G. A. TYER & W. J. HORNE.

Elastic Trusses.

No. 196,272. Patented Oct. 16, 1877.

Fig. 1.

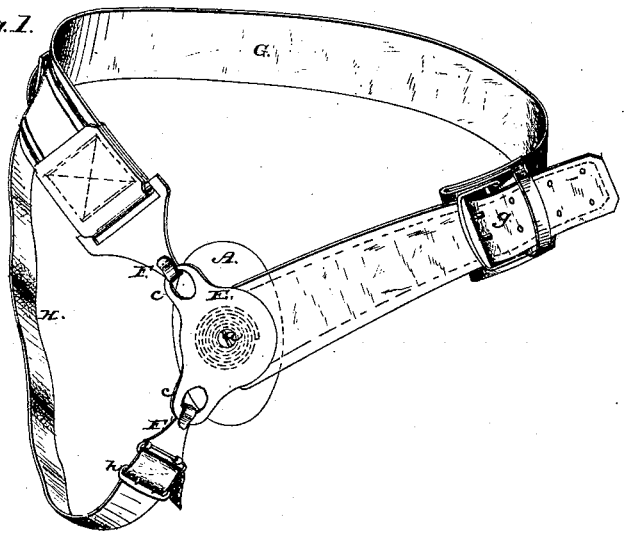


Fig. 2.

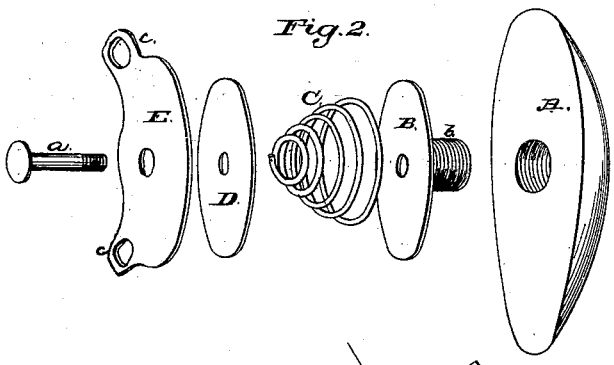


Fig. 3.

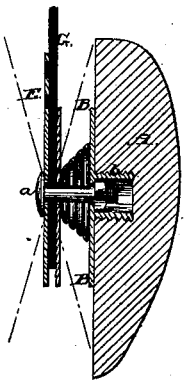
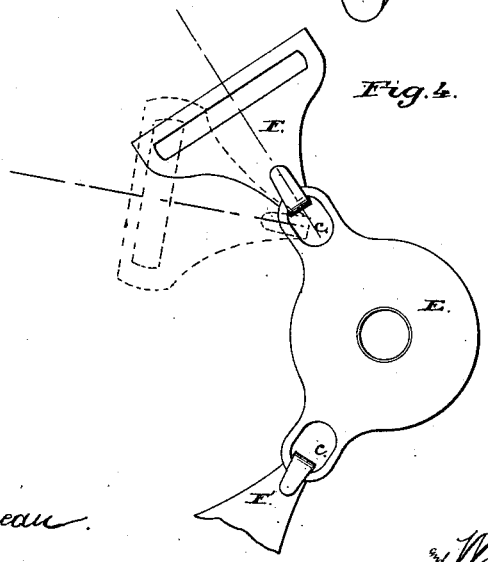


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE A. TYER AND WALTER J. HORNE, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN ELASTIC TRUSSES.

Specification forming part of Letters Patent No. **196,272**, dated October 16, 1877; application filed June 11, 1877.

To all whom it may concern:

Be it known that we, GEORGE A. TYER and WALTER J. HORNE, both of the city and county of San Francisco, State of California, have made and invented certain new and useful Improvements in Elastic Trusses, which improvements are fully set forth in the following specification and accompanying drawing.

In the said drawing, Figure 1 is a front view of our improved truss. Fig. 2 is a detail view of the pad, pad-plates, and central supporting-springs. Fig. 3 is a sectional view through the pad-plates and spring. Fig. 4 is a detail view of the snaps and holding-plate.

Our invention has for its object to produce a self-adjusting truss, in which the pad shall have the capacity to yield in or to all positions and motions of the body, and at the same time to hold securely in place and bear against the rupture with a regular pressure, and when once adjusted to the form and size of the wearer the truss or pad can be taken off and put on without disturbing or changing the length and adjustment of the elastic bands or straps, as will be fully set forth hereinafter.

It consists in the construction of the pad-plates with a conical spring between them, held in place by a central bolt upon which the strap-holding plate turns and rocks as a center, and with a screw-sleeve upon the under side of the lower plate, which holds the pad in place and allows it to be taken off and replaced without disturbing the other parts.

The straps are provided with snap-hooks, which engage with the slots in the projecting ears of the upper plate, and the pad is held in this manner against the person with the capacity to yield with the body.

In the drawings, A represents the pad; B, its plate, with the screw-sleeve *b*; C, the conical metal spring; D, a plate bearing upon the apex of the spring. E is the upper holding-plate, with its oblong or rectangular slots *c c*, to receive the snaps F F′ on the ends of the strap and band G H.

Between the two plates D E one end of the waistband G is held by means of the bolt *a*, which passes through the two plates and through the spring C into the plate B, where it is held by a nut within the sleeve *b*. This bolt serves as a pivot or swivel for the holding-plate E, and also acts to keep the spring in place and to compress it to the required degree.

The conical form of the spring C affords a broad and stable base, and at the same time allows the pad to yield and take any angle with the holding-plate, and forms a perfect swivel-joint.

Instead of having the straps or bands connected directly and permanently to it, the ends of the straps attach to the pad-plate E by means of the snap-hooks F F′, one for the waist-strap and one for the perineal strap. These hooks engage with the slots or loops *c c* on the plate E, and adjust themselves to the position of the pad according as it is situated high or low.

The lengths of the straps G H are adjustable by means of the buckles *g h*, and when their length is once regulated the pad can be taken off and changed, or the truss put on and removed by the wearer, without assistance, at any time of day or night, by means of the snap-hooks, by which the trouble and annoyance of adjusting the truss every time is avoided and overcome.

The pad A being secured to the lower plate B independent of any screw allows the pads to be readily changed without interfering with the adjustment and arrangement of the other parts with each other.

This truss is readily adapted to be used either for a right-hand or a left-hand rupture.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent as being new therein, is—

The combination, with the pad A, of the plate B, provided with screw-sleeve *b*, the conical volute springs C, the plate D, strap-holding plate E, and the center-bolt *a*, having an adjusting-nut at one end, constructed and arranged substantially as described and shown.

In testimony that we claim the foregoing we have hereunto set our hands this 24th day of May, 1877.

GEO. A. TYER.
WALTER J. HORNE.

Witnesses:
WILLIAM HARNEY,
EDWARD E. OSBORN.