

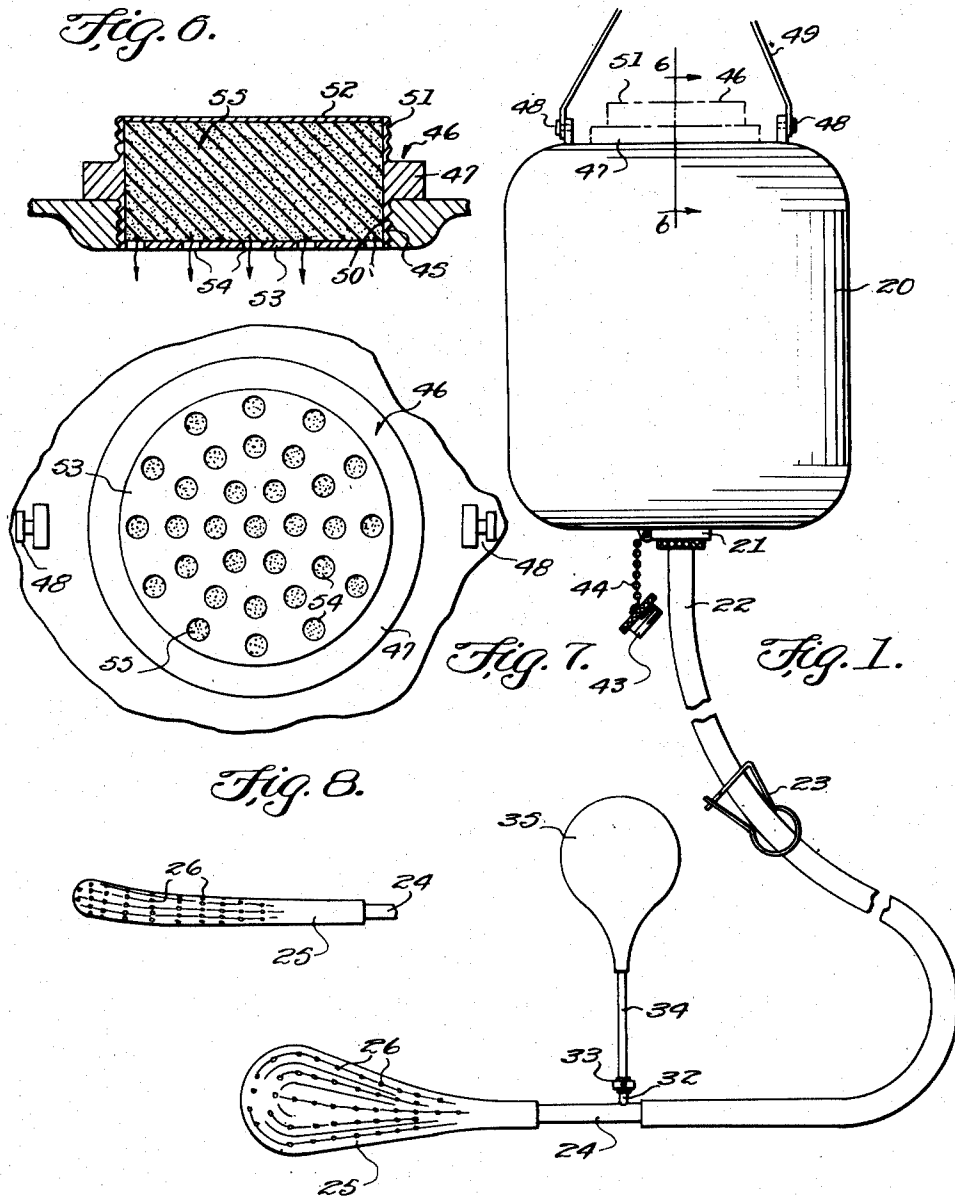
Sept. 1, 1953

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SYRINGE

2,650,592

Filed Nov. 27, 1951

2 Sheets-Sheet 1



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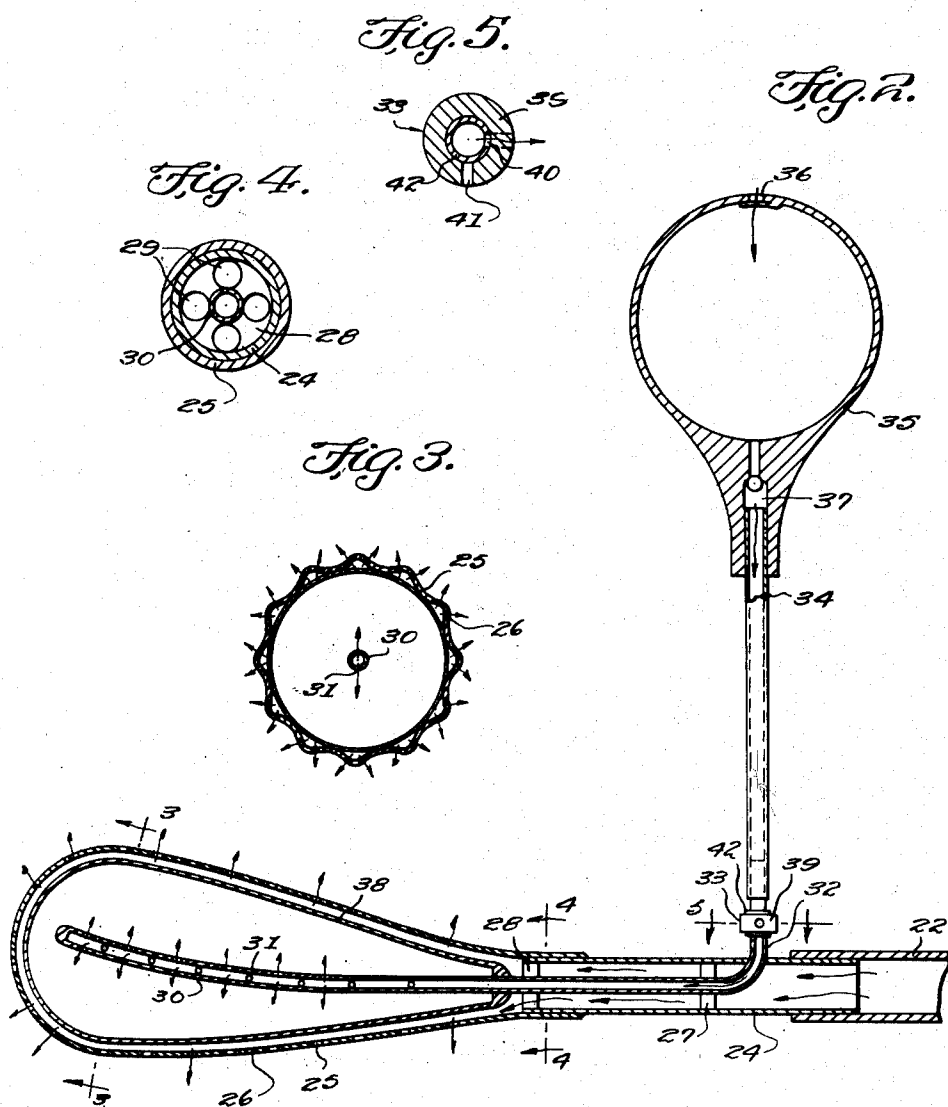
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UNITED STATES PATENT OFFICE

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Application November 27, 1951, Serial No. 258,313

2 Claims. (Cl. 128—227)

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This invention relates to a syringe, and more particularly to a syringe for use in washing and disinfecting the vagina.

The object of the invention is to provide a syringe having a nozzle which is adapted to be inserted in the vaginal canal in a collapsed state and then inflated so that liquid introduced through the nozzle will thoroughly wash and disinfect the organ.

Another object of the invention is to provide a vaginal syringe which includes a water container or bag that can be detached from the connecting hose so that the container or bag can be used to hold ice water or hot water, or the container or bag can be used as a storage receptacle for the nozzle, bulb and connecting hose when the syringe is not being used.

A further object of the invention is to provide a syringe which is extremely simple and inexpensive to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this application, in which like numerals are used to designate like parts throughout the same:

Figure 1 is a side elevational view of the syringe of the present invention;

Figure 2 is a fragmentary enlarged sectional view showing certain constructional details of the syringe and bulb;

Figure 3 is a sectional view taken on the line 3—3 of Figure 2;

Figure 4 is a sectional view taken on the line 4—4 of Figure 2;

Figure 5 is a sectional view taken on the line 5—5 of Figure 2;

Figure 6 is a vertical sectional view taken through the cap;

Figure 7 is a top plan view of the cap in reversed position from that shown in Figure 6;

Figure 8 is an elevational view of the nozzle in collapsed position, as when it is to be inserted in the vaginal canal.

Referring in detail to the drawings, the numeral 20 designates a container or bag which is adapted to hold water, and a bushing 21 is arranged in the bottom of the container or bag 20, Figure 1. Detachably connected to the bushing 21 is a flexible connecting hose 22 which has a clamp 23 arranged in engagement therewith. By adjusting the clamp 23, the flow of fluid through the flexible connecting hose 22 can be controlled or completely stopped if desired.

A sleeve 24 is connected to the other end of the flexible connecting hose 22, Figure 2, and an in-

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flatable nozzle 25 is mounted over the other end of the sleeve 24, the nozzle 25 being fabricated of any suitable material, such as flexible rubber. The nozzle 25 is provided with a plurality of openings or holes 26, so that fluid, such as warm water, can thoroughly wash and disinfect the vagina when the syringe of the present invention is being used. A pair of collars 27 and 28 are mounted in the sleeve 24, and these collars are provided with openings 29, Figure 4, so that fluid can pass therethrough and into the nozzle 25.

A tube 30 is provided with a perforated end 31, and the tube 30 is further provided with a transverse portion 32 that extends through the side of the sleeve 24. A manually operable valve 33 is connected to the transverse end 32 of the tube 30, and a pipe or hose 34 is connected to the valve 33. A conventional bulb 35 is connected to the pipe 34, the bulb 35 being provided with valves 36 and 37 which permit atmospheric air to be drawn into the bulb 35 while trapping the same against escape. By compressing the bulb 35, air can be forced through the pipe 34, then through the valve 33, then through the tube 30 and into the interior of an inflatable element 38. Thus, the nozzle 25 is inserted into the vagina while in the collapsed state shown in Figure 8, after which the bulb 35 is actuated to expand the inflatable element 38, whereby the parts will move to the position shown in Figures 2 and 3, so that the organ can be thoroughly washed and disinfected. The manually operable valve 33 includes a collar 39 that is provided with a bore 41, and by rotating the collar 39, the bore 41 can be moved into and out of registry with a port 40 that is arranged in a conduit 42, the conduit 42 being connected to the pipe 34 and to the tube 30. Further, it will be seen in Figure 3 that the nozzle 25 is corrugated so that the fluid will be sprayed out of the openings 26 in different directions.

A chain 44 dependently supports or connects a closure plug 43 to the bottom of the container or bag 20, and the closure plug 43 is adapted to be arranged in threaded engagement with the bushing 21 when the syringe is not being used, so that the container or bag 20 can be used for holding ice water, hot water and the like. In other words, by disconnecting the flexible connecting hose 22, the closure plug 43 can be arranged in engagement with the bushing 21.

There is further provided in the upper end of the container or bag 20 an interiorly threaded opening or neck 45, Figures 6 and 7, and a cap 46 is arranged in threaded engagement with the

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neck 45. The cap 46 includes an annular flange 47 and a pair of diametrically opposed headed pins 48 have a cable 49 connected thereto, whereby the container or bag 20 can be conveniently supported in the bathroom or other locality. The cap 46 further includes a first exteriorly threaded portion 50 and a second exteriorly threaded portion 51. Either one of the threaded portions 50 or 51 are adapted to be arranged in engagement with the threaded neck 45. A plate 52 closes one end of the cap 46, while a plate or wall 53 closes the other end of the cap 46. The plate 53 may be provided with a plurality of openings or holes 54, so that a suitable disinfectant 55, which is arranged in the cap 46, may drain through the openings 54 and into the container or bag 20. This disinfectant 55 may be used for disinfecting the container or bag when the container or bag is stored away.

In use, the container or bag 20 can be suspended from a nail or other supporting member by means of the cable 49, and then the nozzle 25 can be inserted in the vaginal canal in a collapsed state, as shown in Figure 8. Then, air is introduced into the syringe by means of the bulb 35 which is actuated to force air through the pipe 34, then through the valve 33, then through the tube 30 and out through the openings or perforations 31. This incoming air causes the inner inflatable element 38 to expand to the position shown in Figures 2 and 3, whereby the nozzle 25 will also be expanded. Then, the clamp 23 can be adjusted so as to permit fluid to flow from the container or bag 20 down through the flexible connecting hose 22 by gravity, and this fluid will then enter the nozzle 25 through the sleeve 24. This fluid will be emitted or ejected out through the openings 26 in the nozzle 25 to thereby disinfect and thoroughly wash the vagina or organ. When the nozzle is to be removed from the vagina, the valve 33 can be rotated so as to permit air to bleed out of the inflatable element 38, whereby the element 38 and nozzle 25 will collapse. The water in the container may have a suitable disinfecting solution intermixed therewith.

By placing the nozzle 25 in the vagina in the collapsed state, as shown in Figure 8, and then inflating the inner element 38, the expanded nozzle 25 will smoothly engage and uniformly engage the wall of the vagina with sufficient force to straighten out all of the folds in the vagina. Then, when the liquid is permitted to flow through the openings 26, this liquid will contact the wall of the vaginal cavity to carry out all foreign matter out of the organ, leaving the organ in a perfectly clean condition. When the nozzle is to be removed, air is permitted to escape from the inner element 38 so that the nozzle will be in a collapsed state.

The container or bag 20 can be used for holding water when the device is being used as a syringe, and when the syringe is not being used, the container or bag 20 can be used to hold ice or warm water. Further, by disassembling the syringe, that is, by disconnecting the flexible connecting hose 22 from the bushing 21, the cap 46 can be removed and the various parts can be conveniently stored in the container or bag 20. The connecting hose 22 may be made of flexible

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rubber and the cap 46 may be arranged as shown in Figure 7 when the container or bag 20 is being used for storing ice water, hot water or for storing the various parts of the syringe. By means of the bulb 35, the nozzle 25 can be expanded to the normal size and shape of the vagina, thereby permitting a more thorough cleansing of the otherwise closed creases of the vaginal wall. Further, an even spray of water or disinfectant solution takes places through the holes 26 in the corrugated rubber nozzle 25, and since the various parts, such as the nozzle 25, are made of rubber, the woman's internal organs will not be hurt or irritated, and further, the syringe is not dangerous to handle and will not corrode. Further, the syringe will adapt itself to individual shapes of the vagina. The tube 30 may be made of a rigid plastic material, and the valves 33 can be set so that air will be retained in the element 38. The corrugated nozzle 25 with the perforations or openings 26 insure that the fluid gets into all of the creases of the vagina and then leaves through the valleys of the corrugated nozzle 25. The inner element 38 may be made of thin rubber, while the nozzle 25 may be made of corrugated rubber material of slightly greater rigidity.

What is claimed is:

1. In a vaginal syringe, a container provided with an interiorly threaded neck, a cap arranged in threaded engagement with said neck, a cable for supporting said container, a hose connected to the bottom of said container, a clamp arranged in engagement with said hose, a cylindrical sleeve connected to said hose, an inflatable corrugated nozzle mounted on said sleeve and provided with a plurality of spaced openings, a tube having one end perforated and its other end projecting through said sleeve, a manually operable valve connected to the projecting end of said tube, an air bulb connected to said valve, and an inflatable element arranged over the perforated end of said tube and positioned in said body.

2. In a vaginal syringe, a container provided with an interiorly threaded neck, a cap arranged in threaded engagement with said neck, a cable for supporting said container, a hose connected to the bottom of said container, a clamp arranged in engagement with said hose, a cylindrical sleeve connected to said hose, an inflatable corrugated nozzle mounted on said sleeve and provided with a plurality of spaced openings, a tube having one end perforated and its other end projecting through said sleeve, a manually operable valve connected to the projecting end of said tube, an air bulb connected to said valve, an inflatable element arranged over the perforated end of said tube and positioned in said body, and a closure plug dependently supported by said container.

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