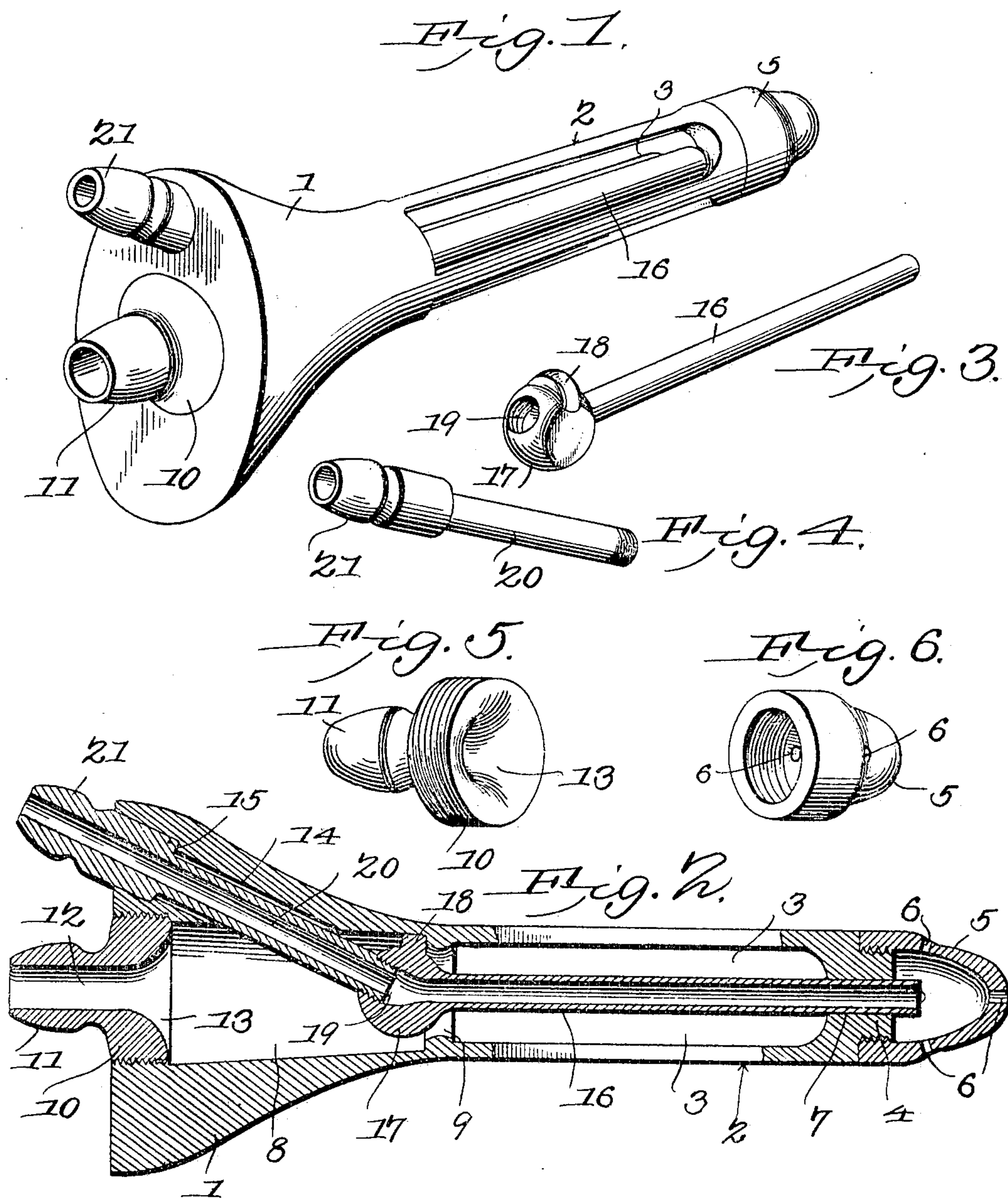


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SYRINGE.

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UNITED STATES PATENT OFFICE.

FRANK COLE BARNES, OF FREMONT, OHIO.

SYRINGE.

No. 799,216.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK COLE BARNES, a citizen of the United States, residing at Fremont, in the county of Sandusky and State of Ohio, have invented a new and useful Syringe, of which the following is a specification.

This invention relates to syringes, and has for its object to provide certain new and useful improvements in such class of devices to particularly adapt the same for cleansing the vagina and closely-associated parts.

It is a further object of the invention to facilitate the assemblage of the parts of the device and to enable the convenient disconnection thereof for the purpose of cleansing the same, thereby to render the device sanitary.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be herein-after more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of a syringe embodying the features of the present invention. Fig. 2 is a longitudinal sectional view thereof. Fig. 3 is a detail perspective view of the inner section of the induction pipe or passage. Fig. 4 is a detail perspective view of the outer section of the induction-passage. Fig. 5 is a detail perspective view of the outlet-plug. Fig. 6 is a detail perspective view of the spray-nozzle.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

The device of the present invention is formed of polished metal, preferably nickel-plated, in order that the same may be non-absorbent, readily cleansed, and therefore sanitary. The body 1 of the syringe is substantially elliptical in cross-section and tapered or conical, with its smaller end extended to form a cylindrical tube 2, which is provided with an annular series of longitudinal slots or openings 3, thereby forming a skeleton tube. The forward end of the tube is reduced, as at 4, and externally threaded, so as to form a coupling for a hollow internally-threaded spray-nozzle 5, provided with perforations 6. The threaded forward extremity

4 of the tube 2 is preferably increased in thickness inwardly and provided with a reduced concentric passage 7, communicating from the interior of the tube 2 to the interior of the nozzle 5. In the body or guard 1 of the device there is an enlarged chamber 8, which communicates with the tube 2, there being an internal annular flange or shoulder 9 at the intersection of the chamber 8 and the tube 2. This chamber 8 flares rearwardly and intersects the back of the body, where it is threaded for engagement by the hollow threaded plug 10, which is provided upon its outer side with a nipple 11, the passage 12, which extends through the plug and the nipple, being flared at its inner end. At one side of the plug 10 there is an inclined passage 14, which intersects the rear end of the guard or body 1 and communicates with the chamber 8, the inner portion of this passage being reduced to form an internal annular flange or shoulder 15 adjacent the outer end of the passage. Within the tube 2 there is a pipe 16, having its forward open end fitting snugly within the reduced passage 7 at the outer end of the tube and its rear end provided with a substantially spherical enlargement 17, upon which is a lateral projection or shoulder 18, designed to engage the annular shoulder 9 and limit the forward movement of the pipe, the enlargement 17 being somewhat less in diameter than the diameter of the passage through the annular shoulder 9 in order that there may be an annular space around the enlargement. In the enlargement 17 there is a threaded passage 19, intersecting the rear end of the enlargement and set at an angle to the bore of the pipe, so as to be in alignment with the passage 14, and thereby to receive the threaded inner end of an induction tube or pipe 20 passed through the passage 14. At the outer end of the pipe or tube 20 there is an enlarged nipple 21, the inner end of which is designed to engage the shoulder 15, with its outer end projected in rear of the guard or body 1 for connection with a flexible tube, which is in turn to be connected with a bulb or other suitable source of pressure to force water or other liquid through the induction tubes or pipes 20 and 16 and outwardly through the nozzle 5.

In assembling the present device the pipe 16 is introduced endwise through the rear open end of the chamber 8 until the forward end of the pipe is engaged with the opening 7 at the forward end of the tube 2, with the

shoulder 18 at the rear end of the pipe engaging the inner annular shoulder 9 to hold the pipe against further forward movement and with its forward end projected into the tubular nozzle 5. The pipe 20 is then introduced into the passage 14 and engaged with the threaded opening 19 at the rear end of the pipe 16, after which the plug 10 is fitted in place. A suitable flexible pipe (not shown) is connected to the induction-nipple 21 and is also connected with a suitable liquid-supply, while a flexible eduction tube or pipe is connected to the outlet-nipple 11.

When using the syringe, the nozzle and the tube 2 are introduced into the vagina until stopped by the tapered guard-plug 1, and then the liquid is turned on, which runs through the induction-pipes 20 and 16 and out through the spray-nozzle 5 directly to the parts to be cleansed and treated. The plug 1 of course closes the mouth of the vagina and prevents the escape of the liquid around the syringe, wherefore the liquid is forced to flow back through the slots or openings 3 into the tube 2, around the pipe 16, thence into the chamber 8, and finally out through the outlet-nipple 11, from which it is conducted to a remote point through a flexible eduction-pipe connected to the nipple. It is thus apparent that a steady inflow and outflow of liquid may be maintained to effectually cleanse the vagina and associated parts without danger of soiling the apparel or the bed-clothing. By having the eduction-opening 12 located centrally through the rear end of the syringe the water will run out through this opening without regard to the position of the device, which is an important advantage over similar devices wherein the eduction-tube pierces the rear end of the syringe at an angle to the longitudinal axis thereof, in which event care must be taken to have the eduction-tube at the lower side of the device, in order that the water may be properly run out therethrough. In addition to its use as a syringe the device may be used as a urinal in a very convenient and effective manner.

By reason of the detachable connection between the parts of the device they may be readily separated and cleansed, which renders the device sanitary. The flared or enlarged inner terminal portion 13 of the passage 12 is intended to obviate an annular shoulder around the inner end of the plug, and thereby prevent the accumulation of fetid matter.

Having fully described the invention, what is claimed is—

1. A syringe comprising a tubular body which is open at its rear end and provided at its forward end with a spray-nozzle, there being openings in the body in rear of the nozzle,

an inner annular shoulder within the body and located in rear of the openings, a longitudinal pipe located in the body with its forward end in communication with the nozzle and its rear end provided with a projection to engage the shoulder at the rear side thereof, and an induction-pipe piercing the body at an inclination to its longitudinal axis and connected to the rear end of the first-mentioned tube, the outer end of the induction-pipe being provided with a nipple projected in rear of the body.

2. A syringe comprising a tubular body which is open at its rear end and provided at its forward end with a spray-nozzle, there being openings in the body located in rear of the nozzle, an annular shoulder within the body in rear of the openings, a tube disposed longitudinally within the body with its forward end in communication with the nozzle with its rear end terminating in a segmental enlargement located in rear of the shoulder and provided with a lateral projection to engage the rear side of the shoulder, the enlarged rear end of the tube having a threaded opening communicating with and set at an inclination to the bore of the tube, and an induction-pipe piercing the rear end of the body at an angle to the longitudinal axis thereof with its inner end connected to the threaded opening of the tube and its outer end provided with a nipple projected in rear of the body.

3. A syringe comprising a tubular body which is open at its rear end and has said rear end enlarged to form a tapered plug, the forward end of the body being provided with a reduced longitudinal opening communicating with the bore thereof and there being openings in the body between its forward end and its tapered rear end, a nozzle upon the forward end of the body, an annular shoulder within the body in rear of the opening therein, a tube having its forward end fitted in the reduced opening at the forward end of the body with its rear end provided with a lateral projection engaging the rear side of the inner annular shoulder, and an induction-pipe piercing the rear end of the body at an inclination to the longitudinal axis thereof with its inner end connected to the pipe and its rear end provided with a nipple projected in rear of the body.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FRANK COLE BARNES.

Witnesses:

M. J. DUNIGAN,
C. S. HUFFORD.