

2 Sheets—Sheet 1.

Patented June 21, 1892.

Fig. 1.



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(No Model.)

2 Sheets—Sheet 2.

G. RENO.
TRUSS.

No. 477,335.

Patented June 21, 1892.

Fig. 3.

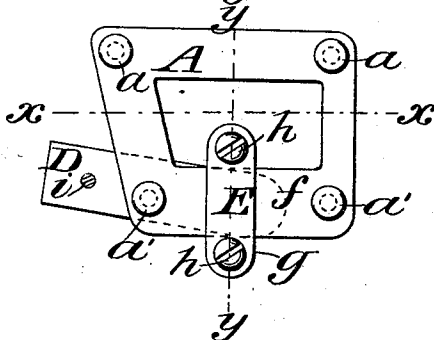


Fig. 4.

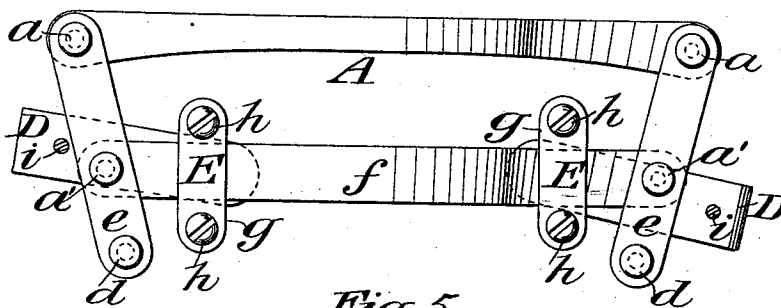


Fig. 5.

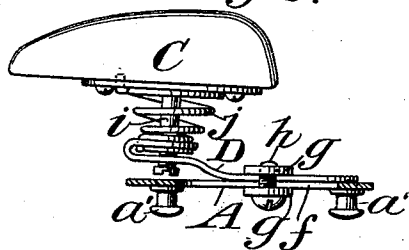
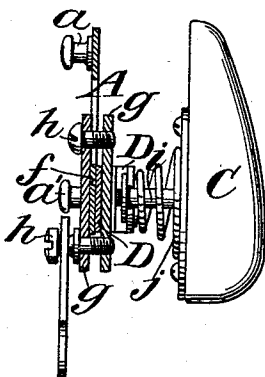


Fig. 6.



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UNITED STATES PATENT OFFICE.

GRIFFIN RENO, OF NEW YORK, N. Y.

TRUSS.

SPECIFICATION forming part of Letters Patent No. 477,335, dated June 21, 1892.

Application filed March 21, 1892. Serial No. 425,782. (No model.)

To all whom it may concern:

Be it known that I, GRIFFIN RENO, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Hernial Trusses, of which the following is a specification, reference being had to the accompanying drawings.

The main object of my invention is to afford convenience for the perfect adjustment of the pads of single or double trusses, and especially of what are known as "elastic-band trusses," according to the nature or location of the rupture.

Figures 1 and 2 are respectively front views of a single and a double truss embodying my invention. Figs. 3 and 4 are front views corresponding, respectively, with Figs. 1 and 2, but on a larger scale, of the truss front and clamps, which constitute the important features of my invention, showing, also, the pad-supporting plates adjustably attached to the front by the said clamps. Fig. 5 represents a horizontal section in the line *x x* of Fig. 3, and also shows the pad. Fig. 6 is a vertical section in the line *y y* of Fig. 3, showing, also, the pad.

A is the truss front, to the top and bottom of which are attached on opposite sides the ends of the elastic body-band B.

C C are the pads, and D D the plates, by which they are supported.

E E are the clamps by which the said plates D D are adjustably secured to the truss front A.

The supporting-plates D may be of any suitable kind, and the pads may be attached to them in any suitable manner; but I have represented the said plates and pads and the studs *i* and springs *j*, which connect said plates and pads like those which are the subject of my United States Letters Patent, No. 369,471, dated September 6, 1887, as those plates and pads are especially well adapted for carrying out the present invention, which enables me to use those plates and pads with as good effect with a body-band made of elastic fabric as with a steel-spring body-band.

The truss front shown in Figs. 1, 3, 5, and 6 for the single truss is represented as an open plate or frame of quadrangular form of metal or suitably-rigid material consisting of a sin-

gle piece of metal having at its corners the four strap-posts *a a' a'* for the adjustment of the four straps *b b*, two at each end of the body-band, a suitable number or all of which straps may be adjusted by buckles *c* to adapt the band to the size of the body.

It is obvious that the double-truss front A, which is shown in Figs. 2 and 4, might also be made of a single piece or plate; but owing to its greater length I have preferred to make it of four pieces secured together by the strap-posts *a a' a'*, which also constitute rivets. The end pieces of the front so constructed are prolonged downward, as shown at *e*, to carry additional strap-posts *d d* for the attachment of the front ends of the perineal bands F F, the rear ends of which are looped over the back part of the body-band. It is obvious that the truss front for the single truss might be made of four pieces, like the double-truss front shown in Fig. 1.

In either construction of the truss front above described the lower part of the plate or frame A constitutes a front bar *f*, nearly on a level with the lower strap-posts *a' a'*. To this bar *f* the pad-supporting plates D D are adjustably secured by the clamps E E. The said clamps E E—one for each pad—consist each of two plates *g g* and two screws *h h*, each passing through one of the said plates and screwing into tapped holes in the other, the said plates receiving between themselves and between the screws *h h* the bar *f* of the truss front and the pad-supporting plate D, when screwed up tightly by the screws *h h*, serving to clamp the said supporting-plate to the said bar so firmly that it cannot be moved by any movement of the body of the wearer of the truss. By thus attaching the supporting-plate D to the truss front provision is made for the perfect adjustment of the pads to the truss front and to the hernial ring for an oblique or direct inguinal hernia or for a femoral hernia upon the right or left side of the body, the pad being capable of adjustment at any point within a radius of one-third ($\frac{1}{3}$) of a circle two inches in diameter, and when the pads are so adjusted to the circumstances of the case the pad is so firmly secured that it cannot be displaced by any movements of the body of the wearer of the

truss. This adjustment of the pad-supporting plates to the truss front may be understood by reference to Figs. 3 and 4, in which the pad-supporting plates are shown in different positions relatively to the front bar *f*.

The downward prolongations *e e* of the double-truss front having attached to them the strap-posts *d* for the front ends of the perineal bands enable a leverage to be brought by the said bands upon the truss-pads, whereby the latter are brought to bear with a proper pressure upon the hernial opening. The same effect of leverage is produced in the single-truss pad by making the lower one of the clamping-screws *h* with a post or head, as shown in Fig. 6, for the attachment of the front end of the perineal band, the lower parts of the clamping-plates *g* in that case constituting projections below the bar *f* or truss front, which are equivalent to the downward projections *e* of the double-truss front, as hereinbefore described.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a truss, the combination of an open front plate or frame, having upper and lower strap-posts on each side, a flexible body-band having two straps at each end for connection with the upper and lower strap-posts on the respective sides of said open plate or frame, a pad, and a plate for supporting said pad adjustably upon the lower bar or member of said open front plate or frame, substantially as and for the purpose herein set forth.

2. In a truss, the combination of a front plate, a pad-supporting plate adjustable upon said front plate, and a clamp consisting of

two plates and screws, between which said front plate and pad-supporting plate are received and by which said supporting-plate is secured in its adjusted position on said front plate, substantially as herein set forth.

3. In a truss, the combination of an open plate or frame having upper and lower strap-posts on each side and having a downward extension below the said lower strap-posts and an additional strap-post on said extension, a flexible body-band having two straps at each end for connection with the strap-posts on the respective sides of said open plate or frame, a pad, and a plate for supporting said pad upon the lower bar or member of said open front plate or frame, and a perineal band attached to the back of the said body-band and to said additional post, substantially as herein set forth.

4. In a truss, the combination of a body-band, a front plate or frame to which the ends of said body-band are attached, a perineal strap, the rear end of which is attached to said body-band, a pad, a supporting-plate for said pad, a clamp consisting of two plates and two screws, between which the said front plate or frame and said supporting-plate is received, one of said screws being below the said front plate or frame and having a post-head for the attachment of the front end of the perineal strap, all substantially as and for the purpose herein set forth.

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Witnesses:

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