F. A. NEVEU.

VAGINAL SYRINGE.

APPLICATION FILED DEC. 21, 1908.

930,312. Patented Aug. 3, 1909.

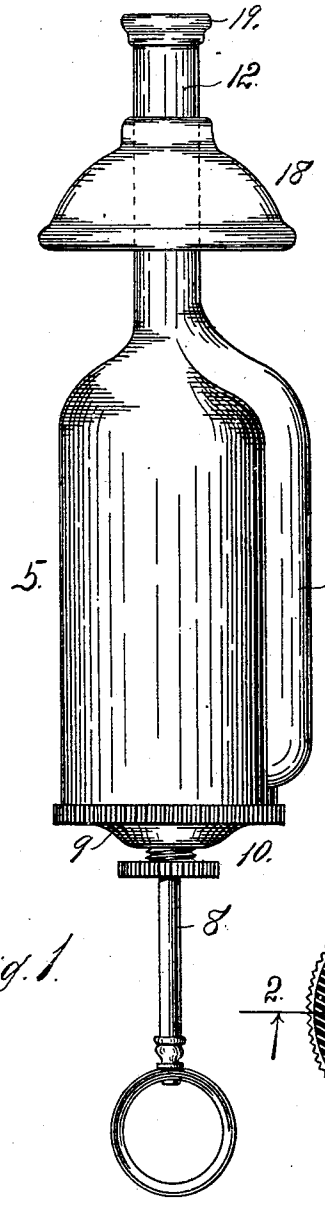

Fig. 1.

Fig. 3.

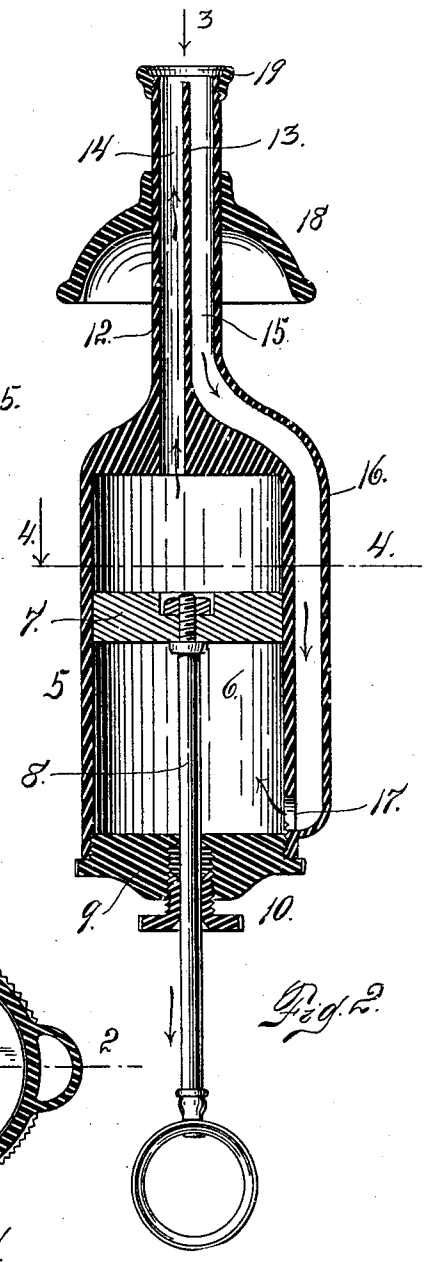

Fig. 2.

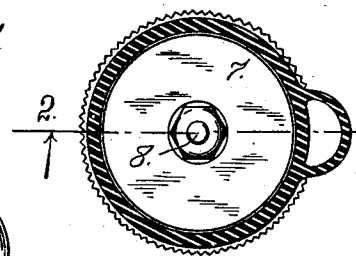

Fig. 4.

Witnesses

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VAGINAL SYRINGE.

No. 930,312. Specification of Letters Patent. Patented Aug. 3, 1909.

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To all whom it may concern:

Be it known that I, FRANK A. NEVEU, a citizen of the United States, residing at the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Vaginal Syringes; and I do 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 the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in vaginal syringes, my object being to provide a device of this character adapted to produce a continuous circulation of liquid from the parts treated to the cylinder of the syringe, and from the latter to the location of treatment.

My improved device is provided with a nozzle which is divided, one compartment of the latter being in communication, by means of an exteriorly threaded passage, with the rear extremity of the cylinder or piston chamber; while the other compartment of the nozzle is in direct communication with the forward extremity of the said chamber. By virtue of this construction, assuming that the cylinder is filled with a medicated or other liquid, as the piston or plunger is moved forwardly, the liquid is forced through one passage way of the nozzle into the cavity to be treated, while there is a circulation of the liquid from the cavity rearwardly through the other compartment of the nozzle and through the passage connected therewith, back into the cylinder in the rear of the plunger; then, as the cylinder is moved rearwardly, the liquid is caused to circulate in the opposite direction, thus keeping up a continuous circulation of the liquid in reverse directions, and always through the cavity to be treated. In order to prevent the leakage of liquid from the cavity, a device is slidably applied to the nozzle of the instrument and adjusted thereon in such a manner as to close the mouth of the cavity while the instrument is in use.

Having briefly outlined my improved construction, I will proceed to describe the same in detail, reference being made to the accompanying drawing, in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is an elevation of my improved vaginal syringe. Fig. 2 is a longitudinal section of the same taken on the line 2—2 Fig. 4, the plunger stem, however, being shown in elevation. Fig. 3 is an end view of the device looking in the direction of the arrow 3 Fig. 2. Fig. 4 is a cross section taken on the line 4—4 Fig. 2.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate the body of the instrument, which is preferably cylindrical in shape and formed hollow, whereby a chamber 6 is formed therein. In this chamber is located a piston or plunger 7, which is connected with the forward extremity of a stem 8 which passes through the cap 9 of the cylinder and a stuffing box 10 with which the cap is also provided in order to prevent the escape of liquid around the stem. This cap 9 is exteriorly threaded to engage interior threads formed upon the rear extremity of the cylinder.

The body of the instrument is equipped with a nozzle 12 divided by a longitudinal partition or septum 13 into two compartments or passages 14 and 15. The passage 14 communicates directly with the forward extremity of the chamber 6; while the passage 15 communicates with a conduit 16 formed integral with the cylinder and extending to the rear extremity thereof where it communicates, by way of an opening 17, with the rear extremity of the chamber 6. Upon the nozzle 12 is slidably mounted an inverted cup-shaped device 18, which should be composed of rubber reasonably soft, whereby it has a considerable degree of yielding capacity, so that when the instrument is in use this device will constitute a stop to prevent the escape of liquid, as heretofore indicated. The device 18 is slidably adjustable upon the nozzle, whereby it becomes practicable to insert the instrument to a greater or less distance, as desired, and still have the device 18 properly perform its function. If it is desired to insert the nozzle to its full length, the device 18 will be moved rearwardly thereon until it comes in contact with the forward extremity of the body of the instrument, while if it is desired to insert the nozzle a less distance, the device 18 will be moved forwardly on the nozzle until the latter protrudes beyond the device 18 the distance of the insertion.

When the instrument is in use it should be first filled with the liquid to be used, which

may be medicated to any desired extent, according to the purpose to be accomplished. The chamber 6 may be filled with liquid by first forcing the plunger to the forward extremity of the said chamber, and then inserting the nozzle in the liquid to be employed, and moving the plunger rearwardly, in which event the liquid will, of course, be drawn into the chamber 6 forward of the plunger. The nozzle is then inserted until the stop 18 comes in contact with the body and completely closes the passage around the nozzle. The plunger 7 will then be reciprocated within the chamber 6 by means of the stem 8. During the forward movement of the plunger the liquid contents of the chamber will be forced through the passage 14 into the vaginal cavity, and at the same time the liquid may pass rearwardly from its cavity through the passage 15 and the conduit 16 back into the chamber 6 in the rear of the plunger. Then, as the plunger is moved rearwardly, the liquid is ejected through the orifice 17, the conduit 16, and the passage 15 back into the said cavity, and thence rearwardly through the passage 14 into the chamber 6 forward of the plunger. Then, as the latter is reciprocated, it will be evident that the liquid which is used will be circulated through the cavity to be treated in reverse directions until the desired object is accomplished.

The body of the instrument is preferably composed of hard rubber, as indicated in the drawing.

The forward extremity of the nozzle is provided with a ring 19 which is threaded thereon, and forms a stop to prevent the member 18 from accidentally slipping off from the nozzle. In order to remove and apply the part 18, this ring is removed.

Having thus described my invention, what I claim is:

A vaginal syringe, comprising a chamber, a plunger therein, a relatively small nozzle extending forwardly from the chamber and longitudinally divided interiorly to form two parallel passages of uniform volume, extending the entire length of the nozzle, one of the said passages being in direct communication with the forward extremity of the chamber, the wall of the chamber having a longitudinal passage offset at its forward end to communicate with the other passage of the nozzle, the passage in the wall of the chamber having its rear extremity in communication with the corresponding extremity of the chamber, each passage of the nozzle having its forward end wide open to prevent obstruction, and means connected with the plunger and extending rearwardly from the chamber, for reciprocating the plunger for the purpose set forth.

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

FRANK A. NEVEU.

Witnesses:
A. J. O'BRIEN,
A. EBERT O'BRIEN.