Aug. 16, 1932. J. V. HOWARD 1,871,523

SYRINGE

Filed Nov. 15, 1930

Fig. 1.

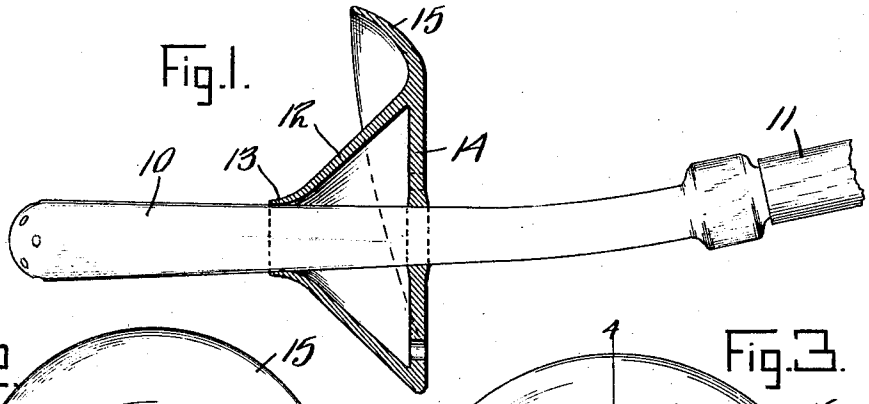


Fig. 2.

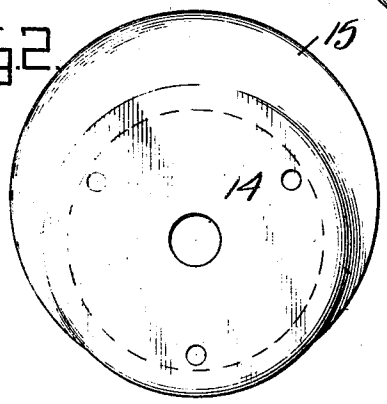


Fig. 3.

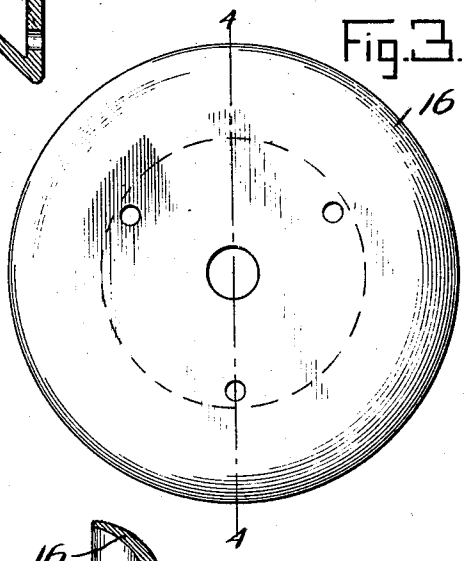


Fig. 5.

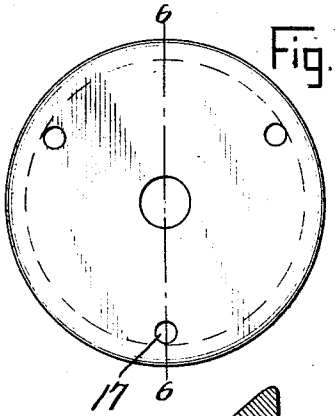


Fig. 4.

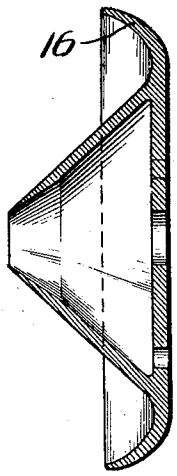
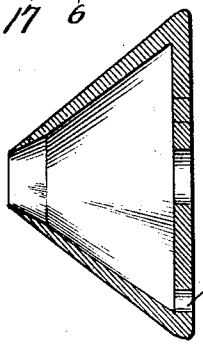


Fig. 6.



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Patented Aug. 16, 1932 1,871,523

UNITED STATES PATENT OFFICE

JACOB V. HOWARD, OF INDIANAPOLIS, INDIANA

SYRINGE

Application filed November 15, 1930. Serial No. 496,004.

In order to cleanse or effectively treat any tissue or cavity it is necessary that the remedial agent be kept in contact with the infected area long enough to thoroughly sterilize it. The object of this invention is to provide means for retaining such cleansing or sterilizing fluid in any infected cavity or parts to which it is applied.

More specifically the invention relates to an attachment for use with a syringe nozzle and its object is to provide means for retaining the cleansing or sterilizing fluid in the cavity to which it is directed by the nozzle so that it may thoroughly cleanse and sterilize the parts.

A more specific object is to provide a shield which may be mounted on the nozzle of a vaginal syringe and which is adapted to be held against the vaginal opening by means of hand pressure against the rear wall of the device in order to retain the cleansing or sterilizing fluid in the vaginal cavity long enough to thoroughly sterilize the parts to which it is applied.

Further objects and advantages will become apparent as the description proceeds.

Referring to the accompanying drawing, which is made a part hereof and on which similar reference characters indicate similar parts,

Figure 1 is a section view of the device showing it applied to a syringe nozzle,

Figure 2, a rear view of the shield,

Figure 3, a rear view of a modified form of shield as shown in Figure 4,

Figure 4, a section on line 4—4 of Figure 3,

Figure 5, a rear view of a further modified form of the device shown in Figure 6, and

Figure 6 is a section on line 6—6 of Figure 5.

In the drawing numeral 10 indicates a syringe nozzle to which is attached a rubber hose 11 for supplying cleansing or sterilizing fluid to the nozzle. With nozzles of this kind heretofore the fluid flowed from the cavity into which it was injected as fast as it entered it. In order to retain the fluid in the cavity I provide a device preferably made of rubber which fits into and over the cavity. In Figure 1 this consists of a cone shaped portion 12 having an edge 13 of thin material which will readily stretch over and conform to the shape of the nozzle and prevent leakage of fluid past the nozzle and of sufficient strength to retain the nozzle. Holes 17 are provided to permit the escape of any fluid which may leak past the neck 13. These holes also make it easier to clean the device. The cone portion 12 is of relatively flexible material so that it too will readily conform to the shape of the cavity to which it is applied. The rear portion 14 is made of relatively stiffer material so as to withstand pressure of the hand to hold it in place. In use the rear plate or shield is pressed by the hand against the vaginal opening. As the pressure is released fluid is then allowed to escape.

At 15 is shown a dished shield portion which extends substantially three fourths of the way around the device. This shield prevents the fluid from splashing upwards and to the sides as pressure is relieved upon the device, the fluid being directed downward into the proper receptacle.

In Figures 3 and 4 the shield portion 16 extends all the way around the rim of the device. In other respects this form is similar to that shown in Figures 1 and 2.

In Figures 5 and 6 is shown a form in which no dished shield is provided. The rear plate in this form also has holes 17 which permit fluid which leaks past the neck at 13 to drain out of the device, and because of these holes it is much easier to wash the device.

In all forms of the device the surfaces are made smooth with no protuberances so that the device is easily washed and so kept sanitary.

With nozzles as heretofore used it was necessary to inject the nozzle a relatively great distance into the cavity being treated to insure that all areas were treated. When used as a vaginal syringe this frequently resulted in injury to the vaginal tissues. By the use of my device it is unnecessary to insert the nozzle more than two inches into the vagina. The cover retains the fluid and with a douche bag at an elevation of five feet sufficient pressure is supplied to distend the vagina so that

the fluid will cleanse and sterilize the whole interior of the vagina.

Since the nozzle need not be inserted far into the vagina all danger of injury to the uterus is avoided.

While the device has been described as particularly adapted for use with a vaginal syringe it is not limited to this use but may be used for example with a nasal douche or for any other purpose to which it may be adapted.

It will be obvious to those skilled in the art that various changes may be made in my device without departing from the spirit of the invention and therefore I do not limit myself to what is shown in the drawing and described in the specification, but only as indicated by the appended claim.

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

An attachment for use with a syringe nozzle comprising a rear perforated disk portion adapted to fit around said nozzle, said portion having a flexible forward hollow substantially cone-shaped portion adapted to fit into a cavity into which the nozzle is inserted, to conform to the shape of said cavity and to retain in the cavity the fluid injected by said nozzle, the inner surface of the apex of said forward hollow portion being tapered to tightly engage said nozzle to prevent escape of the liquid and a flanged portion on said rear portion turned in the direction of said apex and extending approximately three fourths the distance around the upper portion of its edge, said cone portion having a perforation at its apex adapted to receive the syringe nozzle, the disk portion being provided with openings through which fluid leaking past the said nozzle may escape from the interior of the cone portion, substantially as set forth.

In witness whereof, I have hereunto set my hand and seal at Indianapolis, Indiana this 7th day of November, A. D. nineteen hundred and thirty.

JACOB V. HOWARD.