

[54] DOUCHE APPARATUS

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Ter., Miami, Fla. 33155[22] Filed: **July 30, 1973**[21] Appl. No.: **383,723**[52] U.S. Cl. **128/229, 128/239**[51] Int. Cl. **A61m 3/00**[58] Field of Search 128/229, 224, 227, 251,
128/239, 66[56] **References Cited****UNITED STATES PATENTS**

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[57]

ABSTRACT

A douche apparatus intended for use with a shower head assembly including a control valve connected between the shower head and the pipe supplying water thereto, the valve having an inlet connected to the pipe, a first outlet connected to the shower head, and a second outlet having a flexible hose connected thereto with the opposite end of the hose connected to a cartridge receiving hollow member which in turn is connected to an applicator nozzle such that water dissolvable chemical disinfectant cartridges may be inserted into the cartridge receiving member, the control valve adapted to be set to the shower position such that the temperature and pressure of the water may be preset by the user, after which the control valve is adapted to be set to the douche position with the water passing through the hose and about the cartridge in a manner to dissolve the same such that a stream of combined water and dissolved chemical disinfectant is applied to the vagina area in a manner to flush and treat the same.

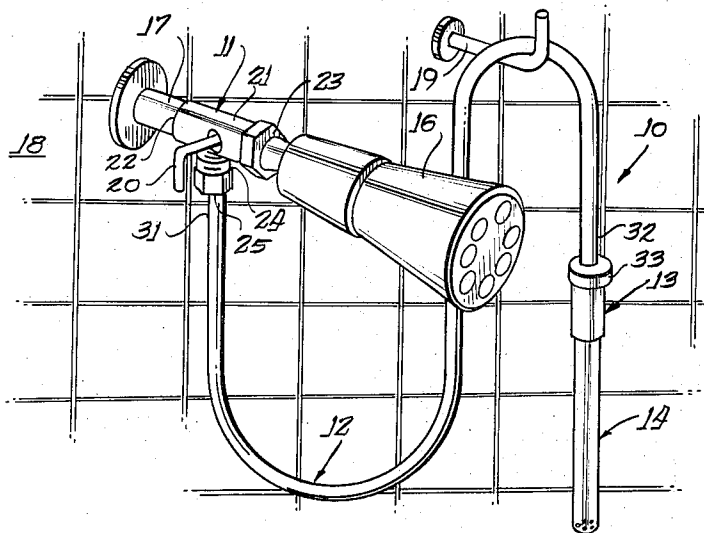
1 Claim, 4 Drawing Figures

Fig. 1

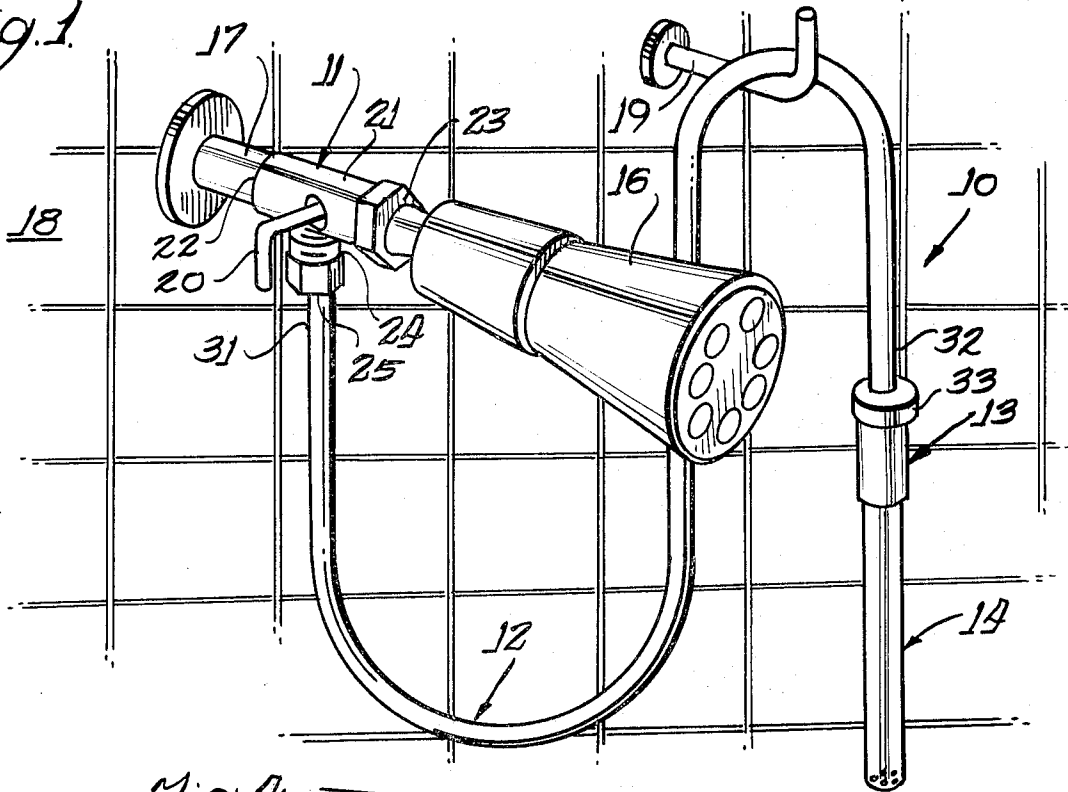


Fig. 4

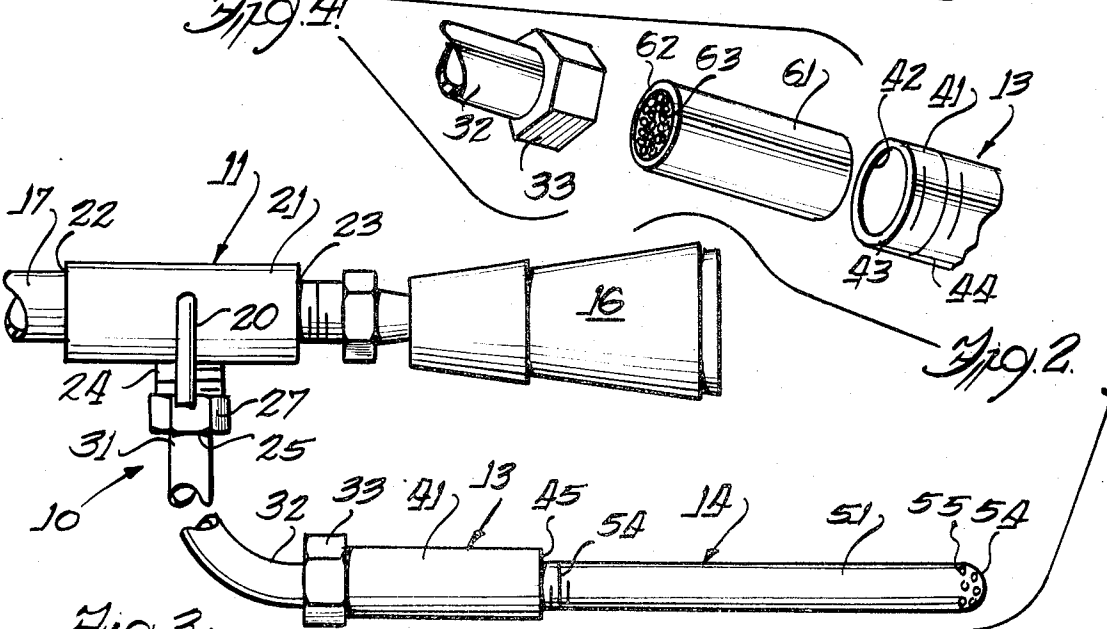
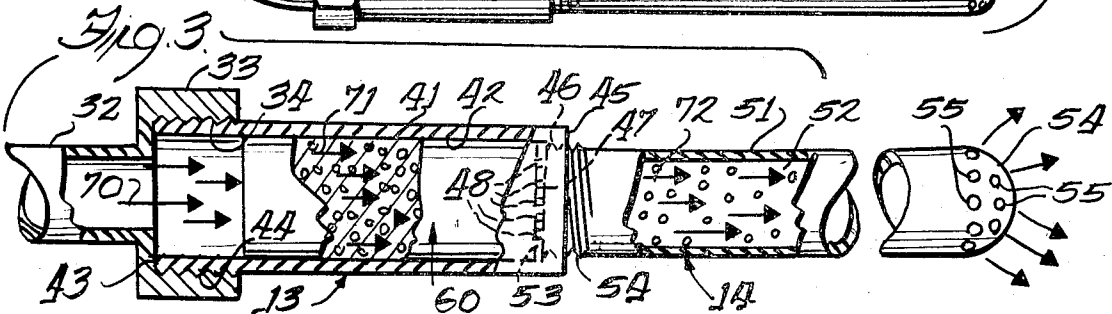


Fig. 2



DOUCHE APPARATUS

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates generally to personal hygiene apparatus and more particularly to a novel and improved douche apparatus for flushing out and treating the vagina area by connecting the apparatus to a shower head assembly in a manner to deliver a stream of water at a desired temperature and at a desired pressure to the vagina.

2. Description of the Prior Art

As is well known, douche devices depend upon jet velocity and the force created thereby to penetrate the vaginal area of the human body in a manner to provide irrigation and cleansing of the same by plain water, or to provide therapeutic treatment thereto, such as by antiseptics or medications carried in solutions by the water applied to the vagina area. Further, due to personal differences between individuals, it is preferable that the water temperature and velocity thereof be suitable to the individual in order to avoid any feelings of discomfort during utilization of the douche device.

Prior art douche devices utilized the conventional external bags of water of solution requiring the hanging of the same in a manner to produce a pressure head by suspending the bag and its liquid contents at a high level above the nozzle prior to use thereof.

Other prior art devices disclose douche devices adapted for attachment to a faucet in a manner to provide required pressure, but such devices make it impractical to precondition the douche device for either a selected pressure or a selected temperature with any degree of accuracy such that the user could not be assured of having the desired jet velocity and desired temperature at the initial discharge of the nozzle in the vagina area.

A further disadvantage of prior art devices utilizing faucets to provide required pressure and thus eliminating the water mixing bag is that there is no provision for mixing chemical solutions with the water prior to treatment of the vagina area so that such treatment can only be carried out using plain water.

Other prior art devices have attempted to combine the features of the mixing bag with the pressure from the water faucet source in order that chemical solutions could be mixed in the bag prior to application to the vagina area, and while such devices provide suitable mixing they are quite clumsy and bulky in operation and size, and still have all of the disadvantages of the previous prior art faucet pressure sources as to lack of accurate control as to temperature and pressure of water discharged at the vagina area.

SUMMARY OF THE INVENTION

The present invention remedies and overcomes all of the foregoing deficiencies and disadvantages of presently available douche devices and apparatus by providing a novel douche apparatus adapted to be connected to a shower head assembly or the like in order that the pressure of the water supply system may be utilized to create the desired jet velocity at the applicator nozzle of the douche along with being able to preset the desired water temperature, and still further having a novel chemical dispensing device associated therewith so that a solution of water and desired chemicals may be applied to the vagina area.

It is a feature of the present invention to provide a douche apparatus wherein the water pressure and water temperature may be preconditioned by the user for a desired jet velocity and temperature discharge at the applicator nozzle, the pressure and temperature being set with such accuracy that the user is assured of having the desired jet velocity and water temperature at the instant of initial nozzle discharge.

A further feature of the present invention provides a douche apparatus wherein the user is able to pretest the temperature and pressure of the water before utilizing the nozzle, and is able to change the direction of flow of the water when the temperature and pressure has been adjusted so as to direct the same into the applicator nozzle.

A further feature of the present invention provides a douche apparatus adapted for connection to an adjustable pressure and temperature water source and including a compact mixing chamber wherein the water is mixed with a chemical disinfectant or the like prior to application to the vagina area through the nozzle.

The provision of a douche apparatus, such as briefly outlined above, and possessing the stated advantages, constitutes the principal features of the present invention. The provision of a douche apparatus which is simple in its construction and which therefore may be readily manufactured at a low cost and by simple manufacturing methods; one which comprises very few parts and is so compact in form that it may be readily packed conveniently in a small place readily accessible to a user; one which is aesthetically pleasing and refined in appearance so that it may remain as a permanent visible part of a shower head assembly with which it is normally utilized; one which may, in its entirety, be manufactured and installed as part of the original equipment of a shower head assembly, or which may be readily attached to presently existing shower head assemblies; and one which, otherwise, is well adapted to perform the services required of it, are further desirable features which have been borne in mind in the production and development of the present invention.

Other features and advantages of this invention will be apparent during the course of the following description.

BRIEF DESCRIPTION OF THE DRAWINGS

In the accompanying drawings forming a part of this specification, and in which like reference characters are employed to designate like parts throughout the same:

FIG. 1 is a perspective view of a shower head assembly having the douche apparatus of the present invention operably connected thereto;

FIG. 2 is a side elevational view of the shower head assembly and connected douche apparatus of FIG. 1;

Fig. 3 is an enlarged fragmentary partially broken away view of the applicator nozzle and attached cartridge receiving mixing chamber; and

FIG. 4 is a perspective fragmentary exploded view of the mixing chamber separated from the hose showing a modified form of the cartridge being inserted therein.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings there is illustrated a

preferred form of a douche apparatus embodying the invention which is designated in its entirety by the reference numeral 10 and is comprised of four component parts, namely a control valve 11, a flexible tubular hose member 12, a cartridge receiving and mixing chamber member 13, and an elongated applicator nozzle 14. The douche apparatus 10 is intended for use with a shower head assembly consisting of a normal shower head 16 connected to a water supply pipe 17 projecting outwardly of tiled wall 18, it being understood that the source of water through pipe 17 is adjustably controlled as to pressure and water temperature by normal hot and cold water valves (not shown) in the usual manner. An L-shaped hook member 19 is conveniently mounted on wall 18 in a position to support the hose 12 at all times other than during usage of the douche apparatus so that the same is always readily accessible to the user.

The control valve 11 is provided with a rotatably adjustable L-shaped handle 20 and is disposed in the water supply source intermediate pipe 17 and shower head 16. The control valve 11 has a body portion 21 of a general cylindrical configuration having an inlet opening 22 and shower head outlet opening 23, and is further provided with a projecting nipple portion 24 having a douche outlet opening 25 therein. Fluid passageways (not shown) are provided in the normal manner in the valve 11 with the valve being adjustable by handle 20 between a shut off position permitting no water to flow therethrough, a shower position permitting water to flow therethrough from pipe 17 through shower head 16, and a douche position permitting water to flow from pipe 17 through douche outlet 25, the three respective positions of the valve being visibly adjustable by the direction of pointing of the handle 20, for example, as seen in FIG. 1 the handle 20 pointing in the direction of the douche outlet 25 indicates that water flow from pipe 17 will flow through the douche outlet and not through the shower head 16.

The nipple portion 24 is preferably provided with a compression type threadedly adjustable fitting 27 about the douche outlet 25 which is adapted to receive therein one end 31 of the hose 12 which is formed of any suitable satisfactory flexible material, with rubber or plastic being preferable. The opposite end of the hose 12 is designated by reference numeral 32 and is provided with a coupling 33 having an internal cylindrical threaded cavity 34 defined therein.

The cartridge receiving and mixing chamber member 13 is of a hollow tubular construction having side walls 41 defining a hollow cartridge receiving chamber 42 interior thereof, an open inlet end 43 having threads 44 about the peripheral end portion adapted for threaded engagement in a water tight manner with threads 24 of coupling 33, and an open outlet end 45 having threads 46 formed inwardly of the outlet end about the inner wall surfaces of chamber 42. A flat circular disc like member 47 is disposed in chamber 42 normal to the axis thereof and secured inwardly of threads 46, the disc being perforated by a multiplicity of relatively small diameter axially extending openings 48 extending therethrough.

The applicator nozzle 14 is of an elongated hollow tubular configuration having side walls 51 defining a hollow fluid passageway 52 inwardly thereof, an open inlet end 53 having threads 54 about the outer peripheral circumference thereof adapted for water tight

threaded engagement with threads 46 of outlet end 45 of the cartridge receiving and mixing chamber 13, and an outlet end 54 being closed in a dome-shaped hemispherical form having a multiplicity of openings 55 spaced apart completely over the end portion thereof adapted for fluid flow therethrough. While only one form of applicator nozzle is shown in the drawings, it is to be understood that other appropriate types and shapes of applicator nozzles may be applied interchangeably to the cartridge receiving and mixing chamber 13.

The cartridge receiving and mixing chamber 13 along with the applicator nozzle 14 are each manufactured out of suitable satisfactory materials which are readily cleanable by the user after each use, such materials preferably being of hard rubber or plastic.

For insertion into cartridge receiving and mixing chamber 13 there are provided water dissolvable chemical pellets or cartridges generally designated by reference numeral 60 in FIG. 3 adapted to be loosely received in chamber 42 in a manner providing that water flowing through the chamber will flow about the pellet as the water passes through the chamber in a manner partially dissolving the same so that a combined solution of water and chemicals will be dispensed from the applicator nozzle 14.

A modified form of the cartridge receiving member 13 and pellet 60 is seen in FIG. 4 wherein the disc member 53 is not provided in the member 13 but rather a cartridge 61 is provided adapted to be received within chamber 42 with the ends 62 of the cartridge being closed by perforated disc like members 63 with the chemicals within the cartridge being preferably of granular shape and configuration such that water will flow through the perforated members 63 through cartridge 61 in a manner to dissolve and mix with the chemicals therein prior to dispensing from the applicator nozzle 14.

In operation, control valve 11 is adjusted to connect inlet pipe 17 to shower head 16, after which the hot and cold water valves are opened and adjusted until the water flowing from the free end of the shower head has the correct temperature, as judged by skin contact with the user or by using a thermometer in contact with the stream of water pouring from the shower head. At the same time, the hot and cold water valves are set to adjust the water pressure as judged by impact from the shower head against the skin of a user, such as a finger, hand, and the like. During the first few uses of the apparatus 10 it will be required that the user make practice plain water tests including actual discharge through applicator nozzle 14 to determine the relationship between the pressure as sensed at the end of the shower head and the relation thereto relative to the water velocity at the applicator nozzle. With sufficient practice, the user will be able to accurately judge the pressure that will be present at the applicator nozzle by sensing the pressure at the free end of the shower head.

Assuming now that the water pressure and temperature have been set to the desired values by the user, a pellet 60 or cartridge 61 is inserted into the chamber 42 after which the cartridge receiving member 13 is connected to the hose 12 with the applicator 14 being connected to the opposite end of the cartridge receiving member.

The applicator nozzle 14 is then properly placed relative to the vagina area with the control valve 11 then being changed from the shower position to the douche position at which time the preconditioned water of the desired pressure and temperature is directed from pipe 17 through hose 12 into chamber 42 and out of the applicator nozzle 14. Alternatively, after presetting the pressure and water temperature when the control valve 11 is in the shower position, the control valve 11 may be adjusted to the shut off position so that a potential condition exists in pipe 17 of the desired water temperature and pressure whereby after the applicator nozzle 14 is properly positioned in the vagina area the control valve 11 may be set to the douche position permitting water flow therethrough and out of applicator 14 into the vaginal area at the desired jet velocity and temperature.

Referring to FIG. 3, the arrows designated generally by reference numeral 70 represent water flow into the inlet of chamber 42, the arrows designated by reference numeral 71 represent the water flow through and about a water dissolvable cartridge disposed in the chamber, with arrows 72 designating the combined water flow and chemical solution being dispensed from the applicator nozzle 14.

The present invention thus provides an article of feminine hygiene for flushing and cleaning of the vagina area adapted for connection to a shower head assembly for delivering a stream of water at a desired pressure and at a desired temperature to the vagina area with a chemical mixing chamber provided for mixing the water with a chemical solution prior to dispensing to the vagina area, the water pressure and water temperature being selectably adjusted and tested by the user prior to proceeding with the utilization of the douche in a manner assuring the user of obtaining the desired water jet velocity and water temperature at the instant of initial discharge from the applicator nozzle.

It is to be understood that the form of this invention herewith shown and described is to be taken as preferred examples of the same, and that this invention is not to be limited to the exact arrangement of parts shown in the accompanying drawings or described in this specification as various changes in the details of construction as to shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention, the scope of the novel concepts thereof, or the scope of the sub-joined claims.

Having thus described the invention, what is claimed is:

1. A douche apparatus intended for use with a shower head assembly comprising:
 - a control valve adapted to be connected intermediate the shower head and a pipe providing a pressure and temperature adjustable source of water to the shower head, the control valve having an inlet

opening adapted to be connected to the pipe, a first outlet opening adapted to be connected to the shower head, and a second outlet opening, the valve being operable between a shut off position, a shower position placing the inlet opening in closed communication with the first outlet opening for operation of the shower head, and a douche position placing the inlet opening in fluid communication with the second outlet opening,

a flexible elongated hose like member having one end connected to the second outlet opening of the control valve;

an elongated hollow cartridge receiving mixing member having opposed end portions with an accessible inner chamber defined therebetween, the cartridge receiving mixing member being of a cylindrical configuration having a cylindrical body portion defining a cylindrical inner chamber for receiving a cartridge therein, a first end of the receiving member being open and threadedly connected to the opposite end of the hose in a removable manner permitting access to the inner chamber, and placing the chamber in fluid communication therewith, the chamber adapted to receive a water dissolvable chemical disinfectant type cartridge therein, the second end of the receiving member being threaded to receive therein a threaded first end of an applicator nozzle;

a hollow applicator nozzle having a first open end threadedly connected to the second end of the cartridge receiving mixing member and in fluid communication therewith, the applicator nozzle being of an elongated tubular configuration having a closed dome shaped second end of a size and configuration adapted for insertion into the vagina and having a plurality of perforations spaced completely thereabout for dispensing the stream of combined water and dissolved chemical disinfectant solution therethrough; and

a cylindrical cartridge holding member adapted for insertion axially of the cartridge receiving member, the cartridge adapted to be filled with a granular chemical composition for purpose of disinfection, medication and the like, with the opposed ends of the cartridge being closed by circular disc members each having a multiplicity of small diameter openings extending therethrough in a manner to perforate the discs such that water may enter the inner chamber, flow through the cartridge to dissolve and mix with the chemicals therein, with the combined solution of water and chemicals then leaving the cartridge and being dispensed through the applicator nozzle into the vagina area in a manner to flush and treat the same.

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