June 18, 1940. K. H. BOOTY 2,204,654

SYRINGE

Filed Oct. 29, 1936

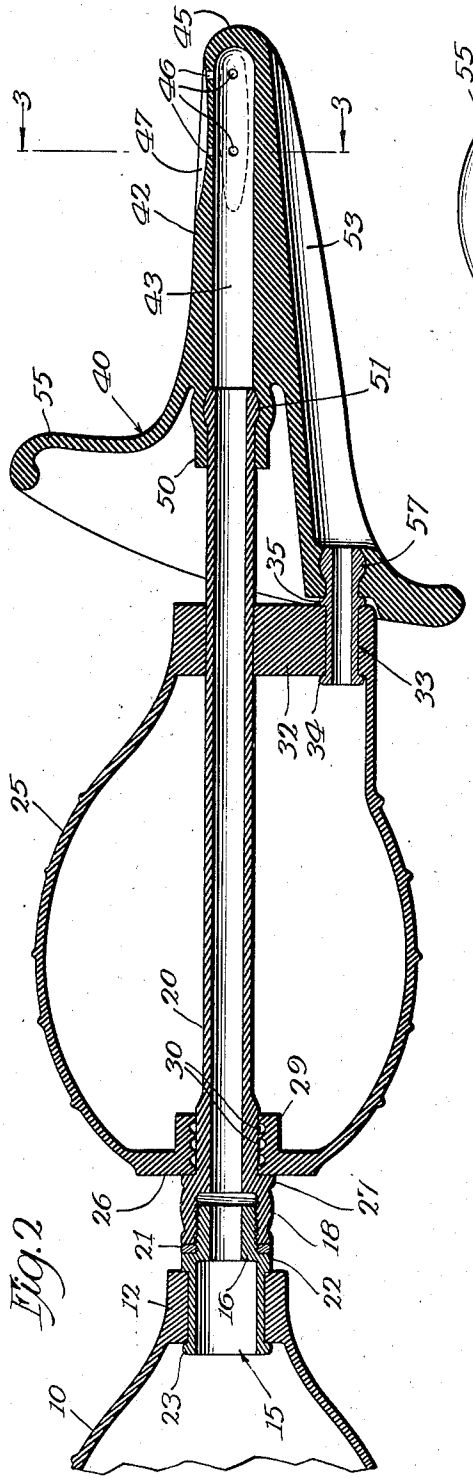


Fig. 2

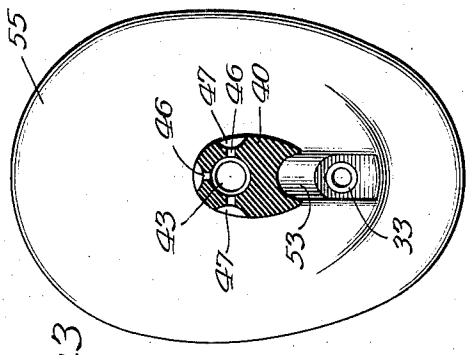


Fig. 3

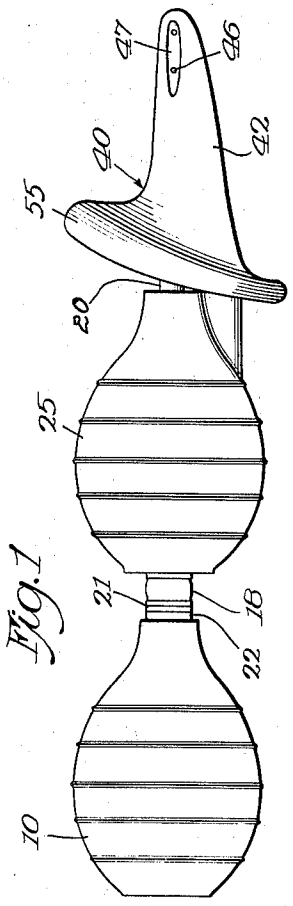


Fig. 1

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2,204,654

SYRINGE

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4 Claims. (Cl. 128—248)

My invention relates broadly to syringes and has to do more particularly with a syringe which is especially useful for administration of vaginal douches.

A particular object of my invention is to provide a syringe which may be employed by or upon a patient in bed without requiring the use of a bed pan and which will eliminate all danger of soiling bed linen.

A further object is to provide a device of the type referred to which will have means for retaining the douche fluid in the body as long as desired and will permit controlled withdrawal of such fluid with a minimum of inconvenience or disturbance to the patient and without permitting escape of the fluid.

Still another object is to provide a device of the type referred to which will be simple in construction, of a relatively small number of parts, inexpensive to fabricate, easy to cleanse so that the same may be kept in sanitary condition at all times, and generally satisfactory for all the purposes desired.

Various other objects and advantages may become apparent as the description proceeds.

Referring now to the drawing forming a part of this specification and illustrating a preferred embodiment of my invention:

Fig. 1 is a side elevational view of a syringe embodying my invention;

Fig. 2 is a longitudinal sectional view thereof on an enlarged scale; and

Fig. 3 is a sectional view taken substantially along the line 3—3 of Fig. 2.

The numeral 10 represents a collapsible bulb which has a neck portion 12 receiving and communicating with a nipple 15. Said nipple has a restricted portion 16 which is threaded on the outside thereof to engage a female threaded enlarged portion of a tube 20. A gasket 21 is preferably interposed between the enlarged portion 18 and shoulder 22 formed on the nipple 15. The nipple preferably has a flared end 23, to insure a positive coupling with the bulb 10.

A collapsible bulb 25 has its base portion 26 in abutting relation to the annular shoulder 27 formed on the collar 18. An annulus 29 extends inwardly from the base portion 26 of the bulb 25, said annulus 29 seating snugly against the tube 20, annular channels 30 being provided on the inside of the annulus 29 for insuring a snug engagement. At its other end the bulb 25 is provided with an integral closure disk 32, said disk being perforated to permit the passage of the tube 20 and provided with another aperture to permit the passage of a tube 33. The tube 33 is provided with shoulders 34 and 35 which seat snugly against opposite faces of the disk 32.

The members 15, 20, and 33 are preferably formed of hard rubber or similar material.

A nozzle indicated generally by the numeral 40 and formed preferably of flexible rubber has a more or less conical tip portion 42 with an axial channel 43. This channel is preferably closed at the end of the tip portion as at 45 and communicates with the exterior of the nozzle through orifices 46, tapered grooves 47 being provided on the exterior of the tip 42 in communication with the orifices 46. Formed integrally with the tip portion 42 is a rearwardly extending tubular portion 50 which engages the tube 20, the end of said tube 20 being enlarged as at 51 so as firmly to retain the tubular portion 50 of the nozzle. The tip portion of the nozzle is also provided with a longitudinal groove 53.

The nozzle 40 is also provided with a guard portion 55, said guard portion being integral with the tip portion 42. The guard portion 55 is preferably of an elliptical or oval contour so as to form a fluid tight seal against the external female parts. The guard portion is perforated to seat an enlarged portion 57 of the tube 33, which tube communicates with the groove 53.

In the use of the device above described, the bulb 10 is removed from the tube 15 and filled with fresh douching fluid and then restored to its position as shown in the drawing. Before the fluid is expelled from the bulb 10 the bulb 25 is compressed. After the fluid has been forced into the vaginal tract the bulbs are held in collapsed condition for as long as it is desired to retain the fluid. It will be seen that the guard 55 will serve to prevent leakage. The bulb 25 will then be permitted to expand and the suction thereby produced will withdraw the used fluid, said fluid flowing back through the channel 53 and tube 33 into the bulb 25.

It will be seen that devices embodying my invention are not only extremely efficient and convenient to use, but are also highly sanitary, since the bulb 10 will normally contain only fresh fluid, the contaminated fluid flowing into the bulb 25. Furthermore, the parts of the device may readily be disassembled and thoroughly cleaned.

Various changes coming within the spirit of my invention may suggest themselves to those skilled in the art, and hence I do not wish to be limited to the specific embodiment shown or uses mentioned except to the extent indicated in the

appended claims, which are to be interpreted as broadly as the state of the art will permit.

I claim:

1. In a device of the class described and in combination, a pair of collapsible bulbs arranged in longitudinal alined relation, a nozzle, and a tube connecting said nozzle with one of said bulbs, the other of said bulbs being arranged non-communicatively on said tube between said nozzle and the first mentioned bulb, said nozzle having a guard portion for forming a fluid tight seal adjacent a body orifice, said second bulb being connected with the inner face of said guard portion for withdrawing fluid from said orifice.

2. In a device of the class described and in combination, a pair of collapsible bulbs arranged in longitudinally alined relation, a nozzle, and a tube connecting said nozzle with one of said bulbs, the other of said bulbs being arranged non-communicatively on said tube between said nozzle and the first mentioned bulb, said nozzle having a guard portion for forming a fluid tight seal adjacent a body orifice and also having a longitudinal passage communicating with said second bulb for withdrawing fluid from said orifice.

3. In a device of the class described and in combination, a pair of collapsible bulbs in longitudinally alined relation, a nozzle having a guard portion for forming a fluid tight seal against a body orifice and also having a longitudinal external channel, a tubular member connecting said nozzle with one of said bulbs, the other of said bulbs being arranged non-communicatively on said tubular member, and means connecting said second bulb with said channel whereby fluid may be withdrawn from said orifice.

4. In a device of the class described and in combination, a pair of collapsible bulbs in longitudinally alined relation, a nozzle having a guard portion for forming a fluid tight seal against a body orifice and also having a longitudinal external channel, and a tubular member connecting said nozzle with one of said bulbs, the other of said bulbs being arranged non-communicatively on said tubular member, said device having a passage extending from said channel to the inside of said second bulb whereby fluid may be withdrawn from said orifice.

KELVIN H. BOOTY.