C. F. L. VULTEE.

VAGINAL SYRINGE.

APPLICATION FILED SEPT. 3, 1920.

1,383,502. Patented July 5, 1921.

Fig. 1.

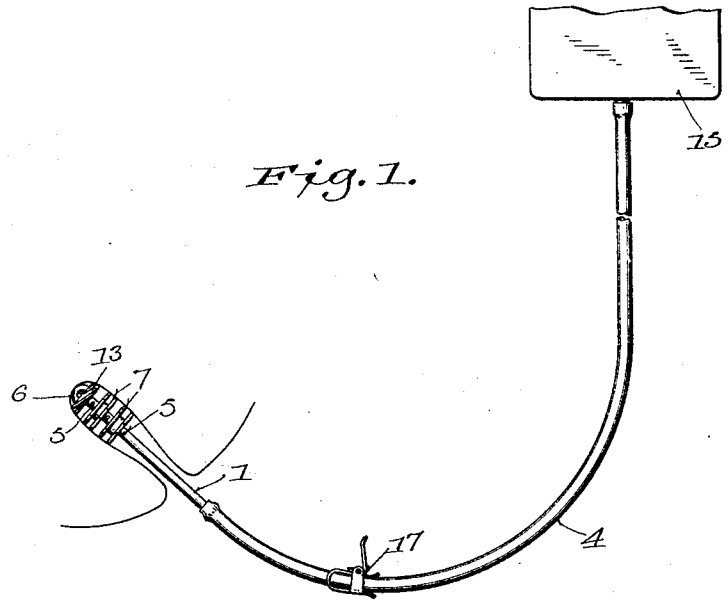


Fig. 2.

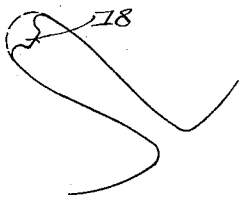


Fig. 4.

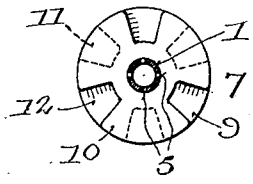
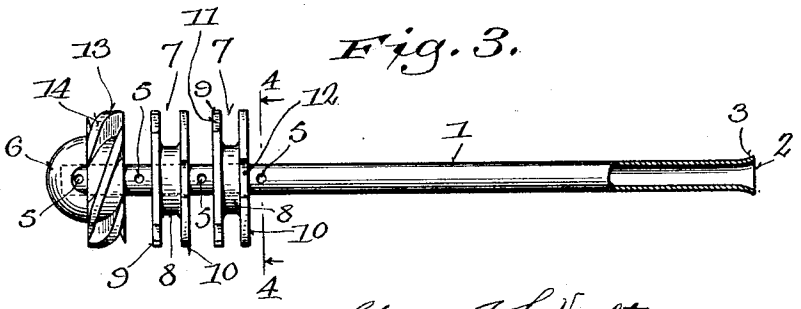


Fig. 3.



Charles F. L. Vultee INVENTOR.

BY

Erwin, Wheeler, and Woolard ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES F. L. VULTEE, OF MILWAUKEE, WISCONSIN.

VAGINAL SYRINGE.

1,383,502. Specification of Letters Patent. Patented July 5, 1921.

Application filed September 3, 1920. Serial No. 408,005.

To all whom it may concern:

Be it known that I, CHARLES F. L. VULTEE, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Vaginal Syringes, of which the following is a specification.

This invention relates to vaginal apparatus and is particularly directed to vaginal syringes.

In the treatment of leucorrhea, the whites, gonorrhea, and similar diseases, a great deal of difficulty has been encountered for two main reasons, viz; the intense pain caused by the usual methods of distending the vagina, and by the adherence to the walls of a sticky film caused partly by the mucus discharged by the diseased vagina. This is often aggravated by the combining of the medicament with this mucus, and thereby forming a practically impervious film over the diseased walls upon which it is desired the liquid shall act.

It is to overcome these defects that the present invention is designed.

Objects of this invention are to provide a vaginal syringe for the treatment of vaginal diseases, in which the usual flushing process is supplemented by a scraping or mechanical sweeping operation; to provide a nozzle for a vaginal syringe which distends the walls of the vagina to allow perfect flushing; which is so formed as to prevent injury to the delicate lining; and which insures the complete scraping of every part of the vagina including the normally folded portion adjacent the mouth of the uterus.

Other objects are to provide a nozzle which is adapted for ready insertion without danger of injury; which will distend the normally folded part of the vagina adjacent the mouth of the uterus; which has flexible piston elements having staggered openings, thereby insuring the catching retention of any harmful matter; and to provide a nozzle in which the end portion has curved vanes, which, when a slight partial rotary motion is given, will scrape the extreme end of the vagina and withdraw any harmful material that may adhere to the walls, thereby positioning such matter to the rear of one of the piston portions and insuring its withdrawal when the nozzle is withdrawn with a direct rectilinear motion.

An embodiment of the invention is shown in the accompanying drawings, in which—

Figure 1 is a view showing the device in use.

Fig. 2 is a view showing in full lines the normally folded portion of the vagina, and in dotted lines the position it assumes when the nozzle is properly applied.

Fig. 3 is a view of the nozzle detached.

Fig. 4 is a section on line 4—4 of Fig. 3.

Fig. 1 shows the nozzle inserted and the device in use. The nozzle comprises a substantially rigid tube 1 which may be made of metal, glass, hard rubber, or similar material. This tube 1 has an open rear end 2 which may be slightly flanged as shown at 3 or corrugated, to retain the connecting flexible tube 4.

Fig. 3 shows the nozzle detached, and it will be noted that the tube 1 is perforated, having a series of openings 5 arranged along its length and at various points around its periphery. This tube carries a soft rubber knob 6 at its front end, which is adapted to contact with the mouth of the uterus, and also carries a series of spaced double pistons 7 of soft rubber. These pistons have a hub portion 8 and spaced flanges 9 and 10. The flanges 9 and 10 have notches 11 and 12 respectively, arranged in staggered relation to allow the free passage therethrough of the returning liquid while insuring the catching and removal of any solid, semi-solid, or viscous matter upon the withdrawal of the nozzle.

The end of the nozzle has a piston 13 of soft rubber formed thereon, and positioned to the rear of the end knob 6. .This piston has curved vanes 14, thereby providing helical channels therethrough. It will be noted that the openings 5 are provided on each side of each piston, and that the end openings are in front of the end piston 13.

The operation of the device is as follows: after the nozzle has been connected with a bulb or a suitable supply tank 15 by means of the flexible tube 4 the stop cock 17 is opened and the nozzle inserted in the vagina. It will be noted that the medicated liquid flows freely outwardly through the holes 5, some of it in advance of each piston, the end holes being arranged in advance of the end piston 13. The nozzle is passed into the vagina until the knob 6 engages the mouth 18 of the uterus and presses it inwardly a slight distance thereby distending

the adjacent folded walls as shown in dotted lines, Fig. 2. The nozzle is also given a partial rotary motion, thereby causing the vanes 14 to scrape the end walls, and, because of their curved formation, to draw any matter adhering to these end walls rearwardly behind the end piston 13.

After the flushing operation has continued the desired length of time the nozzle is withdrawn by a direct rectilinear motion without imparting any rotary motion thereto. In this manner, all the surfaces of the vagina are freed from adhering matter, and, by causing this matter to become positioned to the rear of the pistons, such matter is completely withdrawn.

It will thus be seen that a vaginal syringe has been produced which will be effective in the treatment of vaginal diseases by insuring contact of the medicated fluid with all of the surfaces of the vagina, and by insuring the mechanical removal of harmful adhering matter.

I claim:—

1. A vaginal syringe comprising means for supplying a liquid, a nozzle attached thereto and having a perforated body and a flexible piston carried thereby, said piston having an aperture therein to allow the outward flow of said liquid.

2. A vaginal syringe comprising a tubular nozzle, a series of pistons arranged thereon, said tubular nozzle having perforations extending from the interior to the exterior and spaced along its length, and means for supplying liquid thereto.

3. A nozzle for a vaginal syringe comprising a perforated tube, and pistons arranged thereon in spaced relation.

4. A nozzle for a vaginal syringe comprising a perforated tube and flexible perforated pistons arranged thereon.

5. A nozzle for a vaginal syringe comprising a tube, flexible pistons carried thereby and arranged in spaced relation, the end piston having vanes formed thereon.

6. A vaginal syringe nozzle comprising a relatively rigid perforated tube, perforated pistons arranged thereon in pairs, the perforations in each piston being in staggered relation to its associated piston.

7. A nozzle for a vaginal syringe comprising a relatively rigid perforated tube, flexible perforated pistons arranged thereon in spaced relation, and a flexible knob formed at the outer end of the tube.

8. A vaginal syringe nozzle comprising a perforated tube, perforated flexible pistons arranged thereon in spaced relation, the end piston having helical blades formed thereon, and a flexible knob at the end of said tube.

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

CHARLES F. L. VULTEE.

Witnesses:

A. J. McKERIHAN,

V. C. WEBER.