

No. 750,276.

PATENTED JAN. 26, 1904.

F. J. GRUSS.
VAGINAL SYRINGE.
APPLICATION FILED MAY 5, 1903.

NO MODEL.

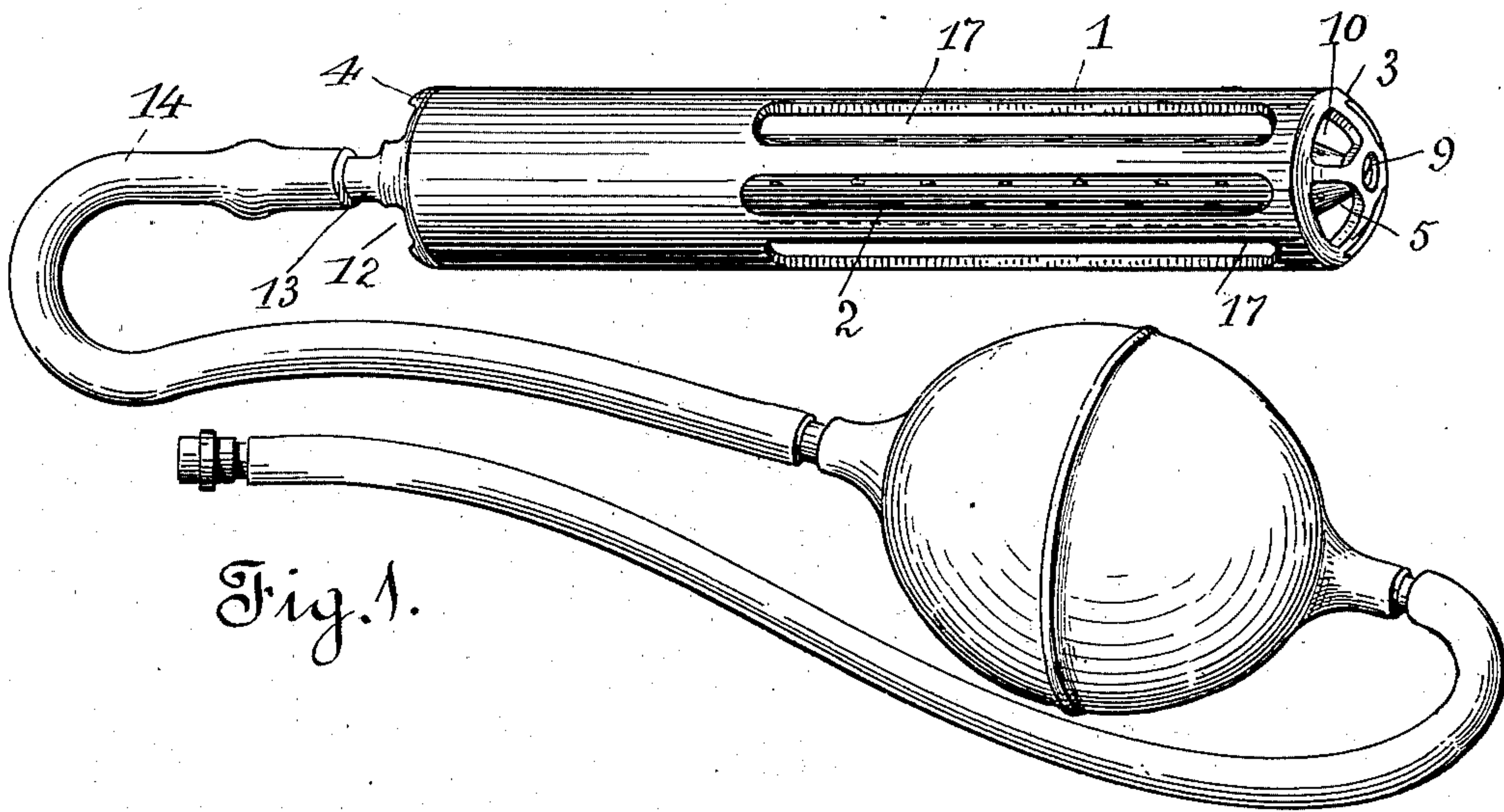


Fig. 1.

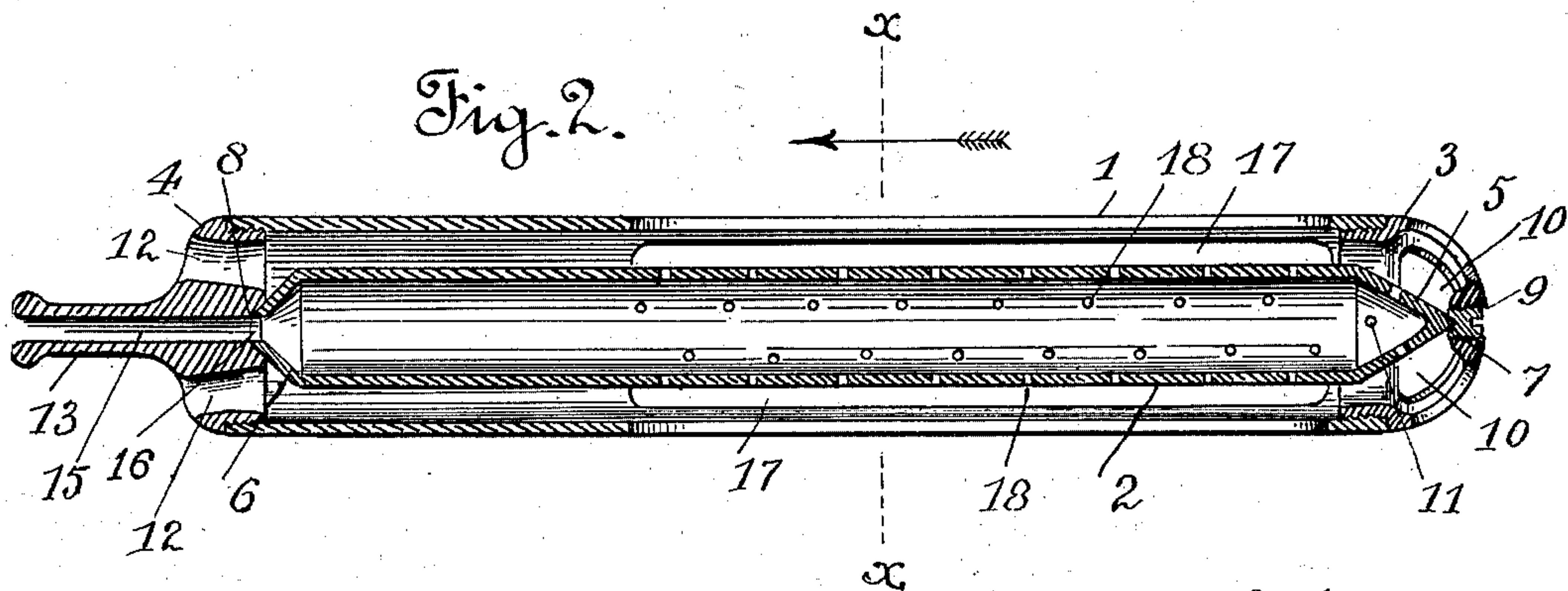


Fig. 2.

Fig. 3.

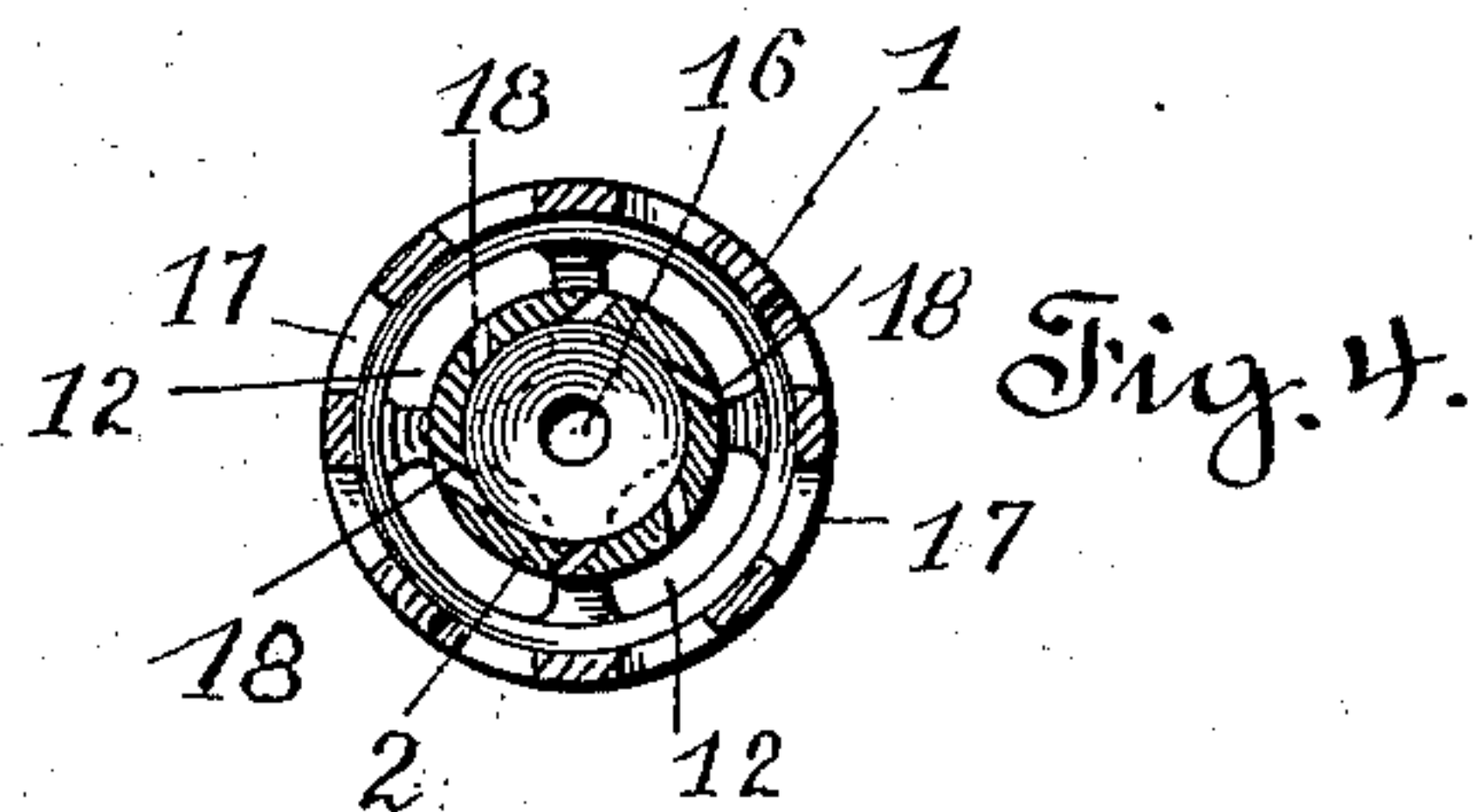
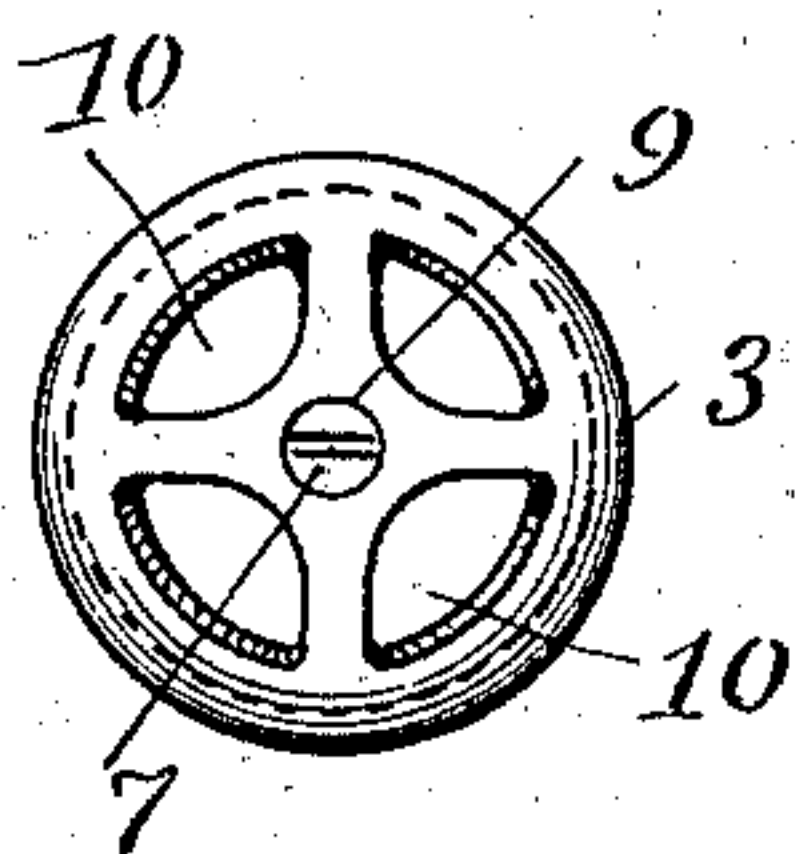


Fig. 4.

Witnesses.

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UNITED STATES PATENT OFFICE.

FRANCIS J. GRUSS, OF SAN FRANCISCO, CALIFORNIA.

VAGINAL SYRINGE.

SPECIFICATION forming part of Letters Patent No. 750,276, dated January 26, 1904.

Application filed May 5, 1903. Serial No. 155,715. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS J. GRUSS, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Vaginal Syringes; and I do hereby declare the following to be a full, clear, and exact description of the same.

The object of the present invention is the production of a syringe whereby the body of medicated fluid is discharged from a central barrel into an outer cylinder or shell and through openings in said shell or cylinder to the desired points, the discharge of the fluid being from openings in the head end of the barrel and through a series of openings or perforations in the body thereof, these latter openings or perforations being preferably so arranged that the discharges are tangential to the vertical axis of the barrel, whereby a whirling effect is given to the fluid ejected therefrom.

To comprehend the invention reference should be had to the accompanying sheet of drawings, wherein—

Figure 1 is a perspective view of the syringe. Fig. 2 is a vertical sectional view thereof. Fig. 3 is a detail plan view of head end of the outer retaining-shell or cylinder; and Fig. 4 is a cross-sectional top plan view taken on line *x x*, Fig. 2, of the drawings.

In the drawings the numeral 1 is used to indicate an outer shell or cylinder, within which is held a receiving-barrel 2. This barrel is preferably rotatably secured within the shell or cylinder 1, being held therein by the ends 3 4 of the shell or cylinder. These ends are slightly conical, the tapering ends 5 6 of the receiving-barrel resting in bearings 7 8 of the ends 3 4. The bearing-seat 7 in the head end 3 consists of a bearing-screw of German silver, which screws into a central opening 9 in the head end 3. In the head end 3 of the outer shell or casing 1 a series of outlet openings or slots 10 are formed, through which the fluid discharged from the perforations or openings 11 escape and through which the utilized fluid is permitted to run back into the said shell or cylinder, such waste or utilized fluid escaping from within the cylinder

or shell through the waste-openings 12 formed in the end 4 of the said cylinder or shell. This end 4 is formed with a coupling extension 13, which receives one end of the supply-pipe 14, the fluid being forced through said pipe by the action of any suitable means. The extension 13 is provided with a central opening 15, which communicates with the inlet-opening 16 in the lower end 6 of the barrel 2.

In the wall of the outer shell or cylinder a series of longitudinal slots or openings 17 are formed, which openings or slots preferably terminate at a point about one-third the length of the shell or cylinder from its lower end. By this construction the lower end portion of the said shell or cylinder serves as a handle for the holding of the syringe, the unbroken wall at this point answering to protect the hand of the operator from coming in contact with the waste fluid as it makes its escape.

The body portion of the barrel 2 is formed with a series of outlet openings or perforations 18, through which a portion of the liquid forced into the barrel makes its escape. These openings or perforations are preferably arranged at an inclination or tangential to the vertical axis of the barrel, so that a whirling action is imparted to the jet-streams issuing therefrom. The fluid thus discharged from the barrel escapes through the longitudinal openings in the outer shell or cylinder.

The pressure of the fluid entering the barrel will, as the jets escape through the side openings thereof, impart a rotary motion to the said barrel, thereby causing the discharged fluid to thoroughly wash the wall of the part being treated. However, the barrel may be held stationary by simply tightening the bearing-screw 7. Preference is given to free rotation of the barrel within its outer shell or cylinder.

The various parts of the syringe may be constructed of any suitable material that experience may demonstrate practical for the desired purpose.

Having thus described the invention, what is claimed as new, and desired to be protected by Letters Patent, is—

1. A vaginal syringe comprising an outer

slotted shell or casing having openings for the escape of fluid in each end, a receiving-barrel rotatably fitted within the shell or casing, said barrel having discharge-openings in its upper
5 end and in its body portion.

2. A vaginal syringe comprising an outer shell or casing, the same having a series of openings throughout a portion of its length and escape-openings for the fluid in each of its
10 ends, and a barrel rotatably secured within the outer shell or casing, said barrel having a series of outlet-openings in its upper end and in its body portion.

3. A vaginal syringe comprising an outer shell or casing having openings therein for the
15 passage of the fluid, and a barrel rotatably mounted within the outer shell or casing, said barrel having tangential outlet-openings in its body portion for the discharge of the fluid.

In witness whereof I have hereunto set my
20 hand.

FRANCIS J. GRUSS.

Witnesses:

F. B. MULGREW,
JUSTIN GATES.