H. Howe,

Truss.

No. 112,709. Patented Mar. 14, 1871.

fig. 1.

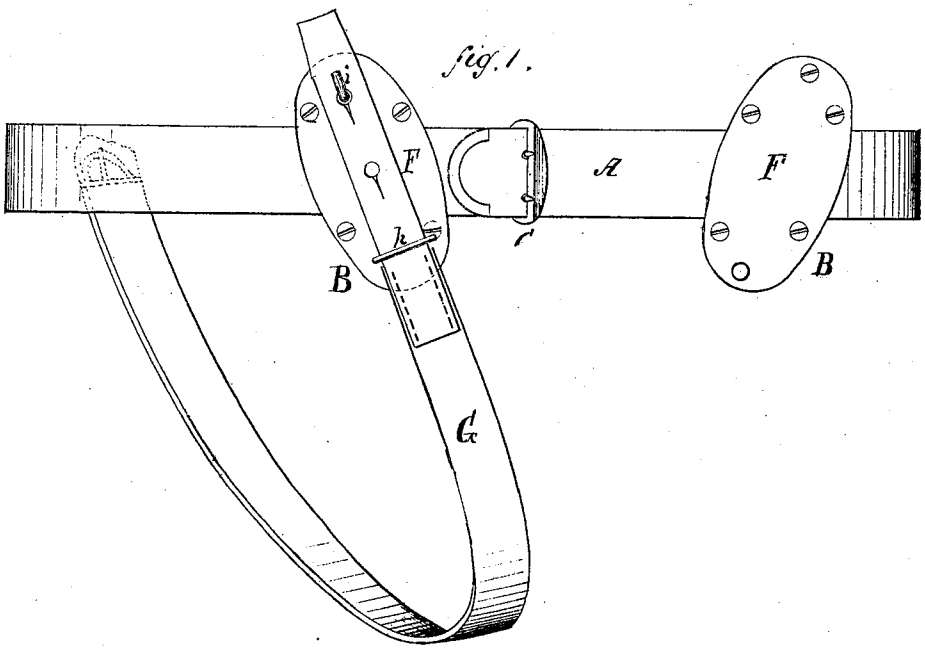
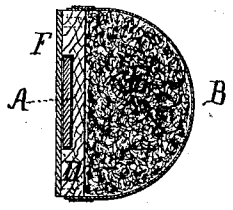


fig. 2.



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HENRY HOWE, OF COUNCIL BLUFFS, IOWA.

IMPROVEMENT IN TRUSSES.

Specification forming part of Letters Patent No. **112,709**, dated March 14, 1871.

To all whom it may concern:

Be it known that I, HENRY HOWE, of Council Bluffs, in the county of Pottawatamie and State of Iowa, have invented certain new and useful Improvements in Trusses; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a front elevation of my improved truss, and Fig. 2 is a sectional view of one of the pads detached from the belt.

Similar letters of reference indicate corresponding parts in the several figures of the drawing.

My invention relates to trusses for the treatment of hernia in its various forms; and consists in constructing the pads with a flat metallic plate, of the size of the pad, which plate serves to secure the body-belt in a diagonal groove cut in the back of the pad, said belt fitting closely in the groove to prevent the pad turning. It is necessary in trusses of this class that the pads shall bear evenly and firmly upon the rupture without the possibility of displacement.

Various means have heretofore been devised to accomplish this result, such as the formation of a large circular pad, pivoted to some portion of the belt, so that should it turn upon its pivot it would not be displaced, but still bear upon the rupture. This construction, however, is objectionable for two important reasons, viz: first, the constant changing or turning of the pad causes irritation of the ruptured parts; secondly, the size of the pad is necessarily such as to materially interfere with the free and easy movements of the body.

To overcome these difficulties is the principal object of my invention, and to accomplish it several important features embracing my improvements are requisite, to wit: that the size of the pad or pads shall be reduced in proportion to the size of the rupture; that the shape of the pad shall conform to the shape of the rupture; and that the pad shall be held in such a position as to bear upon all parts of the rupture alike. As the latter is so situated as to incline from a vertical position, it is necessary that the pads shall be inclined correspondingly, and be firmly held upon the belt against the possibility of displacement.

In the accompanying drawing, A is the body-belt, supporting the pads B B, and provided with a suitable buckle, C. The belt is made elastic, to yield to the various motions of the body, and at the same time hold the pads up to their proper places.

The pads are made oblong in shape, and are composed of wood or other hard substance, or with a wooden base, D, and a padded face, E, as shown in Fig. 2.

The object of forming the pads oblong is to reduce their size to correspond to the rupture and permit them to bear properly against the inclined edge of the abdominal wall adjoining the groin without impeding the free movement of the legs. It is evident that a circular pad fitting so closely into the groin while the body is at rest would become displaced when the body is in motion, or, if not displaced, would interfere with the movement of the legs, particularly if pressed with considerable force upon the rupture, such forcible pressure being a necessity in all effective trusses.

In order to hold the oblong pads in this inclined position the back portion of each is provided with a diagonal recess, of the proper size and depth to receive the body-belt A, and over the latter is firmly secured a metal plate, F, which forms the back or outer face of the pad. The grooves prevent the pads from turning upon the belt, and the metal plates hold the belt within the grooves.

The direction of the diagonal grooves in the pads is determined by the position of the rupture, whether upon the right or left side of the abdomen.

When two pads are employed for a corresponding number of ruptures they are grooved in opposite directions, so that they shall incline toward each other, as shown in Fig. 1. In this case I prefer to make one pad stationary upon the belt and the other adjustable, so that its position can be varied as the belt is tightened or loosened.

G is an elastic strap, buckled to the back of the body-belt, and, passing forward under the thigh, extends through a staple or guide, *h*, to a hook, *i*, upon the back of one of the pads,

as shown. This strap is for the purpose of adjusting the pads and belt upward and downward upon the body. In case of very severe ruptures, two small thigh-straps may be employed; but usually one is sufficient, arranged upon the side having the worst rupture.

I am aware that pads of an oblong shape are old, and that they have been secured on the body-belt by leather and metal clasps. Such, however, I do not claim; but

What I do claim as my invention is—

The flat metallic plate F, covering the entire outer face of the pad, in combination with the diagonal groove in the wooden back, in which the belt A closely fits, as herein set forth and shown, for the purpose specified.

HENRY HOWE.

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