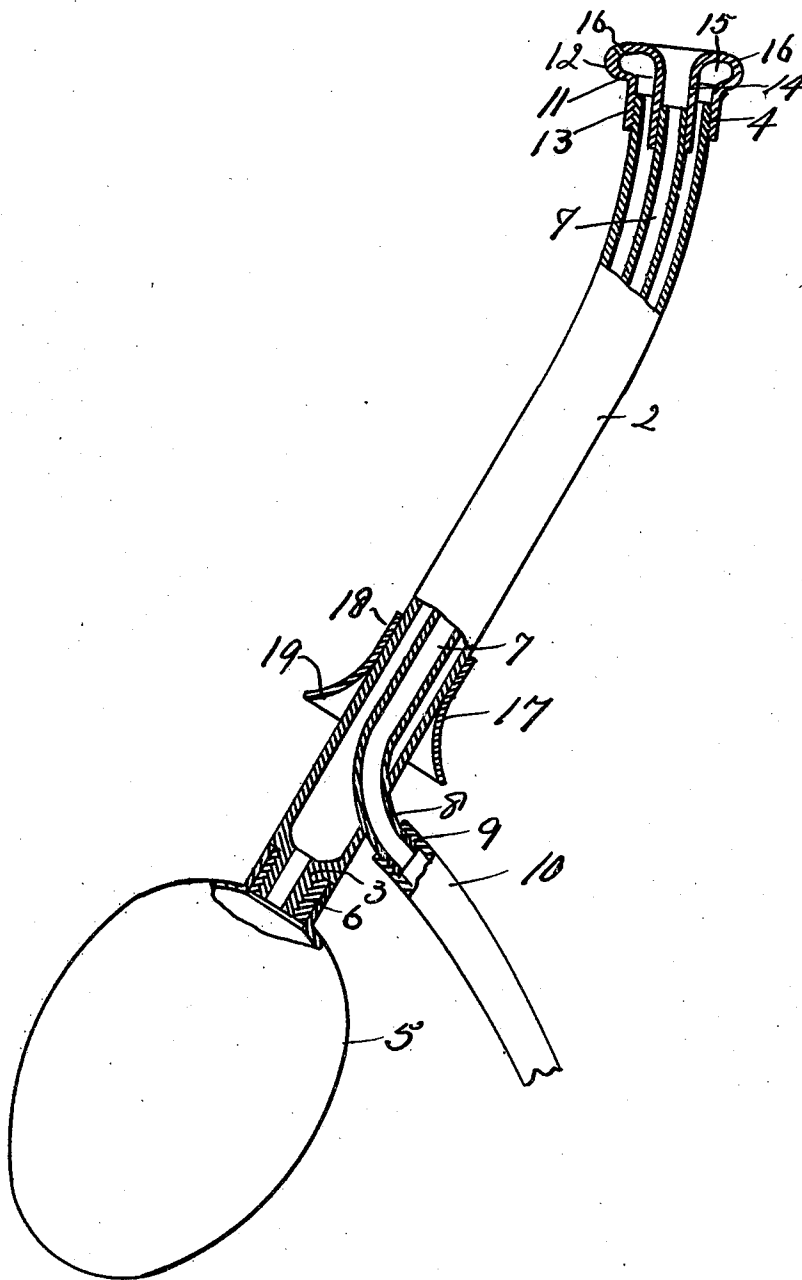


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VAGINAL SYRINGE.
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UNITED STATES PATENT OFFICE.

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VAGINAL SYRINGE.

Application filed November 26, 1921. Serial No. 517,931.

To all whom it may concern:

Be it known that we, CHARLES C. EPPLEMAN and WALTER E. CALLAHAN, citizens of the United States, residing at Gloucester, in the county of Camden and State of New Jersey, have invented new and useful Improvements in a Vaginal Syringe, of which the following is a specification.

Our invention relates to new and useful improvements in a vaginal syringe, and has for its object to provide such device comprising a barrel to one end of which is attached a suitable bulb and having a detachable tip on the other end, said tip provided with means to engage a discharge tube or pipe located within the barrel and having an outlet end projecting through the side of said barrel for connection with a rubber tube whereby the waste solution may be carried off to a receptacle.

Another object of the invention is to provide a device of the character mentioned which may be utilized as an ordinary syringe and to so use it the waste pipe is closed in some suitable manner as by applying a clamp thereto.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains, may understand how to make and use the same, we will describe its construction in detail, referring by numerals to the accompanying drawing forming a part of this application, in which:—

The figure is a side elevation of a syringe made in accordance with our invention, portions thereof being broken away and shown in section to illustrate the interior construction.

In carrying out our invention as here embodied, 2 represents a barrel, preferably of hard rubber, having an externally threaded shank 3 at one end and the opposite end of said barrel is also threaded as at 4. The end of the barrel which is inserted into the cavities is preferably slightly curved or offset from the axial center of the main portion of the barrel.

A compressible rubber bulb 5 carries an internally threaded connecting member 6 whereby said bulb may be removably attached to the shank of the barrel.

A discharge pipe or tube 7, preferably of hard rubber, is located within the barrel and positioned in the longitudinal center thereof with one end terminating at or adjacent the insertable end of the barrel and the other end passing through the side of the barrel near the opposite end thereof leaving a projecting portion designated by the numeral 8 which portion is annularly corrugated or threaded as at 9 for the attachment thereto of a tube or hose 10 to be used as a waste conduit.

On the insertable end of the barrel is removably mounted a tip or nipple 11, preferably of hard rubber, comprising a head 12, an exterior neck 13 for threaded connection with the barrel 2 and a concentric funnel 14 for sliding engagement with the end of the discharge pipe or tube 7 and the end of said funnel projects beyond the end of the neck 13 whereby said funnel may be brought into engagement with the discharge pipe prior to neck engaging the barrel. Within the tip or nipple is formed a chamber 15 from which lead the holes 16, the latter being so formed as to cause the liquid issuing therefrom to be projected in fine spray like streams.

Although we have illustrated the tip or nipple 11 as being threaded on to the outside of the barrel with the funnel enclosing the end of the discharge pipe it will be obvious that the neck and funnel of the tip could be inserted in their coacting elements or one could be placed over and the other inserted in its cooperating member.

The reference numeral 17 denotes a guard of relatively soft rubber consisting of a tubular body 18 adapted to snugly fit the barrel 2 of the syringe and a flared flange 19 which is adapted to contact with the body and limit the insertion of the syringe or indicate to the user the distance of the insertion and this guard is slidably mounted on the barrel so that it may be readily adjusted to indicate the desired or predetermined distance of the insertion.

In practice the solution or liquid is placed in the bulb after which the barrel is inserted in the body cavity and by pressing said bulb the liquid will be forced through the barrel into the chamber 15 from which it will pass through the holes 16 in fine streams. As the liquid runs from the body cavity it will pass into the funnel of the tip or nipple and then through the discharge tube or pipe 7

and the waste pipe 8 into a receptacle or its equivalent.

In order to use the device as an ordinary syringe the waste pipe 10 is closed or "choked" in any suitable manner, as by placing thereon a well known clamp used with articles of this character. With the waste pipe closed the bulb may be pressed to force out the air and the tip then projected into a solution or liquid which will be drawn into the barrel and bulb as the pressure on the latter is released. After the liquid is drawn in the syringe is then used as hereinbefore stated by releasing the clamp on the waste pipe or if said clamp is left in place the liquid will then run directly from the body cavity.

Of course we do not wish to be limited to the exact details of construction as herein shown as these may be varied within the limits of the appended claims without departing from the spirit of our invention.

Having thus fully described our invention, what we claim as new and useful is:—

1. A vaginal syringe consisting of a barrel, a discharge tube or pipe located within said barrel with one end terminating in the region of the insertable end of said barrel and the other end passing through the side of said barrel for attachment to a waste pipe, a tip or nipple having means to engage

the insertable end of the barrel and other means to engage the adjacent end of the discharge tube, said tip also having holes therethrough leading from its chamber and means connected with the other end of the barrel to force a liquid therethrough.

2. A vaginal syringe consisting of a barrel, a discharge tube or pipe located within said barrel with one end terminating in the region of the insertable end of said barrel and the other end passing through the side of said barrel for attachment to a waste pipe, a tip or nipple consisting of a head, an integral neck for threaded engagement with the insertable end of the barrel and a homocentric funnel integral with said head and projecting beyond the end of the neck for sliding engagement with the adjacent end of the discharge tube prior to the engagement of the neck with the barrel, the space within the head between the neck and funnel forming a chamber from which lead holes through the walls of the head and a bulb detachably connected to the other end of the barrel to force a liquid through the latter.

In testimony whereof, we have hereunto affixed our signatures.

CHARLES C. EPPLEMAN.
WALTER E. CALLAHAN.