(2 Sheets) Sheet 1

W. Pomeroy. Trusses.
A.

No. 118,483. Patented Aug. 29, 1871.

Fig. 1

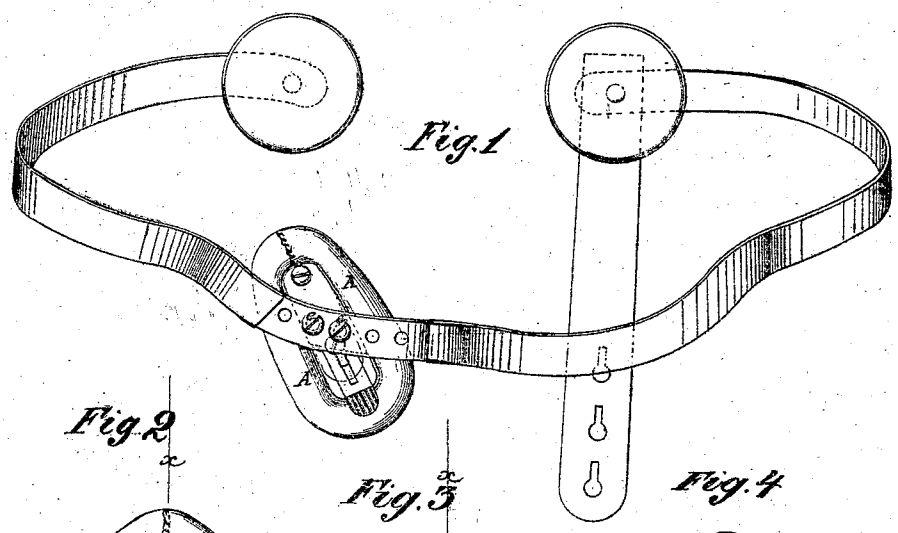


Fig. 2

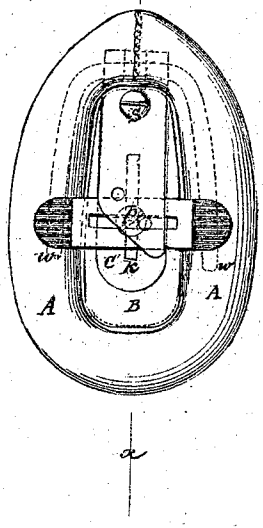


Fig. 3

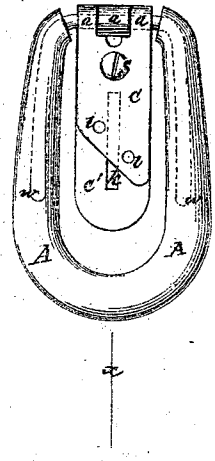


Fig. 4

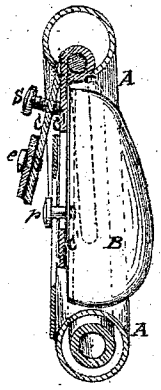
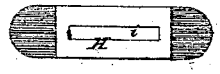


Fig. 5



Witnesses:

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Dan'l Pomeroy

Inventor:

William Pomeroy

(2 Sheets) Sheet II.

W. Pomeroy. Trusses.

A

No. 118,483. Patented Aug. 29, 1871.

Fig. 6

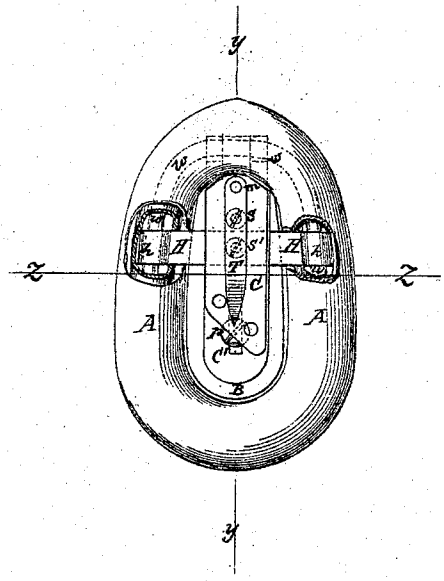


Fig. 7

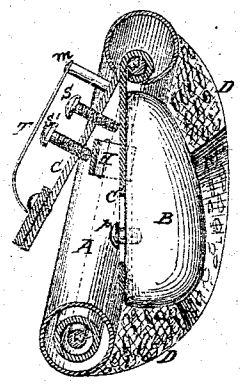


Fig. 8

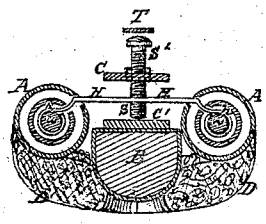
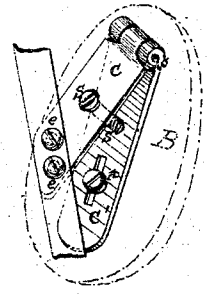


Fig. 9



Witnesses:

Fred. D. Smith

Dan'l. Pomeroy

Inventor:

William Pomeroy

UNITED STATES PATENT OFFICE.

WILLIAM POMEROY, OF NEW YORK, N. Y.

IMPROVEMENT IN HERNIAL PADS.

Specification forming part of Letters Patent No. 118,483, dated August 29, 1871.

To all whom it may concern:

Be it known that I, WILLIAM POMEROY, of the city, county, and State of New York, have invented certain Improvements in Hernial Pads, of which the following is a specification:

The first part of my invention has for its object the construction of a hernial pad, having substantially the same operation upon the hernia as the "finger-pad" for which Letters Patent of the United States were granted to me August 25, 1868, No. 81,533, and to Daniel Pomeroy and myself February 8, 1870, No. 99,703, but capable of more easy and perfect adjustment; and this part of my invention consists in a frame-work composed of two metallic plates, united at the upper end by a clasp-joint or hinge upon a wire pivot, so as to be capable of shutting together, said pivot being elongated and curved so as wholly or partially to encircle the plates and form the support of a rim or outer pad inclosing the finger or inner pad, which is fastened to one of the plates, the other being attached to the truss-spring. The end attained is that the outer rim and the inner pad are both freely movable at their upper extremities, while the plate fixed to the truss-spring forms a basis from which, by means of set-screws, both parts of the pad can be pressed against the body and easily adjusted to the requirements of the hernia. The second part of my invention relates to the construction of hernial pads out of a material hitherto unused for that purpose, but well adapted to secure elasticity, durability, ease to the wearer, and an avoidance of injury to the delicate parts of the body upon which pressure is to be maintained.

Figure 1, Sheet 1, shows my improved pad attached to the body-spring of a truss. Fig. 2, Sheet 1, is a view of the same detached. Fig. 3, Sheet 1, shows the frame-work of the pad and a portion of the rubber tubing which forms the rim. Fig. 4, Sheet 1, is a section taken in the line *x x* of Fig. 2. Fig, 5, Sheet 1, shows one form of the adjusting-bar detached. Fig. 6, Sheet 2, is a view of the pad, showing another form of the adjusting-bar and its attachment to the wire frame; also, the guard for the two adjusting-screws. Fig. 7, Sheet 2, is a section taken in the line *y y* of Fig. 6, showing the sponge covering. Fig. 8, Sheet 2, is a section taken in the line *z z* of Fig. 6. Fig. 9 shows the frame-work without the prolongation of the pivot.

The frame of the pad consists of the metallic plates C and C′, hinged to each other at *a*, upon the wire pivot *w*, which is elongated and curved so as to form the support of the rim A, which is a piece of rubber tubing drawn over the said elongated pivot. This pivot may be extended so as to entirely encircle the plates C and C′, or it may do so only partially, which latter construction, as a rule, I prefer, because it leaves the lower part of the rim more elastic and yielding, so as not to press with severity against the pubic bone in case it extends so low. When thus formed I fill the lower curve of the tubing, say from *w* to *w*, Figs. 2 and 3, with some flexible but moderately firm substance, such as a strip of sole-leather or a loose piece of spring wire, in order to preserve the cylindrical form of the tubing and prevent it from collapsing at the bend. The rubber tubing is drawn entirely over the hinge, a slit being made in the ends so that they may meet at the middle of the hinge where they are sewed together. Before the rubber is drawn over the wire I cover it with soft leather, which forms a more agreeable surface next the skin, less liable to chafe and irritate than the rubber, and gives an excellent finish to this part of the pad. The upper plate C is furnished with two or more holes, *b b*, Fig. 3, near its lower extremity, having a thread to fit the screws *e e*, Fig. 1, by which it is firmly secured to the body-spring of the truss. These holes are made in a line at a greater or lesser angle with the line *x x* of the pad, according as it may be desirable to give a greater or lesser lateral inclination to the pad, that it may fit accurately in the groin over the inguinal canal. Two or more sets of holes, in lines parallel to or at an angle with each other, may be made in the plate C, so that the pad may be set higher or lower on the spring and be interchangeable for either side. Any other mode of fastening the plate C to the spring may be adopted, as may best suit the style of spring used. Two other holes are made in the plate C in the line *x x*, with a thread for the insertion of the set-screws S and S′, (see Figs. 6 and 7,) one of which bears against the plate C′ and the other against the bar H, which itself bears upon the rim A. The guard T, seen in Figs. 6 and 7, is a thin piece of metal, which keeps the screws S S′ from coming out or catching in the clothing. It may be turned aside on the pivot *m* for the purpose of adjusting the screws. The under plate C′ is furnished with the slot *k*, or with several holes in lieu thereof, through which a screw or screws may pass for the pur-

pose of fastening thereto the finger-pad B. This pad, which occupies the space within the rim A, I make of soft India rubber, the form of that material known as "rubber sponge" being best adapted for the purpose. The shape which I prefer generally for this pad is shown in Fig. 4, being about one and three-quarter inches long, three-quarters of an inch wide, and three-quarters of an inch thick at the lower end, and tapering off at the top, the design being to imitate with it the pressure which may be exerted with the end of the human finger.

I fasten the pad thus fashioned to a thin metallic plate, having one or more holes in it, with a thread to fit the screw *p* that passes through the slot *k* in the plate C′, and cover the rubber with soft leather similar to the covering of the rim A and for a like purpose.

For special cases a pad of this construction can be made of any required shape or size, and attached to the plate C′ and used with or without the rim A, as may best answer the purpose. If the rim A is not required the frame is made without elongating the pivot *w*, in such case dispensing with the bar H and the screw S′, as seen in Fig. 9. The bar H, as shown in Figs. 6, 7, and 8, is attached to the wire *w* by passing the same through the loops *h h* at each end of the bar. These looped ends of the bar are inserted through slits in the rubber tubing at the proper places, so that when the tubing is drawn over the elongated pivot *w* the wire may pass through these loops and hold the bar in position to be driven forward by the set-screw S′ carrying with it the rim A.

The finger-pad B may always be set forward beyond the rim A by the action of the screw S, while the rim A may again be brought up to the finger-pad by the action of the screw S′.

I am thus enabled to adjust with great nicety the pressure of the different parts of my compound pad against the hernia and the circumjacent parts, combining an inward and retentive with an upward and supporting pressure. When the plate C′ is let back against the bar H the finger-pad B projects only slightly beyond the rim A, producing the effect of a pad almost flat.

Instead of attaching the bar H to the wire *w*, as above described, it may be made separate and detached, as shown in Fig. 5, and used only when it may be found desirable to set forward the rim A in conjunction with the finger-pad B. In this case the screw S′ may be dispensed with, and the bar H be fastened to the finger-pad B by the screw *p* passing through the slot *i* in the bar, and also through the slot *k* in the plate C′, Figs. 1 and 2. Then, when the finger-pad is carried forward by the action of the screw S, it takes with it the bar, and also the rim upon which the bar bears. The bar may be set crosswise, as in Fig. 2, or lengthwise, as in Fig. 1, or in any intermediate position, and will have the effect of rendering the rim A rigid and unyielding wherever it bears upon it.

I have found in practice that sometimes an inconvenience is occasioned, when considerable pressure is used, by the intrusion of the skin into the narrow space which necessarily intervenes between the finger-pad and the rim. To remedy this most effectually, and at the same time to provide a soft and elastic-cushioned covering for the whole surface of the compound pad, I saturate a common sponge of fine texture with glycerine and fasten it to the pad by sewing it firmly to the leather covering of the rim, so that it shall cover the whole surface of the pad. I then trim it with scissors to the proper shape and thickness, and sometimes make a slit in it lengthwise over the finger-pad, through which the latter may be set forward, if necessary. Figs. 7 and 8 illustrate this construction.

The sponge saturated with glycerine may be applied as a covering to any hernial pad when it is desired to cushion the same with elastic material which shall be pleasant and healing to the skin. The glycerine may be renewed from time to time, but will keep the sponge in a soft and elastic condition for a long time without renewal.

I claim as my invention—

1. The wire *w*, turning in the clasp of the plates C and C′, and forming the support of the rim A, substantially as described.

2. The combination of the wire *w* and plates C and C′ with the rim A, the finger-pad B, and the screw S, with or without the bar H, to form a compound hernial pad, substantially as described.

3. The combination of wire *w* and plates C and C′ with the rim A, the finger-pad B, the bar H, and the screws S and S′, to form a compound hernial pad, substantially as described.

4. A hernial pad, either covered or uncovered, made of rubber sponge.

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Witnesses:

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DANL. POMEROY.