

W. L. TUCKER.
Truss.

No. 208,869.

Patented Oct. 8, 1878.

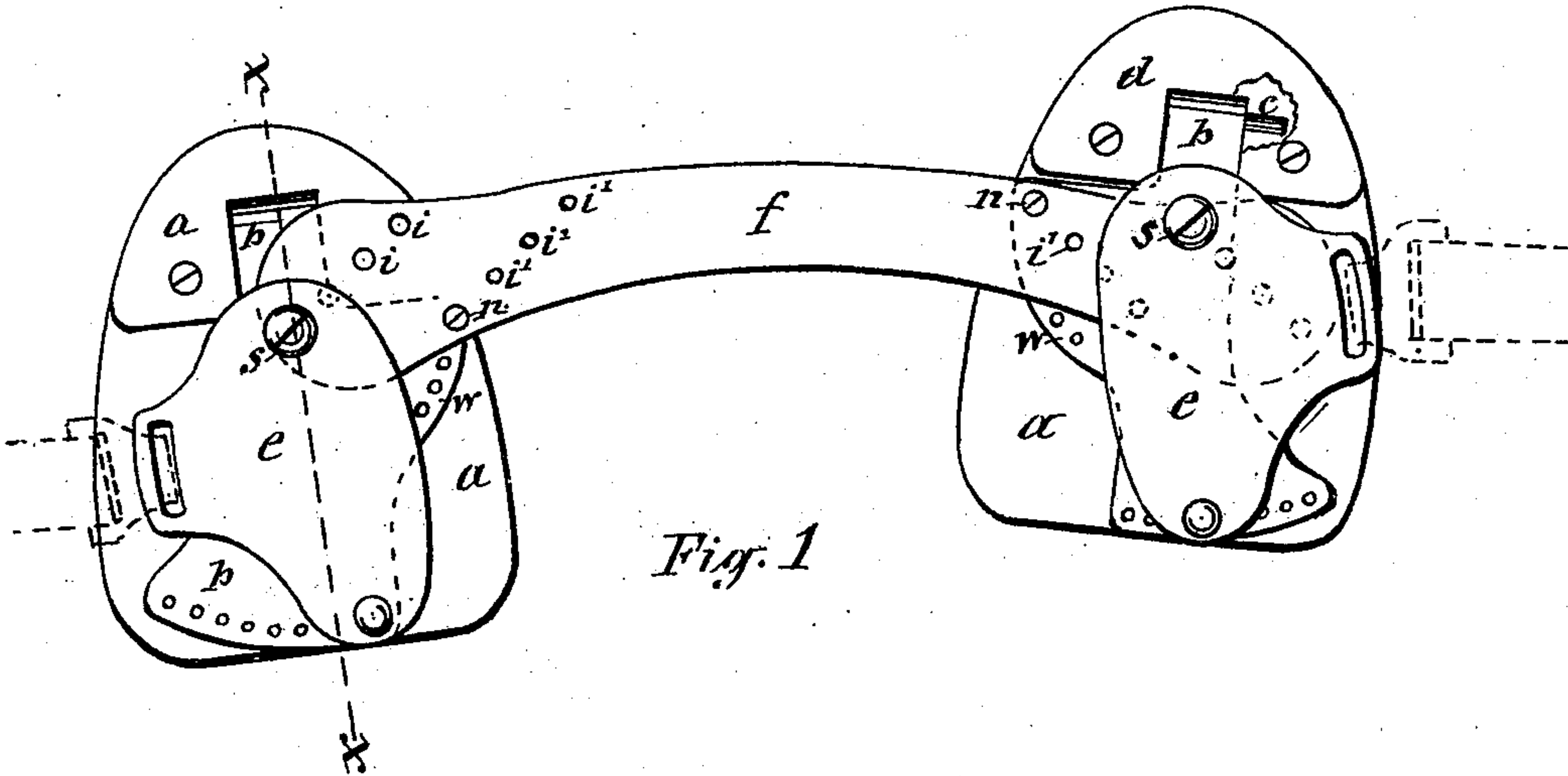


Fig. 1

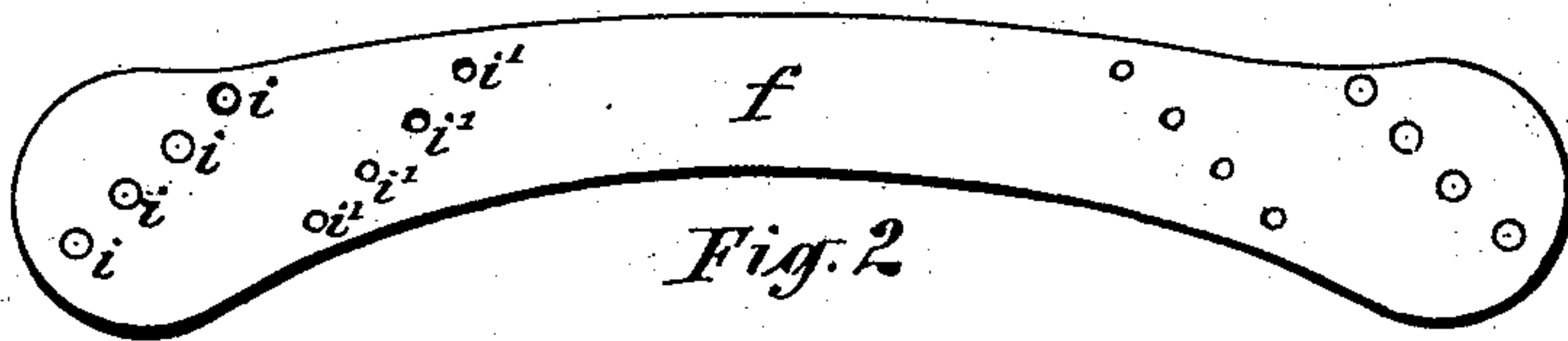


Fig. 2

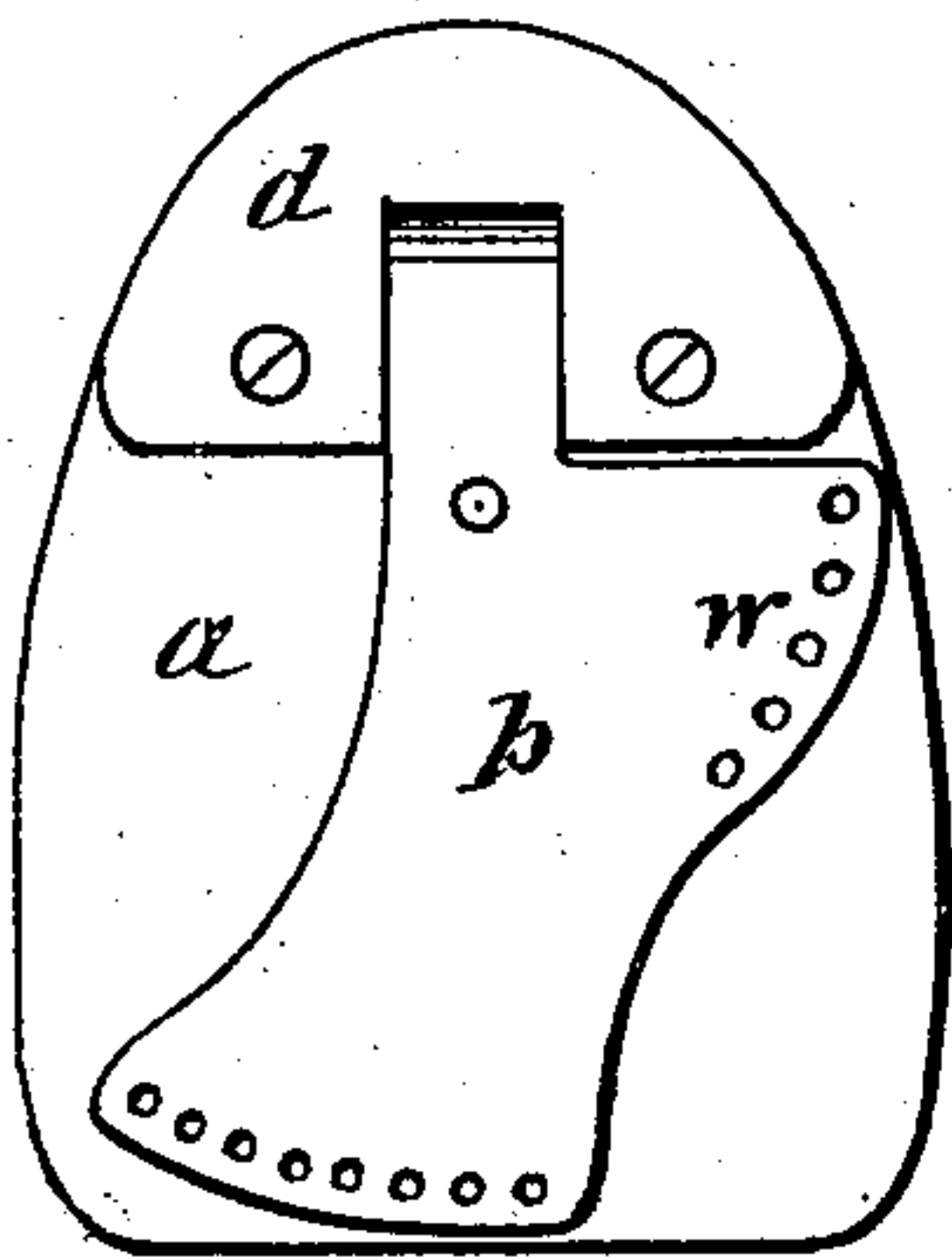


Fig. 3

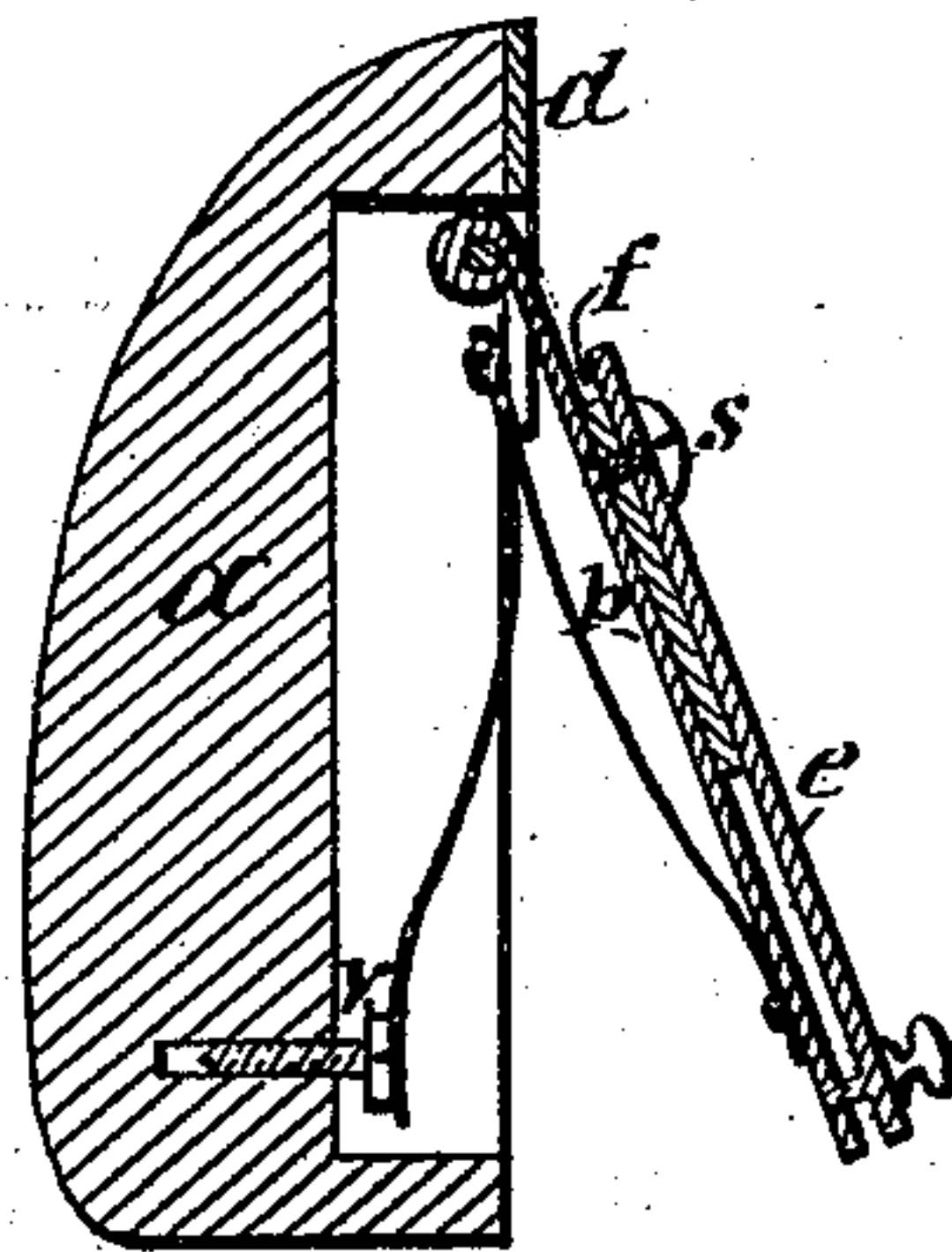


Fig. 4

WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM L. TUCKER, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN TRUSSES.

Specification forming part of Letters Patent No. **208,869**, dated October 8, 1878; application filed July 30, 1878.

To all whom it may concern:

Be it known that I, WILLIAM L. TUCKER, of Syracuse, in the county of Onondaga and State of New York, have invented new and useful Improvements in Hernial Trusses, of which the following, taken in connection with the accompanying drawing, is a full, clear, and exact description.

The invention consists, first, in a novel combination and arrangement of a plate hinged to the pad, and having a spring interposed at its free end, a set-screw connected to the hinged plate at a fixed point, and the connecting-bar and band-receiving plate pivoted to the hinged plate by the set-screw aforesaid, and provided with means for adjusting them in their respective positions.

It also consists in improved means of hinging the back-plate to the pad, whereby the said plate is braced against lateral strain, the attachment and detachment of same for repairs or renewal are facilitated, and the said parts are better secured to each other; and it furthermore consists in a novel, simple, and convenient means of adjusting the tension of the spring.

The invention is clearly illustrated in the accompanying drawing, wherein Figure 1 is a rear view of my improved truss; Fig. 2, a view of the connecting-bar detached; Fig. 3, a rear view of one of the pads detached, and Fig. 4 a vertical transverse section on line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

a represents the pad, and *b* the back-plate, which latter has heretofore been hinged either to the end of a plate attached to the pad or directly to the pad by a pintle extending transversely through the body of the pad; but inasmuch as the back-plate is subjected to various strains, neither of the said constructions afforded the requisite rigidity and safety for the fastening of the hinge, and in case of the breaking of the pintle it was difficult to remove the pieces. To obviate these difficulties, and at the same time compensate in a measure for the weakening of the pad incident to the excision of the longitudinal recess in the rear thereof, and, furthermore, to simplify and reduce the cost of construction, I employ a short

pintle, *c*, projecting from the sides of the plate *b*, which pintle I embed in a groove in the rear surface of the pad, so as to bring it flush therewith, and confine it therein by a plate, *d*, secured to the back of the pad, and fitted to cover the entire upper portion thereof, and extended down the sides of the longitudinal recess, in which the plate is hinged.

e is the main plate, to which the bands are attached. It is secured to the back-plate *b* by set-screw *s*, and provided with suitable means to impart to it the required radial adjustability. *f* is the bar by which the two pads are connected with each other.

In order to adapt the truss to various localities of the herniæ and for persons of various sizes, it is essential to make the connection of the bar *f* with the pad adjustable both vertically and horizontally. To attain this adjustability perfectly, and without varying or impairing the efficiency of the truss, I provide the ends of the connecting-bar *f* with two series of holes, *i i i* and *i' i' i'*, arranged obliquely and parallel with each other, and pivot it to the back-plate *b* by means of the set-screw *s* passing through one of the outer series of holes, *i i i*.

The back-plate *b* is provided with a lateral extension or wing, *w*, in which are a series of holes arranged in an arc described from the center of the pivot *s*, and with a radius equal to the distance from one of the outer holes, *i*, to its corresponding inner hole, *i'*, in the connecting-bar, so that in turning the pad on its pivot *s* the inner hole, *i'*, in the bar *f*, corresponding with the pivot, will coincide throughout with the holes in the wing of the back-plate. By means of a clamp-screw, *n*, inserted thereat, the pad is secured in the position desired. The adjustment of its pads to their respective herniæ is accomplished by removing the set-screws *s* and *n*, and after placing the pad in the position desired, first inserting the pivot-screw *s* through that of the outer series of holes, *i*, in the bar *f* which comes in coincidence with the hole in the back-plate and main plate, and then securing it radially by inserting the set-screw *n* through one of the inner holes, *i'*, in the bar *f*, and through the corresponding hole in the wing of the back-plate.

It is manifest that the described adjustment of the pad can be accomplished by slots arranged in the same relative positions as the series of holes in the bar *f* and wing of back-plate, and I therefore do not confine myself to the latter construction.

v is a set-screw inserted in the pad at the bearing of the spring, for the purpose of varying the play of the spring, and thus adjusting the tension of same. Since the spring constantly bears on the head of the screw *v*, a pin may be substituted for the latter, and the adjustment accomplished by interposing washers between the head of the pin and back of the pad.

Having described my invention, what I claim is—

1. A double hernial truss having the plate *b* hinged to the pad, and provided with set-screw *s* and lateral extension *w*, in the form of an arc described from the center of screw *s*, a spring interposed between the free end of said plate and pad, and the connecting-bar *f*, pivoted by one of a series of holes in its end to set-screw *s*, and provided with a clamping device adapted to engage the lateral extension of plate *b*, substantially as described.

2. The combination of the plate *b*, hinged to the pad, and provided at a fixed point with set-screw *s* and the lateral extension *w*, the

latter provided with a series of holes arranged in an arc described from the center of screw *s*, the connecting-bar *f*, provided with two obliquely and parallel arranged series of holes, *i i i* and *i' i' i'*, and set-screw *n*, substantially as described and shown.

3. The combination and arrangement of the main plate *e*, pivoted at its upper extremity to a fixed point on the back-plate *b*, the back-plate having wing *w*, provided with a series of holes arranged in an arc described from the center of the pivot of the main plate, the connecting-bar *f*, provided with two obliquely and parallel arranged series of holes, *i i i* and *i' i' i'*, and the set-screws *s* and *n*, substantially as described and shown, for the purpose set forth.

4. In combination with the pad *a*, provided in its rear with a longitudinal recess, the plate *b*, having short pintle *c* projecting from its sides, and embedded in a transverse groove in the rear surface of the pad, and the plate *d*, fitted to cover the entire upper portion of the rear of the pad, and extended partly down the sides of the longitudinal recess, substantially as described and shown, for the purpose set forth.

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Witnesses:

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H. HILL.