C. C. E. Van Alstine.

Truss.

No. 111,495. Patented Jan. 31, 1871.

Fig. 1

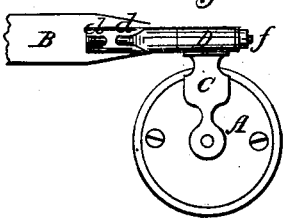


Fig. 2

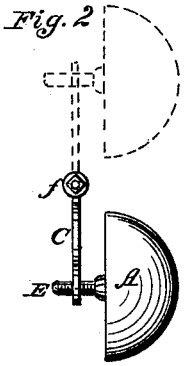


Fig. 3.

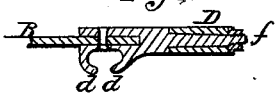


Fig. 4.

Fig. 5.

Fig. 6.

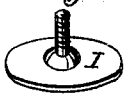
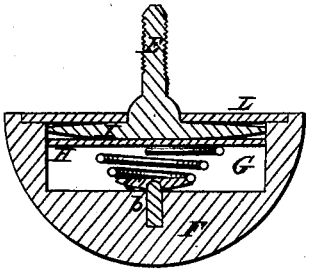


Fig. 7.

Fig. 8.



Witnesses,

J. H. Shumway

A. J. Tibbits

Inventor,
Cornelius C. E. Van Alstine
By his Attorney
John E. Earle

Unted States Patent Office.

CORNELIUS C. E. VAN ALSTINE, OF NEW HAVEN, CONNECTICUT.

Letters Patent No. 111,495, dated January 31, 1871.

IMPROVEMENT IN TRUSSES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CORNELIUS C. E. VAN ALSTINE, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Trusses; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents in—

Figure 1, a front view;

Figure 2, a side view, illustrating the manner of reversing from right to left;

Figure 3, a transverse section of the joint;

Figures 4, 5, 6, and 7, detached parts; and in

Figure 8, a central section of the pad, full size.

This invention relates to an improvement in trusses, the object being to make the pad reversible and self-adjusting; and

It consists—

First, in attaching the pad to the band by a conical spindle and socket, whereby the pad is firmly fixed in any desirable position.

Second, the construction of the pad with a chamber, within which is arranged a universal bearing for a helical spring, combined with two plates, one of which lies upon the said spring and free in the chamber, the other fixed to the pad, and between the two a double convex head or plate, to which a stud is fixed to secure the pad to the band, by means of a double convex head, a universal adjustment of the pad is attained.

A is the pad.

B, the band, and to the band a spindle, *a*, is attached, nooks *tl* being formed on the said spindle, as seen in fig. 3.

The spindle *a* is made of conical shape, and over this the arm C, to which the pad is fixed, is placed, a socket, D, being formed, corresponding to the conical spindle, and a nut, *f*, turned onto the spindle to press the socket D onto a firm bearing; hence, by loosing the nut, the arm C may be adjusted to any desired position and the nut reset.

The pad A is fixed to the arm C by a screw, E, formed thereon.

To reverse the pad from right to left, loose the nut *f* and turn the arm up, setting the pad in from the opposite side of the arm, as denoted in broken lines in fig. 2, one position for the right hand and the other for the left, and this is accomplished by simply loosing the nut and resetting, so that, once set, it is immovable except by intention.

The pad is formed as seen in fig. 8, F being the ball or cushion, within which is formed a chamber, G, with a step, *b*, set in the center.

A flat plate, H, of about the diameter of the chamber, is provided with a helical spring, denoted in solid black, fig. 5; also seen in fig. 8, with a seat, *c*, to set upon the step *b*, as seen in fig. 8.

Onto this plate a second plate, I, is placed, upon which the screw E is formed or fixed, as seen in figs. 6 and 8, and over this a covering-plate, L, is placed and secured to the cushion, confining the parts within the chamber, as seen in fig. 8.

The surfaces of the plate I, which lie between the plates L and H, are made each convex, which permits of a rolling movement of the pad in any direction, the spring yielding to the pressure upon the pad by the arrangement of the plate I, readily conforms to the desired position without being set, thus making the pad practically self-adjusting; and the angle of the arm which supports the pad may be adjusted with the greatest nicety, which cannot be attained by any known adjustable truss.

I do not wish to be understood as broadly claiming a chambered pad, as such, I am aware, is not new.

I claim as my invention—

The combination of a chambered pad, F, with a bearing, *b*, upon which rests the helical spring, provided with the seat *c*, the movable plate H, fixed plate L, and the double convex plate or head I between the said two plates, the said head I provided with a stud or screw, E, for attachment to the arm of a truss, substantially in the manner herein set forth.

CORNELIUS C. E. VAN ALSTINE.

Witnesses:

J. H. SHUMWAY,

A. J. TIBBITS.