

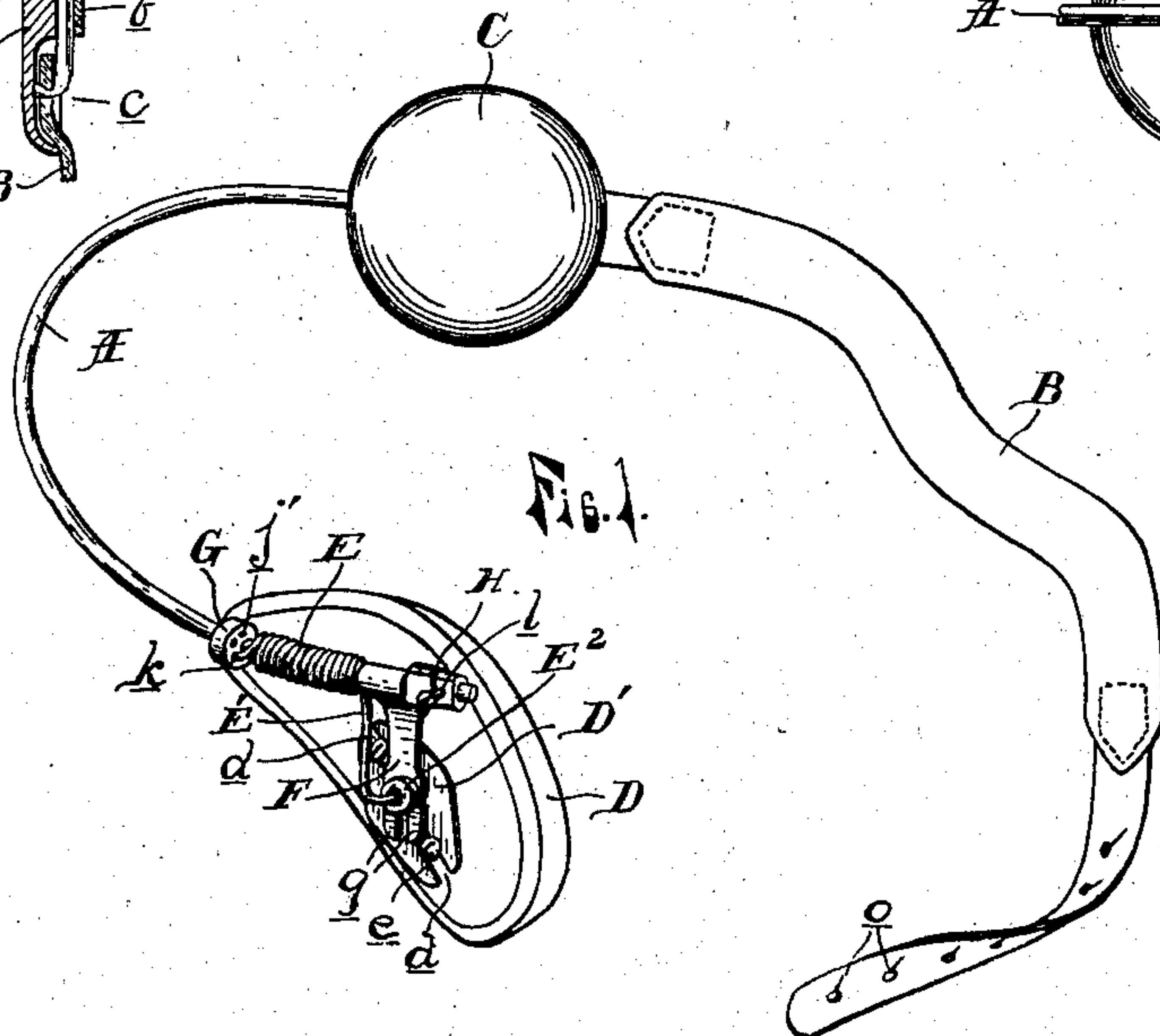
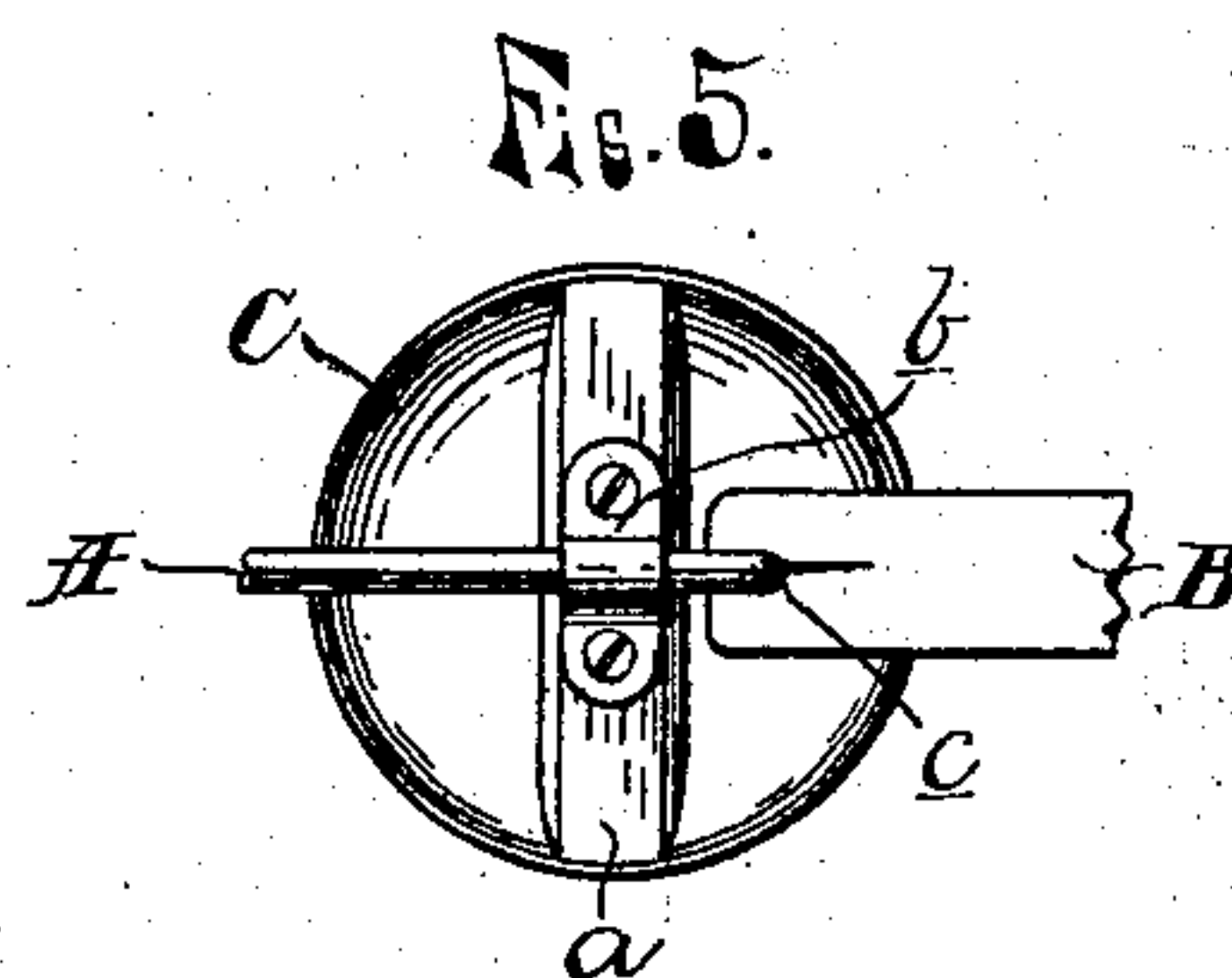
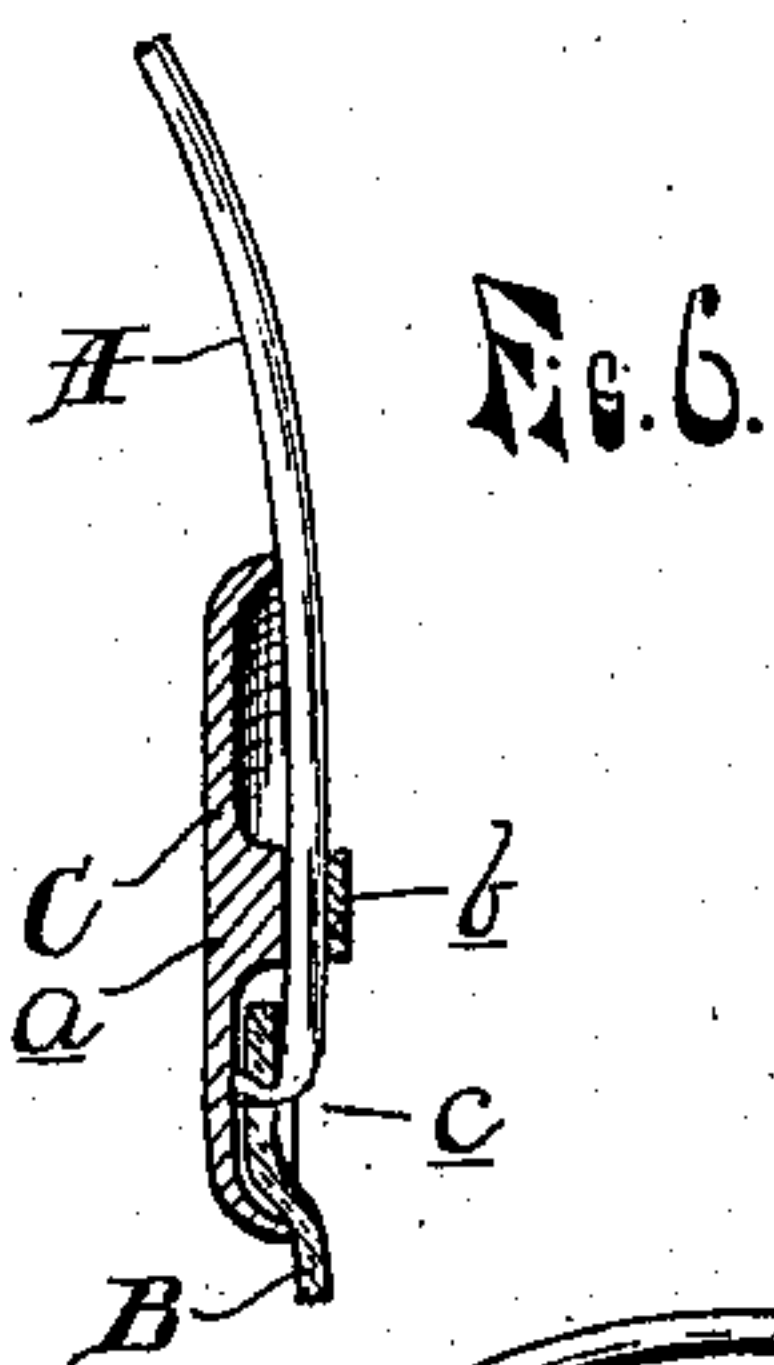
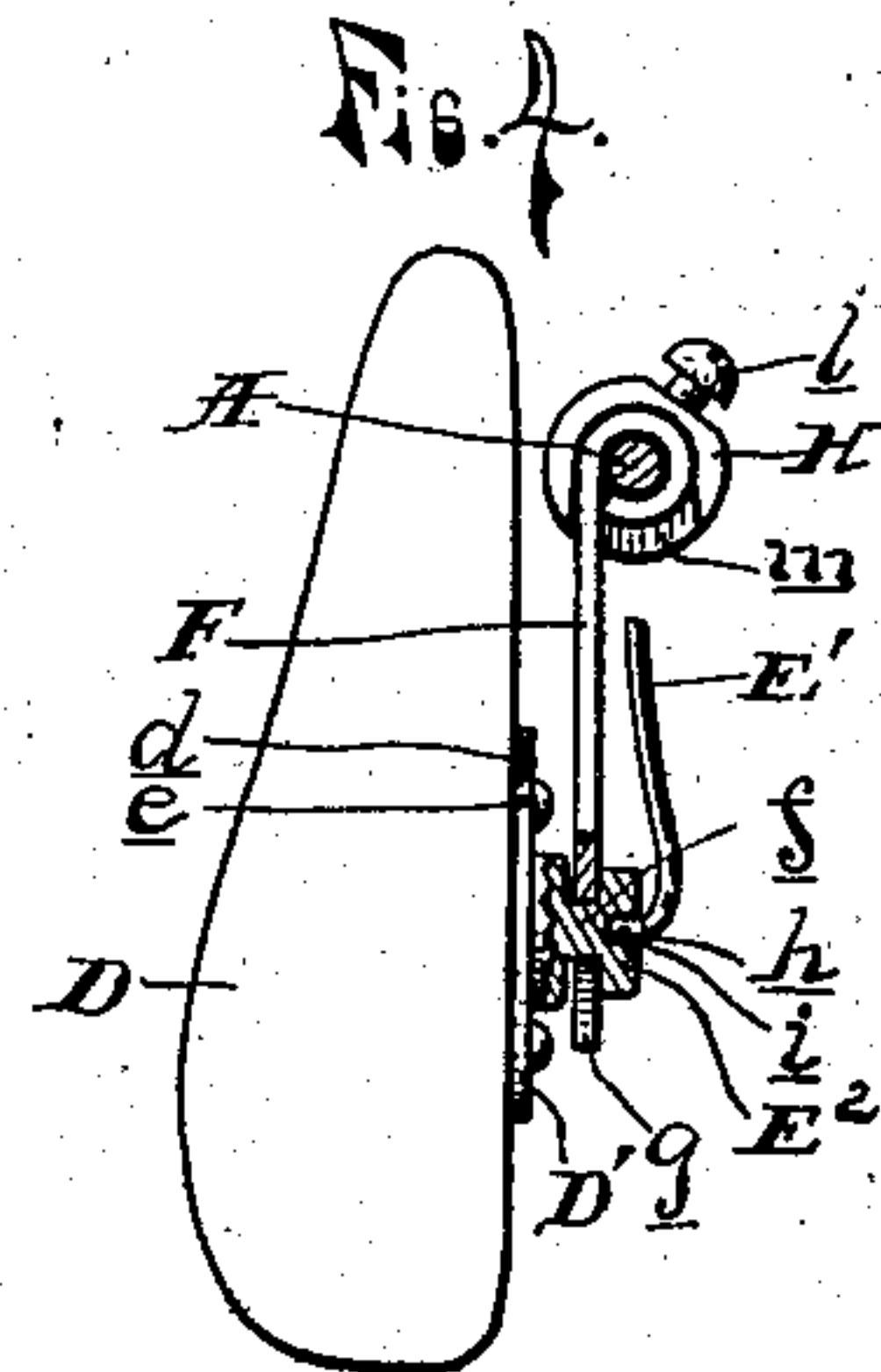
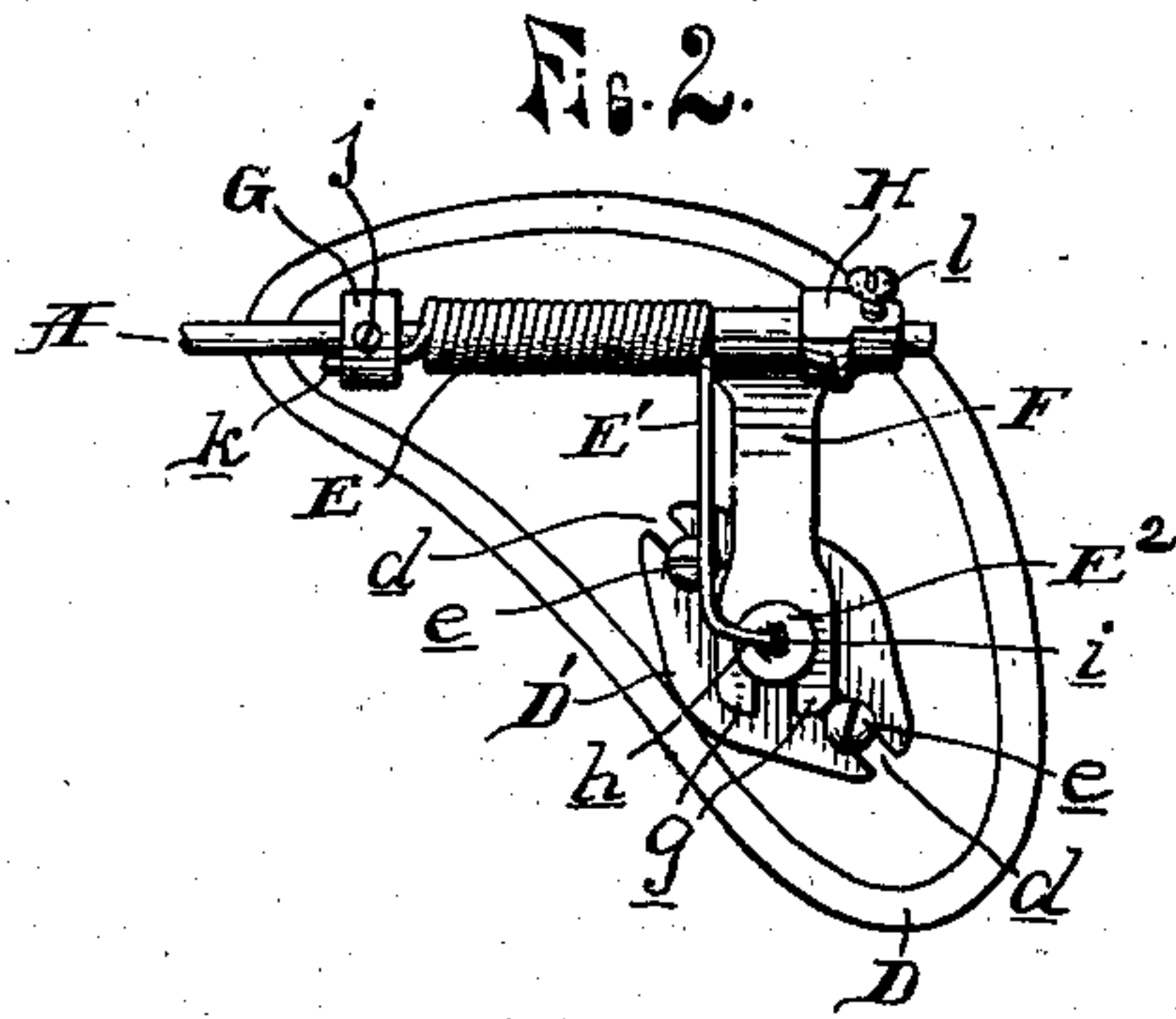
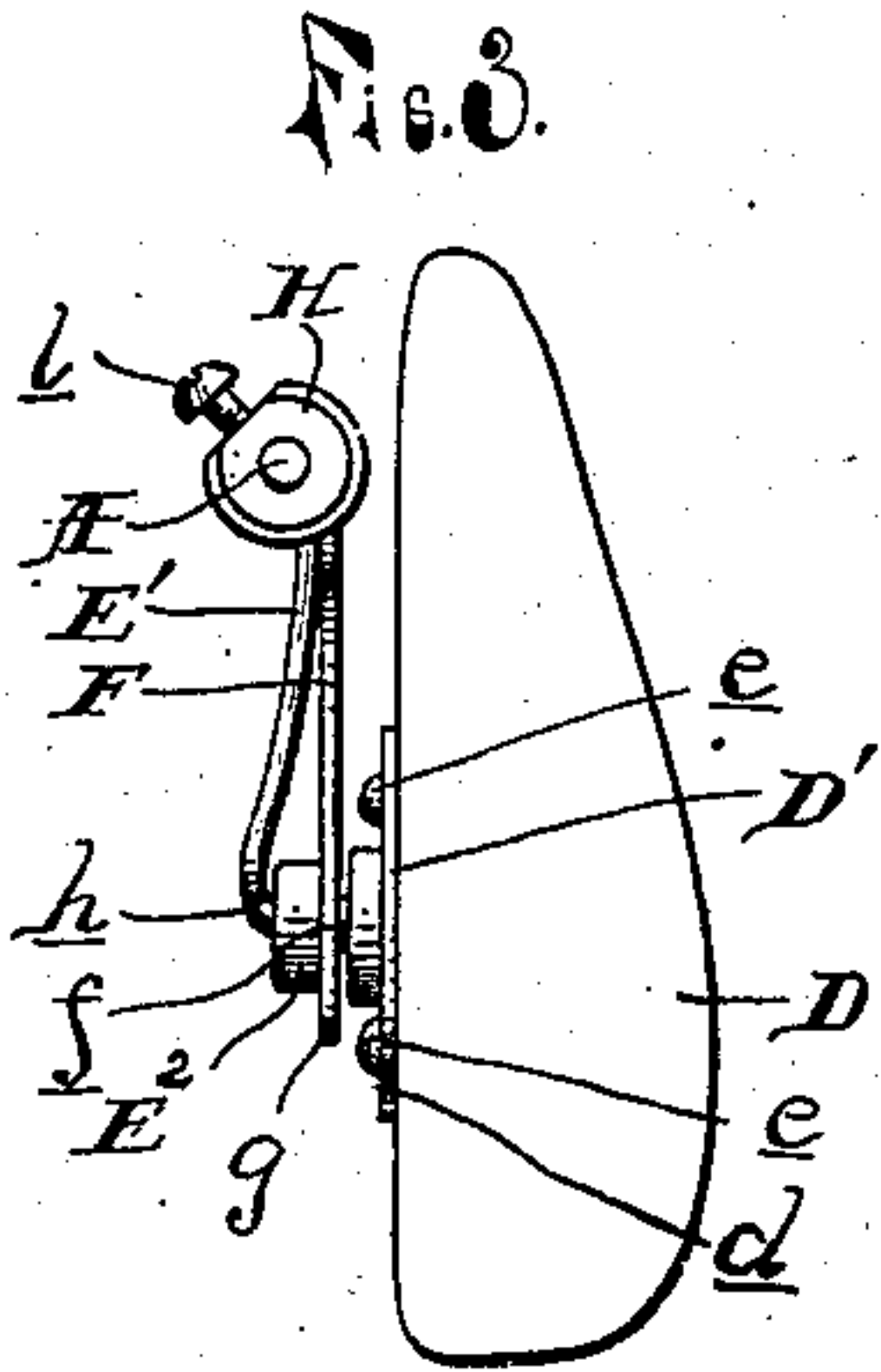
No. 730,226.

PATENTED JUNE 9, 1903.

T. W. BOOTH.
TRUSS.

APPLICATION FILED MAR. 17, 1902.

NO MODEL.



WITNESSES.
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UNITED STATES PATENT OFFICE.

THOMAS W. BOOTH, OF WINDSOR, CANADA.

TRUSS.

SPECIFICATION forming part of Letters Patent No. 730,226, dated June 9, 1903.

Application filed March 17, 1902. Serial No. 98,460. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. BOOTH, a subject of the King of Great Britain, residing at Windsor, in the county of Essex and Province of Ontario, Canada, have invented certain new and useful Improvements in Trusses, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in trusses, and more particularly relates to that type of trusses known as the "oscillating" truss, and has for its object to obtain a truss which will permit of a greater freedom of movement on the part of the wearer and at the same time readily adjust itself automatically to suit the requirements of the case after having once been approximately adjusted to its proper position, a further object being to so connect the pad to the spring-arm that it may be readily detached therefrom and another pad substituted therefor, and yet be free to rotate or swivel about its point of connection.

To this end the invention consists in detachably and pivotally mounting the pad on the yielding arm free to rotate in a plane at right angles thereto.

The invention consists, further, in adjustably mounting the pivotal connection on the rear of the pad and in the means employed for attaching the belt to the truss, all as more fully hereinafter described and claimed in the specification and shown in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved truss; Fig. 2, a rear elevation of the pad and supporting mechanism; Fig. 3, an edge elevation thereof looking toward the left; and Fig. 4, an edge elevation, partly in section, looking toward the right. Fig. 5 is a rear elevation of the back pad, illustrating the manner of connecting the frame member and belt; and Fig. 6 is a horizontal section therethrough, illustrating the same.

The body band or girth of my truss comprises the U-shaped frame A, preferably formed of spring metal and adapted to pass partly around the body of the wearer, and the flexible connecting strap or belt B, for securing the frame A in position.

C is the back pad, which preferably consists

of a disk of vulcanized rubber formed with a transverse rib *a*, to which the plate *b* is secured, forming a transverse bearing-aperture adapted to receive the rear arm of the frame A, the end of which arm is formed with a lateral offset *c*, adapted to engage with an aperture formed in the end of the belt B and securely lock the parts together, as shown in Figs. 5 and 6. Should it be desired at any time to disengage the belt, a simple quarter twist of the frame A will release the belt, the pad C being clamped on the arm A by the plate *b* with just enough of a binding effect to hold the pad in any of its adjusted positions.

The front or rupture pad of the truss is secured to the frame A by means of an adjustable laterally-extending spring-arm, which presses the pad against the body and at the same time permits it to follow freely all movements of the body.

The construction which I preferably employ is shown in the drawings, in which—

D is the usual pear-shaped pad; D', a plate adjustably secured to the back of the pad by means of the slots and screws *d e*; E, a coil-spring sleeved upon the front arm of the frame A; F, a bifurcated arm sleeved on the frame A adjacent to the spring E; E², a lug or projection integrally formed with the plate D' and with a reduced portion *f*, adapted to fit between the bifurcated portions *g* of the arm F.

E' is an arm forming a continuation of the coil-spring E and formed with a lateral offset portion *h*, adapted to engage the aperture *i*, formed in the projection E².

G is a collar adjustably secured upon the frame A by the set-screw *j* and provided with one or more apertures *j'*, with which the end *k* of the coil-spring E is adapted to engage, and H is a similar collar adjustably secured upon the end of the frame A by the set-screw *l* and provided with a cut-out portion *m*, adapted to engage one edge of the arm F and form stops to limit its rotary movement, so that any desired pressure of the pad may be obtained by simply tightening up on the coil-spring E and adjusting this collar or the collar G, to suit as the spring cannot release itself except for this limited movement, as both ends are secured.

It will thus be seen that the pad is swiveled in the outer end of the arm F, free to rotate in a plane parallel with that of the face of the arm, and that the spring-backed arm is yieldingly supported on the frame A, free to rotate in a plane at right angles thereto, so that a practically universal movement is obtained, as a slight lost motion is allowed between the parts, and besides which the pad has a limited adjustment on the plate D' itself, so that the pad is entirely free to oscillate with the movement of the body and free to take up any inequality.

Should it be desired at any time to change pads by simply disengaging the offset portion *h* of the spring-arm E' from the aperture *i*, the pad may be readily removed from between the bifurcated portions and a new one substituted in the reverse order, which is a great advantage in the treatment of these cases and comfort to the wearer, as one can then experiment with different pads until one is obtained that suits the peculiar circumstances of the case.

In attaching the truss to the wearer the apertures *o* in the strap B are simply engaged with the head of the set-screw *l*.

Having thus fully described my invention, what I claim is—

1. In a truss, the combination with the frame, of a laterally-extending arm sleeved on said frame and bifurcated at one end, a pad, a plate adjustably secured to the back thereof, said plate being formed with a projection, a spring coiled around said frame and having an integral arm with lateral offset portion engaging an aperture in said projection, means for adjustment of the other end of said spring and a stop-collar adjustably secured on said frame and having a cut-out portion to engage said arm to limit its rotary movement, substantially as described.

2. In a truss, the combination with the pad,

of a plate having slots, means passed through said slots and attaching it adjustably to the pad, the frame, a bifurcated arm sleeved on said frame, a lug on said plate having reduced portion received in the bifurcation of said arm and an aperture in its outer face, a spring sleeved about said arm bearing at one end against said arm, means for adjustably holding one end of said spring, the other end being formed with an arm parallel with a bifurcated arm and having a lateral offset engaged in the aperture thereof, and a collar adjustably secured on the frame upon the opposite side of said bifurcated arm and having a cut-out portion receiving one edge of the bifurcated arm to limit its rotary movement.

3. In a truss, the combination with the frame, of a laterally-extending bifurcated arm sleeved on said frame near its end, a spring sleeved upon the front arm of said frame adjacent said bifurcated arm, a pear-shaped pad, a plate adjustably secured to the back of said pad, a lug integral with said plate and projecting laterally therefrom and having a reduced portion adapted to fit between bifurcations of said arm, an arm forming a continuation of said spring and having lateral offset portion engaging an aperture in said lug, a collar adjustably secured upon the frame and adjustably connected with said spring, a collar upon the said frame near its outer end and having a cut-out portion adapted to engage one edge of the bifurcated arm and a set-screw adjustably securing said collar to the end of the frame, all substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS W. BOOTH.

Witnesses:

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LEWIS E. FLANDERS.