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SANITARY SYRINGE

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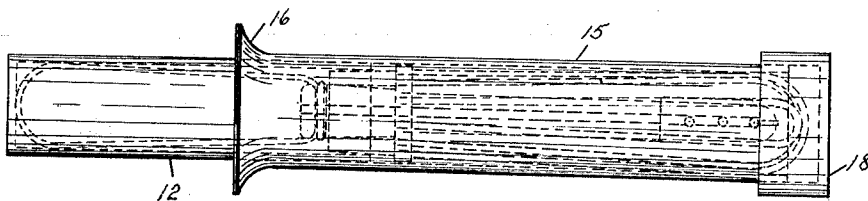


FIG. 1.

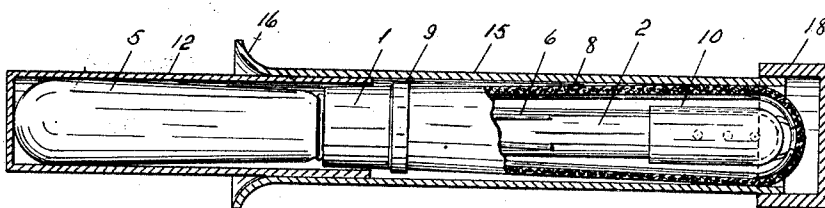


FIG. 2.

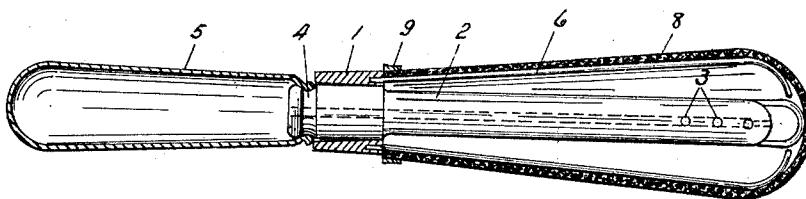


FIG. 3.

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SANITARY SYRINGE

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The present invention relates to the construction of sanitary syringes or the like, such as are usually for the treatment and medication of the vagina and adjacent organs.

5 The object of the invention is to improve upon structures heretofore designed for the same or similar purpose and to secure a more thorough and effective treatment of the organs than with prior devices. It is also an
10 object of the invention to provide a device of this character which may be easily inserted and expanded after insertion so as to effectively reach all parts of the passage. It is also an object to provide a device of this character in which the solution, with which the
15 apparatus is to be used, can be readily and safely transported without danger of leakage or loss from evaporation.

These and other objects will be accomplished and secured by the invention set forth and described herein, it being understood that while the disclosure and description are specific to enable those skilled in this art to understand the same, it is by no means limited to exact conformity to such details and
25 may be modified within the scope of the invention as set forth in the claims.

In the drawings, in which the preferred form of the invention is shown:

30 Figure 1 is a side elevation of the completed device assembled, as, for example, in carrying the same;

Figure 2 is a similar view, parts thereof being shown in section; and

35 Figure 3 is a sectional view with the outer casing removed as ready for use.

The device, except as stated, is preferably made from a high-grade hard rubber compound, such as is usually employed in the
40 manufacture of medical appliances. It consists of a ring or plug 1 of rubber or metal in which is frictionally held the nozzle 2 of a syringe, the outer end of which is formed with openings or discharge ports 3. The
45 parts 1 and 2 are held together by the frictional contact of the inner end of the syringe with the surface of the ring, but the parts may be readily separated for cleaning and
50 for filling. The inner end of the nozzle is

provided with a bead or groove 4 to which is fitted a soft rubber bulb 5.

Secured in the ring 1 is an expansible frame or core preferably consisting of a plurality of outwardly extending wire spring members 6, which are preferably formed as loops and, when relieved of any holding force, expand out to a sufficient extent to expand the vagina. About these spring members is secured a sponge rubber cap or swab 8 which fits over the springs and is held in position near the ring by a clamping band or ring 9. This sponge rubber cap is of the ordinary material of this nature and is highly absorbent, the small cells or passages in the sponge rubber being open sufficiently to permit the passage of the medicant through the sponge rubber and to permit absorption by the sponge from the surrounding parts.

In order to permit the apparatus to be filled and carried when not in use, a removable cap 10 is placed over the end of the nozzle 2. For the same purpose a tubular cover 12 is placed over the bulb 5 which fits the ring 1. A tubular sheath 15 is provided to cover the spring 8 and to fit over the cover 12, this sheath having a flaring mouth 16 to fit against the body. This sheath is of such dimensions as to readily be inserted and will hold the spring members compressed. A removable cap 18 is fitted over the outer end of the sheath.

When the device is to be used, the syringe and its bulb and the cap 10 are removed and the syringe is filled. The cap 10 is applied and the cover 12, sheath 15 and cap 18 are assembled, as shown in Figure 1, the sheath compressing the spring members and the sponge rubber cover. To use the device, the cap 18 is removed and the syringe inserted while still within the sheath. The sheath is then removed by withdrawing over the cover 12, which causes the spring members to expand. The cover 12 is then removed and by pressing upon the bulb, the contents of the bulb are forced into the sponge rubber. The sponge may then be rotated within the passage, thoroughly cleansing and medicating the tissues. The device may then be removed and separated for cleaning and re-use. The

steps set forth may be varied slightly in their order, but the advantages of the invention retained.

It will be seen that there is provided an extremely efficient apparatus for the purposes set forth. The device is compact and effective.

What is claimed is:

1. A device for the uses and purposes set forth, comprising a syringe having a nozzle and a compressible bulb thereon, an expandable frame over the nozzle, an absorbent cap over the frame, and a sheath over the cap, said sheath retaining the frame and cap compressed but removable from the nozzle after insertion of the frame.
2. A device for the uses and purposes set forth, comprising a syringe having a nozzle and a compressible bulb, a cover over the bulb but removable therefrom, an expandable frame surrounding the nozzle, an absorbent cap over the frame, and a sheath over the cap, said sheath retaining the frame and cap in compressed condition but removable over the cover after insertion of the frame.
3. A device of the class described, comprising a syringe, a nozzle on said syringe, a porous absorbent cap over the nozzle, means to expand the cap, and a sheath over the cap to retain the same in compressed condition during insertion but removable thereafter to permit expansion of the said means.
4. A device of the class described, comprising a syringe, a nozzle on said syringe, a porous expandable and absorbent cap over the nozzle, an expanding device within the cap, and a sheath over the cap, said sheath being removable endwise of the syringe after insertion.
5. A device of the class described, comprising a syringe, a nozzle in said syringe, a porous expandable and absorbent cap over the nozzle, an expanding device within the cap, and a sheath over the cap, the internal diameter of which is smaller than the cap, said sheath being removable endwise of the syringe after insertion to thereby permit the expansion of the cap.
6. In a device for the purposes set forth, a syringe, a nozzle on said syringe, an absorbent sponge-like cap over the nozzle, and a sheath over the cap, said sheath being removable endwise of the syringe after insertion.
7. In a device for the purposes set forth, a syringe, a nozzle on said syringe, an absorbent sponge-like cap over the nozzle, a rigid sheath over the cap, said sheath being removable endwise of the syringe after insertion, a compressible bulb on the syringe, and a cover over the bulb.
8. A device of the character set forth, comprising a syringe having a nozzle and a compressible bulb, a frame surrounding the nozzle, an absorbent sponge on the frame, and a

sheath surrounding the sponge, said sheath being removable endwise over the bulb after insertion.

9. A syringe, comprising a ring, an expandable wire frame on the ring, a nozzle seated in the ring and extending into the frame, a swab on the frame, and means to hold the frame in compressed position until after insertion.

10. A syringe, comprising a ring, an expandable wire frame on the ring, a nozzle seated in the ring and extending into the frame, a porous, absorbent swab on the frame, and means to hold the frame in compressed position until after insertion, said means consisting of a tubular sheath fitting over the ring but removable therefrom.

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