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VAGINAL SYRINGE

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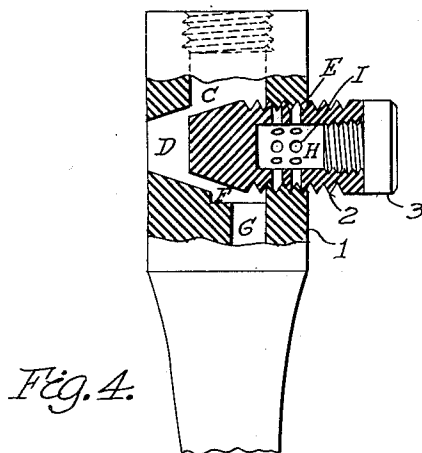


Fig. 4.

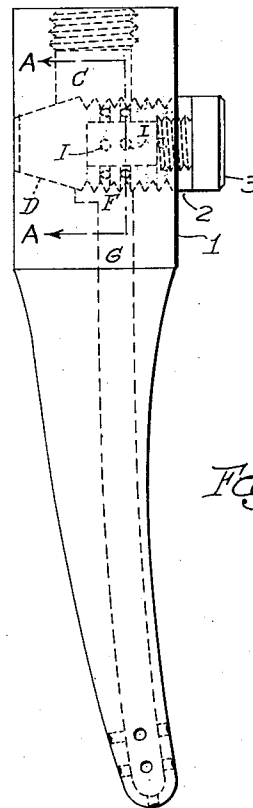


Fig. 2.

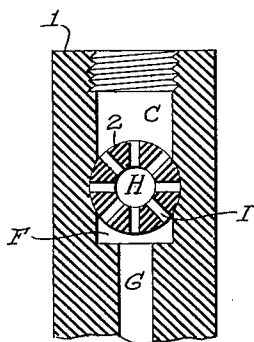


Fig. 3.

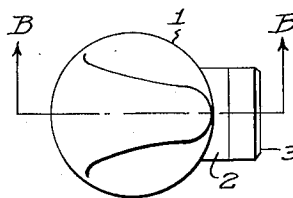


Fig. 1.

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VAGINAL SYRINGE

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5 Claims. (Cl. 128—229)

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This invention relates to syringes and in particular, to vaginal syringes.

One object of this invention is to provide a vaginal syringe which will cause the water passing through it to become impregnated with a deodorant, disinfectant or other medicament and which, at the same time, will permit the user to by-pass a portion of the water in order to test the temperature and regulate the pressure thereof.

Another object is to provide a vaginal syringe of the foregoing character wherein a hollow perforated valve member serves not only to contain the deodorant, disinfectant or other medicament, but also serves to control the opening of an overflow hole through which a portion of the water is by-passed to thereby regulate the pressure discharged through the nozzle of the syringe.

Another object is to provide a vaginal syringe of the foregoing character wherein the valve member is movable into and out of a chamber in the syringe and at the same time moves into or out of the overflow hole so that the perforations in the hollow valve member are closed off from communication with the water while the water is being discharged through the overflow hole.

In the drawings:

Figure 1 is an end elevation of a vaginal syringe, according to a preferred form of the invention, with the cup screw in position to close the water overflow hole and fully open communication with the medicament chamber;

Figure 2 is a side elevation of the vaginal syringe shown in Figure 1;

Figure 3 is a horizontal section through the vaginal syringe shown in Figures 1 and 2, taken along the line A—A in Figure 2; and

Figure 4 is a fragmentary central longitudinal section through the rearward portion of the vaginal syringe shown in Figure 2, taken along the line B—B in Figure 1, but with the cup screw in position to open the water overflow hole and close off communication with the medicament chamber.

Referring to the drawings in detail, Figures 1, 2 and 4 show the vaginal syringe of this invention as consisting generally of three parts, namely a hollow main body 1, a hollow cup screw 2 threaded transversely into the main body 1, and a threaded retainer or plug 3 threaded into the hollow cup screw 2. The main body 1 is provided with a longitudinal service inlet chamber or reservoir C (Figures 3 and 4) which at its left-hand end is tapped or threaded for connection to a source of water under pressure. At its right-hand end, the reservoir C passes into a restricted

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chamber F forming a service outlet chamber (Figures 3 and 4) and this in turn opens into a nozzle passageway G forming a service outlet.

The main body 1 is bored transversely to provide on one side of the reservoir C a tapered overflow hole D and on the other side a tapped or threaded hole or bore E adapted to receive the threaded cup screw 2. The lower end of the cup screw 2 is tapered to conform to the taper of the overflow hole D. The cup screw 2 is also bored to provide a mixing cup or medicament chamber H (Figure 4) which at its upper end is threaded to receive the threaded shank of the retainer 3. The cup screw 2 at approximately its mid-portion is pierced by service outlet holes or ports I extending between the reservoir C and service outlet chamber F on the one hand and the mixing cup or chamber H on the other and forming an auxiliary passageway interconnecting the body and nozzle passageway portions C and G. The holes I are so positioned that when the cup screw 2 is screwed completely down into the overflow hole D so as to close the latter, the holes I are fully in communication with the reservoir C (Figure 2), but when the cup screw 2 is unscrewed a sufficient distance (Figure 4), the holes I are closed off from communication with the reservoir D.

In the operation of the invention, the threaded portion of the reservoir C (Figure 3) is connected, as by a hose, or rubber tube, to a water faucet or other source of water under pressure (not shown). The user then unscrews the cup screw 2 partway out of the threaded hole E so that its tapered lower end moves out of the tapered overflow hole D (Figure 4), thereby opening up the overflow hole D. The retainer 3 is then unscrewed and removed from the upper end of the cup chamber H, compressed chemicals, disinfectants, deodorants or other medicaments are placed in the chamber H, and the retainer 3 is then screwed back into the tapped upper end of the chamber H.

The water is then turned on by opening the faucet or other source, permitting the water under pressure to flow into the inlet chamber or reservoir C and thence outward through the now open overflow hole D (Figure 4). The water is thus by-passed while the user tests the temperature with the finger and adjusts the faucets or faucet until the proper temperature is obtained. The user then screws the cup screw 2 slowly into the main body 1, gradually closing the overflow hole D and causing the holes I to come into communication with the chambers C and F. At the same time, the pressure of the water causes it to flow through the holes I into the chamber H, dis-

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solving some of the medicament and passing outward through the opposite holes I into the service outlet chamber F and thence through the service outlet G to the nozzle orifices. By screwing the cup screw 2 inward or outward, the proportion of the water by-passed through the overflow hole D determines the pressure of the medicament impregnated water which is discharged through the service outlet G and the nozzle orifices.

Thus, by screwing the cup screw 2 inward or outward, the desired pressure may easily and accurately be obtained in the water discharged through the service outlet G and nozzle orifices, the remainder of the water being by-passed through the tapered overflow hole D. The cup screw 2 thereby serves as a combination overflow, pressure-regulating and mixing valve which, by being screwed inward or outward in the threaded bore E, regulates the pressure at the nozzle.

When the user has temporarily finished with the syringe, but possibly desires to use it further, the cup screw 2 is unscrewed still further until it occupies the position shown in Figure 4, with the holes I covered by the side walls of the main body 1. Communication is thereby terminated between the reservoir C and medicament chamber H, so that none of the medicament is dissolved. At the same time, however, the water flows freely out of the overflow hole D without being impregnated with the medicament and therefore without wasting the latter.

I claim:

1. A vaginal syringe comprising a body having an elongated nozzle projecting therefrom, said body and nozzle having a main longitudinal liquid passageway therethrough and a by-pass orifice extending through the side wall of said body from said main passageway, and a hollow valve member mounted within said body and movable into and out of closing relationship with said orifice and also into and out of at least partial closing relationship with said main passageway, said valve member having a medicament chamber therein and ports through the wall of said hollow valve member forming an auxiliary passageway extending through said medicament chamber and interconnecting the body and nozzle portions of said main passageway.

2. A vaginal syringe comprising a body having an elongated nozzle projecting therefrom, said body and nozzle having a longitudinal liquid passageway therethrough and a by-pass orifice extending through the side wall of said body from said passageway, and a hollow valve member mounted within said body and movable into and out of closing relationship with said orifice, said valve member having a medicament chamber therein with a port extending therefrom into said passageway, said body having a threaded bore therein and said valve member having a threaded portion threaded into said bore.

3. A vaginal syringe comprising a body having an elongated nozzle projecting therefrom, said body and nozzle having a longitudinal liquid pas-

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sageway therethrough and a by-pass orifice extending through the side wall of said body from said passageway, and a hollow valve member, mounted within said body and movable into and out of closing relationship with said orifice, said valve member having a medicament chamber therein with a port extending therefrom into said passageway, said body having a threaded bore therein aligned with said orifice, said orifice being tapered, and said valve member having a threaded portion threaded into said bore and a tapered portion mating with said tapered orifice.

4. A vaginal syringe comprising a body having an elongated nozzle projecting therefrom, said body and nozzle having a main longitudinal liquid passageway therethrough and a by-pass orifice extending through the side wall of said body from said main passageway, and a hollow valve member mounted within said body and movable into and out of closing relationship with said orifice and also into and out of at least partial closing relationship with said main passageway, said valve member having a medicament chamber therein and ports through the wall of said hollow valve member forming an auxiliary passageway extending through said medicament chamber and interconnecting the body and nozzle portions of said main passageway, said body in one position of said valve member being arranged to close said ports while opening said orifice.

5. A vaginal syringe comprising a body having an elongated nozzle projecting therefrom, said body and nozzle having a main longitudinal liquid passageway therethrough and a by-pass orifice extending through the side wall of said body from said main passageway, and a hollow valve member mounted within said body and movable into and out of closing relationship with said orifice and also into and out of at least partial closing relationship with said main passageway, said valve member having a medicament chamber therein and ports through the wall of said hollow valve member forming an auxiliary passageway extending through said medicament chamber and interconnecting the body and nozzle portions of said main passageway, said body in one position of said valve member being arranged to close said ports while opening said orifice and in another position of said valve member to open said ports while closing said orifice.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
964,730	Ackerman	July 19, 1910
1,163,471	Schramm	Dec. 7, 1915
1,338,710	Szyperski	May 4, 1920
1,606,366	Hillman	Nov. 9, 1926
1,692,047	Moore	Nov. 20, 1928