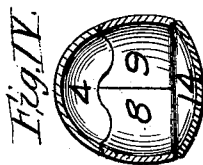
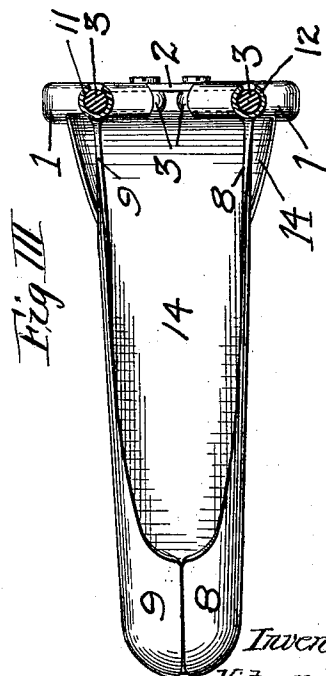
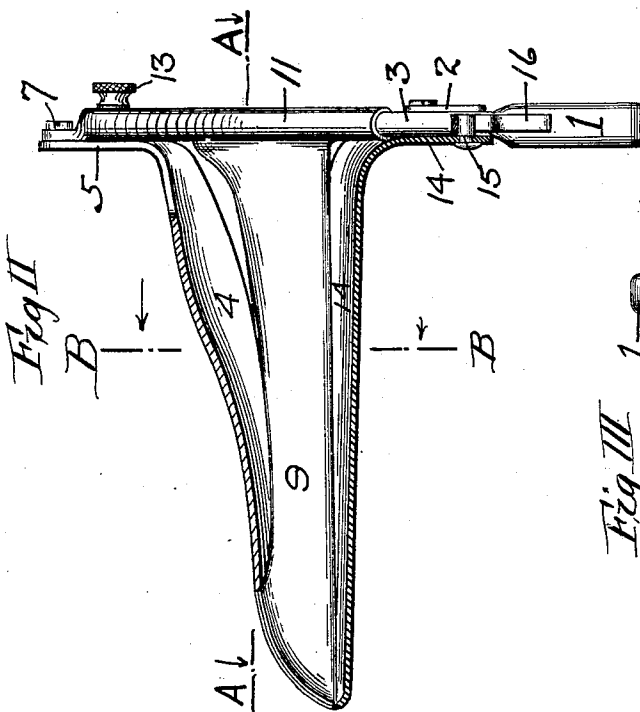
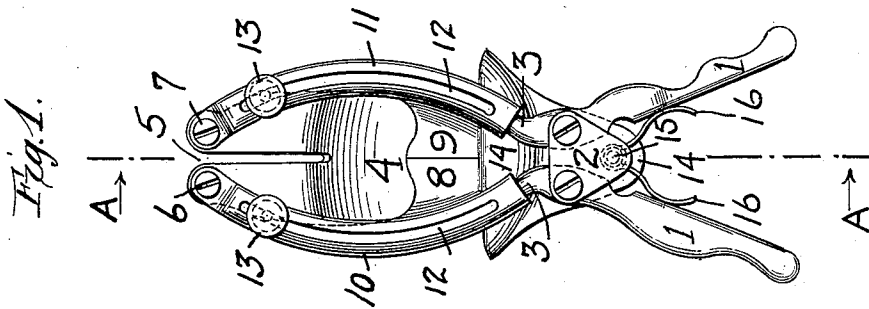


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SPECULUM.
APPLICATION FILED AUG. 3, 1909.

977,489.

Patented Dec. 6, 1910.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. VI.

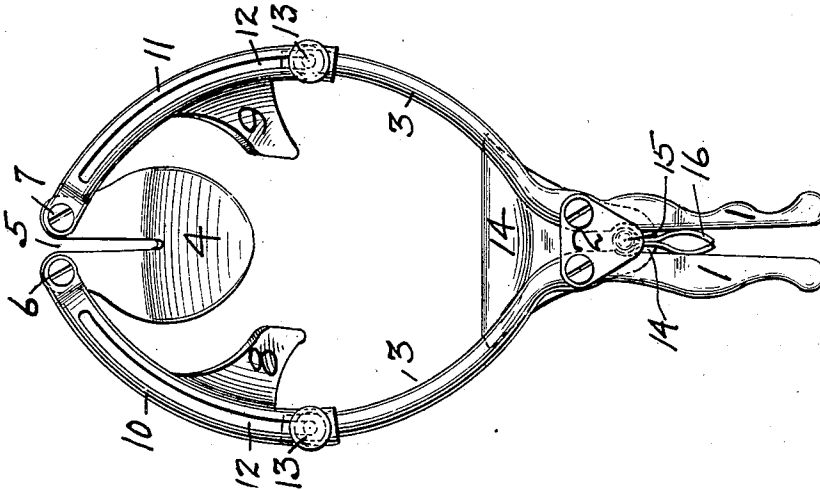
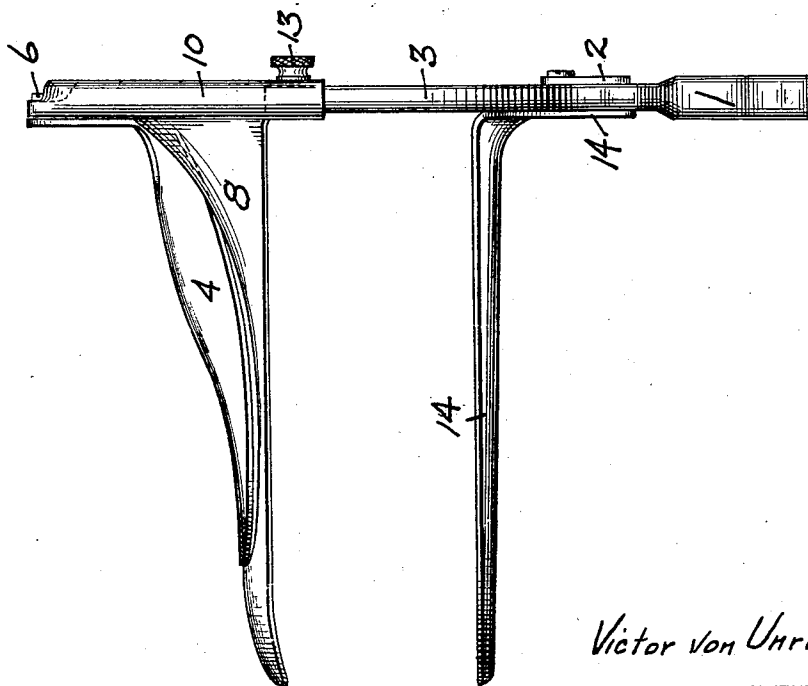


Fig. V.



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UNITED STATES PATENT OFFICE.

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SPECULUM.

977,489.

Specification of Letters Patent.

Patented Dec. 6, 1910.

Application filed August 3, 1909. Serial No. 511,063.

To all whom it may concern:

Be it known that I, VICTOR VON UNRUH, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Specula, of which the following is a full, clear, and exact description.

The invention relates to instruments for dilating orifices such as the vaginal, oral, aural, uterine, urethral, nasal and rectal, and more particularly to the four-jaw or spoon type specula.

A further object of my invention is to provide a means, when operated, to extend the jaws simultaneously in opposite directions, and to provide jaws so arranged that in closing the speculum, the tissues of the extended orifice can not be caught between the jaws, and further to provide an instrument that will not obstruct the view of the anterior or posterior part of the orifice being examined.

The invention accordingly consists in the features of construction, combination of elements, and arrangement of parts, which will be exemplified in the mechanism hereinafter described and the scope of the application of which will be indicated in the claims.

Referring to the accompanying two sheets of drawings in which similar characters of reference indicate like parts throughout the several views, Figure I is an end view of my speculum, the jaws in closed position. Fig. II is a sectional elevation on line A. A. Fig. I. Fig. III is a section along the lines A—A Fig. II. Fig. IV is the same view of my speculum as Fig. I, only the jaws are extended. Fig. V. is a side view of Fig. IV. Fig. VI is a section on line B. B. Fig. II.

In my invention I provide two handles 1, each pivotally mounted to the face plate 2 and provided with curved extensions 3. A jaw or spoon 4, fenestrated at 5 for the reception of the urethra is pivotally connected at 6 and 7 to two jaws 8 and 9 respectively. The jaws 8 and 9 are each provided with curved tubular portions 10 and 11 adapted to receive telescopically the curved extensions 3 of the handles 1. In each tubular portion,

I provide a slot 12 in which the set screw 13, fastened in member 3, travels. Also mounted on face plate 2 is a jaw 14, and in jaw 14 is mounted a stud 15, provided with springs 16 adapted to press against the handles 1, as will be readily understood by referring to Figs. I and IV. All the four jaws converge outwardly from the elliptical frame consisting of the tubular members 10 and 11 and their inter-engaging portions 3, forming a closed extension, as will be seen by referring to Figs. II and VI.

The threads of all screws are covered and for cleaning purposes may be wholly removed, permitting the entire instrument to be taken completely apart, providing access to every part.

Wherever the word jaw is used, throughout the specification and claims, the member indicated is one familiarly known by the medical and surgical profession as valve and should be so construed.

I wish it distinctly understood that my speculum herein illustrated and described is in the form which I desire to construct it, and that any changes or variations may be made as may be convenient or desirable without departing from the salient features of my invention, and I therefore intend the following claims to cover such modification as naturally fall within the lines of invention.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is,—

1. In a speculum, an elliptical frame comprising telescopic members carrying jaws, provided with pivotally mounted handles whereby, when operated, the jaws are extended relatively and the size of the frame varied simultaneously.

2. In a speculum, in combination a fenestrated top jaw, two lateral jaws, and one lower jaw, all mounted on interengaging telescopic members provided with handles when operated for simultaneously moving the jaws in opposite directions, and increasing the length of the telescopic members.

3. In a speculum, the combination with two jaws provided with curved tubular portions pivotally mounted to a fenestrated

jaw, two handles provided with members adapted to telescopically engage the aforesaid tubular portions and pivotedly mounted to a fourth jaw.

6 4. In a speculum, an elliptical frame, comprising telescopic members carrying jaws.

This specification signed and witnessed in

1312 West Street Building, Cedar and West streets, New York city, this thirtieth day of July A. D., 1909.

VICTOR VON UNRUH.

In the presence of—

ARTHUR NELSON,

MARGUERITE ROSS.