

UNITED STATES PATENT OFFICE.

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HERNIAL TRUSS.

SPECIFICATION forming part of Letters Patent No. 688,734, dated December 10, 1901.

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To all whom it may concern:

Be it known that I, GEORGE V. HOUSE, a citizen of the United States, and a resident of Mount Vernon, in the county of Westchester and State of New York, have invented a new and Improved Truss, of which the following is a full, clear, and exact description.

The purpose of the invention is to so construct a truss that the pad will be readily adjustable to various positions on the front piece of the truss and may be turned in any lateral direction or moved in an upward or downward direction on the front piece, so as to bring the pad into the most suitable position for the reduction or retention of the hernia, and a further purpose of the invention is to provide means for placing the draft-studs which secure one end of the truss-band and one end of the perineal strap to the pad ends of the truss in variable locations over the pad and at variable distances from each other, so as to direct and place the pressure on different portions of the pad, and, furthermore, to provide means whereby when the pad and combination cap-plate are secured by their fastening device they will be rendered immovable.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the 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 figures.

Figure 1 is a front elevation of the front portion of a truss having the improvement applied. Fig. 2 is a section taken on the line 2 2 of Fig. 1. Fig. 3 is an outer face view of the pad. Fig. 4 is a plan view of the link adapted to carry one of the draft-studs, and Fig. 5 is an inner face view of the cap for the pad.

In practice it has been found desirable that the pad be secured upon the truss in a manner which will permit the pad to be altered in position, so as to be adapted for contact in an advantageous manner with the rupture which is to be retained or held. Furthermore, it is desirable for the perfect adjustment of a truss having a web or pliable band upon the person of the patient that means be provided for

altering the position of the fastening that connects one end of the truss-band with the pad end of the truss, so that the draft of the body-band upon the pad will tip or tilt or slant the pad, and so permit the point of greatest pressure of the pad to be exactly located at the desired point over the rupture to be treated. Furthermore, it is evident that when a perineal strap is used, as is usually the case with a web-truss, the distance between the attachments for fastening the body-band and perineal strap to the pad end of the truss will vary with the size of pad used, its shape, and the location where the greatest concentration of pressure is required. In some cases with this style of truss it is desirable to concentrate the pressure produced by the under strap near one edge of the pad, in other cases considerably removed from the edge, according to the shape of the pad and the condition of the rupture.

The improved means for adjusting the pad and for locating the position of the draft-studs, to be hereinafter described, enables an adjustment to be quickly and effectively made.

A represents the front piece of a pliable band B of a truss, but the front piece may be made of any suitable material. The said front piece A is secured to one end of the body-band B, and at the opposite end of the said band a metal loop C is attached, adapted for connection with a stud, to be hereinafter described. The pad D may be of any suitable shape or construction. This pad D at its front face is provided at its central portion with a plate 10, and this plate has an opening 11 therein, preferably rectangular. The opening 11 of the plate is over an opening 12 in the front portion of the pad, as is shown in Fig. 2. Slideways 13 are formed at opposite sides of the opening in the pad-plate 10, as is best shown in Fig. 3, and these slideways support a nut 14, which nut is movable the length of the opening in the said pad-plate. The pad-plate 10 is likewise provided preferably at its outer face with a series of spurs 15, adapted for frictional engagement with the inner face of the front piece A of the body-band B. This pad-plate 10 is secured to the pad by means of screws 16 or their equivalents.

In connection with the pad D, I provide a cap-plate 17, and this cap-plate is preferably

provided with peripheral spurs 18, adapted for frictional engagement with the front or outer face of the front piece A of the body-band B of the truss. This cap-plate 17 is also
 5 provided with a central opening 19, as is best shown in Fig. 5. The cap-plate 17 is provided with a stud 27, as is shown in Figs. 1 and 2, and this stud 27 is adapted to receive the metal loop C, attached to the body-band, when
 10 the truss is to be secured upon the body.

In connection with the cap-plate 17 an adjustable link or plate E is employed. (Shown in detail in Fig. 4.) This link or plate E consists of a body portion 20, having an elongated
 15 slot 21 therein, and an outward extension 23, provided with a series of transverse slots 24 and a stud 25 at its outer end. This link or plate E is located between the cap-plate 17 and the outer face of the front piece A of the
 20 body-band and extends beyond the periphery of the cap-plate, as is best shown in Fig. 1. The transverse slots 24 of the plate or link E are adapted to receive any one of the peripheral spurs 18 of the cap-plate, so that the link
 25 or plate E may have adjustment independent of the cap-plate. The cap-plate and the link or second plate E are connected with the pad through the medium of a screw 22, which is passed through the opening 19 in the cap-
 30 plate, through the slot 21 in the inner or interposed plate, and through an opening in the front piece A of the body-band into the nut 14, as is shown in Fig. 2. The stud 25 on the interposed plate or link E is adapted
 35 to receive a loop 26, preferably of metal, which is attached to one end of the perineal strap F, the other end of the strap being attached to the body-band B in any suitable or approved manner. It will be readily observed that under
 40 this construction the interposing plate E forms an essential part of the cap-plate and also that either plate and its stud may be used for fastening the body-band or perineal strap, and it is also evident that the studs 27 25
 45 could be permanently attached to their respective band and perineal-strap ends and holes or slots substituted in the cap and interposing plates to receive the heads of said studs instead of being permanently attached
 50 to the plates, as described. This construction would not alter the essential features of my invention. Therefore I do not limit myself to any particular way of securing the studs to the described plates, but desire my
 55 invention to cover the means by which the distance and location of the draft-studs may be readily shifted and brought into various desired locations over the pad.

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

1. In trusses, a cap-plate provided with means for attachment to a body-band, an interposing plate provided with means for the
 65 attachment of a perineal strap, the said interposing plate having an elongated slot, a screw extending through the cap-plate and the elon-

gated slot of the interposing plate and securing said plates to a truss-pad, the interposing plate being adjustable radially or out and in with
 70 reference to the cap-plate and also adjustable circularly or around the screw, and means for holding the interposing plate in the adjusted position relative to the cap-plate.

2. In trusses, a plate secured to the truss-
 75 pad, a nut mounted to travel in a slot in said plate, a cap-plate having an attachment for securing a body-band, an interposing plate having an attachment near one end for se-
 80 curing a perineal strap, the said plate being provided with an elongated slot, a screw securing the said cap-plate and interposing plate to the said nut, the interposing plate being adjustable radially or out and in with
 85 reference to the cap-plate and also adjustable circularly, and means for connecting the interposing plate with the cap-plate to hold the former in the adjusted position.

3. In trusses, a toothed plate having an attachment, an interposing plate also having
 90 an attachment near one end, and one or more transverse slots for the reception of a tooth of the toothed plate, one of the said attachments being adapted to secure a body-band, and the other a perineal strap, and a com-
 95 mon screw for securing the two plates in combination to a truss-pad.

4. In a truss, a pad, a plate secured to the pad, an adjusting-screw having locking and
 100 sliding engagement with the said plate, a toothed plate having a surface projection thereon, and an interposing plate in adjustable connection with said toothed plate, the interposing plate being provided with attach-
 105 ing means, both of the said plates being connected with the pad through the medium of the adjusting-screw, as described.

5. In a truss, the combination, with a flexible body-band provided with a front piece, a
 110 pad at the rear of the front piece, a plate secured in the front of the pad, having an opening therein and slideways at the opening, and a nut having guided movement in the said slideways, the front face of the pad being
 115 adapted for engagement with the inner face of the front piece of the band, of a plate provided with a series of marginal spurs or teeth arranged for engagement with the outer face of the front piece of the said body-band, a
 120 second plate provided with an elongated slot and a series of transverse slots, the transverse slots of the said second plate being adapted to receive any one of the spurs of the toothed plate, an adjusting-screw passed through the
 125 toothed plate and the elongated slot of the second plate, the front piece of the body-band and into the nut carried by the pad, the said second plate being located between the front piece of the body-band and the inner face of the toothed plate, and means, substan-
 130 tially as described, for connecting said second plate with the perineal strap of the truss and the cap-plate with an opposing end of the body-band, as described.

6. In trusses, a toothed plate, an interposing plate adjustably connected with said toothed plate, one of said plates being provided with means for attachment to a body-band and the other plate having means for attaching a perineal strap, and a common screw extending through both plates and securing them to a truss-pad.

7. A cap-plate formed of two separate pieces, one piece being provided with teeth, and having means for attachment to a body-band, the other piece being adjustable relative to the first piece, and having means near one end for the attachment of a perineal strap, and a screw securing the two pieces to the truss-pad.

8. In trusses, a plate having a series of marginal spurs or teeth, adapted for engagement with the front piece of a body-band, a second plate provided with an elongated slot and having a series of openings adapted to receive any one of the said spurs, means for securing the said plates to a truss-pad, and means for connecting one of said plates with the perineal strap and the other plate with the end of the body-band, as set forth.

9. In a truss, a pad having an opening in its front portion, a plate secured to the pad and having an opening arranged over the opening in the pad, the said plate having slideways formed at opposite sides of the opening, a nut having guided movement in the said slideways, a cap-plate engaging the front piece of the body-band, a plate extending between the cap-plate and the front piece of said body-band, and having an elongated opening, the said plate being arranged for adjustable connection with the cap-plate, a screw extending through said cap-plate, interposing plate and front piece of the body-band and engaging the said nut, and means for connecting one of said plates with the perineal strap, and the other plate with the other end of said body-band, substantially as set forth.

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

GEORGE V. HOUSE.

Witnesses:

J. FRED. ACKER,
JNO. M. RITTER.