

E. B. HARDING & E. W. HIGBEE.

SPECULUM.

No. 170,851.

Patented Dec. 7, 1875.

Fig. 1.

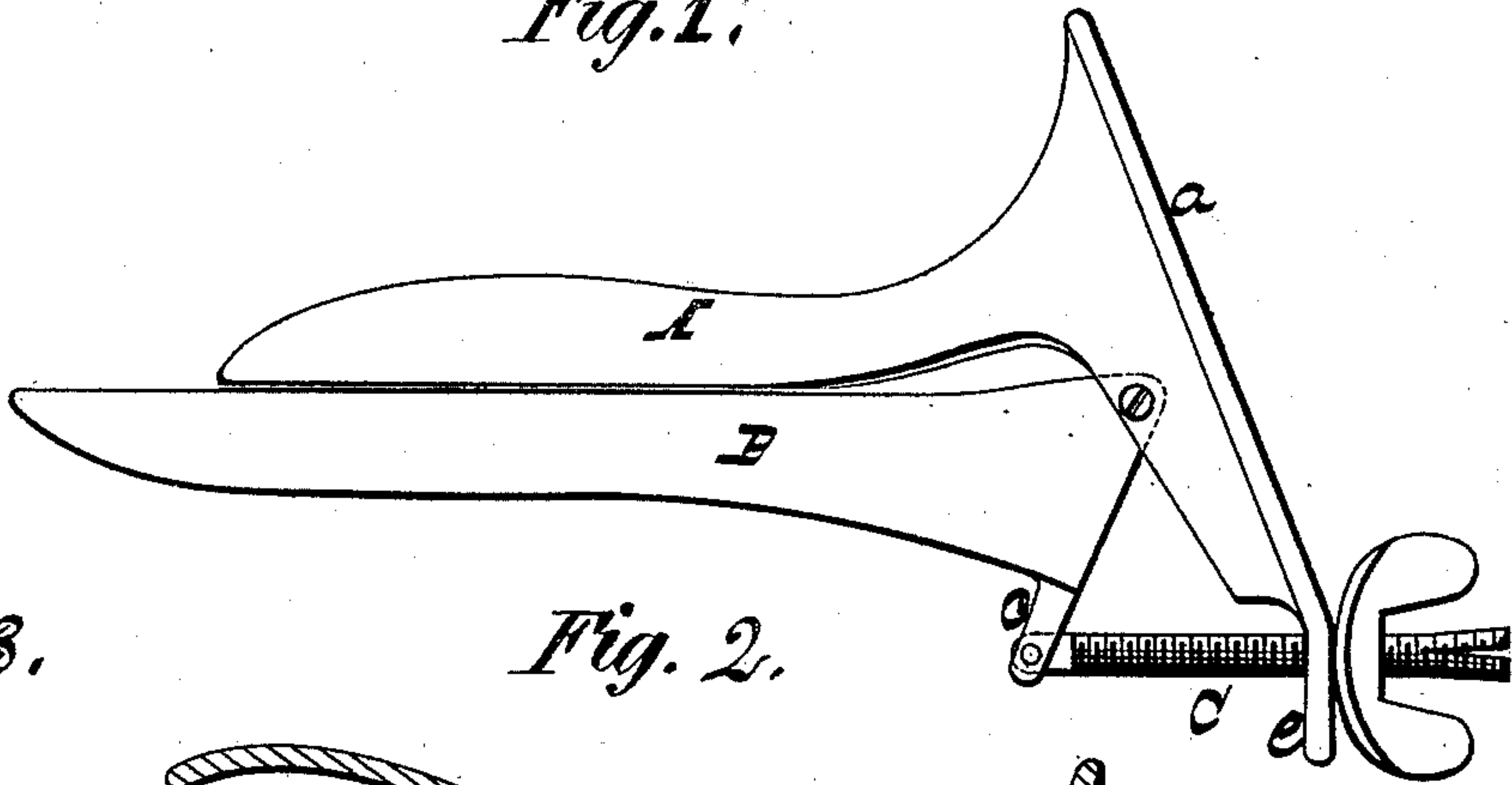


Fig. 3.

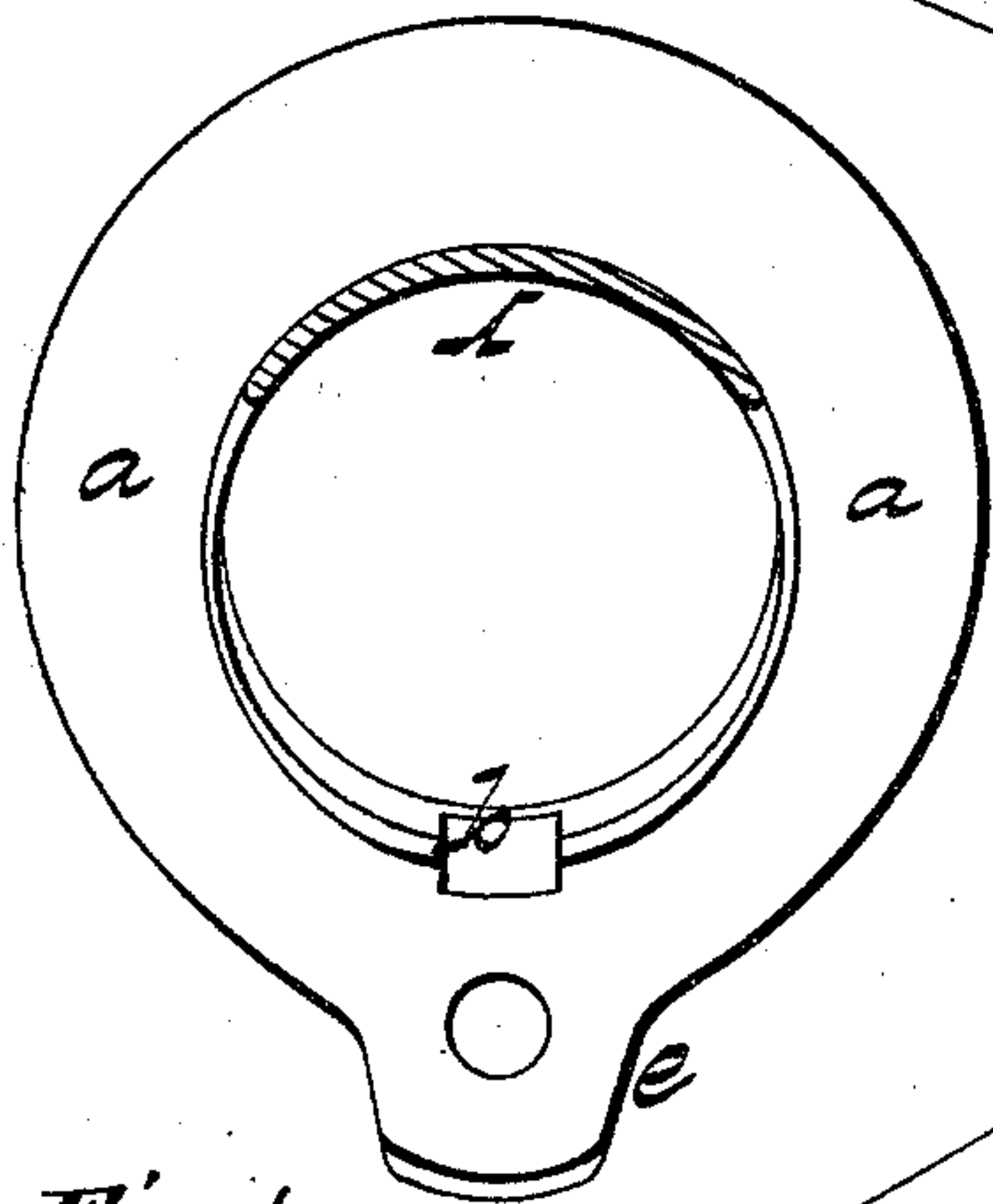


Fig. 2.

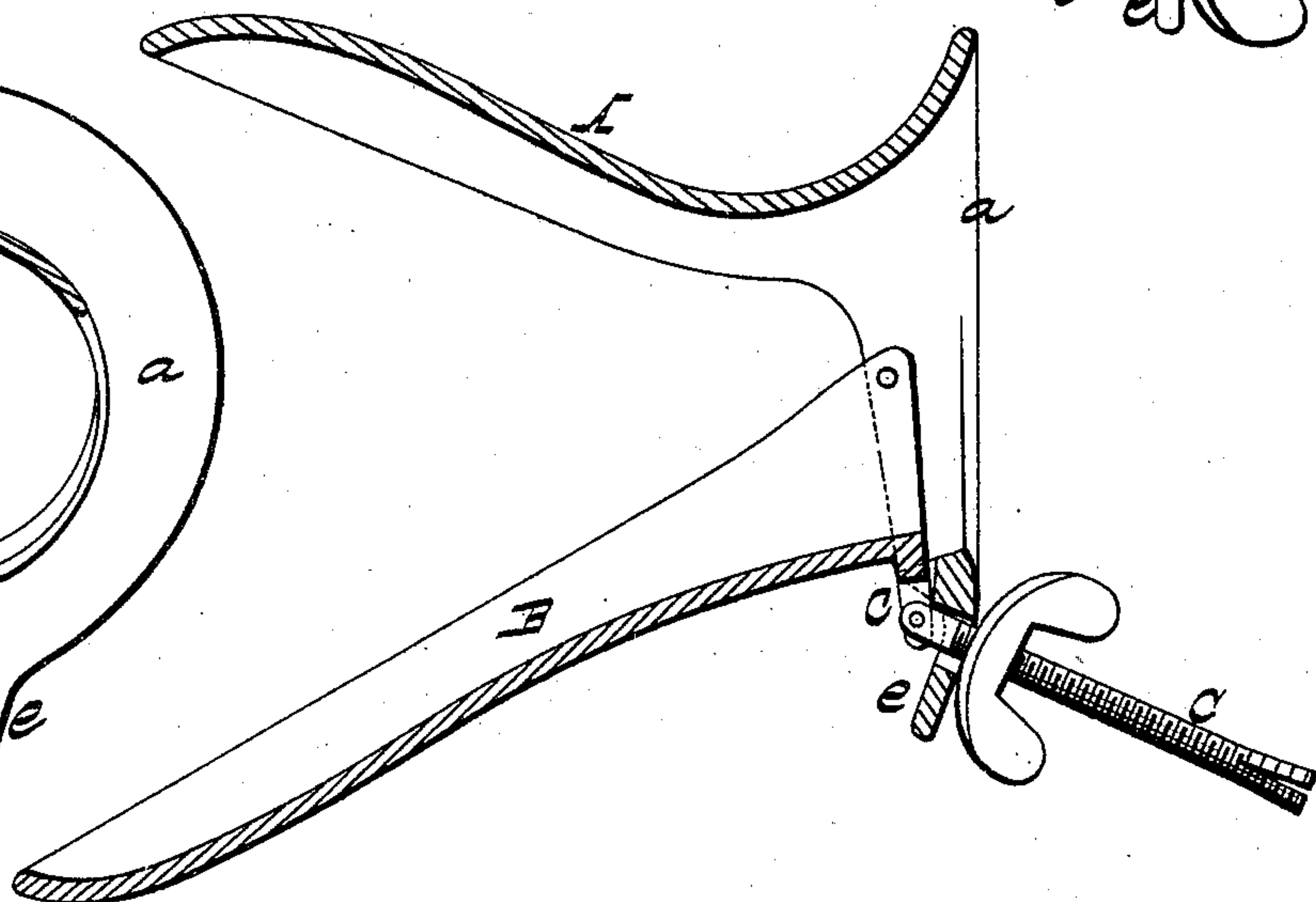


Fig. 4.

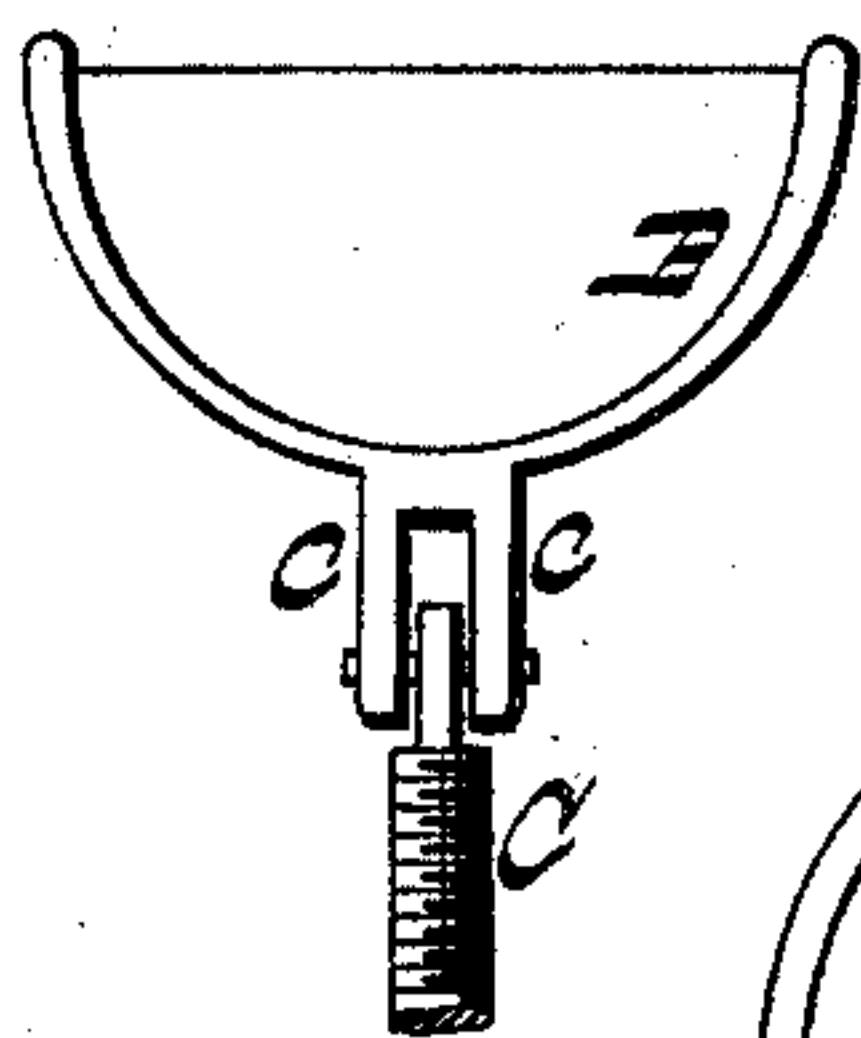
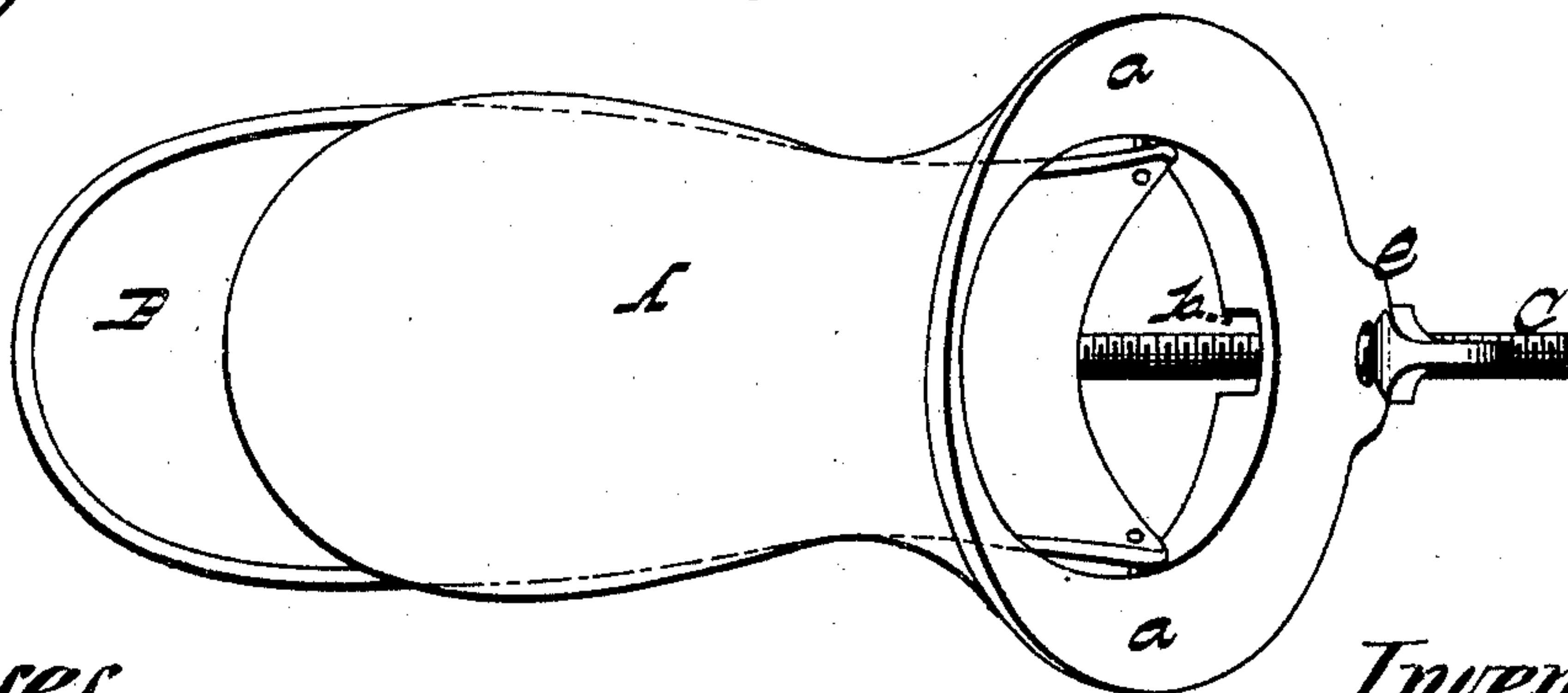


Fig. 5.



Witnesses.
James Martin Jr.
James W. Hester.

Inventor.
E. B. Harding & Co.
E. W. Higbee
Edson Bros.
Attorneys

UNITED STATES PATENT OFFICE.

E. B. HARDING, OF NORTHAMPTON, AND E. W. HIGBEE, OF SPRINGFIELD,
MASSACHUSETTS.

IMPROVEMENT IN SPECULUMS.

Specification forming part of Letters Patent No. **170,851**, dated December 7, 1875; application filed
November 2, 1875.

To all whom it may concern:

Be it known that we, E. B. HARDING and E. W. HIGBEE, respectively of Northampton, in the county of Hampshire, and Springfield, in the county of Hampden, and State of Massachusetts, have invented certain new and useful Improvements in Speculums; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a side elevation of our improved speculum. Fig. 2 is a vertical longitudinal section thereof. Fig. 3 is a transverse vertical section of the same, with one of its blades detached, and looking at it from the outer end or front portion. Fig. 4 is a rear view of the detached blades; and Fig. 5 is a plan view of our improved speculum.

Corresponding parts in the several figures are denoted by like letters.

This invention relates to an improvement upon the vaginal speculum patented by Edwin W. Higbee, September 14, 1875, No. 167,666; and it consists in widening or enlarging the upper or shorter blade, in providing its rear or outer end with an enlarged or broad flange, and in elongating the lower portion of said flange, through which the articulating-screw passes, and slotting the same to receive the lugs on the longer or lower blade, to and between which the said screw is articulated.

In the annexed drawing is illustrated a bivalve speculum constructed after the fashion of the patented speculum of Edwin W. Higbee, above referred to, having its upper or shorter blade A widened or expanded to the extent to overhang its lower or longer blade B, to which it is hinged, and to its extreme outer or free end, as clearly shown in Fig. 5. This construction of the upper blade A enables it to take up the upper vagina, since the latter grows larger the moment the vulva is passed, and to distend the extreme upper end of the vagina, at which point the great-

est amount of distension is required to prevent the anterior or front vaginal wall curling down in a fold and obscuring the cervix uteri.

To avoid the last-named disadvantage or result in operating with the ordinary speculum, or with the patented speculum above referred to, it is often necessary to use an additional instrument, termed a cusette, adapted specially for that purpose.

The upper blade A is provided around its inner end with an enlarged or broad circular flange or rim, *a a*, by which not only the soft parts, hair, &c., are prevented from interfering with the view, but space or room is provided for the attachment of a napkin, towel, &c., to prevent exposure of the private parts.

To give the articulating-screw C a greater degree of inclination with the axis of the speculum, when open, to avoid its interference with the probe or other instrument inserted in the speculum, for operating upon the uterus—especially in the case of a retroversion of the uterus, or other mal-position thereof, when the instrument has to be considerably diverted from the axis of the speculum, or inclined downwardly—the projections or lugs *c c* are set back flush with the inner end of the lower or longer blade B, and the flange or rim *a a* of the shorter or upper blade A recessed or slotted, as shown at *b*, and elongated at its lower end, as shown at *e*, to receive, and through which the said screw passes.

It will be seen, when the blades are thrown apart to their farthest extent, that the projections or lugs *c c* enter the slot or recess *d*, and thus not only increase the angle of inclination of the adjusting or articulating screw C, but also prevent the said lugs or projections from pressing against or hurting the soft parts, &c.

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

1. A bivalve speculum, having its blade A widened from its flange outwardly, substantially as shown and described, and for the purpose set forth.

2. The blade A having a broad circular flange

or rim, *a a*, substantially as shown and described, and for the purpose set forth.

3. The elongated flanged blade A having the slot or recess *d*, in combination with the blade B and screw C, substantially as and for the purpose set forth.

In testimony that we claim the foregoing as

our own we affix our signatures in presence of two witnesses.

E. B. HARDING, M. D.
E. W. HIGBEE, M. D.

Witnesses:

C. H. PIERCE,
P. L. DAVISON.