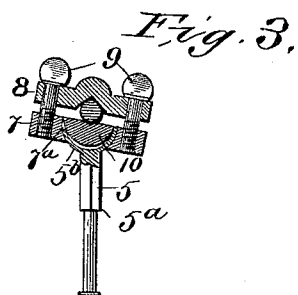
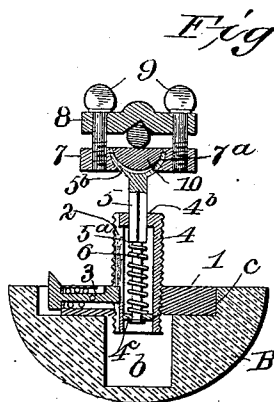
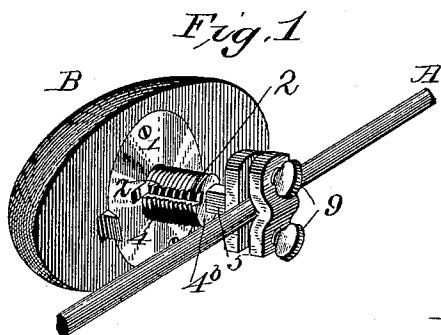


(No Model.)

L. T. FLODIN.
TRUSS.

No. 463,717.

Patented Nov. 24, 1891.



Witnesses
H. P. Cornwall
Edwin L. Clarkson

Inventor:
Lawrence T. Flodin
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att'y

UNITED STATES PATENT OFFICE.

LAWRENCE T. FLODIN, OF OMAHA, NEBRASKA, ASSIGNOR TO ANTON NAIDL,
OF SAME PLACE.

TRUSS.

SPECIFICATION forming part of Letters Patent No. 463,717, dated November 24, 1891.

Application filed April 25, 1891. Serial No. 390,436. (No model.)

To all whom it may concern:

Be it known that I, LAWRENCE T. FLODIN, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Trusses for the Treatment of Hernia; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a truss embodying my invention. Fig. 2 is a central sectional view of the same, and Fig. 3 is a detached sectional view of the belt-clamp and rocking spring-post of the pad or ball.

Like symbols refer to like parts wherever they occur.

My invention relates to the construction of spring-ball or spring-pad trusses for the treatment of the various forms of hernia, and pertains to that class of truss having a spring-supported post interposed between the belt or body-band and the ball, said post being adjustable lengthwise to increase or diminish the yielding pressure of the ball or at an inclination to suit the character of the hernia or change the direction or line of support.

The object of the present invention is to reduce and simplify the connections between the ball and belt, to facilitate the adjustment of the parts, and render them more stable and effective.

To this end the first feature of my invention embraces the combination, with the ball or pad, of a post adjustably supported in the pad and a sliding-post spring supported in the adjustable post.

A second feature includes the combination, with the hereinbefore-recited devices, of locking mechanism for securing the adjustable post-section in fixed relation to the ball or pad.

A third feature embraces the combination, with the post, of a cup or socket and ball connections, whereby the inclination of the post may be changed at will and the post secured in any desired position with relation to the belt or body-band.

There are other minor features of invention, all as will hereinafter more fully appear. I will now proceed to describe my inven-

tion more specifically, so that others skilled in the art to which it appertains may apply the same.

In the drawings, A indicates a portion of the belt or body-band commonly employed for supporting the ball or pad. In the present instance it is shown as of wire, which may be properly annealed, so as to be bent at will to adjust it to the desired position of the pad. The free ends of the band (not shown) may be of any well-known form and provided with suitable fastenings, if desired.

B indicates the ball or pad, which should have a central well *b* for the adjustable ball-post and a suitable recess *c* for the reception of the post-plate or post-block 1.

1 indicates the post-plate or post-block having a central threaded orifice for the passage of the adjustable post 4 and a catch of some character, preferably the radially-arranged spring-bolt 3, to serve as a locking device for securing the adjustable post 4.

4 indicates a post which is adjustable in the post-plate or post-block 1. The adjustable post 4 is preferably a hollow cylinder threaded on its exterior, adapted to fit the threaded central orifice or plate 1 and provided with a longitudinal groove 2 (see Fig. 1) or its equivalent to receive the spring locking catch or bolt 3. The top of the hollow cylindrical post may be closed by a head having a polygonal or irregular central opening 4^b for the passage of a spring-supported post 5, of a corresponding cross-section, or any equivalent means for preventing the rotation of the spring-post in the adjustable post may be adopted.

5 indicates the spring-supported post, of proper cross-section to pass through the perforated head of the adjustable post and provided with a shoulder or equivalent bearing 5^a for one end of a spring 6, the other end of said spring finding its support on the perforated disk or shoulder 4^c within the hollow post 4. The upper end of spring-post 5 is provided with a hollow hemispherical head 5^b, adapted to rock in a similarly-shaped cavity in the clamp-plate 7.

7 indicates a clamp-plate and 8 a yoke-plate, both of which are provided with threaded holes for the reception of the clamp-screws

9, the two constituting a clamp for connecting the spring-supported post 5 with the belt or body-band; but in lieu thereof any equivalent clamping devices may be employed.

5 The clamping-plate 7 is perforated for the passage of the spring-post 5, (see Figs. 2 and 3,) said perforation being of sufficiently greater diameter than the post to allow the rocking or play of the post, and said perforation being
10 surrounded by a concave seat 7^a for the hollow hemispherical head 5^a of the spring-post 5.

10 indicates a hemispherical binding-button adapted to fit within the hollow hemispherical head 5^a of the spring post 5 and to
15 present a bearing-surface, whereby the said button may be forced down so as to bind the cup or hemispherical head 5^a against the clamp-plate, and thus hold the spring-post 5
20 firmly in any position to which it has been adjusted.

The truss-pad and its post having been constructed and combined substantially as hereinbefore pointed out and the post having
25 been secured to the belt or body-band A by the clamp 7 8 9 or its equivalent, the truss may be adjusted to suit any indication of pressure, position, or direction, as follows: To increase or decrease the distance between the
30 ball or pad and the body-band or belt or to increase or decrease the pressure of the pad or ball, the spring-bolt 3 is withdrawn and the ball or pad rotated on the threaded post 4 until it has assumed the desired distance from
35 the belt A, when the spring-bolt 3 is released and, entering the grooves 2 of the post 4, thus secures the post firmly with relation to the ball or pad. To adjust the ball or pad to any desired inclination to belt A, the clamp 7 8 9
40 (or its equivalent) is loosened until the hemispherical binding-button 10 releases the hollow hemispherical head 5^a, when the post can be adjusted, as if on an universal joint, to any
45 tightened to cause the binding-button 10 to force the head 5^a down on its seat 7^a, and

thus firmly hold the spring-post 5 in the position in which it has been placed.

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

1. In a truss, the combination, with the ball or pad, of a post adjustable therein and a spring-supported sliding post arranged in the adjustable post, substantially as and for the
55 purposes specified.

2. In a truss, the combination, with the ball or pad, of a post adjustable therein, a locking device for securing the adjustable post, and a sliding spring-supported post arranged in the
60 adjustable post, substantially as and for the purposes specified.

3. In a truss, the combination, with the ball or pad, of a post having a cup head, a belt-clamp having a seat for the cup head of the
65 post, and a binding-button adapted to the cup head of the post, substantially as and for the purposes specified.

4. In a truss, the combination, with the ball or pad, of a spring-supported post having a
70 cup head, a belt-clamp having a seat for the head of the post, and a binding-button adapted to clamp the cup head of the post to its seat, substantially as and for the purposes specified.

5. In a truss, the combination, with the ball or pad, of an adjustable post, a sliding post arranged in the adjustable post, said sliding
75 post having a hollow hemispherical head, a belt-clamp having a seat for the head of the sliding post, and a hemispherical binding-button for clamping the head of the sliding post, substantially as and for the purposes specified.

In testimony whereof I affix my signature, in
85 presence of two witnesses, this 18th day of April, 1891.

LAWRENCE T. FLODIN.

Witnesses:

JOHN T. WILLIAMS,
W. V. GURLEY.