(No Model.)

A. MILLIARD.

TRUSS.

No. 456,495. Patented July 21, 1891.

Fig.1

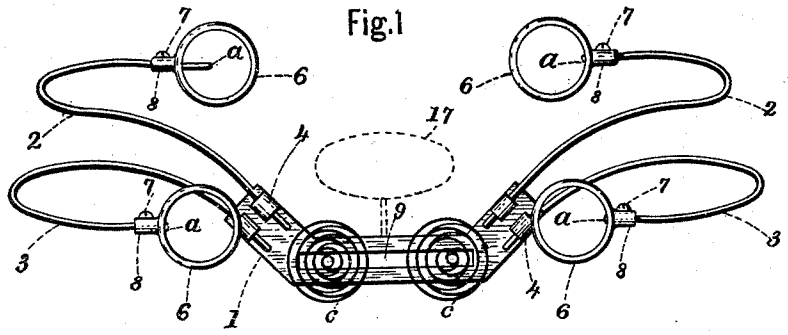


Fig.2

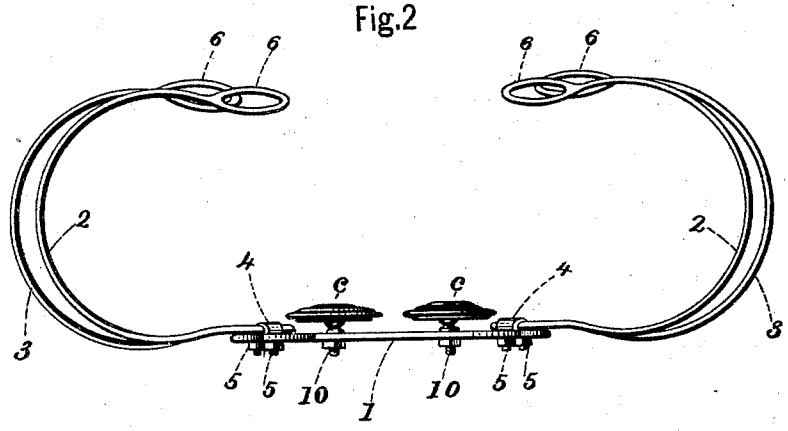


Fig.3.

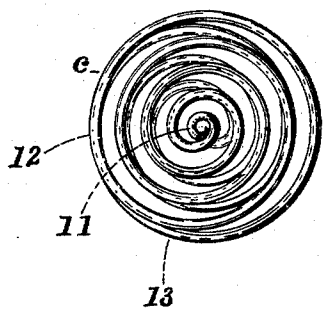
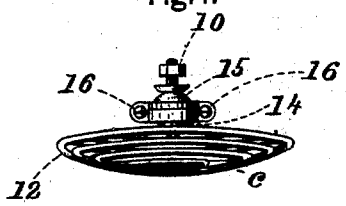


Fig.4.



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UNITED STATES PATENT OFFICE.

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TRUSS.

SPECIFICATION forming part of Letters Patent No. 456,495, dated July 21, 1891.

Application filed February 21, 1891. Serial No. 382,294. (No model.)

To all whom it may concern:

Be it known that I, ANDA MILLIARD, a citizen of the United States, residing in Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Trusses, of which the following is a specification.

My invention consists in certain improvements in trusses, all of which will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a rear side elevation of the truss, showing the adjustable spring-pads in one of the positions to which they may be adjusted; showing also a similar view of the adjustable holding-springs and adjustable back ring-pads. Fig. 2 is a top plan view of the truss complete, showing a modification of the ring-pads, which in this instance are not adjustable but form a portion of the holding-springs. Fig. 3 is an enlarged front elevation of one of the adjustable spring-pads separate from the truss. Fig. 4 is an enlarged detached side elevation of one of the adjustable spring-pads, showing also the universal joint and devices by which it is connected to the truss-bridge.

In said drawings, 1 represents the bridge or holding plate, to which the truss-pads are secured. This bridge or holding plate is constructed of thin sheet metal, sheet-steel being preferred, and it may be plated with any suitable non-corroding metal, if required. To the bridge-plate 1 is adjustably secured two pairs of spring holding-arms 2 and 3, by means of the holding portions or clips 4 and screw-bolts 5. The lower spring-arms 3 are preferably made stronger and heavier than the arms 2. From the above it will be seen that these arms are adjustable in the holding-pieces 4 by means of the screw bolts and nuts 5, as either may be drawn out or pushed in farther by loosening said bolts and again tightening them when the proper adjustment is made.

At the free ends of the spring holding-arms 2 and 3 are adjustably secured the pad-rings 6, which press against the back of the person when the truss is in place. These pad-rings 6 can also be adjusted back and forth along the holding spring-arms 2 and 3 by means of the set-screws 7 and the portion 8, through which the ends of the arms 2 and 3 pass.

From the above construction it will be seen that the truss may be adjusted to fit any size from a large to a small person. If the spring-arms are too long to allow for an unusually small adjustment, then the ends *a* of the spring-arms may be cut off to permit a smaller adjustment of the parts. In the bridge-plate 1 is a horizontal slot or opening 9, in which the truss-pads *c* are adjusted and secured by bolts and nuts 10. (See Figs. 3 and 4.) These truss-pads *c* are constructed of a double coil of spring-steel, either band-steel or wire, (but a suitable size steel wire is preferred,) commencing at the center 11 of the pad (see Fig. 3) and extending around from one convolution to another until the outside or periphery 12 of the pad is reached. From thence the portion 13 passes under the portion 12, and is coiled into several convolutions until it reaches the center of the pad below the upper coiled portion or the outside face of the pad, when it is bent out at right angles, or substantially so, and then connected rigidly to a ball 14, (see Fig. 4,) which is secured in a socketed portion 15 by screws 16, thereby forming a ball-and-socket joint. The object of the ball-joint is to allow the pad to move and accommodate itself to the person on which it is placed, either in a sitting or standing position or in any position the wearer may assume in moving about. To this ball-and-socket joint is secured a screw bolt and nut 10, by which it is fastened to the bridge-plate, as before mentioned. The portion projecting from the back center of the pad may be made longer before being connected to the ball-joint so as to extend up to receive a larger pad to be used for an abdominal supporter, substantially as shown by the dotted lines 17 in Fig. 1; or the same portion of the pad may be made to extend downward to receive and hold a pessary, as hereinbefore stated. If desired, the pad-rings 6 may be made a rigid portion of the spring-arms 2 and 3.

I claim as my invention—

1. A truss consisting of a slotted bridge-plate having truss-pads adjustably secured thereto, in combination with the upper and

lower spring holding-arms for securing the truss to the person, made adjustable to the bridge and having pad-rings at their free ends, substantially as described.

2. A truss consisting of a slotted bridge-plate having truss-pads adjustably secured therein, in combination with upper and lower spring holding-arms for securing the truss to the person, made adjustable thereon and having pad-rings secured to their free ends, and set-screws for adjusting and securing said pad-rings to the spring holding-arms, substantially as described.

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