

(No Model.)

2 Sheets—Sheet 1.

S. H. LINN.
SURGEON'S OPERATING APPARATUS.

No. 542,390.

Patented July 9, 1895.

Fig. 1.

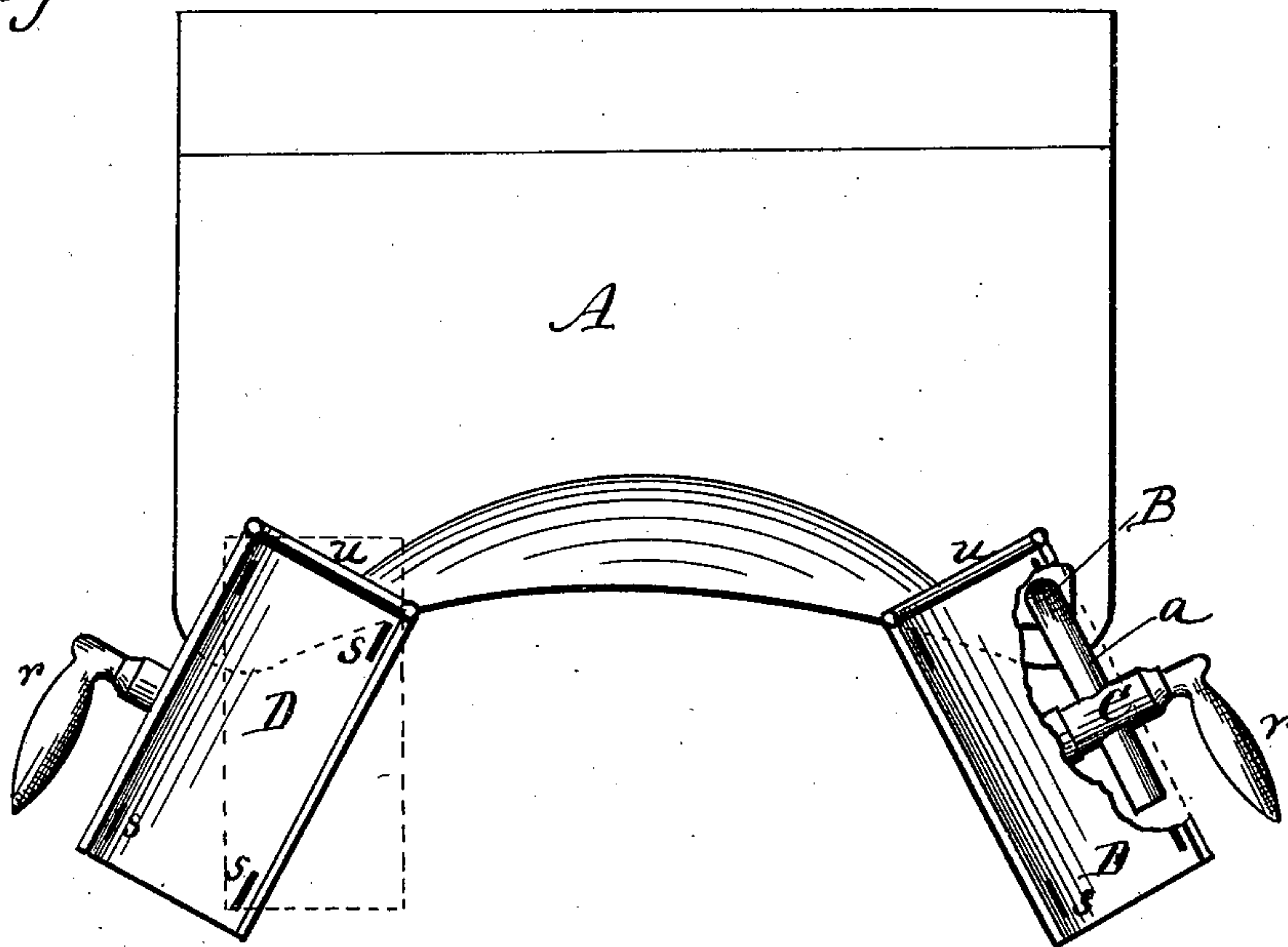
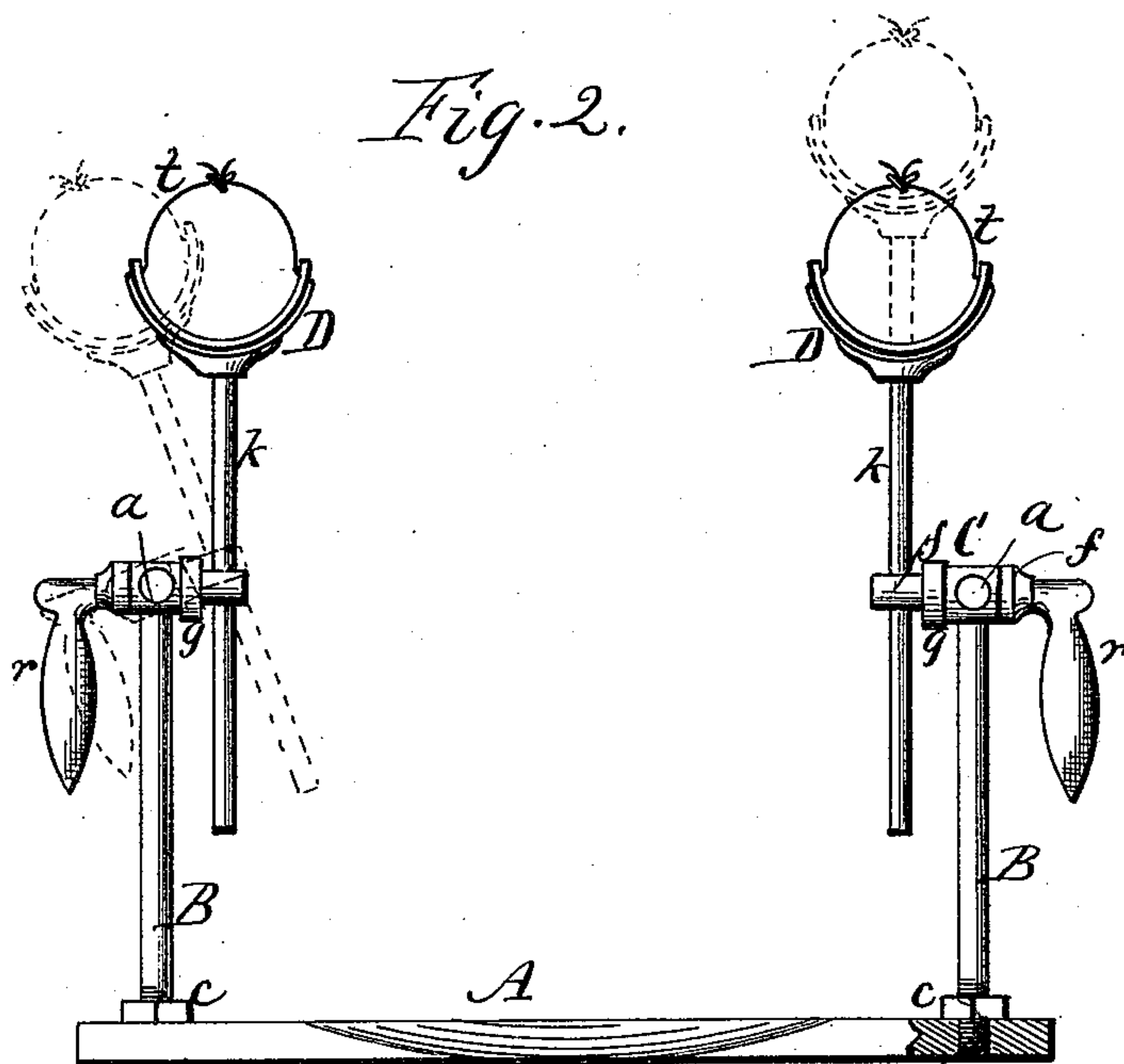


Fig. 2.



Witnesses.
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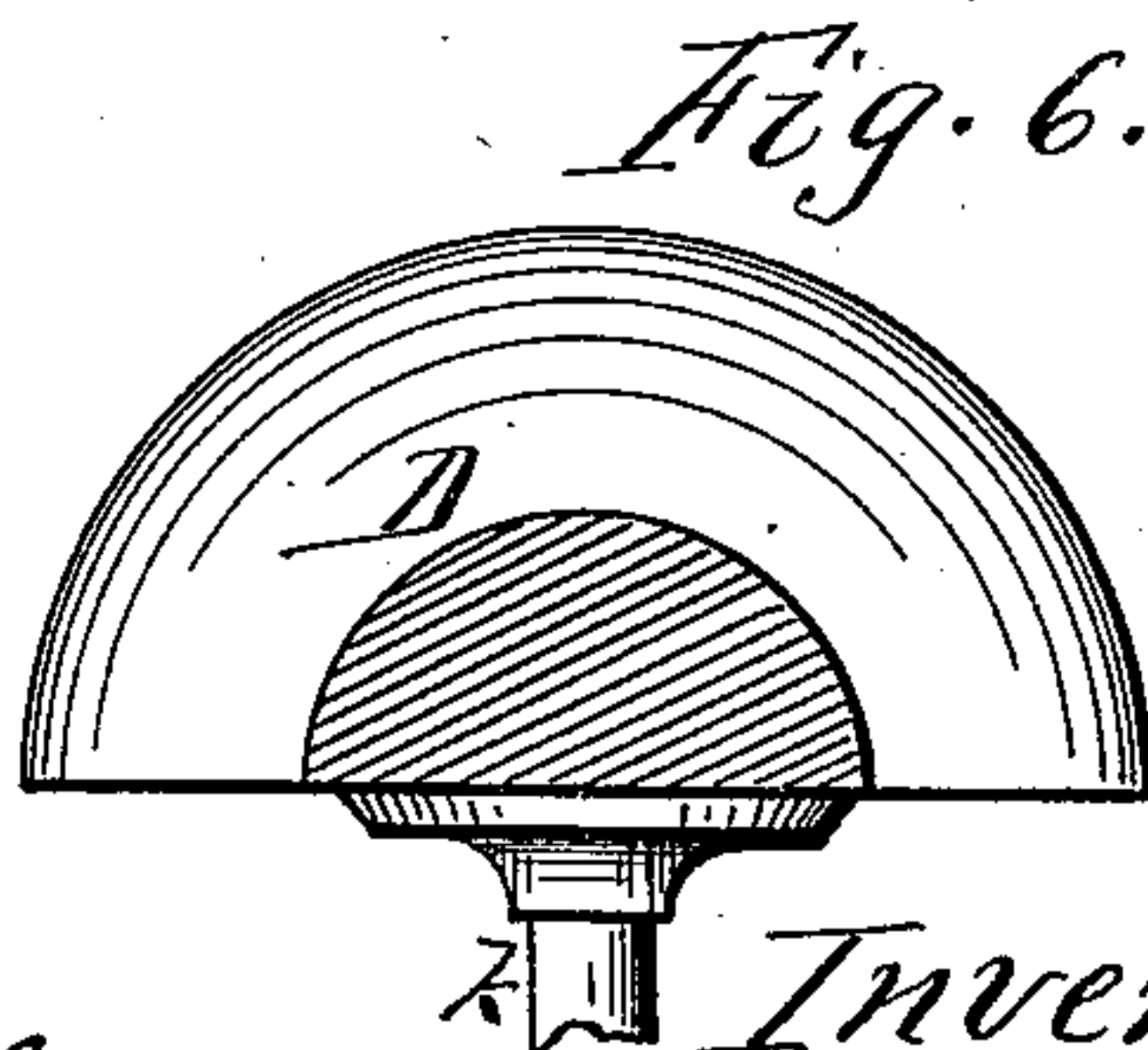
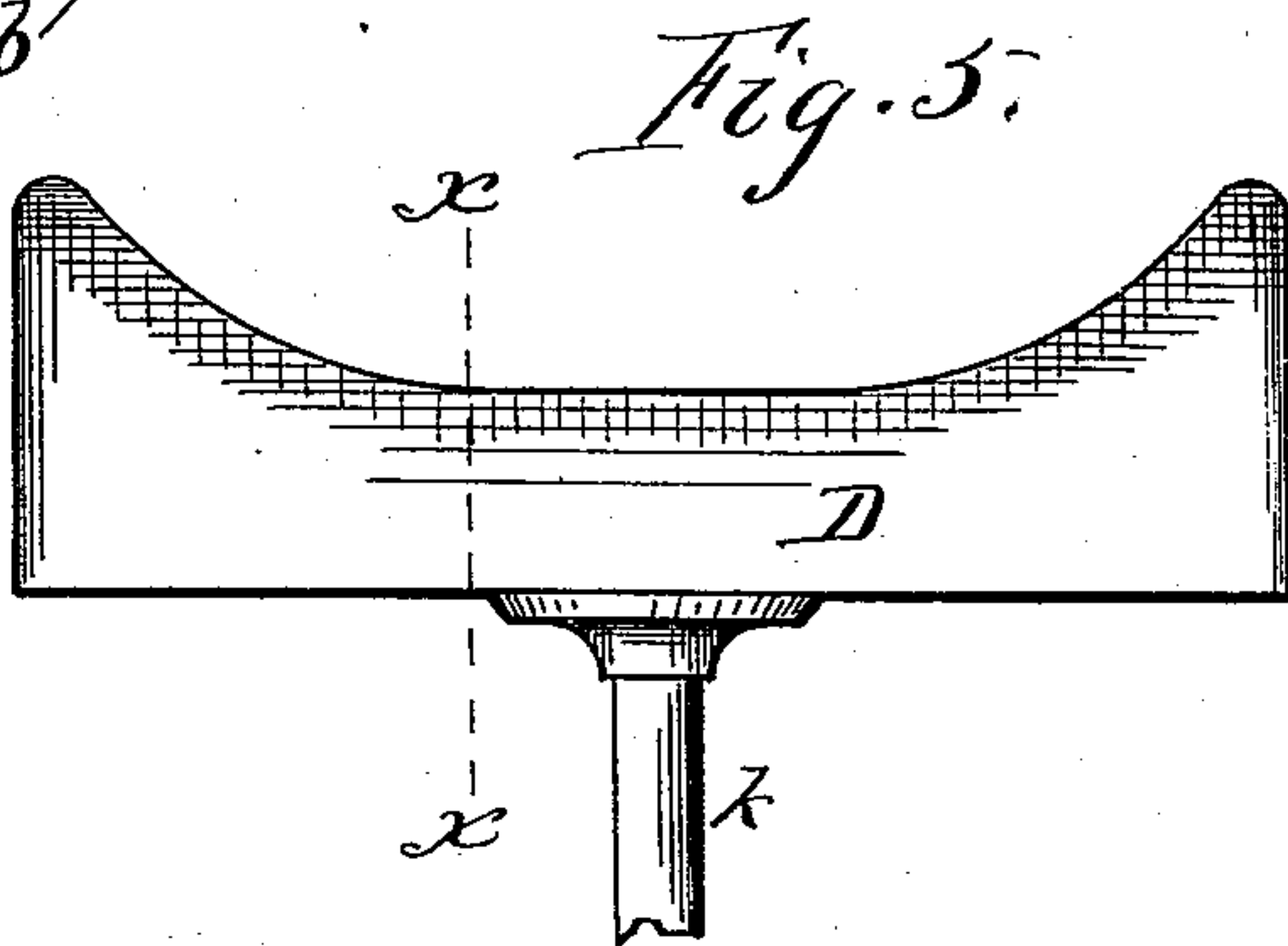
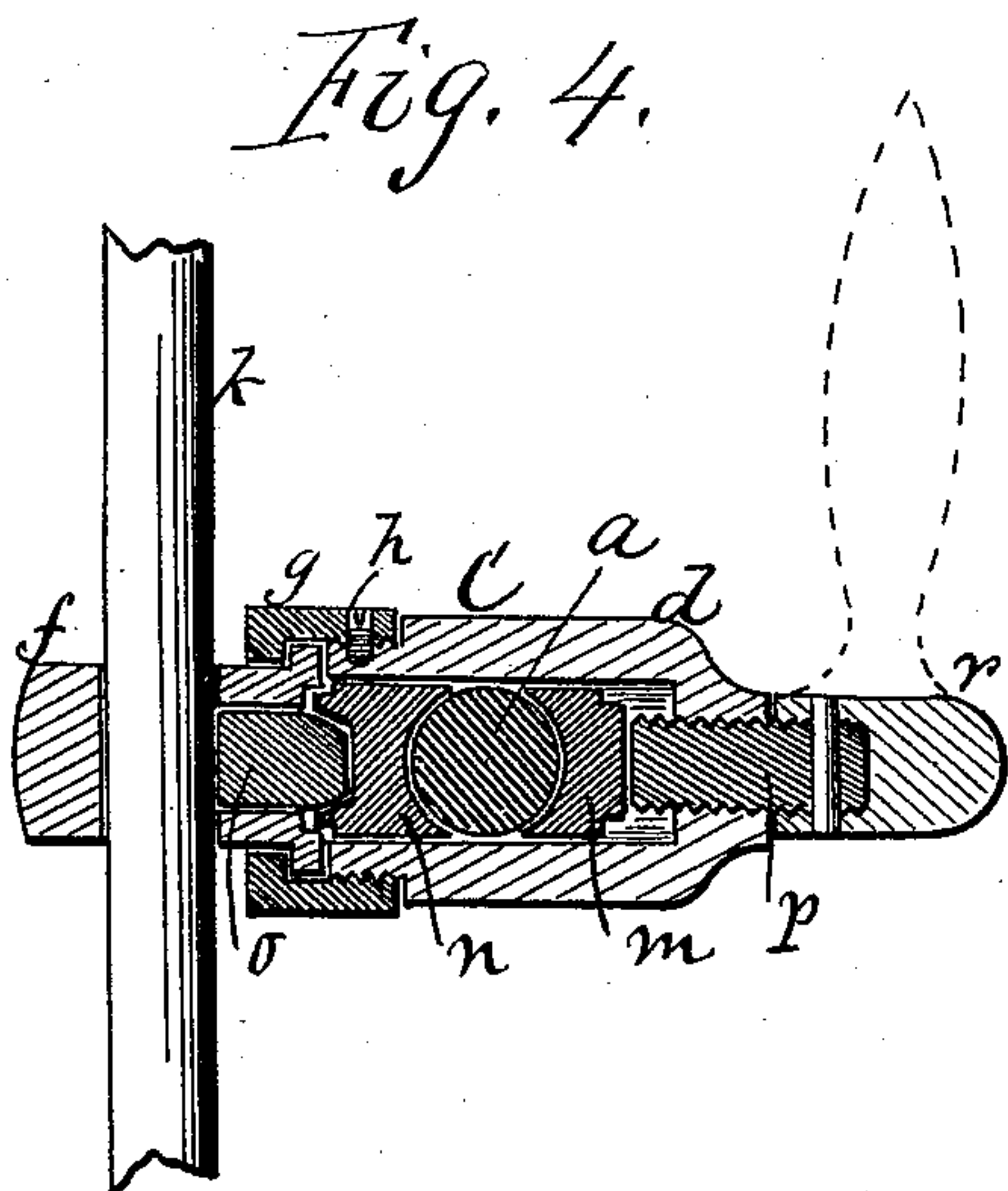
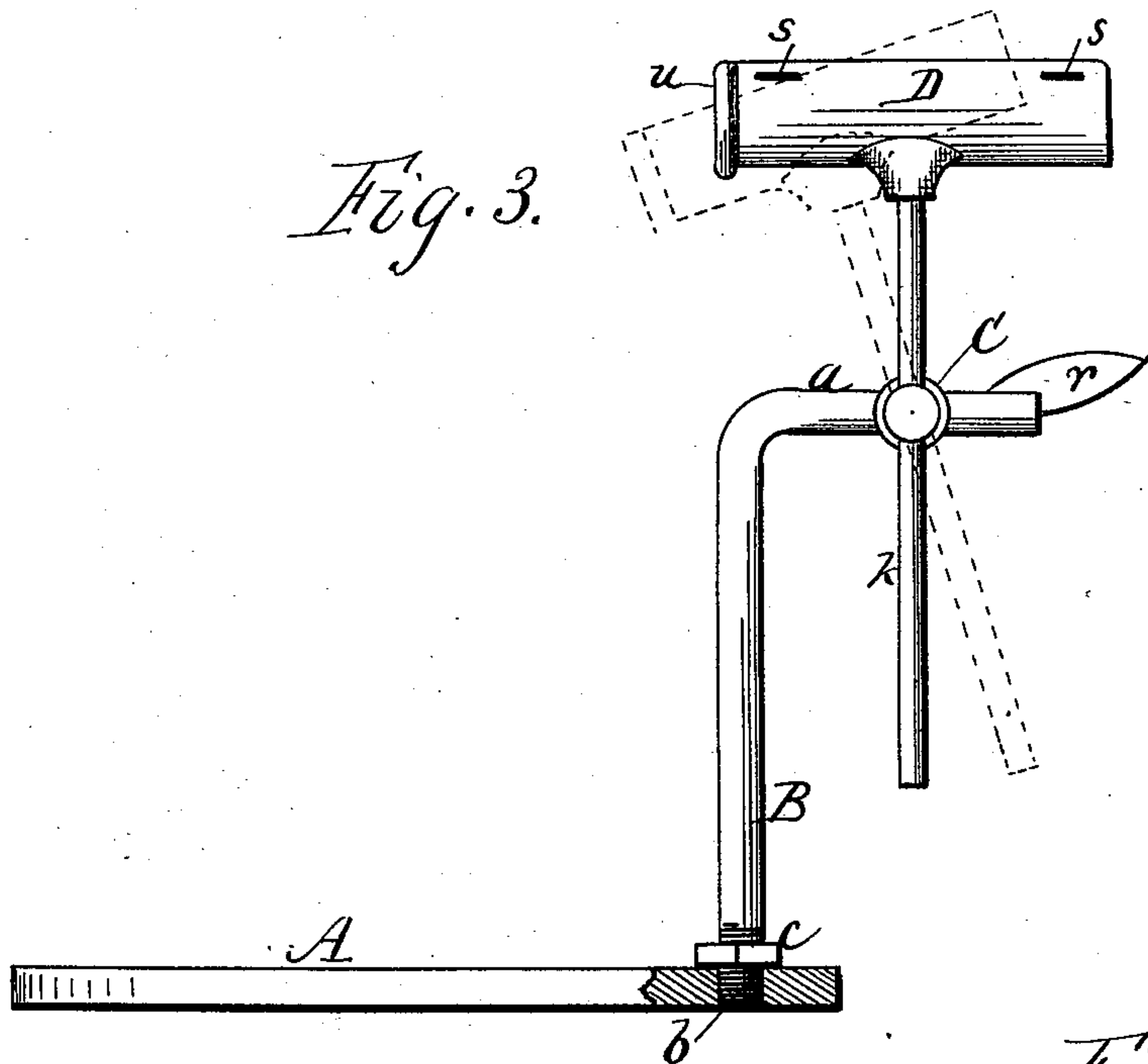
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UNITED STATES PATENT OFFICE.

SAMUEL H. LINN, OF ROCHESTER, NEW YORK.

SURGEON'S OPERATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 542,390, dated July 9, 1895.

Application filed January 7, 1893. Serial No. 457,626. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. LINN, of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Physicians' and Surgeons' Operating Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the drawings accompanying this application.

My improvement relates to apparatus for supporting the legs in surgical operations and in the treatment of the lower orifices of the body. It is of the kind where a bed-plate is used on which the body rests, and standards attached to said bed-plate rise to a suitable height to support the legs and are adjustable to various positions to accommodate the operations of the physician or surgeon.

The invention consists in the construction and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of the apparatus. Fig. 2 is a front elevation of the same. Fig. 3 is a side view looking at right angles to Fig. 2. Fig. 4 is an enlarged longitudinal vertical section through the coupling. Fig. 5 is a front elevation of the support or rest, showing another form. Fig. 6 is a cross-section of Fig. 5 in line *x x* of the last-named figure.

A indicates a cast-iron bed-plate of rectangular or square form and made thin to rest upon a table or other support and receive the body of the patient.

B B are two standards rising from the front corners to suitable height to support the legs and cranked or turned horizontally, as shown at *a*, for the attachment of the support or rest. The lower ends of the standards are threaded, as shown at *b*, and screw into the bed-plate and are tightened in any position by means of nuts *c c*. By this means the standards can be turned to set the cranked ends at any angle and then be tightened in place.

C C are couplings attached to the horizontal cranked ends *a* of the standards. Each of these couplings consists of a cylindrical block *d*, provided with a hole, through which the cranked end *a* of the standard passes loosely.

Fitted to one end of this block is a swivel end *f*, which is held in place by a cap *g*, which is fitted over the end of the coupling and screwed fast thereto by a screw *h*. This allows the swivel end to turn freely. Through the swivel end passes a spindle *k*, movable freely up and down and supporting at its top the support or rest D. Inside of the coupling are three followers *m n o*, two of them, *m* and *n*, lying on opposite sides of the crank-arm *a*, being concaved on their inner faces to fit said crank-arm, and the third one *o* being in the form of a pin, which rests inside the swivel end *f* and bears against the back of the follower *n*. In the end of the coupling opposite to the swivel end is a screw *p*, which bears against the back of the follower *m*, and to this screw is attached a handle *r*. By turning the screw it tightens up all the followers, causing the followers *m n* to clamp on the crank-arm *a* and the other follower *o* to clamp on the spindle *k*, thereby tightening all the parts in place.

By the construction before described a universal adjustment of the support or rest is attained. These various adjustments are indicated by the dotted lines in Figs. 1, 2, and 3. The lateral adjustment shown in Fig. 1 is attained by turning the standard B on its axis by means of the screw-thread at its bottom, as before described. By this means the rests can be set to spread the legs to a greater or less distance. The vertical adjustment shown at the right in Fig. 2 is accomplished by loosening the coupling end, sliding the spindle *k* up vertically, and then tightening it again. The lateral inclined adjustment shown at the left in Fig. 2 is accomplished by loosening the coupling and turning it on the crank-arm *a*, and the longitudinal backward adjustment shown in Fig. 3 is produced by loosening the coupling and turning the swivel *f* to any desired degree and tightening the coupling again. In addition to these various adjustments the coupling C can be moved forward and back on the crank-arm *a*, thereby adapting the rest to the different positions required.

The various adjustments above described are attained by the special construction of the coupling C. The swivel end *f* is necessary to secure the backward adjustment shown

in Fig. 3, and to clamp all the parts in place by a single screw the followers *m n o* are required.

5 The rests *D D* are attached to the top of the spindles *k k* by screw-threads or other means.

The rests shown in Figs. 1, 2, and 3 are intended to receive the calf of the leg, and consist each of a concave plate provided near the upper edges with slots *s s*, through which are
10 passed the binding-strips *t t*, which tie the legs to place. At the rear end is also a rim *u*, of rubber or other suitable material, to ease the bearing of the leg at the edge.

15 Figs. 5 and 6 show a rest adapted to fit the leg at the knee-joint, being semicircular in cross-section and concaved in longitudinal section, and attached to the spindle in the same manner.

20 The rests are preferably screwed on the ends of the spindles, being thus interchangeable. The apparatus being made of metal, can be sterilized by being placed in a heater.

25 The apparatus above described is adapted to use in all operations where the patient lies in a recumbent position with the legs elevated, and particularly in the treatment of the pelvis,

fundus, uterus, &c., and in the passage of sounds, electric-lighting instruments, and other instruments, and is of great service in the treatment of hernia. 30

Having described my invention, I do not claim, simply and broadly, a support for the body and devices attached thereto for supporting the legs.

What I claim as new, and desire to secure 35 by Letters Patent, is—

In a surgeon's operating apparatus, the combination of the bed plate *A* adapted to be laid flatwise on a table, the standards *B B* screw-
40 ing into the front corners of the same and provided with the cranked ends *a a*, the couplings *C C* fitted on the cranked ends, and the rests *D D* provided with spindles *k k* resting in said couplings, as shown and described and for the purpose specified. 45

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

SAMUEL H. LINN.

Witnesses:

R. F. OSGOOD,
P. A. COSTICH.