end and serve a good purpose, but not
 30 as good, since it would not stretch the interlacing wire and make the slat as stiff and strong.

I claim as new—

1. In a couch having a suitable frame, wire
 35 slats composed of heavy cross-wires, the ends of said wires having attachment to said frame,

a stiff wire interlaced between said cross-wires, and each end of said interlaced wire attached to the frame.

2. In a couch-bottom, wire slats composed 40 of heavy wires crosswise of the frame and having their ends attached thereto, a stiff wire continuously interlaced between said side wires and attached to said frame, cone springs on said slats having their bottom coils inter- 45 locked with said interlacing wire, and suitable connecting-wires for the top of said cone springs.

3. In a couch-bottom, cone springs having a suitable support, connecting-wires for the 50 tops of said springs which run diagonally outside the tops of said cone springs, a return curve in said connecting-wire toward said spring-top opposite each spring, and a link for attaching said curve to the spring. 55

4. In a couch having a suitable frame, a couch-bottom composed of wire slats having heavy cross-wires with ends attached to said frame, wire interlaced between said cross- 60 wires, cone springs on said slats interlocked with said interlacing wire, connecting-wires for the tops of said springs having return curves opposite to and outside of each spring and connected loosely thereto.

In testimony whereof I have signed my name 65 to this specification in the presence of two subscribing witnesses.

ERNEST A. ANDERSON.

Witnesses:

A. W. KETTLE,
 S. A. BALDWIN.