

No. 741,514.

PATENTED OCT. 13, 1903.

C. S. LLOYD.
WIRE MATTRESS.

APPLICATION FILED APR. 5, 1901.

NO MODEL.

3 SHEETS—SHEET 1.

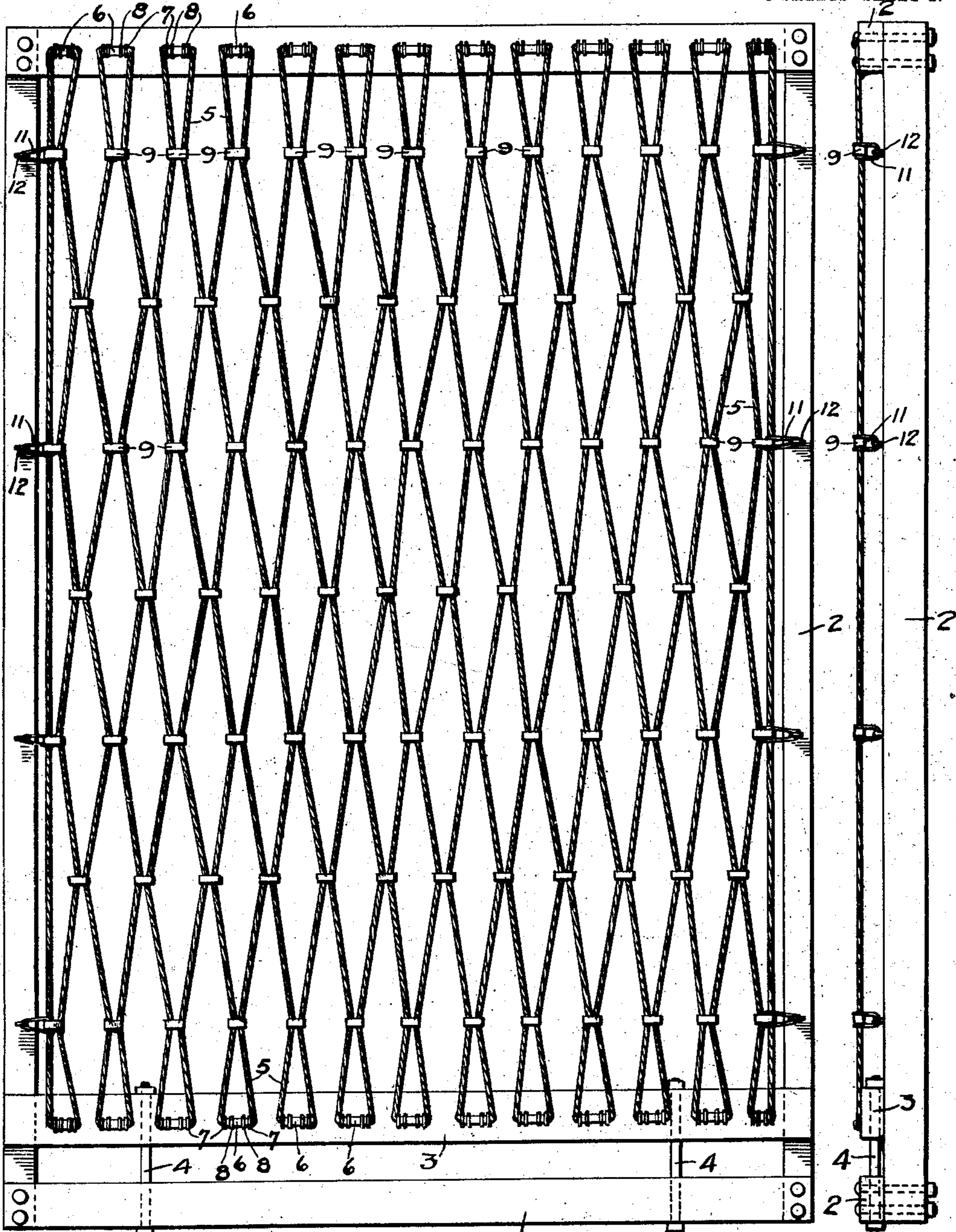


FIG. 1.

FIG. 2.

WITNESSES

E. G. Staude
M. E. Gosley

INVENTOR

CYRUS S. LLOYD

BY *Paul & Hawley,*
HIS ATTORNEYS

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3 SHEETS—SHEET 2.

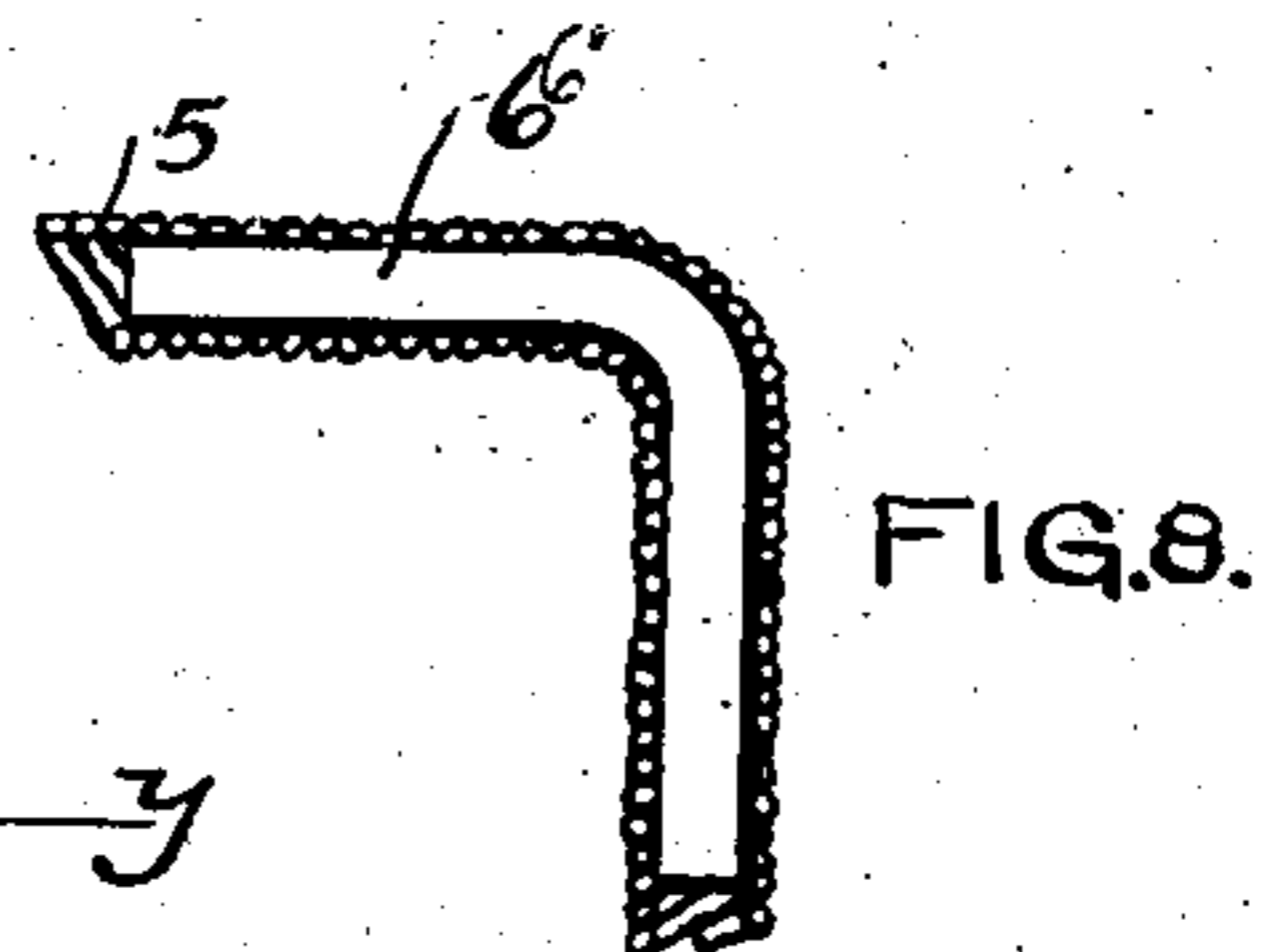
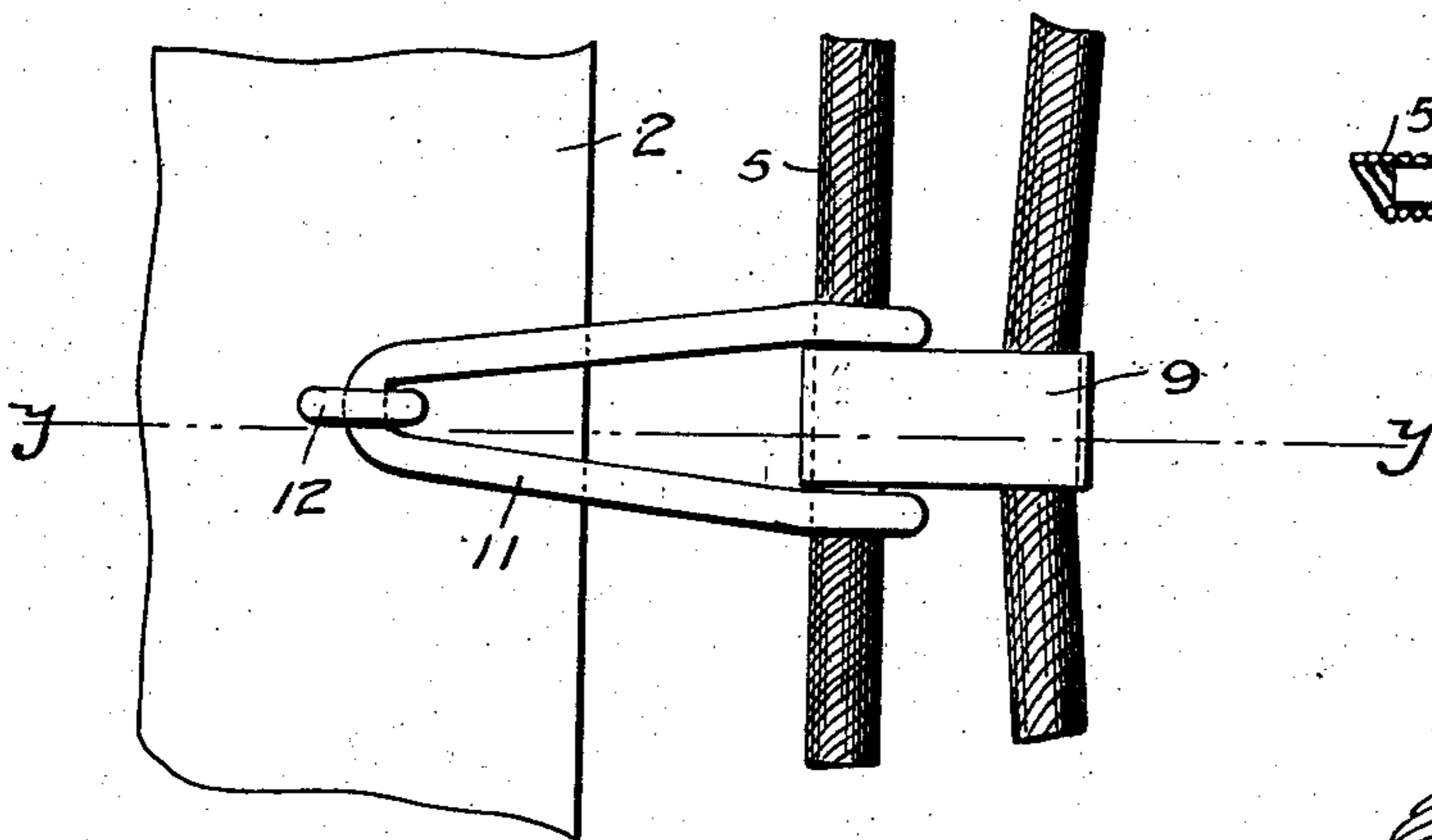
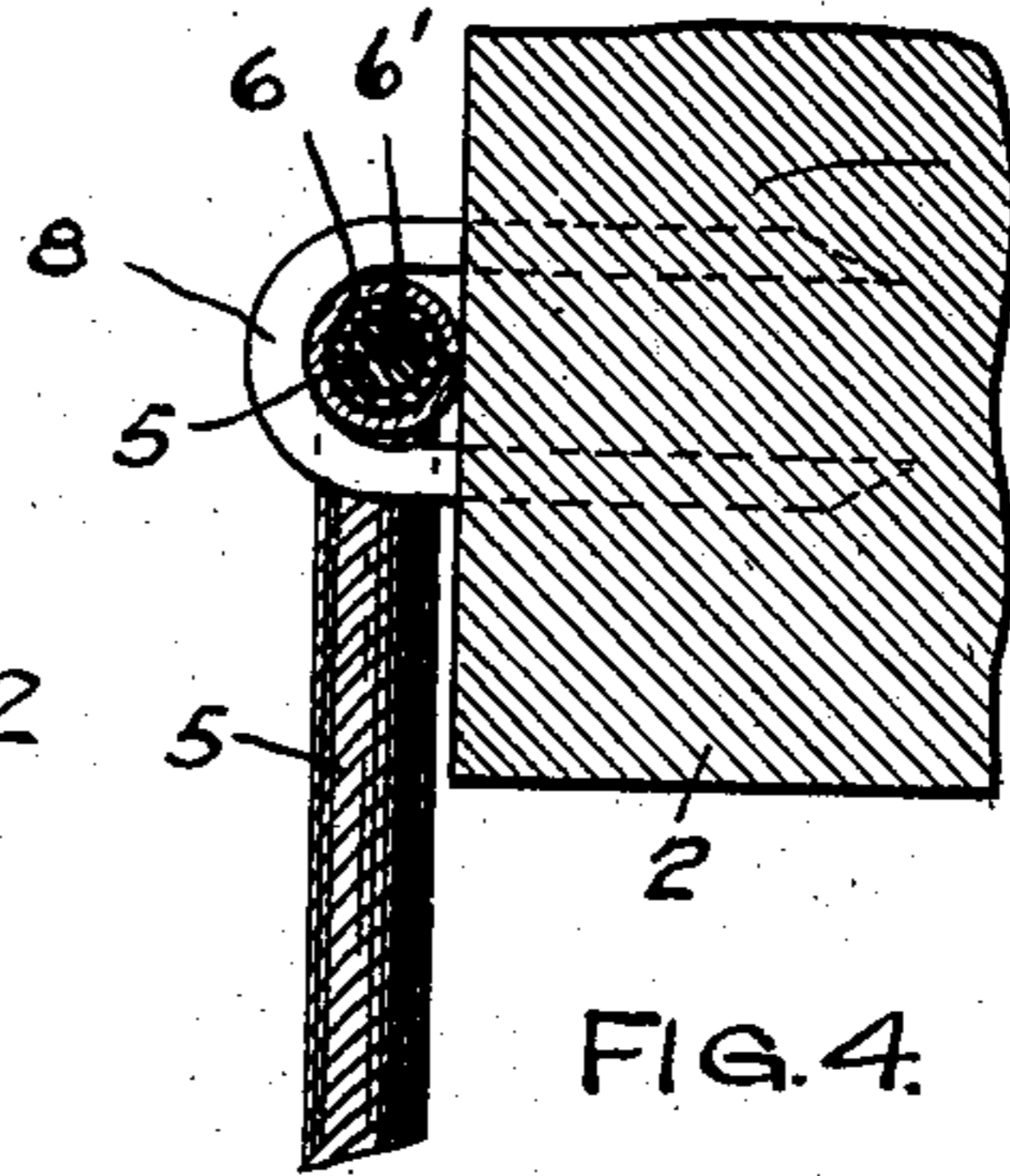
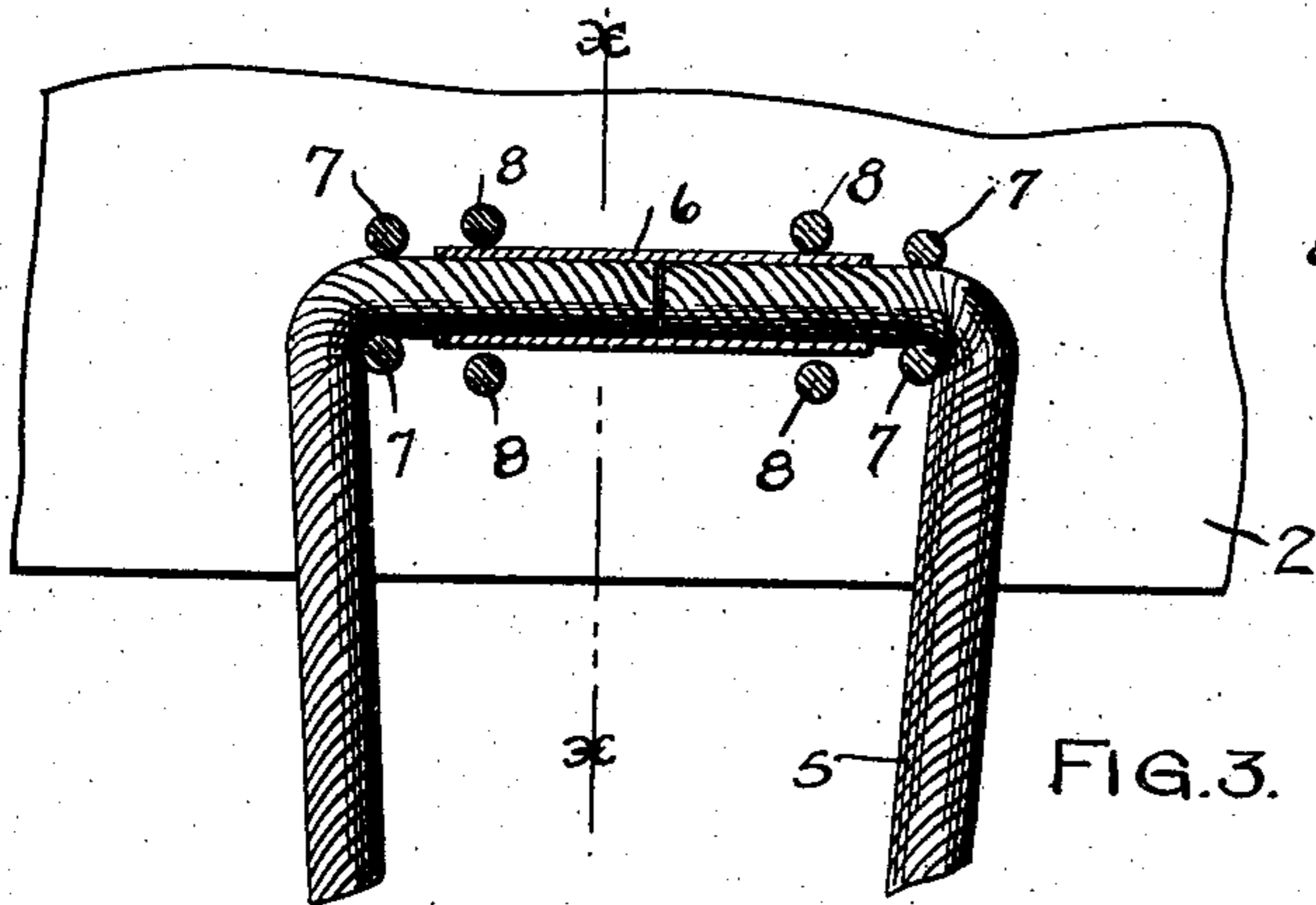


FIG. 5.

FIG. 8.

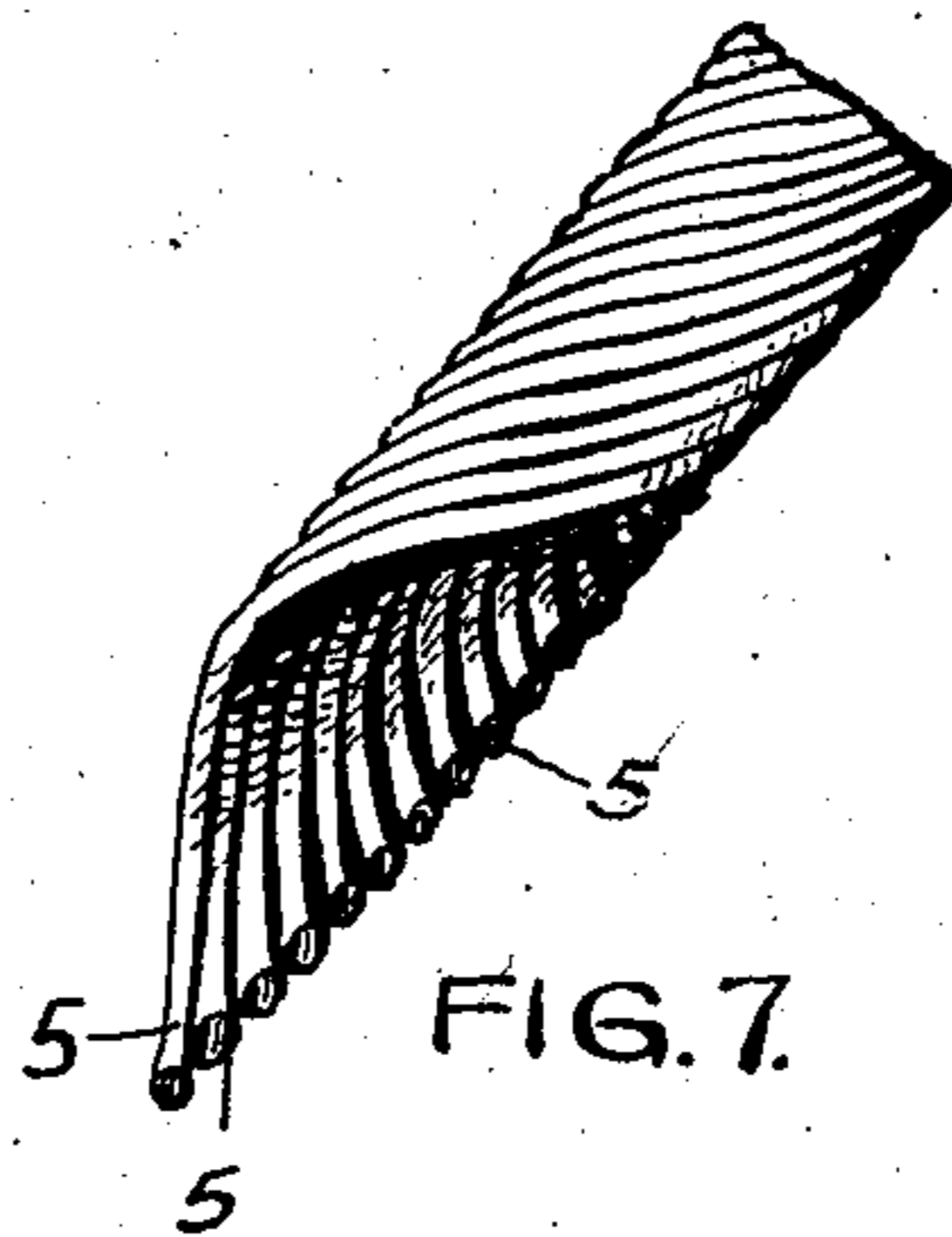
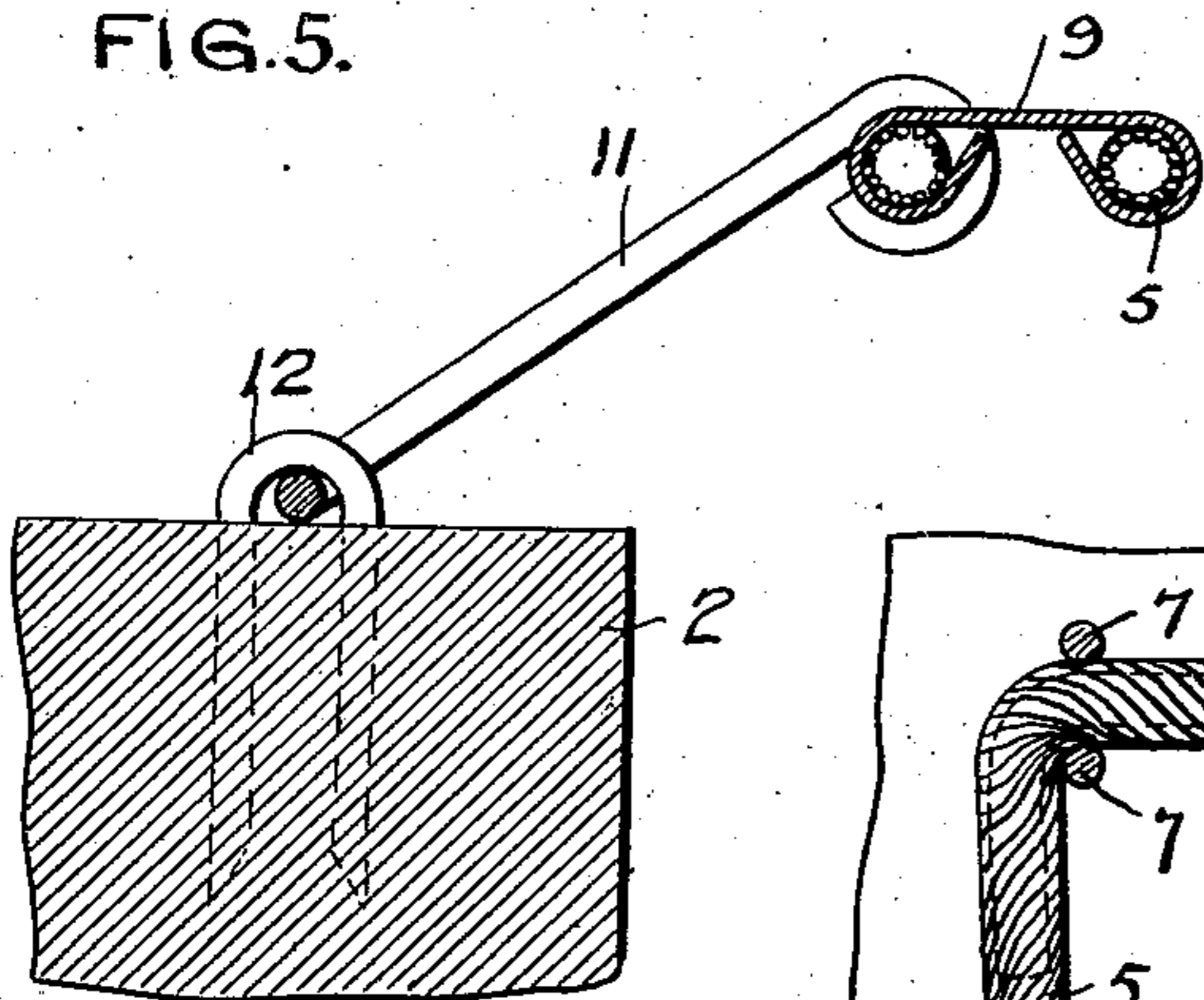


FIG. 7.

FIG. 6.

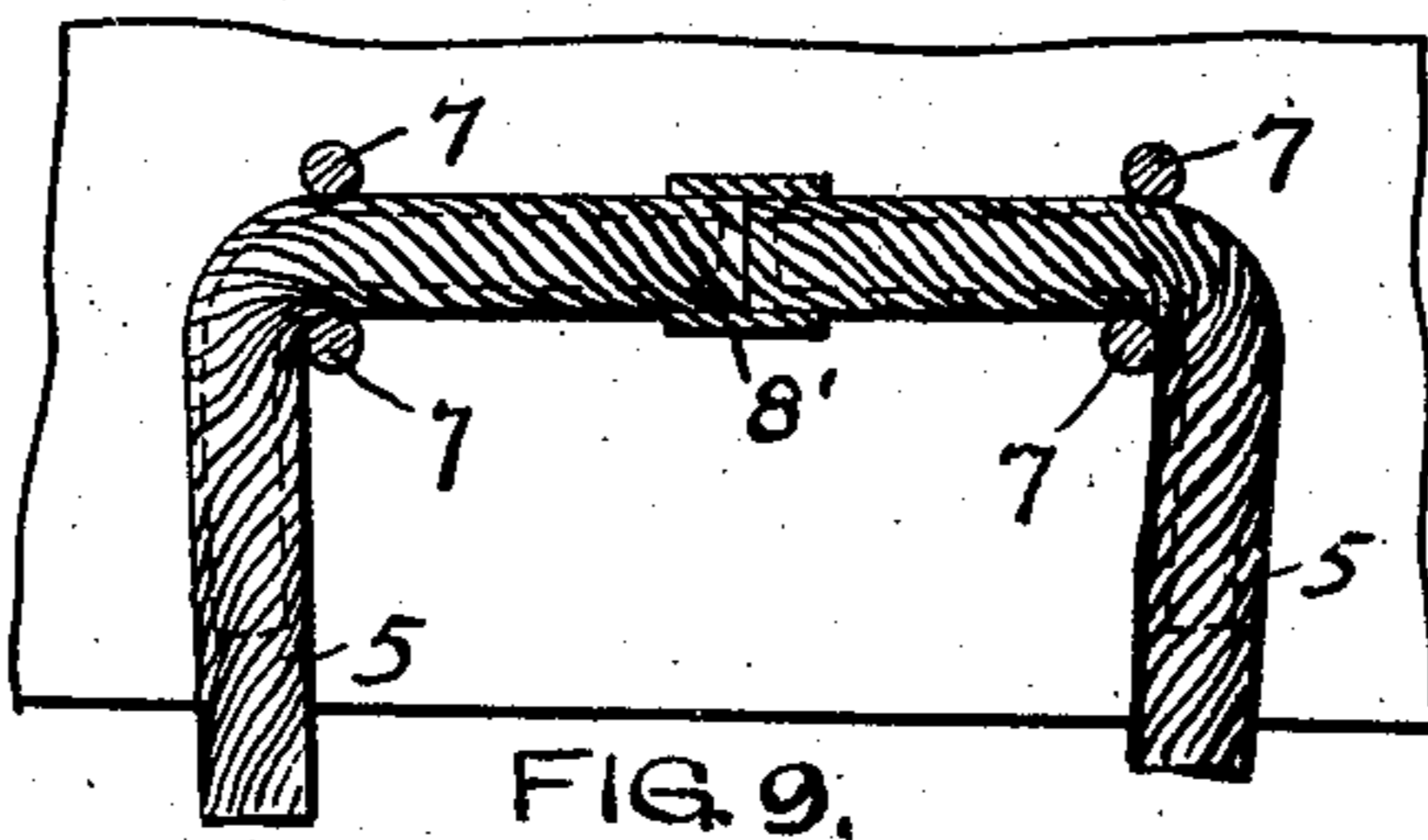


FIG. 9.

WITNESSES:

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3 SHEETS—SHEET 3.

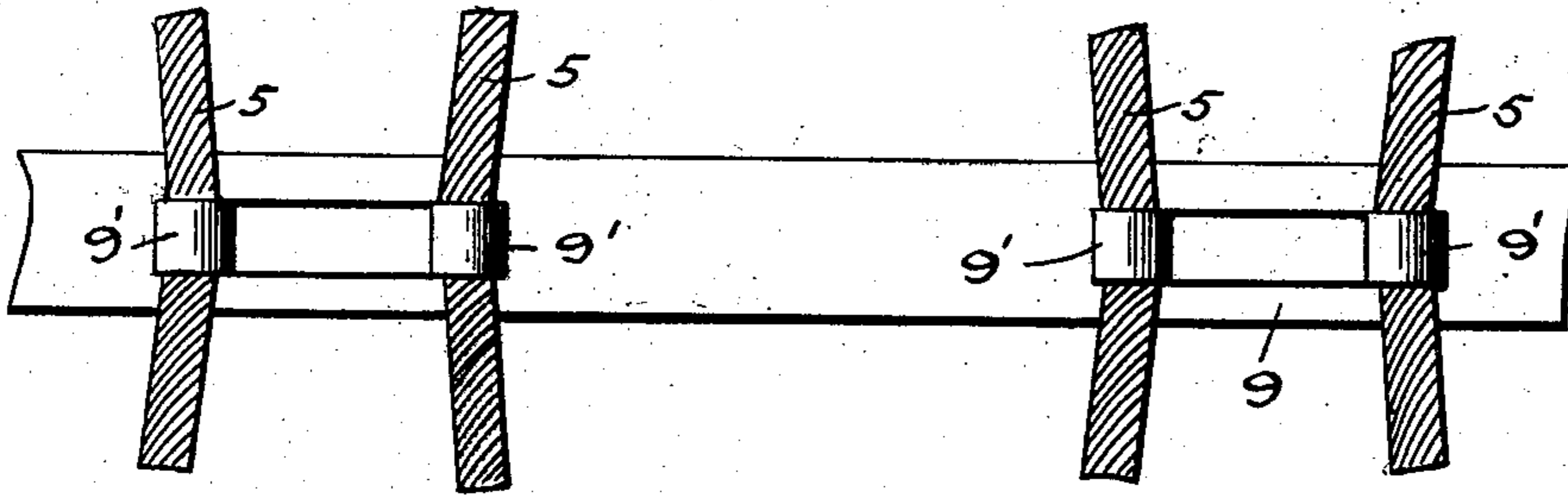


FIG. 10.

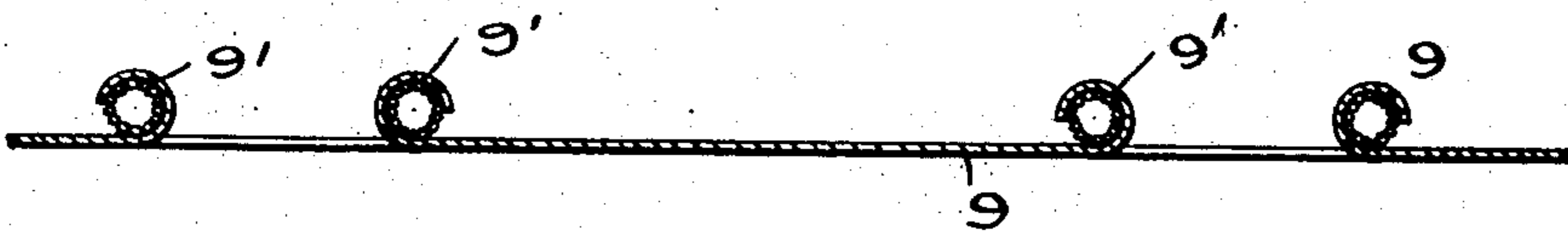


FIG. 11.

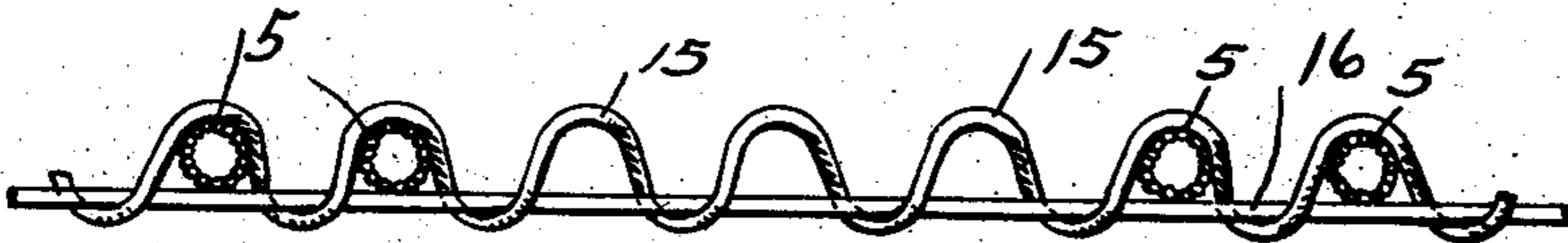


FIG. 12.

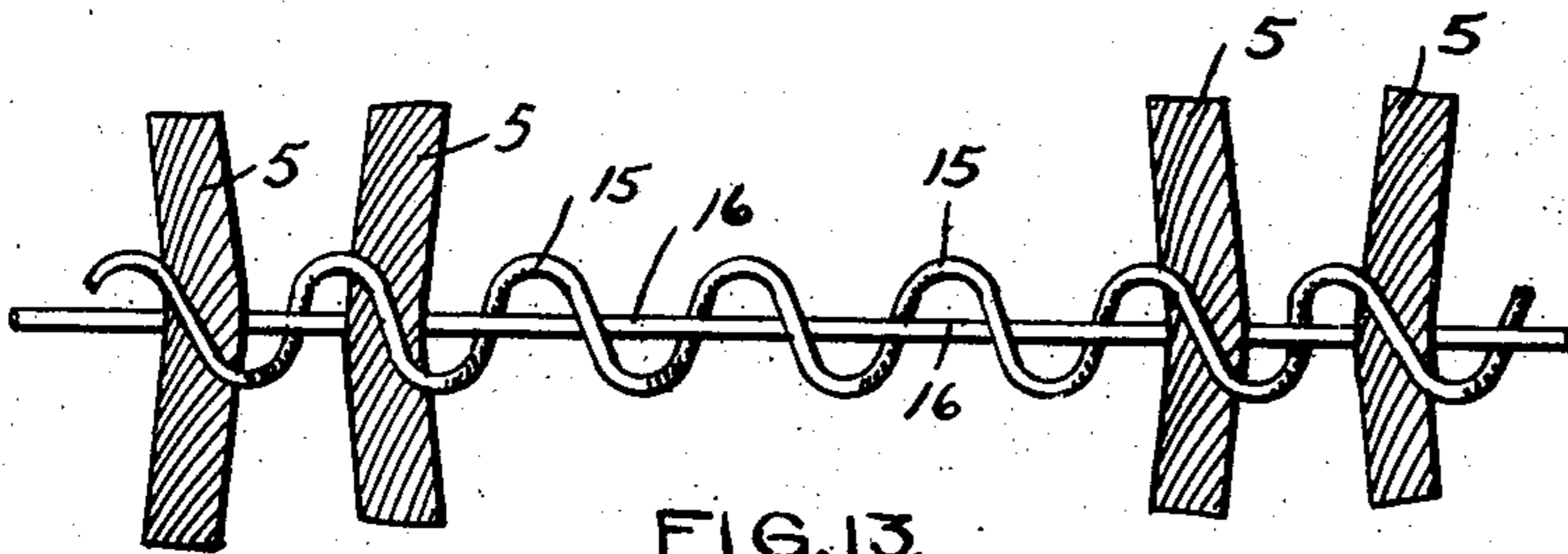


FIG. 13.

WITNESSES.

E. G. Stank
M. E. Cooley

INVENTOR

CYRUS S. LLOYD

BY *Paul Stanley*
HIS ATTORNEYS

UNITED STATES PATENT OFFICE.

CYRUS SING LLOYD, OF SOWERBY BRIDGE, ENGLAND, ASSIGNOR TO MARSHALL B. LLOYD, OF MINNEAPOLIS, MINNESOTA.

WIRE MATTRESS.

SPECIFICATION forming part of Letters Patent No. 741,514, dated October 13, 1903.

Application filed April 5, 1901. Serial No. 54,518. (No model.)

To all whom it may concern:

Be it known that I, CYRUS SING LLOYD, a citizen of the United States, residing at Sowerby Bridge, county of York, England, have
5 invented certain new and useful Improvements in Wire Mattresses, of which the following is a specification.

This invention relates to improvements in wire mattresses; and the objects I have in
10 view are to provide a wire mattress that will retain its form after being used for any length of time and which if it does become slack or loose from any cause may be readily and
15 quickly adjusted, so as to resume its original shape.

The invention consists, further, in the constructions and combinations hereinafter described, and particularly pointed out in the
20 claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view, and Fig. 2 a side elevation, of a mattress constructed in accordance with my invention. Fig. 3 is a detail section showing
25 the means for securing the ends of the hollow cables to the bed-frame. Fig. 4 is a section on line $x\ x$ of Fig. 3. Fig. 5 is a detail plan view showing one of the links or clips for locking the outside cable to the side of the bed-frame. Fig. 6 is a detail section on
30 line $y\ y$ of Fig. 5. Fig. 7 is a perspective view of a portion of one of the cables. Fig. 8 is a detail view showing the wire arranged within the cable at the point where the angle is formed in the cable for securing it to the
35 bed-frame. Fig. 9 is a slightly-modified construction of the means for securing the cable to the bed-frame. Figs. 10 and 11 are a plan view and section of a modified construction
40 of the clip for locking the strands together. Figs. 12 and 13 show another modified construction for locking the cables together.

In the drawings, 2 represents the mattress or bed-frame, which is preferably provided
45 at one end with an adjustable rail 3, having suitable bolts 4, by means of which said rails 3 may be moved lengthwise of the bed-frame. A series of hollow cables are secured upon the movable rail 3 and to the rail at the op-
50 posite end of the frame 2. Each of these cables is made in the form of a hollow tube and

each is composed of a series of spirally-coiled wires 5. These wires are arranged close together, so that taken together they are in the form of a tube, as illustrated, for instance, 55 in Fig. 7. The ends of the cables may be secured to the end rails in any suitable manner. I have shown in Fig. 3 suitable means for this purpose. As here shown, the end of the cable is bent at a right angle and is in- 60 serted in the open end of the tube or thimble 6. A short rod 6' is bent at a right angle and is inserted in the hollow tube 5, and this rod serves to strengthen the cables at the points of attachment to the bed-frame and to pre- 65 vent the cables from being crushed by the fastening devices. The cable and the thimble are held in proper position by means of the staples 7 and 8, which are made to surround the cable or thimble, and each of said 70 staples has its end embedded in one of the rails of the bed-frame. A metal clip 9 is provided, which clasps two of the cables, holding said cables very close together. The clips 9 are arranged so as to bring the series of cables into 75 the zigzag form shown in the drawings. Each clip 9 surrounds two of the cables, and said clips are arranged alternately, as illustrated in Fig. 1 of the drawings. By this means the cables are made to extend in reverse diagonal 80 line across the said frame, the spaces between any two cables being of diamond shape. At the sides of the bed a series of links 11 are provided, which are connected to the outer cable and are secured to the side rail by sta- 85 ples 12. When it is desired to tighten the mattress, it may be accomplished by sliding the clips longitudinally on the cable or by adjusting the rail 3 longitudinally of the bed-frame. When the latter method is adopted, 90 as the links 11 connect the side cables to the bed-frame and as the side cables are connected to the next cables by the clip 9, the movement of the rail 3 will not only tighten the cables longitudinally, but will also tighten 95 them laterally.

If preferred, I may do away with the sleeve 6 and secure the ends of the cable by a wide staple 8', as shown in Fig. 9 of the drawings. If preferred, instead of using the separate 100 clips 9 for locking the cables together I may use clips 9 of the form shown in Figs. 10 and

11 of the drawings. In this instance the parts 9', that engage the cables, are punched out of a single strip of metal that is adapted to extend the full width of the mattress below the cables and lock all of said cables together in the manner illustrated in Figs. 10 and 11 of the drawings. As still another form of device for locking the cables together, I have shown in Figs. 11 and 12 a spirally-coiled wire 15, adapted to engage the cables when laid across the same, as shown in Figs. 12 and 13 of the drawings, and with a transverse wire 16, adapted to pass through the spirals of the coil, and thereby to lock said transverse wire directly and firmly to the cables. These devices are, however, substantial equivalents for the independent clip 9 shown in Fig. 5 of the drawings.

The details of the invention will, it is obvious, be capable of variation in many particulars without departing from my invention.

I claim as my invention—

1. The combination, in a wire bed, with a suitable frame, of a series of hollow wire cables secured to said frame, each cable being formed of a series of spirally-coiled wires, angled rods fitting within the ends of said

cables, and means securing said ends to the opposite rails of said frame. 30

2. The combination, in a wire bed, with a suitable frame, of a series of hollow wire cables 5, each provided with ends turned at right angles to the main portion of the cable, right-angled rods fitting within the ends of said cables, and means securing said ends to the opposite rails of said frame, substantially as described. 35

3. The combination, in a wire bed, with a suitable frame, of a series of hollow wire cables, each formed of a series of spirally-coiled wires and each having its ends turned at right angles to the main body of the cable, right-angled rods fitting within the ends of said cables, a suitable ferrule into which the ends of said cables are inserted, and means for securing said ferrule and the ends of said cable to said frame, substantially as described. 40 45

In testimony whereof I have hereunto set my hand and seal this 14th day of March, 1901, at Manchester. 50

CYRUS SING LLOYD. [L. S.]

In presence of—

JOSHUA ENTWISLE,
ALFRED YATES.