(No Model.)

C. CLUTHE.

TRUSS.

No. 384,611. Patented June 19, 1888.

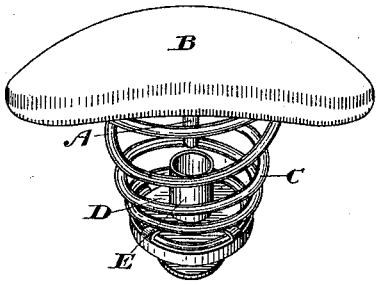

Fig. 1.

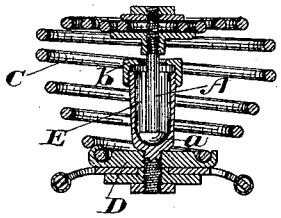

Fig. 4.

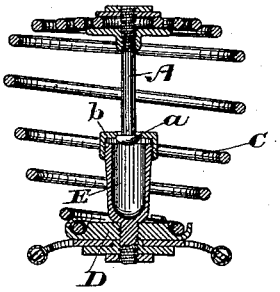

Fig. 3.

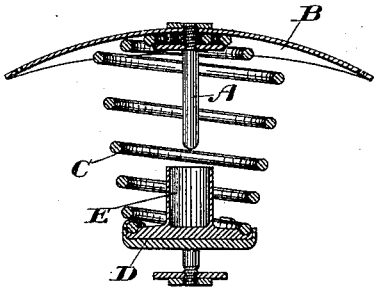

Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES CLUTHE, OF TORONTO, ONTARIO, CANADA.

TRUSS.

SPECIFICATION forming part of Letters Patent No. 384,611, dated June 19, 1888.

Application filed October 20, 1887. Serial No. 252,915. (No model.)

To all whom it may concern:

Be it known that I, CHARLES CLUTHE, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, manufacturer, have invented a certain new and useful Improvement in Hernia-Trusses, of which the following is a specification.

The object of the invention is to design a truss that when applied its greatest pressure shall be directed against the center of the rupture, and at the same time be so elastic that it will readily adapt itself to the movement of the body of the wearer; and it consists, essentially, in securing to the center of the pad a spindle designed to fit into a socket attached to the truss hoop or belt, and connected to the pad by a spiral spring, which encircles the spindle and permits the free elastic movement, even when the end of the spindle is pressed against the bottom of the socket.

Figure 1 is a perspective view of my improved truss in its expanded condition and the spindle removed from its socket. Fig. 2 is a sectional elevation of Fig. 1. Fig. 3 is a sectional elevation of my improved truss with a head formed on the end of the spindle and a cap fitted onto the socket, so as to prevent the spindle leaving the socket. Fig. 4 is a view of my improved truss compressed, the end of the spindle resting on the bottom of the socket.

In the drawings, A represents the spindle secured to the center of the pad B. This spindle A is located in the center of the spiral spring C, which is secured at one end to the pad B and at its other end to the head D, in the center of which the socket E is formed, and to which the truss hoop or belt is attached.

In Figs. 3 and 4 I show a head, *a*, made on the end of the spindle A, and I also screw a cap, *b*, on the mouth of the socket E. The aperture through this cap *b* is sufficiently large to permit the spindle A to have a free rocking lateral movement when the end of the spindle A is resting in the bottom of the socket E, as indicated in Fig. 4, which rocking lateral movement is necessary in order to permit the elastic movement of the pad required to adapt it to the movement of the body of the wearer.

The actions of the spindle, socket, and spring are the same, whether made as shown in Figs. 1 and 2 or in Figs. 3 and 4—that is to say, when the truss is applied and the spring C compressed, so as to cause the end of the spindle to rest upon and press against the bottom of the socket E, the necessary pressure to retain the rupture is directed against the center of the pad exactly at the point where the pressure is required, while at the same time the pad is so held by the spring C that it is elastic and readily adapts itself to the movement of the body of the party wearing the truss.

It will be noticed that the spindle A is screwed into a nut formed in the center of the pad B. It therefore follows that by screwing it into or out of the nut its length may be decreased or increased, and in this way the pressure in the center of the pad may be adjusted to suit the condition of the rupture.

It will be understood that the positions of the spindle A and socket E may be reversed without in any way affecting the operation of the truss.

I deem it important that the spindle be connected directly to the center of the spring, which should be outside the socket, and that the pad be connected to the spring at the end where the spring is connected to the spindle, for by this construction the pad will always move with the spring, thus rendering it more elastic and allowing it to adapt itself more readily to the movement of the body. This is important.

What I claim as my invention is—

1. A spindle, A, connected directly to the center of the spiral spring C, in combination with a socket, E, connected to said spring at the opposite end, substantially as and for the purpose specified.

2. A spindle, A, connected directly to the center of the spiral spring C, and having a head, *a*, formed on it, in combination with a socket, E, connected to said spring at the end opposite to the end at which the spindle

is connected, and having a cap, *b*, substantially as and for the purpose specified.

3. A spindle, A, adjustably connected directly to the center of the spiral spring C, in combination with a socket, E, connected to said spring at the end opposite to that at which the spindle A is connected, and the pad connected to said spindle and spring, substantially as and for the purpose specified.

Toronto, September 28, 1887.

CHAR'S. CLUTHE.

In presence of—

CHARLES C. BALDWIN,

CHAS. H. RICHES.