(Model.)

C. H. NICOLLS.

TRUSS.

No. 343,388. Patented June 8, 1886.

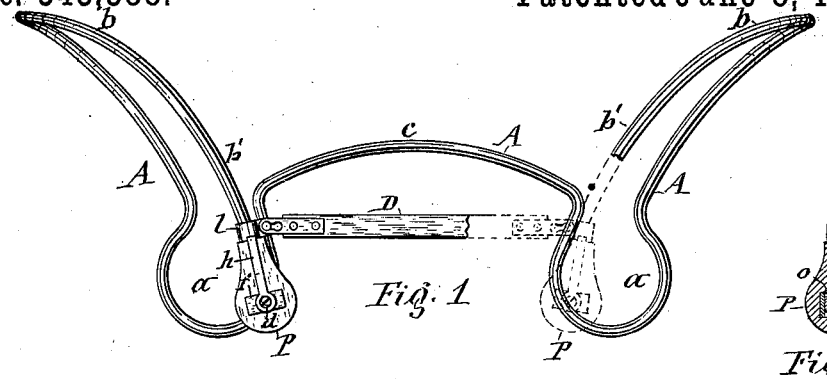

Fig. 1

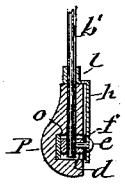

Fig. 3

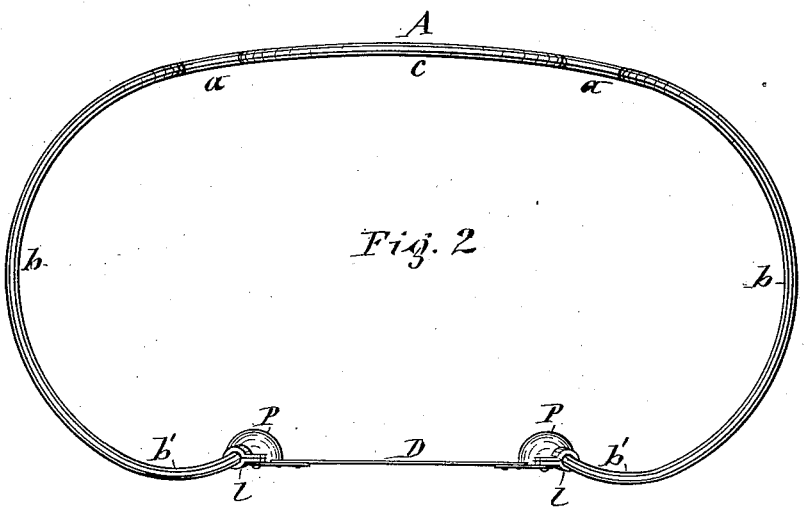

Fig. 2

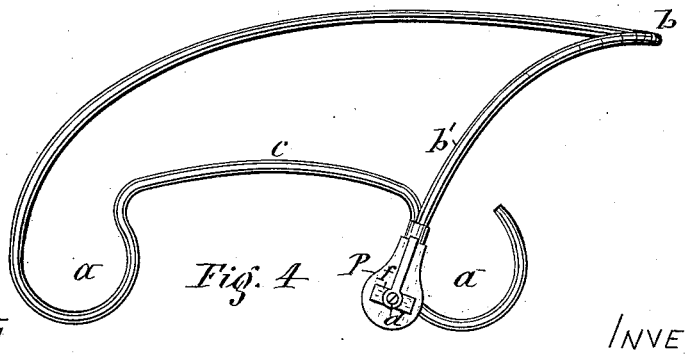

Fig. 4

WITNESSES

C. H. Duell

C. Bendixson

INVENTOR

Charles H. Nicolls

per Church, Crosby & Fenwick

Attys

UNITED STATES PATENT OFFICE.

CHARLES H. NICOLLS, OF JORDAN, NEW YORK, ASSIGNOR OF ONE-HALF TO CHARLES EDWARD CHAPPELL, OF SAME PLACE.

TRUSS.

SPECIFICATION forming part of Letters Patent No. 343,388, dated June 8, 1886.

Application filed March 25, 1886. Serial No. 196,577. (Model.)

To all whom it may concern:

Be it known that I, CHARLES H. NICOLLS, of Jordan, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Hernial Trusses, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention consists, first, in a novel construction of a spring-metal supporting-bar of a hernial truss, which bar is adjustable to fit different-sized persons, and affords bearings on the back of the wearer at such positions as to cause the said bar to securely hold the pad in its requisite position over the hernia during the various movements which the wearer may adopt; and the invention also consists in a novel attachment of the pad to the supporting-bar, all as hereinafter fully explained, and specifically set forth in the claims.

In the annexed drawings, Figure 1 is a front view of my improved hernial truss. Fig. 2 is a top plan view of the same. Fig. 3 is a longitudinal section of the pad, showing its attachment to the supporting-bar; and Fig. 4 shows my invention embodied in a single truss.

Similar letters of reference indicate corresponding parts.

A denotes the main brace or support of the truss, which support I form of a spring-metal bar bent into bows or loops *a a*, and into an upward deflection, *c*, between said bows or loops, and from these bows or loops the bar is bent into outward, upward, and forward curved bows, *b b*, and terminates with inward and downward curvatures, as shown at *b' b'*, and to these ends are attached two pads, *p p*, which are carried the same distance below the bows *b b* as the loops *a a*.

When this truss is applied to a person, the loops *a a* serve as bearings on the back portions of the hip-bones, and these back bearings cause the extremities of the bar A to be raised and lowered as the said bearings are lowered and raised; hence, when the wearer of the truss stoops, the supporting-bar A follows the movement of the body and lowers the ends of the bar at the front of the body, and thus maintains the pads *p p* in their proper positions over the hernia, and as the person assumes an upright position the supporting-bar A again follows the movement of the body and raises the pads as the front portion of the body rises, and consequently the pads remain undisturbed in their position over the hernia. The arch *c* between the loops *a a* rises sufficiently to bring it across the small of the back without producing injurious pressure thereon. The bows *b b* rise over the sides of the hips, and thus leave the movement of the latter unincumbered.

The described supporting-bar A can be adjusted to fit persons of different sizes by expanding or contracting the loops *a a* and imparting more or less curvature to the intermediate arch, *c*, the bar being sufficiently flexible to permit of bending the aforesaid parts thereof as may be required for the said adjustment, and although said bar is capable of being bent into different shapes, yet it possesses sufficient stiffness to impart the requisite pressure to the pad P.

For a single truss I leave off one of the bows *b* and bend the other bow over across the back and above the loops *a a* and arch *c*, and thence over the side of the hip, and terminate it with an inward and downward curvature in the same shape as bows of the double truss, as represented in Fig. 4 of the drawings.

The attachment of the pad P to the supporting-bar A, I make as follows: The pad I provide with a longitudinal or vertical channel, into which I insert loosely the end of the bar A. Through an opening, *o*, in the back of the pad I introduce an eyebolt, *d*, into the longitudinal channel of the pad, across the lower end thereof, and through said eyebolt the end of the bar A is extended. By means of a set-screw, *e*, inserted into the eyebolt from the back of the pad, and bearing on the inclosed portion of the bar A, the pad is retained on said bar; and in order to allow to the pad a limited oscillation under a yielding resistance I interpose a spring, *f*, between the head of the set-screw and back of the pad. The usual front strap, D, which connects the extremities of the supporting-bar, I connect with said bar above the pad P by means of a clip, *l*, attached to the bar A at the point aforesaid, which clip is provided with a button or stud, to which the strap D is detachably connected in any ordinary and well-known manner. The clip *l* and

pad P are further secured on the bar A by means of an arm, *h*, which lies longitudinally on the back of the pad, and has its upper end rigidly attached to or integral with the clip *l*, and is clamped thereby on the bar A. The lower end of the arm *h* lies over the back of the eyebolt *d*, and is perforated for the passage through it of the set-screw *e*, before described. By connecting the strap D with the supporting-bar A above the pads P P, as herein shown and described, I render the truss more convenient to the wearer.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A hernial truss composed of a spring-metal bar bent into bows or loops *a a*, adapted to bear on the back of the hip-bones of the wearer, and with a bow or bows, *b*, rising over one or both hip bones at the side thereof, and terminating with a pad or pads on one or both ends.

2. The combination of the pad P, provided with a longitudinal channel, the eyebolt *d*, arranged in the pad across the channel, the supporting-bar A, having its end in the said channel and through the eyebolt, the arm *h*, clamped on the bar A above the pad, and having its lower end over the back of the eyebolt and perforated, the set-screw *e*, passing through the arm *h* and eyebolt, and engaging the bar A, and the strap D, connected with the upper end of the arm *h*, substantially as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 3d day of March, 1886.

CHARLES H. NICOLLS. [L. S.]

Witnesses:
C. H. DUELL,
C. BENDIXON.