

(No Model.)

H. L. WALBRIDGE.
TRUSS.

No. 501,551.

Patented July 18, 1893.

Fig. 1.

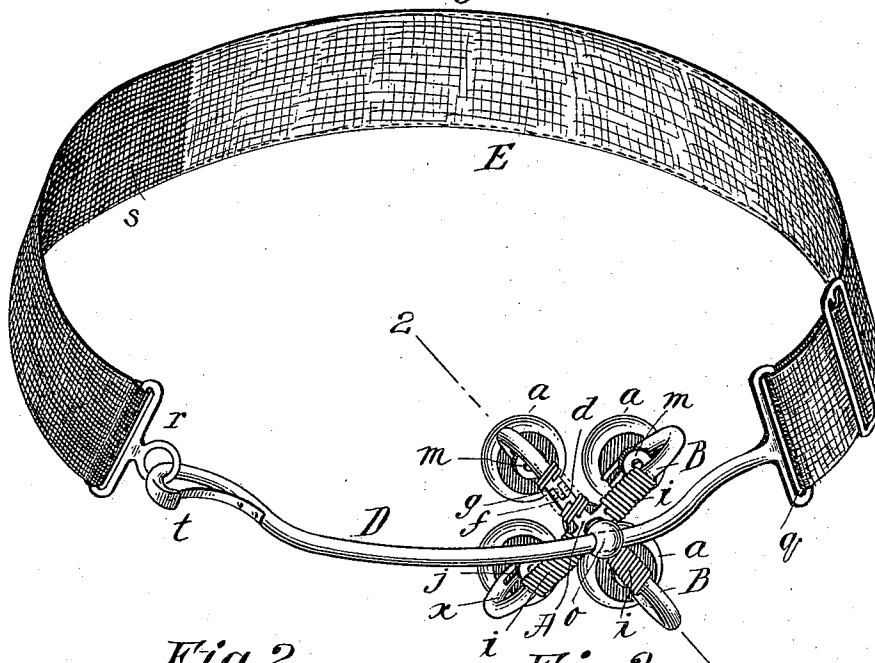


Fig. 2.

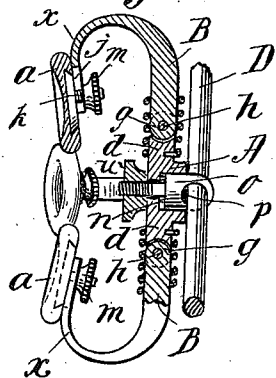


Fig. 3.

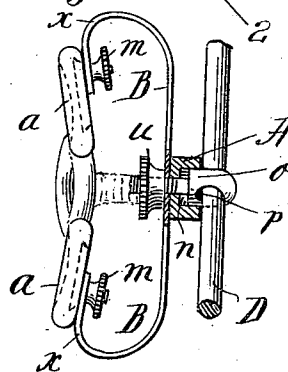
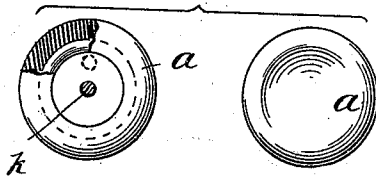


Fig. 4.

Witnesses:

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TRUSS.

SPECIFICATION forming part of Letters Patent No. 501,551, dated July 18, 1893.

Application filed September 17, 1892. Serial No. 446,169. (No model.)

To all whom it may concern:

Be it known that I, HENRY L. WALBRIDGE, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Trusses, of which the following is a specification.

This invention relates to the class of trusses known as finger trusses, that is trusses having several individual fingers or bearing parts adapted for individual pressures in proximate relations to a given intermediate point.

The object of the present invention is to improve the construction of the truss especially with respect to the bearing portions thereof whereby they are simple and practicable in construction and unusually effective in use.

Other objects of the invention are to provide improved appliances for holding the truss upon the person.

The invention consists, first, in a truss comprising several buttons or bearing parts and carrying fingers therefor, and a common support on which said fingers are mounted, and from which they are radially extended, said fingers being resilient for independently and yieldingly exerting pressures transversely of their general directions of extension from said common support.

The invention furthermore consists in a truss substantially such as just above characterized having the resilient fingers formed with underturned extremities extended the one toward the other whereby when the truss is in use and under stress they have capabilities for yielding pressures in directions away from the plane of their common support and also in directions converging toward a common point intermediate thereof and opposite said support.

The invention further consists in the combination with the yielding spring devices of the truss, of appliances formed or constructed all substantially as will hereinafter more fully appear.

In the accompanying drawings, Figure 1 is a perspective view of a truss comprising my present improvements. Fig. 2 is a section of the bearing portions of the truss on the line, 2—2, Fig. 1. Fig. 3 is a view similar to Fig. 2, but showing a somewhat modified form of

parts in detail. Fig. 4 is a representation of both sides of one of the bearing buttons, a part being broken out in section.

In the drawings A represents the common support and B, B, the fingers, radiating from said support on the extremities of which are the bearing buttons, *a, a*. Each of the fingers is constructed with reference to having capabilities for yielding bearings in directions transversely of their general directions of extension from said support and have their underturned extremities, *x*, on which the buttons are directly supported, extended the one toward the other whereby as said fingers and buttons have their yielding movements in directions transversely of their general directions of extension from the support, they also have capabilities for yielding pressures the one toward the other, that is in a direction toward a point between the several buttons and opposite said common support, thereby exerting in the use of the truss upon the hernia or part, a degree of constricting pressure besides the forcing bearing relatively away from the common support.

In the drawings, Figs. 1 and 2, the support A comprises four arms, *d*, having at their extremities the separated ear-pieces, *f, f*, while the curved or return-bent fingers, B, B, have at their inner ends the tongues, *g*, which have engagements between said ear-pieces by the pivot pins, *h*. The resilient and yielding capabilities are imparted to these articulated fingers by reason of the spiral springs, *i, i*, which encircle both the arms, *d, d*, of the common support, and the adjacent portion of the fingers, one end of each spiral spring being secured to an arm, *d*, whereby it is held against displacement. The return bent extremities of the fingers are bifurcated to provide the slots, *j*, while the buttons are provided with the rigidly connected screw-threaded spindles, *k*, extended from their backs, through the slots and receive the confining nuts, *m*. As plain the several buttons are separately adjustable on the carrying fingers. The several button carrying fingers and common support, A, therefor constitute what may be termed the truss-pad, and the same is carried by the arm, D, to which it is adjustably connected. The means of connection between these parts will be now described. The holder, A, has the central

hole which is countersunk or formed with the enlarged socket, *n*, at its outer or front side. The stud, *o*, has its attenuated screw-threaded spindle passed through the bored support and beyond the inner side thereof while the enlarged portion of the stud is partially disposed in said socket, *n*. Said enlarged stud portion has the eye, *p*, through which the said arm, *D*, is passed. The nut, *u*, effects the endwise drawing of the stud, so that the arm has its portions adjacent the eye drawn hard against the outer face of the said part, *A*. The arm has at its one end the elongated eye, *q*, at which the attachment, by its one end, of the encircling band or belt, *E*, is made, while the other end of the encircling band is provided with the metallic eye-piece, *r*, with which the snap-hook, *t*, on the end of the arm, *D*, is detachably connected. A portion of the length of the band is formed of substantially stretchless textile or other material, while the darkly shaded part, *s*, is understood as being of elastic webbing. Thus is produced a band which is both durable and readily adjusting to the form.

In Fig. 3 the several fingers, *B*, having the capabilities for spring reactions and yielding bearings, as herein before set forth, instead of being constituted by rigid arms which are articulated to the common support, with springs applied thereto, may consist, as seen in Fig. 3, of spring metal strips connected at their inner ends to the common support, *A*, and having the return-bent extremities for carrying the buttons. In this view the buttons, instead of having the rigid supporting spindles, *k*, extended axially from their backs are indicated as being extended from parts offset from the axis of the buttons. This arrangement may in use in some cases bring the bearing parts to better adaptation relative to the rupture.

I claim—

1. In a truss, in combination, a common support and several spring fingers of return-bent form supported thereby and extended therefrom in various directions and having underturned extremities extended the one toward the other, and all whereby said bearing parts have imparted thereto when the truss is in use capabilities for yielding pressures in

directions away from said common support, and also in directions converging toward an intermediate point, for the purposes set forth.

2. A truss comprising a common support, *A*, the several fingers pivotally connected to said support and extended in various directions outwardly therefrom and having their extremities return-bent and provided with the bearing buttons, the spiral springs encircling said fingers and also having an engagement with the said common support, and appliances for confining the truss about the person, substantially as described.

3. In a truss in combination a support, *A*, having radiating arms, *d*, *d*, with the separated ear-pieces, *f*, *f*, the fingers having tongues, *g*, entered within and pivotally connected to said ear-pieces and having the return-bent extremities provided with the bearing buttons, and the spiral springs encircling said arms, *d*, and fingers, substantially as described.

4. In a truss the combination with a finger-carrying support having a hole therethrough, of a carrying arm, a stud having a screw-threaded portion thereof extended through and beyond the hole and having at its portion which is near and outwardly beyond the orifice of such hole the eye, *p*, the arm, *D*, and the nut, substantially as and for the purpose set forth.

5. The combination with the support, *A*, having the radiating arms, *d*, *d*, and the central hole with a portion of its length enlarged to form the socket, *n*, the spring pressure fingers with buttons, the stud, *o*, with the screw-threaded portion and the enlarged head set partially in said socket having the eye, *p*, and the arm, *D*, and nut *u*, substantially as described.

6. In a truss the combination with a suitable arm or part carrying a truss-pad, of a band adapted to have its ends connected to said carrying part and having the greater portion of its length formed of practically stretchless material, the remainder being of elastic webbing, substantially as described.

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