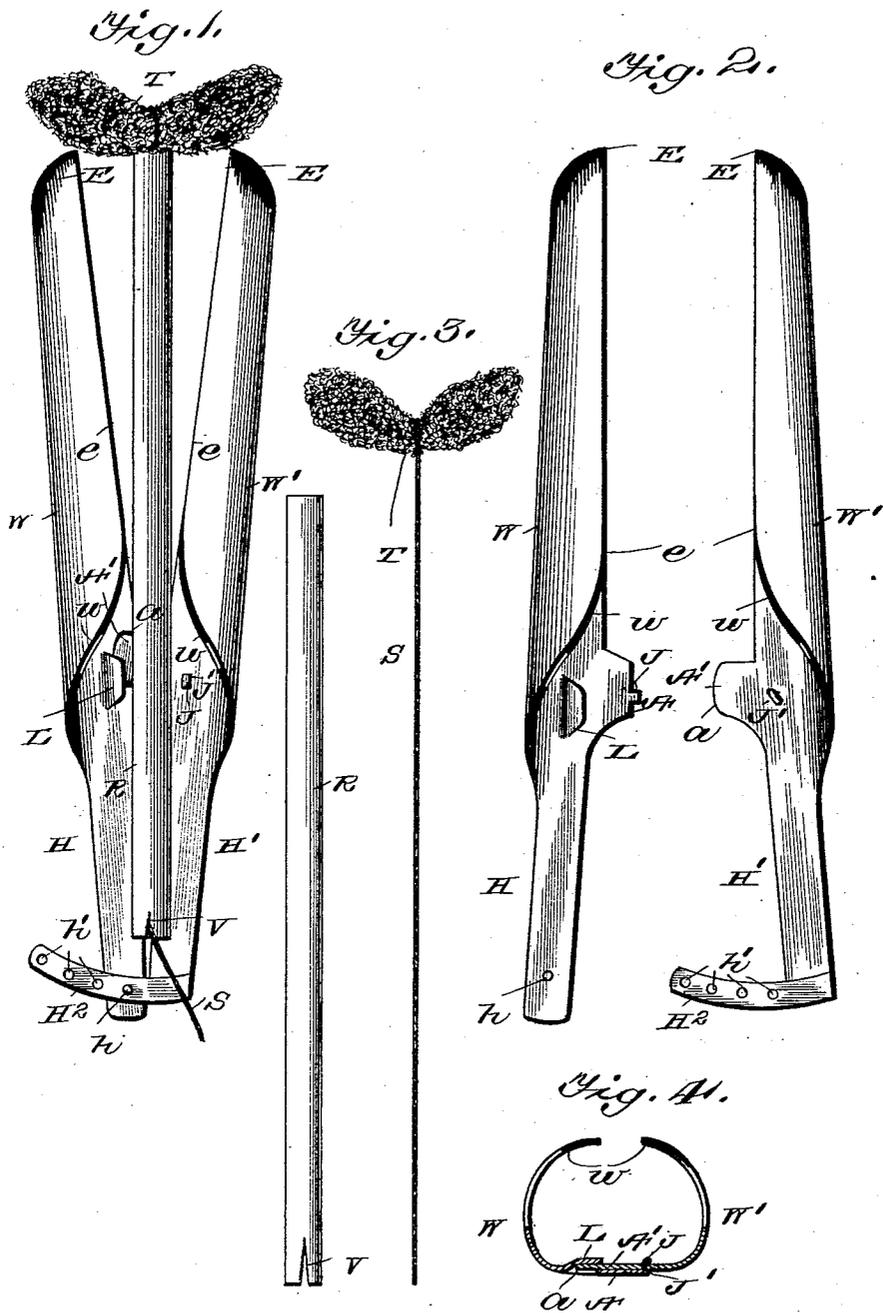


(No Model.)

F. W. PENHALL.
SPECULUM.

No. 563,236.

Patented June 30, 1896.



Witnesses:

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UNITED STATES PATENT OFFICE.

FLETCHER WELLINGTON PENHALL, OF MORTON, MINNESOTA.

SPECULUM.

SPECIFICATION forming part of Letters Patent No. 563,236, dated June 30, 1896.

Application filed September 30, 1895. Serial No. 564,106. (No model.)

To all whom it may concern:

Be it known that I, FLETCHER WELLINGTON PENHALL, a citizen of the United States, and a resident of Morton, Renville county, State of Minnesota, have invented certain new and useful Improvements in Speculums; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with claims particularly specifying the novelty.

This invention relates to surgery, and more especially to that class of devices known as "speculums;" and the object of the same is to produce an improved instrument by the use of which a tampon may be introduced into the vaginal cavity of a female patient.

To this end the invention consists in an improved construction of the speculum and of the joint between the two members thereof, all as hereinafter more fully described and claimed, and as illustrated in the accompanying drawings, wherein—

Figure 1 is a plan view of the complete device with its parts in the positions they assume in operation. Fig. 2 is a plan view of the two members of the speculum slightly separated. Fig. 3 is a similar view of a tube and tampon which may be used in connection with this speculum. Fig. 4 is a cross-section through the hinge or joint between the members of the speculum.

Referring to the accompanying drawings, the letters *W W'* indicate, respectively, the leaves, blades, or wings of a speculum, which are of about the shape shown in section and form a conical body tapering slightly toward the end *E*. As seen in Fig. 4, these wings curve upward from their rear sides to the upper edges *e*, which, when the device is closed, almost or quite make contact with each other, and the lower ends of these edges are cut away or beveled off, as at *w*, for a purpose to appear below. The lower ends of the lower sides of the wings are continued in handles *H H'*, the former of which has a pin or stud *h* rising from its lower end, while the latter of which has a lateral arm *H²* projecting toward the first handle and provided with a number of holes *h'*, adapted to engage the pin *h*. Each wing with its handle is formed of one piece of metal, preferably highly polished or nickeled. The joint between these

two members consists of two arms *A A'*, projecting, respectively, toward each other, the arm *A'* lying upon the arm *A* and having a rounded outer end *a*, adapted to pass under a raised lip *L*, cut out of and struck up from the body of the left wing *W*. The outer end of the left arm *A* has an L-shaped projection, which first rises from the arm and then projects outwardly, as best seen in Fig. 4, and the right arm *A'* is provided with an elongated slot *J'*, of a size and shape to receive the top of the projection *J* when the two members are placed together in such position that their handles *H H'* cross each other. Thus, in order to connect the members, the handle *H'* is laid across that lettered *H*, the tip of the projection *J* is passed into the slot *J'* until the arms *A A'* contact, and the two members are then turned around the joint thus formed until the outer end *a* of the arm *A'* passes under the lip *L*, and at this time the upper end of the projection *J* will assist the lip *L* in holding the two members from dislocation, and the engagement of one of the holes *h'* with the pin *h* will hold the wings when separated the desired distance.

Referring now to Fig. 3, wherein is shown a device which may be used in connection with the speculum above described, the letter *T* designates a tampon, as of raw cotton or other suitable material, around which is tied a string *S* with its ends depending therefrom, as shown. *R* is a tube, preferably of hard rubber, about a quarter of an inch in outside diameter and six inches or more in length, and in one side of the lower end of this tube is formed a V-shaped notch *V*.

In the use of this device one or more tampons are made and saturated with the proper medicaments, after which their strings are passed down through the tube *R*, as seen in Fig. 1. The two members of the speculum, having first been boiled for the sake of cleanliness, are then connected at their joint and the wings closed together. The tube *R*, carrying the tampon at its upper end, is then inserted within the speculum, and the latter is passed into the parts to be treated. The arm *H²* is then raised slightly, so as to disengage the outermost hole *h'* from the pin *h*, and the two handles are pressed together and held in this position (see Fig. 1) by the engagement

of the pin in one of the holes. The speculum being held in place by one hand, the tube R with the tampon is then pressed farther upward until the latter is at the proper point, when the strings can be disengaged from the notch V to leave the tampon exactly in proper position; or, the tube being held in place, the speculum may then be pressed to the rear, so that the tube passes between the two cut-away portions *w* and out of the speculum, and the latter may then be completely withdrawn and laid aside. Thereafter the string may be disengaged from the notch and the tube withdrawn, leaving the tampon in place or leaving several tampons in position. After using the speculum, the members are again folded so that the handle H' stands obliquely across that lettered H and the tip *a* of the arm A' has passed out from under the lip L. Then the slot J' can be disengaged from the projection J and the two members separated and cleaned.

It will be obvious that this device may be used by a comparatively inexperienced person without injury to the patient, and that the use of the tube R permits the tampon to be firmly and rigidly held in position during the removal of the speculum.

The device is preferable to the well-known method of introducing medicines by means of capsules, because the latter are so liable to become displaced, and at any rate the capsule when dissolved leaves a glutinous coating over the very surface it is desired to be acted upon by the local medicine, and thus delays or prevents absorption. With my device it will be obvious that the saturated tampon has an immediate and beneficial effect.

Although I have not illustrated it, it will be clear that the one tube could hold several tampons, which may be left at different positions, as thought advisable, and the use of the tube R with its notch (or with more than one notch) will greatly facilitate this; or, while the speculum is in place, one tampon can be introduced, then the tube withdrawn and threaded with another tampon, and that one introduced, and in this manner several can be put in position one after another; for instance, first a medicated tampon and next a plain tampon for supporting and retaining the first one in position and acting in the nature of a packing therefor.

The parts of the device are of the proper or preferred sizes, shapes, proportions, and materials, and considerable change in the specific details may be made without departing from the spirit of my invention.

I do not confine myself to the use of the tube and tampon herein described and shown, although I prefer it, and I reserve the right to employ any other tampon and any other instrument for inserting it through the

improved speculum herein described and claimed.

What is claimed as new is—

1. In a surgical instrument of two members, the herein-described joint between such members, the same comprising arms on the members projecting toward each other and adapted to lie one upon the other, the uppermost arm having through its body a slot oblique to its length, and a projection at the end of the lowermost member first rising and then extending outward and of a size to enter the slot when the parts stand oblique to each other, as and for the purpose set forth.

2. In a surgical instrument of two members, the herein-described joint between such members comprising arms on the members projecting toward each other and adapted to lie one upon the other, the outer end of the uppermost arm being rounded, a raised lip at the base of the lowermost arm adapted to engage said rounded end, and a detachable joint between the two arms, as and for the purpose set forth.

3. In a surgical instrument of two members, the herein-described joint between them comprising arms on the members adapted to lie one upon the other, the outer end of the uppermost arm being rounded, a raised lip at the base of the lowermost arm adapted to engage said rounded end, the uppermost arm having a slot in its body oblique to its length, and a projection at the end of the lowermost arm first rising therefrom and then extending outward and adapted to enter said slot when the rounded end of the upper arm is not in engagement with the lip, as and for the purpose set forth.

4. In a device of the character described, the combination with a speculum comprising two wings, rigid handles at their lower extremities, and a pivot between the two members at the intersection of the wings and handles, said pivot comprising arms on the members projecting toward each other and adapted to lie one upon the other, the outer end of the uppermost arm being rounded, a raised lip at the base of the lowermost member adapted to engage said rounded end, and a detachable joint between the two arms; of a pin rising from the outer end of one handle at right angles to the plane of the pivot-arms, and an arm projecting from the corresponding end of the other handle toward the first handle and provided with a number of holes adapted to receive said pin, as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my signature on this the 26th day of September, A. D. 1895.

FLETCHER WELLINGTON PENHALL.

Witnesses:

CHAS. L. DOUBLE,
HENRY BECKMAN.

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