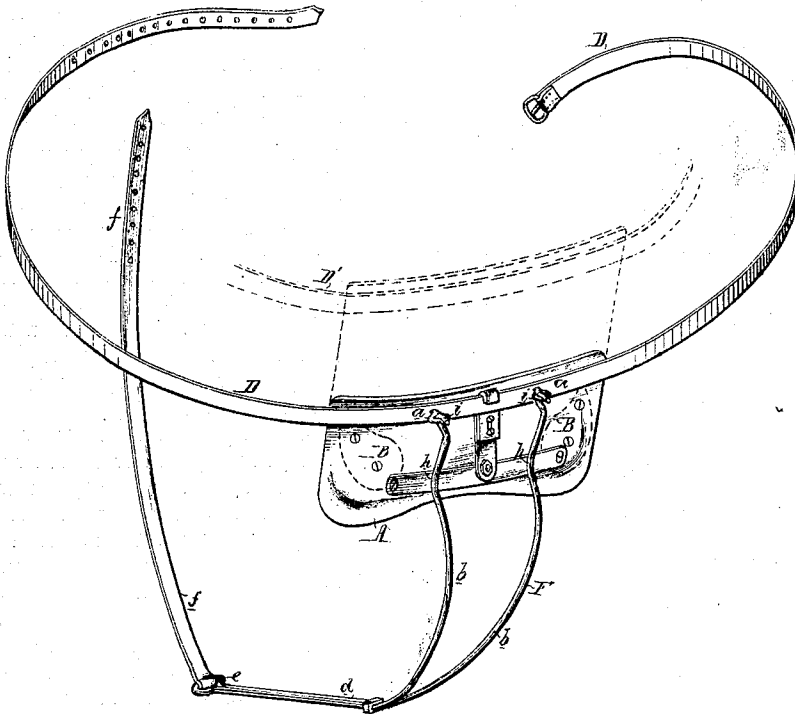


W. A. ELVINS.

Improvement in Trusses.

No. 129,117.

Patented July 16, 1872.



WITNESSES { *John K. Rupertus*
Thos. M. Thrain

W. A. Elvins
by his Atty
Storcken and Son.

UNITED STATES PATENT OFFICE.

WILLIAM A. ELVINS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN TRUSSES.

Specification forming part of Letters Patent No. 129,117, dated July 16, 1872.

Specification describing an improved Truss and Supporter, invented by WILLIAM A. ELVINS, of Philadelphia, Pennsylvania.

Improved Truss.

My invention consists in the combination, with a truss, of a lever bearing on the pad or pads, and adjustable by a strap passing between the limbs of the wearer, as fully described hereafter; the object of my invention being to dispense with springs, and to enable the pressure upon the pads to be increased or diminished to any extent desired.

In the accompanying drawing, the figure represents a perspective view of a hernia-truss with my improvement.

A represents a curved plate of horn, hardened leather, or other material, similar to those used in ordinary hernia-trusses, and B B are the pads, secured to the back of the said plate, as usual, in such positions as to bear against the wearer's body at the required points. This plate, with its pads, or the pads alone, have heretofore been secured to a light steel frame, arranged to be passed around the wearer's body above the hips, such frame being formed with elastic arms extending around to the front for the support of the truss proper, and having such inherent spring as to continually force the pads inward and upward against the body, and thus hold back the hernia. This truss-holding frame is bulky, and affords much inconvenience to the wearer; but the principal objection is that the pressure of the springs cannot be regulated, and is apt, therefore, to be either excessive or too light—in the first case causing great pain to the wearer, and in the second case permitting the pads to yield to such an extent as to render them almost useless as supporting mediums. I have overcome this objection by dispensing with the springs altogether, and substituting in place of the same a lever, by which any desired degree of pressure can be brought upon the plates to which the pads are secured, as I will now proceed to describe.

In the drawing, the plate A, with its pads, is supported by a simple strap and buckle, D, passed around the wearer's body above the hips, and to eyes *a a* secured to the front of this strap or to the plate is hung a lever, F, formed in the present instance of a single

piece of stout wire bent to the peculiar shape shown, so as to form two curved forks or bows, *b b*, and a stem, *d*. The stem terminates in an eye, *e*, to which a strap, *f*, is attached, and the bows, which are arranged at an angle in respect to the stem, are bent abruptly at opposite points so as to form knees *h h*, and they terminate at their outer ends in hooks *i i*, by which they are connected to the eyes *a* on the plate or strap. After adjusting the plate and pads, and securing them by means of the strap D, the lever F is turned down and passed beneath the body, and is then drawn up behind by means of its strap *f*, and secured to the rear of the strap D. When thus drawn back the lever will be caused to turn upon the eyes *a*, and its knees *h h* will be pressed inward against the plate, in the manner plainly shown in the drawing, such pressure being exerted at a point opposite the pads, so that the latter will necessarily be forced inward and upward against the body with a degree of pressure which can be regulated, at pleasure and to a nicety, by drawing up or releasing the lever by means of its strap *f*.

The above-described form of truss is intended especially for inguinal or scrotal hernia, but it can be used as a uterine supporter.

As the bows of the lever are carried beneath the body, I propose to combine with the same, where circumstances may require it, a bag for the support of the testicles; and when my invention is used as a uterine supporter, a bag for containing a sponge may be attached to the bows of the said lever. When the abdomen is considerably enlarged it will often be found inconvenient or impossible to support the truss by a single strap, D, passing around the body above the hips. In such case I propose to extend the plate A upward, and to use an additional strap, D', to be passed around the waist, as indicated by dotted lines; or in such case, or where the body tapers from the shoulders down, the truss may be supported by suspenders passing over the shoulders. In cases of umbilical hernia the lever F cannot be turned downward, but will have to be reversed, so as to extend upward from a lower to an upper strap, and be drawn in toward the latter, so as to cause its knees *h* to bear upon a pad to be pressed against the hernia.

I claim as my invention—

1. The combination, in a truss, of a pendent lever, arranged to bear upon the pad or pads, and an adjusting-strap, secured to the lower end of the lever and attached at the rear to the waist-strap, substantially as described.

2. The combination of the pad or pads of a truss and an elastic lever, F, having knees

h h, which bear upon the pad, substantially as described.

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

Witnesses:

WM. A. STEEL,
HARRY SMITH.

WM. A. ELVINS.