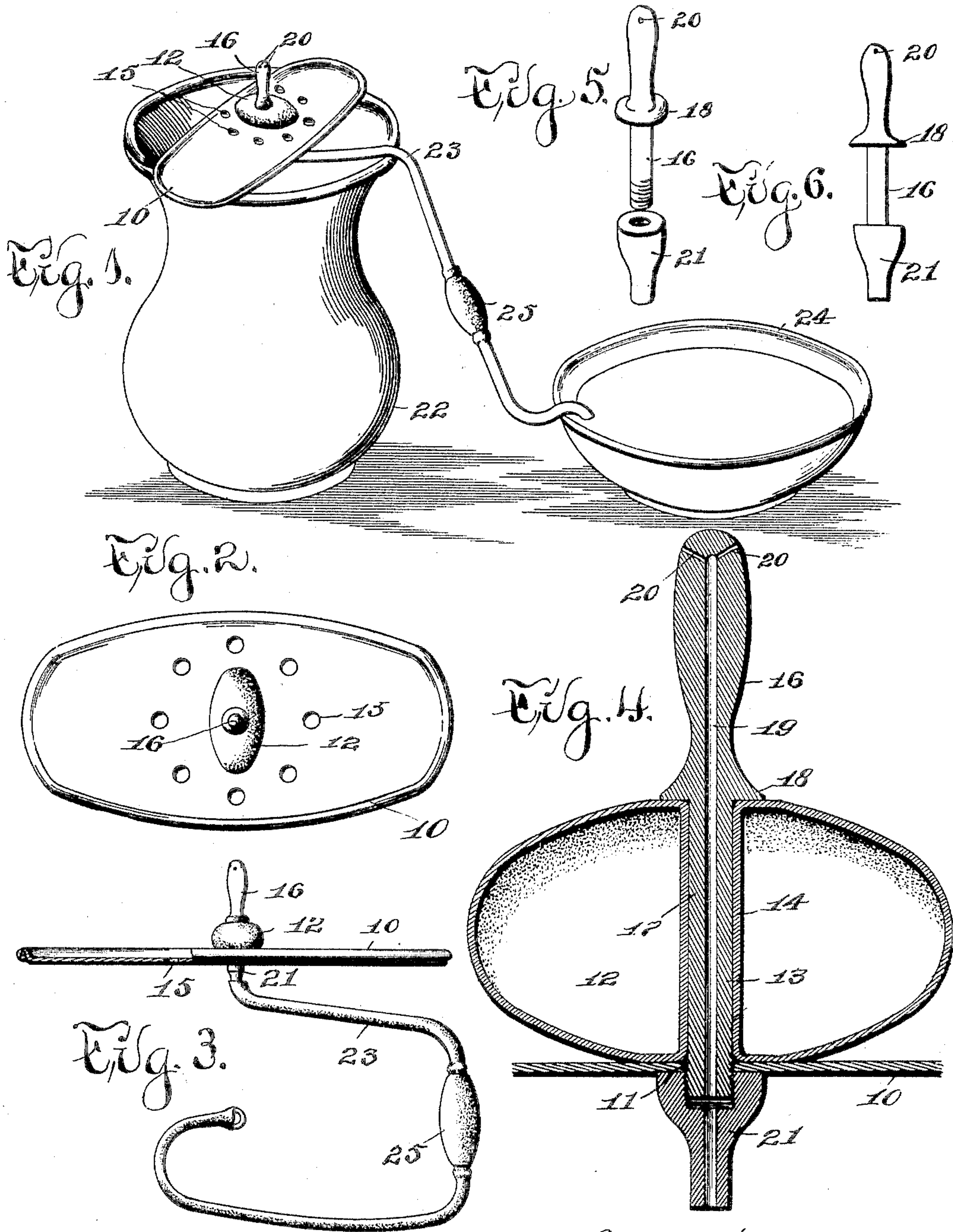


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PATENTED JULY 4, 1905.

E. M. GRAY.
SYRINGE.

APPLICATION FILED MAR. 14, 1904.



Attest:
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UNITED STATES PATENT OFFICE.

ELLA M. GRAY, OF DES MOINES, IOWA.

SYRINGE.

SPECIFICATION forming part of Letters Patent No. 794,096, dated July 4, 1905.

Application filed March 14, 1904. Serial No. 197,928.

To all whom it may concern:

Be it known that I, ELLA M. GRAY, a citizen of the United States of America, and a resident of Des Moines, Polk county, Iowa, have
 5 invented a new and useful Syringe, of which the following is a specification.

The object of this invention is to provide an improved hot-water douche for use in all pelvic diseases.

10 A further object of this invention is to provide a seat-plate for a hot-water douche which shall be firm and comfortable and susceptible of use for a considerable time without inconvenience to the user.

15 A further object of this invention is to provide a construction whereby a vaginal nozzle may be employed to firmly connect a sealing-bulb and a seat-plate.

20 A further object of this invention is to provide a seat-plate adapted for mounting on a commode, jar, or closet-bowl to support the user of a vaginal syringe, which seat-plate is provided with an aperture for the admission of a nozzle and other apertures for the escape
 25 of waste water.

30 A further object of this invention is to provide an improved construction, arrangement, and combination of elements in a hot-water douche, whereby the secondary effect of hot water may be obtained in the treatment of pelvic diseases.

35 My invention consists in the construction, arrangement, and combination of elements hereinafter set forth, pointed out in my claims, and illustrated by the accompanying drawings, in which—

Figure 1 is a perspective illustrating the construction and mounting of my complete device. Fig. 2 is a plan of a portion of the
 40 device. Fig. 3 is a side elevation, partly in section, of the device unmounted. Fig. 4 is a detail vertical section of the device, a portion only of the seat-plate being shown. Figs. 5 and 6 are detail views of my improved nozzle.

45 In the construction of the device as shown the numeral 10 designates a seat-plate, which may be made of any suitable material—such as enameled steel with a wired edge, Fig. 3, wood, woven wire or composition material,
 50 and preferably elliptical in form. The plate

10 is provided with a central aperture 11, and a sealing-bulb 12 rests on said plate and is provided with a central aperture 13, registering with said aperture 11. The sealing-bulb
 55 12 is formed of rubber or a composition of rubber and other materials, such as fabric, and a tube 14 of a material similar to but harder than the bulb is fixed at its ends in the upper and lower portions of the bulb and
 60 tends to hold said bulb against compression and forms the aperture through the central portion thereof. The seat-plate 10 is provided with a plurality of apertures or ports
 65 15 around the sealing-bulb 12 for the discharge of waste water, as hereinafter set forth. A vaginal nozzle 16 is formed of hard rubber or similar suitable material and is provided with a stem 17 and a peripheral flange
 70 18 at the line of demarcation between said nozzle and stem. The nozzle 16 and stem 17 are provided with a longitudinal bore 19, which bore terminates at the upper end of said nozzle in a plurality of jets or divergent aper-
 75 tures or ports 20, in this instance three in number. The stem 17 extends through the bore of the tube 14 centrally of the sealing-
 80 bulb 12 and further extends through the aperture 11 of the plate 10. The lower end portion of the stem 17 is threaded exteriorly, and a socket 21 is screwed thereon below the plate
 85 10. The socket 21 is of materially greater diameter than the stem 17 and forms a peripheral flange therefor below the plate 10, and the flange 18 engages the upper portion of the
 90 sealing-bulb and binds said bulb to said plate. Thus is the nozzle adapted to connect the sealing-bulb firmly to the seat-plate. The seat-
 95 plate 10 may be mounted on and transversely of a commode or jar 22, as shown in Fig. 1, and a syringe-tube, such as 23, be attached to the socket 21. The syringe-tube 23 may lead
 100 from any desired source of hot-water supply—such as a tank, faucet, or vessel 24—and water may be forced through said tube into and through the socket, stem, and nozzle by gravity from the tank, pressure from the faucet,
 or by manipulation of the hand-bulb 25.

In practical use the nozzle is inserted in the vagina, and the patient sits on the seat-plate 10, the sealing-bulb 12 engaging the labia and

preventing the escape of water from the vagina. The hot water is injected through the jets of the nozzle to the vagina and is retained in the vagina until its heat has been absorbed and is no longer felt, at which time the patient moves slightly and permits the discharge or escape of the cooled water from the vagina around the sealing-bulb 12 and through the apertures 15 of the plate 10 into the vessel supporting said plate. More hot water is then injected and retained until it cools. The primary effect of hot water injected to the vagina is relaxing, and if said hot water is continuously and frequently injected and permitted to escape at once the vagina is injuriously affected and the support of the uterus is weakened. The secondary effect of hot water is stimulating, and such secondary effect, as applied to the vagina, can be obtained only by retaining the hot water in the vagina and by repeating the injecting and retaining processes for some time, varying from one-half hour to one hour at each treatment. Hence it is that I have provided the sealing-bulb 12 to retain the water so long as desired in the vagina that the secondary effect may be obtained and have provided a firm and comfortable seat for the patient that may be occupied for the time desired for a treatment and have provided the ports 15 in the seat-plate for the escape of water without soiling the clothing of the patient or being otherwise inconvenient or disagreeable. The same mechanical devices may be employed to apply medication in a liquid vehicle to the vagina.

Another important feature of my invention is that by providing a sealing-bulb of soft flexible rubber with a central tube of hard unyielding rubber through which the nozzle is passed the center of the bulb is retained in a certain definite form, no matter how much internal pressure is applied to the sealing-bulb, and when pressure is applied to the top of the sealing-bulb then the top portions of its central tube are not inclined away from the nozzle, as would be the case with a central tube of yielding rubber. Hence no liquid can enter between the top of the central tube and the nozzle, where it would be hard to remove and would render difficult the cleansing of the

device. To provide additional means for excluding liquid from between the central tube and nozzle, I have formed on the nozzle a rim 18 to engage and overlap the top of the central tube and sealing-bulb, and this rim is adjustably held in firm engagement with said parts by the screw-threaded lower end of the nozzle seated in the socket 21. If after use the rim 18 fails to firmly engage, a rotation of the nozzle serves to again bring the parts in contact.

I claim as my invention—

1. The combination of a broad flat seat-plate adapted to rest directly on a vessel and alone support the user, a bulb on said plate, and a nozzle device centrally located in and connecting said bulb and plate, the plate formed with drainage-ports surrounding said bulb.

2. A seat-plate, a nozzle projected above it, a yielding sealing-bulb mounted on the seat-plate and formed with a non-yielding central tube which surrounds and closely fits the nozzle and holds the central portion of the bulb firmly to position when the remainder of the bulb is pressed downwardly.

3. A seat-plate, a yielding sealing-bulb mounted on the seat-plate formed with a non-yielding central tube, a nozzle projected through and above the central tube, adjustable relative to the seat-plate and formed with an outwardly-projecting rim engaging the top of the central tube, holding the bulb firmly to the seat-plate and preventing the entrance of liquid between the nozzle and central tube.

4. A seat-plate, a yielding sealing-bulb on the seat-plate formed with a non-yielding central tube, a nozzle formed with a screw-threaded lower end projecting through the seat-plate formed with a rim engaging the top of the central tube, and a hose-socket formed with a screw-threaded opening, said socket engaging the under surface of the seat-plate and receiving the screw-threaded end of the nozzle.

Signed by me at Des Moines, Iowa, this 22d day of February, 1904.

ELLA M. GRAY.

Witnesses:

HENRY H. GRIFFITHS,
S. C. SWEET.