

(Model.)

B. F. WILLIAMSON.

TRUSS.

No. 319,372.

Patented June 2, 1885.

Fig. 1.

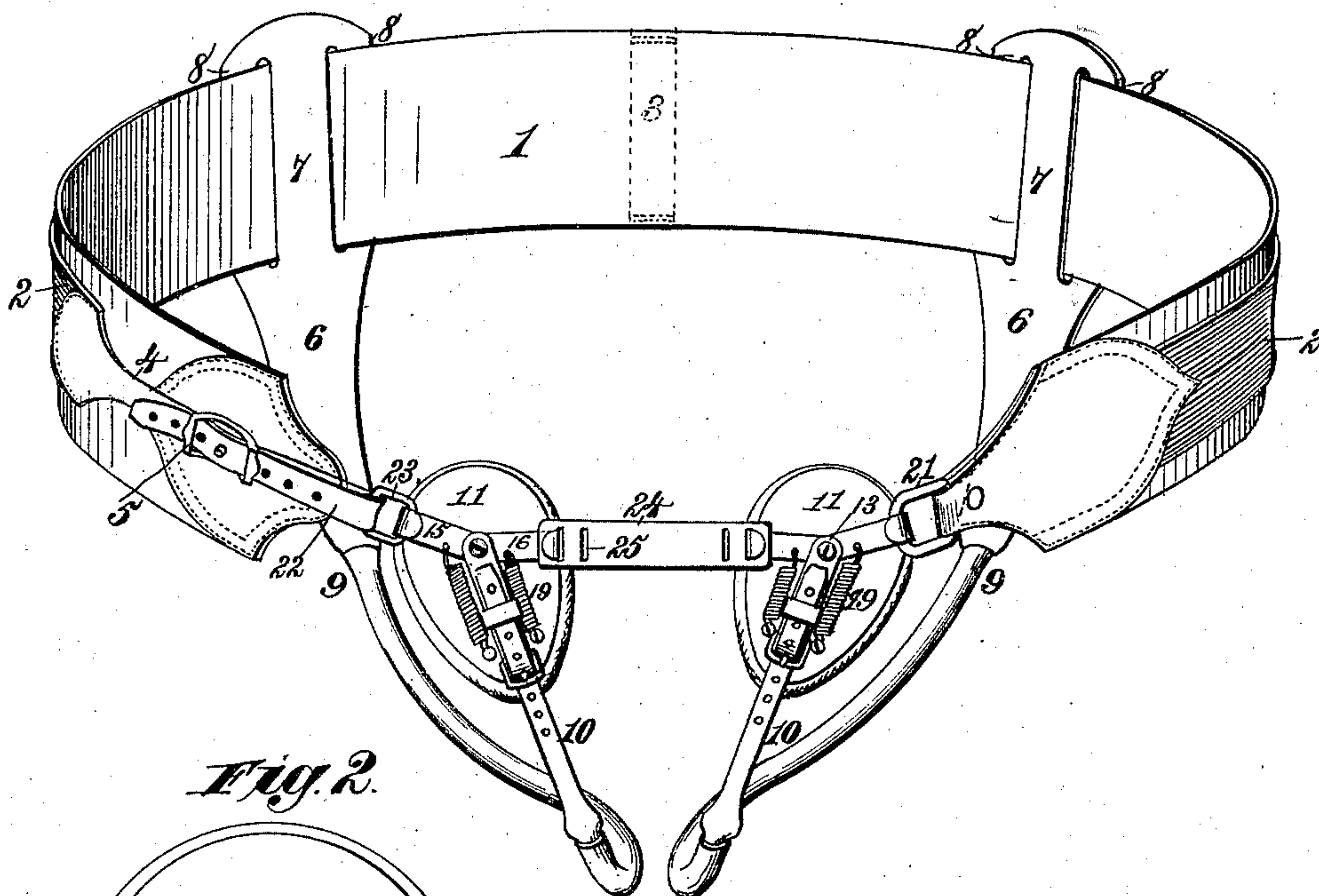


Fig. 2.

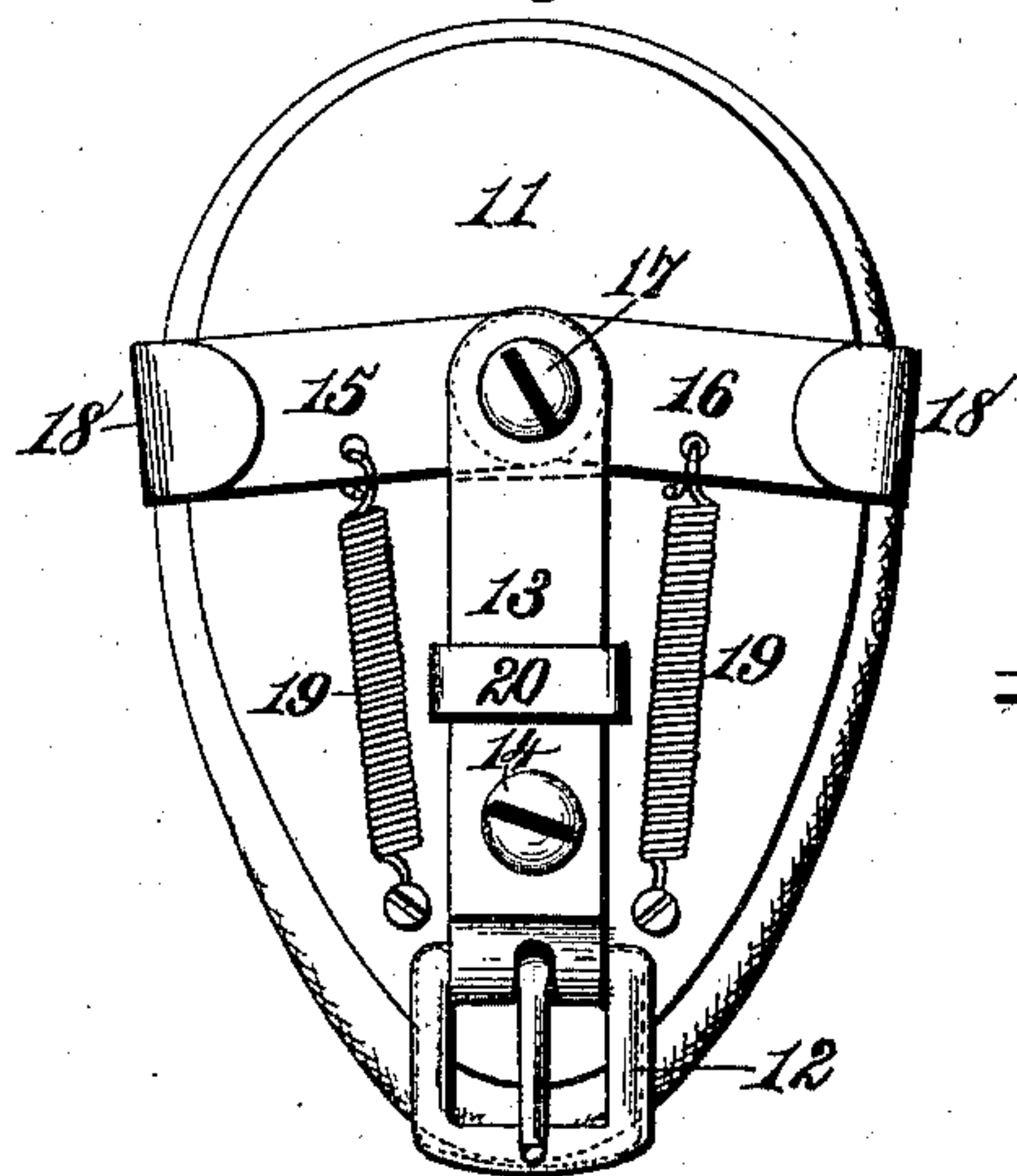


Fig. 4.

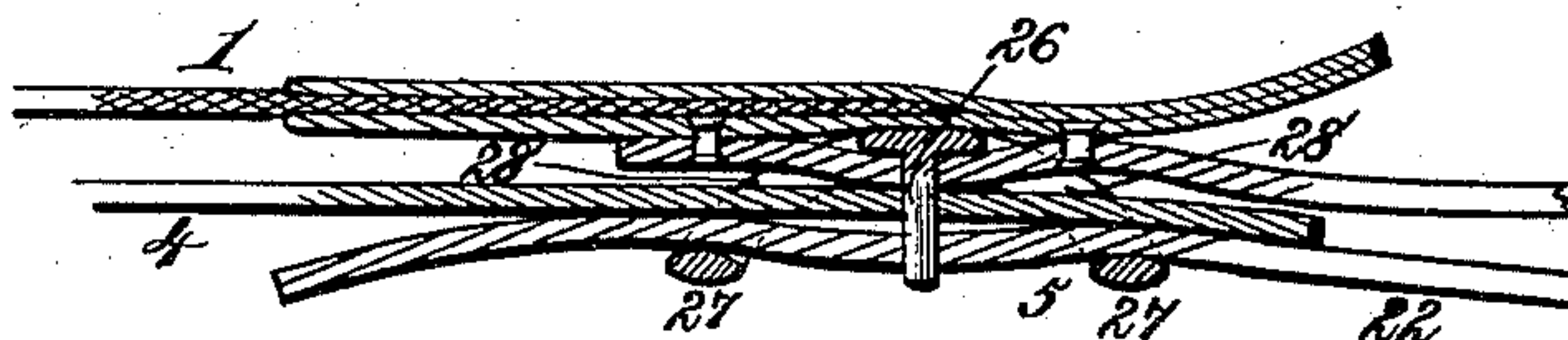
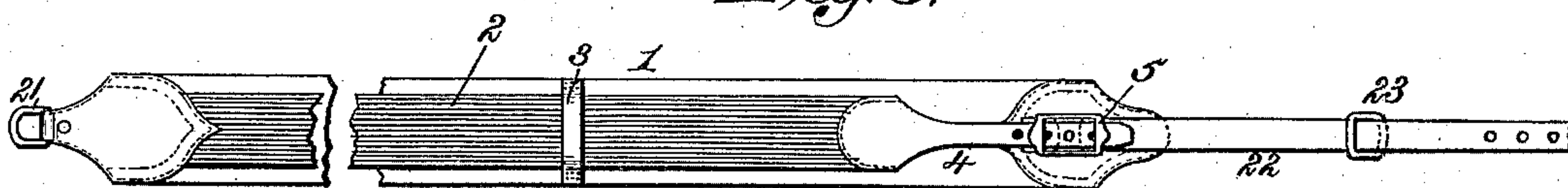


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

BENJAMIN F. WILLIAMSON, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO HENRY MARKS, OF SAME PLACE.

TRUSS.

SPECIFICATION forming part of Letters Patent No. 319,372, dated June 2, 1885.

Application filed February 5, 1885. (Model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. WILLIAMSON, a citizen of the United States, residing at St. Louis, Missouri, have invented new and
5 useful Improvements in Trusses, of which the following is a specification.

My invention relates to trusses for the relief and cure of hernia; and the purpose thereof is to combine with the abdominal belt an
10 outer elastic web having an independent adjustment whereby the tension may be varied, the movements of the person accommodated by an elastic yield of the support, and the rubber preserved from injury by the perspiration
15 of the body. It is also my purpose to combine with the abdominal belt pads for supporting the ruptured wall of the abdomen, which pads shall be easily adjustable, firmly held, and adapted to yield to the movement
20 of the person in such manner as to fully support the hernia and at the same time not interfere with muscular action. It is also my purpose to improve and simplify the construction of trusses for inguinal hernia, whereby
25 the same truss may be used for a single or a double hernia, as circumstances may require.

My invention consists in the several novel features of construction and combinations of parts hereinafter fully described, and definitely pointed out in the claims annexed to
30 this specification.

Referring to the drawings, Figure 1 is a perspective view of the complete truss, the parts being shown as in the position they occupy
35 when adjusted upon the person. Fig. 2 is a detail elevation of one of the pads, showing upon an enlarged scale the construction and combination of the parts by which the pads are supported. Fig. 3 is a view of the outside of the abdominal belt laid out straight.
40 Fig. 4 is a central longitudinal section of the fastening-strap and its connections by which the abdominal belt is held.

In the said drawings the reference-numeral
45 1 indicates the supporting-belt, which is formed of webbing or other suitable fabric. Upon this belt is laid a strip of elastic fabric, 2, which is permanently connected to the belt 1 at one end thereof, being confined in the center by a loop, 3. To the outer extremity of
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the elastic strip is attached a strap, 4, engaging with a buckle, 5, by which the tension of the superimposed belt 2 may be varied.

Adjustable upon the belt 1 are two straps, 6, having in their broad ends a central longitudinal strip, 7, separated by cuts, having a
55 length equal to the breadth of the belt 1, from two marginal strips, 8, the belt being passed through over the central strip and under the two marginal strips. To the ends of these
60 straps are attached round pieces 9, which may be covered by rubber or other suitable material. These round pieces are of such length that they may be passed between the thighs and brought up in front over the inguinal region upon either or both sides. To the end of
65 each is attached a strap, 10, for a purpose presently to be shown.

The pads used with this truss are formed in the usual manner, consisting of blocks of
70 wood or other material of proper shape, covered with leather or other material. Upon the flat outer surface of each pad is mounted a metallic plate, 11, upon which is placed a short strap having a buckle, 12, which projects beyond the plate over the point of the
75 pad. A strip, 13, of metal is then laid upon the strap and fastened by a screw or pin, 14.

Between the plate 11 and the end of the metal strip 13 are pivoted two plates, 15 and
80 16, upon a pivot screw or pin, 17. The outer or free ends of these plates are hooked, as shown at 18. At or near the central portion of each plate is attached a spiral spring, 19, the outer end of which is connected to the
85 plate 11 near the buckle 12, and upon each side of the buckle-strap. It will be seen that by this construction the plates 15 and 16 each have a pivotal movement or adjustment permitted by the yielding of the springs 19.
90 The pads are attached to the straps 10, which engage with the buckles 12, the ends of the straps being held by loops 20, mounted upon the plates 13, and said pads are held in place by the following means: Upon one end of the
95 belt is attached a metallic loop, 21, and upon the other end of the belt is permanently attached a strap, 22, the end of which is brought over upon the body of said strap and engaged with the buckle 5. Upon the strap is placed
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a loop, 23, similar in form and size to the loop 21, and when the belt has been placed upon the body the pads are brought up in front and the outer hooks 18 are attached to the loops 21 and 23. The inner hooks 18 are then connected by means of a short strap, 24, having openings 25, which receive said hooks. By adjusting the latter in the proper openings and by taking up the strap 22 the truss may be fitted properly to the person. The buckle 5 has a central vertical tongue, 26, with a holding-bar, 27, upon each side. These bars are supported by curved side bars, 28. The straps 4 and 22 are fastened by passing them under the holding-bars and engaging the rigid vertical tongue 26 with one of the perforations of the strap. The webbing 1 serves as a lining for the elastic strip 2, and prevents it from injury by the perspiration of the body. By tightening the strap 2 the belt may be given a high tension, and will, at the same time, yield to the movements of the body. The same is true, also, of the pad attachments, the springs 19 yielding to accommodate muscular exertion, but holding the ruptured viscera firmly and effectively at the same time.

Either pad may be used alone by simply disconnecting the other and removing its support, which is quickly and readily effected.

What I claim is—

1. The combination, in a truss, of the belt 1, having at one end an attached strap, 22, provided with an adjustable buckle, 5, and connected with one of the pads to support the latter, the elastic strap 2 extending around the belt and secured thereto at one extremity,

and a strap, 4, secured to the other end of the elastic strap and adjustably connected with the buckle on the pad-supporting strap of the belt, substantially as and for the purpose described.

2. In a truss, the combination, with the pads, of spring-actuated hooked plates pivoted upon the back of each pad, a connecting-strap engaging with the inner or adjacent hooks, and loops upon the ends of the belt which engage with the outer hooks, substantially as described.

3. In a truss, the combination, with a supporting-belt having a loop at one end and a strap carrying an adjustable loop upon the other, of pad-supports adjustable on the belt, pads connected by buckles to straps on the ends of said supports, spring-actuated hooked plates pivoted on the back of each pad, and a strap connecting the adjacent plates, substantially as described.

4. In a truss, the combination, with the pad, of a strap rigidly fastened on the back thereof and carrying a buckle having one end pivotally connected to the back of said pad, and springs connected to said plates at or near their centers and to the pad, whereby the latter is allowed to yield to muscular movement, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN F. WILLIAMSON.

Witnesses:

JAS. A. CARROLL,
JAMES J. KEOUGH.