

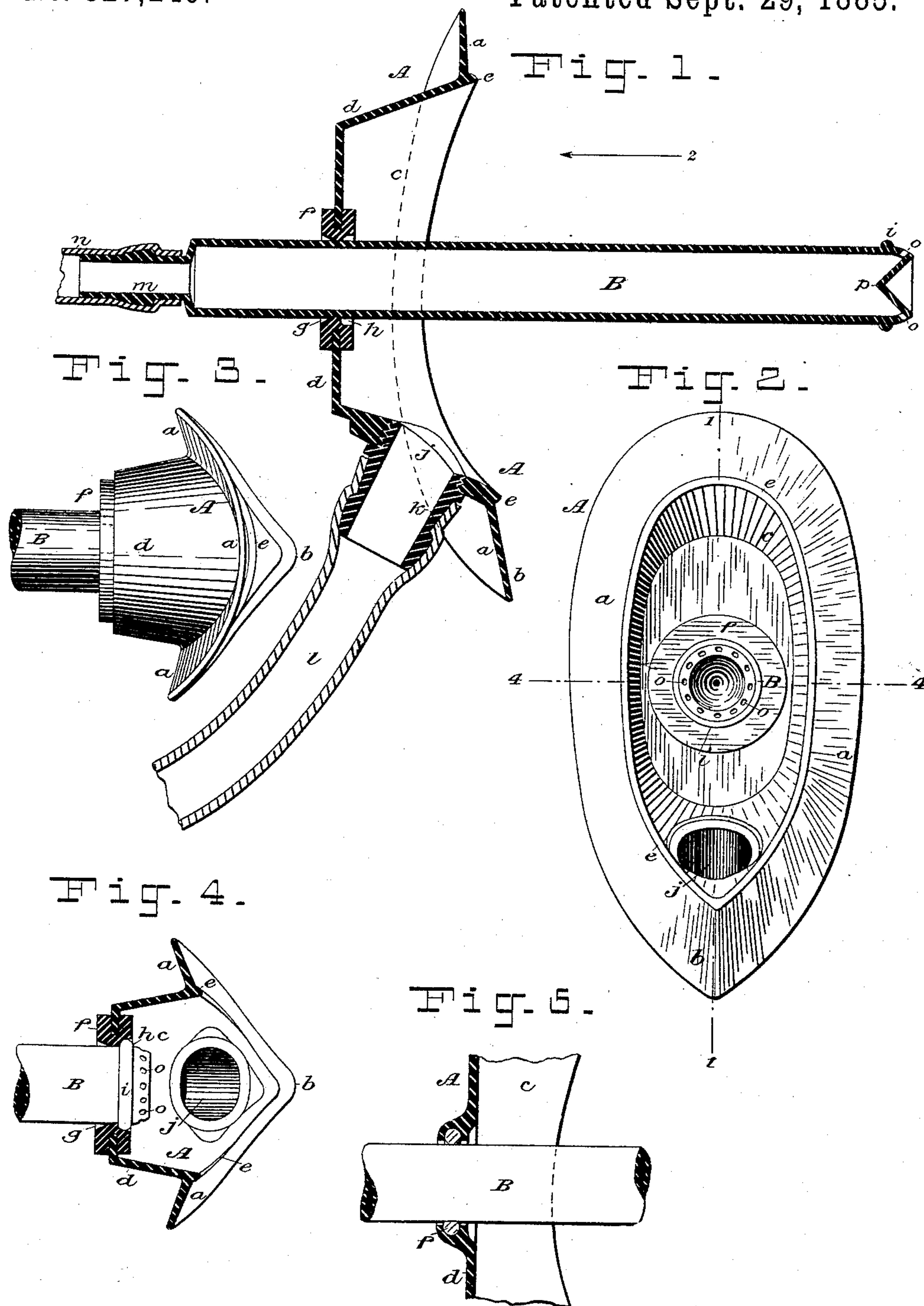
(No Model.)

J. H. FOOTE.

SYRINGE.

No. 327,249.

Patented Sept. 29, 1885.



WITNESSES:

*E. B. Bolton*

*Geo. Bainton*

INVENTOR:

*James H. Foote*

By his Attorneys,

*Burke, Fraser & Hornum*



# UNITED STATES PATENT OFFICE.

JAMES H. FOOTE, OF NEW YORK, N. Y.

## SYRINGE.

SPECIFICATION forming part of Letters Patent No. 327,249, dated September 29, 1885.

Application filed July 2, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. FOOTE, a citizen of the United States, and a resident of the city, county, and State of New York, have  
5 invented certain new and useful Improvements in Vaginal Irrigators and Urinals, of which the following is a specification.

My invention relates to an instrument for irrigating the vagina, for administering curative liquids to the surfaces thereof, and for  
10 enabling the patient to urinate while in a recumbent position without soiling the bedding, clothing, &c., and the object is in part to provide a flanged shield that will fit to the  
15 person of the user exterior to the vaginal opening, so that no liquid can escape around it; in part to provide said shield with an aperture for the insertion and play of the syringe or injector, and an outlet at the base  
20 whereat the irrigating liquid or urine, as the case may be, may be drawn or led off and conveyed to some proper vessel arranged at a lower level than the instrument; in part to  
25 so construct the shield and injection-tube that the latter may be drawn back entirely out of the vagina, while the shield is still in place, in such a manner that the radial jets will thoroughly cleanse the labia and the cavity of the shield and dilute the urine during urination, and in part to certain improvements  
30 in the form of the syringe or injector, all as will be hereinafter more fully described.

In the drawings, which serve to illustrate my invention, Figure 1 is a section of the instrument through both the shield and injector,  
35 taken in the plane indicated by line 1 1 in Fig. 2. Fig. 2 is a front view of the instrument, taken from the point indicated by the arrow 2 in Fig. 1. Fig. 3 is a plan of the shield, showing a part only of the injector.  
40 Fig. 4 is a transverse section of the shield in the plane indicated by line 4 4 in Fig. 2. Fig. 5 illustrates a modified construction of the packing through which the injector plays.

45 A is the shield as a whole, the front contour of which is seen in Fig. 2. This shield has a flared marginal flange, *a*, which is convex at the front, as seen in the plan, Fig. 3, and concave, as seen in the section, Fig. 1.  
50 At its lower part it is brought to a blunt V-like form in front, as seen in Figs. 2, 3, and 4. This form is given to flange *a* in order

that it may fit closely to the person of the user and conform to the parts. The V-like projection *b* fits closely to the person below  
55 the vaginal opening. In the center of the shield is formed a recess, *c*, which is effected by forming at the back of the shield a rear extension, *d*, and around the margin of the recess *c* on the front I usually form a continuous  
60 bead, *e*, having substantially a V shape in cross-section to assist in preventing leakage around the margin or flange *a*. This peculiar construction gives to the shield a hat shape,  
65 the flange *a* extending out from the extension *d* all around somewhat in the manner of a hat-brim.

In the back of the extension *d* is an aperture for the passage of the injector B, and this aperture I pack in order to prevent liquid  
70 from leaking around the injector and yet permit the injector to play freely back and forth through the shield. I prefer to construct this packing of rubber in the form of a disk, *f*, with a groove in its edge to receive the  
75 edge of the shield around the margin of the hole therein. The hole in the disk *f* is flared at the outside, as seen at *g* in Figs. 1 and 4, and is also flared at the inside, as seen at *h*. This flaring allows the injector some lateral  
80 or angular play, and the inner recess provides a space to receive a bead, *i*, on the injector B, when the latter is drawn back, as will be explained.

In the lower part of the wall of extension  
85 *d*, and at the bottom of recess *c*, is the outlet *j* for the waste liquid and urine. This I provide with a suitable nipple, *k*, to which is attached in the usual way a rubber or other  
90 tube, *l*, to convey the liquid off to any suitable vessel at a lower level.

The injector B is provided at its outer or receiving end with a suitable nipple, *m*, to receive a tube, *n*, which supplies the liquid for irrigation or medication. The body of  
95 the injector is made of uniform diameter by preference, and the bead *i*, before referred to, is placed near the nozzle or inner end. The inner end is provided with numerous radiating jet-apertures, *o o*, and an internal deflecting-cone, *p*, for deflecting the liquid outward  
100 to said apertures. While useful, I do not consider this cone as essential.

In fitting or inserting the injector in the



shield the injector is removed from the tube *n*, and the nipple end is passed through the hole in the packing-disk *f* from the front. The injector may be drawn back to the position indicated in Fig. 4, when the bead *i* enters the recess *h* in the packing, and the injector cannot be drawn back any farther. This construction prevents the user from inadvertently drawing the injector from the shield, and the recess *h* permits the jet-apertures to be drawn back almost to the back wall of recess *c*. This allows the radial jets to thoroughly wash the interior of the shield and the labia, and is especially useful during and after urination.

When used as an irrigator, the injector B is first inserted in the vagina, and the shield is then pushed up to contact with the parts, the injector serving as a guide. The shield is now held up firmly in place by the hand, with the flange *a* pressed against the body exterior to the vaginal opening, and the liquid turned on from an elevated reservoir or a pump in the usual way with such instruments. The waste liquid flows back and out at the tube *l* through outlet *j*.

During the irrigating operation the injector B may be moved in and out or be entirely withdrawn from the vagina, so as to thoroughly wash all its parts. This I consider an important advantage of my irrigator and urinal. The construction of the shield is such that it effectually prevents leakage of waste water or urine, and at the same time it allows the greatest possible freedom in the manipulation of the injector.

When used as a urinal, the shield is held in place in the same way, and the injector B is drawn back to the position shown in Fig. 4, the urine flowing off through outlet *j* and tube *l*. After the flow of the urine ceases the organ may be washed by turning on the water to the injector without changing its position. This will also serve to cleanse the instrument and outlet-tube. The water may also be allowed to flow during urination, which serves to dilute the urine and remove the odor to some extent.

In one proposed form of combined irrigator and urinal the shield has a boat-like form the edges of the shield, which are unprovided with a flange, enter between the labia, and at its lower end the shield is provided with a perineal stem, which is overlapped by the labia. The urine or waste liquid enters a bulbous sack at the bottom of the shield and flows off thence through a waste-pipe. In this instrument the injection-tube does not play through the shield, but is attached to a nipple on the inside of the shield by a flexible tube. The injection-tube must be inserted in the vagina before the shield is placed, and it cannot be removed while the shield is in place. In order to urinate, the shield must be removed and the injection-tube withdrawn. It may remain within the cavity of the shield dur-

ing urination. It will readily be seen wherein my improved instrument differs from this.

In some proposed irrigators the injection-tube has been constructed to play through the shield; but these have a vaginal tube which extends into the vagina a considerable distance, which prevents them from serving as urinals. In my instrument nothing enters the vulva and vagina but the injector-tube, and all the interior surfaces are exposed to the action of the jets.

My improved shield may be employed with any form of injector that has a substantially-uniform diameter; and I do not limit myself to the particular form of injector shown.

Any suitable packing for the injector may be used. In Fig. 5 I have shown a simple rubber ring, *f'*, which engages a circumferential groove in the shield. The packing is mainly designed to prevent leakage during urination when the water is turned on. In the ordinary process of irrigation there is very little liability of leakage if the injection-tube fits snugly.

While I am aware that it is not new to arrange the injector-tube to play through an aperture in a shield, I believe it to be new in a shield of this construction, which is wholly exterior to the vulva, and which has the aperture for the passage of the tube arranged in the outer wall of the outwardly-projecting extension, whereby the tube may be wholly withdrawn from the vagina without withdrawing it from the shield.

Having thus described my invention, I claim—

1. A shield for a vaginal irrigator and urinal, provided with a continuous projecting flange, *a*, and a rearwardly or outwardly-projecting extension, *d*, provided with an aperture in its outer wall for the passage of the injection-tube and an outlet at its bottom for the escape of the waste liquid, substantially as set forth.

2. A shield for a vaginal irrigator and urinal, having substantially the form set forth, and comprising the flange *a*, provided with a V-like projection, *b*, at its lower end, the rearward or outward extension, *d*, having a packed aperture for the injector and an outlet, *j*, at its lower part for the escape of the waste liquid, substantially as set forth.

3. The injector provided with a bead, *i*, near its discharging end, in combination with the shield provided with an aperture for the passage of the body of the injector, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JAMES H. FOOTE.

Witnesses:

HENRY CONNETT,  
ARTHUR C. FRASER.