

(No Model.)

2 Sheets—Sheet 1.

N. MAYER.
Vaginal Dilating Pipe.

No. 237,032.

Patented Jan. 25, 1881.

Fig. 1.

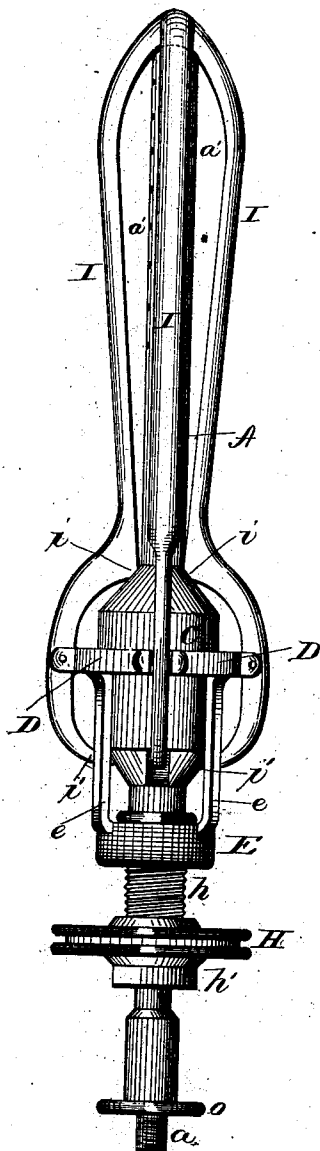


Fig. 2.

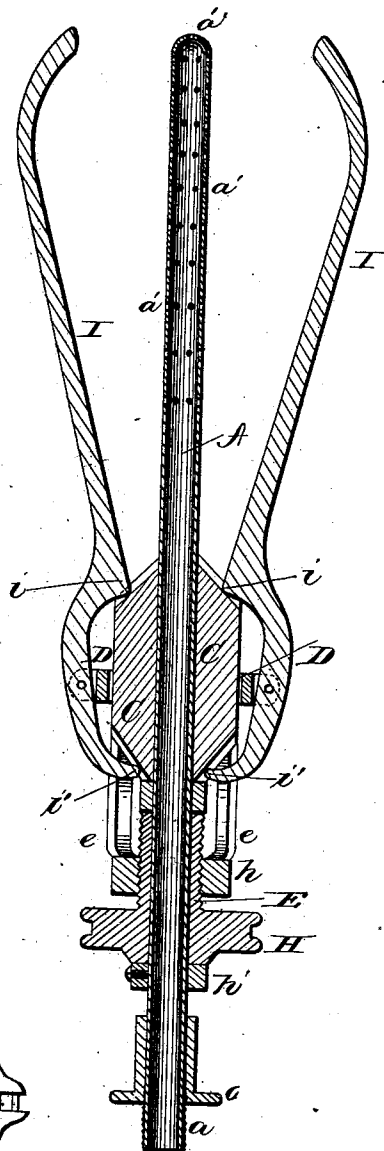
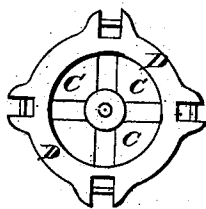


Fig. 3.



Witnesses.
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his Atty.

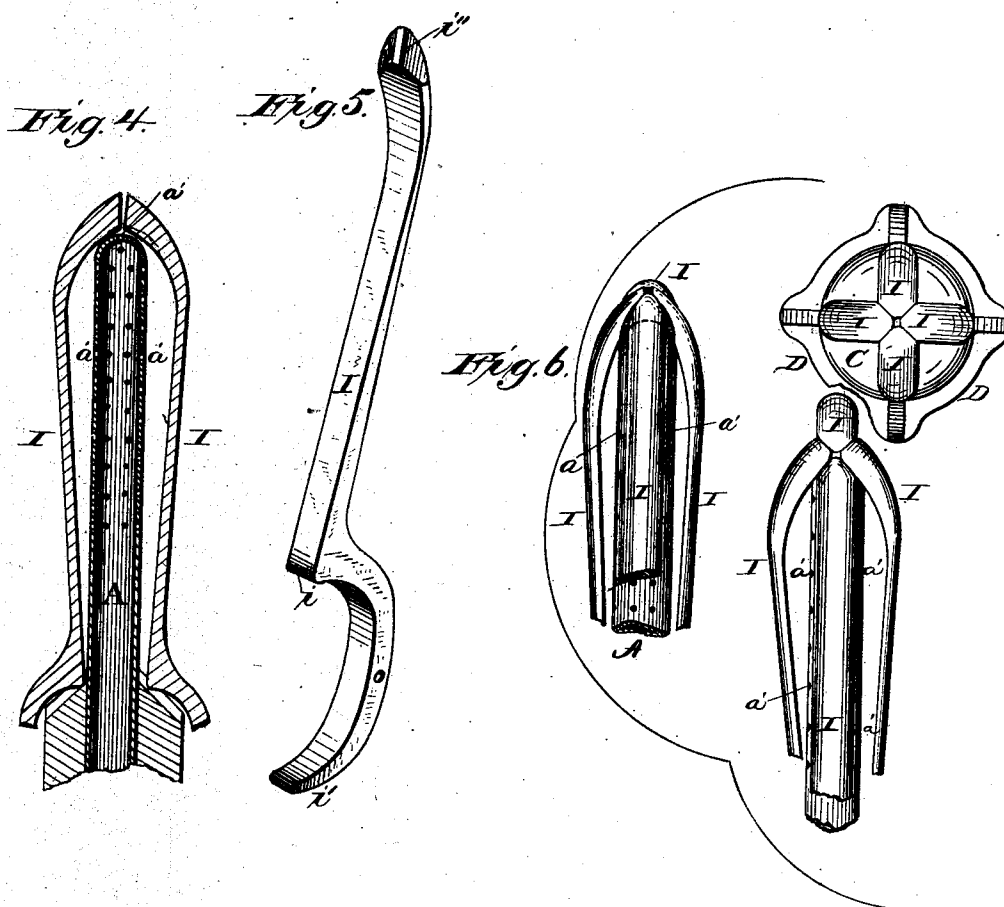
(No Model.)

2 Sheets—Sheet 2.

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Vaginal Dilating Pipe.

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UNITED STATES PATENT OFFICE.

NATHAN MAYER, OF HARTFORD, CONNECTICUT.

VAGINAL DILATING-PIPE.

SPECIFICATION forming part of Letters Patent No. 237,032, dated January 25, 1881.

Application filed July 10, 1880. (No model.)

To all whom it may concern:

Be it known that I, NATHAN MAYER, M. D., a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Vaginal Dilating-Pipes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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 letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is an elevation, showing the device as in readiness for use. Fig. 2 is a vertical central section of device shown in Fig. 1, showing the fingers extending as when in use. Fig. 3 is a plan view on line *x x*, Fig. 1, the fingers removed. Fig. 4 is a section, showing modification in construction of the expanding-fingers; Fig. 5, perspective of one of the fingers; Fig. 6, perspectives of end of device in Fig. 4, when closed.

This invention relates to that class of devices used as pipes, nozzles, or attachments for self-injecting or other syringes for the purpose of washing or medically treating the vagina, and more especially those having fingers or arms about a central pipe, and adapted to be expanded or contracted, as may be required; and the novelty consists in the construction and combination of the several parts, all as will now be more fully set out and explained.

In the accompanying drawings, A denotes the syringe pipe or nozzle proper, which is hollow and extends the whole length of the device, and has at its lower end the screw-thread *a*, or any other proper means to permit its attachment to any ordinary syringes, self-injecting or other. In the top end of this pipe A, as well as in the sides, near the top, are perforations *a'*. Through the perforations, when the device is in use, the water or other fluid used in the syringe will be caused to flow out in sprays or jets. Externally on this pipe A—say, at about one-third of the distance above the screw-thread *a*—is the enlargement or attachment C, fixed permanently, its upper and lower ends being inclined or conical. Upon the body of this enlargement or attachment C,

made in one piece or in sections, encircling-ring D can be moved by means of the nut E, to which it is rigidly connected by straps or rods *e*, and which can be worked up or down on the screw-threaded neck *h* of the thimble-screw H, placed on the pipe A between its attaching end *a* and the enlargement of fixed attachment C.

To or on the ring D, in any desired way, are pivoted the curved lower parts of the fingers I, between the elbow *i* and end *i'*. Thus, by turning the thimble-screw H, the nut E will be drawn downward, and this movement will cause the ends *i'* of the fingers I to slide in grooves or otherwise upon the lower incline or cone of the attachment C, toward the pipe A, while at the same time the elbows *i* will slide in grooves or otherwise, on the upper incline of C, away from A. Thus the inwardly-curved top ends of the fingers I will be stretched outward from the top of the pipe A, as now shown in Fig. 2, and afford the freest opportunity for the water or fluid escaping from the vents or holes *a'* to reach every part of the expanded vagina; or, by reversing the movement of said thimble-screw H, the ends of the said fingers can be brought down upon and fit snugly to the top end of the pipe A, as shown in Fig. 1. In this shape it can be readily inserted in or removed from the vagina. The downward movement of the ring H will be stopped by the fixed ring *h'*, or any suitable means.

It will be noted that the device can very easily be expanded or contracted when being used by turning with the fingers the screw-thimble H up or down, as the case may be. This thimble H is thus placed above and entirely out of the way of the pieces or parts connecting pipe A to the syringe proper, so that in manipulating the said thimble to move the fingers I there is no danger of disconnecting the pipe A from the syringe, which would be likely to happen were the thimble H near the point of connection.

If desired, the fingers I can be made so long that when contracted or closed their ends *i''*, which are themselves one-half inch long (more or less) and are enlarged or knobbed, will meet beyond or above the top of the pipe A, as is now shown in Fig. 4. By such form of construction the end of the fingers I will, when di-

lated, be still beyond or above the end of the pipe A, thus permitting the womb to slide or fall between them and settle on the end of the pipe. In this form of construction the circular *cul-de-sac* formed by the attachment of the vaginal walls around the neck of the womb above its mouth is exposed, and under some circumstances the very best results in treatment can be attained. The construction of the ends or tips of the fingers I, when so prolonged, is represented more in detail in Fig. 5. These ends having a generally triangular shape will, when brought together, combine to form a complete and smooth end to the device, and render introduction perfectly easy and safe. This knobbing or enlargement of the ends of fingers I will render the point formed by them all, when closed, firm; also will, when open, prevent injury or pronging into the tissues, and yet all the parts will be as perfectly adapted as ever to perform all the functions described or needed in present device. While I have now shown only four fingers as attached to the ring, it is evident that I may use as many as may be desired. The device is simple in structure, strong, and easily kept in order. This device may be readily taken apart by removing the screw-ring *o*, fixed or placed on pipe A just above end *a*, as well as ring *h'*.

The peculiar manner of hinging the fingers upon the ring D, and adjusting them to and on the double cone of the fixed part C, will insure firm and regular movements in the fingers when being opened or closed, and also to render them individually firm when in the least expanded. This feature is one of very great moment in the delicate work the instrument is designed for.

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

1. In a vaginal dilating-syringe, the combination of the following elements, viz: a central pipe having fixed upon it an enlargement, and about said enlargement having a movable ring or device, to which the lower ends of fingers are secured, and suitable mechanism for operating said fingers on the aforesaid enlargement, to expand or contract them, substantially as shown and described.

2. In a vaginal dilating-pipe, the fingers I, pivoted in their curved lower portion to ring D, and having curved ends *i'* and shoulders *i*, and combined with the enlargement C of the pipe or nozzle A, substantially as and for the purposes set forth.

3. The fingers I, knobbed or enlarged at the ends *i''*, and extending beyond the top of pipe A, and combined with it and with ring D and enlargement C, substantially as shown and described.

4. In a syringe having expansible arms, the knobbed ends *i''*, of a generally triangular shape, and adapted to match with each other when closed and form a smooth tip or end to the device beyond the central pipe, substantially as shown and described.

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

NATHAN MAYER, M. D.

Witnesses:

CHARLES W. JOHNSON,
CHAS. M. JOSLYN.