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Ballard

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[54] **PORTABLE DOUCHE AND SITZ BATH**

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[51] **Int. Cl.**[2] **A61M 3/00**

[58] **Field of Search** 128/239, 241, 243, 229, 128/240, 242, 251, 245

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[57] **ABSTRACT**

Apparatus for directing streams of liquid both internally and externally at the anus and vaginal openings for douching and sitz bath cleansing, and adapted to safely apply liquid under pressure without an enema effect, the depth of liquid penetration being restricted and the exposed hip area limited to the action of liquid jets, and all of which is operable by the hand of the person applying the same for hygenic treatment.

20 Claims, 4 Drawing Figures

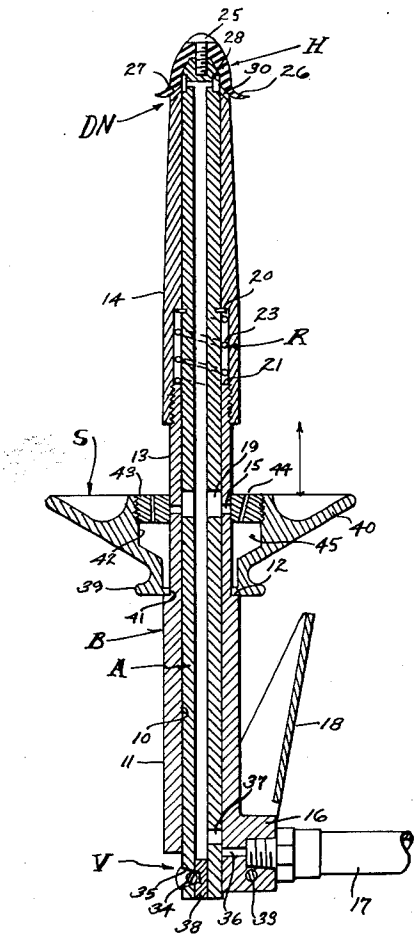


FIG. 1.

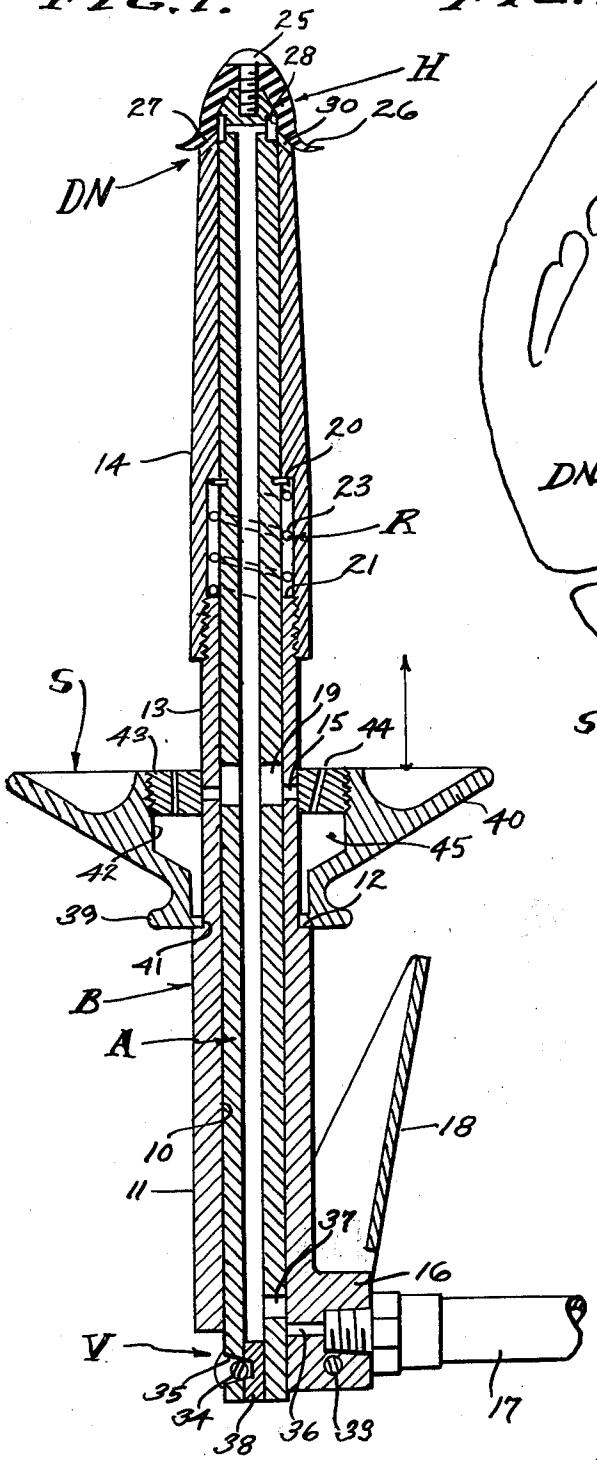


FIG. 2.

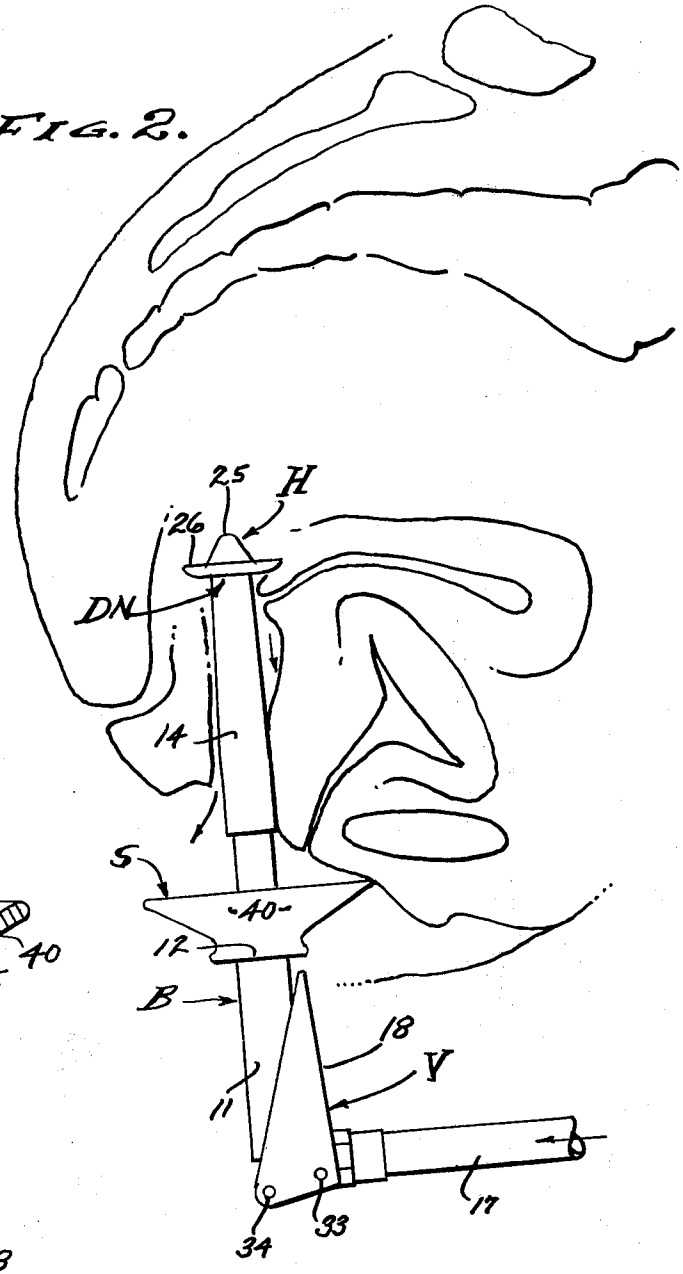


FIG. 3.

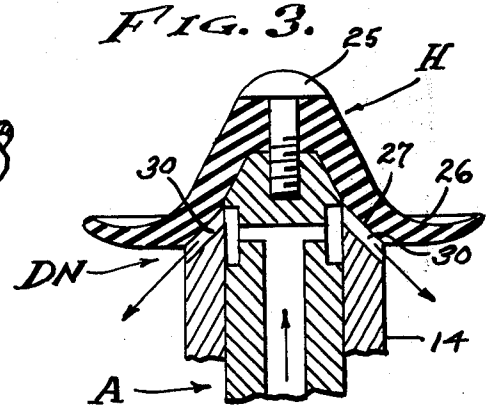
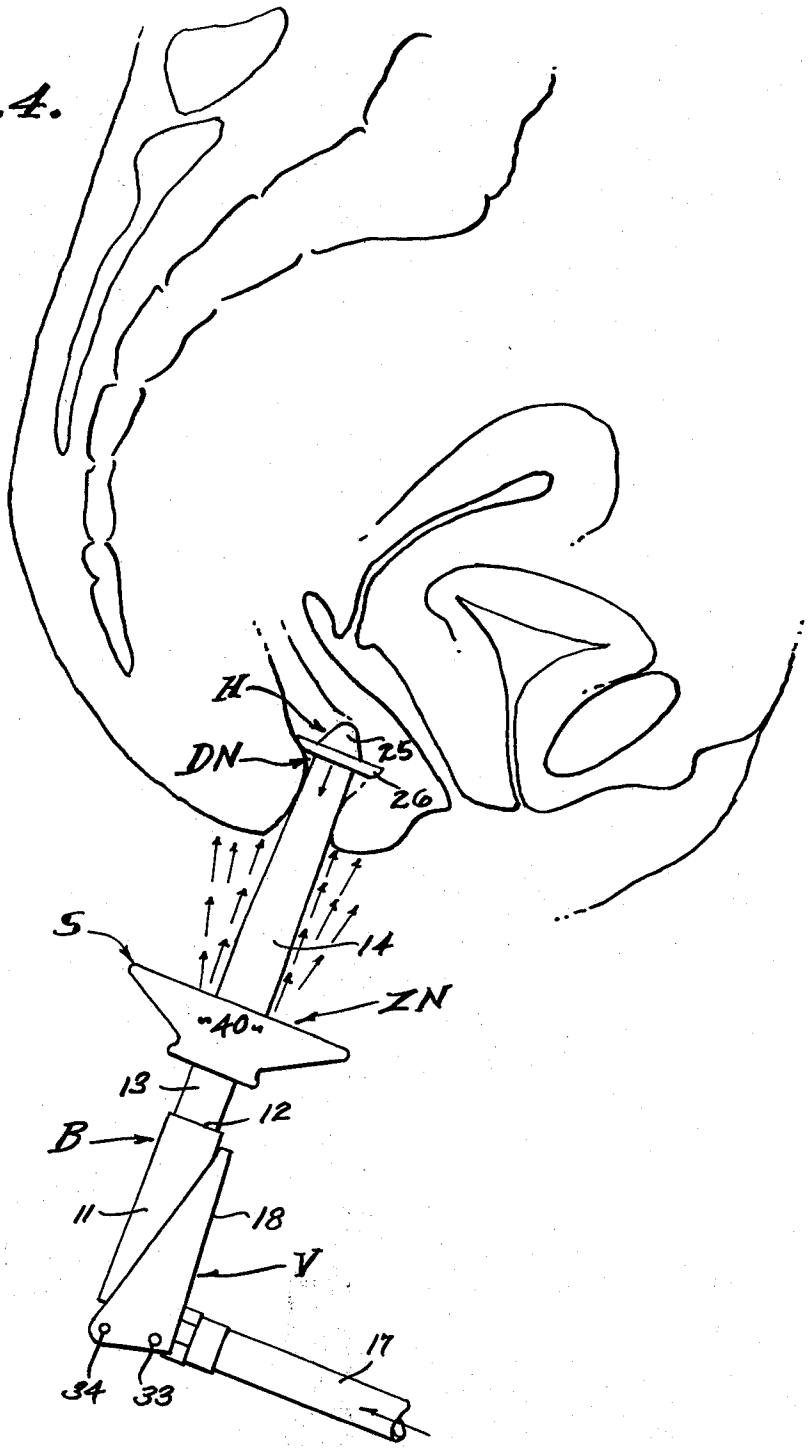


FIG. 4.



PORTABLE DOUCHE AND SITZ BATH

BACKGROUND

Hygenic cleansing devices have been available in the form of bidets used for taking sitz baths, which involve special vessels with water jets by which only the hip area is immersed, usually as a medical treatment. Devices for douching are also available for applying a jet or stream of liquid applied externally or internally to some part of the body, normally applied through the vagina for cleansing the birth canal and vulva, again as a medical or hygenic treatment. Also, devices for administering an enema are available for applying displacement liquid internally through the anus for dislodging feces from the rectum, which is the lowermost straight segment of the colon or lower intestin. In each aforementioned instance there has been inadequate control over the depth of penetration; in that the usual bidet and/or sitz bath directs liquid jets which are uncontrollable as to depth of penetration; in that the usual douche does not restrict depth of liquid penetration and so does not prevent the enema effect in case of anal application; and, in that the displacement effect of an enema is lacking in depth control: it being an object of this invention to provide means restricting the depth of liquid penetration for cleansing the vaginal and/or anal openings with liquid under pressure.

The various apparatus attachments for douching and for enemas, have provided head formations that project radial and reverse fountains of water at and surrounding the tip of the instrument that is inserted into the body opening. However, such instruments have provided no means to restrict further penetration of liquid applied under pressure, and with the result that an "enema" effect is simultaneously administered. Further, the excessive internal application of liquid under pressure can be dangerous and harmful; and it is to these ends that I have provided a seal at the head of such an instrument, whereby liquid penetration is restricted and flow is rearward from the said head. With the present invention, liquid jets are disposed to project liquid outwardly and rearwardly so as to have a downward flushing action backed by the head.

The apparatus of the present invention is portable and is self-sufficient with respect to liquid flow control, and it is therefore an object of this invention to provide coordinated control means by which the aforementioned seal is made effective and the liquid permitted to flow. With the present invention, the head of the instrument is expansible, and a liquid control valve operable, and an operating stem is provided which simultaneously expands the head while opening the said valve. Manual control means is provided to coordinate the head expansion and valve opening, there being return means therefor.

The apparatus hereinafter disclosed serves dual purposes, in that it is both a douche and a sitz bath, and the latter function being added to functioning of the former. To these ends it is an object to provide a selectively operable forwardly or upwardly disposed sitz bath in combination with a douche, by providing a nozzel means ahead of a handle portion and rearward of the aforementioned douching head. With this invention, the sitz bath nozzel means is selectively positionable for its control and incorporates a shield and stop that restricts the penetration of the instrument.

It is a general object of this invention to incorporate the foregoing objectives into a most simple and effective instrument or apparatus involving the fewest number of most economically made parts. With the present invention there is a primary and a secondary control means for the application of liquid, firstly to the douche function and secondly to the sitz bath function of the apparatus, and all of which is manipulated by the single hand of the person applying the device.

SUMMARY OF INVENTION

This invention relates to a hygenic instrument to be used by a person in self application of medical treatment or the like. The purpose of use is hygenic with respect to the alimentary canal and birth canal, for interior as well as exterior cleanliness. Without resort to a bidet in its usual embodiment as a vessel, the apparatus that I provide is a manipulatable instrument that involves generally an elongated body B with a shiftable stem A which coordinates operation of valve means V and expansion of a head H that seals with the walls of the canal in which the instrument is inserted. With respect to the douche function of this instrument, there is a douche nozzle DN at the juncture of the body B and head H; and with respect to the sitz bath function of this instrument there is a sitz bath nozzle ZN spaced rearward of the head H. The nozzle ZN is selectively controlled between on and off conditions by movement of a stop shield S in which it is incorporated to protect the hand of the user from excess liquid.

DRAWINGS

The various objects and features of this invention will be fully understood from the following detailed description of the typical preferred form and application thereof, throughout which description reference is made to the accompanying drawings, in which:

FIG. 1 is a longitudinal sectional view showing the douche and sitz bath instrument conditioned preparatory to insertion into the canals illustrated in FIGS. 2 and 4,

FIG. 2 is an operational view showing the instrument of FIG. 1 inserted into the vaginal opening for the purpose of douching,

FIG. 3 is an enlarged fragmentary sectional view showing the head of the instrument expanded as in FIGS. 2 and 4,

FIG. 4 is a operational view showing the instrument of FIG. 1 inserted into the anal opening for the purpose of sitz bath douching.

PREFERRED EMBODIMENT

Referring now to the drawings, the several uses of the invention are shown, FIG. 2 as a vaginal douch with the sitz bath valve closed, and FIG. 4 as a rectal douche with the sitz bath valve opened. The body B is an elongated cylinder that carries the expansible head H at its terminal end, and over which the stop shield S is selectively positionable. The stem A is a tubular member that shifts within the body B to dilate the head and control the liquid transported therethrough from means V to the nozzles DN and ZN. The valve means V incorporates a handle for its convenient operation and the stop shield is formed for its selective manipulation to be opened and closed.

The elongated cylindrical body B is proportioned substantially as shown and of a diameter to readily

enter the anal or vaginal openings. A bore **10** extends through the body to slideably receive the stem A that is positioned by valve means control later described. The rear or lower portion of the body B is reserved as a grip **11**, and forward or above said grip portion there is a stop shoulder **12** with a forwardly extending cylindrical bearing **13** to slideably receive the stop shield S and its nozzle ZN. The forward movement of stop shield S is limited by sleeve **14** threadedly engaged onto the body so as to extend forwardly therefrom with means incorporated therein to dilate the head H, with features to accomodate return means R biasing the stem to a forwardly projected position, and also incorporating the douche nozzle DN. As shown, the body B is ported at **15** to transfer liquid from the tubular stem to the sitz bath nozzle ZN, and has a receiver **16** at its lowermost or rear end to receive a liquid supply hose **17** and upon which the valve V handle **18** is pivoted.

The tubular stem A extends coextensively through the body B and projects from the bore **10** at both the front and rear of the body for operation of the head H to dilate the same and to be operated by the handle **18.** The stem A has a right cylinder exterior that closely fits the bore **10** to slide freely therein, there being an elongated port **19** that remains in communication with aforementioned ports at **15** throughout movement of the stem A relative to the body B. A snap ring **20** is seated into the periphery of the stem, spaced forwardly from the front **21** of body B, when the said stem is forwardly projected, there being a compression spring **23** disposed between the ring **20** and face **21** comprising return means R that yielding urges the stem A to the forwardly projected position as shown in FIG. **1.** Snap ring **20** limits the forward projection of stem A.

The expansible head H is dilated by movement of stem A by which it is carried relative to the front configuration of sleeve **14.** The head per se is made of soft plastic or an elastomer, and preferably it is made of rubber or a substitute therefor which is elastic, supple and pliable. The head is of tapered bullet shape, being rearwardly divergent from a rounded nose **25** and flaring rearwardly to an outwardly and rearwardly divergent rim **26.** The wall of the rearwardly divergent rim tapers to its periphery which is circumferentially continuous for sealing engagement with the canal wall into which it is dilated. In accordance with this invention, the front face **27** of sleeve **14** is complementary to the inner divergent face of rim **26** when the stem A is forwardly projected and said rim relaxed (see FIG. **1**). Forward of the said inner divergent face of the rim, there is a cylindrical counterbore **28** that normally receives the projected foremost cylindrical portion of the stem A, as shown in FIG. **1.** However, as shown in FIG. **3,** the expansible head H is dilated by retraction of the stem A, the face **27** being divergently inclined so as to receive and expand the counterbore **28** to stretch it radially outward, thereby dilating the rim **26.** As shown, a screw retainer forms the nose **25** and secures the head H to the terminal closed end of the stem A to draw the head rearwardly for said dilation when the stem is retracted.

The douche nozzle DN is incorporated in the sleeve **16** at the front face **26,** and comprises a circumferential series of channels **30** cut into said face. As above described, the front face **27** of sleeve **14** is rearwardly and outwardly divergent, and the channels **30** cut therein are then correspondingly divergent so as to jet liquid rearwardly from the rim of head H, whether the head is relaxed or dilated (compare FIGS. **1** and **3**). As shown, the ports **19** are elongated to remain in communication with the channels **30** at all times.

The valve means V is provided to open and close the liquid porting to the nozzles DN and ZN, from the supply hose **17.** The control handle **18** overlies and is depressible toward one side of the grip portion **11** of body B, and it is mounted by a pivot pin **33** to the receiver **16** on a transverse axis displaced laterally of the stem A-axis. A drive pin **34** is carried by the handle **18** at a radius from pin **33** and is disposed parallel therewith and engaged in a notch **35** at one side of stem A to driveably engage and rotatably orient the stem. It will be seen that the stem A is moved forwardly relative to the body B when the handle **18** is depressed, the valve action being accomplished by relatively moveable ports **36** and **37** in the body and stem respectively, the port **37** opening into the stem which is closed by a plug at **38.**

The stop shield S and sitz bath nozzle ZN are slideably captured on the cylindrical bearing **13** of the body to be manipulated between two extreme positions as determined by the shoulder **12** and sleeve **14.** The stop shield S is a disc that surrounds the body B, having a finger engagement portion **39** accessible from the handle **18,** and having a forwardly dished radial flange **40.** The stop shield has a bore **41** slideable upon the bearing **13** and a counterbore **42** to receive a nozzle ring **43** which has forwardly disposed jets **44** directed at the area surrounding the rim **26** of head H. The nozzle ring **43** provides an annulus **45** in conjunction with the shield S, said annulus being movable into and out of communication with port **15** through manipulation of the stop shield (compare FIGS. **2** and **4**).

From the foregoing it will be seen that I have provided a practical douche-sitz bath instrument that is safely applicable to the person to self-administer liquid under pressure without danger of the enema effect. The depth of penetration is inherently restricted, and opening of the valve means V is simultaneously accompanied by dilation of the head H into sealed engagement with the canal walls which are thereupon cleansed by the fountain action of the rearwardly disposed jets DN, and accompanied by the sitz bath function of jets ZN when exterior cleansing is required.

Having described only a typical preferred form and application of my invention, I do not wish to be limited or restricted to the specific details herein set forth, but wish to reserve to myself any modifications or variations that may appear to those skilled in the art:

I claim:

1. An instrument for limited penetration into the anal and vaginal canals and supplied with liquid under pressure for douching, and including; an elongated body with a radially expansible head at its foremost end, the head having a peripheral rim, a stop projecting radially from the body and spaced rearward of the head for restricting penetration of the body into said canals, dilating means to expand the head and rim radially into occupancy of a canal to close the same, and nozzle means comprised of jets immediately rearward of the head and supplied with liquid through valve means for cleansing discharge from the canal surrounding the body.

2. The douche instrument as set forth in claim **1** wherein the expansible head and rim thereof is made of

elastomeric material adapted to be stretched by the dilating means.

3. The douche instrument as set forth in claim **1** wherein the dilating means is comprised of a sleeve slideable over and surrounding a stem carrying the head, the sleeve and head having complementary outwardly and rearwardly divergent faces engageable to expand the head.

4. The douche instrument as set forth in claim **1,** wherein the expansible head and rim thereof is made of elastomeric material adapted to be stretched, and wherein the dilating means is comprised of a sleeve slideable over and surrounding a stem carrying the head, the sleeve and head having complementary outwardly and rearwardly divergent faces engageable to expand the head.

5. The douche instrument as set forth in claim **1** wherein the dilating means and the valve means are operably connected for simultaneous manipulation.

6. The douche instrument as set forth in claim **1,** wherein the expansible head is made of elastomeric material adapted to be stretched, and wherein the dilating means is comprised of a sleeve slideable over and surrounding a manipulatable stem slideable within the body and carrying the head, the sleeve and head having complementary outwardly and rearwardly divergent faces engageable to expand the head.

7. An instrument for restricted penetration into the anal and vaginal canals and supplied with liquid under pressure for douching and sitz bath cleansing, and including; an elongated body with a radially expansible head at its foremost end, the head having a peripheral rim, a stop shield and nozzle ring projecting radially from the body and spaced rearward of the head for restricting penetration of the body into said canals and having liquid jets surrounding the body and disposed in alignment with an area surrounding the head, dilating means to expand the head and rim radially into occupancy of a canal to close the same, and nozzle means comprised of jets immediately rearward of the head, the body being supplied with liquid through valve means for simultaneous discharge from the two said nozzle jets.

8. The douche and sitz bath instrument as set forth in claim **7** wherein the stop shield is selectively shiftable on the body to open and close liquid ports to the jets thereof.

9. The douche and sitz bath instrument as set forth in claim **7** wherein the expansible head and rim thereof is made of elastomeric material adapted to be stretched by the dilating means.

10. The douche and sitz bath instrument as set forth in claim **7** wherein the dilating means is comprised of a sleeve slideable over and surrounding a stem carrying the head, the sleeve and head having complementary outwardly and rearwardly divergent faces engageable to expand the head.

11. The douche and sitz bath instrument as set forth in claim **7,** wherein the expansible head and rim thereof is made of elastomeric material adapted to be stretched, and wherein the dilating means is comprised of a sleeve slideable over and surrounding a stem carrying the head, the sleeve and head having complementary outwardly and rearwardly divergent faces engageable to expand the head.

12. The douche and sitz bath instrument as set forth in claim **7** wherein the dilating means and the valve means are operably connected for simultaneous manipulation.

13. The douche and sitz bath instrument as set forth in claim **7,** wherein the expansible head and rim thereof is made of elastomeric material adapted to be stretched, and wherein the dilating means is comprised of a sleeve slideable over and surrounding a manipulatable stem slideable within the body and carrying the head, the sleeve and head having complementary outwardly and rearwardly divergent faces engageable to expand the head.

14. An instrument for directing streams of liquid both internally and externally at the anal and vaginal openings for douche and sitz bath cleansing, and including; an elongated cylindrical body with a bore therethrough, a tubular stem slideably carried in the body, a radially expansible head carried by the stem at the forward end of the body, said stem being retractably shiftable by means operating the stem at the rearward end of the body, the head having a peripheral rim, a stop shield and nozzle ring projecting radially from the body and spaced rearward of the head for restricting penetration of the body into said canals and having liquid jets surrounding the body and disposed in alignment with an area surrounding the head, dilating means to expand the head and rim radially into occupancy of a canal to close the same, and nozzle means comprised of jets immediately rearward of the head, the body being supplied with liquid through valve means for simultaneous discharge from the two said nozzle jets.

15. The instrument for directing streams of liquid both internally and externally at the anal and vaginal openings as set forth in claim **14** and wherein the expansible head and rim thereof is made of elastomeric material adapted to be stretched by the dilating means.

16. The instrument for directing streams of liquid both internally and externally at the anal and vaginal openings as set forth in claim **14** and wherein the dilating means and rim thereof is comprised of a sleeve slideable over and surrounding the stem carrying the head, the sleeve and head having complementary outwardly and rearwardly divergent faces engageable to expand the head.

17. The instrument for directing streams of liquid both internally and externally at the anal and vaginal openings as set forth in claim **14,** wherein the expansible head and rim thereof is made of elastomeric material adapted to be stretched, and wherein the dilating means is comprised of a sleeve slideable over and surrounding the stem carrying the head, the sleeve and head having complementary outwardly and rearwardly divergent faces engageable to expand the head.

18. The instrument for directing streams of liquid both internally and externally at the anal and vaginal openings as set forth in claim **14** and wherein the dilating means and the valve means are operably connected by the stem for simultaneous manipulation.

19. The instrument for directing streams of liquid both internally and externally at the anal and vaginal openings as set forth in claim **14,** wherein the expansible head and rim thereof is made of elastomeric material adpated to be stretched, and wherein the dilating means is comprised of a sleeve slideable over and surrounding the manipulatable stem slideable within the body and carrying the head, the sleeve and head having complementary outwardly and rearwardly divergent faces engageable to expand the head.

20. The instrument for directing streams of liquid both internally and externally at the anal and vaginal openings as set forth in claim **14** and wherein the stop shield is selectively shiftable on the body to open and close liquid ports to the jets thereof.

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