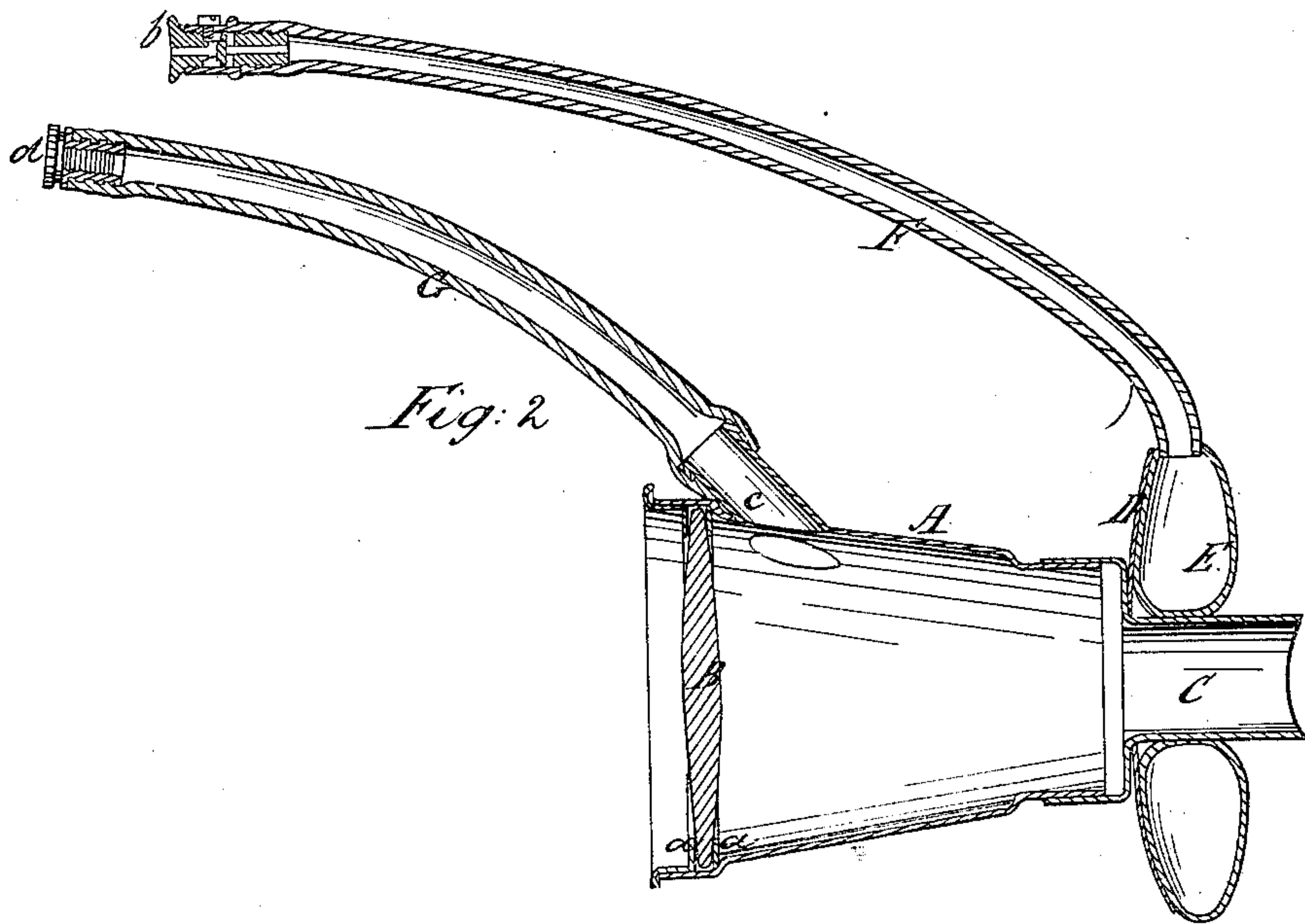
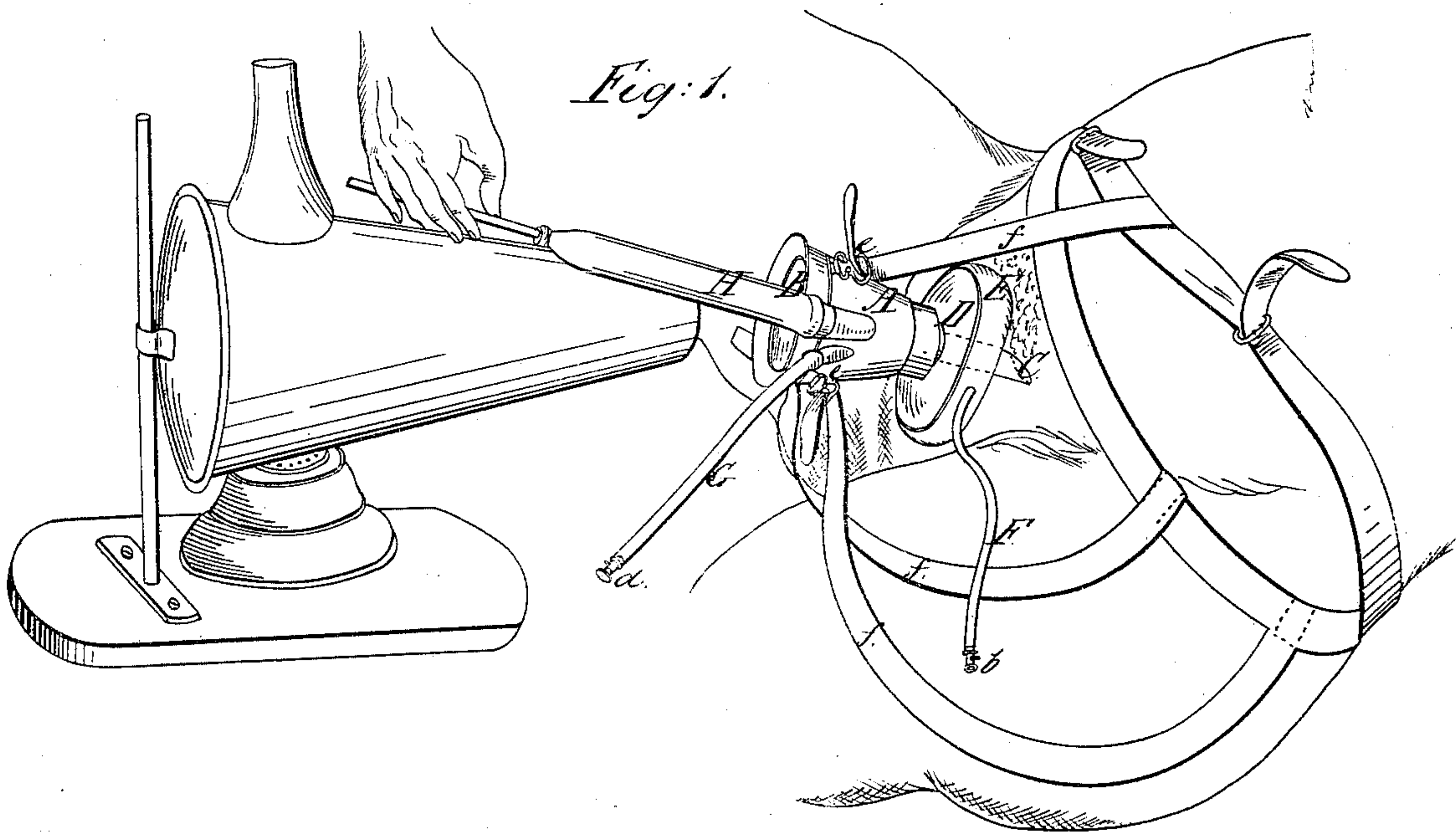


B. H. Aylworth.

Vaginal Speculum.

N^o 90,217.

Patented May 18, 1869.



Witnesses.

*McCombs
Fred. Haynes.*

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United States Patent Office.

B. H. AYLWORTH, OF OXFORD, NEW YORK.

Letters Patent No. 90,217, dated May 18, 1869.

IMPROVED VAGINAL SPECULUM

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, B. H. AYLWORTH, of Oxford, in the county of Chenango, and State of New York, have invented a new and useful Improvement in Vaginal Speculums, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a view in perspective of a vaginal speculum, constructed in accordance with my improvement, as in the course of being applied to the person; and

Figure 2, a longitudinal section, on an enlarged scale, through said speculum.

Similar letters of reference indicate corresponding parts.

My invention consists in a speculum for examination of the vagina and womb, which, when applied, is of a close or air-tight character, and is so constructed and provided as that the vagina may be distended by blowing in air, or other inflating-medium through the speculum; also, instruments inserted, if desired, and manipulated from the exterior.

Said speculum may either be used in connection with solar light, or it may have an illuminating-character given it by means of a candle or lamp inserted within a tubular reflector, arranged in front of the speculum, to facilitate examination or treatment while the vagina is distended, as hereinbefore referred to.

In the accompanying drawing, the body of the speculum is represented as made up of an irregularly-shaped tapering tube, A, open at both ends.

The larger end of said body is closed by a glass, or lens, B, preferably of a double-convex form, which may be secured between rings *a a*, and, if necessary, suitably-interposed rubber packing.

The smaller end of the body is constructed to receive on and over it, so as to form an outward extension thereto, a tube, C, which is designed to be inserted in the vagina, and which may be removed and a different-sized tube substituted, as required.

These tubes, or the body of the speculum where they fit, should be constructed to form a shoulder for a metal or moderately stiff collar, D, (which is slipped over the tube,) to rest against.

This collar should be of an oval form, and hollow or dish-shaped on its face side.

An inflatable soft-rubber collar, E, is also fitted over the tube C, and made to bear or rest at its back against the metal collar D, said rubber collar being inflated, as required, by means of a flexible tube, F, provided with a suitable stop-cock, *b*.

On the side of the body of the speculum, near its large end, is an opening or nozzle, *c*, for attachment

of a flexible tube, G, having a stop-cock, *d*, for the purpose of distending the vagina by blowing in air.

H is a similar, but preferably larger and softer, or more flexible tube, in connection with the body of the speculum, the same being provided, at its outer end, with a flexible ring, or otherwise being suitably constructed to allow of the introduction, in an air-tight manner, and manipulation from the exterior, of a pencil, or instrument of any suitable description for treatment of the vagina, or womb, as, for instance, in the application of caustics, spray, or liquids.

Buckles, *e e*, are fitted to the body of the speculum for attachment of bands, *f f f*, one of which in applying the speculum to the vagina, is passed around the pelvis, over the sacrum and pubes, and secured, by buckles, forward of the ilium. Another of such bands or straps is passed at right angles to the first over the pubes, and another from the lateral edges or side of the sacrum.

In applying the speculum to the person, the tube C is inserted into the vagina and the speculum secured to the person by the bands or straps, after which the flexible collar E is inflated and straps tightened to make close or air-tight the fit of the instrument to the vulva. The vagina then is inflated by blowing or forcing in air through the tube G, when, by means of a solar light passing through an open tube, and concentrated by the lens B, a strong light is thrown upon any portion of the vagina, or *os uteri*, to allow of the examination or treatment of those parts while the vagina is artificially distended by the air forced in through the tube G. Or, as represented in fig. 1, an illuminating-character may be given to the speculum by closing the outer end of the spy-tube with a cap-reflector, and passing a candle or lamp into said tube through a vertical opening therein, the lamp being placed on a movable arm or base of an upright support, on which the tube is made adjustable.

Inspection may then be made through the lens B, over the tube in front of it, under shade from the flame of the lamp, without obstruction to the vision through condensation of vapor on the lens.

A careful survey having been taken, any desired application may then be made to the vagina, or womb, while the vagina, is distended and without endangering adjacent parts by means of instruments passed through the flexible tube H and manipulated from the exterior.

A speculum, thus constructed or provided, supplies a desideratum long needed by the medical profession, namely, an instrument capable of producing a high degree of dilatation, and, if necessary, illumination, without obstruction to the view or interference with the application of remedies.

What is here claimed, and desired to be secured by Letters Patent, is—

1. A vaginal speculum, made close or air-tight, when in use, by means of a glass or lens fitted to its body in rear of the tube which enters the vagina, and provided with an attachment for blowing or forcing in air to distend the vagina, substantially as specified.

2. The combination of the inflatable collar E and stiff back or collar D with the tube C, the body A,

the lens B, and the tube G, essentially as and for the purposes herein set forth.

3. The combination, with a speculum, provided with an attachment for inflation of the vagina, of a flexible tube, for the introduction of instruments capable of manipulation therethrough, substantially as described.

Witnesses:

B. H. AYLWORTH

FRED. HAYNES,

ARTHUR KINNIER.