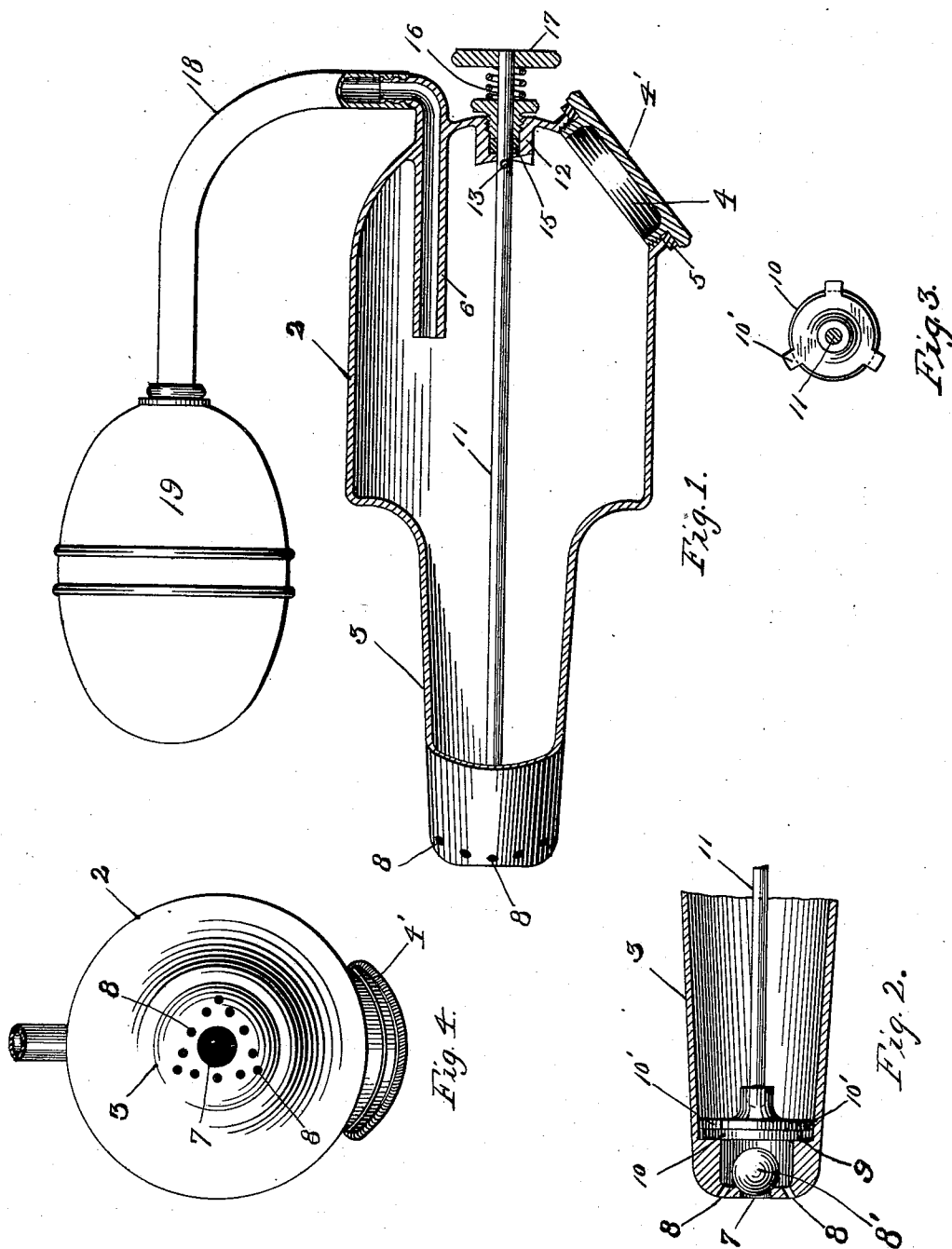


(No Model.)

W. P. SHATTUCK.
SYRINGE.

No. 565,516.

Patented Aug. 11, 1896.



Witnesses;
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UNITED STATES PATENT OFFICE.

WILLIAM P. SHATTUCK, OF MINNEAPOLIS, MINNESOTA.

SYRINGE.

SPECIFICATION forming part of Letters Patent No. 565,516, dated August 11, 1896.

Application filed October 13, 1894. Serial No. 525,850. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. SHATTUCK, of the city of Minneapolis, county of Hennepin, State of Minnesota, have invented a certain new and Improved Vaginal Syringe, of which the following is a specification.

My invention relates to vaginal syringes, and the object I have in view is to provide a neat and convenient syringe for female use which is not only adapted to act as a receptacle for the water before it is forced into the vagina, but also to receive the water and mucus as it flows back out of the vagina when the operation of syringing has been suspended.

My invention consists, further, in a valve provided in the end of the syringe that is to be inserted into the vagina, which prevents the escape of any liquid out of the syringe when not in use, and which can be quickly opened to permit the free passage of water or other liquid or closed to prevent the flow thereof without removing the syringe from the vagina.

My invention consists generally in a suitable receptacle for water or any other liquid provided with a reduced extension and connected with a bulb for forcing the liquid out of the receptacle through perforations and a central opening in the end of the extension, a valve adapted to close both the perforations and the central opening, and a loose ball arranged below the valve and adapted to close the central opening while the liquid is being forced through the perforations and to roll away and allow the liquid to flow back into the receptacle through the central opening when the operation of syringing has been suspended, all as hereinafter described, and particularly pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a side elevation of a syringe embodying my invention, the receptacle being shown in vertical section. Fig. 2 is a vertical section of a portion of the reduced extension of the receptacle, showing the valve, the central opening, and a ball covering the same. Fig. 3 is a plan view of the valve-disk. Fig. 4 is an end view of the reduced extension, showing the central opening and the perforations surrounding it.

In the drawings, 2 represents the receptacle

or main portion of the syringe, constructed of any suitable material, preferably metal, and provided with a reduced extension 3 of suitable size and shape. The receptacle is also provided with an opening 4 in its wall, and a threaded cap 4' is provided that is adapted to screw into the wall of the receptacle, covering the opening 4 therein. The cap 4' may be removed at any time when it is desired to fill or empty the receptacle, and a gasket 5 is provided under the cap 4', which prevents the escape of any of the liquid from the receptacle. Extending through the wall of the receptacle and formed integrally therewith is a pipe or tube 6, which extends into the interior of the receptacle for a considerable distance, for the purpose hereinafter described.

The reduced extension 3 is provided in its end with a central opening 7, and a series of perforations 8 are arranged around said opening, and a ball 8' is provided that is adapted to cover the opening 7. Above the perforations and the central opening and formed integrally with the interior of the reduced extension is a suitable valve-seat 9 for a disk 10, which forms a tight joint with the seat by means of suitable rings or packing between them. The disk 10 is provided with a stem 11, which extends up through the interior of the receptacle and through the end wall thereof and with the guide-lugs 10'. The end wall is provided with an inwardly-projecting stud 12, having a cam-surface on its inner end, and a pin 13 is arranged to project through the stem 11 and to travel upon the cam-surface of the stud 12 when the valve-stem is turned in either direction. A slight movement of the stem serves to open or close the valve.

A stuffing-box 15 is provided through which the stem 11 passes, and a spiral spring 16 is coiled around the stem 11 between the cap and the handle 17 on the end of the stem. The spring 16 tends to keep the valve open while the device is in use. A rubber tube 18 is provided having one end secured upon the outer end of the tube 6 and its opposite end provided with a suitable rubber bulb 19.

The operation of the device is as follows: The disk 10 is forced down upon its seat 9 by turning the handle 17 on the stem 11. The

receptacle and bulb and the pipe leading thereto are then filled with water or other liquid through the opening 4. The cap 4' is then screwed down and the reduced extension 3 inserted into the vagina. The valve is then opened and the water or other liquid forced out of the receptacle into the vagina by squeezing the bulb 19. As the liquid is forced into the end of the reduced extension 3 the ball will be driven over the central opening 7 and held in that position as long as pressure is applied to the bulb. The central opening being closed, the water or other liquid will pass out through the perforations 8 and will effectually spray the walls of the vagina. After the pressure is removed from the bulb the ball will roll away from the central opening and the liquid and mucus collected by it in the vagina will flow back into the receptacle through the central opening 7. The mucus will settle to the bottom of the receptacle, leaving the liquid around the tube 6 comparatively clear. If it is desired to use the syringe again before emptying it, the tube 6, extending into the receptacle, will enable the person operating the syringe to force the clear liquid in the top of the receptacle into the vagina without disturbing the matter which has settled to the bottom. After the liquid has all passed back into the receptacle the valve is closed and the syringe removed.

The syringe, in traveling, can be carried full of water or other liquid in a hand-bag or other receptacle, and can be used in places where an ordinary syringe could not be used. After the syringe has been used, as all of the liquid goes back into the receptacle, the syringe can be again closed and put away without emptying the liquid therefrom.

The syringe is also especially adapted for the use of invalids or persons who are so sick that any movement of the body is difficult.

Having thus described my invention, I claim as new and desire to cover by Letters Patent—

1. A syringe, comprising the main portion or receptacle, provided with a reduced extension having an opening in its end, and a series of perforations surrounding the same, means for closing said opening whereby the liquid in said receptacle may be forced out through

said perforations, a valve at the outer end of said extension and arranged to be within the vagina when the syringe is in use, and means for opening or closing the same after insertion to permit the use of said syringe or to prevent the accumulated liquid from running out of said extension while said syringe is being removed, substantially as described.

2. A syringe, comprising a receptacle 2 having an extension 3 provided at its outer end with a central opening, and having a series of perforations surrounding the same, a ball adapted to close said central opening, while the liquid is being forced through said perforations, and to roll away to permit the liquid to flow back into said receptacle through said opening, a valve 10 arranged at the extreme outer end of said extension, and means for opening or closing said valve after insertion to permit the use of said syringe or to prevent the accumulated liquid from running out of said extension while said syringe is being removed, substantially as described.

3. In a vaginal syringe, the combination with a suitable end or nozzle provided with a central opening, and a series of perforations arranged around said opening, and means for forcing liquid through said perforations, of a valve for closing said opening, and a ball arranged to close said central opening while the liquid is being ejected through said perforations, and to move away and allow the liquid to flow back through said central opening, substantially as described and for the purpose set forth.

4. A syringe, comprising the main portion or receptacle, provided with a reduced extension 3 having an opening in its end, a valve arranged at the outer end of the extension to close said opening, and means for opening the valve after insertion to permit the use of said syringe, and for closing the valve after use to prevent the liquid that has accumulated in the extension from running out while the syringe is being removed.

In testimony whereof I have hereunto set my hand this 10th day of July, A. D. 1894.

WILLIAM P. SHATTUCK.

In presence of—

A. C. PAUL,

FREDERICK S. LYON.