

No. 688,695.

Patented Dec. 10, 1901.

L. ROPERS.
HERNIAL TRUSS.

(Application filed July 17, 1901.)

(No Model.)

Fig. 1.

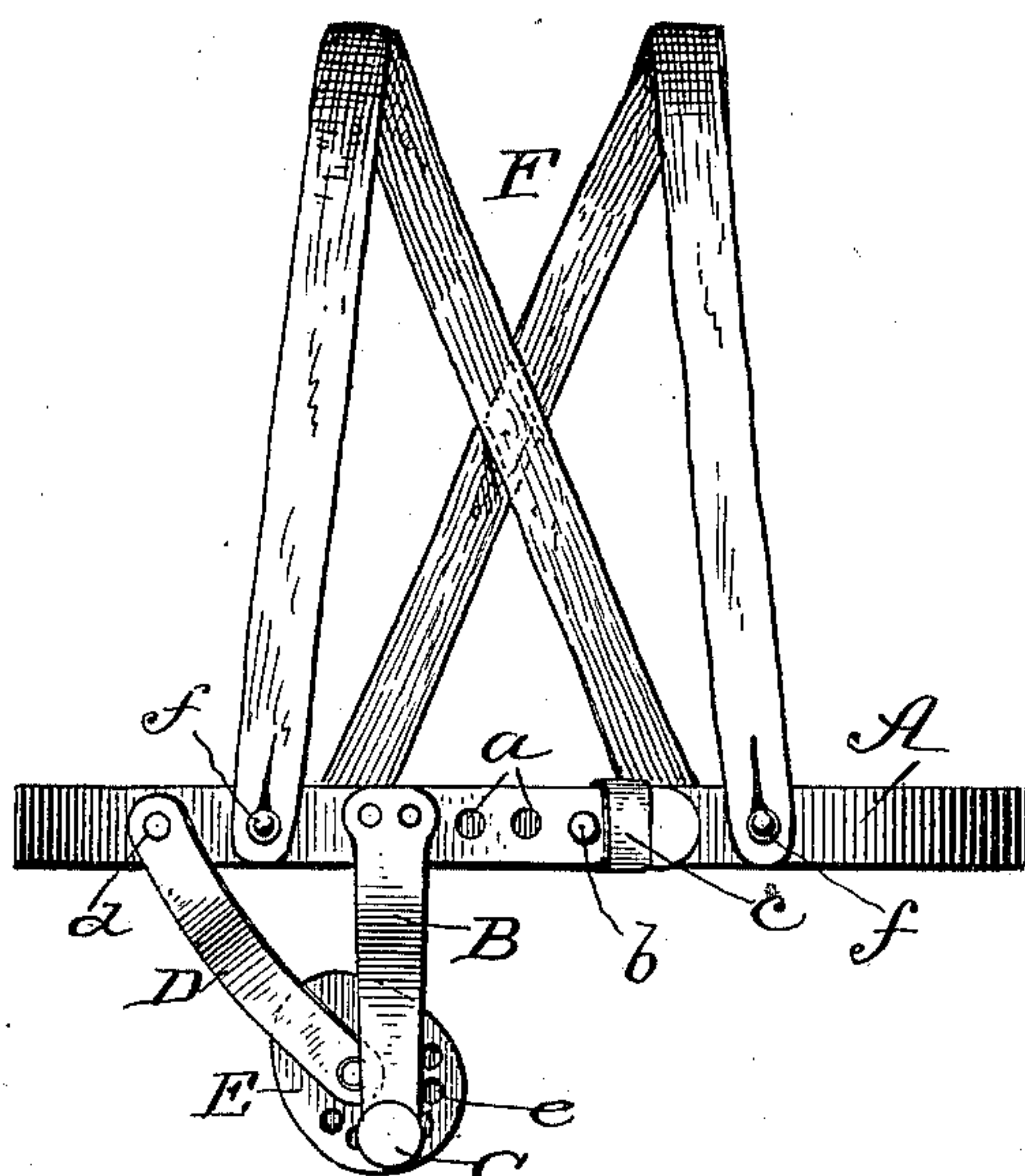


Fig. 2.

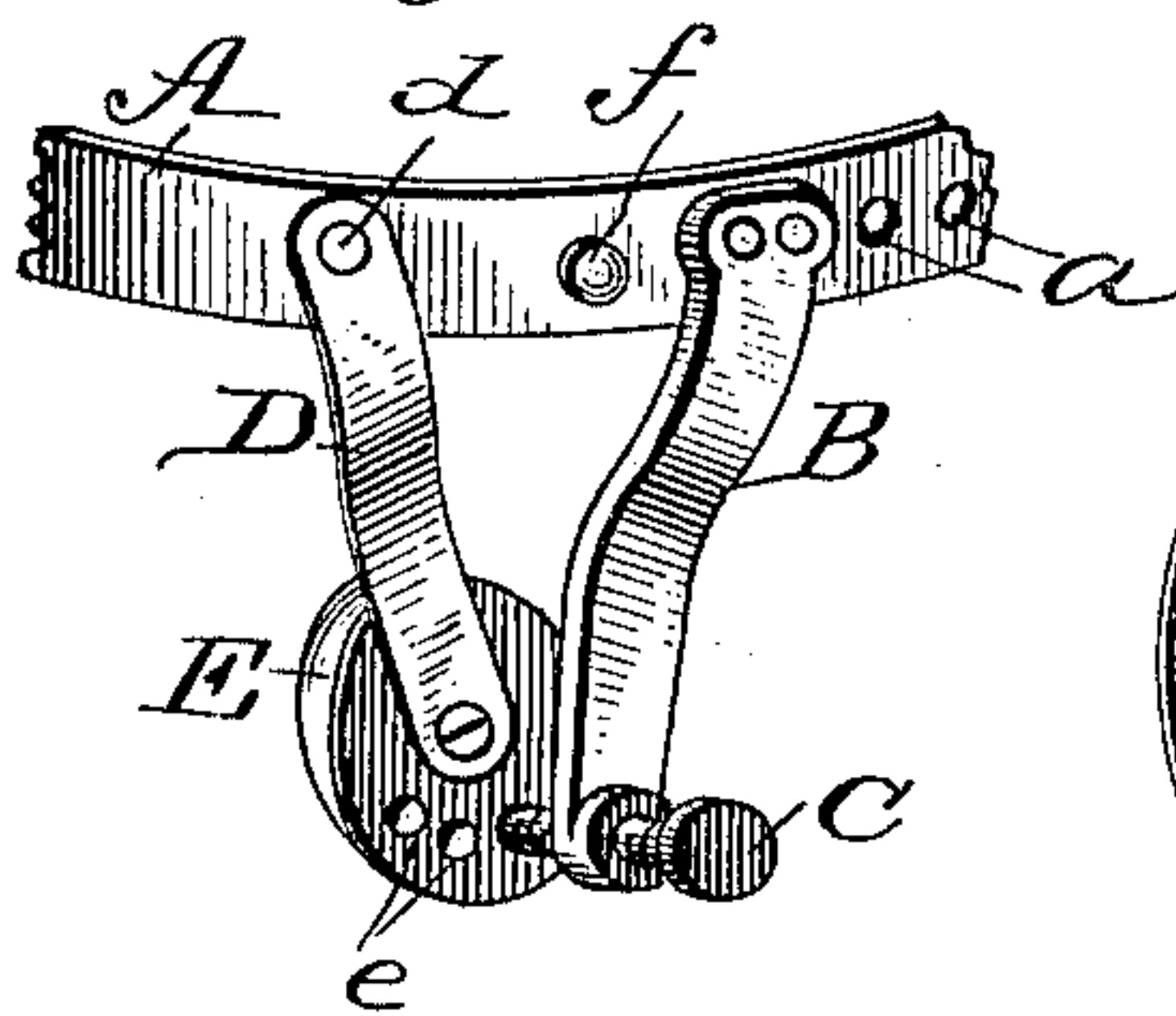


Fig. 3.

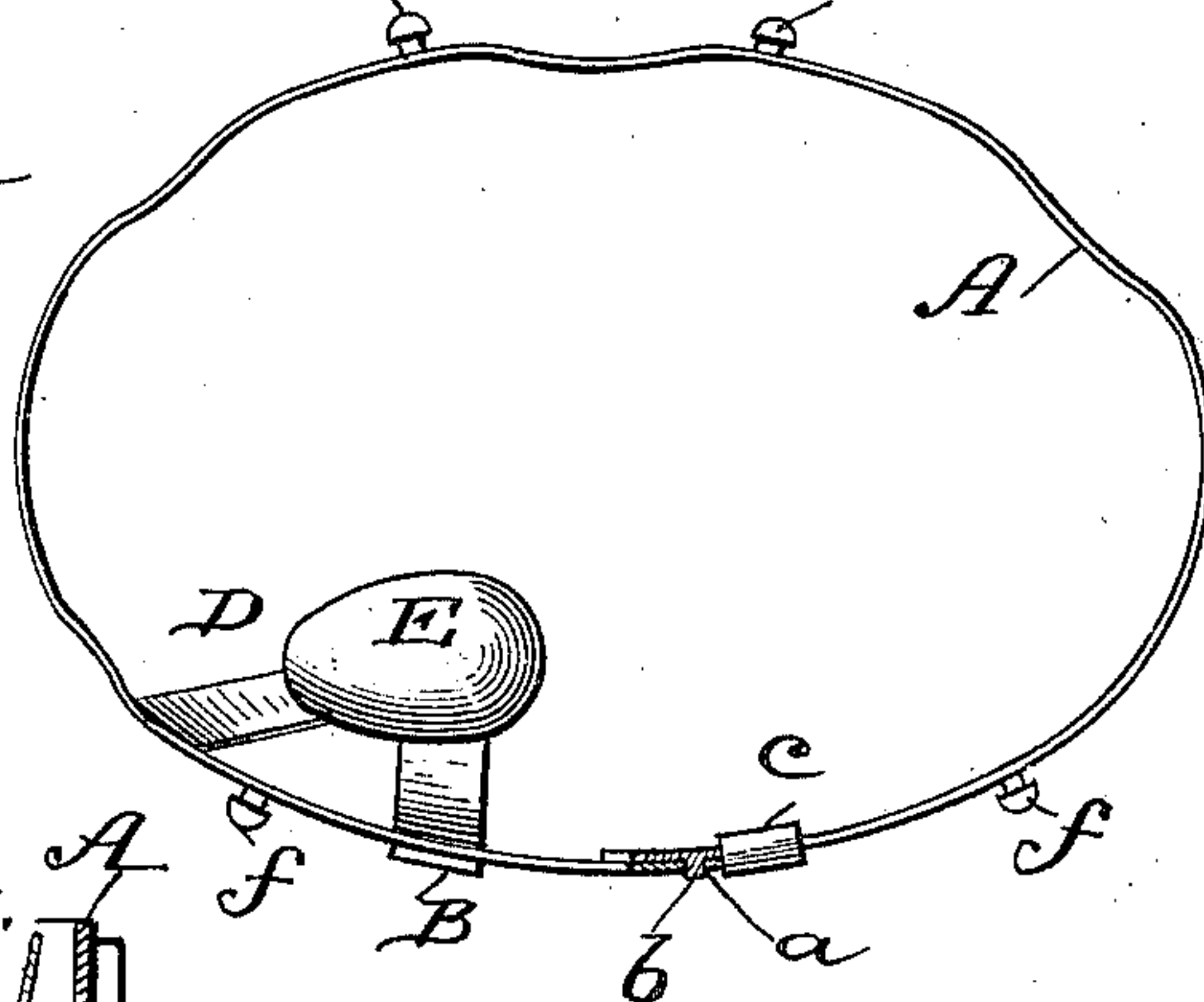
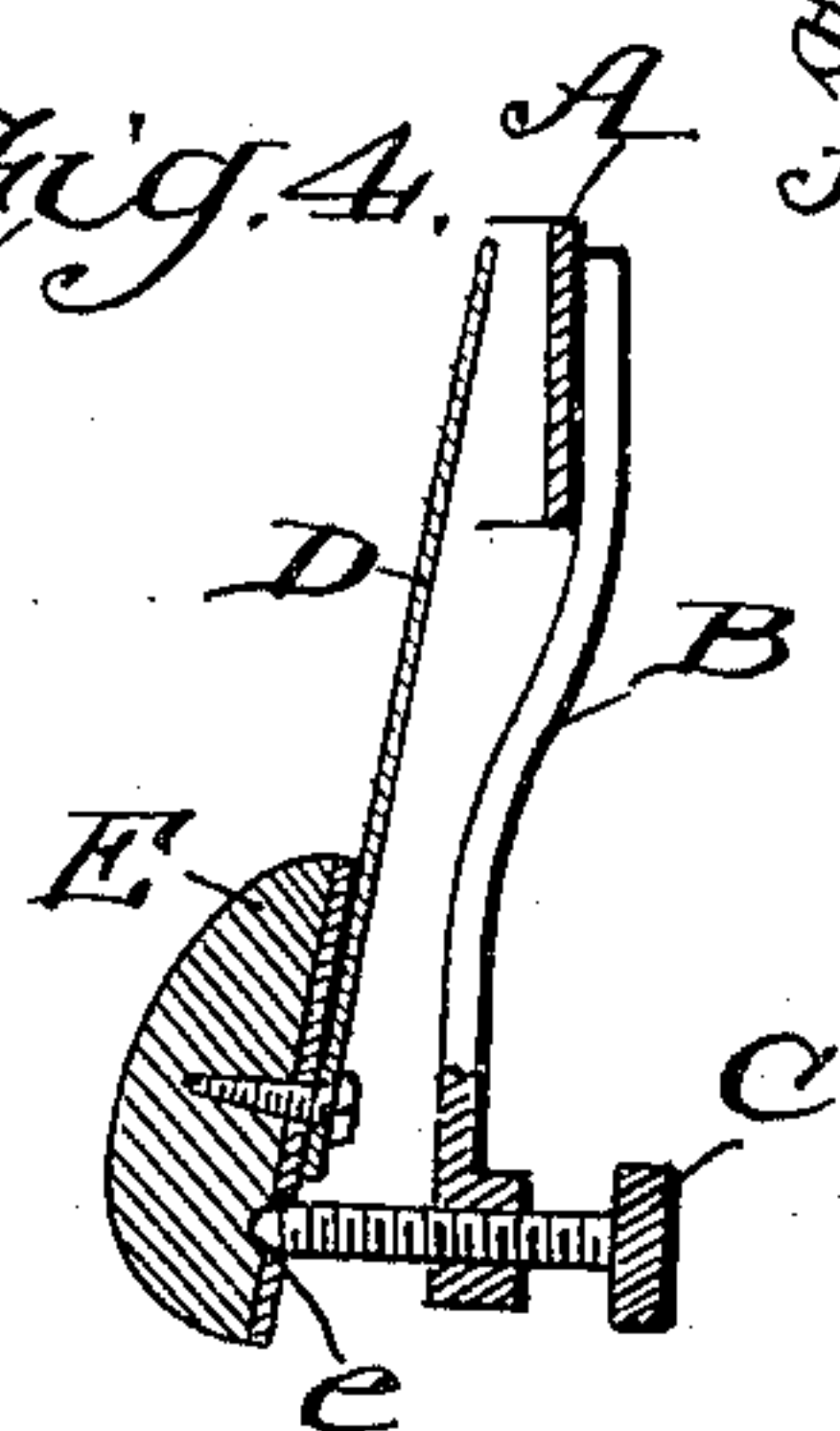


Fig. 4.



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HERNIAL TRUSS.

SPECIFICATION forming part of Letters Patent No. 688,695, dated December 10, 1901.

Application filed July 17, 1901. Serial No. 68,631. (No model.)

To all whom it may concern:

Be it known that I, LOUIS ROPERS, of Lincoln, in the county of Logan and State of Illinois, have invented a new and useful Improvement in Trusses, of which the following is a specification.

The object of my invention is to provide a truss capable of efficiently retaining the rupture and at the same time permitting the free and easy movements of the body, so that the truss may be worn in comfort and without encumbering the action of the wearer.

To these ends it consists in the special construction and arrangement of parts of the pad in relation to the body-belt and adjusting devices and also in the peculiar nature of the body-belt itself, as will be hereinafter more fully described with reference to the drawings, in which—

Figure 1 is a front view. Fig. 2 is a perspective view. Fig. 3 is a plan view of the body-belt, partly in section; and Fig. 4 is a sectional detail through the adjusting devices of the pad.

In the drawings, A represents the body-belt, which for the sake of better illustrating my invention is shown divested of its external covering of fabric, but which in practice will be suitably sheathed in an external covering of fabric or leather, as is usual. The main portion of the body-belt is made of metal, but is not of spring metal possessing elastic or resilient qualities, but on the contrary is made of annealed steel and has the temper drawn, so that it is flexible and may be bent into any shape, but when so bent retains its bent position without resuming its former shape, as does the resilient spring. Such metal belt is also somewhat heavier than when made to act as a spring. This quality of the metal belt of non-resilience possesses the advantage that it may be bent to conform to such irregular outline of the cross-section of the body as will make the belt to fit such outline without pressing unduly upon any local part, so that instead of hugging the body tightly, as does an elastic spring, and pressing unduly upon certain parts without touching others my belt may by virtue of its accurate conformation to the exact cross-section of the body be made comparatively loose

without clamping or binding and yet forms a sure and stationary anchorage for the pad and its adjusting mechanism. This contributes greatly to the comfort and freedom of the wearer, avoiding all chafing, soreness, and pain and giving better ventilation to the body by its looseness, preventing in a great degree the damaging of the belt from perspiration.

The belt is made adjustable to different sizes by a series of holes *a* in one end and a stud *b* on the other end and a sliding keeper *c* large enough to inclose the two lapped ends. When the stud is locked into one of the holes *a* and the keeper *c* is slid over the same, the ends are securely locked together at any desired adjustment as to size.

On the front portion of the body-belt and rigidly attached thereto in pendent position is an arm B, extending downwardly at about right angles and slightly bent in toward the center of the belt. This arm is practically rigid and at its lower end is provided with a screw-threaded hole, through which is tapped a set-screw C. D is another arm pivoted at *d* to the body-belt a short distance from the arm B and extending downwardly in inclined position to arm B a distance approximately equal to that of the arm B. The arm D is a spring-arm and bears on its lower end the truss-pad E, held at its center to the end of said spring-arm and made oval or egg-shaped and having a series of holes *e*, which form seats for the end of the screw C. When said screw is seated in any of these holes, the two arms B and D and the intermediate portion of the body-belt form the three sides of a triangle, which form a strongly-braced arrangement for holding the pad to any of its positions, and as the arm B is rigid and the arm D a spring by turning the screw in the pad and spring-arm are forced inwardly to produce any degree of pressure or inward adjustment that may be rendered necessary by the circumstances of the case. As the spring-arm D is pivoted to the belt and the pad is carried by the spring-arm, the inclination of the spring-arm may be changed somewhat and the pad adjusted on the arm, so that by these combined movements the pad may be moved bodily and also be adjusted upon the

arm D and the screw seated in any one of the series of holes in the back plate of the pad to secure the pad in any adjustment desired.

In connection with my truss I employ suspender-straps F, which extend over the shoulders and have buttonholes at their lower ends that are buttoned over headed studs f on the body-belt. These suspenders have a special correlation with the body-belt, in that they hold it up without relying upon any compressive or clamping strain of the body-belt upon the body. In some cases, however, where the conformation of the hips permit it, I may dispense with these suspenders; but in straight-waisted people they will be found desirable.

Although I have described the arm B as being rigid, it need not be absolutely so, but need only be stiffer than the spring-arm D, so as to dominate or control the latter in its adjustment.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A truss consisting of a body-belt having a relatively rigid arm projecting therefrom, a spring-arm also attached to the body-belt at a distance from and to one side of the rigid arm and bearing a pad, the said arms converging toward each other, and means mounted upon the end of the relatively rigid arm for adjusting the pad inwardly against the tension of its supporting-arm substantially as described.

2. A truss consisting of a body-belt having a relatively rigid arm projecting therefrom, a spring-arm also attached to the body-belt at

some distance from and to one side of the rigid arm so as to be at an angle to the rigid arm, and bearing at its end a pad, and means mounted upon the rigid arm for forcing the pad inwardly substantially as described.

3. A truss consisting of a body-belt having a relatively rigid arm projecting therefrom, a spring-arm pivotally attached to the body-belt at a distance from and to one side of the rigid arm and converging thereto at its end and bearing at its lower end a pad, and means for connecting the two ends of the arms together, and adjusting one inwardly from the other as described.

4. A truss consisting of a body-belt having two arms attached to the same at different points along its length and at a distance from each other at their points of connection with the body-belt, and converging toward each other at their ends, one being more flexible than the other and bearing a pad, and means for adjusting the more flexible arm away from the other substantially as described.

5. A truss consisting of a body-belt having two arms attached to the same at a distance from each other, one being relatively rigid and provided at its end with a set-screw and the other being flexible and provided at its end with a pad bearing a series of screw-seats adapted to receive the screw of the other arm substantially as described.

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Witnesses:

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