Jan. 19, 1932. C. V. GALAZIN 1,841,406

SYRINGE

Filed May 6, 1931

Fig. 1.

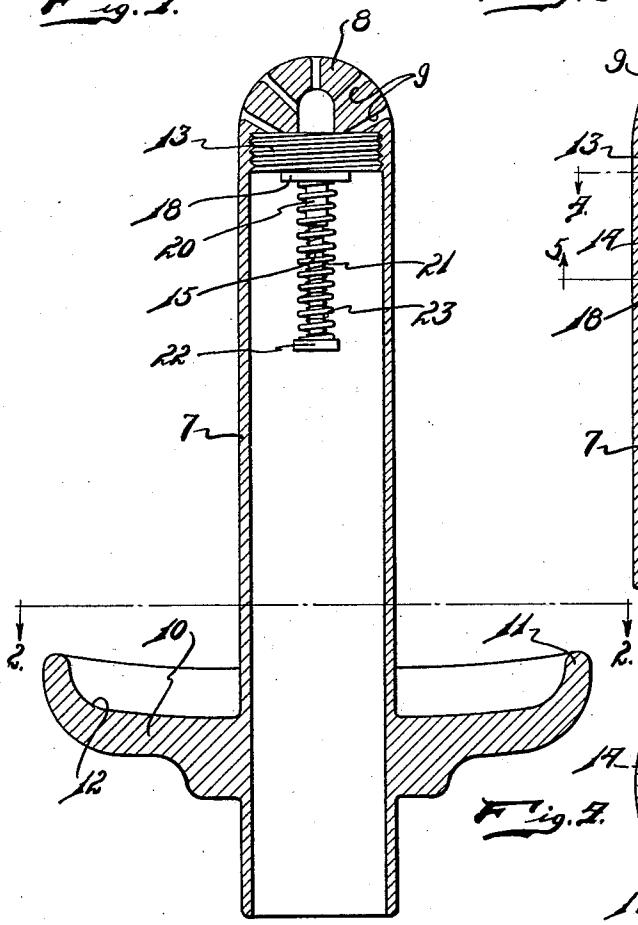


Fig. 3.

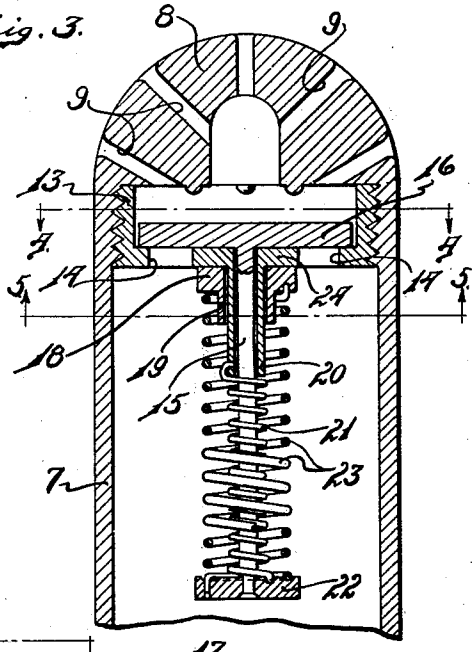


Fig. 4.

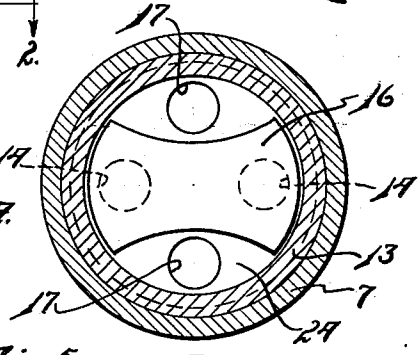


Fig. 2.

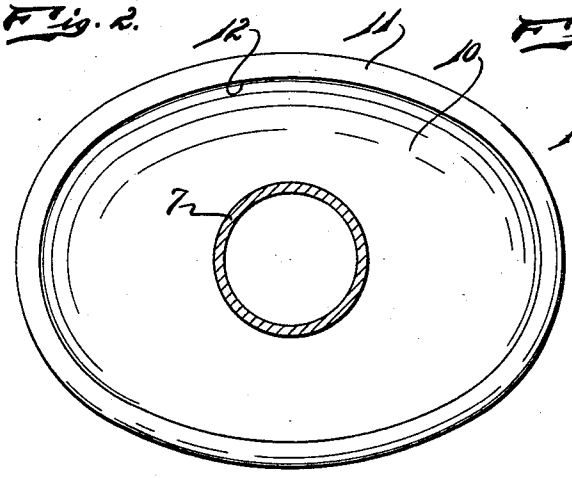
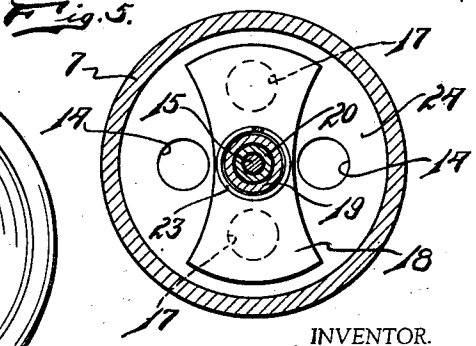


Fig. 5.



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UNITED STATES PATENT OFFICE

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SYRINGE

Application filed May 6, 1931. Serial No. 535,450.

My invention relates to a new and useful improvement in a syringe and particularly a syringe of the vaginal type.

It is an object of the present invention to provide a syringe so arranged and constructed that the user may while using the syringe seal, with the syringe, the vagina from leaking so that it becomes possible for the user to fill the vagina with liquid to an extent as to distend it sufficiently to permit access of cleansing liquid used to all parts of the vagina and particularly beneath and between the folds.

It is another object of the invention to provide in a syringe of this class of a two-way check valve so that liquid may be freely forced into the vagina and easily and quickly escape therefrom and yet an undue leakage of liquid from the syringe prevented.

Another object of the invention is the provision of a syringe of this class which will be simple in structure, economical of manufacture, and highly efficient in use.

Other objects will appear hereinafter.

The invention consists in the combination and arrangement of parts hereinafter described and claimed.

The invention will be best understood by a reference to the accompanying drawings which form a part of this specification, and in which,

Fig. 1 is a longitudinal central sectional view of the invention.

Fig. 2 is a view taken on line 2—2 of Fig. 1.

Fig. 3 is a fragmentary sectional view of the invention slightly enlarged.

Fig. 4 is a sectional view taken on line 4—4 of Fig. 3.

Fig. 5 is a sectional view taken on line 5—5 of Fig. 3.

The invention comprises a tube 7 having a head 8 at one end thereof through which are formed outlet passages 9. Adjacent the opposite end of the tube 7 and preferably formed integral therewith is a shell 10 having its end edges curved as at 11 to form a cup-like structure so that a space 12 is afforded for the reception of the vulva when the invention is in use. The open end of the tube 7 is intended to be attached to a suitable supply of liquid which is used for cleansing purposes and which may be in a bulb or a container to provide a syringe of the gravity type. The syringe, however, is primarily intended for use with a bulb.

Threaded in the tube 7 adjacent the closed end is a cup shaped valve retainer 13 having oppositely positioned openings 14 formed in its base. Slidably projected through the neck 20 which projects outwardly from the base 24 is a rod 15 carrying a cross head 16 which serves as a closure for the oppositely positioned openings 14. Openings 17 are also formed in the base 24 and a closure 18 is provided for these openings, this closure 18 being in the nature of a cross head which is carried by a sleeve 19 slidably mounted on the neck or sleeve 20. A spring 21 embraces the rod 15 and is connected at one end to the neck or sleeve 20 and at its opposite end to the knob 22 which is fixedly mounted on the stem 15. A spring 23 embraces the neck 19 and engages at one end the closure 18 and at the opposite end the knob 22.

In use, when the tube 7 is inserted into the vagina and the vulva are engaged in the recess 12, a sealing of the vagina against leakage is effected. A forceful flow of liquid through the tube 7 will then force the closure 16 out of engagement with the base 24, thus permitting the liquid to flow through the openings 14 and through the passages 9. When the pressure exerted by the fluid being delivered is released, the springs will restore the closure 16 to its seat and upon the backward pressure becoming sufficient through a vacuum created by the bulb or through the pressure of the liquid delivered into the vagina, the closure 18 will be forced from its seat, permitting an escape of the liquid.

A device of this kind permits a thorough cleansing as the cleansing fluid may, when a bulb is used, be repeatedly forced into the vagina and withdrawn therefrom. A maximum convenience is also afforded as the sealing cup positioned about the vulva permits the use of a device by a person while lying down without any leakage onto the clothes or bedding.

While I have illustrated and described the perferred form of construction of my invention, I do not wish to limit myself to the precise details of structure shown, but desire to avail myself of such variations and modifications as may come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A syringe of the class described, comprising: a tube; a passage bearing head at one end of said tube serving as a closure therefor, said tube being threaded on its inner surface adjacent said head; a valve retainer in said tube and threaded thereto at said threaded portion; a rod slidably projected through said valve retainer centrally thereof, said valve retainer having spaced openings formed therein; a cross head carried by said rod for closing said openings; and resilient means for normally retaining said cross head in closing position.

2. A syringe of the class described, comprising: a tube; a head on one end of said tube having a plurality of passages formed therein, said tube being internally threaded adjacent said head; a cup shaped valve retainer threaded in said tube at said threaded portion and having a plurality of openings formed in its base; a rod slidably projected through said retainer; a cross head mounted on one end of said rod and engageable in said retainer for serving as a closure for a plurality of said openings; and resilient means for normally retaining said cross head in engagement with the base of said retainer in closing position.

3. A syringe of the class described, comprising: a tube; a head on one end of said tube having a plurality of passages formed therein, said tube being internally threaded adjacent said head; a cup shaped valve retainer threaded in said tube at said threaded portion and having a plurality of openings formed in its base; a rod slidably projected through said retainer; a cross head mounted on one end of said rod and engageable in said retainer for serving as a closure for a plurality of said openings; resilient means for normally retaining said cross head in engagement with the base of said retainer in closing position; a slidably mounted closure engaging the outer surface of the base of said retainer and serving as a closure for the remainder of said openings; and resilient means for normally retaining said closure in closing position.

4. A device of the class described, comprising: a tube; a passage bearing head carried on and serving as a closure for one end of said tube; a cup shaped valve retainer mounted in said tube adjacent said head, the open face of said retainer being directed toward said head; a tubular sleeve projecting outwardly from the base of said retainer; a rod slidably projected through said sleeve and said base, said base having a plurality of spaced openings formed therein; a cross head carried by said rod and adapted upon engagement with the inner surface of said base for closing a plurality of said openings, said cross head being movable inwardly toward said head for disengaging said base; and resilient means for resisting said movement of said cross head.

5. A device of the class described; comprising: a tube; a passage bearing head carried on and serving as a closure for one end of said tube; a cup shaped valve retainer mounted in said tube adjacent said head, the open face of said retainer being directed toward said head; a tubular sleeve projecting outwardly from the base of said retainer; a rod slidably projected through said sleeve and said base, said base having a plurality of spaced openings formed therein; a cross head carried by said rod and adapted upon engagement with the inner surface of said base for closing a plurality of said openings, said cross head being movable inwardly toward said head for disengaging said base; resilient means for resisting said movement of said cross head; a closure slidably mounted on said sleeve and engageable with the outer surface of said base and serving while in engagement with said base as a closure for the remainder of said openings; and resilient means for resisting movement of said closure relatively to said base.

In testimony whereof I have signed the foregoing specification.

CASIMER V. GALAZIN.