

(No Model.)

J. O. STEPHENS.

TRUSS.

No. 369,566.

Patented Sept. 6, 1887.

Fig. 1.

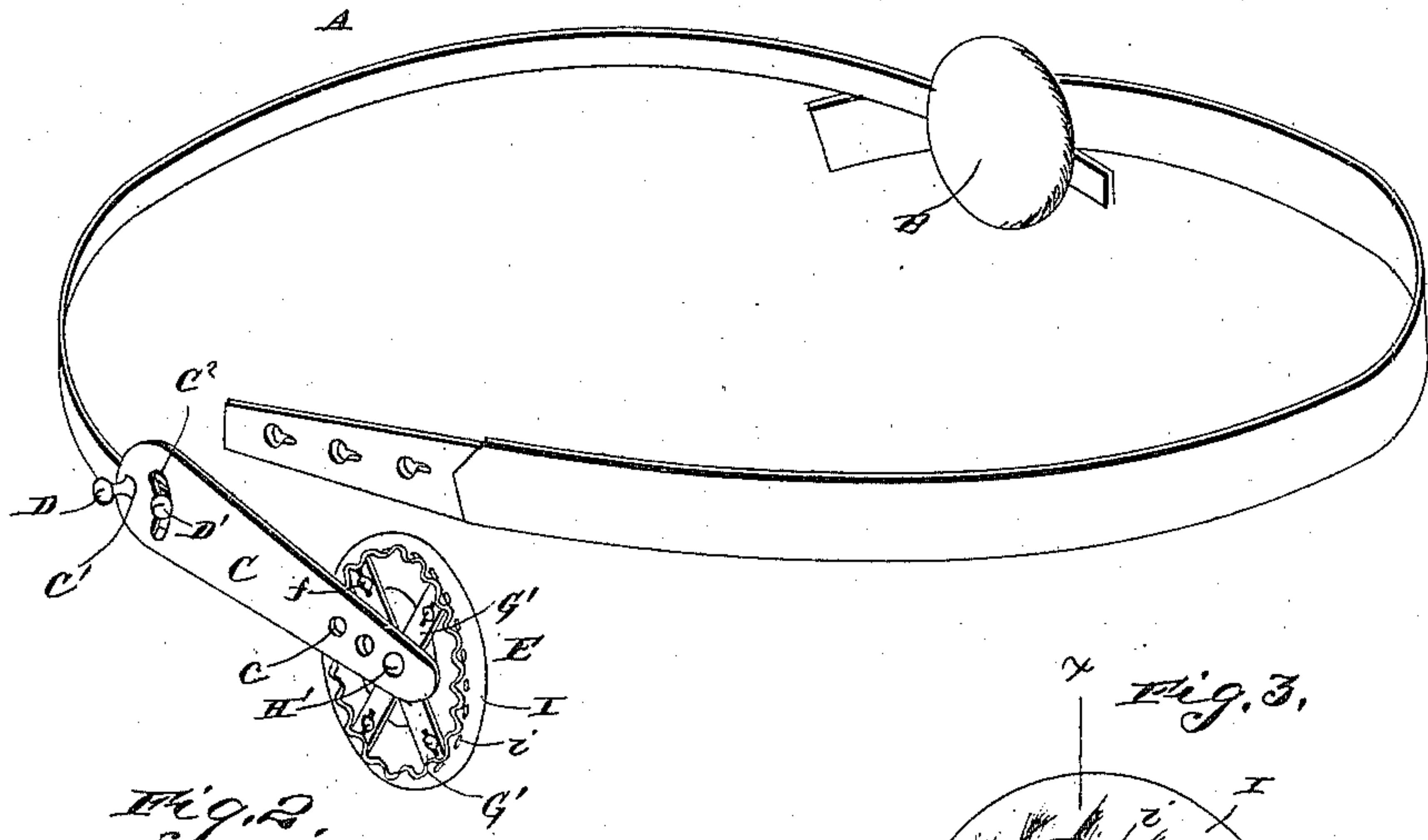


Fig. 2.

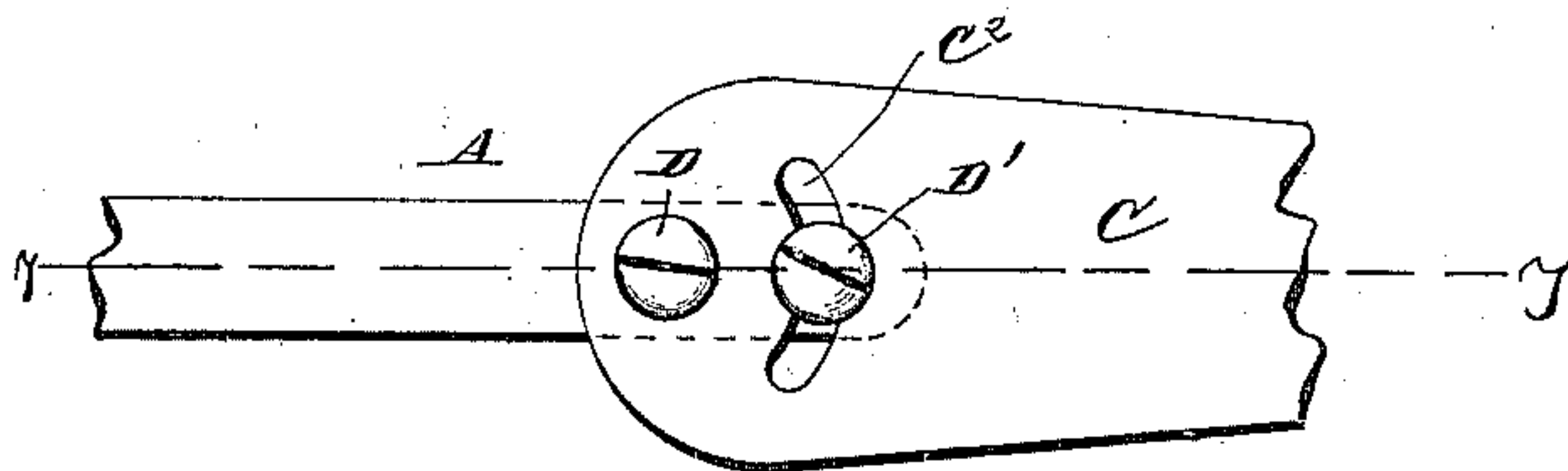
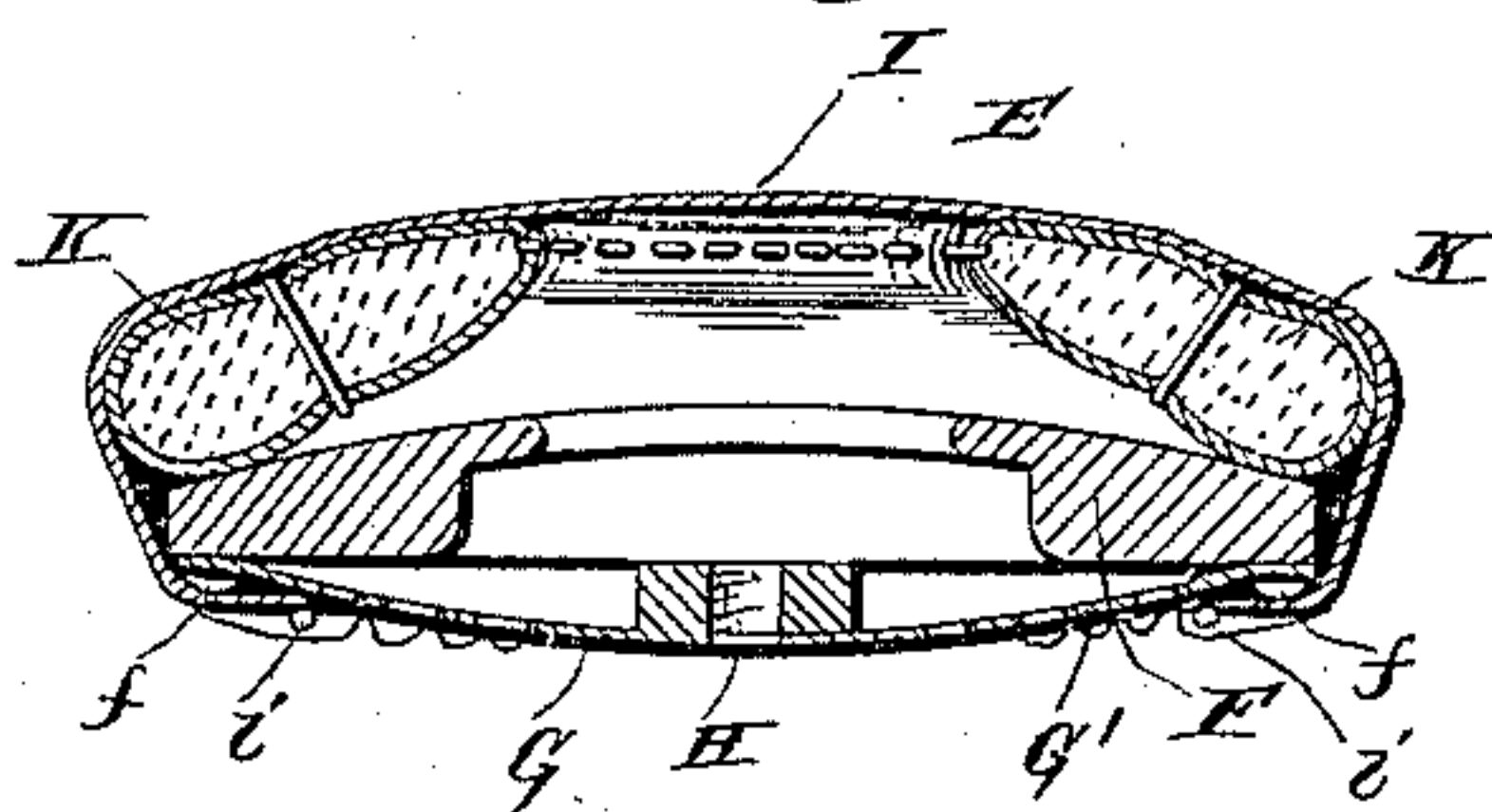
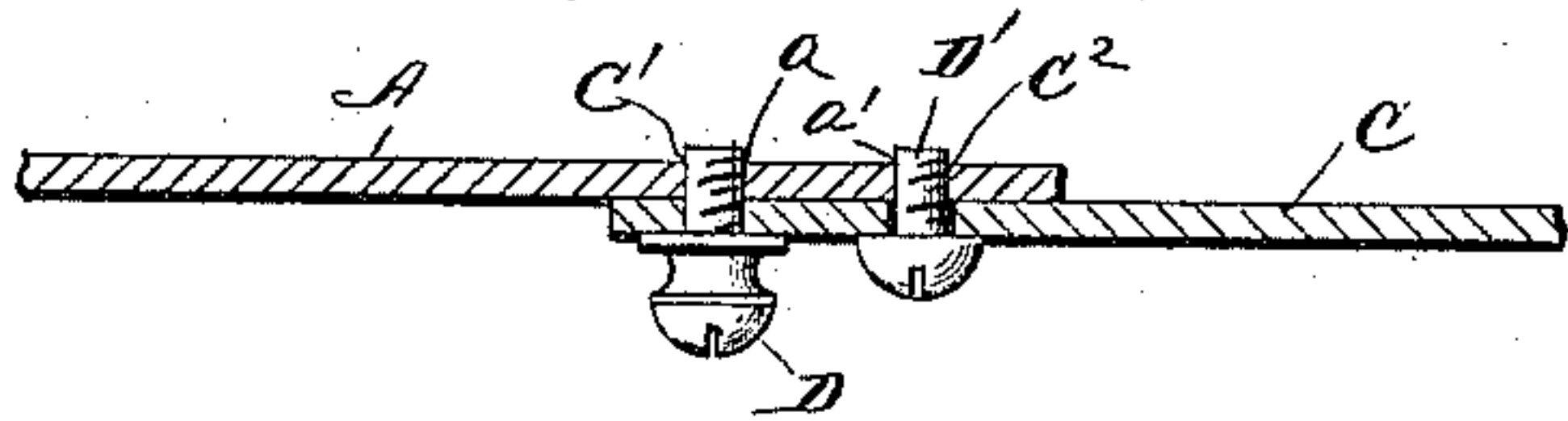


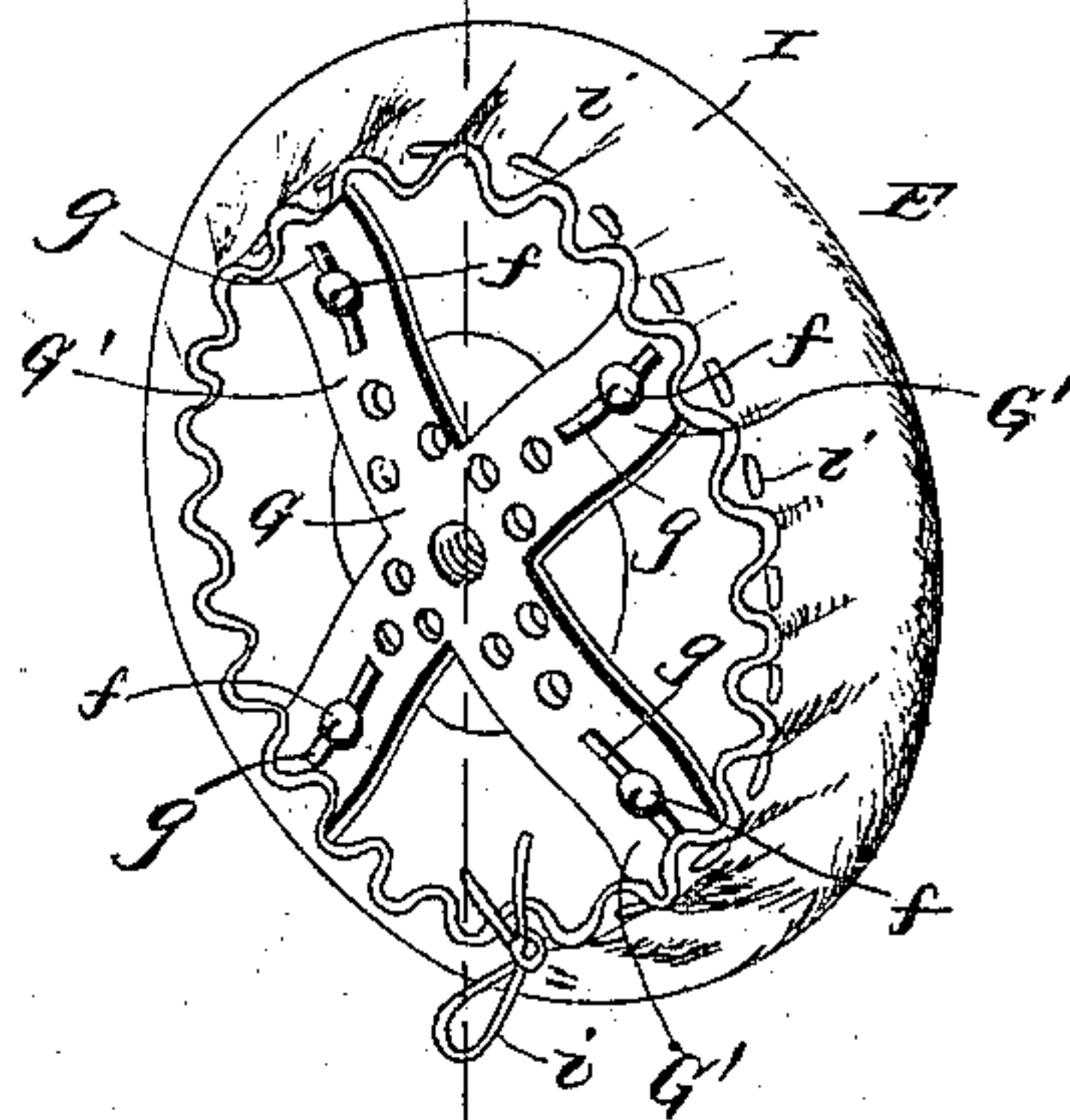
Fig. 4.



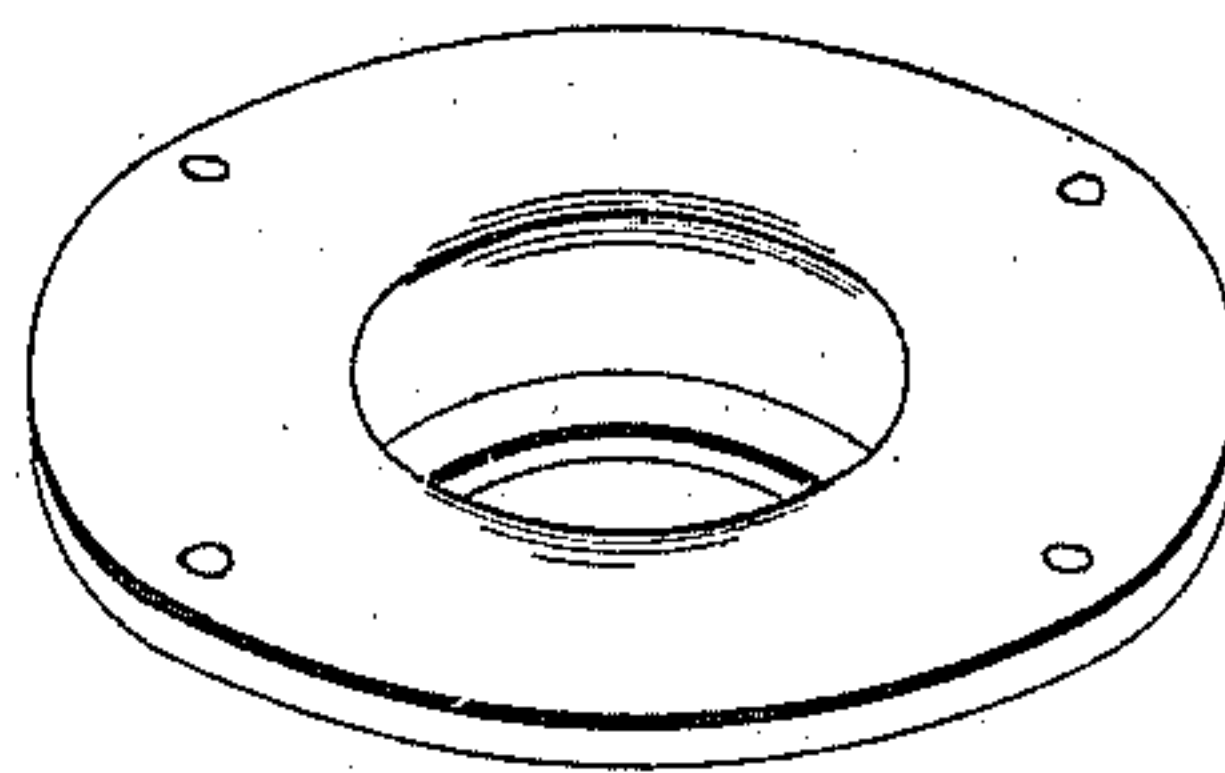
*Fig. 6.*



*Fig. 3.*



*Fig. 5.*



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN O. STEPHENS, OF ST. JOSEPH, MISSOURI.

## TRUSS.

SPECIFICATION forming part of Letters Patent No. 369,566, dated September 6, 1887.

Application filed March 12, 1887. Serial No. 230,676. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN O. STEPHENS, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented a new and useful Improvement in Trusses, of which the following is a specification.

My invention relates to improvements in trusses for use in rupture and hernia, the novelty of which consists in the peculiar construction and arrangement of the parts, hereinafter fully described and claimed.

Heretofore trusses which have been made for use on one side of the body cannot be used on the other side, and it is my intention to provide a truss which is adapted to be adjusted for use on either right or left side. Further, it is my object to provide means whereby the length of the truss may be adjusted; further, to provide a pad devoid of the usual springs and better adapted to yield to the motions of the body, especially the rocking motion, and also to construct it in such a manner as to be lighter and cooler to the wearer by making it hollow, as hereinafter described.

I attain these objects in the device illustrated in the accompanying drawings.

Figure 1 is a perspective view of the truss.

Fig. 2 is a detail view to show the manner of

attaching the movable arm to the spring-band.

Fig. 3 is a detail view of the pad detached.

Fig. 4 is a section on the line  $x x$ , Fig. 3. Fig.

5 is a detail view of the inside disk or ring.

Fig. 6 is a detail section on the line  $y y$ , Fig. 2.

Referring to the drawings, in which similar letters denote corresponding parts in all the figures, A designates the spring-band having the cushion or pad B on the rear end and the transverse threaded perforations  $a a'$  in the front end.

C is a movable arm having a series of perforations,  $c$ , in one end, and in the other end the perforation  $C'$ , and the curved slot  $C^2$ , near the said perforation  $C'$ . A button-headed screw, D, is passed through the opening  $C'$  in the arm C and the perforation  $a$  in the spring-band A, thus pivoting the arm C on the spring-band, and a set-screw, D', is passed through the slot  $C^2$  and secured into the perforation  $a'$ , so that as the arm C is turned on its pivot the slot  $C^2$  will operate on the screw D', and by

tightening the said screw at any point of the slot the arm C will be clamped rigidly to the band A. The length of the slot  $C^2$  is such as to allow sufficient swing of the arm C to adapt it for use on either the right or left side of the body; and, as it may be clamped in any position between the two extreme positions, it will be seen that the device is applicable to the body in any position in which the diseased part may be.

E is my improved pad, having the disk F, of the desired shape, provided with an interior opening, thus giving said disk a ring shape; and  $f f$  are headed studs, preferably four in number, secured in the upper or outer side of the said ring.

G is a spring-metal plate having the integral arms G', equal in number to the studs  $f$ , and the outer ends of the said arms are provided with longitudinal slots  $g g$ , to operate on the said studs.

H is a central threaded opening in the plate adapted to receive the inner end of the set-screw H', which is passed through one of the perforations  $c c$  in the arm C, and by means of the said screw the pad, if of an elliptical form, may be set at the proper angle to the arm C to produce the desired result in the best manner, it being evident that the said pad may be clamped in any position by screwing the set-screw H' down tightly. The function of the spring G, having a series of radiating arms, is to give an oscillating or rocking motion to the pad while the wearer is moving, thus adapting it to accommodate itself perfectly to the movements of the body.

I is a cover, of chamois-skin or equivalent material, which is adapted to cover the face of the disk F and be held in place by an elastic band,  $i$ , around the outer edge. Between the inner side of the ring or disk F and the cover is placed a padding or cushion, K, of ring shape, which is adapted to be held in place by the said cover.

It will be seen that by forming the disk and cushion in the shape described a free circulation of air is maintained through the pad, thus preventing the heating of the body and the uneasiness resulting therefrom. This heating of the body under the pad often leads to inflammation of the parts, and a consequent ag-



gravation of the trouble, and by using the herein-described hollow pad this danger is obviated; also, the pad is thus made very much lighter, and the weight of the truss is a point of great importance, inasmuch as the disease for which it is used renders the part of the body to which it is applied unable to support much weight without evil consequences resulting; also, by making the device heavier, it is necessary to make the spring which holds it in place stronger, and this is an inconvenience to be avoided.

It will be seen that the device may be changed to a double truss by simply connecting the front and rear ends thereof with the front and rear ends of a similar truss by means of short belts or straps.

The belt, which is adapted to pass around the body when the device is used as a single truss, is provided on the front end with a series of perforations, any one of which may be engaged over the button-headed screw D on the front end of the spring-band.

My improved pad may be used without the

interior padding or cushion, and also, if desired, without the cover, the shape of the interior plate, F, being adapted to serve without the said protection.

Having thus described my invention, what I claim is—

1. In a truss, the pad comprising a disk or body, F, having the central opening, the padding K, and the covering I, the padding K not covering the opening of the disk or body, whereby free circulation is provided, as set forth.

2. In a truss, the combination, with the band, of the pad E, having the hollow disk or plate F, spring-plate G, cover I, and interior ring-shaped padding, K, between the plate F and the cover, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN O. STEPHENS.

Witnesses:

W. HUGGINS,

J. W. MOORE.