O. KATZENBERGER.

VAGINAL SYRINGE.

APPLICATION FILED MAR. 31, 1908.

**903,098.** Patented Nov. 3, 1908.

Fig. 1.

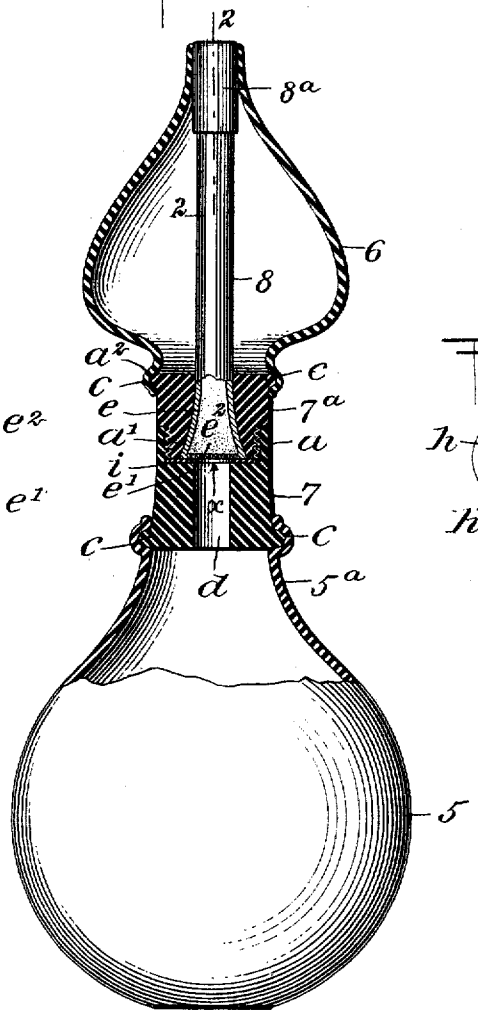



Fig. 3.

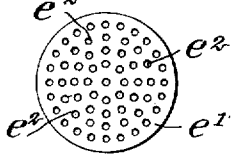



Fig. 4.

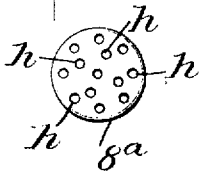
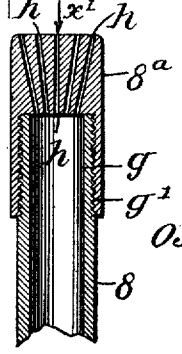



Fig. 2.




WITNESSES

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# UNITED STATES PATENT OFFICE.

OSCAR KATZENBERGER, OF SAN ANTONIO, TEXAS.

## VAGINAL SYRINGE.

No. 903,098. Specification of Letters Patent. Patented Nov. 3, 1908.

Application filed March 31, 1908. Serial No. 424,331.

*To all whom it may concern:*

Be it known that I, OSCAR KATZENBERGER, a citizen of the United States, and a resident of San Antonio, in the county of Bexar and State of Texas, have invented a new and Improved Vaginal Syringe, of which the following is a full, clear, and exact description.

The purpose of this invention is to provide novel details of construction for a vaginal syringe, which adapt it for very convenient service, and enable the internal application of a suitable medicinal liquid or powder for the disinfection or cure of diseased tissue, the said liquid or powder being preferably employed as a remedial agent.

The invention consists in the novel construction and combination of parts, as is hereinafter described and defined in the appended claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the the views.

Figure 1 is a partly sectional side view of the improved syringe; Fig. 2 is an enlarged longitudinal sectional view of a spray nozzle that is a detail of the invention, the section being taken substantially on the line 2—2 in Fig. 1; Fig. 3 is an enlarged end view of a holder tube of novel construction, seen in direction of the arrow $x$ in Fig. 1; and Fig. 4 is an end view of the discharge nozzle for the holder tube, seen in direction of the arrow $x'$ in Fig. 2.

The body of the syringe is bulbous in form, as shown at 5 in Fig. 1, and to adapt it for effective service is constructed of elastic material, such as soft vulcanized rubber. The rotund body 5 of the syringe, is open at one side and is suitably contracted to form a neck $5^a$ at said opening. A headpiece 6 for the device is also formed of elastic rubber, is coniform in shape and open at both ends.

A coupling sleeve for the headpiece 6 and neck $5^a$ of the body 5, is in the form of a cylindrical block of hard rubber or other suitable material, that is bisected near its center of length, the two half sections 7, $7^a$, of said sleeve being detachably connected together by recessing the lower section 7 in its upper end, leaving a peripheral wall $a$ thereon and internally threading said wall, as is shown in Fig. 1. The other section $7^a$, is reduced in diameter near one end thereof, and said end portion $a'$ is externally threaded, having a diameter which permits it to be screwed into the internal thread on the wall $a$, thus effecting a detachable connection between the sections 7, $7^a$.

Upon the remaining end portions of the coupling sleeve sections 7, $7^a$, peripheral beads $c$ are formed, these rounded circumferential projections being designed for the reception of the marginal edge portions of the open lower end $a^2$ of the headpiece 6, and the edge portions of the neck $5^a$, which are stretched thereover and tightly clasp the beads $c$, due to the elasticity of the material composing the body 5 and headpiece 6. An axial bore $d$, is formed in the lower coupling sleeve section 7, and in the upper coupling section $7^a$ a downwardly and outwardly flaring coniform opening is therein axially formed, as is shown in Fig. 1.

A holder tube 8, is an important detail of the improvement and, as shown in Fig. 1, consists of a cylindrical tube section of proper length and diameter, having the normally lower portion thereof flared as at $e$, said coniform end being closely fitted into the flaring opening in the upper coupling section $7^a$. In the flared lower end $e$ of the holder tube 8, a foraminated end wall $e'$ is fitted and secured, the spaced perforations therein extending throughout the area of said end wall, as is clearly shown at $e^2$ in Fig. 3. The upper end portion of the holder tube 8 is exteriorly threaded, as is shown in Fig. 2 and upon said threaded end $g$, a discharge nozzle $8^a$ is mounted, said nozzle consisting of a cylindrical body portion having an interiorly threaded socket $g'$ in one end, which is adapted for a screwed engagement with the threaded end $g$.

In the solid body portion of the discharge nozzle $8^a$, a plurality of fine spaced perforations $h$, are formed, these small openings extending longitudinally through the portion $8^a$ and radiating toward the outer end thereof, so that they will be adapted to project powdered material forward and outward therefrom, when the device is used.

There is a pliable washer $i$ interposed between the foraminated end wall $e'$ and the bottom of the recess in the coupling section 7, this provision serving to press the coniform end $e$ of the holder tube tightly

against the mating coniform bore in the lower portion of the upper coupling section $7^a$, when parts of the device are assembled.

As shown in Fig. 1, the discharge nozzle $8^a$ is so proportioned in diameter that it will slightly expand the edge portion of the opening in the upper end of the headpiece 6, and thus effect a tight joint between said parts when the holder tube is fully inserted within said head piece.

To prepare the syringe for use, the cap or nozzle $8^a$ is removed from the holder tube and a proper quantity of the powdered medicinal material is placed therein in dry condition.

It will be apparent that upon insertion of the nozzle $8^a$ and portion of the headpiece 6 within the female organ, a sudden compression of the bulbous body 5 will expel a small quantity of the remedial powder outward through the fine perforations *h* into direct contact with the diseased membrane within said organ.

It is claimed for this improvement that it is very advantageous, from the fact that by employing a powdered medicinal preparation for application to diseased parts as explained, this may be effected where it would not be possible to use a liquid preparation as a remedial agent, and the holder tube may be charged with the powder and remain so until put into use as occasion may dictate. It will be obvious, however, that if desired, the syringe may be charged with a liquid medicinal preparation and be used in a manner similar to that hereinbefore described.

It will be noted that the manner of connecting the bulbous body 5 and headpiece 6 upon the intermediate coupling sleeve sections 7, $7^a$, enables the quick detachment of all parts of the device for cleansing purposes as occasion may require.

The provision of the coniform elastic headpiece 6, is advantageous in that it conforms to the portion of the body it engages, and in case a liquid is used as a remedial agent, the peculiar form of the headpiece will prevent leakage around its wall and thus avoid soiling of garments worn by the user of the syringe.

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

1. A syringe, embodying a coniform headpiece, a bulbous body portion, a coupling sleeve in two parts having threaded connection with each other, and a holder tube having foraminated end walls, said tube having its ends respectively engaged with one section of the coupling sleeve and with the smaller end of the coniform headpiece.

2. A syringe, embodying a bulbous elastic body, an elastic, coniform headpiece, a two-part rigid coupling sleeve having threaded connection with each other, one section of the sleeve having an axial bore and the other section a coniform bore, a holder tube cylindrical in its body, a discharge nozzle removably mounted on one end of the holder tube and having foraminations in its end wall, a coniform opposite end that fits in the coniform bore, and a foraminated wall on said coniform end of the holder tube.

3. A syringe, embodying a bulbous elastic body having a contracted open neck thereon, a rigid coupling sleeve recessed in the end of one section and threaded therein, the mating end of the other section having reduced diameter and being externally threaded for screwed insertion into the recessed section, the recessed section having an axial bore therein, and the section with reduced diameter a coniform bore, an elastic headpiece having substantially coniform shape, a radial bead on each end of the coupling sleeve whereon the open ends of the neck and headpiece are mounted, a holder tube having a cylindrical body, a coniform end portion that fits in the coniform bore, a foraminated end wall on said coniform end portion and a discharge nozzle on the other end of the holder tube, said nozzle having a socket in one end, that screws on the end of the holder tube and is formed with a thick, foraminated end wall, said foraminations diverging from each other toward their outer ends.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

OSCAR KATZENBERGER.

Witnesses:

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EDWARD H. ELMENDORF.