

(No Model.)

R. NAGLER.
TRUSS.

No. 522,764.

Patented July 10, 1894.

Fig. 1.

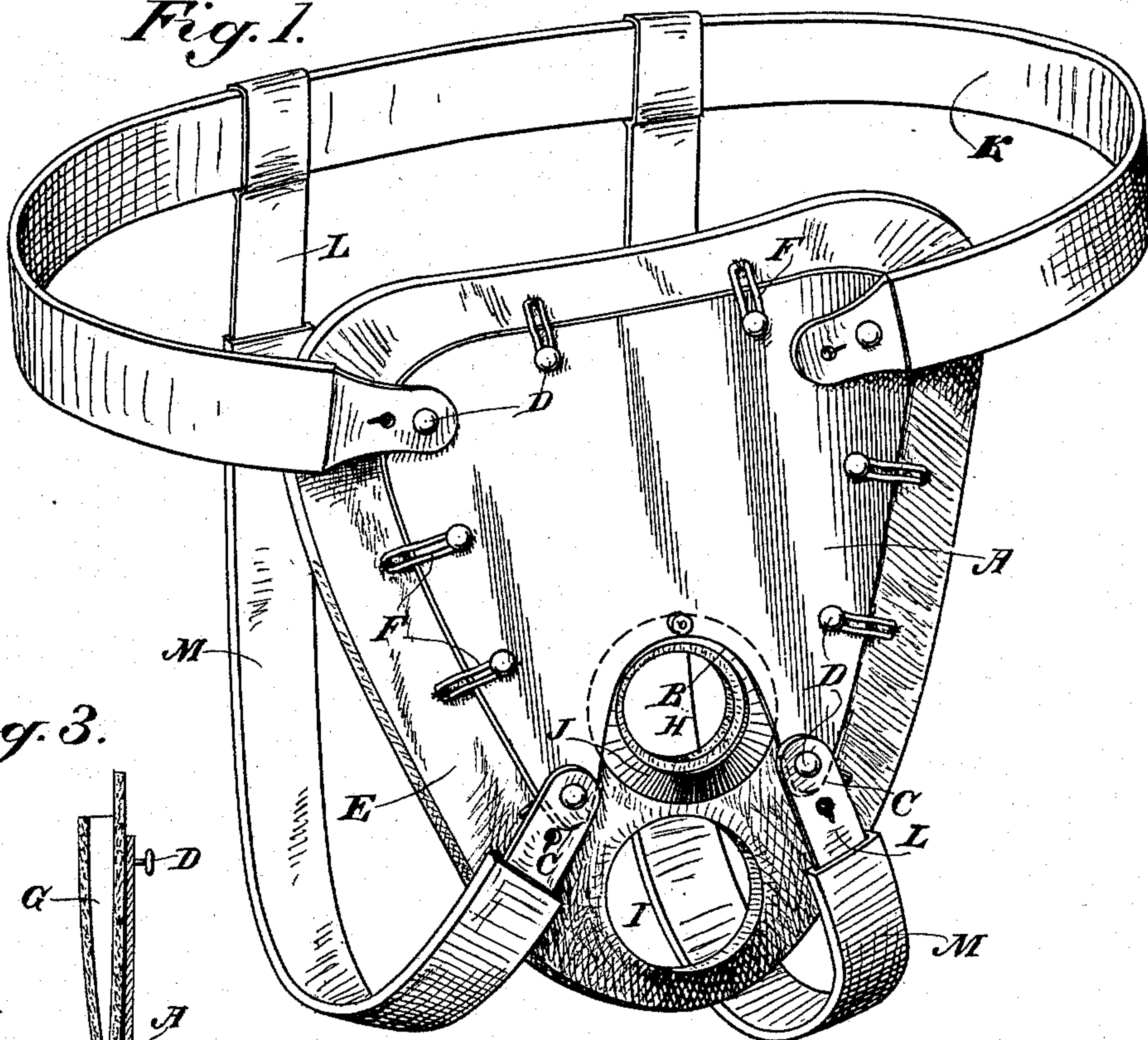


Fig. 3.

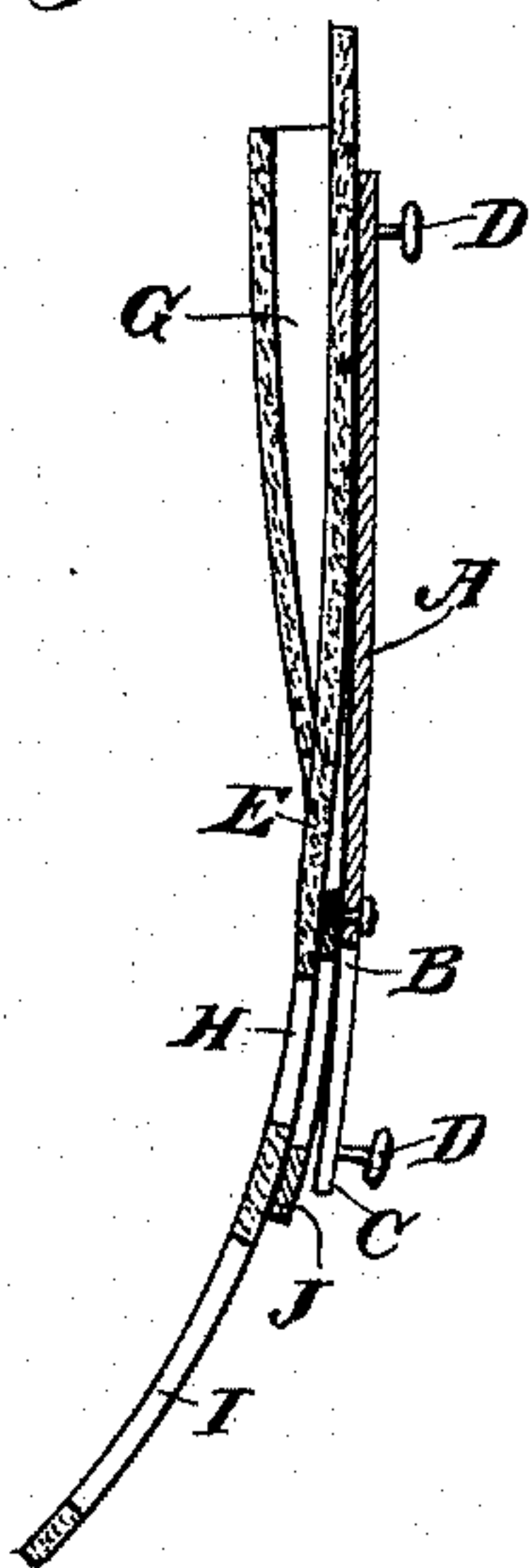
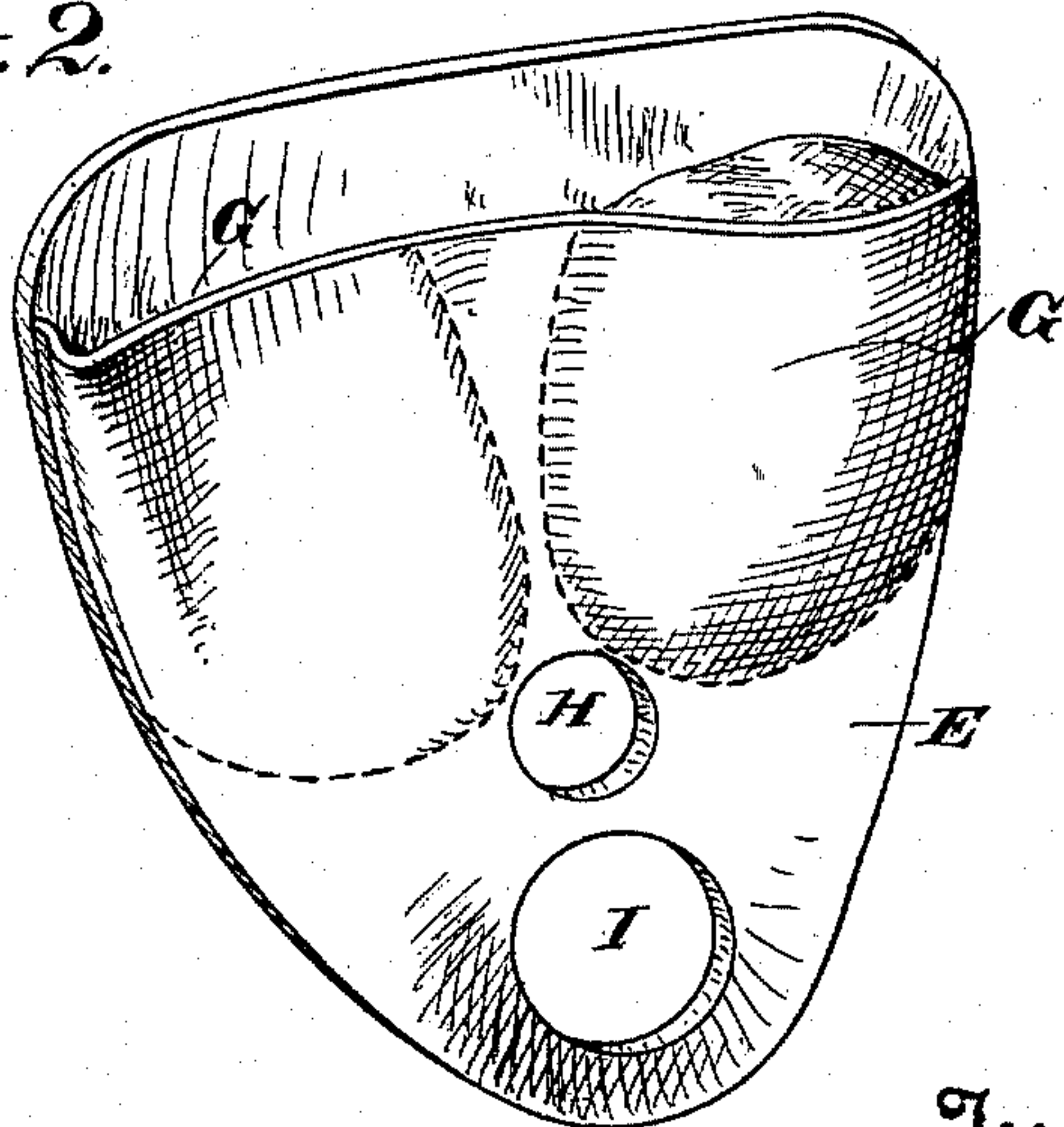


Fig. 2.



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UNITED STATES PATENT OFFICE.

ROBERT NAGLER, OF SAN FRANCISCO, CALIFORNIA.

TRUSS.

SPECIFICATION forming part of Letters Patent No. 522,764, dated July 10, 1894.

Application filed January 24, 1894. Serial No. 497,911. (No model.)

To all whom it may concern:

Be it known that I, ROBERT NAGLER, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Trusses; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to certain improvements in trusses which are designed for the relief of hernia or rupture.

It consists in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—
Figure 1 is a front view of my truss. Fig. 2 is a rear view. Fig. 3 is a vertical section through my truss.

The object of my invention is to provide an adjustable automatically acting pressure plate and pad for supporting certain forms of abdominal hernia.

A is an elastic plate which is preferably made of thin aluminum for lightness and alloyed, if necessary, to give it the necessary elasticity. The lower part of this plate has a deep concave opening or arched portion B with points C extending down upon each side as shown. Around the periphery of this plate are pins D for the attachment of the pad and the straps which secure the device to the person.

The pad E is made of felt or other soft material and sufficiently larger than the rigid plate to protect the person from its edges. Upon the back of the pad are fixed loops or fastening devices F which approximately coincide with the periphery of the plate and are adapted to be removably secured to the pins, so that the pad and plate are easily united or separated.

That part of the pad which lies against the person has pockets made in it with openings as shown at G by which any suitable padding may be introduced to increase the thickness of the pad at any point where it is desirable, and this padding may be removed or changed in thickness or quality at will.

Suitable openings H and I are made through the lower part of the pad and pro-

ected by soft material. One of these openings H coincides with the concave opening B in the lower part of the plate while the opening I is situated below it, and the ruptured part in this case lies between the openings.

J is an annular plate or ring of elastic material. The upper edge of this ring is fixed to the upper part of the arch B, so that the opening in the ring corresponds with that of the plate, and the opening I of the pad.

The outer periphery of the ring extends behind the projecting points C of the plate so that any pressure brought upon the points will be transmitted to the ring, as will be more fully described hereinafter.

The band or strap K passes about the body of the person to which the truss is applied, and its ends are attached to the pins D at the upper angles of the plate. Adjustments are made for length of this belt by holes at different distances from the ends of the belt, and also by changing the attachment of the belt to other pins. The change to other pins on the plate, will also act to change the pressure of the pad upon the person.

The straps L are designed to extend from the points C of the plate, beneath the thighs, and thence up behind the back to connect with the main belt K. These straps are surrounded by slidable tubular sleeves M of felt or other soft material to prevent chafing. These straps, when attached to the points C of the plate, act to draw them down or backward, and this causes the sides of the opening B to press upon the sides of the ring J with an elastic pressure.

The point at which the ring is attached to the arch B serves as a fulcrum, and when pressure is brought upon the two sides of the ring, it acts to force the lower part of the ring against the pad at a point between the openings H and I, which is just over the ruptured part. The pressure of the ring is thus constant and elastic, and may be increased or diminished by changing the tension of the straps.

The device is easily fitted to any person, the parts are removable and easily changed

when necessary and the truss may be applied and worn without causing uneasiness or painful pressure.

It will be manifest that the plate may be made of rubber, or material other than metal, if it possesses the requisite quality of elasticity.

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

1. In a truss, an elastic pressure plate having a concave arch formed in the lower portion, with points extending down upon each side, an elastic ring having its upper edge fixed at the crown of the arch, the opposite edge crossing the lower part of the arch, and the sides extending behind the sides of the arch, a pad of soft material fitted to the pressure plate, and body and thigh straps connected respectively with the upper and lower part of the plate, substantially as herein described.

2. A truss consisting of an elastic pressure plate with a concave arched lower portion, an elastic ring fixed to the plate at the crown of the arch extending behind the sides and crossing the lower open portion thereof, straps connected with the lower ends of the sides of the arch whereby a pressure is applied to them, and an elastic tension to the lower part of the ring as described.

3. A truss consisting of an elastic pressure plate, a ring fixed to the lower portion of the same, and straps connected with the plate upon each side of the ring, in combination

with a yielding pad fixed to the plate having pockets to receive an adjustable filling material, substantially as herein described.

4. A truss consisting of an elastic pressure plate, with the arched cut away portion at the lower edge, pins projecting from the outer sides of the plate around the periphery, a pad of flexible material fitted to the opposite side of the plate, with loops by which it is removably attached to the plate, a ring interposed between the arched cut away portion of the plate and the pad, and straps connected with said plate as described.

5. A truss consisting of an elastic pressure plate with the arched cut away portion at the lower edge, and a superposed elastic ring, a means for attaching a flexible pad thereto, pins projecting from the back of the plate, and body and thigh straps the ends of which are fitted to attach to the pins whereby a variation of pressure and point of pressure are effected, substantially as herein described.

6. A truss consisting of a pressure plate, a ring on the lower portion of the same, a flexible covering pad on the inner side of the plate, straps securing the plate to the body by adjustable attachments, and thigh straps having the loose tubular sheathing surrounding them as herein described.

In witness whereof I have hereunto set my hand.

ROBERT NAGLER.

Witnesses:

HENRY MELLE,
S. H. NOURSE.