

No. 624,113.

Patented May 2, 1899.

C. D. SPEAGH.
TRUSS.

(Application filed Oct. 29, 1897.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

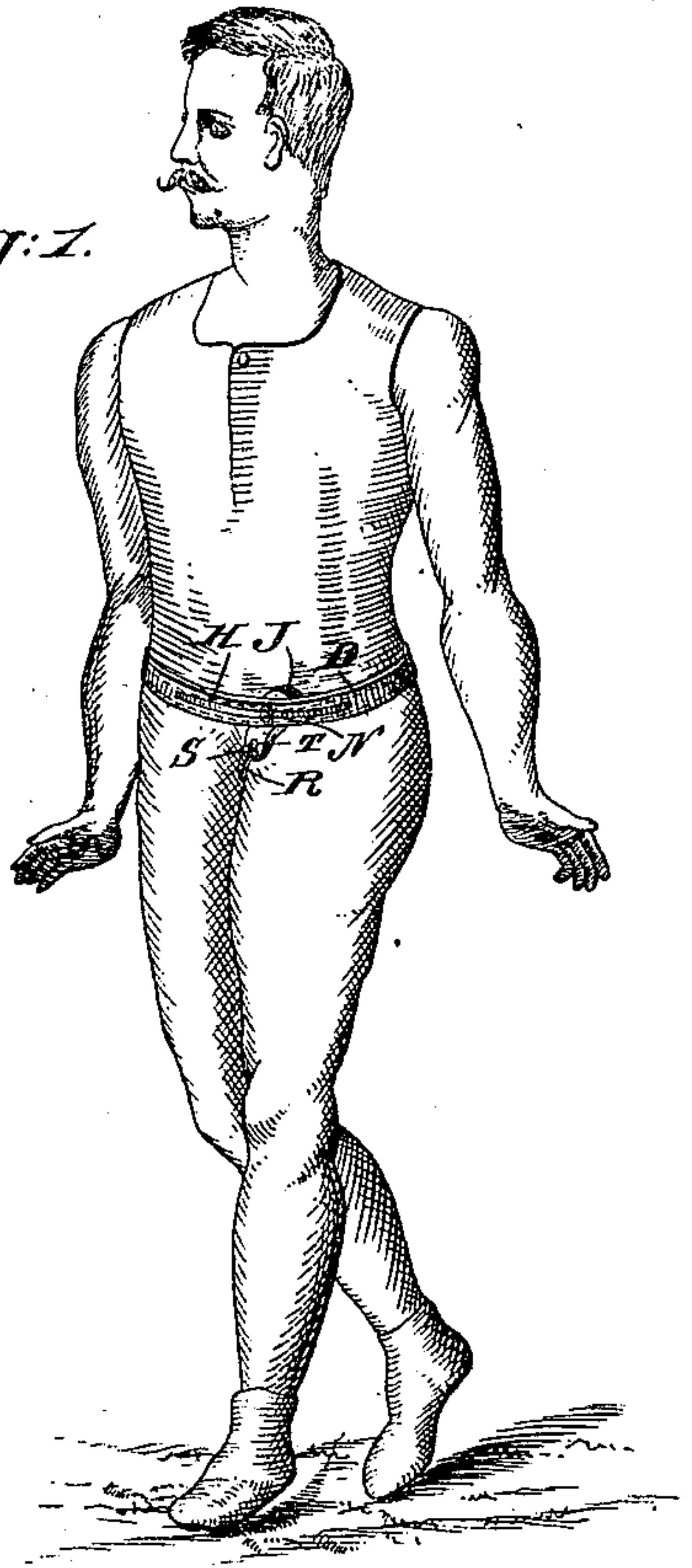
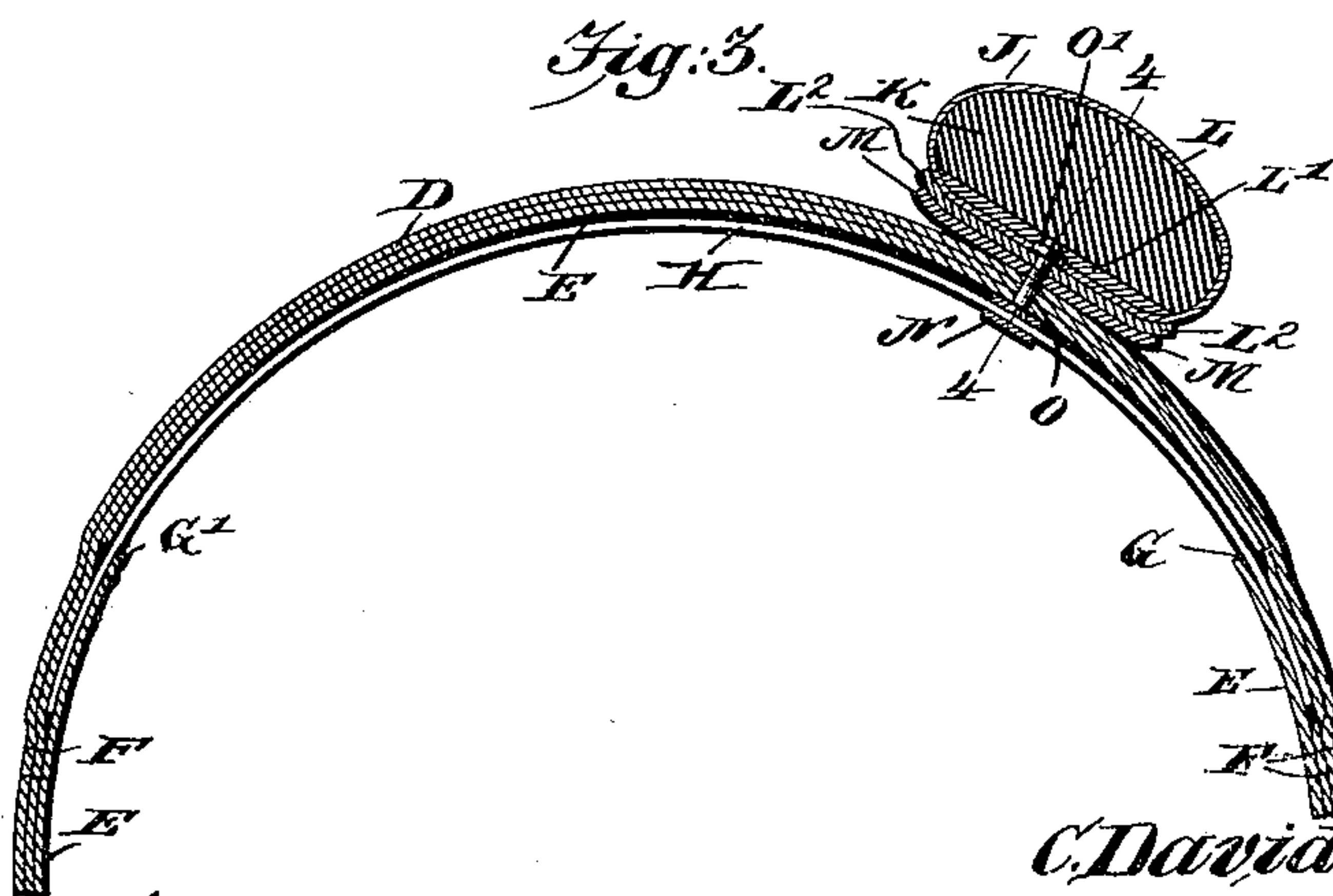


Fig. 3.



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2 Sheets—Sheet 2.

Fig. 2.

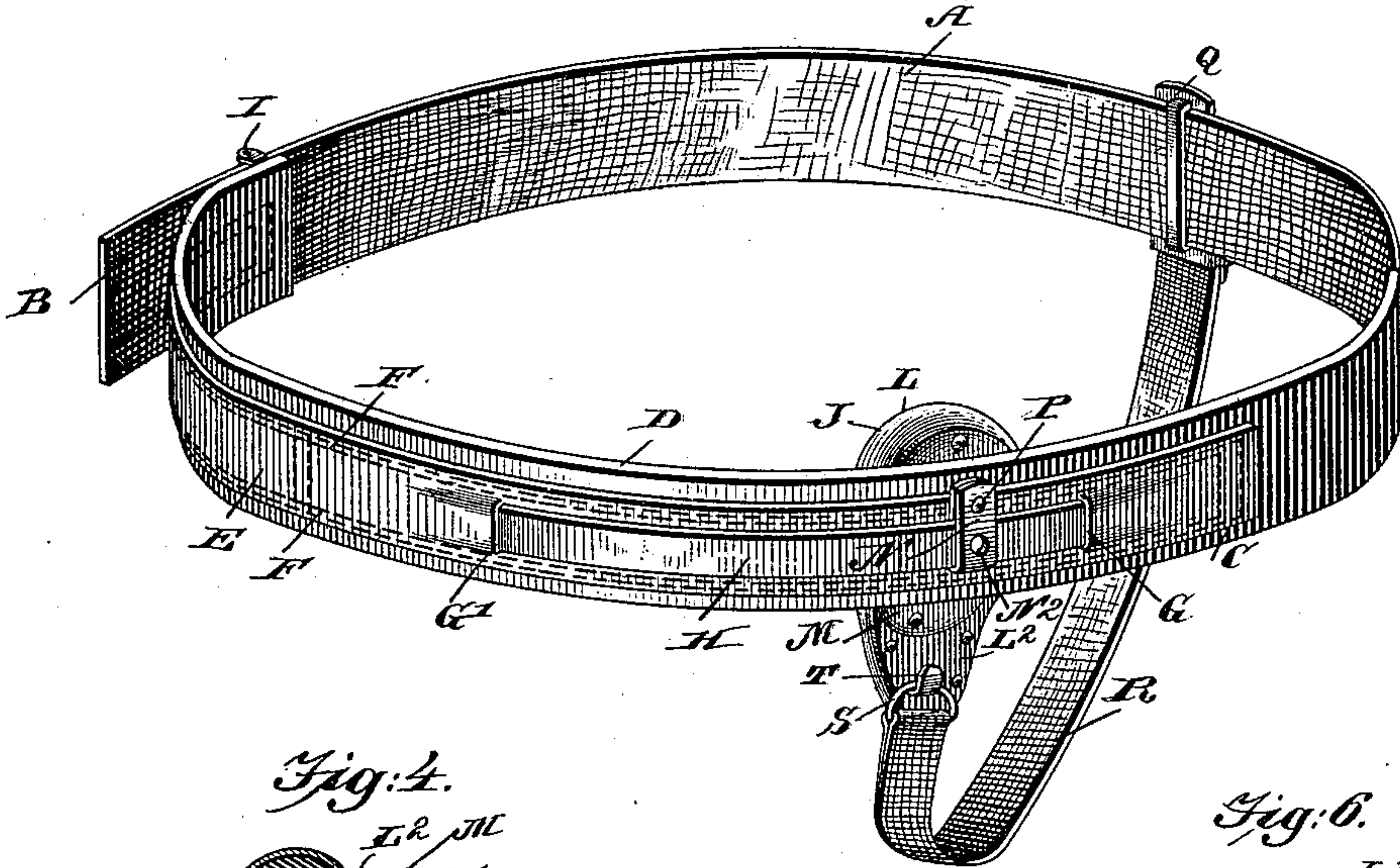


Fig. 4.

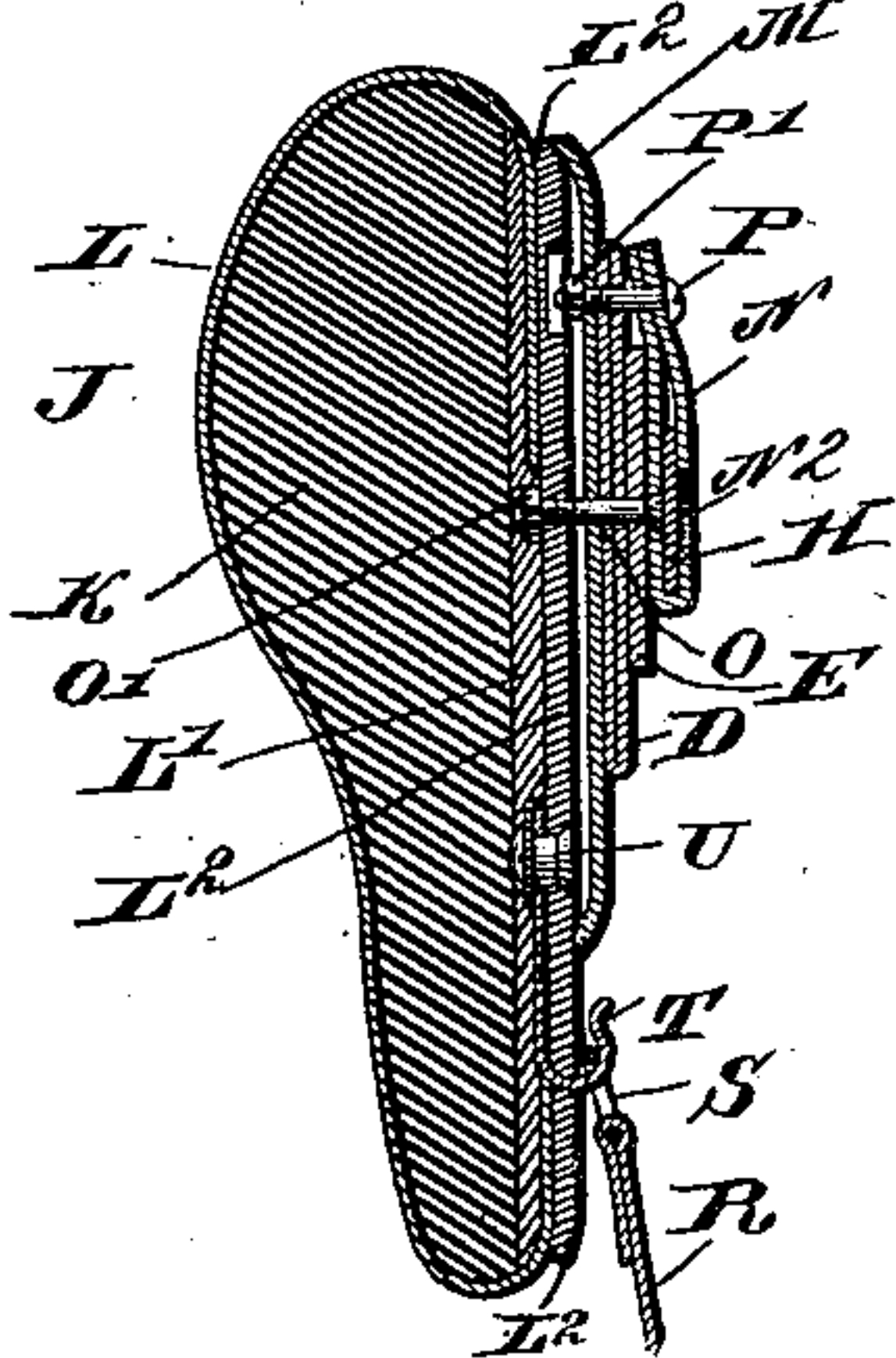


Fig. 5.

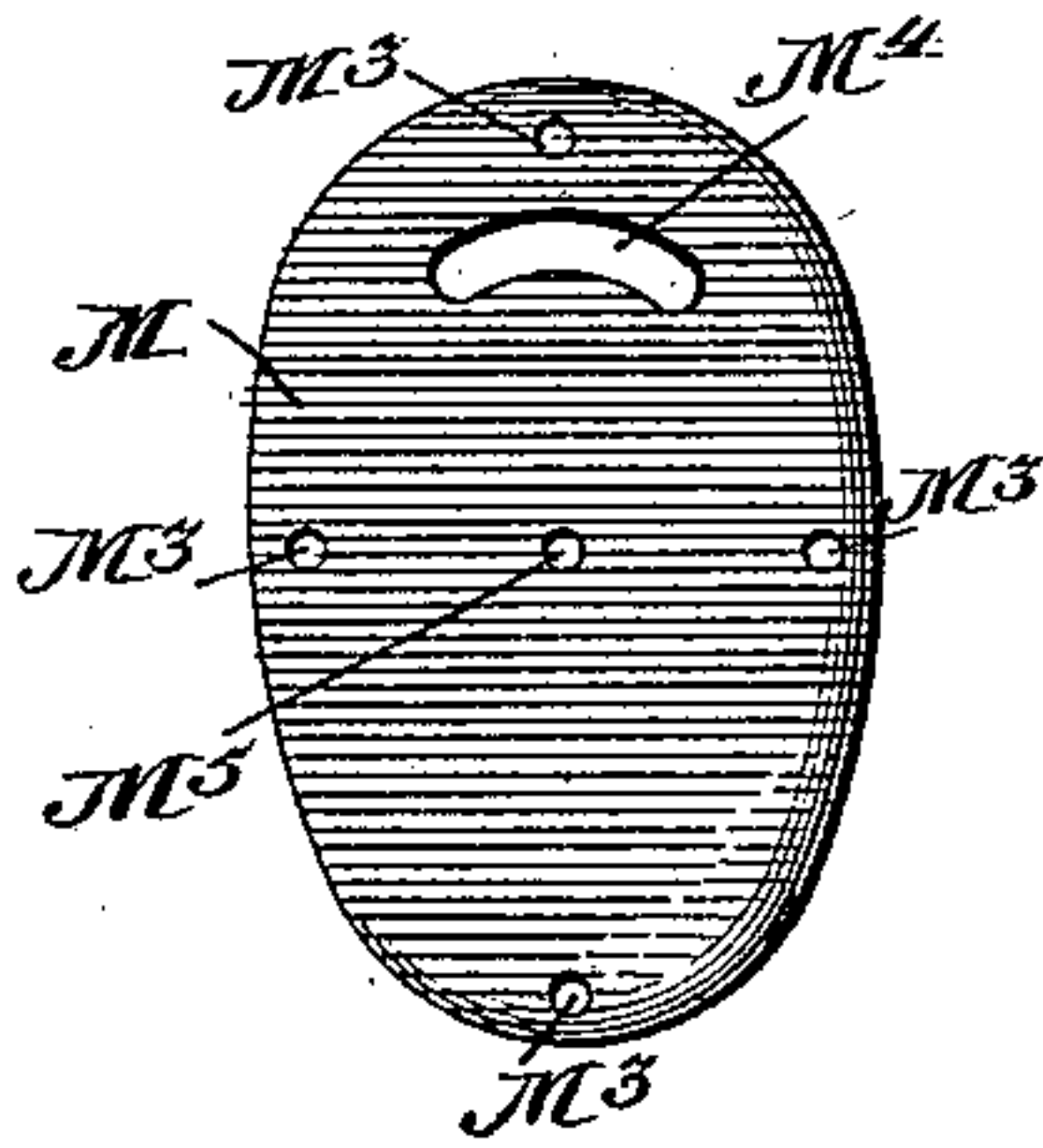


Fig. 6.

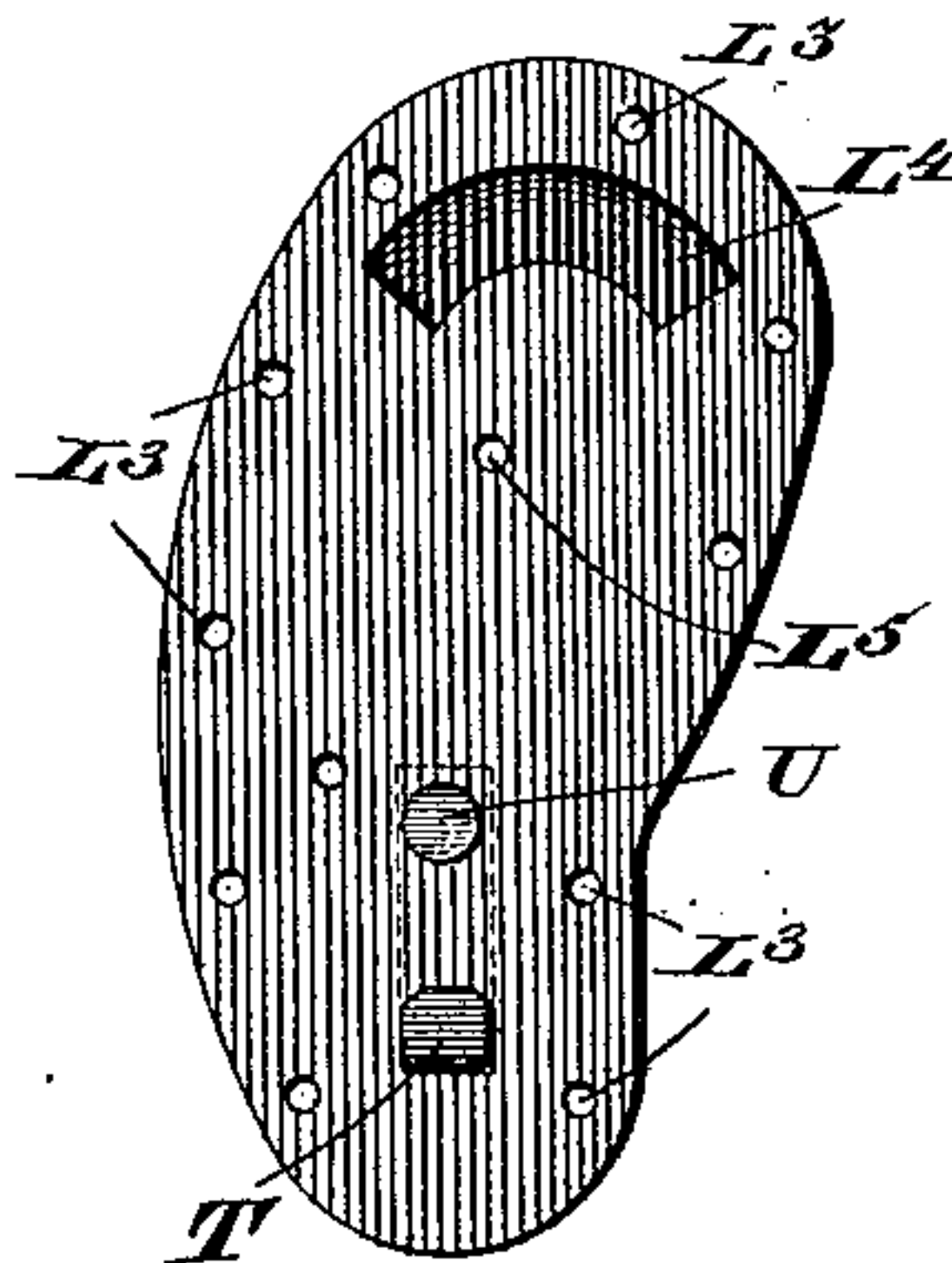


Fig. 8.

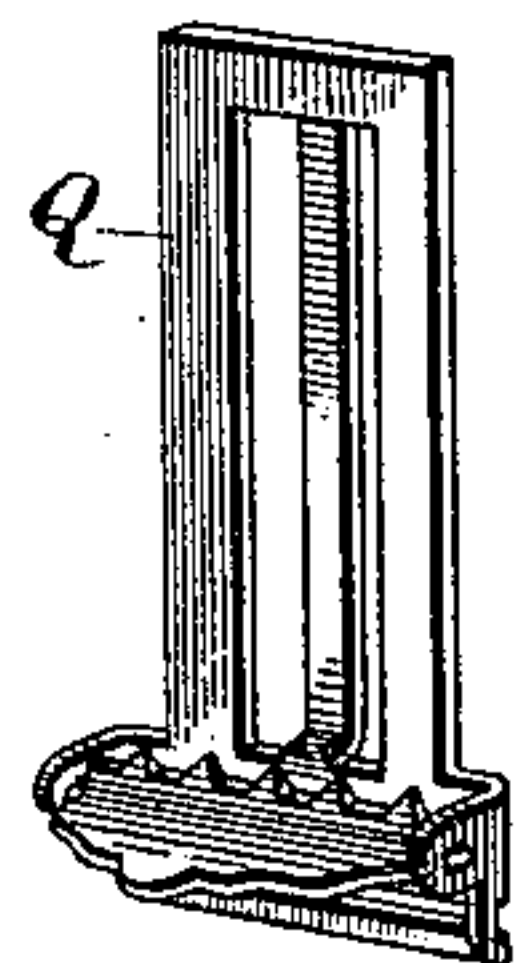


Fig. 10.

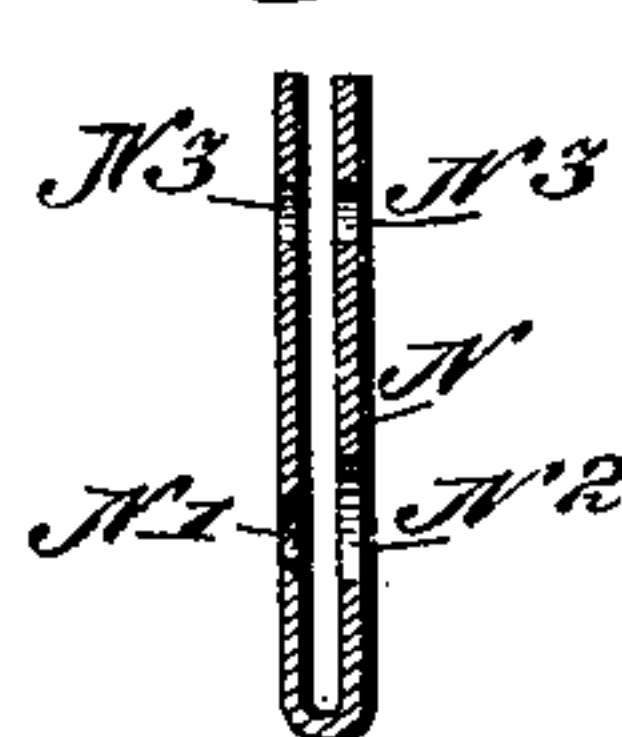


Fig. 7.

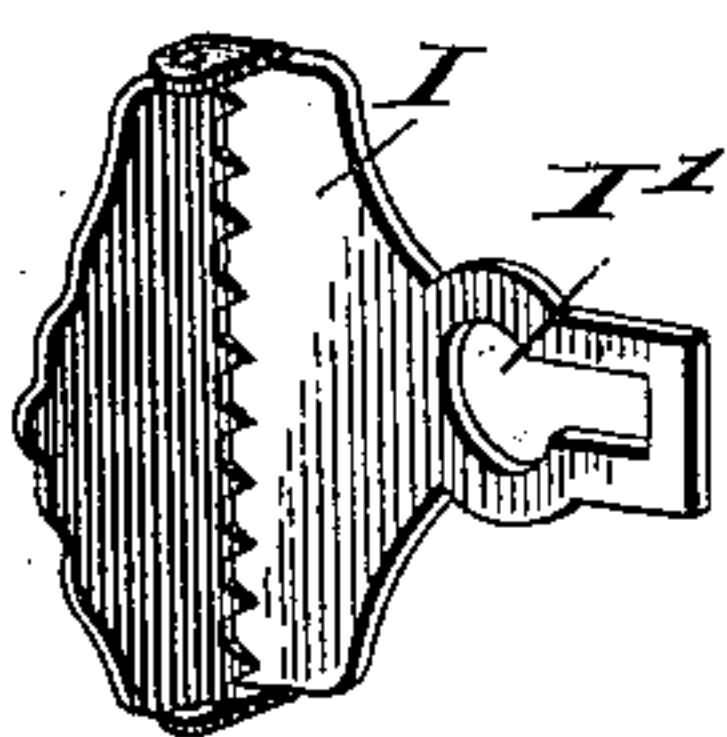
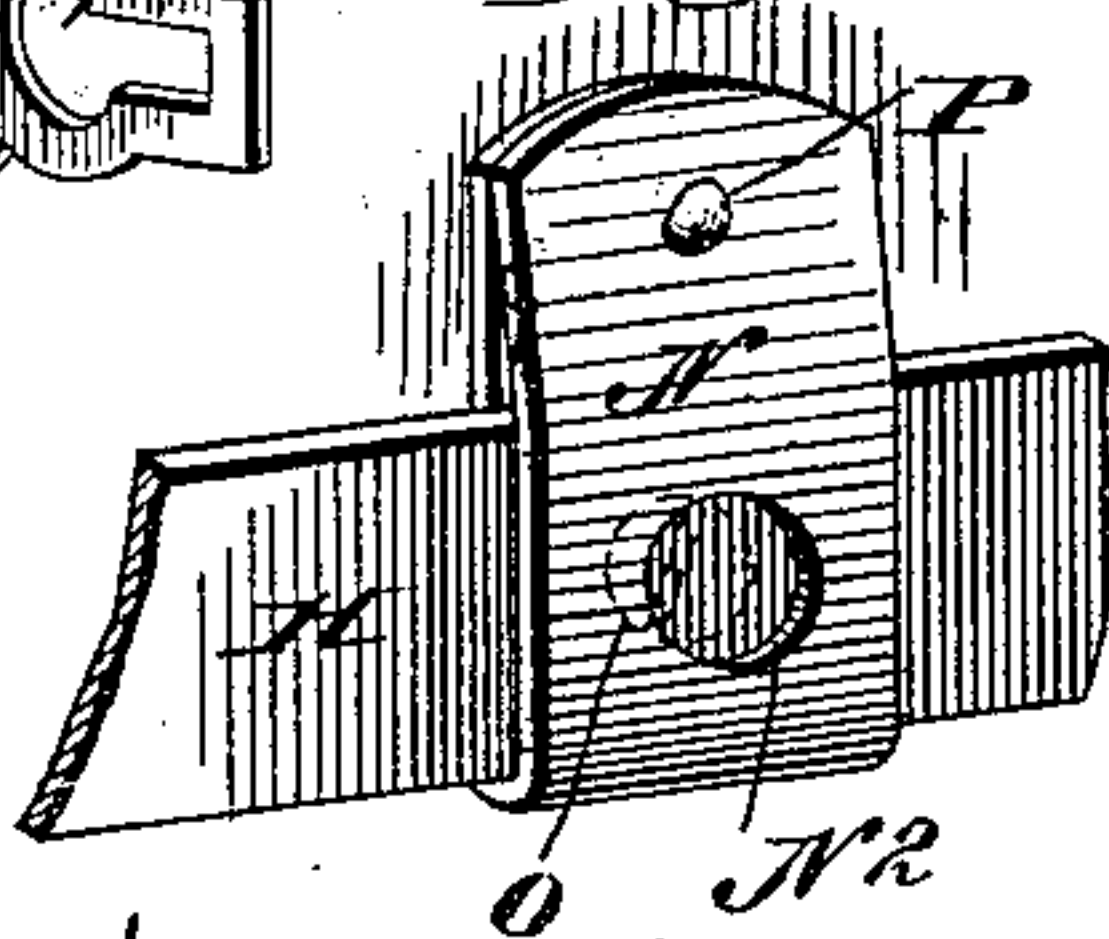


Fig. 9.



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UNITED STATES PATENT OFFICE.

CHARLES DAVID SPEAGH, OF DAYTON, OHIO.

TRUSS.

SPECIFICATION forming part of Letters Patent No. 624,113, dated May 2, 1899.

Application filed October 29, 1897. Serial No. 656,830. (No model.)

To all whom it may concern:

Be it known that I, CHARLES DAVID SPEAGH, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Truss, of which the following is a specification.

My invention is in the nature of a truss to be worn upon the person for the alleviation and cure of rupture and kindred ailments.

The primary object of my invention is to generally improve the construction of this class of devices, to simplify and cheapen them, and render them more durable and effective in operation.

A further object of my invention is to furnish improved means for attaching the pads of trusses to the belts.

With these objects in view my invention consists in the improved construction, arrangement, and combination of parts herein-after fully described and afterward specifically pointed out in the appended claims.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view illustrating a truss constructed in accordance with my invention in position upon the person. Fig. 2 is a perspective view of a truss constructed in accordance with my invention detached from the person. Fig. 3 is a longitudinal sectional view through the spring portion of my improved truss-belt in the position it assumes when off the person. Fig. 4 is a vertical section through the pad and belt at their point of attachment. Fig. 5 is a view in elevation of the metal plate on the inside of the pad to which the securing means are attached. Fig. 6 is a view in elevation of the outside of the pad with the attaching-plate removed. Fig. 7 is a detail perspective view of a buckle for securing the free ends of the belt together. Fig. 8 is a detail perspective view of the clasp for securing the crotch-strap at its rear end to the belt. Fig. 9 is a detail perspective view of a portion of the spring and its clamp-

ing-loop. Fig. 10 is a detail sectional view of the clamping-loop on an enlarged scale.

Like letters of reference mark the same parts wherever they occur in the various figures of the drawings.

Referring to the drawings by letters, A is a belt, such as are ordinarily used on trusses, the rear portion thereof from the end B to about the point C being composed of elastic webbing, and the front portion D being composed of leather, which extends over one end of the elastic webbing and some distance beyond the point C.

To the front of the leather portion D of the belt is attached a strap E by means of seams of stitching F near the outer edges of the strap E, the strap being narrower than the belt and being provided with transverse slits G and G', whereby are formed pockets into which the ends of a flat metal spring H are inserted, said spring being curved and inserted into the pockets in a manner to normally hold that portion of the belt curved outward, as shown on Fig. 3, when not adjusted upon the person, the object of such arrangement being to cause the spring to bear with considerable force inward when bent backward against its own spring curvature by fitting the belt about the person.

When adjusted to the person, the free ends of the belt are secured together by means of a buckle or clasp I, Fig. 7, which is attached adjustably upon the webbing or rear end of the belt and engaged with a button (not shown) on the front edge of the belt, which passes into an opening I' in the clasp I.

J is the pad, which consists of a cushion K, covered with soft leather L, which has its edges turned inward around a piece of leather L' after the manner of an insole, a second leather plate L² being placed upon the outside of the inturned edges and secured thereto by means of screws passing through openings L³ in the plate L², through the inturned edges of the leather L, and into the inner leather plate L. A metal plate M somewhat smaller than the leather plate L² is secured in position upon said plate L² by means of screws passing through openings M³. The metal plate M is dished somewhat, its outer

edges being turned inward, leaving a space beneath it. A metallic loop N, formed by bending a strip of metal in the center, is provided with a countersunk hole N' in its inner fold, and the larger hole N² in its outer fold registering with the countersunk hole. It is also provided near its two ends with registering holes N³. The plate M and the outer leather plate L² are provided with registering curved slots M⁴ and L⁴ near their upper ends, the slots being drawn on the arc of the same circle, with the holes N⁵ and L⁵ as centers. A screw-bolt O passes through the holes N² and N' in the clamping-loop and through the metal plate M and the inner and outer leather plates L' and L², being provided inside of the inner leather plate L' with a nut O'. A screw-bolt P passes through the registering holes N³ in the ends of the clamping-loop and through the curved slots M⁴ and L⁴ in the metal plate M and leather plate L², a nut P' being provided on the inside of the leather plate L² slightly wider than the slot L⁴.

In securing the pad to the belt one end of the spring H is first slipped through the slit G in the pocket at that end. Then the free end of the spring is passed through the securing-loop, covering the head of the screw-bolt O, and finally the opposite end of the spring is passed through the slit G'. In this condition the pad when properly adjusted to its position on the belt may be turned upon the screw-bolt O, the extent of such turning adjustment being limited by the length of the curved slots M⁴ and L⁴. When adjusted in this respect, the screw-bolt O will be turned in hard, which will clamp the two folds of the clamping-loop N together against the spring and at the same time clamp the two ends of the loop against the metal plate M, thus securely holding the pad in its adjustment.

A sliding clasp Q is adjusted upon the rear portion of the belt to adjustably hold the rear end of the crotch-strap R, the forward end being provided with a loop S to engage a hook T, secured to the outer leather plate L² of the pad by passing its main body through said plate and securing it on the inside by a rivet U, as shown in Fig. 4.

The material of which the cushion or pad is made consists of a properly-molded block of spongy gelatinous substance somewhat similar to the material of which printers' rollers are made, said material being impregnated with some approved antiseptic. From practical experience I have found that such material is eminently adapted for this purpose, inasmuch as it is soft while at the same time elastic, always exerting a pleasant though constant pressure and retaining its

shape and elasticity for a long time, the elastic pressure being such as to cause no injury whatever to the person.

The construction and operation of my improved truss will be readily understood from the foregoing description, and while I have illustrated and described the best means now known to me for carrying out my invention I do not wish to be understood as limiting myself to the exact construction and arrangement shown and described, but hold that such slight changes and variations as might suggest themselves to the ordinary mechanic would properly fall within the limit and scope of my invention.

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

1. A truss provided with a belt consisting partially of webbing and partially of leather, the leather section being provided with pockets, a reversible curved spring having its ends seated in said pockets, a loop encompassing the spring, a pad secured upon the said spring by means of said loop, and a screw passing through the loop and belt into the pad, substantially as described.

2. The combination with the belt and pad, of the spring having its ends inserted in pockets in the belt, the clamping-loop through which the spring is passed, the screw passing through the inner fold of the clamping-loop and the belt into the pad, and the screw passing through the ends of the clamping-loop and belt into the pad, substantially as described.

3. The pad herein described, consisting of the cushion, the inner leather plate, the leather covering having turned-in edges, the outer leather plate provided with a curved slot, these parts being connected together by screws, substantially as described.

4. The combination with the pad provided with the inner and outer leather and metal plates, the two latter being provided with curved slots, of the belt, the spring having its ends secured in pockets in the belt, the clamping-loop through which the spring passes, the screw-bolt passing through the belt and inner fold of the clamping-loop, the metal plate and the two leather plates, the nut on said screw-bolt inside the inner leather plate, the screw-bolt passing through the ends of the clamping-loop and the slots in the metal plate and the outer leather plate, and the nut inside the inner leather plate, engaging said screw-bolt, substantially as described.

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Witnesses:

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