# B. Sherrood,

## Truss.

No. 44,226. Patented Sept. 13, 1864.

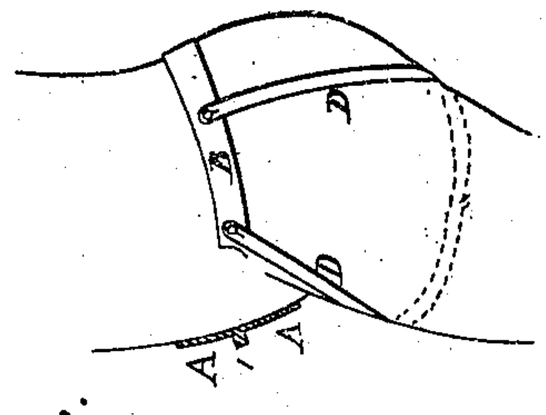


Fig. 3.

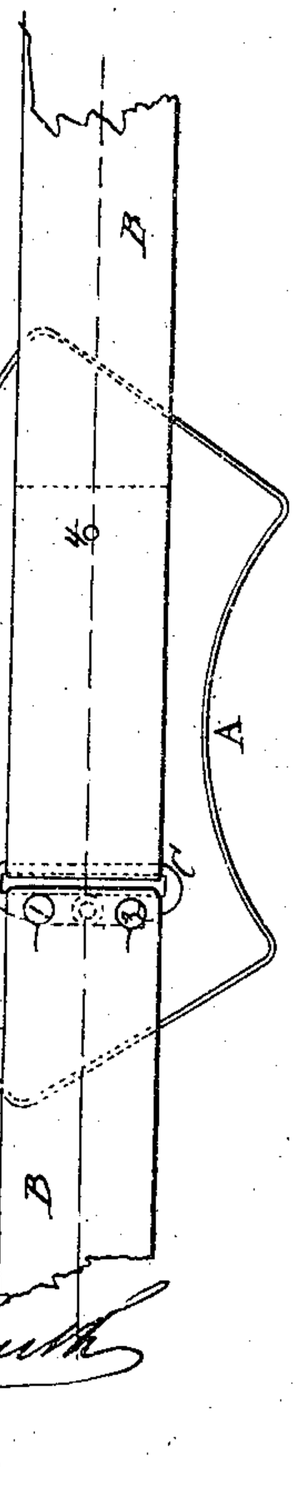


Fig. 1.

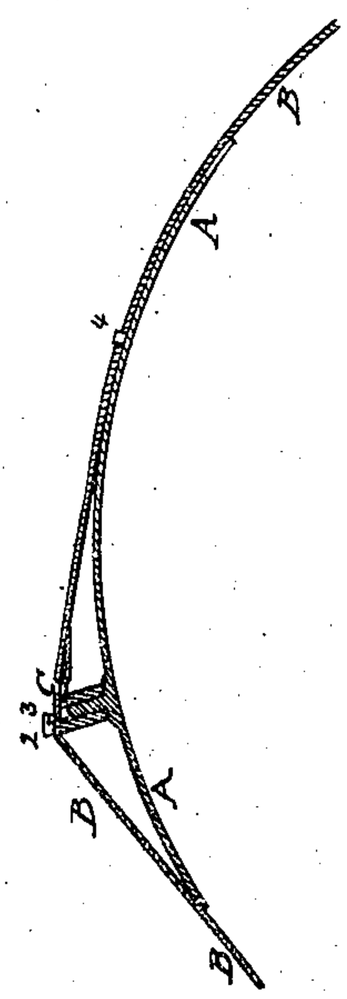


Fig. 2.

Witnesses

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# UNITED STATES PATENT OFFICE.

BENJAMIN SHERWOOD, OF NEW YORK, N. Y.

## IMPROVEMENT IN TRUSSES.

Specification forming part of Letters Patent No. **44,226**, dated September 13, 1864.

*To all whom it may concern:*

Be it known that I, BENJAMIN SHERWOOD, of the State, city, and county of New York, have invented an Improved Truss and Supporter; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, which form part of this specification.

The object of a truss primarily is to maintain as nearly as possible the position of the parts in health, and, while thereby assisting nature to effect a cure, to prevent a relapse of the parts into the diseased state or position whenever a tendency to such a relapse obtains; and the aim of my invention is to produce an instrument which, acting as a truss for the cure of hernia, will be approximately self-operating and self-compensating of the pressure applied to the place of rupture, so that normally the action will be simply impact, but under such action of the body, greater or less, as tends to aggravate or enhance the disease, there will be such additional pressure, greater or less, produced on the desired place as to resist effectually such enhancing tendency. Said instrument, so made, is also well adapted to the purposes of a supporter.

The nature of my invention therefore consists in the use of a "plate" having a curved form, so as to fit the lower portion of the abdomen, and sufficiently stiff to maintain its shape, the same being provided with one or more protuberances on the outer side and acting in combination, as herein described, with a belt or band connected thereto in such a manner that the said plate becomes a lever that may be moved or oscillated by the motion of the abdomen, and thereby exert more or less pressure as when and where required, substantially as herein set forth.

My invention also consists in the use, in combination with such belt or band and plate so made, of a loop or ligature, as herein described, to assist in holding the plate in its place, all substantially as hereinafter described.

To enable others to make and use my invention, I will proceed to describe the same.

In the drawings hereto annexed, wherein the marks of reference correspond in all the figures, Figure 1 is a front view of the instrument. Fig. 2 is a section of the same, and Fig. 3 shows the instrument applied to the person.

Hernia or rupture is generally caused by the effort of the bowels to expand under the great pressure they withstand or sustain in an act of straining, as lifting. Thus any straining incident to exertion is naturally accompanied by a movement of the upper portion of the abdomen, such movement being outward during the act of straining and inward to its normal state when the exertion ceases. Now, my invention makes use, for the purpose of curing hernia, of the same action of the abdomen that usually takes place when the rupture is produced. I therefore have a plate, A, (see drawings,) of any material that will maintain its shape. Said plate is formed so as to fit exactly that part of the abdomen usually affected. The upper edge of this plate has a curved shape. The lower edge is cut out so as to conform partially to the front bone of the pelvis, and the two ends of said plate are cut so as to correspond with the lines of the groins. Thus the plate A will occupy the larger part of the surface of the lower region of the abdomen between the groins, and the two lower corners of said plate cover the usual place of rupture. Upon the outer surface of the plate A, between the upper and lower edges thereof, I place a small protuberance or teat, 1, and upon this teat I place a clasp, buckle, or like device competent to afford the means of attaching a suitable band or belt, B. This belt should be made of material that is nearly or quite unelastic, as any yielding thereof will tend to impair the action of the truss and lessen the "curative effect." The clasp or buckle C has a socket adapted to receive the teat 1, which is so fitted as to permit a free movement of said clasp in the manner of a swivel. The belt B is attached, one end by button-holes which take over buttons 2 3, fixed to the clasp C, as seen in Figs. 1 and 2; the other end is passed through the slide in said clasp, and is then fastened, by means of a pin, 4, in the plate A. (See Fig. 1.) The instrument is attached to the person by means of the belt B, which encircles the body at the hips, as seen in Fig. 3.

To hold the plate A constantly and with certainty in the desired locality and prevent the same from working out of its place by the motions of the person, I employ a ligature, D,

the same consisting of a strap attached in front and behind to the belt, as shown in Fig. 3, and passing under the thigh.

In Fig. 3 the belt is broken off near the front, to show the plate in section and the teat 1. Supposing the instrument to be in its place, as seen in that figure, it will be apparent that the distention of the abdomen, as before mentioned, in the act of straining causes an oscillating movement of the plate, with the teat 1 as the fulcrum. Thus when the abdomen is distended the upper part of the plate A is thrown outward and the lower part inward and against the place requiring the special pressure. When the abdomen recedes, the plate resumes its former position and the special pressure is removed. It is further apparent that said special pressure on the rupture will correspond in degree with the amount of exertion or straining, great straining giving considerable pressure and slight exertion giving but little; hence the truss is in a great measure self-acting and self-compensating of the principal pressure. The use of the teat 1, or its equivalent, projecting, as it does, beyond the line of the curve of the plate A, so as to form a fulcrum for the oscillation of said plate, is a great desideratum, more particularly as such fulcrum may be located at any desired position on the plate, and the pressure in the oscillation of said plate thus be thrown on any place that the patient may require it. Moreover, the pressure is increased with the degree of extension of said teat 1.

The truss shown in the drawings is intended for a rupture on one side only, and therefore there is but one teat shown as used for a fulcrum. I, however, sometimes use two fulcrums, one on each side. This depends on the nature of the case.

In my personal experience with this truss I have not found any "pad" necessary. Pads may be attached, however, if deemed requisite.

The construction of the instrument as above described is very well adapted to the purposes of an abdominal supporter.

I do not confine myself to the belt as a means of attachment of the plate to the person; neither do I confine myself specifically to all the detail of construction set forth, so long as the principle of action of the instrument is retained.

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

1. The projecting fulcrum or teat 1, in combination with the plate A, substantially in the manner and for the purposes described.

2. The combination of the plate A, having the projecting fulcrum, as described, with the belt B, or its equivalent, substantially as and for the purposes set forth.

Witnesses: BENJAMIN SHERWOOD.

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