

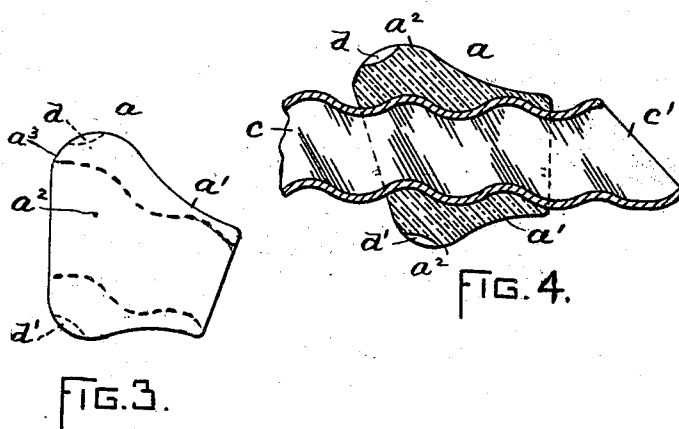
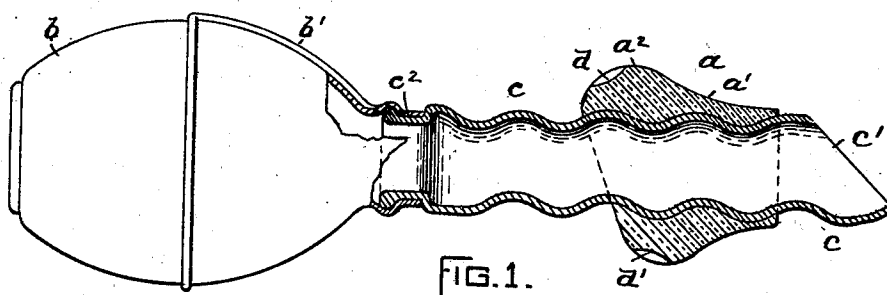
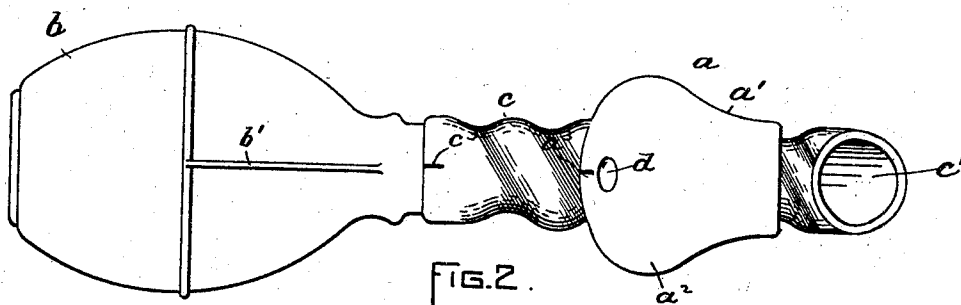
No. 696,728.

Patented Apr. 1, 1902.

R. H. EDDY.
SYRINGE.

(Application filed Oct. 3, 1901.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

RICHARD H. EDDY, OF PROVIDENCE, RHODE ISLAND.

SYRINGE.

SPECIFICATION forming part of Letters Patent No. 696,728, dated April 1, 1902.

Application filed October 3, 1901. Serial No. 77,408. (No model.)

To all whom it may concern:

Be it known that I, RICHARD H. EDDY, a citizen of the United States of America, and a resident of the city and county of Providence, in the State of Rhode Island, have invented certain new and useful Improvements in Syringes, of which the following is a specification.

My invention relates to improvements in syringes such as are particularly adapted to be employed as vaginal syringes; and it consists, essentially, of a syringe-tube of glass, rubber, or other suitable hard substance, which has a helical rib or groove on its outer surface, and a guard member mounted on the tube and arranged to be advanced along the same when one of these members is rotated relative to the other. The tube may have the usual form of bulb for injecting and withdrawing the medicament or cleansing fluid.

In the accompanying drawings, Figure 1 is a side elevation, in partial section. Fig. 2 is a top or plan view. Fig. 3 is a side view of the guard member detached. Fig. 4 is a partial longitudinal section of the guard.

Referring now to the drawings, *c* is the syringe-tube, that is made of glass, hard rubber, or other suitable material having a helical groove or rib on its outer surface, which is preferably formed, as shown in the several views, with a regular uniform undulating configuration of helical outline and with the walls of the tube of uniform thickness. The outlet end of the tube may be beveled, as at *c'*, in order to deflect the ejected fluid toward the uterus. The other end may have a bead *c''* to facilitate attachment to the usual form of bulb *b*. When the tube has the beveled end arranged to deflect the ejected fluid, the bulb may have an indicating mark or rib, as *b'*, disposed in a predetermined relation to the outlet—for instance, on the side toward which the fluid is deflected—and, if desired, the tube may have a mark *c''*, with which the rib *b'* is brought to register when the bulb is put on the tube. These marks serve to indicate the position of the beveled end when the tube has been inserted in the vaginal canal.

The guard member of the syringe is made of a resilient material, such as soft rubber. It has an axial bore whose walls engage the helical outer surface of the syringe-tube. Consequently when the guard is rotated on the tube it will be given a longitudinal movement thereon. The front portion *a'* of the guard member is substantially cone-shaped, its rear or base portion *a''* being enlarged circumferentially, and its base or rear part forms an oblique angle to the axis of the bore.

In order to provide means whereby the normal relative arrangement of the parts may be readily effected, the longest side of the guard (at the top in Fig. 1) is adapted to be placed in alinement with the upper side of the tube's outlet and with the index-marks *b'* and *c''*. The guard has a similar mark *a''* formed on its rear end, the same registering or being in alinement with the other marks, as shown in Fig. 2. The guard is also provided with upper and lower recesses *d* and *d'*, formed in its base *a''*, that are arranged to receive the tips of the thumb and a finger of the user therein, thus providing means whereby the user may hold the syringe in the proper position and at the same time may readily direct the device as desired during treatment.

The operation of the syringe is as follows: The bulb is first filled with the desired fluid and the guard is screwed out flush with the free end of the tube. Then the user takes the guard with the thumb and finger resting in the said cavities provided therefor and inserts the guard vertically in a line with the vaginal canal until the forward portion of the guard enters and engages the vulva. Thereupon the user with the other hand slowly rotates the tube while holding the guard stationary, and thus the tube is gently forced into the vaginal canal the desired distance, when the user must notice that the marks *b'* and *c''* are in alinement with the depression *d* in the rear of the guard and with the mark *a''*, thus insuring that the outlet of the tube is in proper relation to the uterus. The guard member being of soft rubber and in close contact with the tube, it will form a water-tight

joint and prevent any escape of the fluid even when the pressure of the fluid is distending the vagina and adjacent parts.

What I claim as my invention, and desire
5 to secure by Letters Patent, is—

In a syringe of the class described, the combination of a tube having a helical groove; and a guard of resilient material having a

bore arranged to engage the helical tube and be moved axially thereon when rotated.

Signed at Providence, Rhode Island, this
2d day of October, 1901.

RICHARD H. EDDY.

Witnesses:

GEO. H. REMINGTON,
JOHN W. WEEKS.