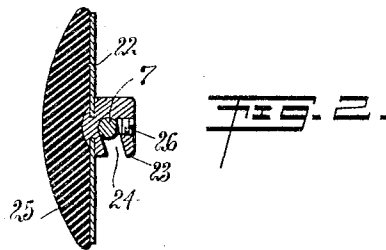
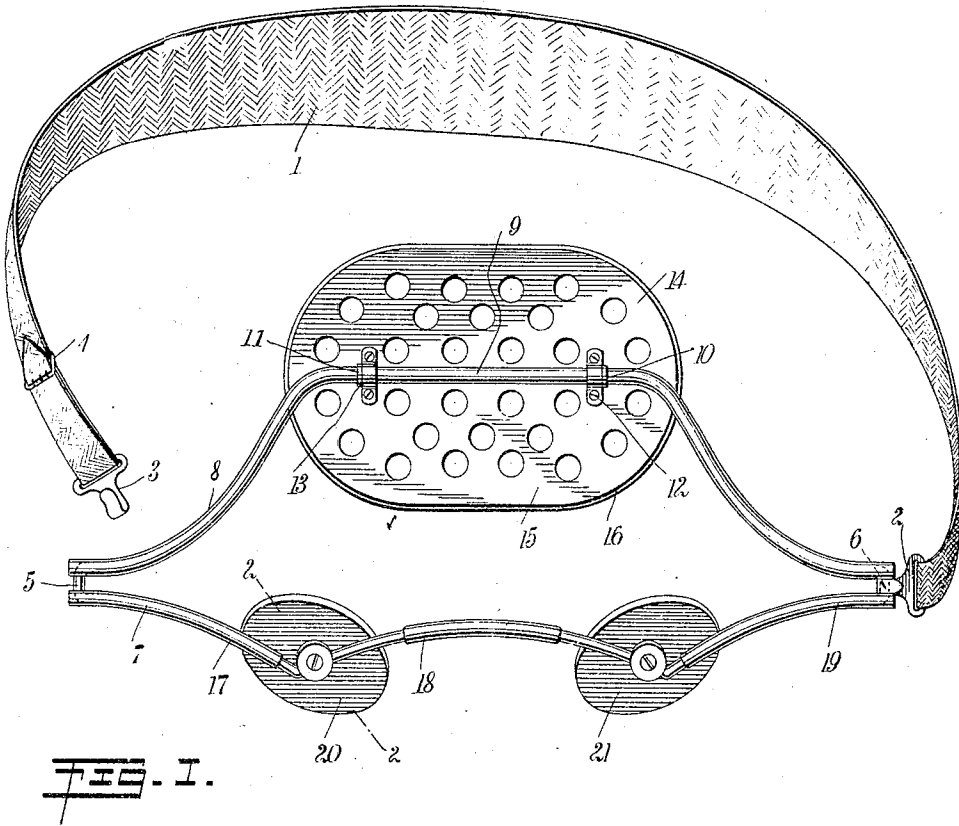


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TRUSS.

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1,047,116.

Patented Dec. 10, 1912.



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TRUSS.

1,047,116.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDMUND PHELAN, a citizen of the United States, and a resident of Guadalajara, Mexico, have invented a new and Improved Truss, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved truss structure which will automatically press the parts desired to be pressed without inconveniencing the wearer, and without providing an unduly stiff and unwieldy device.

A further object of the invention is to provide a truss so formed as to utilize the principle of a lever for causing the pads to press against the affected part.

In accomplishing these objects the pads of my improved truss are mounted on a bar which forms the lower part of a rigid frame, secured to the body by a preferably flexible strap. The frame is so formed that one side thereof projects in a direction at right angles to the general direction of the bar on which the hernia retaining pads are mounted, and is arranged so that the right angle portion will accommodate an abdominal pad which, acting against the belt, will give a leverage action for properly holding the hernia supporting pads to their work.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the views.

Figure 1 is a perspective view of an embodiment of the invention; and Fig. 2 is an enlarged sectional view approximately on line 2-2 of Fig. 1.

Referring to the accompanying drawings by numerals, 1 indicates a flexible belt of any desired kind, provided with hooks 2 and 3, and an adjusting buckle 4. The hooks 2 and 3 are adapted to engage the connecting bars 5 and 6 which are preferably integral with bars 7 and 8. The bar 7 extends in a general longitudinal direction, while the bar 8 bends from the bars 5 and 6 so that they will extend at substantially a right angle to the bar 7 and then extend substantially parallel to the bar 7. The parallel portion 9 of the bar 8 is provided with stops 10 and 11 designed to engage suitable clips 12 and 13, which are screwed or otherwise secured to an abdominal pad 14. The rigid frame formed by the bars 7

and 8, and the connecting bars 5 and 6, is composed of one solid piece of heavy, preferably brass wire, covered, in certain parts for the sake of cleanliness as herein specified, with hard vulcanized rubber. The frame may, however, be made of other metal and not covered with hard rubber, if it should be found expedient to do so. The said rigid frame is slightly curved at the ends to conform to the contour of the body, and the bar 8, besides the upper curve as seen in the accompanying drawing, has also a slightly outward curve to adapt itself to the curvature of the abdomen. The portion 9, of the bar 8, is perfectly straight between the stops 10 and 11.

The pad 14 is formed of a base plate 15, preferably constructed of sheet steel, on which is mounted a cover 16 of hard rubber vulcanized directly to the base plate 15 so as to form substantially an integral part thereof. It will, of course, be understood that the pad 14 may be constructed of different material without departing from the spirit of the invention. The bar 7 is provided with curved portions 17, 18, and 19, for adapting the bar to better fit the contour of the body. In connection with the bars 7 and 8, it will be observed that the same are covered with hard vulcanized rubber except at points where the pads 20 and 21 are mounted, the uncovered portions being for the purpose of allowing a considerable range of adjustment for the pads mentioned. Each of the pads 20 and 21 is provided with a sheet steel plate 22 which may either be wholly or partially covered by the vulcanized rubber placed thereon. As shown in the drawing the plates 22 cover substantially the entire back of the rubber pad 25, but it will be evident that a small round plate may be used in the center of the rubber pad 25. It will also be evident that the pad may be constructed of other material than hard rubber, as it may be desirable under some circumstances to form soft pads for instance. Rigidly secured to the plates 22 by any desired means, as for instance by being riveted thereto, is a stud 23, having a slot 24 arranged therein. A set screw 26 is fitted into the stud 23 and is constructed with a flat point which bears directly against the bar 7 fitting in the slot 24, the uncovered parts of the portion 18 having corresponding flat surfaces to engage the flat point of the screw. Preferably the

screw has no head and is threaded to the top to allow of its being firmly screwed up against the bar. In forming the slot 24, the same is arranged to slant upwardly and outwardly so that it is impossible for the bar to slip out from under the flat point of the screw, and at the same time the pad is held firmly in position at invariably the same angle to the body.

10 In holding the hernia in place, it has been found that considerable pressure is necessary and that to give this pressure various means have been provided more or less objectionable to the wearer. According to the

15 present invention a very light structure is provided which utilizes the principle of a fulcrum and lever, the belt being the fulcrum member, the abdominal pad the long end of the lever and the pads 20 and 21 the

20 short end of the lever. By this construction and arrangement a simple flexible belt may be used and the rigidity of a metallic truss dispensed with, and at the same time firmly hold the hernia properly in place.

Having thus described my invention, I 25 claim as new and desire to secure by Letters Patent:

A truss comprising a substantially rectangular frame formed with a projecting portion on one side which acts as the long 30 end of a lever, a plate adapted to rest against the abdomen mounted on said projecting portion, a pair of hernia supporting pads connected with said frame on the side opposite said projecting portion, and a belt con- 35 nected to the ends of said frame nearer the side to which said hernia supporting pads are connected than to the side carrying said plate, whereby the side of the frame on which said hernia supporting pads are 40 mounted will act as the short end of a lever.

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

EDMUND PHELAN.

Witnesses:

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W. B. CARROLL.