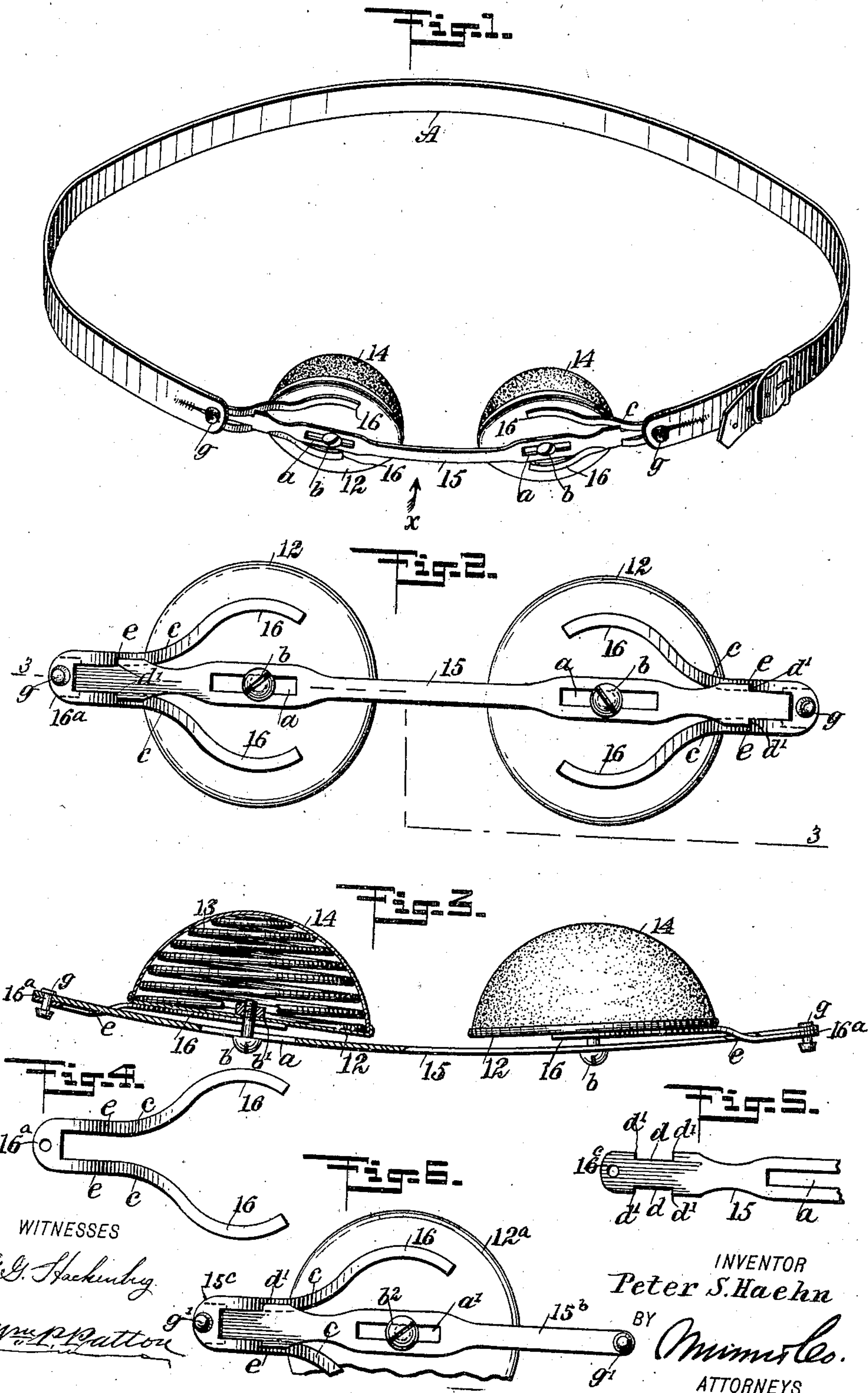


995,864.

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TRUSS.  
APPLICATION FILED JULY 29, 1909.

Patented June 20, 1911.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## TRUSS.

995,864.

Specification of Letters Patent. Patented June 20, 1911.

Application filed July 29, 1909. Serial No. 510,188.

*To all whom it may concern:*

Be it known that I, PETER S. HAEHN, a citizen of the United States, and a resident of Youngsville, in the county of Warren and State of Pennsylvania, have invented a new and Improved Truss, of which the following is a full, clear, and exact description.

This invention relates to trusses for the support and reduction of hernia, and more particularly ruptures of the abdominal wall at either or both sides of the groin.

The purpose of my invention is to provide novel, simple details of construction for a truss of the character indicated, that confer resilient support for single or double ruptures in the inguinal region, adapt the truss for yielding conformity to the movements of the body, avoid excessive pressure upon the tissue near the rupture, but exert such a constricting pressure upon the defining wall of the hernia as will have a tendency to close the edges thereof and facilitate a healing action that will cure the same.

The invention consists in the novel construction and combination of parts, as is hereinafter described and defined in the appended claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improved truss; Fig. 2 is a front view of the same seen in the direction of the arrow  $x$  in Fig. 1; Fig. 3 is a partly sectional side view taken substantially on the line 3—3 in Fig. 2; Fig. 4 is a plan view of a bifurcated spring that is a detail of the invention; Fig. 5 is a plan view of an end portion of a pad carrying bar that is a novel feature; Fig. 6 is a broken front face view of a pressure pad, a forked spring and a pad carrying bar connected with the spring and pad.

In an example of one form of my invention, shown in Figs. 1 to 6 inclusive, 12 indicates a flat, preferably circular front plate formed of plate metal or other suitable material. Upon the front plate 12, a spring coil 13 is mounted centrally, said coil that is formed of resilient metal wire of proper gage being concavo-convex in shape, thus affording a pad body that while sufficiently

rigid for effective service, is adapted to yield somewhat when pressure is applied thereon in different directions. The spring coil 13 and front plate 12 are secured together at their edges by any preferred means, and upon the spring coil a covering of leather or a suitable fabric is secured, as indicated at 14 in Figs. 1 and 3.

The improved truss pad that has been described, may be employed in pairs for compression of two ruptures at the same time, and in such an application thereof it is preferred to support the duplicate bulbs upon a thin flat metal strip 15 that may be somewhat resilient. The strip 15 is of a suitable length for effective service, and at a preferably equal distance from each end thereof a longitudinal slot  $a$  is formed therein.

Centrally in each front plate 12, a screw-threaded bolt  $b$  is secured, each bolt passing through a respective slot  $a$ , and at the head thereof seating upon the side edges that define the slot occupied by said bolt, and the latter may engage a nut  $b'$  that is secured upon the inner surface of a respective front plate 12, as indicated at the left in Fig. 3. The strip 15 is preferably termed a pad carrying bar and the relative position of the slots  $a$ ,  $a$ , therein permit an equal extension of the end portions of said bar from the outer ends of the slots. Two similar reinforcing springs are features of the present example of the invention, and as shown clearly in the drawings, each spring consists of a pair of limbs 16 that are joined together at one end  $16^a$  and extend from said end parallel with each other, to a point  $c$  on each limb where said limbs are curved edge-wise outward and forward. Near each end of the bar 15, two oppositely-positioned recesses  $d$  are formed with parallel bottom edges, and affording square shoulders  $d'$  at each end thereof, as shown in Figs. 5 and 6.

In connecting the reinforcing springs 16 with the respective ends of the bar 15, each spring is bent to produce an offset  $e$  thereon near the points  $c$ , and the end portions of the bar 15 at the recesses  $d$  are interlocked with the end portions  $16^a$  of the reinforcing springs, by inserting the ends of the bar between the limbs 16 and locating the same at the recesses  $d$  between the respective limbs 16 at the offsets  $e$ .



It will be noted in Fig. 3 that the end portion 16<sup>a</sup> of a respective reinforcing spring 16, is disposed below and in contact with a respective end portion of the bar 15, and is secured thereto by a stud *g* that projects outward from the end portion of the reinforcing spring 16, and is of further service as a button head for the reception of the end of a securing band or strip for the truss shown at A in Fig. 1. The attachment of each reinforcing spring 16 upon an end of the bar 15, as shown and described, disposes the limbs of each reinforcing spring between the bar and the front plate 12 on a respective pad.

It will be seen that the slots *a* in the bar 15 and the connection of the bulbous pads with said bar by the bolts *b* that pass through said slots, greatly facilitate the proper location of the pads over the ruptures that are in the groin region. Further, the formation of the pads of resilient wire bent into bulbous form, adapts the pads for yielding so as to conform with the movements of the body and avoid undue pressure, as they may rock on the reinforcing springs 16 that have level contact with the front plates 12.

To adapt the improvement for the reduction of a single rupture that may be inguinal or abdominal, a single pad may be employed as shown in Fig. 6. The pad in this use of the truss may be formed similarly to those already described, and may be provided with a reinforcing spring having forked limbs 16 that are connected with the end portion 15<sup>c</sup> of a lever 15<sup>b</sup>. The bar 15<sup>b</sup> has a single slot *a'* therein through which is inserted a bolt *b*<sup>2</sup> into the center of the front plate 12<sup>a</sup>, and is connected at one end with the reinforcing spring similarly to the manner already described for the duplicate pads shown in Figs. 1 to 3 inclusive. The bar 15<sup>b</sup> in this construction, is reduced in length and at each end on the outer side, a button-headed stud *g'* projects for attachment of a pliable band thereto (not shown) that serves to secure the truss upon the body of the wearer; and it will be seen that but a moderate pressure is necessary, so that the band for holding the truss in position on the body need not be drawn very tight, and thus avoid the discomfort incidental to the wearing of an ordinary truss.

It will be evident that the pad bulbs will, by their engagement with the person, hold the bar 15 spaced from the person of the wearer, so that there can be no frictional engagement of the bar with the body, insuring ease and comfort when the truss is worn.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent:

1. In a truss, a bar, a pad adjustably secured to the bar a short distance from the end thereof, and a forked spring secured to the end of the bar and having its members loosely engaging the pad on opposite sides of the center of the pad.

2. In a truss a bar having a slot therein near the end thereof, a pad, a bolt passing through the slot of the bar into the pad, and a forked spring secured to the end of the bar and having its members loosely engaging the pad on opposite sides of the said bolt.

3. In a truss, the combination with two pads, of a bar secured to the pads near its ends, and a forked spring secured to each end of the bar and having its members engaging the front face of a pad.

4. In a truss, the combination with a pad, of a bar secured to the pad near its end, and a forked spring having an interlocking engagement with the end of the bar, and engaging the front face of the pad.

5. In a truss, the combination with a pad provided with a headed projection on its front face, of a bar provided adjacent to its end with a slot freely receiving the projection of the pad, and a forked spring secured to the end of the bar and having its members engaging the front face of the pad.

6. In a truss, the combination with a pad provided with a screw projecting from its front face, of a bar provided adjacent to its end with a slot freely receiving the screw of the pad and with oppositely arranged recesses at its end, and a forked spring provided with an offset and having its members extending parallel to the offset and from said offset curved outwardly, the spring being interlocked with and secured to the end of the bar and having its members engaging the front face of the pad.

7. In a truss, a pad, a bar to which the pad is loosely secured, having an aperture in its end and oppositely arranged recesses adjacent to the aperture, a forked spring provided with an aperture and offset and having its members extending parallel to the offset and from said offset curved outwardly, the recessed end of the bar being interlocked with the spring, and a headed stud passing through the apertures of the bar and spring.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PETER SEBASTIAN HAEHN.

Witnesses:

JAMES W. McCLUNE,  
A. W. SMITH.