R. JENTZSCH.

TUBE INSERTER.

APPLICATION FILED APR. 30, 1915.

1,174,868. Patented Mar. 7, 1916.

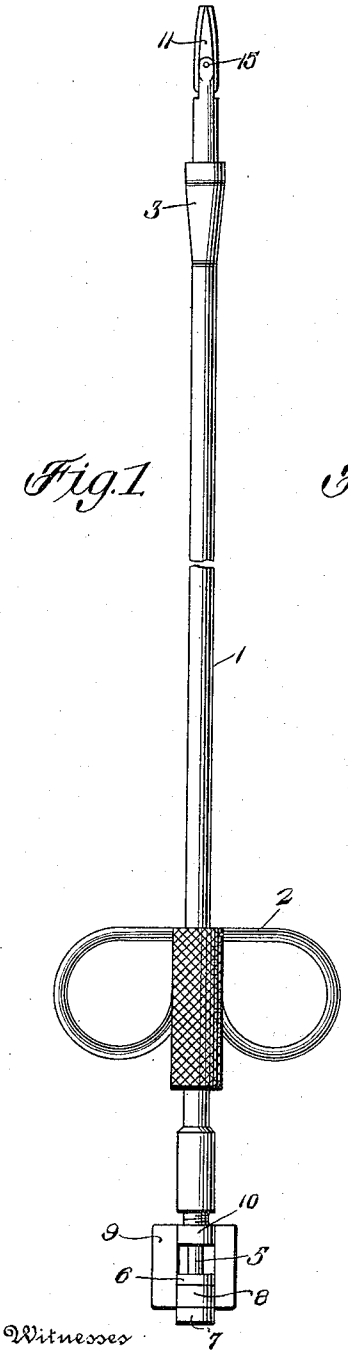


Fig. 1.

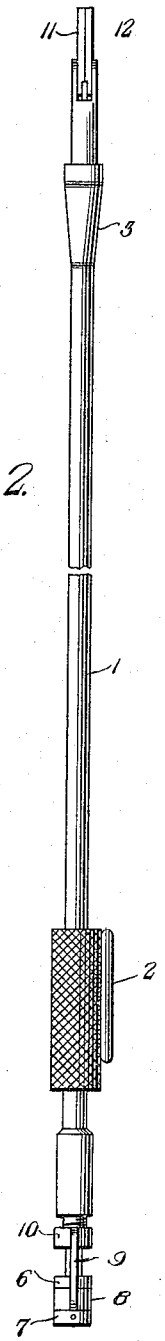


Fig. 2.

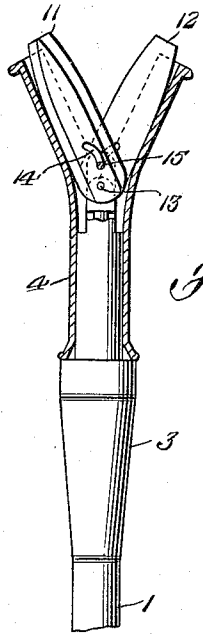


Fig. 3.

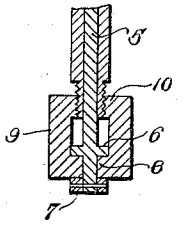


Fig. 4.

Witnesses

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TUBE-INSERTER.

1,174,868. Specification of Letters Patent. Patented Mar. 7, 1916.

Application filed April 30, 1915. Serial No. 25,002.

To all whom it may concern:

Be it known that I, RICHARD JENTZSCH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Tube-Inserters, of which the following is a specification.

This invention relates to surgical instruments and more particularly to devices for inserting and expanding uterine tubes.

The primary object is to provide a simple and efficient device of the character described for the convenient insertion and expanding of uterine tubes such as is shown in my patent of Sept. 17, 1912, No. 1,039,061.

Another object of the invention is the provision of an instrument of this character which will have the required strength and rigidity to accomplish the simultaneous expanding of the opposite legs or extensions of the tube and yet may be readily withdrawn from the tube and vagina without injuring the patient.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawings which form a part of the application and in which:

Figure 1 is a side elevation. Fig. 2 is a view taken at right angles to Fig. 1. Fig. 3 is an enlarged side elevation of the device showing in detail the arrangement of the jaws expanded and with one of the tubes mounted thereon and shown in section. Fig. 4 is a detail longitudinal section.

Referring more particularly to the drawing 1 represents the body of the device which is in the form of an elongated tube having secured thereon adjacent one end an ordinary figure 8 handle 2 by which the instrument may be inserted and withdrawn. Adjacent the opposite end of the body there is rigidly secured a limiting sleeve 3 against which the inner end of the tube to be inserted is adapted to abut, the tube being indicated at 4.

Slidably mounted in the tubular body 1 is the operating rod 5, provided at its inner end with the spaced collars 6 and 7, between which is journaled the upper hub 8 of the adjusting nut 9. This nut is provided with a lower hub 10 which is threaded on the end of the tubular body and both hubs are connected together by diametrically opposite wings which facilitate the rotation of the nut and thereby the adjustment of the rod 5.

The outer end of the tubular body 1 is bifurcated and located in the bifurcation are a pair of jaw members 11 and 12 recessed on their inner sides adjacent the inner ends thereof so as to receive the reduced outer end of the operating rod 5. A pivot pin 13 connects the outer end of the rod 5 with the jaw members and permits the separation of their outer ends for a purpose to be hereinafter described.

The jaw members 11 and 12 are each provided with a diagonal slot 14 formed in and partially extending across an intermediate portion of their bodies, and passing through said slots 14 is a pin 15, keyed in the bifurcated end of the operating rod. When the nut is screwed up on the threaded end of the body the rod 5 will be shifted in the body and will move the jaw members outwardly, the cam inner walls of the slots 14 acting against the pin 15 and causing the jaws to separate at their outer ends, as will be readily understood.

In the operation of the device a tube 4 is placed on the body with its inner end resting against the sleeve or collar 3. The jaws are slightly expanded to hold the tube against displacement and the instrument inserted in the vagina, pressing firmly to force the tube well into the uterus. The jaws are then fully expanded which separates the legs, thereby firmly holding the tube against displacement. The jaw members of the instrument are then collapsed by a reverse of the nut 9 and the instrument withdrawn.

With an instrument of this character physicians having little or no experience in the use of these tubes may apply the same without fear of injuring the patient.

What I claim is.

1. In a tube inserter for uterine tubes, an elongated support tube limiting means thereon, a pair of expanding jaws pivoted to the end of the support, and means for positively simultaneously opening or closing said jaw members.

2. In a tube inserter for uterine tubes, an elongated tubular support tube limiting means thereon, a pair of tube expanding jaws pivoted to the end of the support, and

means slidably mounted in the support and connected to the jaws for positively and simultaneously opening or closing said jaws.

3. In a tube inserter for uterine tubes, an elongated tubular support, a pair of jaw members each having a diagonal slot, a rod slidably mounted in the support and having a pin engaged with said slots, means pivotally connecting the jaws to the support, and means for positively sliding the rod in the support to open or close the jaws simultaneously.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD JENTZSCH.

Witnesses:

ROBERT FORGAN,

ANNA F. MORAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."