S. S. Ritter,

Truss,

No. 49,437. Patented Aug. 15, 1865.

Fig: 1.

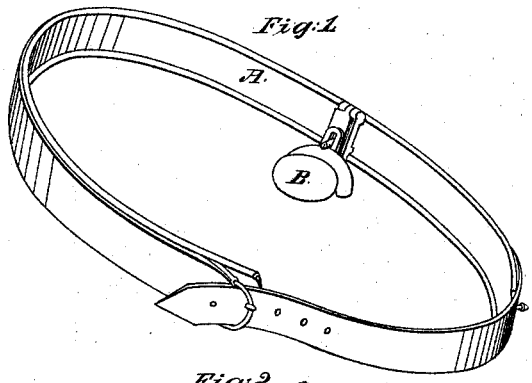


Fig: 3.

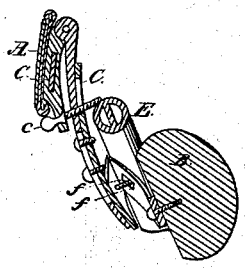


Fig: 2.

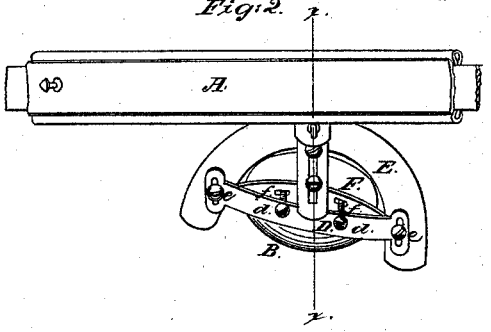


Fig: 6.

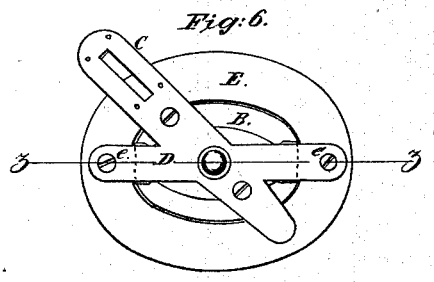
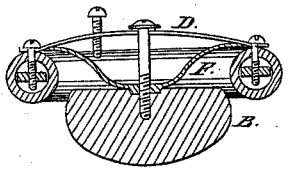


Fig: 7.



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UNITED STATES PATENT OFFICE.

SAMUEL S. RITTER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN TRUSSES.

Specification forming part of Letters Patent No. **49,437**, dated August 15, 1865.

To all whom it may concern:

Be it known that I, SAMUEL S. RITTER, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Trusses for Inguinal Hernia; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of a truss, illustrating one feature of my invention. Fig. 2 is a detached view, illustrating the pad and the parts employed in immediate connection therewith, as seen from the front when applied to the body. Fig. 3 is a detached sectional view, the plane of section being indicated by the line *x x*, Fig. 2. Fig. 4 is a front view of the pad, with the ordinary rubber ring applied. Fig. 5 is a section in the line *z z*, Fig. 4.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists, first, in the application to pads made of wood or similar material of elastic pieces or tubes of semi-elliptical or semicircular form, adapted to receive the pressure during the movements of the body and prevent the edges of the pad from rubbing against and chafing or injuring the flesh; secondly, in the employment of springs of peculiar construction for controlling the ultimate pressure of the pad.

To enable others skilled in the art to which my invention appertains to fully understand and use the same, I will proceed to describe its construction and operation.

In the accompanying drawings, A represents the mainspring, which is to be strapped around the body in customary manner, and from which emanates the essential pressure.

The pad B is represented as being attached to the mainspring A through the medium of two bars or supports, C C′, fixed rigidly at a greater or less distance asunder by means of a screw, *c*, in order to vary or regulate the force with which the pad B presses against the body.

The bar C is not attached directly to the pad B, but to a curved bar, D, either elastic or stiff, through which pass the screws *d d*, which enter the pad and hold it in place.

In Figs. 1, 2, and 3, E is a piece of rubber or other suitable elastic material, shaped semi-elliptically, or in conformity with the contour of the pad B, and round in its transverse section. This is attached to the bar D by screws *e e;* but it may be attached in any other manner. E′ in Fig. 4 represents a ring or elliptical piece made of the same material as the piece E in Figs. 1, 2, and 3. The semi-elliptical pad E sits above and partially encircles the operating-pad, receiving and breaking the pressure of the latter in the vicinity of its edge under the varied motions and contortions of the body, and preventing the injurious friction which would otherwise result therefrom. As regards these rubber or yielding pads, my claim is restricted to the one of semi-elliptical or semicircular form which is represented in Figs. 1, 2, and 3. The full-ellipse or full-circle pad shown in Fig. 4 is not new; but a careful investigation of the operation of the half-pad, located above the operating-pad, will demonstrate that it subserves the purpose in view much better than the full pad. The tendency of the latter is to bear upward from a point below the operating-pad, displace the latter from its effective position, and occupy the place where the operating-pad ought to be. Hence the full pad, instead of being beneficial, is liable to be deleterious. These pads E are made hollow by preference, but not necessarily.

F in Figs. 2 and 3 represents a curved spring interposed between the pad B and bar D, and having slots *f f* to accommodate the screws *d d*. The relative positions of the bar D and spring F may be reversed—that is to say, the spring may be located outside of the bar. This spring F allows the pad B to yield to the pressure of the body when bent or undergoing such movements that the pad in its normal position would produce undue pressure, and by inserting the screws *d d* to a greater or less distance into the pad the elastic force of the spring F is so controlled as to limit the ultimate pressure of the pad B.

In Fig. 4 the spring F is represented as having lips *f′*, which slide upon the bar D during the adjustment of the spring, and this adjustment may be effected by means of one screw, *f*, entering the pad B, instead of by two.

Having thus described my invention, the

following is what I claim as new and desire to secure by Letters Patent:

1. The soft flexible pad or piece E, made in semi-elliptical or semicircular form, and employed to receive the pressure of the surface of the body immediately around the operating-pad, substantially as and for the purpose set forth.

2. The spring F, applied directly to the pad B, in the manner and for the purposes herein described and represented.

To the above specification of my improvement in trusses I have signed my hand this 12th day of January, 1865.

S. S. RITTER.

Witnesses:

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