J. A. SHERMAN.

TRUSS.

No. 188,307. Patented March 13, 1877.

Fig. 1.

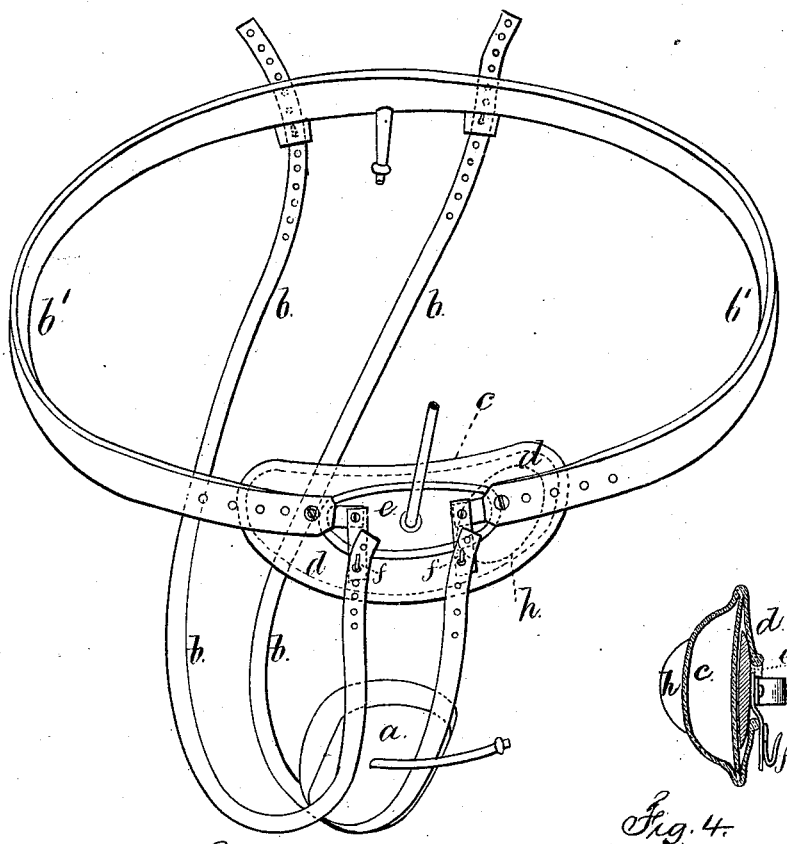


Fig. 2.

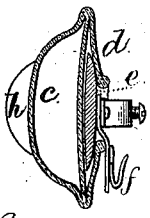


Fig. 3.

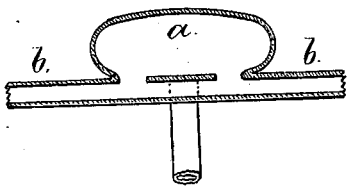
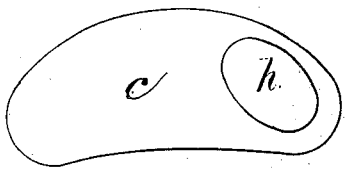


Fig. 4.



Witnesses

Chas. H. Smith

Geo. T. Pinckney

Inventor.

Jacob A. Sherman.

per Lemuel W. Serrell.

UNITED STATES PATENT OFFICE.

JACOB A. SHERMAN, OF NEW YORK, N. Y.

IMPROVEMENT IN TRUSSES.

Specification forming part of Letters Patent No. **188,307**, dated March 13, 1877; application filed January 22, 1874.

To all whom it may concern:

Be it known that I, JACOB A. SHERMAN, of the city and State of New York, have invented an Improvement in Trusses, of which the following is a specification:

Truss-pads have before been made of india-rubber inflated with air. I make use of belts or straps, that are tubular and inflated with air or other fluid, so as to form a yielding support that allows for the motion of the body without undue strain on any of the parts, and by the yielding nature of such straps they are prevented from slipping or the pads from changing their positions.

These tubular straps, when inflated with air under pressure, are better adapted to use, especially between the legs, where there is a pressure in more than one direction, because they flatten at the sides where there is the heaviest pressure, and do not present an edge, like other straps, that cut and chafe the skin.

The air-pads are connected directly to the tubular straps, so as to be blown up or distended by air or other fluid, introduced at one place; but where the pad requires to be removable, there is a secondary back attached at its edges to the pad, and having a central opening, into which the leather or other attaching-plate is introduced.

In the drawing, Figure 1 is a perspective view of a truss complete, having two pads, one for an abdominal support, and the other for a pile-supporting cushion. Fig. 2 is a section of the abdominal pad or supporter; and Fig. 3 is a section of the air-pad and connected straps. Fig. 4 is a plan view of main pad.

The pad *a* is made of india-rubber, and air-tight, and to it one or more straps, *b*, are united. These straps *b* are tubular, in order that they may flatten at the side where the greatest pressure is applied, and hence they will not be liable to injure the skin of the wearer.

These tubular rubber and flexible straps *b* are shown in Fig. 3 as opening into the cavity of the rubber pad, in order that the air that is blown into the parts may inflate them simultaneously; but it will be evident that the pad and straps may be blown up by separate connecting-tubes and mouth-pieces.

The waist-belt *b'* is, preferably, made of two or more connected tubes that are to be inflated by any suitable tube or mouth-piece, and hence they lie sufficiently flat to be convenient in use.

The tubular straps may have branches opening into each other and passing off in the required direction. The tubular straps are either covered with plush, cloth, or other material, or left simply with the surface of india-rubber upon cloth.

This tubular strap is especially useful when passing through between the legs, and usually known as the thigh or perineal strap.

The pad *c* is made of an inflated bag, and to attach the same the secondary back *d* is made use of, the same being attached at its edges to the pad, and made with an open center, through which the leather or other attaching-plate *e* is inserted, and to this plate *e* the ends of the straps are connected by hooks *f* or other convenient appliances.

In many instances a rigid substance is preferable to press directly upon the hernia, in which case a pad of wood, or other similar material is applied to the surface of the air-bag, and held by a covering of rubber cemented at its edge to the pad, as seen at *h*, Figs. 2 and 4. The tubular straps may, however, be used with any kind of pad.

According to the relative lengths of the straps *b* so the pad *a* will be adjusted for use as a pile-supporter or a perineal pad, so that the truss is adapted to the various uses required.

I am aware that rubber tubes have been employed for truss-straps, but they have not been connected to the inflated pads, so as to be inflated simultaneously; neither have they been distended by air under pressure.

I claim as my invention—

1. A self-accommodating strap, for a truss-pad, formed of one or more air-tight india-rubber tubes, with inflating valves or tubes, substantially as and for the purposes set forth.

2. The tubular india-rubber straps, connected to the india-rubber pad, and opening into the same, so that the pad and strap are simultaneously inflated, substantially as set forth.

3. The truss-pad, made of an inflated india-

rubber bag, in combination with the secondary back, connected at its edges with the pad, and having a central opening, and the attaching-plate or stock introduced therein, substantially as set forth.

4. A rigid presser united to the surface of the air-bag, forming the hernial pad, as and for the purposes specified.

Signed by me this 17th day of January, A. D. 1874.

J. A. SHERMAN.

Witnesses:
GEO. T. PINCKNEY,
CHAS. H. SMITH.