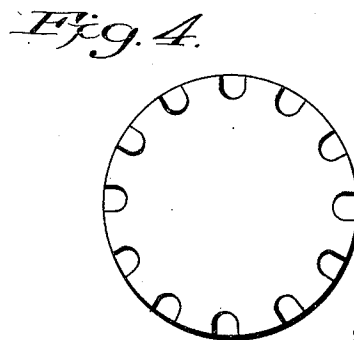
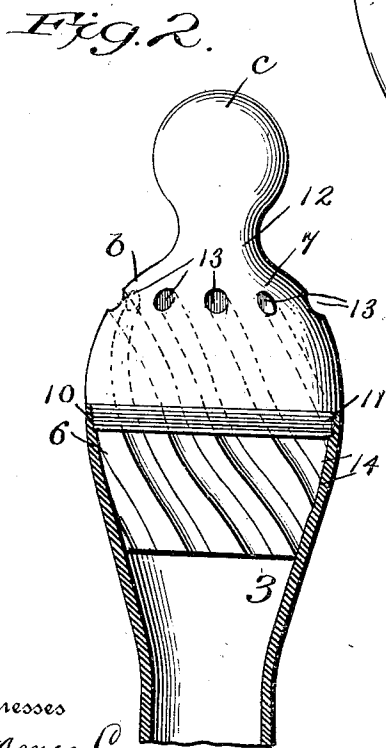
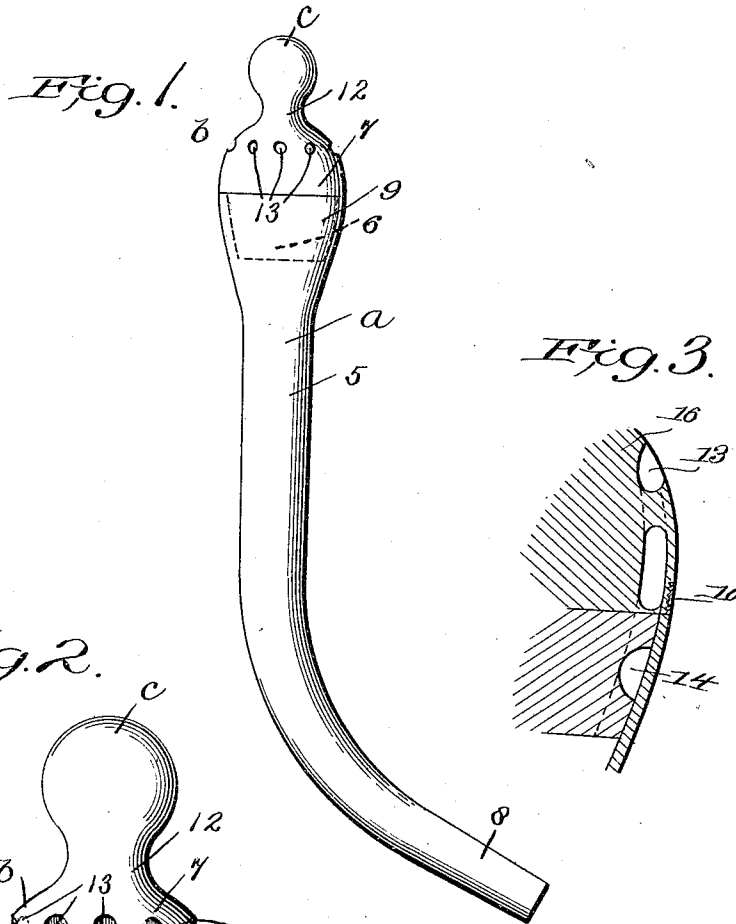


F. BORSODY.
 SYRINGE.

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1,098,220.

Patented May 26, 1914.



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UNITED STATES PATENT OFFICE.

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SYRINGE.

1,098,220.

Specification of Letters Patent.

Patented May 26, 1914.

Application filed April 12, 1913. Serial No. 760,778.

To all whom it may concern:

Be it known that I, FRANK BORSODY, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented new and useful Improvements in Syringes, of which the following is a specification.

The general object of the invention is to admit of directing an irrigating fluid into the region surrounding the neck or cervix of the uterus and to prevent the irrigating fluid after its action upon the walls of the vagina and the aforesaid regions surrounding the neck of the uterus, from entering the uterus, whereby to prevent possible infection in the uterus from matter removed from the walls of the vagina, and the other parts irrigated, by the irrigating fluid. And to this end the invention resides in a nozzle adapted for depressing the cervix and effecting the moving thereof from its normal position in contact with the surrounding wall of the vagina and dilating a portion of that part of the vagina normally in contact with the cervix, whereby, to expose the surface of the vagina normally surrounding the cervix, to the action of the irrigating fluid issuing from the nozzle.

Other objects will appear and be better understood from that embodiment of my invention of which the following is a specification, reference being had to the accompanying drawings forming part hereof, in which:—

Figure 1 is a detail side elevation of my invention. Fig. 2 is a detail partly in section and elevation of the end portion of the nozzle forming the subject matter of my invention. Fig. 3 is a detail section. Fig. 4 is a detail plan of the fillet.

The nozzle forming the subject matter of the present invention and herein designated generally by *a*, comprises a tubular body portion 5, a fillet 6 and a tip 7. These several parts may be formed of any material found suitable for the purpose, as hard rubber. The tubular body portion 5 may be of any desired marginal contour, preference be-

ing given to the shape shown, since the presence of the offset end portion 8 more readily enters the nozzle when attached to the tube of an ordinary fountain syringe, to prevent kinking in the tube when the nozzle is in use. The offset end portion 8 will hereinafter be referred to as the attaching end portion. The opposite or engaging end portion of the tubular body 5 is flared as indicated at 9, and is suitably adapted as by providing screw threads 10 for engagement with a correspondingly screw-threaded portion 11 of the tip 7. The base portion *b* of the tip 7 is curvilinear in contour and its surface forms a regular extension of the curved surface of the flared end portion 5, as shown in Figs. 1 to 3, inclusive. A neck portion 12 connects the base portion *b* with a spherical head portion *c* of the tip. The diameter of the spherical head portion *c* is large in comparison with the diameter of the part on which it operates, namely, the cervix and this for the purpose of effecting the depression of the cervix during the adjustment of the nozzle, whereby to effect the lifting of the cervix from the portion of the wall of the vagina with which it normally contacts. But the diameter of the engaging end 9 at a point between the neck 12 and the joint between the body 5 and tip, is considerably greater than the diameter of the head *c* so that upon the head *c* functioning as just described, the said enlarged part of the nozzle will dilate and thereby effect the unfolding of that portion of the wall of the vagina upon which the cervix normally bears.

Referring now to the drawings it will be observed that the series of upwardly and outwardly extending discharge openings 13 in the tip, are arranged so as to direct the irrigating fluid directly onto the surface of the vagina with which the cervix normally contacts. These openings 13 form extensions of spiral grooves 14 in the fillet 6, which fillet is retained in position by frictional contact with the body portion 5 brought about by the pressure from the tip 7. It will be observed that the fillet and tip are

constructed so as to impart a whirling motion to the fluid issuing from the openings 13.

What I claim as new is this:

- 5 In a nozzle for vaginal syringes, the combination of a body portion flared at one end, a spirally grooved fillet located in the flared end portion of the body, and a tip connected to the body and having open ended spiral
10 passages coinciding with the grooves of the

fillet, and including a curvilinear base portion and a solid spherical end portion of less diameter than the base portion and joined to the latter with a reduced neck.

In testimony whereof I affix my signature 15
in presence of two witnesses.

FRANK BORSODY.

Witnesses:

JOHN A. DONEGAN,
GEO. A. BYRNE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."