

No. 708,068.

Patented Sept. 2, 1902.

P. H. T. PAULINETTI.
SURGICAL APPLIANCE.

(Application filed May 6, 1902.)

(No Model.)

2 Sheets—Sheet 1.

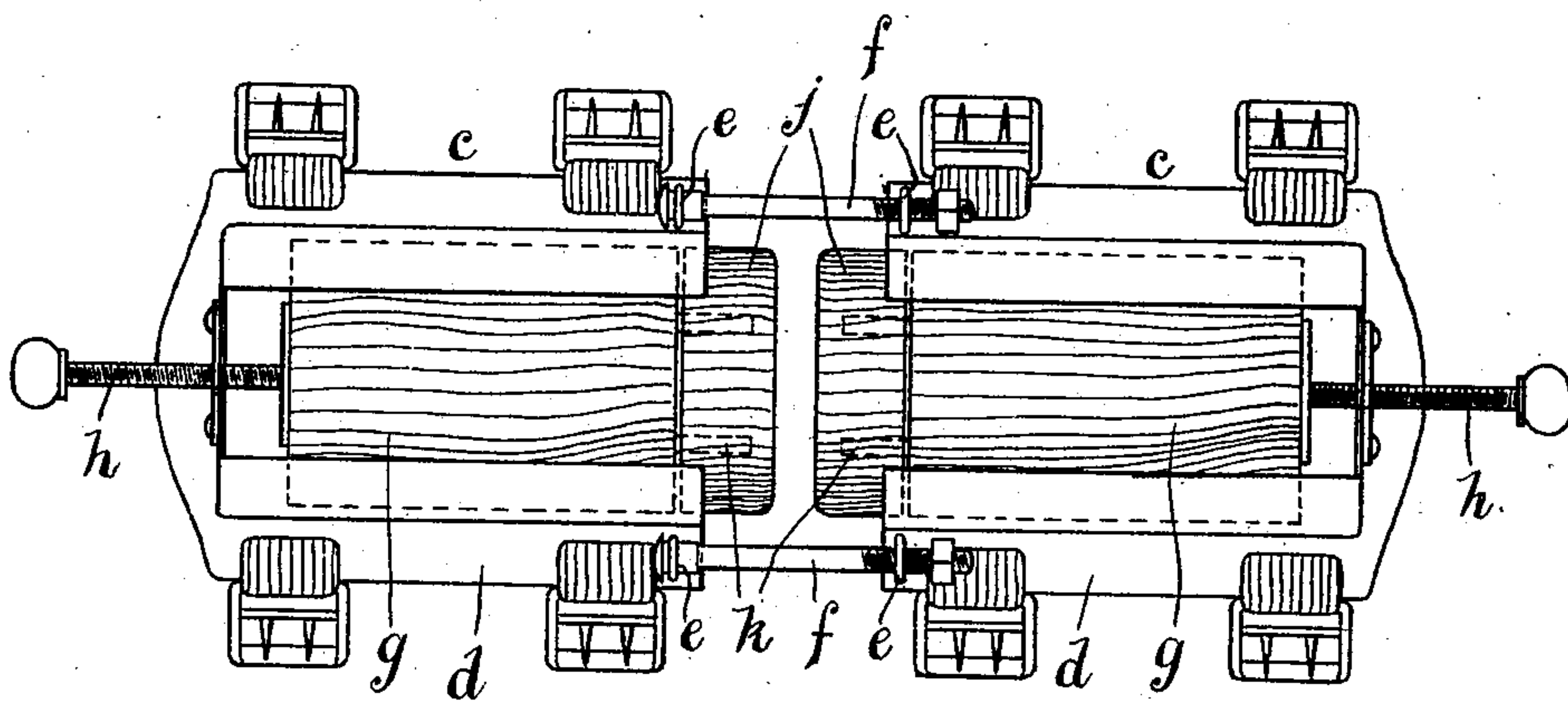


FIG. 2.

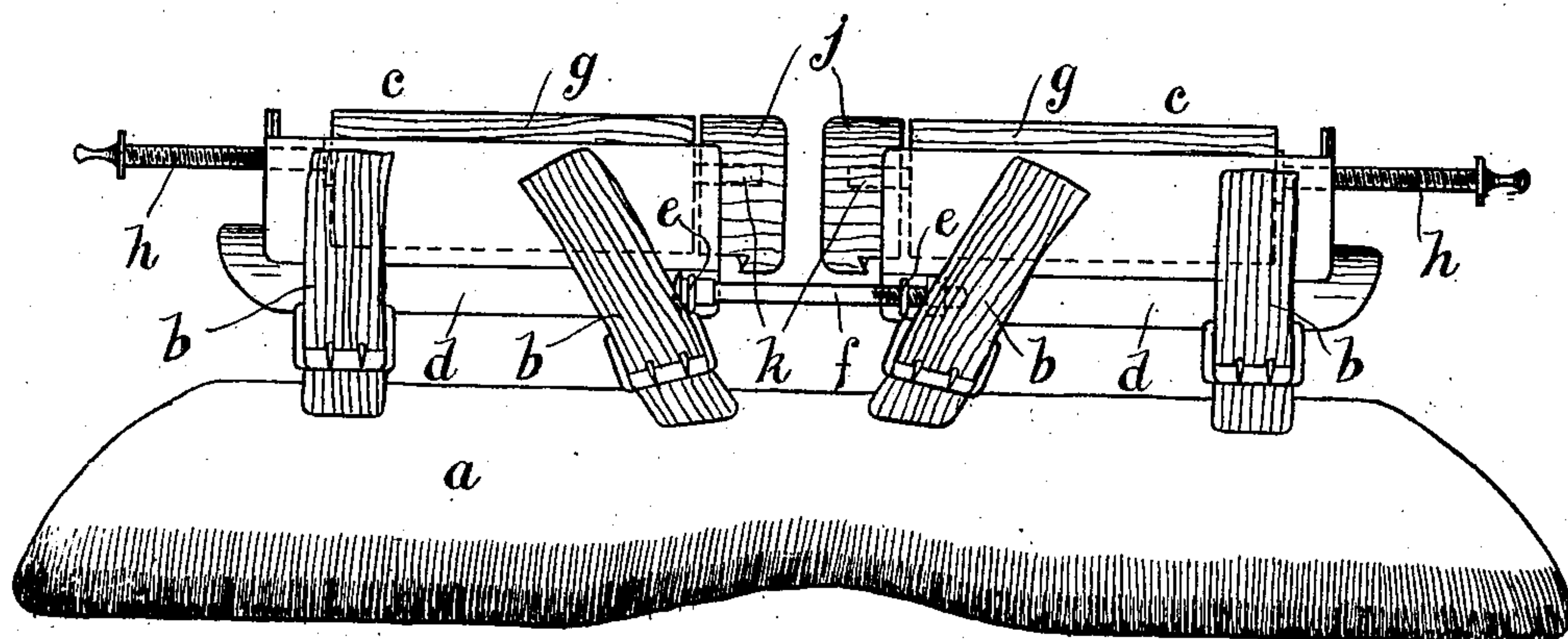


FIG. 1.

Witnesses
E. R. Bolton
Harraldson.

Inventor:
Philip Henry Thumber Paulinetti
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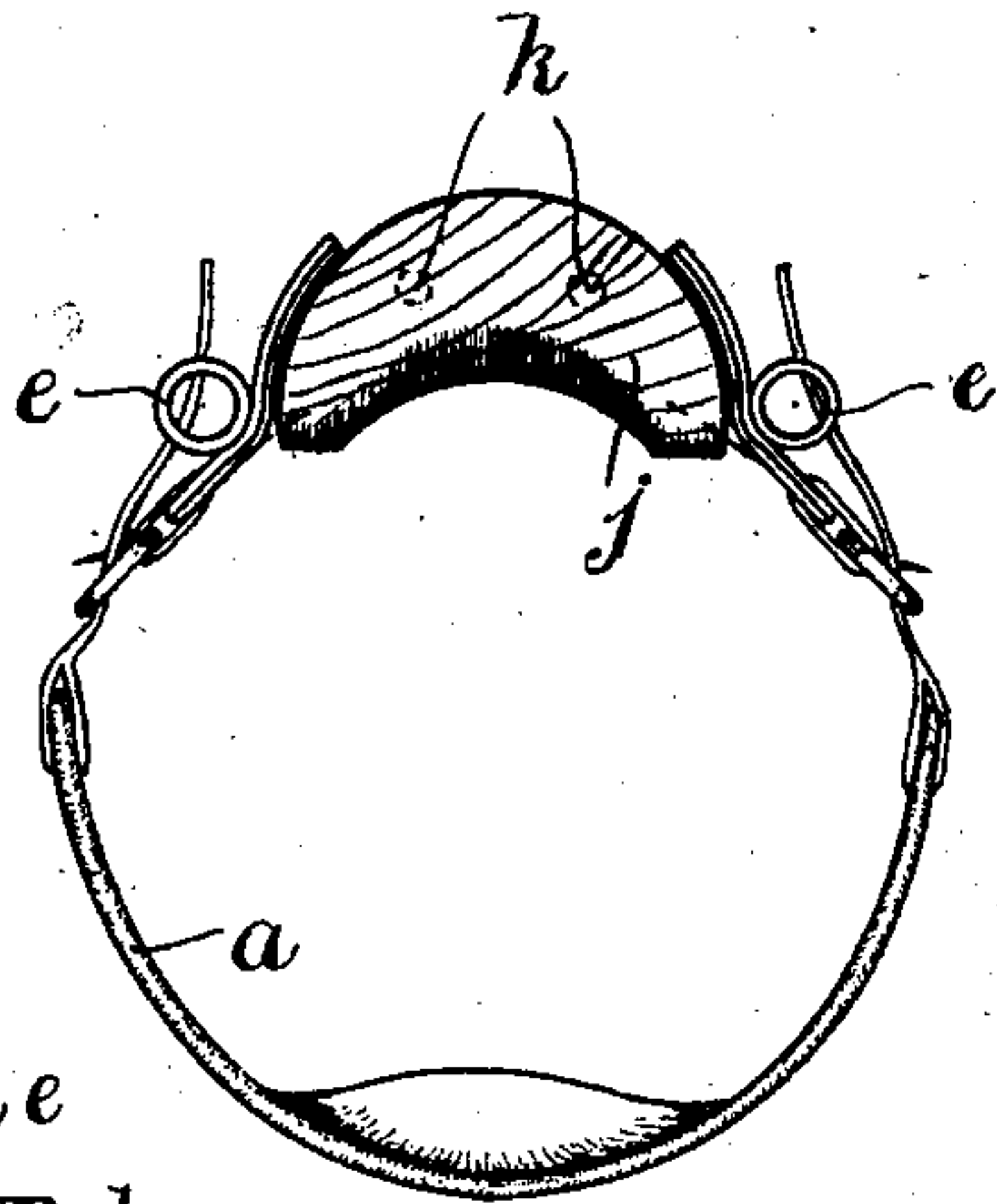


FIG. 3.

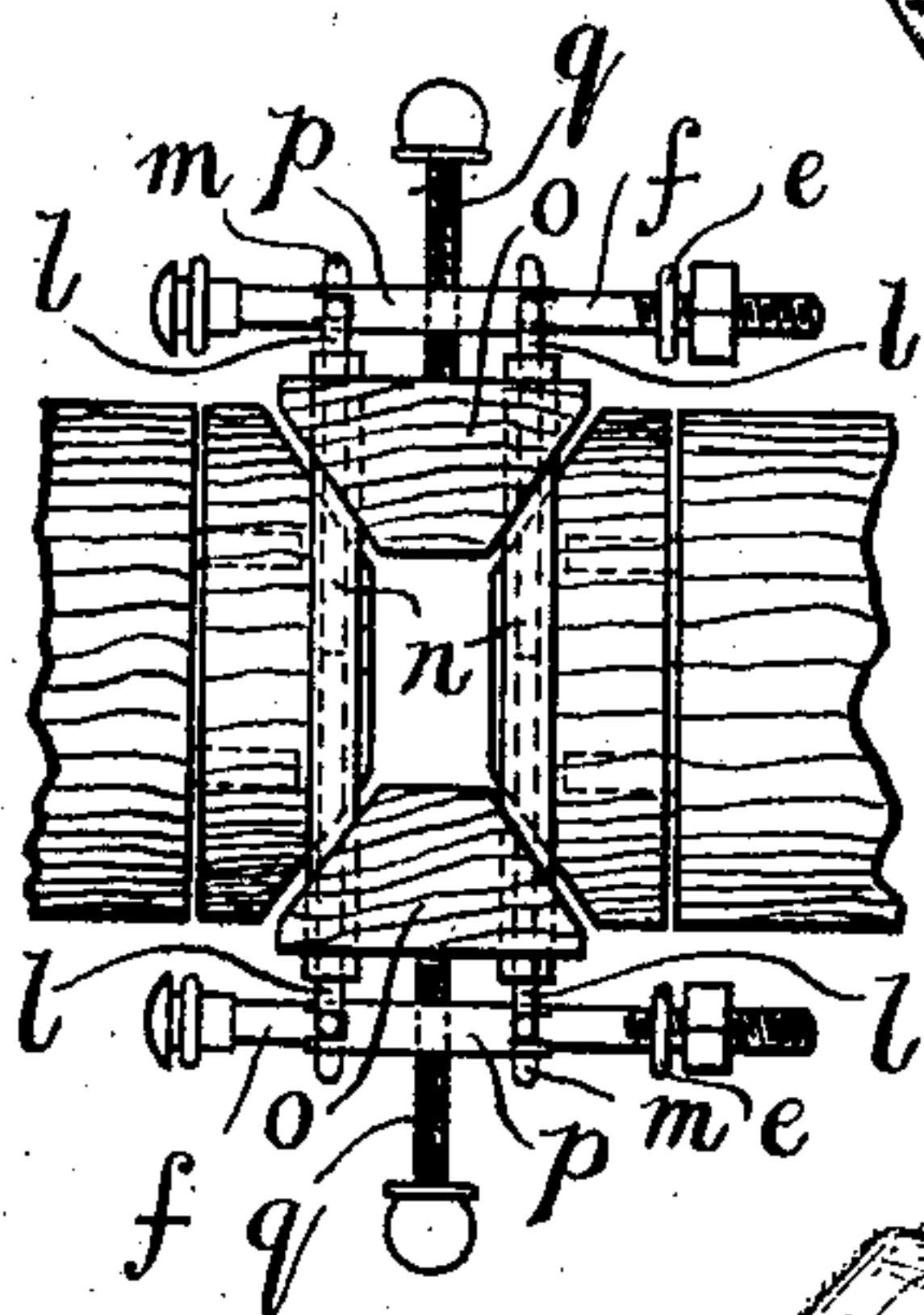


FIG. 7.

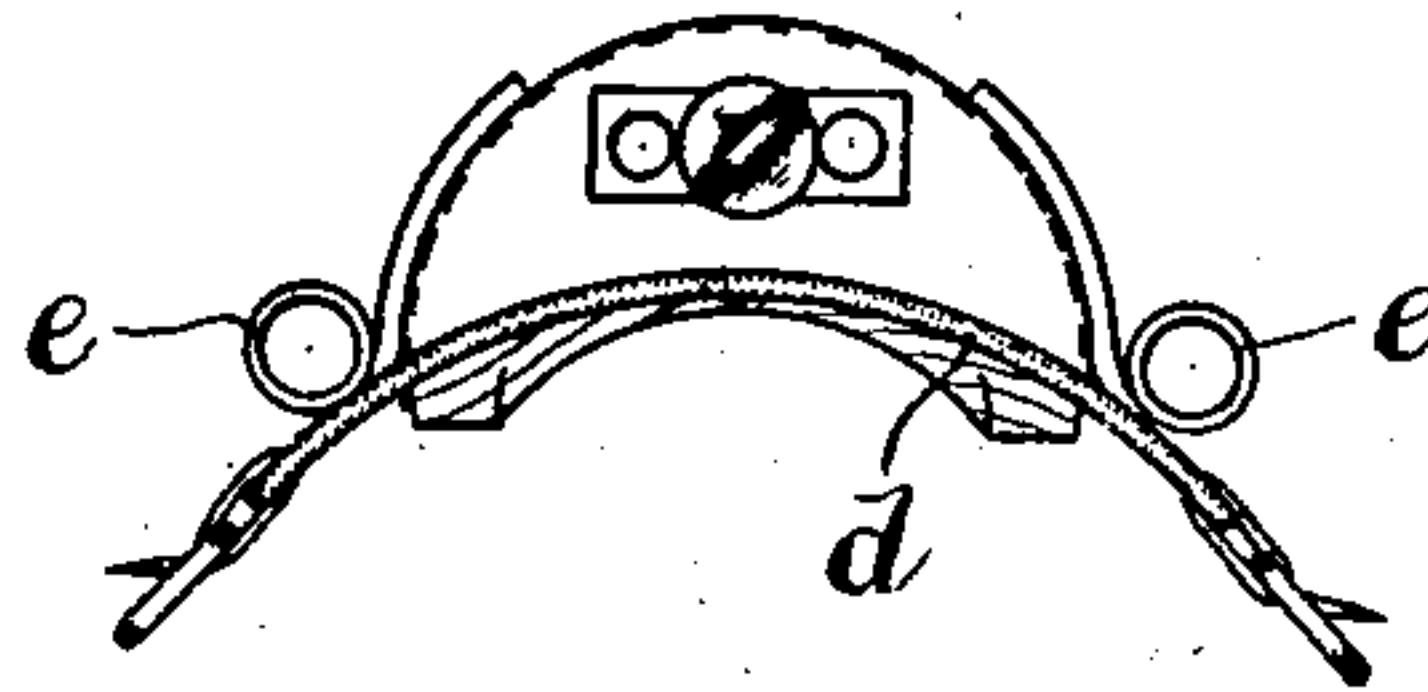


FIG. 4.

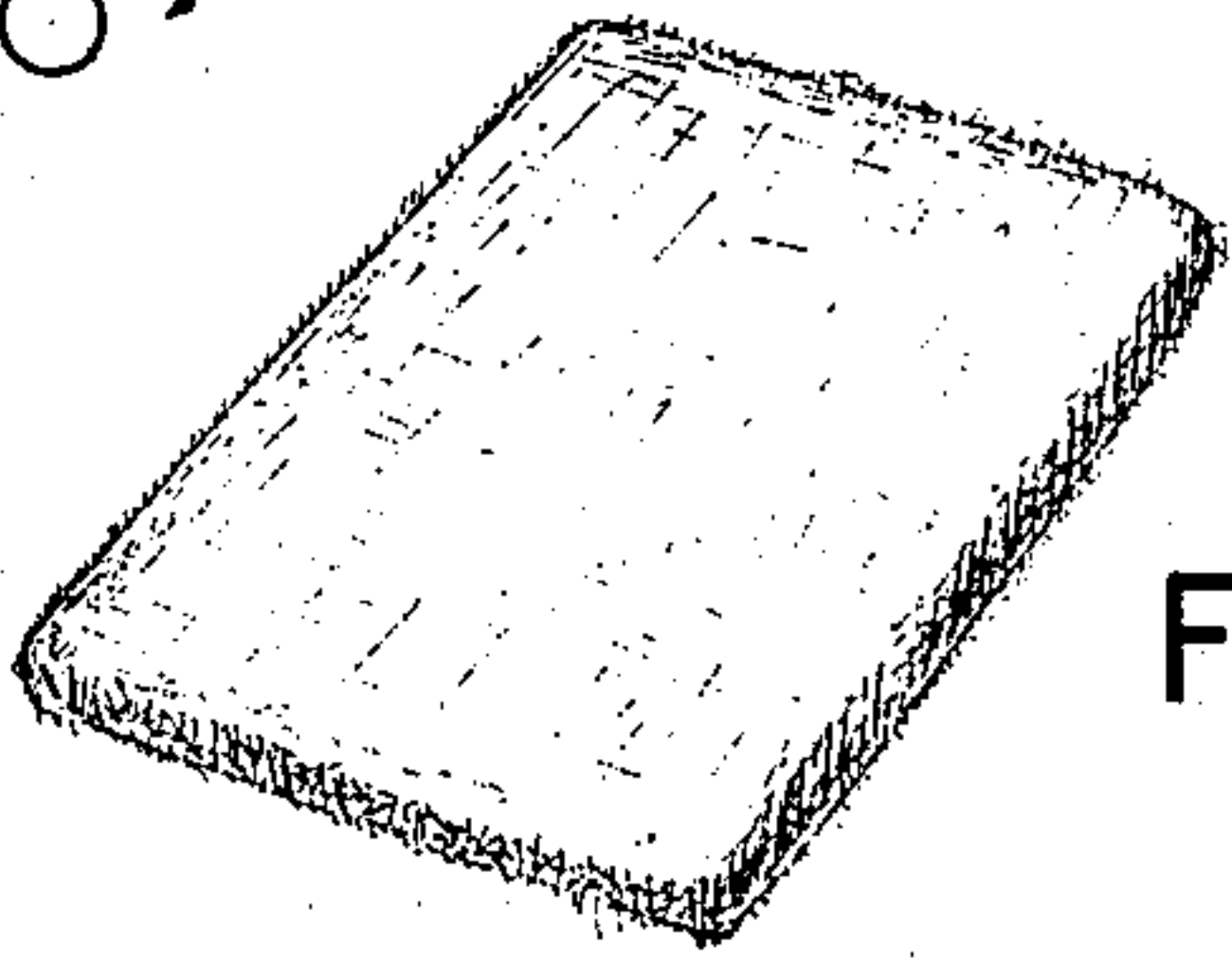


FIG. 5.

FIG. 8.

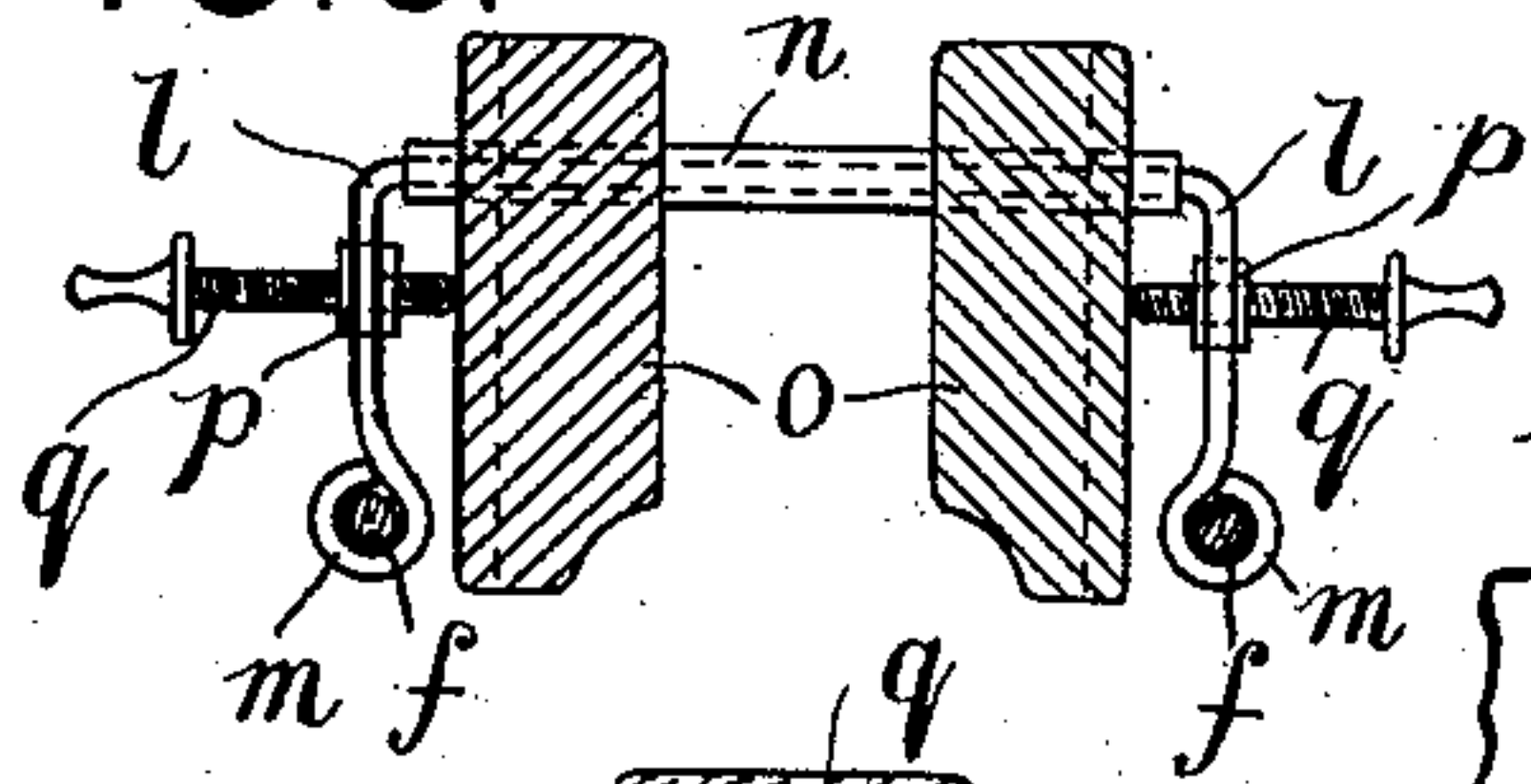


FIG. 9.

Witnesses:
E. B. Bolton
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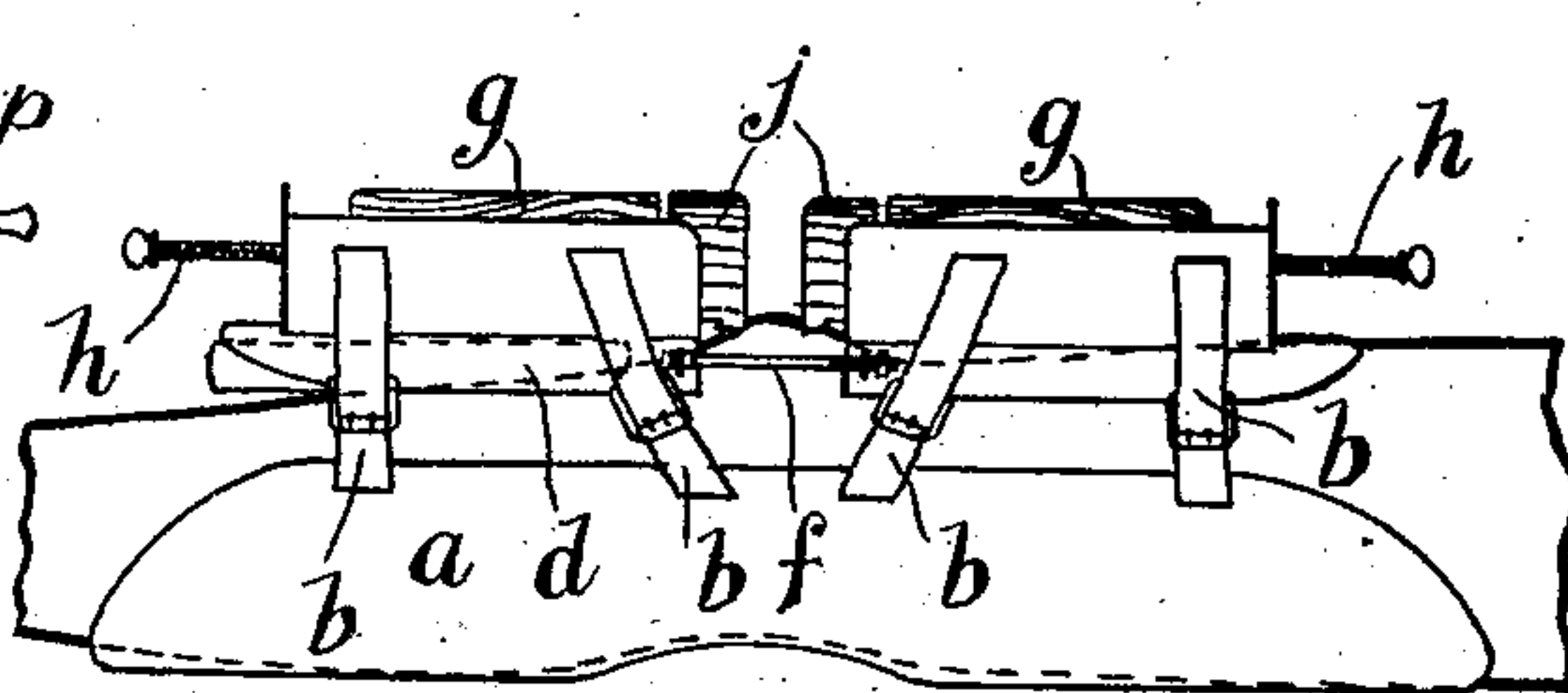


FIG. 6.

Inventor:
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UNITED STATES PATENT OFFICE.

PHILIP HENRY THURBER PAULINETTI, OF PHILADELPHIA, PENNSYLVANIA.

SURGICAL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 708,068, dated September 2, 1902.

Application filed May 6, 1902. Serial No. 106,213. (No model.)

To all whom it may concern:

Be it known that I, PHILIP HENRY THURBER PAULINETTI, a citizen of the United States of America, residing at Frankford, Philadelphia, Pennsylvania, have invented a certain new and useful Improved Surgical Appliance for Use with Fractured Patellas, (for which I have made application for Letters Patent in Great Britain under No. 6,302, dated March 14, 1902, and in Germany under date of April 15, 1902,) of which the following is a specification.

This invention relates to a surgical appliance for use in the case of a fractured patella, and has for its object the arrangement and construction of such an appliance whereby the limb is held rigidly in position and the parts of the fractured bone are forced firmly into contact with one another, so that the union of the bony parts can take place under natural conditions and with certainty of effect.

To carry my invention into effect, I arrange a splint, preferably of sheet metal, of such a form as to maintain the knee-joint perfectly stiff. I prefer to place this splint at the back of the knee as the most advantageous position to maintain the rigidity of the limb. To this splint I fit adjustable means, such as straps or the like, by which the splint is held in place in conjunction with the special devices hereinafter described. These devices each consist of a saddle-piece, preferably made of sheet metal, of such a form as to fit the front part of the leg just above and below the knee. Each saddle-piece is held in position by the adjustable fastening devices carried by the splint, so as to be tightly fastened to the limb. Adjustable connecting means, such as bolts or screws, are arranged connecting one saddle-piece to the other. Within each saddle-piece a device, such as a block or its equivalent, is adapted to slide parallel with the length of the limb, and means, such as screws, are provided on each saddle-piece for forcing each block toward the block in the other saddle-piece against the reaction of the said bolts or screws which connect the saddle-pieces to one another. The ends of the blocks adjacent to one another are shaped so as to conform to the shape of the patella where they abut

against it, and, if necessary, each block may be provided with a detachable end, so that various-shaped ends may be readily attached to suit patellas of various shapes.

In order that my invention may be the better understood, I will now proceed to show by aid of the drawings hereunto annexed how the invention can be carried into effect, reference being had to the letters marked on the said drawings.

Figure 1 is a side view of the surgical appliance with all the parts assembled in their relative position. Fig. 2 is a plan of the upper parts of the device. Fig. 3 is an end view of the device with one of the upper parts removed. Fig. 4 is an outside end view of the upper part, showing one of the end adjusting-screws. Fig. 5 shows a pad to use with the device to make up for any difference of thickness in the leg above and below the knee. Fig. 6 shows the appliance in position on the leg. Fig. 7 is a part plan of the appliance fitted with an attachment by which lateral pressure can be put upon the patella. Fig. 8 is a front view of the attachment, partly in section. Fig. 9 is a side view of the attachment.

a is the splint, which is shown as made of sheet metal.

b represents the straps forming the means of adjustment, connecting the splint *a* with the devices *c*. These devices *c* each consist of a saddle-piece *d*, and each device is provided with eyelets *e* and are connected to each other by bolts *f*. Within each saddle-piece a sliding block *g* is adapted to slide, and an adjusting-screw *h* is provided at the end of the saddle-pieces to force the blocks *g* forward in the saddle-pieces. At the inner ends of the blocks *g* I provide detachable ends *j*, which are attached by means of pins or dowels *k*, so that blocks of various forms to suit patellas of various shapes can be readily applied to the device and used.

To use my appliance, the limb is first straightened, the splint *a* is placed on the leg at the back of knee-joint, the saddle-pieces *d* are placed above and below the knee-joint on the front of the leg, and the straps *b* or other means for fastening the splint to the saddle-pieces *d* are then drawn taut, so as to maintain the limb in a rigid position. The

bolts *f* or other connecting means between the two saddle-pieces *d* are next tightened and the blocks *g* are forced toward one another by the screws *h*, so as to push the fractured parts of the patella into intimate contact with each other, in which condition they can be left until the union of fractured parts has been effected.

In order to put lateral pressure on the patella, I arrange the attachment shown in Figs. 7, 8, and 9 upon the device. This consists of two bridge-pieces *l l*, having eyes *m* to engage with the bolts *f f*. The bridge-pieces are each formed of two wires united by a tube *n*, so that the parts may be readily assembled. The bridge-pieces carry a pair of blocks *o*, slidingly engaged thereon, and a screw *q* is mounted on each side in a transverse bar *p*, so as to force the blocks forward against the patella. The action of the device is the same as that previously described, the blocks *j* being beveled to allow the blocks *o* room to be pushed forward.

In order to insure safety or prevent the patient or others from interfering with the adjustment of the splint, I may provide a cover of thin metal to cover all the screws, buckles, and other removable parts. This cover I fasten to the two bolts *f f*, which connect the two saddle-pieces *d* on the front of the leg with a small lock on one side and small curl in the metal to go around the bolt on the other

side. This I consider a very useful feature, as it prevents the patient or others from meddling with the work of the physician, which interference may often cause a bad result, and blame may be thereby attributed to the physician.

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

1. A surgical appliance for fractured patellas consisting of a splint adapted to keep the knee-joint rigid, two saddle-pieces arranged to fit above and below the knee, adjustable means for connecting the said saddle-pieces together, blocks slidingly engaged in said saddle-pieces and means provided on each saddle-piece for forcing the blocks toward each other, substantially as described.

2. In a surgical appliance for fractured patellas a device for putting pressure upon the patella above and below the knee in combination with an attachment having adjustable sliding blocks adapted to put lateral pressure upon the patella, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

PHILIP HENRY THURBER PAULINETTI.

Witnesses:

RICHARD A. HOFFMANN,
CHARLES CARTER.