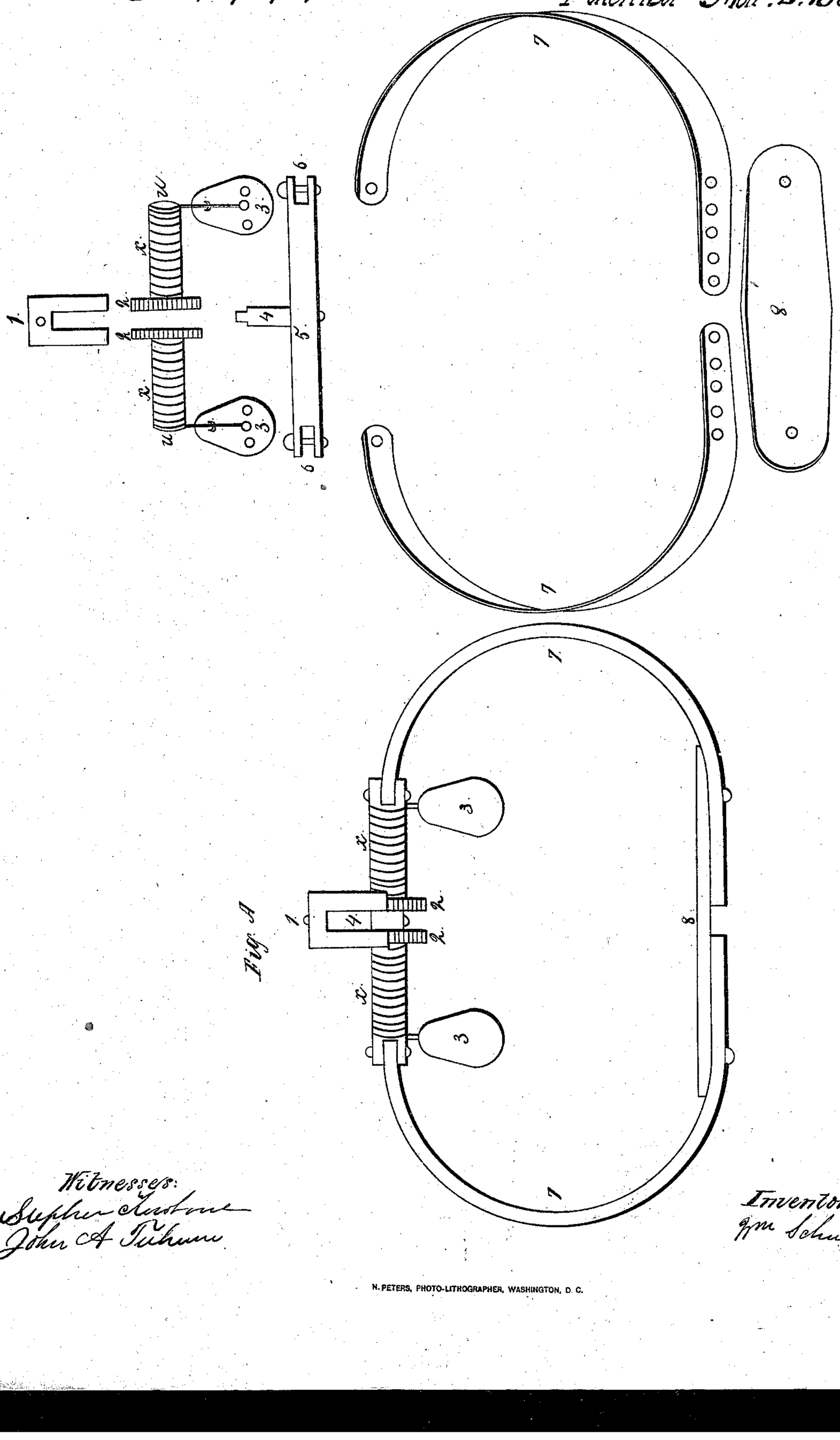
W. Schnebly,

Truss.

No. 87,370. Patented Mar. 2. 1869.



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Letters Patent No. 87,370, *dated March* 2, 1869.

IMPROVED TRUSS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM SCHNEBLY, of Hackensack, in the county of Bergen, State of New Jersey, have invented Improvements in the Truss; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and letters of reference thereon, in which—

Figure A represents the form of the truss, when all the sectional parts are pivoted together.

Figures 1, 2, 3, 4, 5, 6, 7, 8, the sectional parts.

The nature of my invention consists in constructing a truss-hoop or band, with untempered sectional parts, and which are pivoted together so as to form a hoop or band entire. By this arrangement, I avoid that kind of pressure which is imparted to the body by the ordinary tempered bow.

Also, in the use of a capstan-arrangement, for the purpose of producing the degree of pressure on the parts required.

When the ordinary truss-bow is applied to the body, it has a positive degree of force or pressure, and cannot be modified unless by the use of a new bow, with less temper. If it should become necessary to increase the pressure, additional appendages must be used, in the shape of a ratchet-and-pawl pad, or lever-pad, both of which may be good for changing the position of the pad, but which do not subserve the purposes aimed at; as, for example, when the pressure of the bow is attempted to be increased by such appendages, the following result will follow:

By pressing the pad from a perpendicular position, with the horizontal of the bow against the body, the area of the pad's surface which now touches the body will become diminished in proportion to the ascent of the pad toward the horizontal of the bow, and instead of the full surface, the edge of the pad will press against the body, much to the great injury of the parts, whilst the bow will be thrown out from the body, applying its additional force against the pad, held in position by a pawl and ratchet, or any other similar device.

To employ the ordinary tempered bow successfully, it would be necessary to create each bow to suit the particular or individual case: a bow made for a youth would not be suitable for an adult.

In the practical use of the tempered bow, and with some of the additional appendages, I have been led into the conviction of their imperfection.

When my improved untempered sectional hoop or band, with its parts pivoted together, is put on the body, it is in a negative degree of pressure, and by my capstan-arrangement and pads, I can increase or diminish the degree of pressure at pleasure, equalize the pressure on each pad, or make it unequal, the pads being separated, one from the other, receiving their pressure from the springs, to which they are attached, independently of the hoop or band, so far as regards its elasticity. It is, therefore, clearly shown that my improved truss can be used in any and every condition of the rupture, and that the capstan-arrangement, when applied to or pivoted on suitable sections, may be worn by youth or adult.

To enable others to make and use my invention, I will describe its construction and operation.

Fig. 1 represents two spring-pawls, which may be united or separated, which are to be supported by the upright 4, rigidly attached to bar 5, with its slotted ends 6 6.

2 2 are ratchet-wheels, rigidly attached to cylinders *u u*.

x x are spiral springs, surrounding the cylinders, the one end of which is rigidly attached to the ratchets, and the other ends, being left of suitable length, are attached to the pads 3 3.

The ends of the springs are provided with eyes, to assist in confining them to the pads.

At the upper portion of the pads, staples are used, which embrace the ends, or a portion of the springs, by which device I am enabled to change the position, and deflect them toward either side of a perpendicular line, by changing the screws and eyes to other localities, provided for the purpose, sufficient space being allowed in the staples.

7 7 represent the untempered sections.

8, the rear pad, being made suitable.

When the truss is pivoted together, as in Fig. A, it can be put on the body by releasing one of the sections, 7 7, either at the slot 6, or on the rear pad 8, by having a suitable screw, or otherwise. Being then in a negative degree of pressure, by using a small wrench, fitted to the square ends of the cylinders *u u*, the springs *x x* may be forced, with the pads, against the body, to the required degree of pressure, and so secured or held by the pawls 1 1 and ratchets 2 2, according to the capstan-principle, leaving the pads with their area or surface pressing in a proper direction, and yielding comfortably to the undulations of the body.

What I claim, therefore, and desire to secure by Letters Patent, is—

The capstan-arrangement, with adjustable pads, in combination with untempered sectional parts, forming a truss-hoop, or band entire, for the purposes substantially as described.

WILLIAM SCHNEBLY.

Witnesses.

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