



(19) **United States**

(12) **Patent Application Publication**
King-Boutte

(10) **Pub. No.: US 2012/0117720 A1**

(43) **Pub. Date: May 17, 2012**

(54) **FEMALE URINATION APPARATUS**

(52) **U.S. Cl. 4/144.2**

(76) **Inventor: Raquel King-Boutte, Humble, TX (US)**

(57) **ABSTRACT**

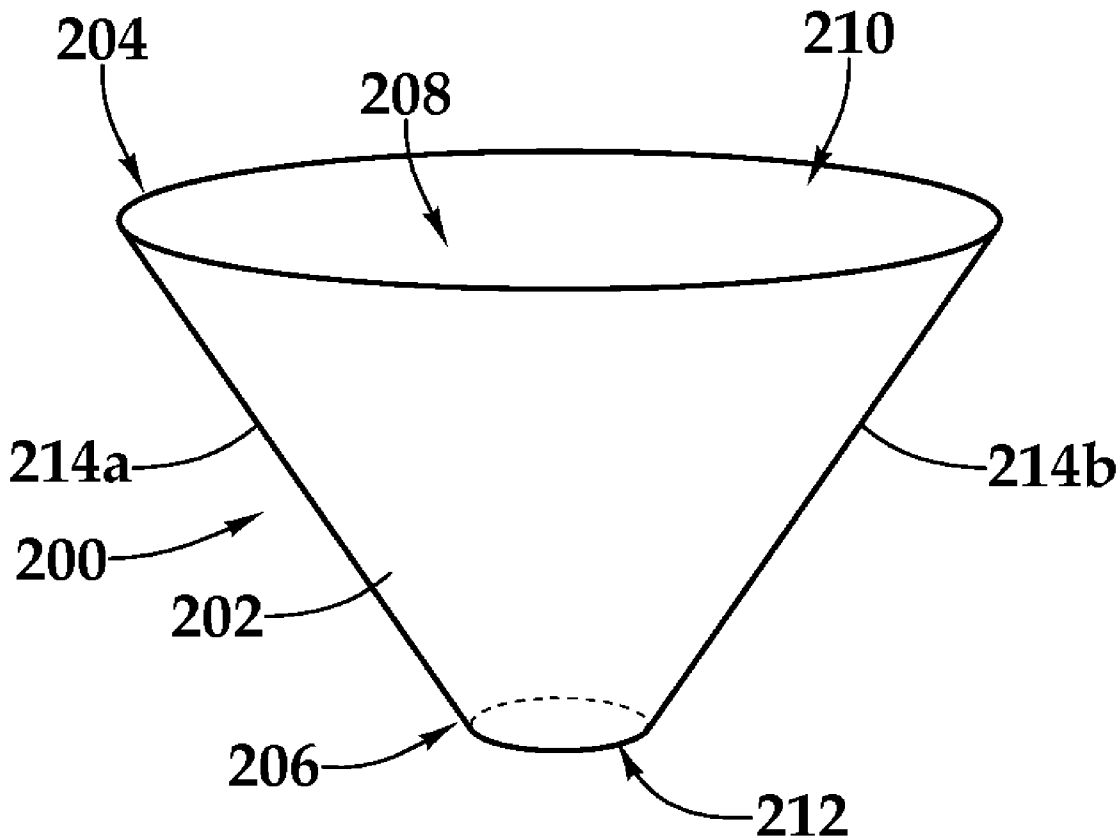
(21) **Appl. No.: 12/947,876**

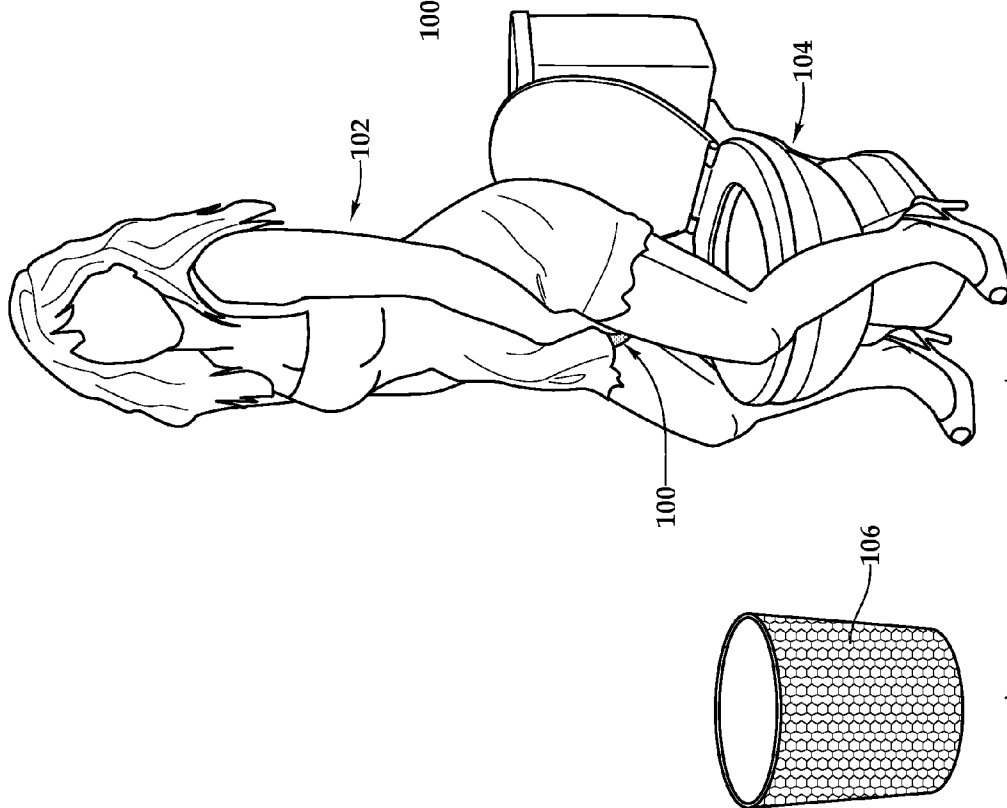
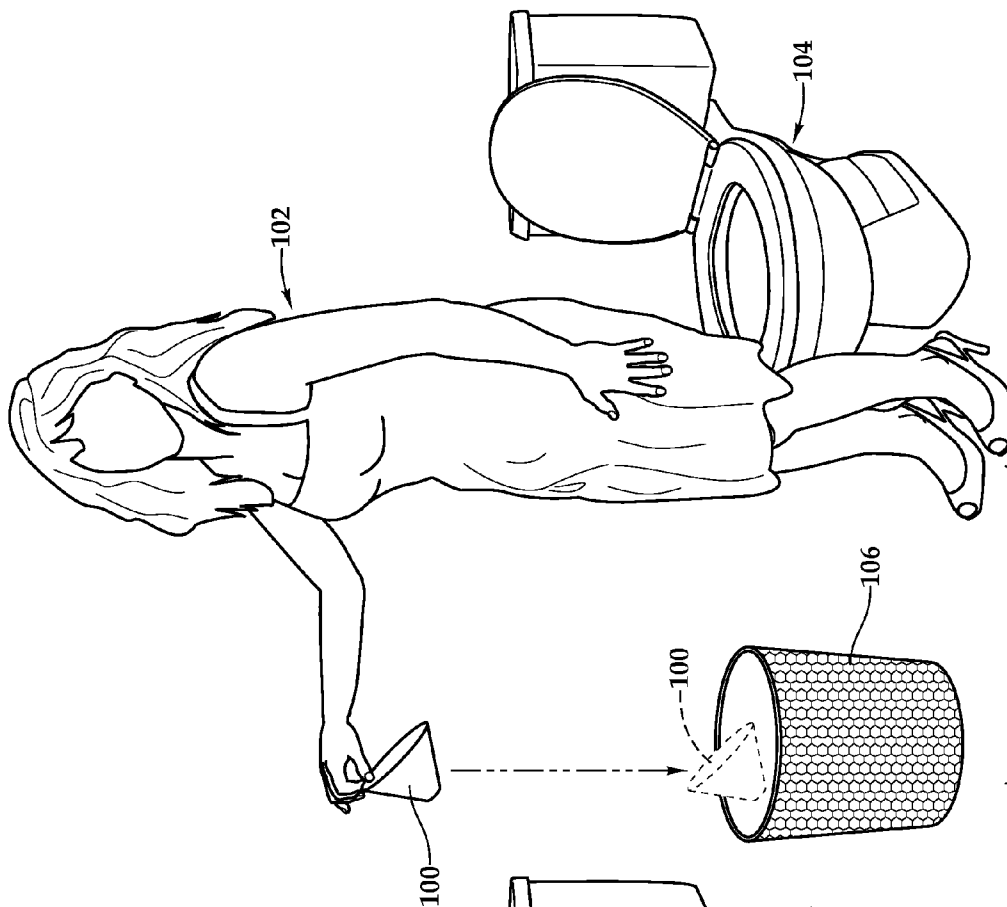
A female urination apparatus including a collapsible body having an upper end and a lower end; the body being operable between a collapsed storage position and an expanded operating position; an upper opening disposed in the upper end having a substantially flat shape when in the collapsed storage position and a substantially oval shape when in the expanded operating position; a lower opening disposed in the lower end having a substantially flat shape when in the collapsed storage position and a substantially oval shape when in the expanded operating position; and a fluid passageway disposed through the body connecting the upper opening with the lower opening.

(22) **Filed: Nov. 17, 2010**

Publication Classification

(51) **Int. Cl. A47K 11/06 (2006.01)**





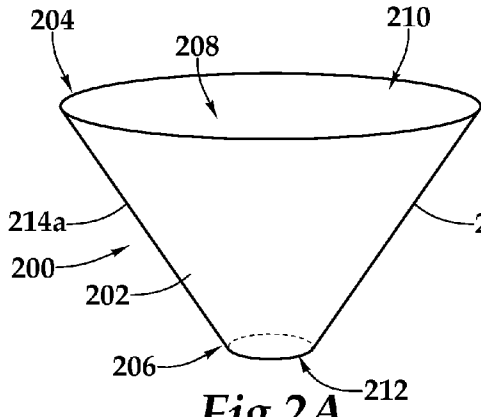


Fig. 2A

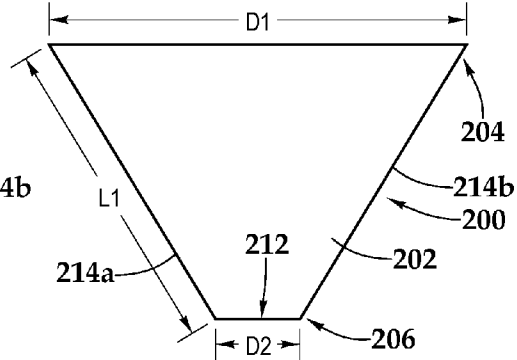


Fig. 2B

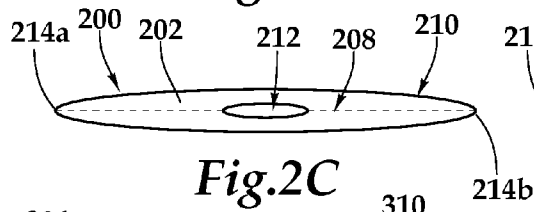


Fig. 2C

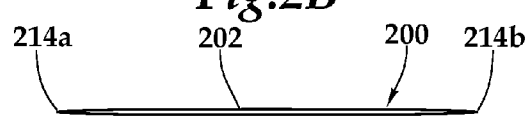


Fig. 2D

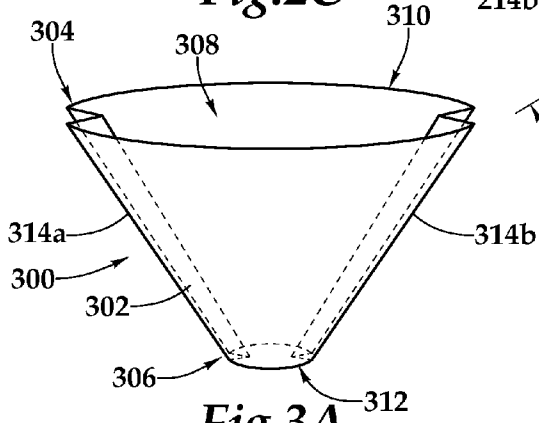


Fig. 3A

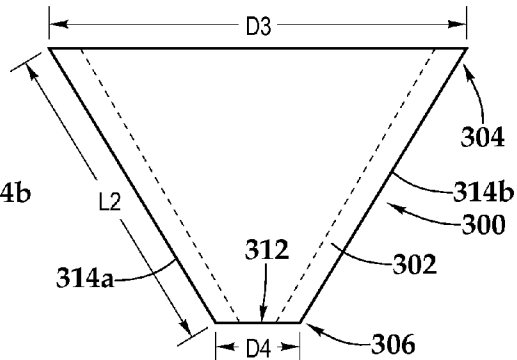


Fig. 3B

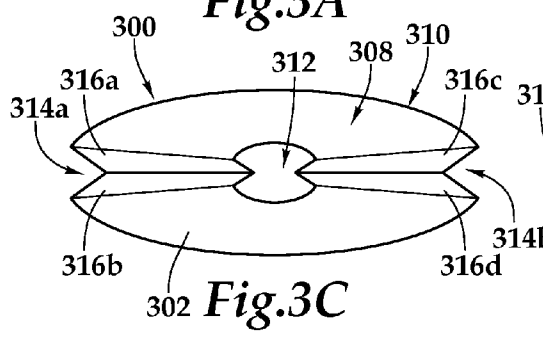


Fig. 3C

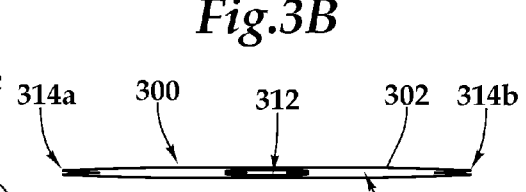


Fig. 3D

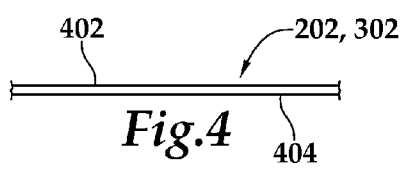


Fig. 4

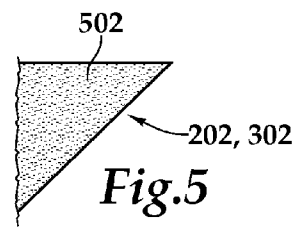


Fig. 5

FEMALE URINATION APPARATUS

TECHNICAL FIELD OF THE INVENTION

[0001] This invention relates, in general, to a female urination apparatus and, in particular, to female urination apparatus to enable a female to urinate while standing.

BACKGROUND OF THE INVENTION

[0002] Without limiting the scope of the present invention, its background will be described in relation to a human female urination apparatus, as an example.

[0003] Oftentimes, it may be desirable for females to urinate in a position other than sitting on a seat of a toilet. It is known that many times toilet seats in public areas may be unsanitary and there may be no disposable seat covers available. Other times females may have discomfort due to post-surgical situations that involve vaginal stitches. Also, post-cosmetic surgery may require confining undergarments that are difficult to remove quickly prior to urinating in a seated position. In another example, there may be times during car travel when a female may find the need to urinate standing up when facilities are not available.

[0004] Several attempts have been made to facilitate females in urinating while standing. Many of these devices are medical type catheter devices that are expensive and are designed for long-term use. Accordingly, a need has arisen for an apparatus that enables a female to urinate while standing.

SUMMARY OF THE INVENTION

[0005] The present invention disclosed herein is directed to a female urination apparatus that provides the ability for females to urinate while standing.

[0006] In one embodiment, the present invention is directed to a female urination apparatus that may include a body having an upper end and a lower end; the body being operable between a collapsed storage position and an expanded operating position; an upper opening disposed in the upper end having a substantially flat shape when in the collapsed storage position and a substantially oval shape when in the expanded operating position; a lower opening disposed in the lower end having a substantially flat shape when in the collapsed storage position and a substantially oval shape when in the expanded operating position; and a fluid passageway disposed through the body connecting the upper opening with the lower opening.

[0007] In one aspect, the substantially oval shape may be selected from the group consisting of a pointed oval, ovoid, and vesica piscis. Preferably, the upper end may have a width of from about 3 inches to about 5 inches when in the collapsed storage position and the lower end may have a width of from about 0.5 inches to about 2 inches when in the collapsed storage position. Further, the female urination apparatus may include opposing edges extending from the upper end to the lower end when in the collapsed storage position, the length of the edges being from about 2.5 inches and to about 4.5 inches.

[0008] In another aspect, the upper end may be a linear edge extending between the opposing edges when in the collapsed storage position. In addition, the surface of the fluid passageway may be coated with a hydrophobic material.

[0009] In another embodiment, the present invention may be directed to a female urination apparatus that may include a collapsible body having an upper opening and a lower open-

ing; the collapsible body being operable between a collapsed storage position and an expanded operating position; and opposing inwardly extending longitudinal folds disposed in the collapsible body and extending substantially from upper opening to the lower opening; and a fluid passageway disposed through the collapsible body connecting the upper opening with the lower opening.

[0010] In one aspect, the opposing inwardly extending longitudinal folds may be inwardly folded portions of the collapsible body. In another aspect, the opposing inwardly extending longitudinal folds may extend fully inwardly in the collapsed storage position and less inwardly in the expanded operating position. Further, the shape of the upper opening may be substantially double convex shaped where they are joined at their points by the opposing inwardly extending longitudinal folds.

[0011] Additionally, the upper end may be a linear edge extending from the opposing inwardly extending longitudinal folds when in the collapsed storage position. Also, the surface of the fluid passageway may be coated with a hydrophobic material.

[0012] In yet another embodiment, the present invention may be directed to a female urination apparatus that may include a collapsible body having an inner layer and an outer layer, the body being operable between a collapsed storage position and an expanded operating position; an upper opening disposed in the body having a substantially flat shape when in the collapsed storage position and a substantially oval shape when in the expanded operating position; a lower opening disposed in the body having a substantially flat shape when in the collapsed storage position and a substantially oval shape when in the expanded operating position; and a fluid passageway disposed through the body connecting the upper opening with the lower opening.

[0013] In one aspect, the inner layer may be composed of a hydrophobic material. In another aspect, the substantially oval shape may be selected from the group consisting of a pointed oval, ovoid, and vesica piscis. In yet another aspect, the upper opening may be a linear edge extending between the opposing edges when in the collapsed storage position. Also, the upper opening may have a width of from about 3 inches to about 5 inches when in the collapsed storage position. In addition, the lower opening may have a width of from about 0.5 inches to about 2 inches when in the collapsed storage position. In still yet another aspect, the female urination apparatus may further include opposing edges extending from the upper opening to the lower opening when in the collapsed storage position, the length of the edges being from about 2.5 inches and to about 4.5 inches.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] For a more complete understanding of the features and advantages of the present invention, reference is now made to the detailed description of the invention along with the accompanying figures in which corresponding numerals in the different figures refer to corresponding parts and in which:

[0015] FIGS. 1A-1B are illustrations of an embodiment of a female urination apparatus in use by a female according to an embodiment of the present invention;

[0016] FIG. 2A is a perspective view of a female urination apparatus according to an embodiment of the present invention;

[0017] FIG. 2B is a side view of the female urination apparatus of FIG. 2A;

[0018] FIG. 2C is a top view of the female urination apparatus of FIG. 2A in an expanded operating position according to an embodiment of the present invention;

[0019] FIG. 2D is a top view of the female urination apparatus of FIG. 2A in a collapsed storage position according to an embodiment of the present invention;

[0020] FIG. 3A is a perspective view of a female urination apparatus according to another embodiment of the present invention;

[0021] FIG. 3B is a side view of the female urination apparatus of FIG. 3A;

[0022] FIG. 3C is a top view of the female urination apparatus of FIG. 3A in an expanded operating position according to an embodiment of the present invention;

[0023] FIG. 3D is a top view of the female urination apparatus of FIG. 3A in a collapsed storage position according to an embodiment of the present invention;

[0024] FIG. 4 is a top view of a female urination apparatus having a multi-layered sidewall according to another embodiment of the present invention; and

[0025] FIG. 5 is a partial side view of a female urination apparatus having a coating disposed on the sidewall according to an embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0026] While the making and using of various embodiments of the present invention are discussed in detail below, it should be appreciated that the present invention provides many applicable inventive concepts which can be embodied in a wide variety of specific contexts. The specific embodiments discussed herein are merely illustrative of specific ways to make and use the invention, and do not delimit the scope of the present invention.

[0027] In the following description of the representative embodiments of the invention, directional terms, such as “above”, “below”, “upper”, “lower”, etc., are used for convenience in referring to the accompanying drawings. In general, “above”, “upper”, “upward” and similar terms refer to a direction generally vertically upward from the ground, and “below”, “lower”, “downward” and similar terms refer to a direction generally vertically downward from a female urethra. Additionally, the term “vertical” and similar terms refer to a direction substantially perpendicular with the surface of the earth or some surface thereon, and the term “horizontal” and similar terms refer to a direction substantially parallel with the surface of the earth or some surface thereon.

[0028] Referring initially to FIGS. 1A-1B, a female urination apparatus in operation by a female is schematically illustrated and generally designated 100. The female 102 shown is holding female urination apparatus 100 near her urethra while standing for directing the stream of urine into a toilet 104. As discussed further below, female urination apparatus 100 is held substantially in a vertical position during operation by female 102. Generally, female 102 opens or expands female urination apparatus 100 prior to use and places an end of female urination apparatus 100 near her urethra prior to urination. A stream of urine then flows from the urethra to the an end of female urination apparatus 100 nearest the urethra where it flows through female urination apparatus 100 and exits the other end of female urination apparatus 100. Upon completion of urination, female 102 then disposes female urination apparatus 100 in a trash receptacle 106.

[0029] Referring now to FIGS. 2A-2D, a female urination apparatus is schematically illustrated and generally designated 200. Female urination apparatus 200 includes a collapsible body 202 that extends from an upper end 204 to a lower end 206 of female urination apparatus 200. Body 202 includes an inner fluid passageway 208 that extends from upper end 204 to lower end 206. Upper end 204 forms an upper opening 210 with a diameter D1 and lower end 206 forms a lower opening 212 with a diameter D2. Generally, body 202 may be substantially flat shaped when in the collapsed storage position as shown in FIG. 2D and a substantially oval shape when in the expanded operating position as shown in FIG. 2C. In one aspect, body 202 may be pointed oval, ovoid, and vesica piscis shaped when in the expanded operating position.

[0030] With specific reference to FIGS. 2C and 2D, female urination apparatus 200 is shown in an expanded or operating position in FIG. 2C and a collapsed or storage position in FIG. 2D. When in the collapsed position, edges 214a, 214b (collectively edges 214) may be formed in body 202 that extend from upper end 204 to lower end 206 of body 202; edges 214a, 214b have a length L1. Female 102 may squeeze edges 214a, 214b toward each other to expand body 202 from a collapsed storage position to an expanded operating position, as shown in FIG. 2C. Preferably, upper end 204 is a linear edge extending between the opposing edges 214a, 214b when in the collapsed storage position as best shown in FIG. 2B.

[0031] Turning now to FIGS. 3A-3D, a female urination apparatus is schematically illustrated and generally designated 300. Female urination apparatus 300 includes a collapsible body 302 that extends from an upper end 304 to a lower end 306 of female urination apparatus 300. Body 302 includes an inner fluid passageway 308 that extends from upper end 304 to lower end 306. Upper end 304 forms an upper opening 310 with a diameter D3 and lower end 306 forms a lower opening 312 with a diameter D4; diameter D3 is greater than diameter D4. Generally, body 302 may be substantially flat shaped when in the collapsed storage position as shown in FIG. 3D and a substantially oval shape when in the expanded operating position as shown in FIG. 3C. In one aspect, body 302 and/or upper opening 310 may be pointed oval, ovoid, and vesica piscis shaped when in the expanded operating position. In another aspect, the shape of body 302 and/or upper opening 310 is substantially double convex shaped where they are joined at their points by the opposing inwardly extending longitudinal folds.

[0032] With specific reference to FIGS. 3C and 3D, female urination apparatus 300 is shown in an expanded or operating position in FIG. 3C and a collapsed or storage position in FIG. 3D. When in the collapsed position, edges 314a, 314b (collectively edges 314) may be formed in body 302 that extend from upper end 304 to lower end 306 of body 302; edges 314a, 314b have a length L2. Body 302 further includes inwardly extending longitudinal folds 316a, 316b, 316c, 316d (collectively folds 316) that extend substantially from upper opening 310 to the lower opening 312. One end of fold 316a extends inwardly from body 302, and one end of fold 316b extends inwardly from body 302. These ends are joined such that body 302 may be collapsed and folds 316a, 316b overlap each other. Likewise, when female urination apparatus 300 is operated by squeezing edges 314 towards each other, folds 316a, 316b extend outwardly to provide a wider diameter of upper opening 310. Folds 316c, 316d operate in similar fashion to folds 316a, 316b. Preferably, upper end 304

is a linear edge extending between the opposing edges **314a**, **314b** when in the collapsed storage position as best shown in FIG. 3B.

[0033] Bodies **202**, **302** generally have dimensions such that they fit around the urethra of a female. In one example, upper openings **210**, **310** of bodies **202**, **302** when collapsed may have diameter **D1**, **D3** of from about 3 inches to about 5 inches. Preferably, diameter **D1**, **D3** is approximately 4 inches. In another example, lower openings **212**, **312** of bodies **202**, **302** when collapsed may have diameter **D2**, **D4** of from about 0.5 inches to about 2 inches. Preferably, diameter **D2**, **D4** is approximately 1 inch. In yet another example, lengths of bodies **202**, **302** when collapsed may have lengths **L1**, **L2** of from about 2.5 inches to about 4.5 inches. Preferably, lengths **L1**, **L2** are approximately 3.5 inches.

[0034] Bodies **202**, **302** may be comprised of a material that is preferably inexpensive and degradable. They are comprised of a material sufficiently rigid to hold its shape when in operation. Preferably, the thickness or cross-section of the material that comprise the bodies **202**, **302** are thin so as to be folded flat during storage and be conveniently carried in a bag, purse, and the like. Some exemplary materials may include plastic, paper, cardboard and the like.

[0035] Referring now to FIG. 4, a partial cutaway of a section of bodies **202**, **302** is shown. In general, this section shows bodies **202**, **302** from a top view looking down displaying two separate layers of material making up bodies **202**, **302**. These layers include an inner layer **402** and an outer layer **404**, which may be joined together by any type of bonding, welding, adhesives, and the like as known by those commonly skilled in the art. Inner layer **402** may be made of a material that is hydrophobic and/or moisture resistant to prevent urine from seeping through inner layer **402**. In this embodiment, inner layer **402** may be an ultra-thin material that may provide little structural rigidity to bodies **202**, **302**. The structural rigidity may be provided by outer layer **404** that may be a slightly thicker material.

[0036] In one embodiment, inner layer **402** may be an ultra-thin material comprised of wax, plastic, or any other types of hydrophobic and/or moisture resistant material. Outer layer **404** may be a slightly thicker material comprised of rigid paper, thin cardboard, and the like.

[0037] Turning now to FIG. 5, a partial section of bodies **202**, **302** is shown with the inner surface of bodies **202**, **302** having a deposition or coating **502** of a moisture resistant compound applied thereto. In this embodiment, bodies **202**, **302** may be made from a thin material that is not naturally moisture resistant. A moisture resistant compound is prepared and then applied as coating **502** to the inner surface of bodies **202**, **302**. Some exemplary hydrophobic and/or moisture resistant compounds include: natural or synthetic waxes, blends of waxes, oils, fats, organic compounds, and the like. Additionally, some exemplary methods of application of coating **502** to bodies **202**, **302** may include: spraying, coating, dipping, deposition, vapor deposition, chemical vapor deposition, and the like.

[0038] The following discussion is provided with respect to one embodiment of the female urination apparatus; however, it also applies to any of the other embodiments of the female urination apparatus as described herein. In operation, female **102** clears a path to her urethra while standing. This may be done by moving undergarments to one side or the other of the urethra, or possibly clearing the urethra of the undergarments as normally done. Female **102** then takes female urination

apparatus **200** and squeezes gently inwardly on edges **214a**, **214b** to expand or open female urination apparatus **200**. By doing so, female **102** is operating female urination apparatus **200** between a collapsed storage position and an expanded operating position.

[0039] Next, female **102** places upper opening **210** of body **202** under the urethra such that the circumference or outer perimeter of upper end **204** substantially surrounds the urethra. Female **102** then urinates into female urination apparatus **200**, which causes the urine to flow through fluid passageway **208** towards lower opening **212**. Urine flows out of lower opening **212** under controlled direction without splashing towards a toilet or the ground, for example. Once urination is complete, female **102** then may dispose of female urination apparatus **200** by placing it in a trash receptacle, such as trash receptacle **106**.

[0040] While this invention has been described with reference to illustrative embodiments, this description is not intended to be construed in a limiting sense. Various modifications and combinations of the illustrative embodiments as well as other embodiments of the invention, will be apparent to persons skilled in the art upon reference to the description. It is, therefore, intended that the appended claims encompass any such modifications or embodiments.

What is claimed is:

1. A female urination apparatus comprising:
 - a body having an upper end and a lower end; the body being operable between a collapsed storage position and an expanded operating position;
 - an upper opening disposed in the upper end having a substantially flat shape when in the collapsed storage position and a substantially oval shape when in the expanded operating position;
 - a lower opening disposed in the lower end having a substantially flat shape when in the collapsed storage position and a substantially oval shape when in the expanded operating position; and
 - a fluid passageway disposed through the body connecting the upper opening with the lower opening.
2. The female urination apparatus as recited in claim 1, wherein the substantially oval shape is selected from the group consisting of a pointed oval, ovoid, and vesica piscis.
3. The female urination apparatus as recited in claim 1, wherein the upper end has a width of from about 3 inches to about 5 inches when in the collapsed storage position.
4. The female urination apparatus as recited in claim 1, wherein the lower end has a width of from about 0.5 inches to about 2 inches when in the collapsed storage position.
5. The female urination apparatus as recited in claim 1, further comprising opposing edges extending from the upper end to the lower end when in the collapsed storage position, the length of the edges being from about 2.5 inches and to about 4.5 inches.
6. The female urination apparatus as recited in claim 5, wherein the upper end is a linear edge extending between the opposing edges when in the collapsed storage position.
7. The female urination apparatus as recited in claim 1, wherein the surface of the fluid passageway is coated with a hydrophobic material.
8. A female urination apparatus comprising:
 - a collapsible body having an upper opening and a lower opening; the collapsible body being operable between a collapsed storage position and an expanded operating position; and

opposing inwardly extending longitudinal folds disposed in the collapsible body and extending substantially from upper opening to the lower opening; and
a fluid passageway disposed through the collapsible body connecting the upper opening with the lower opening.

9. The female urination apparatus as recited in claim **8**, wherein the opposing inwardly extending longitudinal folds are inwardly folded portions of the collapsible body.

10. The female urination apparatus as recited in claim **8**, wherein the opposing inwardly extending longitudinal folds extend fully inwardly in the collapsed storage position and less inwardly in the expanded operating position.

11. The female urination apparatus as recited in claim **8**, wherein the shape of the upper opening is substantially double convex shaped where they are joined at their points by the opposing inwardly extending longitudinal folds.

12. The female urination apparatus as recited in claim **8**, wherein the upper end is a linear edge extending from the opposing inwardly extending longitudinal folds when in the collapsed storage position.

13. The female urination apparatus as recited in claim **8**, wherein the surface of the fluid passageway is coated with a hydrophobic material.

14. A female urination apparatus comprising:

a collapsible body having an inner layer and an outer layer, the body being operable between a collapsed storage position and an expanded operating position;

an upper opening disposed in the body having a substantially flat shape when in the collapsed storage position and a substantially oval shape when in the expanded operating position;

a lower opening disposed in the body having a substantially flat shape when in the collapsed storage position and a substantially oval shape when in the expanded operating position; and

a fluid passageway disposed through the body connecting the upper opening with the lower opening.

15. The female urination apparatus as recited in claim **14**, wherein the inner layer is composed of a hydrophobic material.

16. The female urination apparatus as recited in claim **14**, wherein the substantially oval shape is selected from the group consisting of a pointed oval, ovoid, and vesica piscis.

17. The female urination apparatus as recited in claim **14**, wherein the upper opening is a linear edge extending between the opposing edges when in the collapsed storage position.

18. The female urination apparatus as recited in claim **14**, wherein the upper opening has a width of from about 3 inches to about 5 inches when in the collapsed storage position.

19. The female urination apparatus as recited in claim **14**, wherein the lower opening has a width of from about 0.5 inches to about 2 inches when in the collapsed storage position.

20. The female urination apparatus as recited in claim **14**, further comprising opposing edges extending from the upper opening to the lower opening when in the collapsed storage position, the length of the edges being from about 2.5 inches and to about 4.5 inches.

* * * * *