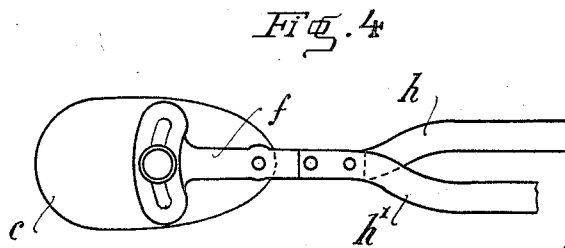
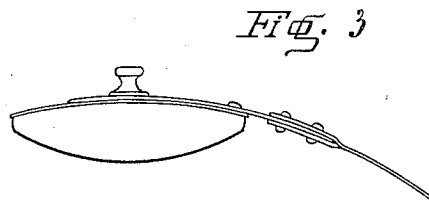
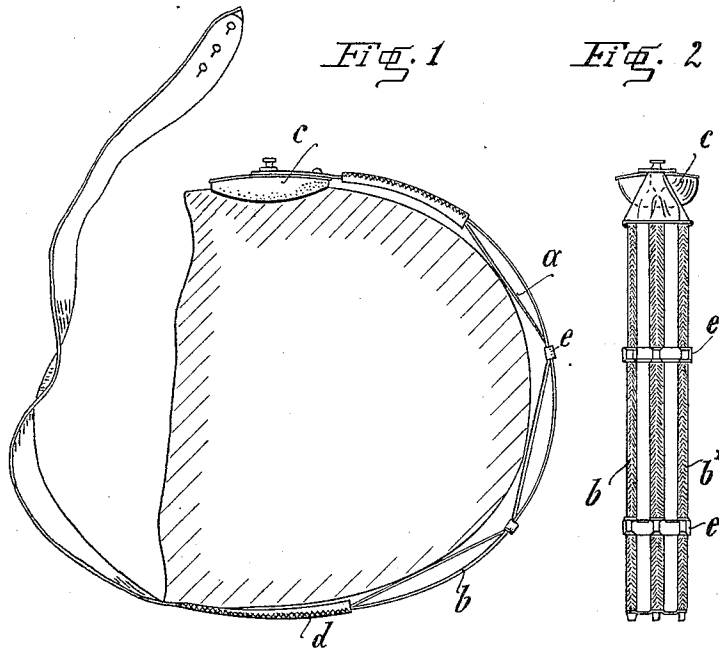


A. LOEWY.
RUPTURE TRUSS.
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1,045,574.

Patented Nov. 26, 1912.



Witness:
W. H. Bridges
W. H. Bridges

Inventor:
Alfred Loewy
By Davis & Davis
Attorneys

UNITED STATES PATENT OFFICE.

ALFRED LOEWY, OF BERLIN, GERMANY.

RUPTURE-TRUSS.

1,045,574.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALFRED LOEWY, proprietor of the firm of Heinrich Loewy, a subject of the German Emperor, residing at Berlin N. W., in Germany, have invented certain new and useful Improvements in Rupture-Trusses, of which the following is a specification.

This invention relates to rupture trusses. In rupture trusses the body belt has generally the elliptic form of the spring, which latter lies against the belt throughout its length and therefore presses on the body.

The present invention has for object to prevent this, and it consists in connecting the body belt to the spring in the manner that it makes chord like lines between the points of connection.

The belt, consisting of chords in this manner, is tightened around the body, while the stiff spring does not make contact therewith.

One construction of the improved truss is illustrated by way of example in the accompanying drawings, in which,

Figure 1 is a plan, Fig. 2 a side elevation, and Figs. 3 and 4 a detail, shown to a larger scale.

a is the body belt, preferably of elastic material. The pelvis spring consists of two flat parallel springs b, b^1 which carry at the end at which they are attached to the belt, the pad c , and are mounted at the other end in leather sockets d in such a manner that they keep the belt a tensioned as shown in the drawing. The belt is also attached by suitable fastenings e to the springs b, b^1 at two places and in such a manner that the line of the belt makes chords with the spring between the points of fastening.

When in use the belt wraps around the body of the wearer, since on placing the truss around the body the chords first touch the curves thereof tangentially, and on closing the truss and pulling it tight the chords become deformed by the pressure of the body. No portion of the part of the spring between the pad and the point of support opposite thereto comes in contact with the body, this part of the spring remaining always at a certain distance therefrom, and the chords of the belt alone press against the body. In this manner the pressure exerted by the tension of the spring is transmitted from the supporting point of the spring to

the pad and therefore to the rupture, without any other contact with the body.

The total tension of the spring being thus transmitted to the pad, a weaker and consequently lighter spring can be used than when the force of the spring, as customary hitherto, had also to hold the pad immovable on the body, a result which was only attained by an uncomfortable and often insupportable pressure at the positions of contact with the body of the stronger springs then used.

Although the spring does not touch the body on a whole section, it remains immovably tight. Instead of it the flexible belt lies tightly against the body all around, without however exerting an uncomfortable or painful pressure, and any displacement of the spring carried by the belt is thus prevented. It is also no longer necessary that the spring should exactly fit the body or that it should be bent so as to secure a better fit. Owing to the yielding of the chords of the belt too great or too small spaces between the spring and the body are eliminated without affecting the firm holding of the rupture truss on the body.

The fastenings e which connect the belt a to the springs b, b^1 , may be loose or fixed. A displacement of the springs in the fastenings can in the latter case take place only to a very small extent, as when in use the body belt is uniformly tensioned on both sides of the fastenings.

The two flat springs b, b^1 are connected to the pad c by an arm f which is mounted on the pad so as to be rotated and fixed in any desired position, their end being superposed where riveted to the arm f , from which point the said ends lie coincident for a short distance corresponding to the position of the groin, when they are bent apart as shown at h, h^1 (Fig. 4) and then run parallel to each other for the rest of their length. Owing to this formation of the springs the truss takes up as little room as possible in the neighborhood of the groin and fits the folds of the body without rubbing. The superposing of the two ends of the parallel springs also gives the advantage that the loop formed by the spring is reinforced by the doubling so that bending near the pad is prevented and the pressure of the same on the rupture insured.

Having now particularly described the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

5 In a truss, a curved spring provided at one end with a pad and also provided with means for fastening the spring to the body of the wearer, and a flexible belt attached to the inner or concave face of the
10 spring and connected at separated points to the spring, the parts of the belt between

these separated points forming a series of chord-like lines between the points of connection, the spring serving to tension these chords, for the purposes set forth. 15

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALFRED LOEWY.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
