

(No Model.)

M. F. SHAW & J. F. GAIL.
WIRE MATTRESS.

No. 547,743.

Patented Oct. 8, 1895.

Fig. 1.

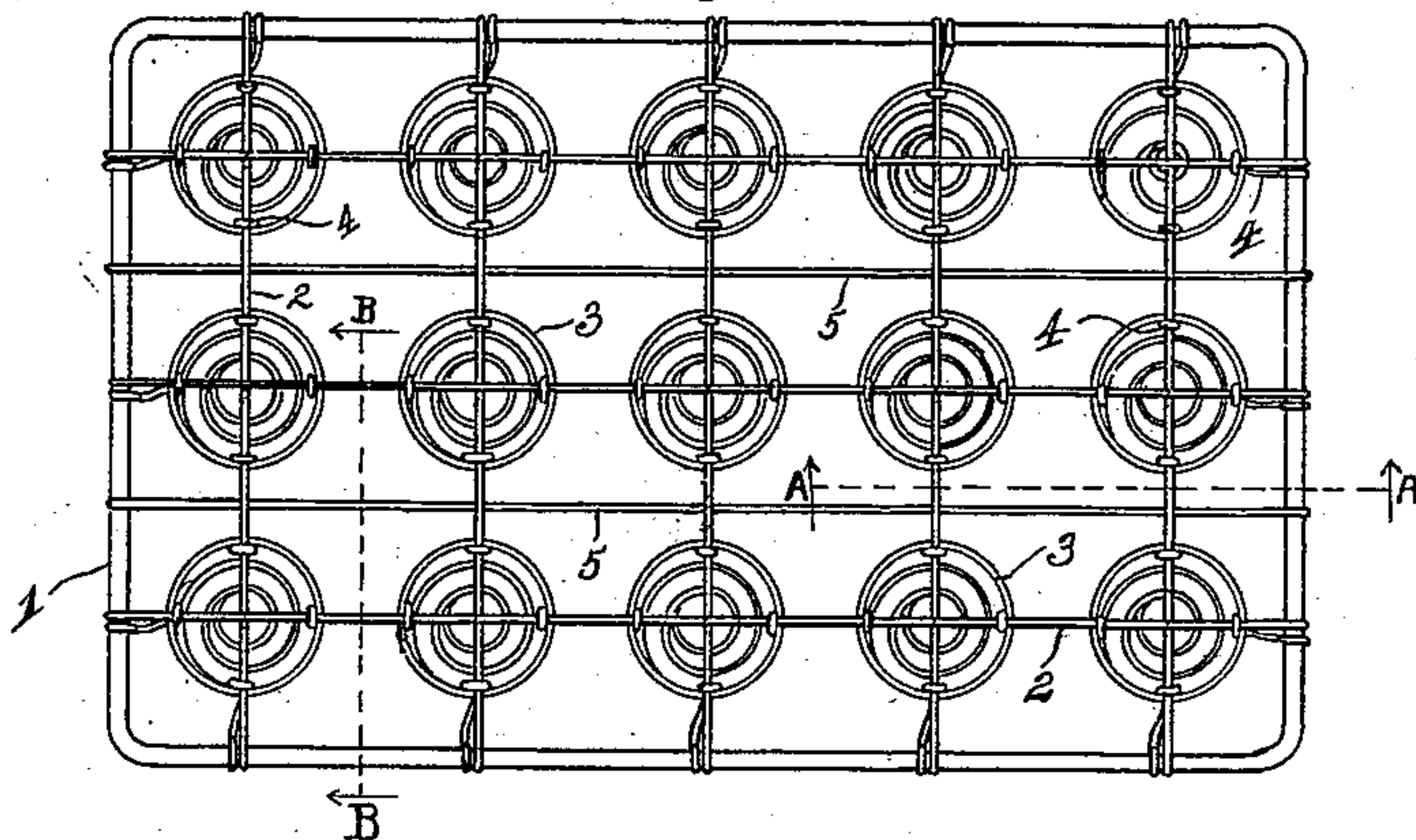


Fig. 2.

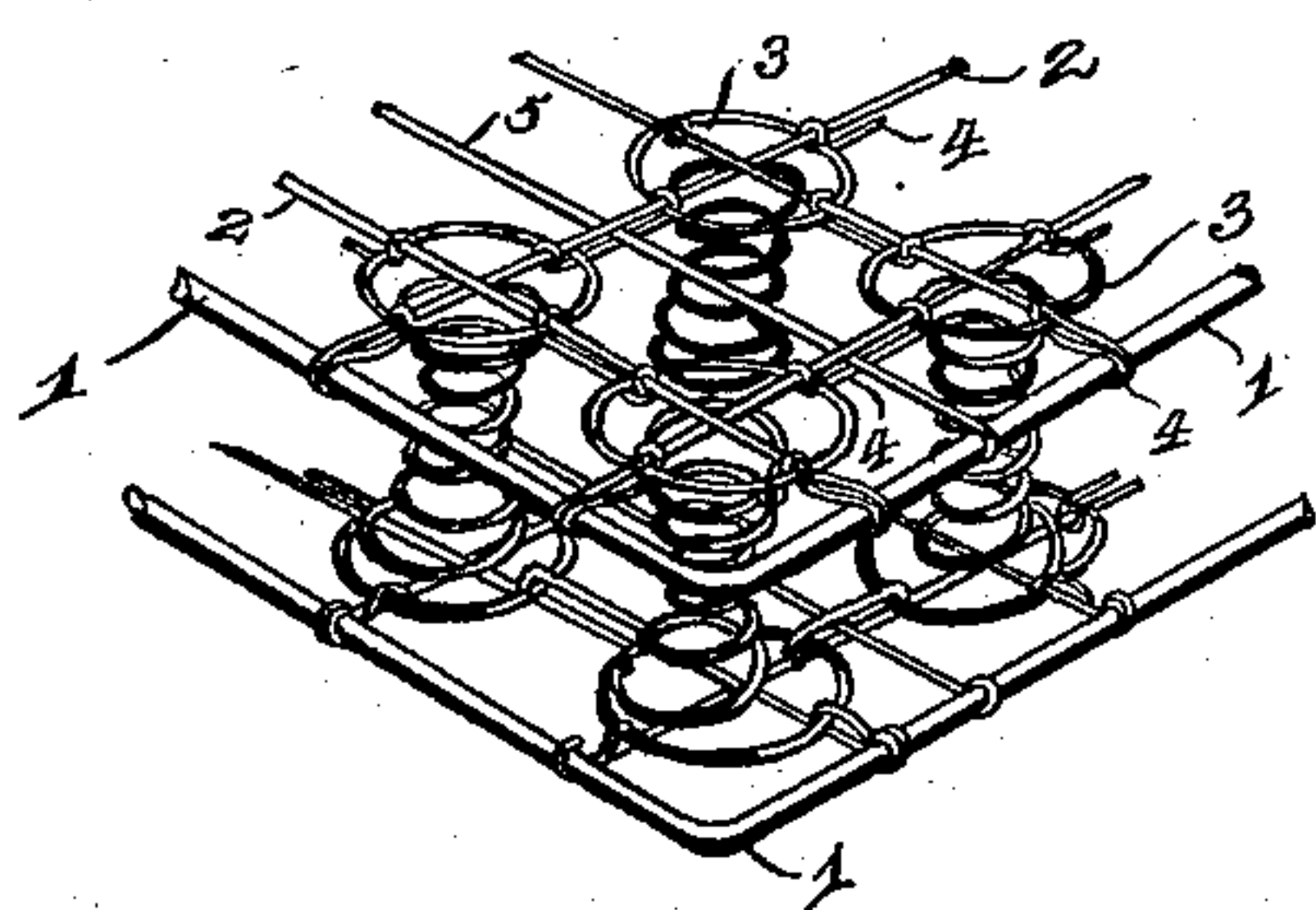


Fig. 3.

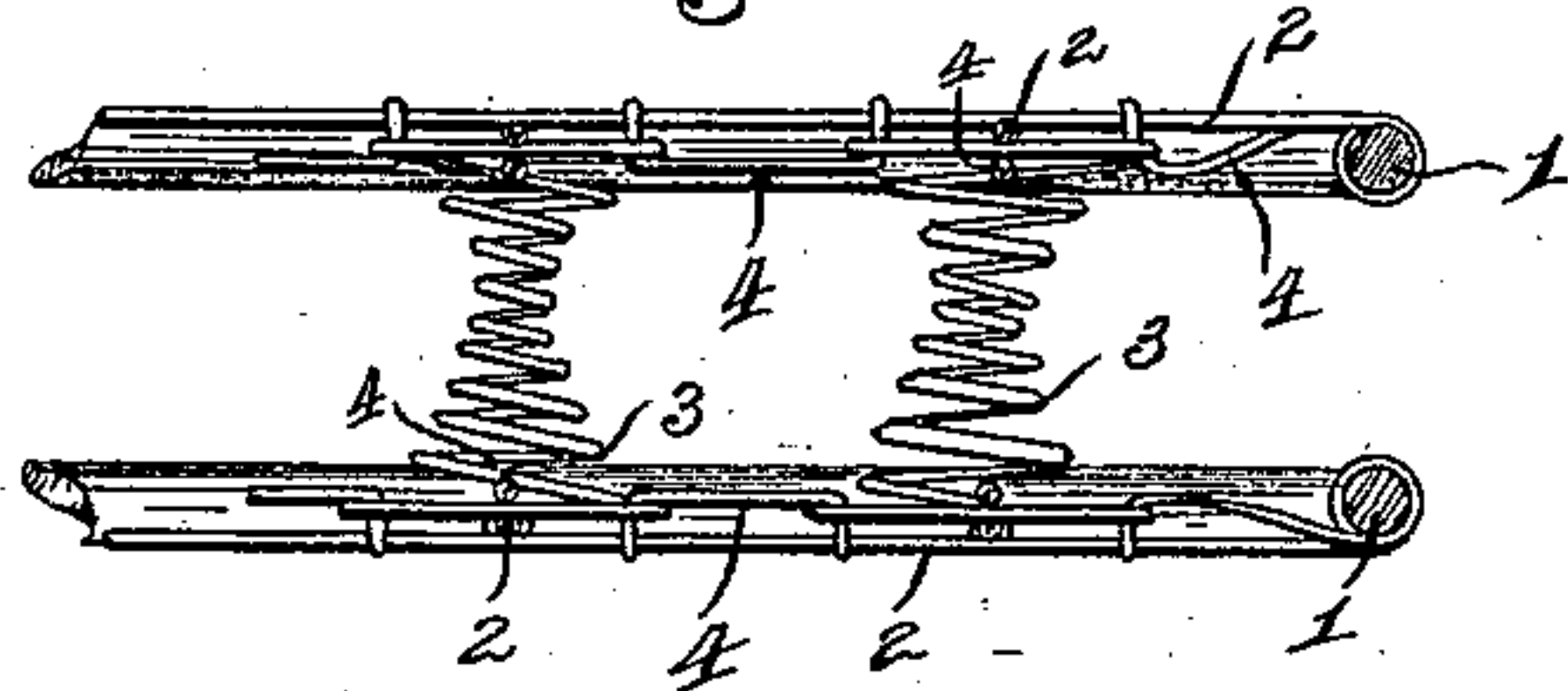


Fig. 4.

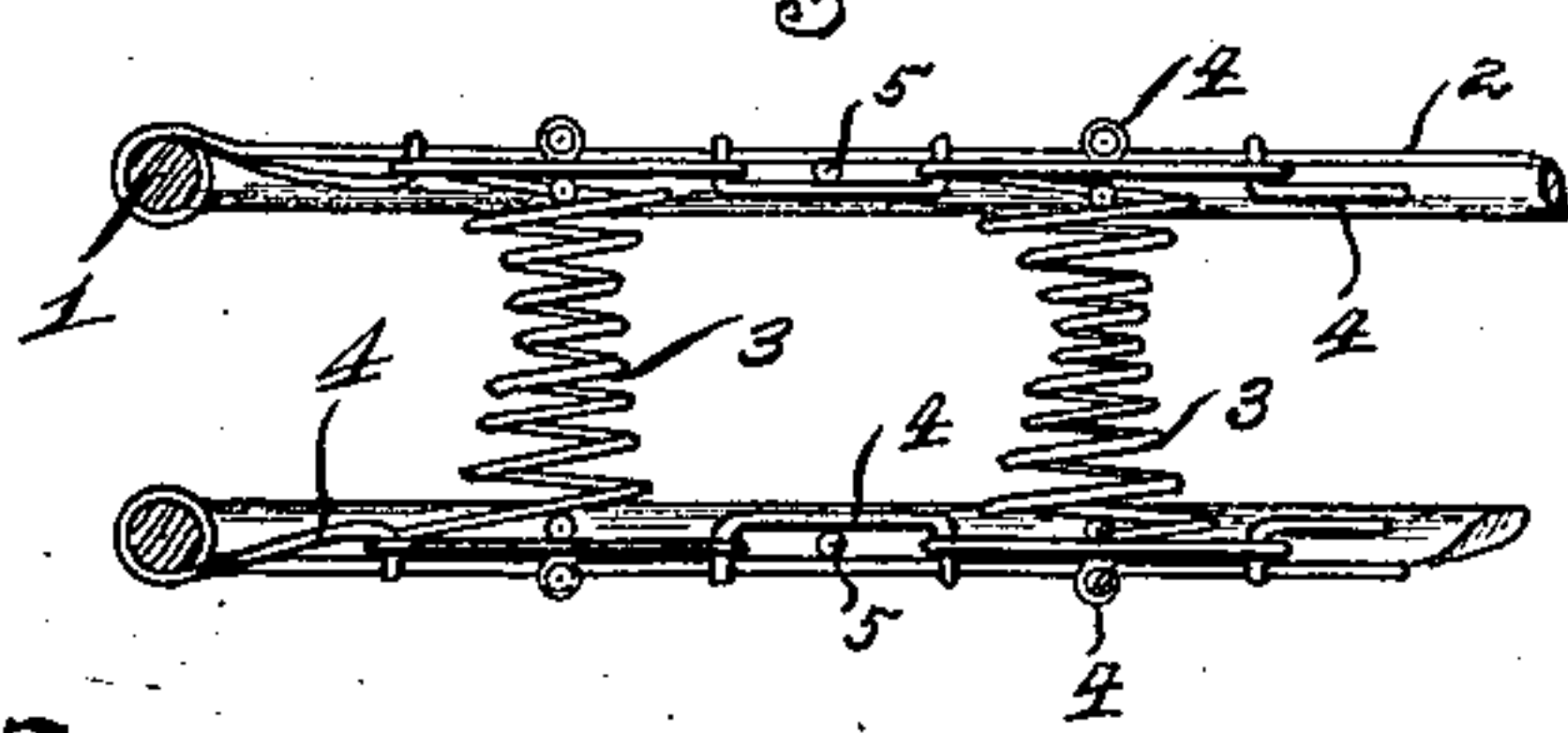
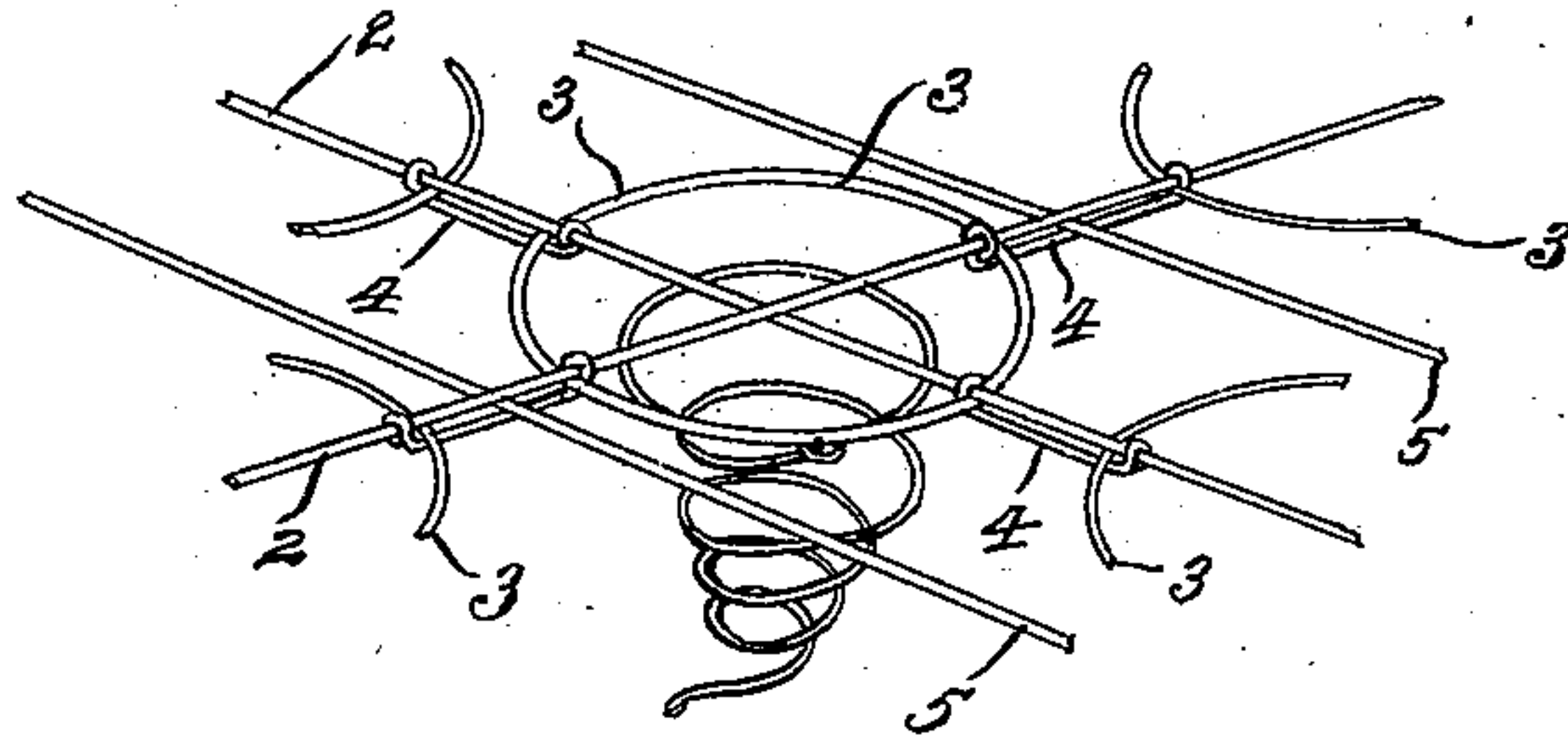


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

MELVILLE F. SHAW AND JOHN F. GAIL, OF INGALLS, INDIANA.

WIRE MATTRESS.

SPECIFICATION forming part of Letters Patent No. 547,743, dated October 8, 1895.

Application filed August 30, 1894. Serial No. 521,770. (No model.)

To all whom it may concern:

Be it known that we, MELVILLE F. SHAW and JOHN F. GAIL, of Ingalls, county of Madison, State of Indiana, have invented certain
5 new and useful Improvements in Wire Mattresses; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to
10 like parts.

Our invention relates to a wire-spring mattress consisting of frame wires, spiral springs, tie-wires, and loops or links securely combining the parts, as hereinafter described, and
15 as shown in the drawings forming a part hereof.

In the drawings, Figure 1 is a plan view of our mattress. Fig. 2 is a perspective of one corner of the mattress, showing four springs.
20 Fig. 3 is a sectional view on the line A A, Fig. 1. Fig. 4 is the same view on the line B B, Fig. 1, and Fig. 5 is a perspective showing a spring and its connections.

There are two frame-wires 1—one above and
25 one below—extending about the mattress. While these are preferably made of wire, they may be made of other material. Extending from one side to the other of these frame-wires and in both directions are tie-wires 2, and between the upper and lower series of tie-wires
30 are placed the spiral springs 3, made, preferably, double-cone shaped, as shown, and secured at the points of intersection of the tie-wires. The tie-wires are straight, and the
35 ends of the springs are regular in their curvature and flush with each other, with the tie-wires crossing them, whereby a smooth even surface is presented, which is a desideratum in the sale and especially in the use of wire
40 mattresses. Such a surface wears the bedding less than when rough, as is so often seen. The springs are held in place by loops or links 4, formed as shown, extending under the top coils of the springs, with the ends bent up
45 over the crossing tie-wire. In this manner the adjacent sides of the springs are connected and the ends and tie-wires secured to each other. The side of each spring adjacent the frame-wire is secured to it, also, by a link.

The space between the rows of springs is
50 closed by a series of auxiliary tie-wires 5, which may extend in one or both directions, as desired. These auxiliary tie-wires, however, are bound by the links, inasmuch as they extend between the series of tie-wires
55 and links, as shown.

The two sides of the mattress are similarly constructed. When a fabric-covered mattress is desired, the tie-wires are extended under
60 the top coil of the springs, as shown, and the links are inverted, their ends extending down through the fabric past the spring-wire and bent around the tie-wire, thus binding the fabric, springs, and tie-wires together se-
65 curely.

The manufacture of this mattress is simple, as both classes of tie-wires are straight and inserted after the springs are in place and while holding the links in place one after the other, the links having been separately formed
70 with eyes through which the tie-wires may be passed. The links engaging the frames are then placed, whereby the springs are stretched apart. This mattress is very strong and du-
75 rable and presents two smooth level nice-looking surfaces. The ends of the springs being closed by tie-wires and all combined by links, it is impossible for the springs to telescope or lean; and the mattress will have in-
80 creased tension and cannot warp while standing in stock.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. A wire mattress comprising frame wires, spiral springs, straight tie wires extending
85 centrally across the mattress in both directions, links connecting the adjacent springs to each other and to the frame wires and also securing the tie wires and springs together at their intersection, and auxiliary tie wires ex-
90 tending between the rows of springs and between the links and tie wires, substantially as shown and described.

2. A wire mattress comprising an upper and lower frame wire, spiral springs arranged in
95 rows in both directions, a series of straight tie wires extending centrally across the upper and also the lower ends of the springs, links

connecting each end of the springs to the adjacent springs and to the frame wires and also securing the tie wires and springs together at their intersection, and auxiliary tie
5 wires on both sides of the mattress extending between the rows of springs and between the loops and tie wires, substantially as shown and described.

In witness whereof we have hereunto set our hands this 22d day of August, 1894.

MELVILLE F. SHAW.
JOHN F. GAIL.

Witnesses:

GEO. C. CONNER,
V. H. LOCKWOOD.