

Oct. 7, 1924.

1,510,973

T. BEHAN

URINE CONDUCTOR

Filed Aug. 6, 1923

2 Sheets-Sheet 1

Fig. 1.

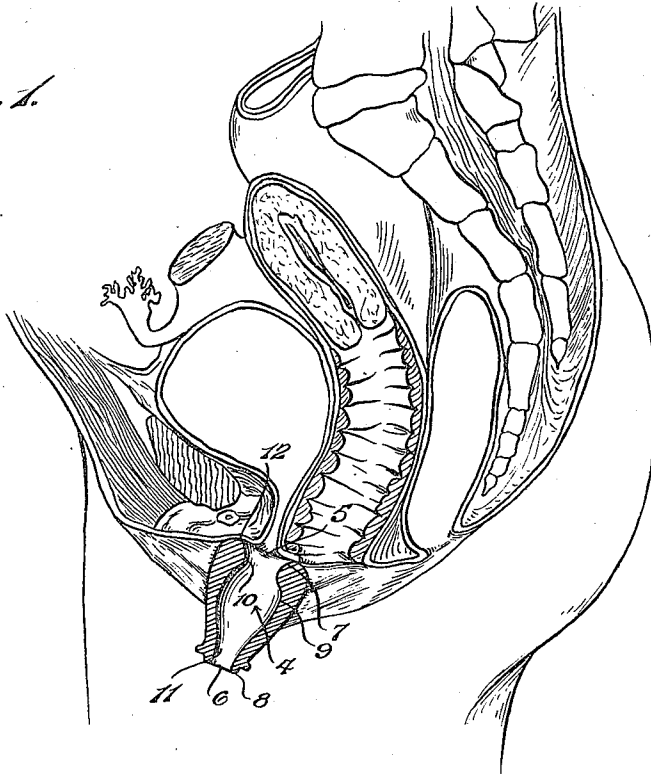


Fig. 2.

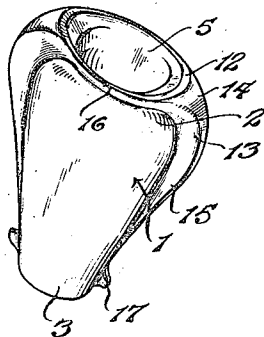
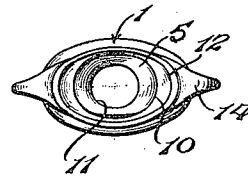


Fig. 3.



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Fig. 4.

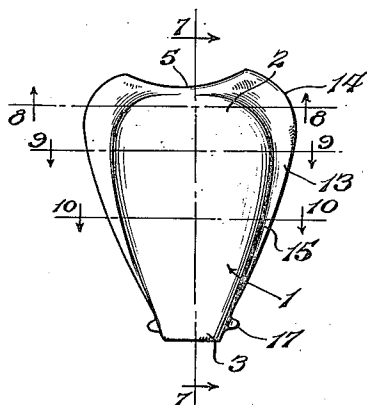


Fig. 5.

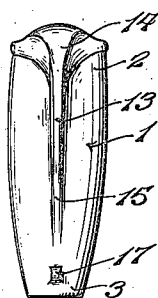


Fig. 6.

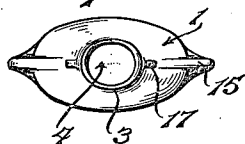


Fig. 7.

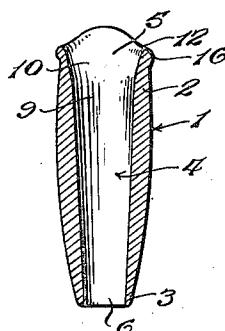


Fig. 8.

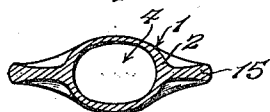


Fig. 9.

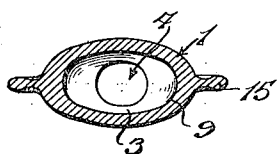
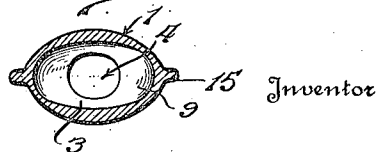


Fig. 10.



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Patented Oct. 7, 1924.

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UNITED STATES PATENT OFFICE.

THOMAS BEHAN, OF ALIQUIPPA, PENNSYLVANIA.

URINE CONDUCTOR.

Application filed August 6, 1923. Serial No. 656,027.

To all whom it may concern:

Be it known that I, THOMAS BEHAN, a citizen of the United States, residing at Aliquippa, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Urine Conductors, of which the following is a specification.

This invention relates to improvements in urine conductors. It is a well known fact that females experience considerable annoyance in passing their urine, particularly where they are required to use public toilets. If the toilet seat is in an unclean condition they must either run the risk of contracting disease through contact therewith, or at least have their clothing and their persons contaminated, or they must assume a half sitting posture above the seat with much attendant annoyance. Males do not, of course, experience this difficulty and they may use toilets and urinals without liability of infection or contamination. Therefore, it is the primary object of the present invention to provide a device which may be employed by females and by the employment of which they may urinate in much the same manner as males, that is to say, while in a standing position.

Another object of the invention is to provide a urine conductor for use by females, so constructed that in the use thereof there will be no likelihood of any of the urine reaching the clothing to soil the same and create offensive odors and insanitary conditions.

Another object of the invention is to so construct and form the device that it may be very readily and conveniently employed and placed in position and removed without any annoyance and likewise without the necessity of the user actually touching the labia of the vulva. In this connection, the invention contemplates providing means upon the conductor adapting the conductor to automatically open or separate the labia of the vulva at the time the device is placed in position.

The invention contemplates so constructing the device that it may be removed without any likelihood of dropping urine upon the clothing or upon the person and, in this connection, the invention further contemplates so forming the conductor, interiorly, that it will serve as a receptacle for any drops of urine which may be emitted after

the regular passage of urine and prior to removal of the conductor.

Another object of the invention is to provide against any back flow of urine from the discharge end of the conductor along the exterior under side thereof in such manner that the urine might reach the clothing or person of the user.

In the accompanying drawings:

Figure 1 is a sectional view through the urine conductor embodying the invention, the view illustrating also a section of the viscera of a female, the conductor being in place in the mouth of the vulva,

Figure 2 is a perspective view of the conductor,

Figure 3 is a plan view looking at the upper end of the conductor,

Figure 4 is a side elevation of the conductor,

Figure 5 is a front or back elevation, either as may be considered,

Figure 6 is a plan view looking at the lower end of the conductor,

Figure 7 is a vertical transverse sectional view on the line 7—7 of Figure 4, looking in the direction indicated by the arrows,

Figure 8 is a horizontal sectional view on the line 8—8 of Figure 4, looking in the direction indicated by the arrows,

Figure 9 is a similar view on the line 9—9 of Figure 4, looking in the direction indicated by the arrows,

Figure 10 is a similar view on the line 10—10 of Figure 4, looking in the direction indicated by the arrows.

The conductor embodying the invention comprises a body indicated in general by the numeral 1 and of the form indicated in the several figures of the drawings. The body has the general contour of a flattened ellipsoid, the ends of which are truncated, the major end of the body being indicated by the numeral 2 and the minor end by the numeral 3. The body is of hollow form so that a passage, indicated in general by the numeral 4, is formed substantially axially therethrough. The intake end of the passage is indicated by the numeral 5 and the discharge or outlet end by the numeral 6, these ends opening respectively through the major and minor ends of the body. The inlet end 5 of the passage is preferably flared, as indicated by the numeral 7, and the outlet or discharge end 6 may likewise be slightly flared, as indicated by the numeral 8.

Inwardly of its flared intake end, the passage 4 is increased in depth somewhat, in the direction of the breadth dimension of the body, so that concavities 9 are provided inwardly of the intake end of the passage, and a somewhat restricted throat 10 is thus formed between the flared intake of the passage and the main or intermediate portion thereof. As stated, the passage is somewhat increased in dimensions in the direction of the breadth dimension of the body so as to form the cavities 9, and these cavities constitute, in effect, small chambers either of which may accommodate a small quantity of urine without liability of the urine being discharged through either end of the device so long as the same is held in a nearly horizontal position. While the passage 4 in the body is of the contour above described, it, at the same time, conforms more or less closely to the general contour of the exterior of the body except, of course, for the chambered portions 9. From said chambered portions 9, the passage is somewhat restricted, as indicated by the numeral 11, in the direction of and adjacent its discharge end. It will also be observed by reference to Figures 3, 6, 9 and 10 of the drawings, that the discharge end of the passage 4 is of approximately circular contour and considerably smaller in diameter than the inlet end. It will likewise be observed by reference to Figures 1, 2 and 3 of the drawings, that the inlet end 5 of the passage is not only flared but it is of elliptical form so as to snugly and comfortably accommodate the urethra, as shown in Figure 1 of the drawings. Likewise, it is preferable that the body at its major end be rounded, as indicated at 12, where it surrounds the flared inlet end 5 of the passage, so that no irritation of the urethra will be occasioned by the use of the conductor.

In order to provide for both convenient insertion of the conductor into the vulva and insure of its proper retention in place, fins 13 are formed upon the exterior of the body 1, at opposite sides of said body, these fins being located between and extending longitudinally with relation to the opposite more or less flattened sides of the body and being, therefore, formed upon the more acutely curved opposite sides or edges of the body. The fins 13 are rounded at their upper ends, as at 14, and are somewhat thicker at their said ends than at their lower ends, the fins being gradually decreased in breadth and in thickness, as at 15, from their said upper to their said lower ends. Shallow ribs 16 are formed to extend about the circumference of the upper end of the body and consequently about the opposite sides of the flared intake end 5 of the passage 4, and constitute connecting continuations of the upper ends of the fins 13 so that the lips or

labia of the vulva will more or less snugly engage the opposite sides of the device and so engage and coact with the upper ends of the fins 13 and the ribs 16 as to insure of retention of the device more securely in place while it is being used.

In using the device, the same is grasped between the thumb and fore-finger or the thumb and first and second fingers of either hand and is inserted upwardly and forwardly between the lips or labia of the vulva until its flared intake end 5 is in position fitting and receiving the urethra. At such time, the device will assume substantially the position shown in Figure 1 of the drawings and it will be evident, by reference to this figure, that a female using the device may urinate with substantially the same convenience as a male. In removing the device, it is preferably tilted forwardly slightly and then removed in a general downward direction. In so tilting the device, any drops of urine which might have been discharged or emitted after the natural passage of urine, will accumulate in one or the other of the chambers 9, depending upon which side of the device is lowermost at the time of removal. Either chamber will, therefore, serve as a small catch basin, so to speak, for the finally emitted drops of urine or any urine which may have accumulated upon the walls of the passage 4, and after removal of the device it may be tilted to a substantially vertical position with its discharge end lowermost, so as to discharge therefrom the accumulated drops of urine.

In order to prevent any urine which may be discharged through the discharge end 6 of the passage from flowing backwardly along the under side of the device and onto the clothing or person of the user, small ears 17 are formed upon the exterior of the body 1 immediately inwardly of the said discharge end 6 and substantially at the forward ends of the fins 13 where these fins merge with the surface of the said body. Any drops of urine which might be discharged through the opening 6 at the time of removal of the device, if the device is in a substantially horizontal or somewhat tilted position, will not flow back along the under side of the device and onto the clothing or person of the wearer but will be accumulated by one or the other of the ears 17 and formed into drops to be discharged from the tips of the ears.

It will be evident from the foregoing description of the invention that the device may be applied in a most convenient manner without the necessity of the user bringing her fingers into contact with the lips or labia of the vulva, the said lips or labia being automatically separated at the time of introduction of the device into the vulva and in such manner as to permit of the in-

take end of the device being fitted snugly against the urethra.

Having thus described the invention, what is claimed as new is:

5 1. A urine conductor comprising a body having a passage therethrough, and a fin upon the exterior of the body constituting means for separating the labia of the vulva upon insertion of the conductor.

10 2. A urine conductor comprising a body having a passage therethrough, and a fin upon the exterior of the body constituting means for separating the labia of the vulva upon insertion of the conductor, said fin extending longitudinally of one side of the body.

3. A urine conductor comprising a body having a passage therethrough, and a fin upon the exterior of the body constituting means for separating the labia of the vulva upon insertion of the conductor, said fin extending longitudinally of one side of the body and being gradually decreased in width and thickness from its end next adjacent the entering end of the body to its opposite end.

4. A urine conductor comprising a body having a passage therethrough, and a fin upon the exterior of the body constituting means for separating the labia of the vulva upon insertion of the conductor, the said fin being rounded and merging with the entering end of the body.

5. A urine conductor comprising a body having a passage therethrough, and a fin upon the exterior of the body constituting means for separating the labia of the vulva upon insertion of the conductor, the said fin being rounded and merging with the entering end of the body and from its rounded end extending longitudinally of the body and decreased in width and thickness toward its opposite end.

6. A urine conductor comprising a body having a passage therethrough, the body being of substantially flattened ellipsoidal form, and fins upon the exterior of the body at the more acutely curved sides thereof and constituting means for separating the labia of the vulva upon insertion of the conductor.

7. A urine conductor comprising a body having a passage therethrough, the body being of substantially flattened ellipsoidal

form and the wall of the passage having a chamber formed at an intermediate point in its length, said body being provided exteriorly with a fin extending longitudinally thereof and constituting means for separating the labia of the vulva upon insertion of the conductor.

8. A urine conductor comprising a body having a passage therethrough, the body being of substantially flattened ellipsoidal form whereby it may be inserted between the labia of the vulva and the passage at its intake end being flared and of substantially elliptical form to fit and receive the urethra.

9. A urine conductor comprising a body of substantially flattened ellipsoidal form whereby it may be inserted between the labia of the vulva having a passage therethrough, the passage at its intake end being flared and of substantially elliptical form to fit and receive the urethra, the passage at its discharge end being decreased in diameter.

10. A urine conductor comprising a body having a passage therethrough, the body being of substantially flattened ellipsoidal form, and fins upon the exterior of the body extending longitudinally of the more acutely curved sides thereof and constituting means for separating the labia of the vulva upon insertion of the conductor, the walls of the passage in the body being formed, opposite the fins, with cavities constituting urine receiving chambers.

11. A urine conductor comprising a body having a passage therethrough, the passage at its inlet end being formed to fit and receive the urethra, and a drop collecting ear upon the exterior of the body adjacent the discharge end of the said passage therein.

12. A urine conductor comprising a body having a passage therethrough, the body being exteriorly of substantially flattened ellipsoidal form and having a passage formed therethrough having an inlet end opening through the major end of the body and an outlet end opening through the minor end of the body, and a drop collecting ear upon the exterior of the body near the minor end thereof.

In testimony whereof I affix my signature.

THOMAS BEHAN. [L. S.]