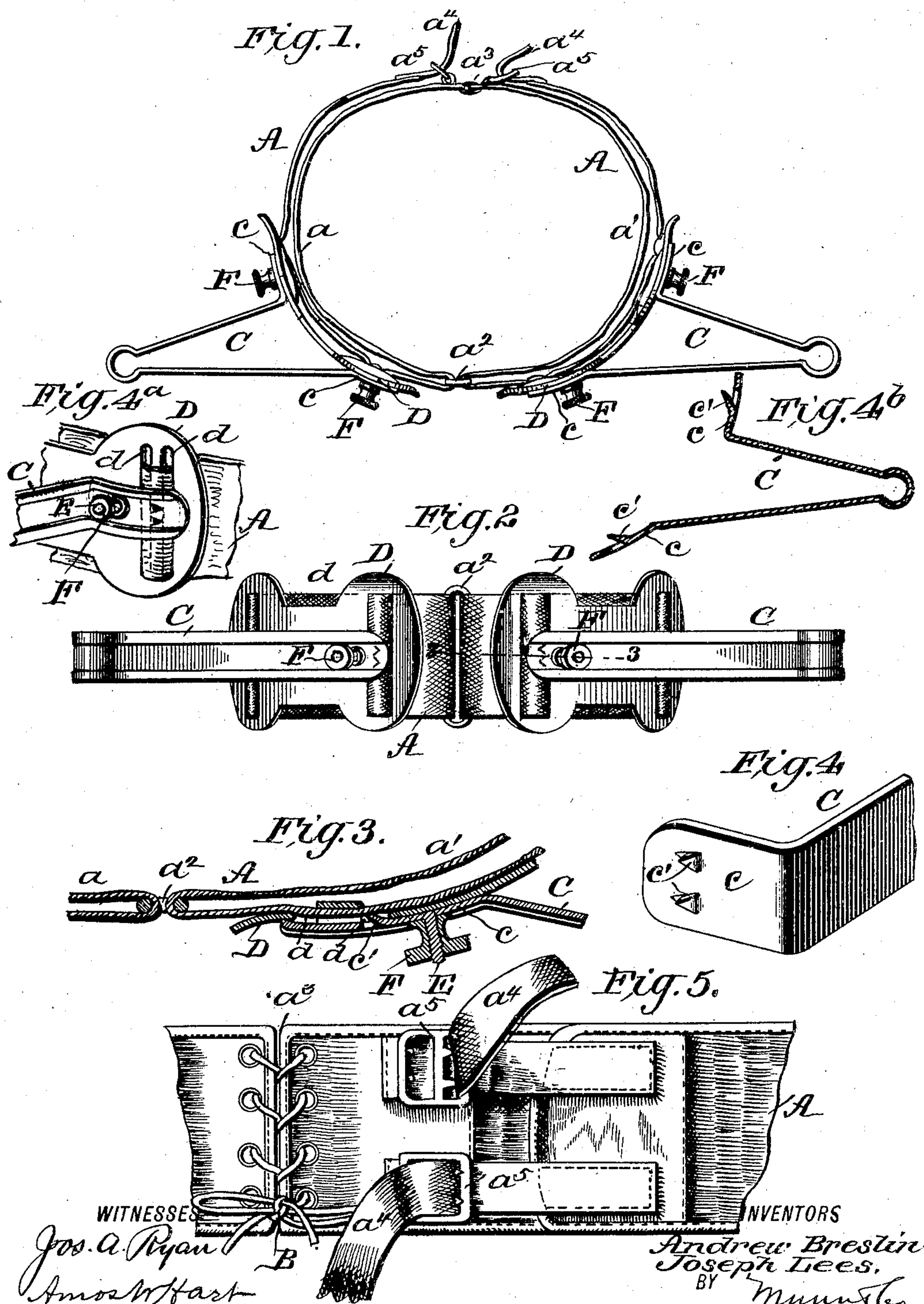


No. 794,160.

PATENTED JULY 11, 1905.

A. BRESLIN & J. LEES.
SURGICAL APPLIANCE.
APPLICATION FILED OCT. 14, 1904.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 6.

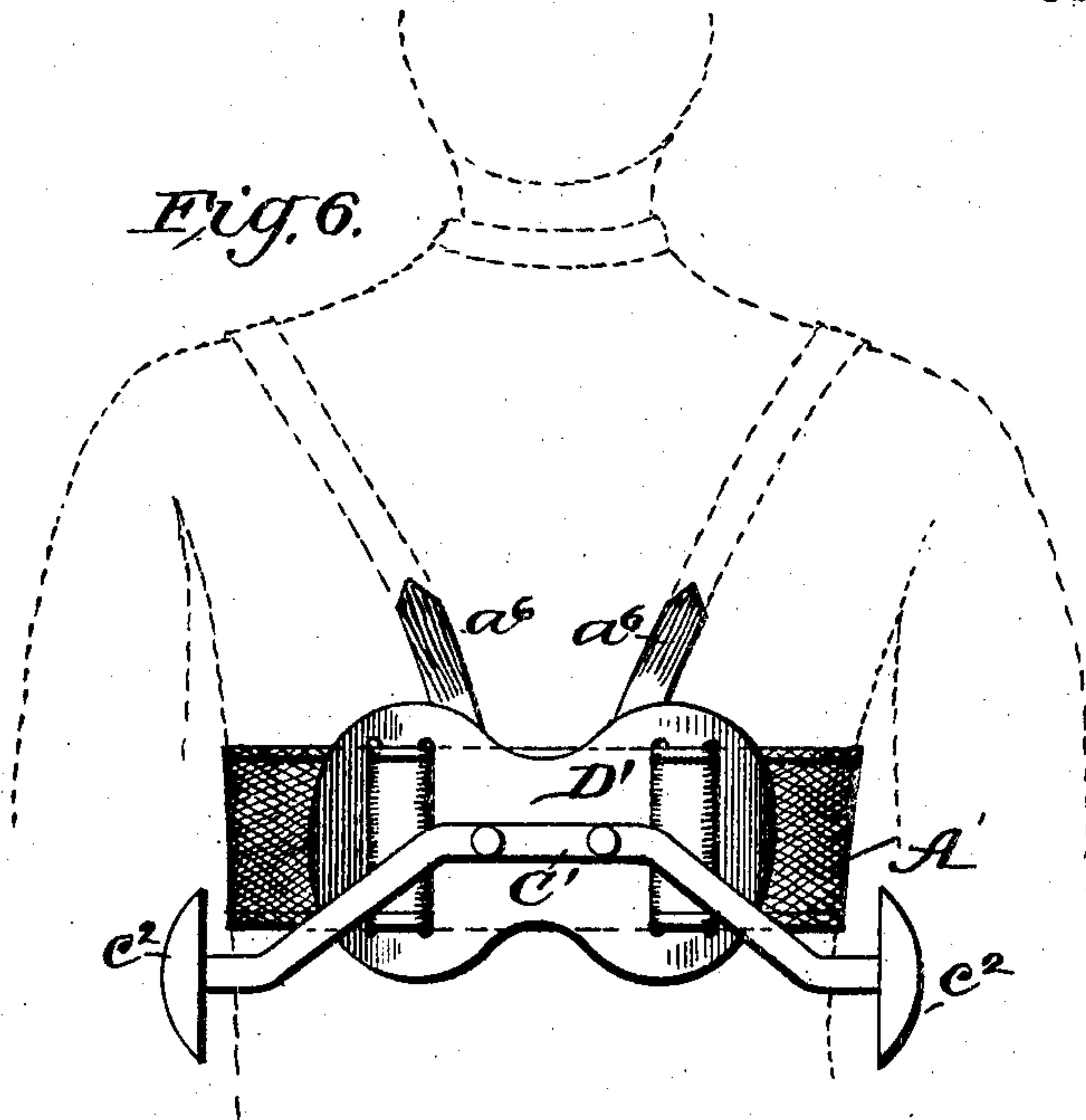


Fig. 7.

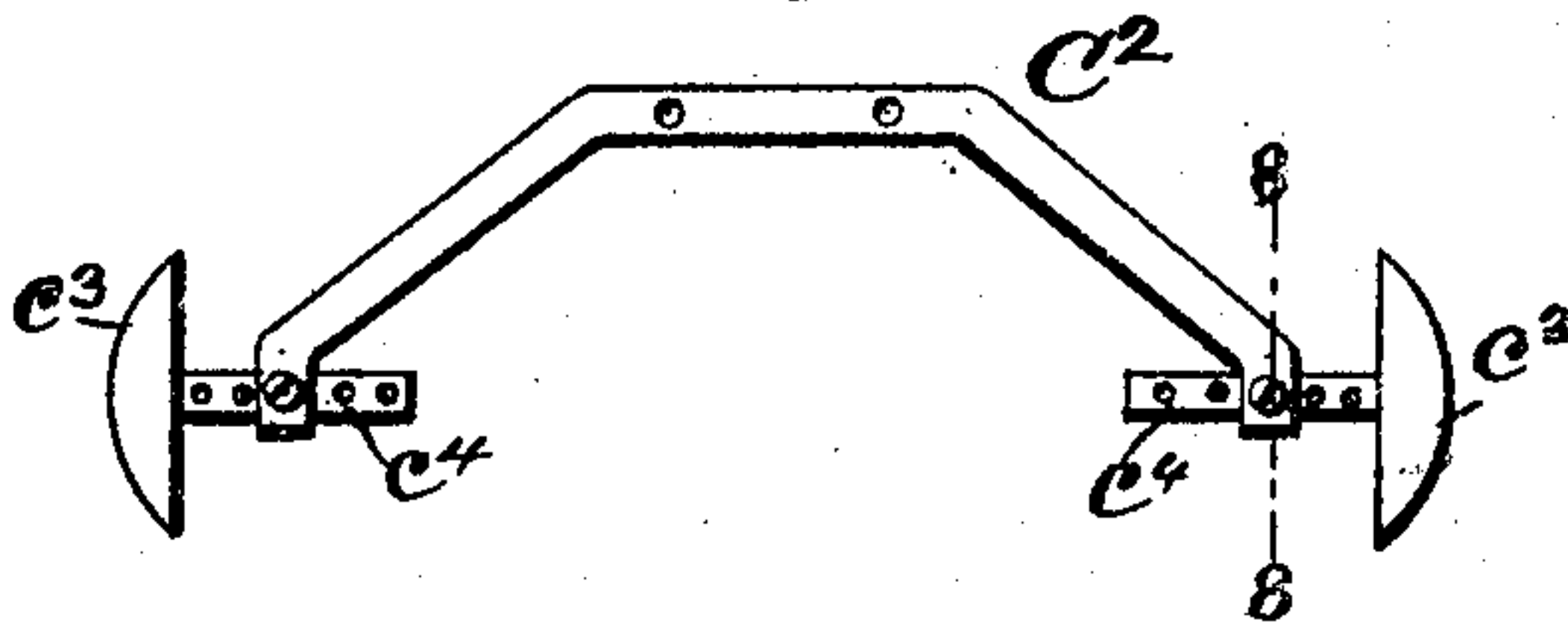


Fig. 8.

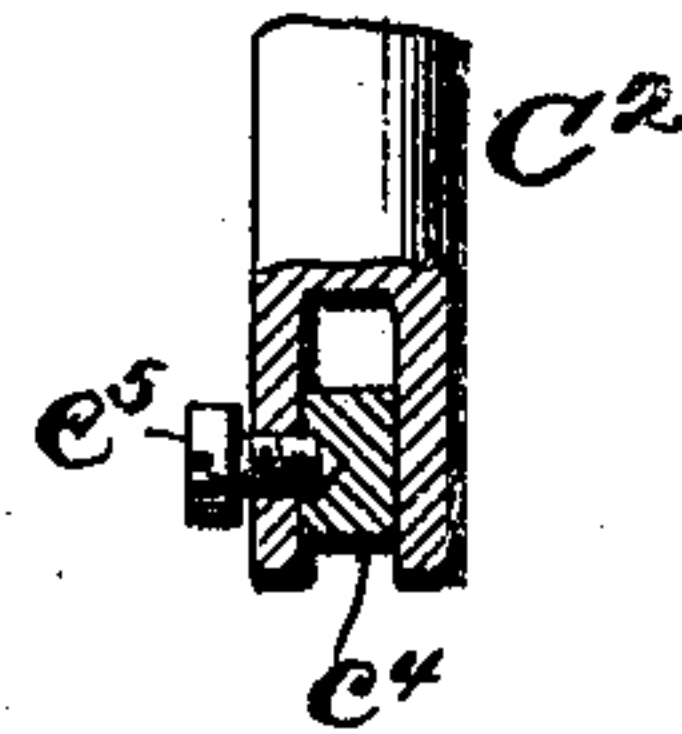


Fig. 9.

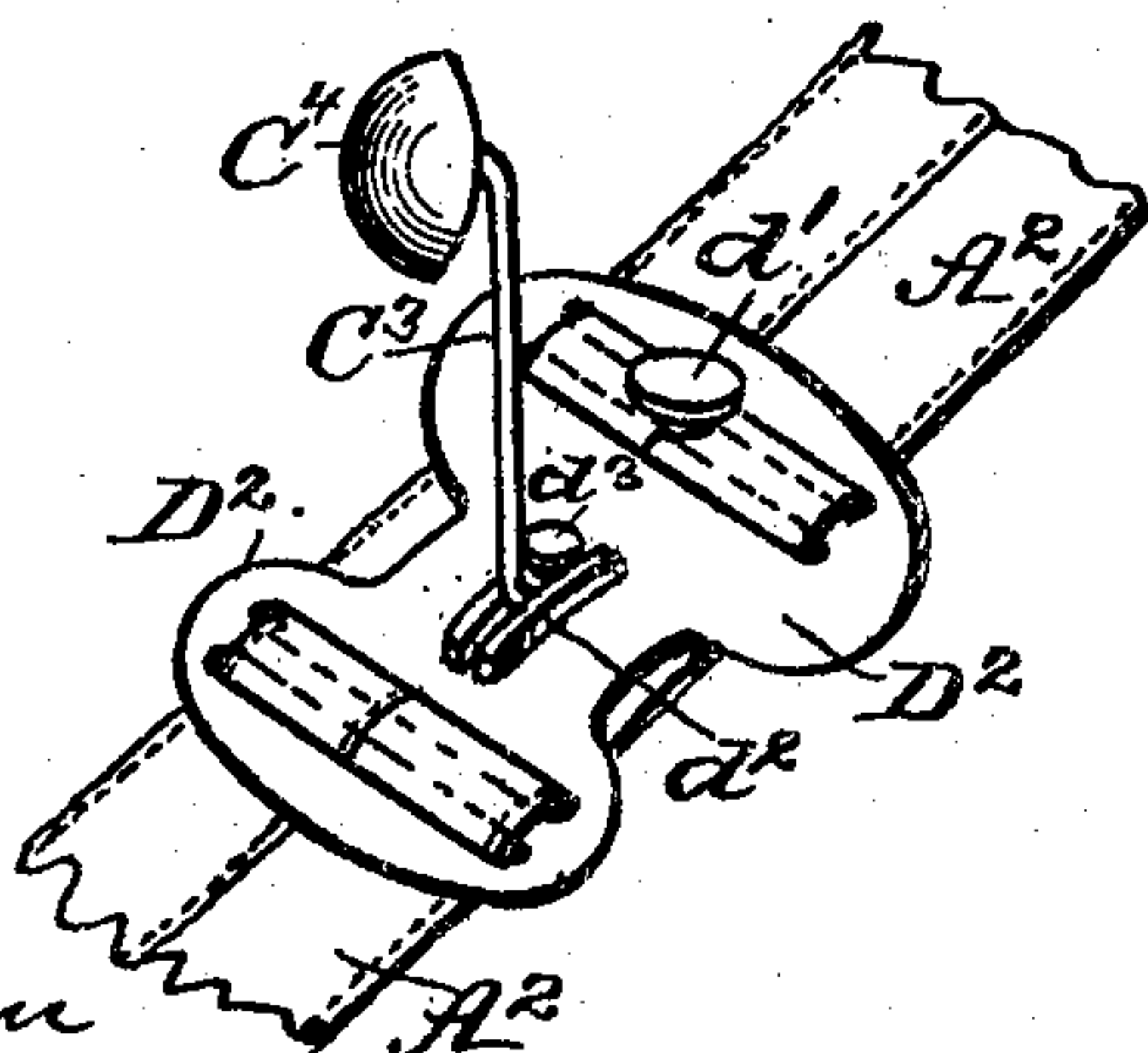
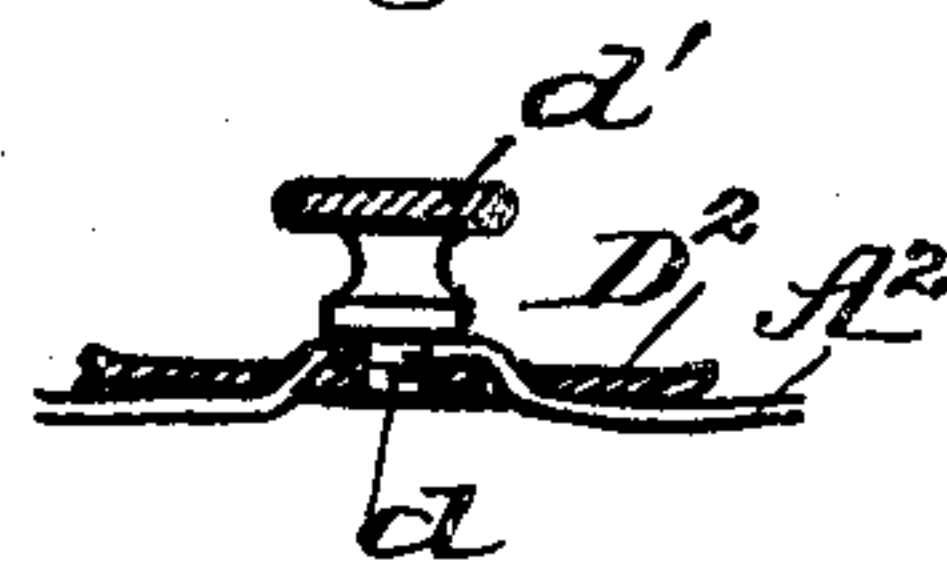


Fig. 10.



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SURGICAL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 794,160, dated July 11, 1905.

Application filed October 14, 1904. Serial No. 228,480.

To all whom it may concern:

Be it known that we, ANDREW BRESLIN and JOSEPH LEES, citizens of the United States, residing at Summithill, in the county of Carbon and State of Pennsylvania, have made certain new and useful Improvements in Surgical Appliances, of which the following is a specification.

The object of our invention is to provide an improved appliance adapted for attachment to the body of a patient or sleeper to frustrate his attempts to turn to an inclined or other position and to retain him in the desired position without disturbing or awakening him.

The invention is an improvement upon one for which we have filed an application for patent, Serial No. 207,149, which has been allowed.

Our present invention is embodied in the construction, arrangement, and combination of parts hereinafter described and claimed, and specifically illustrated in the accompanying drawings, in which—

Figure 1 is an edge view of our preferred form of surgical appliance, the same being illustrated with the belt distended, as shown, applied to a patient's body. Fig. 2 is a plan view of the appliance. Fig. 3 is a longitudinal central section on the line 3 3 of Fig. 2. Fig. 4 is a perspective view of one end of the rigid arms constituting a part of the appliance. Fig. 4^a is a perspective view illustrating the attachment of the metal plates and arms to a belt and the means for preventing sliding movement of the same on the belt when in use. Fig. 4^b is a longitudinal section of one of the arms of the appliance. Fig. 5 is a plan view of a portion of the double belt. Fig. 6 is a plan view of a modified form of our appliance. Fig. 7 is a face view of a modified construction of the arms forming part of the attachment shown in Fig. 6. Fig. 8 is an enlarged sectional view on the line 8 8 of Fig. 7. Fig. 9 illustrates an angular arm attached to a single belt. Fig. 10 is a sectional view of parts shown in Fig. 9.

We will first describe the appliance as illustrated in Figs. 1 to 5 and Fig. 9. A indi-

cates a body-belt composed of two sections a a' , each of which is doubled upon itself, the two sections being connected by a loop a^2 and on opposite sides by a lace a^3 . (See Fig. 5.) It will be noted that the said lace, which is an elastic cord or string B, woven through eye-
 55 leted openings, connects the two bights at one end of the belt-sections and that the other ends of the said bights or portions are provided with straps a^4 , passing through and secured by buckles a^5 , that form a perma-
 60 nent attachment of the belt. It is apparent that by this construction the belt may be enlarged or contracted as to each section by adjustment of the straps a^4 in the buckles a^5 , while the elastic lace B permits the contrac-
 65 tion and expansion of the belt as a whole, whereby the comfort of the wearer is promoted. The arms C are attached to the outer turns or portions of the belt-sections a a' . They are not attached directly thereto, but
 70 to thin metal plates D, which are adjustably attached to the belt, as shown. These plates are preferably constructed of thin steel, and hence have due rigidity combined with a
 75 slight degree of elasticity. They are curved longitudinally, so as to conform approximately to the curvature of a patient's body, and the end portions are enlarged laterally and their edges curved outward so that they
 80 will not come in contact with the belt, and thus cause discomfort to the patient. The broadened ends are each provided with two parallel slots d , through which the outer turn or portion of each belt-section is passed.
 85 By this means the plates D are securely yet adjustably attached to the belt. In other words, while they are held on the belt in the required manner, they are adapted to be adjusted along the same for changing the po-
 90 sition or location of the arms C relative to the patient's body and the bed or other support on which he lies. This adjustment may be obviously effected by drawing the belt through slots d , and when drawn taut the friction of the parts will ordinarily prevent
 95 any accidental or undesired movement of the plates; but for the purpose of absolutely preventing such movement of the

belt and plates relative to each other we provide the flattened outward ends c of the arms C with claws c' , (see Figs. 3 and 4,) which take into the belt or engage the same when the arms are secured in place. These claws c' are preferably formed by slitting the outer ends c of the said arms and bending downward or inward the portions so cut out. As shown best in Fig. 1, the arms C are formed of narrow metal strips which are bent upon themselves in essentially triangular form, the ends c being bent outward, as before stated. The arms are attached to the metal plates by means of screw-bolts E and nuts F , as shown. (See especially Fig. 3.) The bolts E pass through the plates D or constitute a fixed attachment thereof, and the nuts F are applied to their outer ends and screw down upon the flattened portions c of the arms C . The nuts are provided with enlarged and milled heads for convenience of adjustment. It is apparent that by removing the nuts F the arms C may be readily detached from the bolts E , and thus from the plates D . Further, this detachment, or at least the loosening of the nut F , is requisite in order to remove the claws c' from engagement with the belt A . We propose to employ a single belt A' (see Fig. 9) in place of the double belt, and in such case the attachment of the arms C and plates D is effected in the same manner as before described.

In Figs. 6, 7, and 8 we illustrate a modified appliance consisting of a single belt A' and a plate D' , having parallel slots, as in the first instance, and a rigid arm C' or C^2 , having heads c^2 or c^3 , respectively. Thus in Fig. 6 an arm C' is secured to a plate D' and extended laterally in each direction, it being bent twice at an obtuse angle, as shown, and provided with conical heads c^2 , which are fixed in position. In Fig. 7 we illustrate an arm C^2 , having heads c^3 , which are adjustable, the same being provided with shanks c^4 , that pass through open slots in the ends of the arms C^2 and being securely yet adjustably clamped by means of a screw c^5 , whose pointed end is adapted to enter countersinks in the shank c^4 . It is apparent that the head c^3 may be adjusted laterally as conditions require by simply loosening and then tightening the screw c^5 . In Fig. 6 we show the belt A' provided with straps a^6 , which project upward and are adapted for connection with shoulder-straps which will pass over the shoulders of the patient, and thus serve as an additional means for holding the appliance in due position on the patient's body.

In Figs. 9 and 10 we illustrate another modification, a slotted plate D^2 being applied to a single belt A^2 , which is slitted centrally lengthwise to adapt it to receive a screw-stud d , which is fixed in one of the parts that intervenes two grooves in the

plate and is adapted to receive a milled clamping-nut d' . By due adjustment of the said nut the plate D^2 may be clamped tightly to the belt, or the plate may be released, so that it may be slid along the belt. The arm C^3 has a conical head c^4 , which is arranged nearly parallel to it, so as to project laterally, and its inner end is bent nearly at a right angle and held and adapted to slide in a grooved rib d^2 , forming a fixed attachment of said plate D^2 . A screw d^3 passes through the base or foot of the arm C^3 and serves to clamp the latter in any desired adjustment.

In the practical use of our invention the appliance is secured to the body of a patient by passing the belt around the same and drawing it more or less tightly by means of a lace or other securing device. The arms constituting an attachment of the belt and the plates to which they are secured may be adjusted as conditions require to prevent the patient turning on his back or from turning from any other position in which it is requisite that his body should be held. It is apparent that an appliance of this character may be also applied for holding a fractured limb so as to prevent it being turned after having been set and bandaged.

The appliance is thoroughly practical and simple and efficient in construction, it being adapted for easy attachment and adjustment and dispensing with the use of pneumatic or other pads.

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

1. The improved surgical appliance comprising a divided belt, means for securing the ends of the belt together, a metal plate which is adjustable on the belt, and a rigid arm attached to said plate and projecting laterally, substantially as described.

2. The improved surgical appliance comprising a belt, a plate applied to the belt and adapted for adjustment along the same, and provided with slots through which the belt passes, and a rigid arm secured to the plate and extending laterally, as and for the purpose specified.

3. The improved surgical appliance comprising a belt, a metal plate having each of its ends provided with two parallel slots through which the belt passes and whereby the plate is adapted for adjustment on the belt, and a rigid arm formed of a bent metal strip having its ends outturned, and screw bolts and nuts securing the said ends to the plates, detachably, substantially as described.

4. The improved surgical appliance comprising a body-belt, a plate attached thereto and adjustable thereon, and a rigid arm detachably secured to said plate and having devices adapted to engage the belt and prevent movement of the plates thereon when in use, substantially as described.

5. The improved surgical appliance comprising a belt, metal plates having slots through which the belt passes so that the plates are adjustable thereon, rigid arms, and means for detachably securing them to the said plates, the ends of the arms being provided with claws which engage the belt, substantially as described.

6. The improved surgical appliance comprising a belt, a plate having slots through which the belt passes, whereby it is adapted for adjustment thereon, and a rigid arm projecting laterally and having its ends outward in opposite directions and provided with claws which also project in opposite directions and engage the belt so as to prevent

movement of the plates thereon when in use, substantially as described.

7. The improved surgical appliance comprising a body-belt formed of two separate and independent sections, each of which is formed by doubling it upon itself, a loop which slidably connects the sections at one end, and an elastic lace and straps and buckles connecting the other ends, substantially as described.

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