

(No Model.)

W. N. SMITH.
TRUSS.

No. 576,907.

Patented Feb. 9, 1897.

Fig. 1.

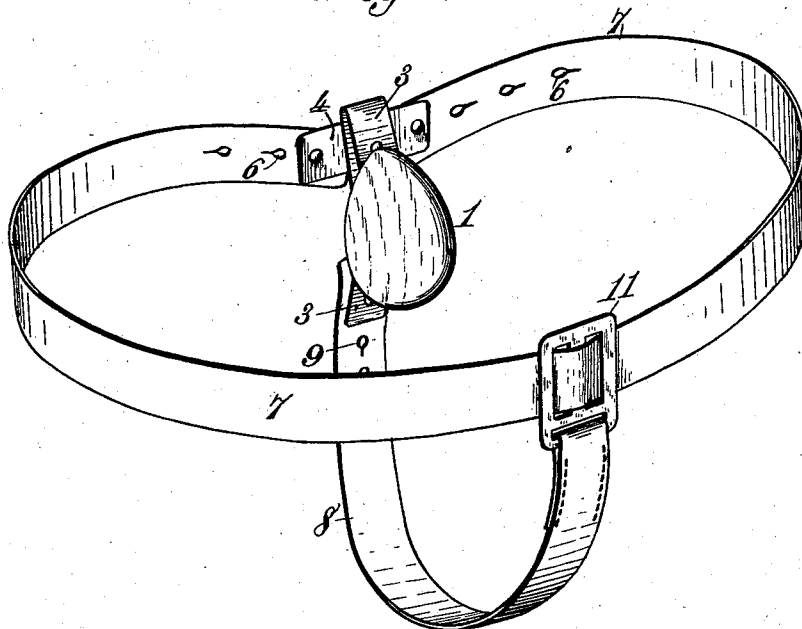


Fig. 2.

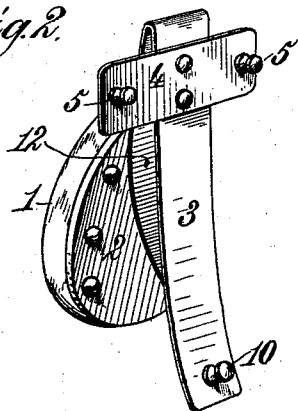
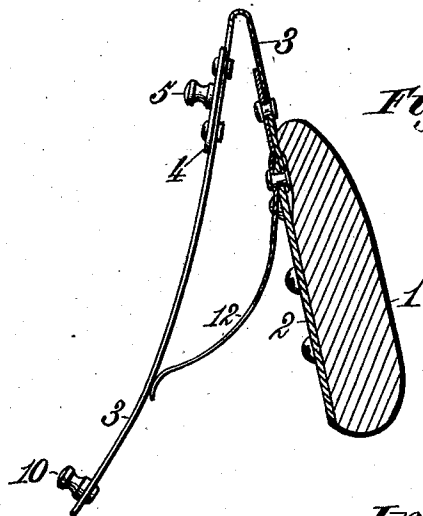


Fig. 3.



Witnesses.
Robert G. Smith.
Geo. W. Rea.

Inventor
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By James L. Norrie.
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UNITED STATES PATENT OFFICE.

WILLARD N. SMITH, OF NEW BEDFORD, MASSACHUSETTS, ASSIGNOR OF
ONE-HALF TO DAVID W. JUDSON, OF SAME PLACE.

TRUSS.

SPECIFICATION forming part of Letters Patent No. 576,907, dated February 9, 1897.

Application filed October 8, 1896. Serial No. 608,272. (No model.)

To all whom it may concern:

Be it known that I, WILLARD N. SMITH, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented new and useful Improvements in Trusses, of which the following is a specification.

This invention relates to trusses for the treatment and relief of hernia, and has for its object certain improvements in the form, construction, and arrangement of the truss-pad and its spring-supports, whereby the pad will readily perform its required service and properly support the hernia in all positions of the body.

The invention consists in certain peculiarities of construction and novel combinations of parts in a truss, as hereinafter more particularly described and claimed.

In the annexed drawings, illustrating the invention, Figure 1 is a perspective of my improved truss viewed from the rear and with belt and crotch-strap in attached position. Fig. 2 is a perspective of the pad and its spring-support detached from the belt and viewed from the front. Fig. 3 is a vertical longitudinal section of the truss-pad and spring-support.

It is my purpose to make the truss-pad 1 of any suitable material and either hard or elastic, as preferred. This pad is approximately egg-shaped on the surface that is presented to the body of the wearer, and as arranged for use the larger end of the pad is downward.

The front side of the pad 1 is flattened, and to this surface is securely riveted or otherwise attached a metal plate 2, which may form one end of a spring support or arm 3, that rises from the upper end of said plate and is then bent outward and downward on itself and is extended to a point below the lower end of the truss-pad.

To the upper portion of the spring-arm 3 is riveted a cross-arm 4, that is provided on the outer side at its ends with buttons or headed studs 5 for engagement therewith of eyelets 6, formed in a body-belt 7, that may be made from any suitable or usual material. A

crotch-strap 8 is provided at its forward end with a series of eyelets 9 for adjustable engagement with a button or headed stud 10 on the lower end of the spring-arm 3, and an adjustable connection may be provided between the belt 7 and rear end of the strap 8 by means of a slide-buckle 11, that will permit a shifting of the belt and the pad to either the right or the left, so that the truss may be used for a hernia on either side. It is obvious that in a case of double hernia two of these pads and crotch-straps could be connected with the same belt, it being only necessary to provide the additional pad and strap and a suitable supplemental strap or connection for the ends of the belt. The truss can thus be readily arranged for a hernia on either or both sides, as may be necessary.

For the purpose of securing a firm but yielding pressure of the truss-pad in all positions of the body there is provided between the plate 2 and spring-arm 3 a half-elliptic or bow spring 12, the upper end of which is riveted to said plate 2 and contiguous portion of the spring-arm where it rises from said plate. This bow-spring 12 is extended downward and curved outward to its lower free end, which is in contact with the spring-arm 3, so as to ride thereon under movement of the body and cause the truss-pad to maintain an equable and proper upward pressure for holding the hernia in position at all times. The position, form, and arrangement of this bow-spring 12 are such that its force is more directly applied to the pad 1 for holding it in its proper position when the truss is fitted to the wearer.

The spring-arm 3 diverges in a downward direction from the plate 2 at such an angle that when the belt is secured around the body and the strap 8 connected to and properly adjusted with relation to the lower end of said spring-arm the pad will be caused to exert a suitable upward pressure in the required manner for supporting the hernia with comfort to the wearer of the truss and so as to allow a free movement of the limbs. The egg-shaped form of the pad, and its arrangement with larger end downward, is such as

will give the most satisfactory results in adapting the truss to the requirements of treatment in different cases.

What I claim as my invention is—

- 5 The combination with the egg-shaped truss-pad, and its supporting-plate 2 having a spring-arm 3 rising from the upper portion of said plate and extended outward and downward to a point below the pad, of the
10 bow-spring 12 having its upper end secured to the pad-supporting plate and its lower free end in riding contact with the lower portion of the spring-arm 3, the cross-arm 4 secured to the upper portion of the spring-arm 3 and

provided with studs 5, a belt adapted for ad- 15
justable attachment to the studs of said cross-arm, and the crotch-strap, and having a laterally-sliding connection with the belt and adapted for adjustable connection with a stud on the lower end of the spring-arm, sub- 20
stantially as shown and described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLARD N. SMITH.

Witnesses:

WM. B. WOOD,

HOWARD G. JUDSON.