

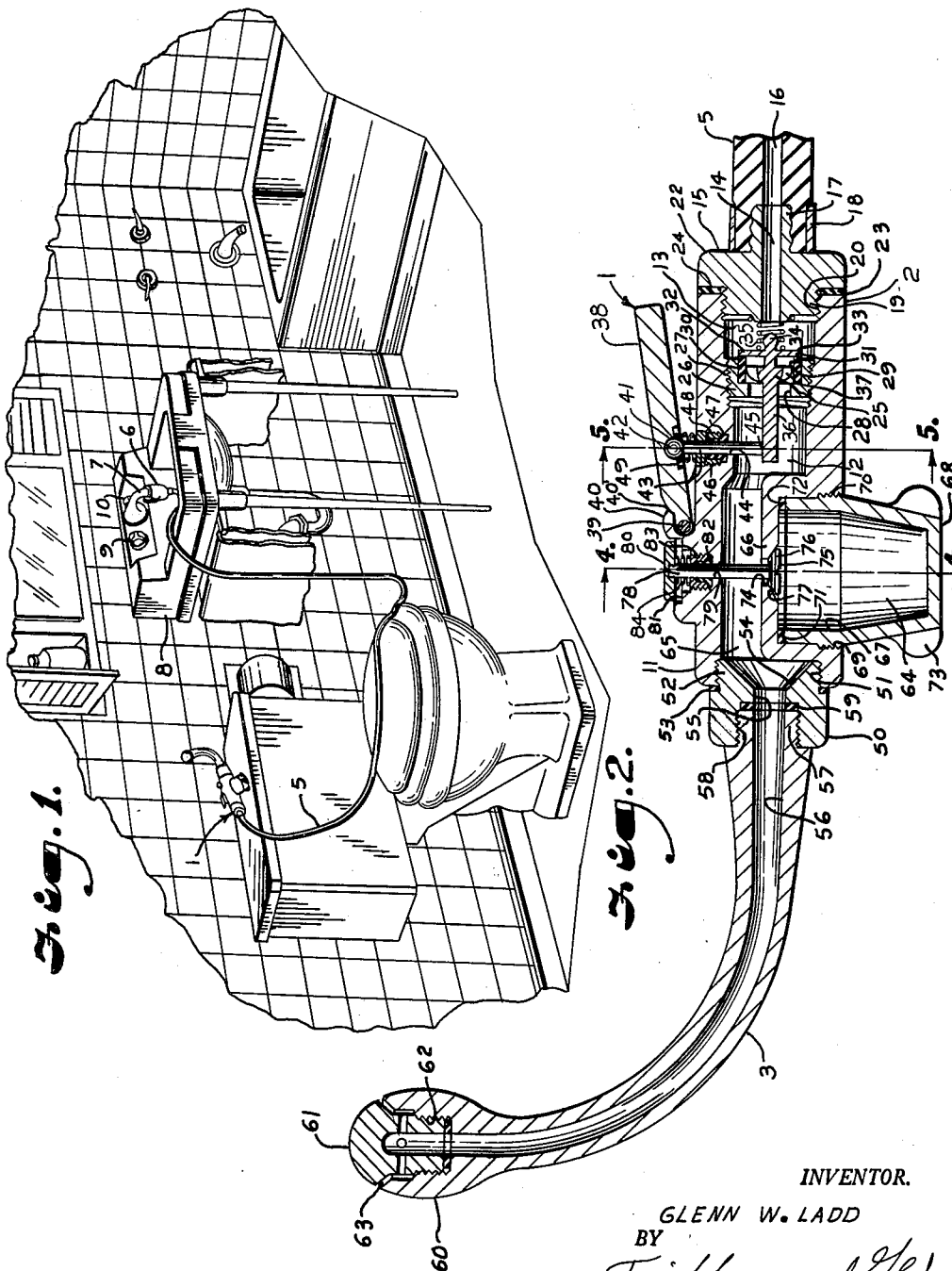
Sept. 24, 1963

G. W. LADD
DOUCHE APPARATUS

3,104,664

Filed Sept. 18, 1961

2 Sheets-Sheet 1



INVENTOR.

GLENN W. LADD

BY

Fishburn and Gledhill

ATTORNEYS

Sept. 24, 1963

G. W. LADD
DOUCHE APPARATUS

3,104,664

Filed Sept. 18, 1961

2 Sheets-Sheet 2

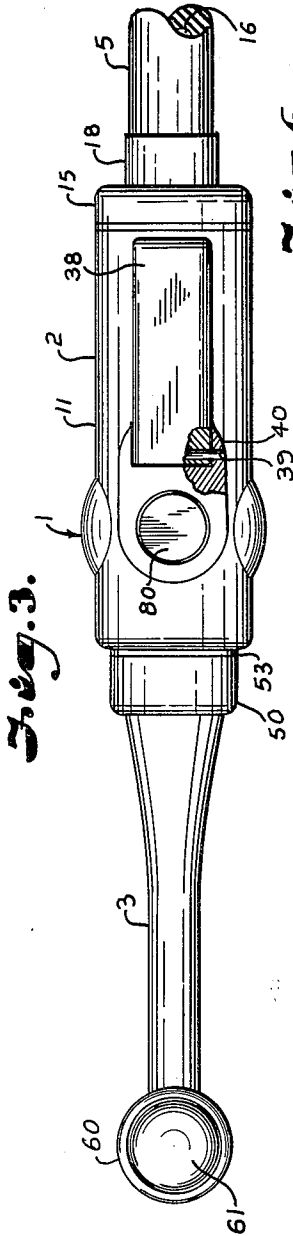


Fig. 6.

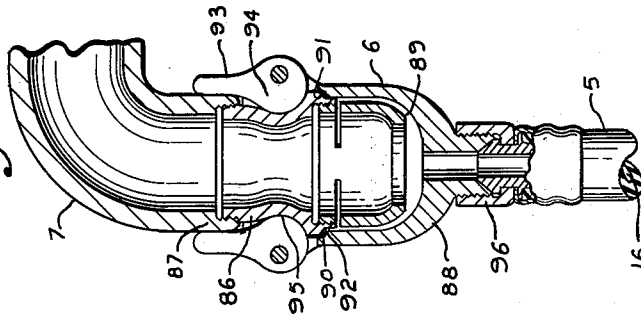


Fig. 5.

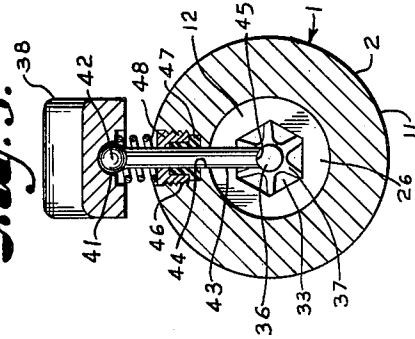
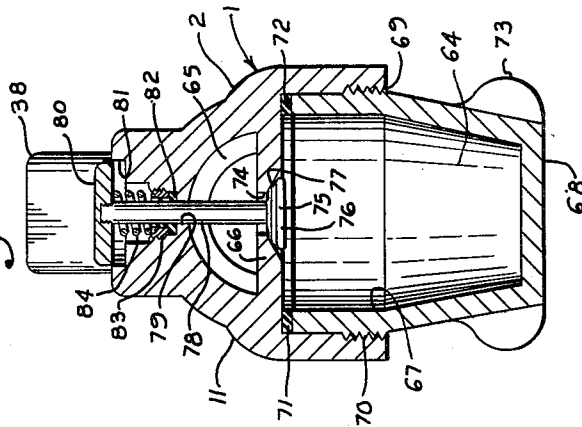


Fig. 4.



INVENTOR.

GLENN W. LADD

BY

Fishburn and Eld
ATTORNEYS

1

3,104,664

DOUCHE APPARATUS

Glenn W. Ladd, Kansas City, Mo., assignor to

Sam Nussbaum, Kansas City, Mo.

Filed Sept. 18, 1961, Ser. No. 138,783

6 Claims. (Cl. 128-229)

This invention relates to an article of feminine hygiene, and more specifically to douche apparatus and vaginal syringe for delivering a spray of water or water and medicament for flushing the vagina.

The principal objects of the present invention are to provide douche apparatus for connection to a faucet having hot and cold water supply for delivering a stream or spray of water at a desired temperature; to provide such apparatus with a valve controlled flow passage for water and a medicament containing chamber selectively communicated with said flow passage for mixture with the water passing therethrough; to provide such a structure wherein the water valve is upstream from the chamber communication and the flow passage above the chamber whereby the medicament is dispensed only when both valves are open; to provide such a structure with closely associated valve control members wherein said valve members may be actuated by one hand holding the syringe; to provide such a structure having a body connected by a flexible tube to a faucet with a syringe nozzle extending from said body; to provide such a structure wherein the water control valve may be opened independently of dispensing of medicament to enable the user to test the temperature of the water before utilizing same and when the temperature is adjusted to dispense a stream or spray of water or water and medicament as desired; and to provide a douche apparatus that is relatively simple, easily supported, controlled and maintained for efficient operation.

Other objects and advantages of this invention will become apparent from the following description taken in connection with the accompanying drawings wherein are set forth by way of illustration and example certain embodiments of this invention.

FIG. 1 is a perspective view of the apparatus of my invention connected to a faucet.

FIG. 2 is a longitudinal sectional view through the valve body and nozzle.

FIG. 3 is a plan view with portions broken away to show the pivotal mounting of the water valve control lever.

FIG. 4 is a transverse sectional view through the valve body and medicament chamber taken on the line 4-4, FIG. 2.

FIG. 5 is a transverse sectional view through the valve body taken on the line 5-5, FIG. 2.

FIG. 6 is a sectional view through the connection with the faucet.

Referring more in detail to the drawings:

The reference numeral 1 generally designates a douche apparatus having a control structure 2 with a syringe nozzle 3 extending therefrom and a flexible hose 5 extending from said structure in spaced relation to the nozzle. The hose 5 has a connection structure 6 for attachment to a mixing faucet 7 such as is found in conventional fixtures, for example, lavatories 8 and the like, and usually connected with hot and cold water supplies with valves (not shown) actuated by members 9 and 10 for adjusting the temperature of the water dispensed from the faucet.

The flow control structure preferably consists of an elongate body 11 provided with a flow passageway 12 extending generally longitudinally thereof with the inlet end 13 of said passageway communicating through a bore 14 of a connector 15 at the discharge end of the hose 5, the bore 14 having communication with the bore 16 of said

2

hose. In the illustrated structure, the connector 15 has a nipple 17 which extends into the hose bore and the hose end clamped around the nipple by means of a ferrule or the like 18. The other end of the connector 15 is a form of an externally threaded projection 19 which is screwed into a threaded bore 20 at the inlet portion 13 of the passageway 12, said connector having an annular flange portion 22 with a gasket 23 interposed between said flange and the adjacent end 24 of the body to form a watertight seal.

A valve structure 25 is arranged in the passageway 12 adjacent the connector 15 to control flow through said passageway. In the structure illustrated, the valve is of a tilt type and consists of a bushing 26 threaded into a reduced screw threaded portion 27 of the flow passage 12, said bushing having an outlet bore or port 28 and an enlarged annular recess 29 on the inlet end to receive a seat member 30 in the form of a tubular resilient member of elastic rubber or synthetic resin with a seat face 31 adapted to be engaged by a valve member 32 to close the port through said valve structure 25. The valve member has a disc portion 33 with an axial lug 34 extending therefrom on the inlet side to center a spring 35 sleeved thereon, said spring having one end engaged against the valve disc 33 and the other end against the adjacent end of the connector 15 to urge the valve disc into seated position. The valve member has an axial stem 36 extending downstream therefrom with generally radial ribs 37 extending adjacent said disc and positioned in the tubular seat member 30 with the outer periphery of said ribs being substantially spherical to serve as a guide spider whereby the valve is opened by lateral movement of the stem 36 from a position axially of the flow passage portion.

The valve member 32 is normally in closed or seated position and is actuated by a lever 38 having one end pivotally mounted by a pin 39 carried by ears 40 on the upper portion of the body. The lever extends toward the inlet end of the body 11 with its lower side recessed as at 41 to receive a rocking connection or ball 42 on the outer end of a rod 43 that extends downwardly in the body through a bore 44 with an inner end 45 adapted to engage the stem 36. The body preferably has a counterbore 46 for mounting a packing 47 and packing gland 48 to provide a seal around the rod 43 and permit movement thereof. The connection 42 or ball is preferably engaged by one end of a spring or resilient member 49 sleeved on the rod and having the other end bearing against the packing gland 48, said spring biasing said arm outwardly with its swinging movement limited by a stop 40' adjacent the pivoted end of the lever, the outer extremity of its pivotal movement being such that the rod 43 will be spaced from or slightly contacting the stem 36 when the stem is axial of the flow passage and the valve disc seated by the urging of the spring 35. The valve disc normally is closed, and pressure of liquid or water from the hose bore 16 tends to maintain said valve in closed position until forcibly opened by operation of the lever 38 to move the stem 36 laterally.

The outlet end of the body 11 preferably has a connector 50 to removably mount the vaginal syringe nozzle 3 thereon. In the illustrated structure, the outlet end has a threaded bore 51 in which a threaded projection 52 on the connector 50 is screwed with a seal member or gasket 53 between the connector and the end of the body to form a watertight seal. The connector has a generally cone-shaped entry bore 54 communicating with a bore 55 which, in turn, communicates with a bore 56 of the vaginal spray device or syringe nozzle which, in the illustrated structure, has a threaded end 57 threaded into a counterbore 58 in the connector 50 with a seal member or gasket 59 compressed to form a watertight seal. The

3

syringe nozzle may be of any suitable type and, in the illustrated structure, has an end 60 provided with a removable member 61 mounted in a threaded bore 62 and arranged to provide diverging sprays through a discharge opening 63, the nozzle end being such that it can be easily removed and cleaned.

Intermediate the control valve structure 25 and the connector 50, the body 11 is provided with a medicament containing chamber 64. In the illustrated structure, the flow passage portion 65 adjacent the connector 50 is reduced in size and is generally semi-cylindrical with the lower flat portion defined by a wall or partition 66. Below said partition the body is enlarged and has a recess 67 extending upwardly therein to receive the upper end of a cup 68 that cooperates with the wall 66 to define the medicament containing chamber 64. In the illustrated structure, the recess is threaded as at 69 to receive threads 70 of the cup-shaped member to secure same in place with a gasket or seal member 71 compressed between the upper end 72 of the cup-shaped member and the wall 66. The cup-shaped member preferably has ears 73 extending therefrom to form projections to aid in screwing the cup-shaped member into and out of the recess 67. The chamber 64 communicates with the flow passage portion 65 through a bore or port 74 in the wall 66, and flow through said bore or port is controlled by a valve member 75 having a head 76 adapted to seat on a tapered valve seat portion 77 with the valve stem 78 being smaller than said bore 74 and extending there-through whereby the space around the stem is a flow passage. The stem extends upwardly through a bore 79 in the body and terminates in an end externally thereof having an actuating member or thumb piece 80 secured thereto as by screw threads. The thumb piece is preferably circular and is immediately on a downstream end of the lever mounting ears 40 adjacent the pin 39, said thumb piece being movable into a recess 81 in the body when depressed to open the valve flow bore 74. The bore 79 is provided with a counterbore for receiving a packing 82 held in sealing engagement with the stem 78 by a packing gland 83. A resilient member or spring 84 is sleeved on the outer end portion of the stem between the packing gland and thumb piece 80 to bias the valve member 75 into closed position. The proximity of the thumb piece to the lever 38 makes it possible for the user to control the flow of water by depressing the lever 38 and simultaneously opening the valve member 75 to the medicament chamber 64 by use of the thumb of the same hand.

The connector 6 may be any suitable structure but, in the illustrated structure, there is an adapter 86 secured to the discharge end 87 of a faucet 7, said adapter forming a male portion of the coupling or connector 6. In the illustrated structure, the connector has a female member 88 to receive the male member 89 therein with shoulders 90 and 91 on the male and female members respectively adapted to have a gasket 92 compressed therebetween to form a seal. The compression of the gasket is effected by means of levers 93 having eccentric cam portions 94 thereon adapted to engage in recesses or groove portions 95 on the adapter. The female member preferably has a suitable removable connection 96 for the hose 5 to form a watertight connection for flow of water through the faucet and coupling into the bore 16 of the hose.

In using a douche apparatus constructed and assembled as described, a suitable deodorant, disinfectant or other medicament is placed in the cup member 68 and may be soluble powder or liquid. The cup member is then threaded into the recess to form a seal with the body, and the spring 84 biases the valve member 75 into closing position to prevent the medicament or the like from moving prematurely from the chamber 64. When it is desired to use the douche apparatus, the coupling member

4

6 is connected to the faucet 7 and the valve handles 9 and 10 actuated to open the hot and cold water and then, by depressing the lever 38, the valve disc 33 is tilted for flow of water through the hose 5 and flow passage 12 in the body for discharge from the nozzle; the valve member 75 remaining closed whereby only water will flow from the nozzle 3. The valve handles 9 and 10 are then moved to adjust the temperature of the mixed hot and cold water until the desired temperature of water is discharged from the nozzle. The valve control lever 38 is then released, and the valve member 32 seats to stop the flow of water in the passageway 12. The nozzle 3 may be inserted in the person and then by depressing the lever 38 a desired flow and spray of water is obtained to flush the vagina. When it is desired to add medicament to the water, the thumb of the hand holding the body 11 and depressing the lever 38 is then used to depress the thumb piece 80 to move the valve member 75 to port opening position whereby the flow of water through the passage portion 65 will induce the medicament to flow through the port 74 and mix with the water and said mixture is then discharged through the nozzle 3. In this manner, the apparatus will provide an arrangement whereby the body and nozzle are substantially supported by one hand with selective control by the user of the rate of flow of water and a selective spray of water alone and water and medicament mixture as desired.

The structure is such that it may be easily cleaned and easily serviced. The cup member 68 may be removed and cleaned and provides access to the valve member 75 and, by removal of the thumb piece 80, the valve member 75 can be removed from the structure. By removal of the connector 15, access is obtained to the valve structure 25 for removal or servicing as desired. Also, by removal of the connector 50, connector 15 and valve assembly 25, the entire flow passage 12 is accessible. The entire structure is relatively small and can be easily stored as desired.

It is to be understood that while I have illustrated and described one form of my invention, it is not to be limited to the specific form or arrangement of parts herein described and shown except insofar as such limitations are included in the claims.

What I claim and desire to secure by Letters Patent is:

1. A douche apparatus comprising, a body having an elongate nozzle extending therefrom, a flexible inlet tube having one end connected to said body in spaced relation to the nozzle and adapted to be connected to a source of liquid supply, said body having a liquid passageway therethrough communicating said inlet tube with said nozzle, valve means in said passageway adjacent said inlet tube and operable to control passage of liquid through the body passageway, a control lever pivoted on said body and positioned externally thereof, means biasing said valve means into normally closed position, means operable by said control lever for actuating said valve means to move same into flow open position, means defining a medicament containing chamber having a flow opening communicating with the passageway in the body between said valve and nozzle, a valve member normally closing the flow passage for said medicament and having a stem extending through the body and terminating adjacent said control lever, and an actuator on said stem and selectively operable to move said valve member to flow open position whereby flow of liquid in the passageway effects introduction of medicament from said chamber into said liquid in said passageway, said control lever and actuator on the stem of the valve member each being selectively movable and movable simultaneously by a single hand of the operator.

2. A douche apparatus comprising, an elongate body having an elongate nozzle extending therefrom, a flexible inlet tube having one end connected to said body in longitudinally spaced relation to said nozzle, means

5

on the other end of said tube for attachment to a source of liquid supply, said body having a longitudinal liquid passageway therethrough communicating said inlet tube with said nozzle, valve means in said passageway adjacent said inlet tube for controlling passage of liquid through the body passageway, means biasing said valve means to normally close the flow of liquid through said body passageway, a control lever pivoted on said body and positioned externally thereof, means operable by said control lever and extending into said passageway into operative engagement with said valve to move same into flow open position in response to actuation of said lever, a cup-shaped member removably mounted on said body between the valve and nozzle and substantially oppositely from said control lever, said cup-shaped member cooperating with said body to define a medicament containing chamber, a flow opening in said body communicating with said chamber and said passageway, a valve member normally preventing flow through said flow opening and having a stem extending through the body and terminating adjacent said control lever, and an actuator on said stem and operable to move said valve member to flow open position whereby flow of liquid in the passageway effects introduction of medicament from said chamber into said liquid in the passageway, said control lever and actuator on the stem of the valve member each being selectively movable and movable simultaneously by a single hand of an operator.

3. A vaginal syringe comprising, an elongate body having a liquid flow passage extending therethrough and having inlet and outlet ends, means mounted on the inlet end of the body for connecting said inlet to a source of liquid supply for delivery to said liquid passageway, an elongate nozzle connected to the body in communication with the outlet end of said passageway, a valve seat member secured in said liquid passageway adjacent to and downstream from said inlet end, said valve seat member having an axial port therethrough, a valve member engageable with said seat member to close said port, means biasing said valve member into normally flow closing position, a control lever having one end pivoted on said body whereby said control lever is externally thereof, a valve actuating rod engaged by said control lever and extending through the body into operative engagement with the valve member, means biasing said rod outwardly relative to said body whereby actuation of the control lever toward the body effects engagement of the rod with the valve member to move the valve member into open position for flow of liquid through the passageway in the body, means on said body between the valve seat and outlet end and substantially oppositely from the control lever and cooperating with said body to define a medicament chamber, a flow opening in said body communicating said chamber with said passageway, a second valve member controlling flow through said flow opening and having a stem extending through said body and terminating in an end exteriorly of the body, a head on said stem end, and means biasing said second valve member to normally closed position relative to said flow opening whereby movement of said valve stem head moves the second valve member into flow opening position and movement of the control lever moves the first-named valve member into liquid flowing position whereby flow of liquid in the passageway effects introduction of medicament from said chamber into said liquid for discharge through the nozzle.

4. A vaginal syringe comprising, an elongate body having a liquid flow passage extending therethrough and having inlet and outlet ends, means mounted on the inlet end of the body for connecting said inlet to a source of liquid supply for delivery to said liquid passageway, an elongate nozzle connected to the body in communication with the outlet end of said passageway, a valve seat member secured in said liquid passageway adjacent to

6

and downstream from said inlet end, said valve seat member having an axial port therethrough, a valve member engageable with said seat member to close said port, means biasing said valve member into normally flow closing position, a control lever having one end pivoted on said body whereby said control lever is externally thereof, a valve actuating rod pivotally engaged by said control lever and extending through the body into operative engagement with the valve member, means biasing said rod outwardly relative to said body whereby actuation of the control lever toward the body effects engagement of the rod with the valve member to move the valve member into open position for flow of liquid through the passageway in the body, a cup-shaped member removably mounted on said body between the valve seat and outlet end and substantially oppositely from the control lever, said cup-shaped member cooperating with said body to define a medicament chamber, a flow opening in said body communicating said chamber with said passageway, a second valve member controlling flow through said flow opening and having a stem extending through said body and terminating in an end exteriorly of the body and adjacent the pivoted end of the control lever, a head on said stem end, and means biasing said second valve member to normally closed position relative to said flow opening whereby movement of said valve stem head moves the second valve member into flow opening position and movement of the control lever moves the first-named valve member into liquid flowing position whereby flow of liquid in the passageway effects introduction of medicament from said chamber into said liquid for discharge through the nozzle.

5. A vaginal syringe comprising, an elongate body having a liquid flow passage extending longitudinally therethrough and having inlet and outlet ends, means removably mounted on the inlet end of the body for connecting said inlet to a source of liquid supply for delivery to said liquid passageway, an elongate nozzle, means removably connecting said elongate nozzle to the body in communication with the outlet end of said passageway, a valve seat member secured in said liquid passageway adjacent to and downstream from said inlet end, said valve seat member having an axial port therethrough, a valve member engageable with said seat member to close said port, said valve member having a stem extending axially through the port and downstream relative to said seat, means biasing said valve member into normally flow closing position, a control lever having one end pivoted on said body whereby said control lever is externally thereof and extends from the pivotal mounting toward the inlet end beyond the valve member stem, a valve actuating rod engaged by said control lever and extending through the body into operative engagement with the valve member stem downstream from said valve member, means biasing said rod outwardly relative to said body whereby actuation of the control lever toward the body effects engagement of the rod with the valve stem to tilt the valve member into open position for flow of liquid through the passageway in the body, a cup-shaped member removably mounted on said body between the valve seat and outlet end and substantially oppositely from the control lever, said cup-shaped member cooperating with said body to define a medicament chamber, a flow opening in said body communicating said chamber with said passageway, a second valve member controlling flow through said flow opening and having a stem extending through said body and terminating in an end exteriorly of the body and adjacent the pivoted end of the control lever, a head on said stem end, and means biasing said second valve member to normally closed position relative to said flow opening whereby movement of said valve stem head moves the second valve member into flow opening position and movement of the control lever moves the first-named valve member into liquid flowing position whereby flow of liquid in the passageway effects introduction of medicament

7

from said chamber into said liquid for discharge through the nozzle.

6. A douche apparatus comprising, an elongate body having a liquid flow passage extending longitudinally therethrough and having inlet and outlet ends, a flexible inlet tube having one end connected to the inlet end of the body, coupling means on the other end of said flexible tube for removable attachment to a source of liquid supply for delivery to said liquid passageway, an elongate nozzle, means removably connecting said elongate nozzle to the body in communication with the outlet end of said passageway, a valve seat member secured in said liquid passageway adjacent to and downstream from said inlet end, said valve seat member having an axial port there-through, a valve member engageable with said seat member to close said port, said valve member having a stem extending axially through the port and downstream relative to said seat, means biasing said valve member into normally flow closing position, a control lever having one end pivoted on said body whereby said control lever is externally thereof and extends from the pivotal mounting toward the inlet end beyond the valve member stem, a valve actuating rod pivotally engaged by said control lever and extending through the body into operative engagement with the valve member stem downstream from said valve member, means biasing said rod outwardly relative to said body whereby actuation of the control lever toward the body effects engagement of the rod with

8

the valve stem to tilt the valve member into open position for flow of liquid through the passageway in the body, a cup-shaped member removably mounted on said body between the valve seat and outlet end and substantially oppositely from the control lever, said cup-shaped member cooperating with said body to define a medication chamber, a flow opening in said body communicating said chamber with said passageway, a second valve member controlling flow through said flow opening, a stem on said second valve member and extending through said body and terminating in an end exteriorly of the body and adjacent the pivoted end of the control lever, a head on said stem end, and means biasing said second valve member to normally closed position relative to said flow opening whereby movement of said valve stem head moves the second valve member into flow opening position and movement of the control lever moves the first-named valve member into liquid flowing position whereby flow of liquid in the passageway effects introduction of medicament from said chamber into said liquid for discharge through the nozzle.

References Cited in the file of this patent

UNITED STATES PATENTS

1,606,366	Hillman	Nov. 9, 1926
2,627,271	Purser	Feb. 3, 1953

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,104,664

September 24, 1963

Glenn W. Ladd

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

In the grant, line 2, for "assignor to Sam Nussbaum, of Kansas City, Missouri," read -- assignor of one-half to Sam Nussbaum, of Kansas City, Missouri, --; line 11, for "Sam Nussbaum, his heirs" read -- Glenn W. Ladd, and Sam Nussbaum, their heirs --; in the heading to the printed specification, lines 3 and 4, for "assignor to Sam Nussbaum, Kansas City, Mo." read -- assignor of one-half to Sam Nussbaum, Kansas City, Mo. --.

Signed and sealed this 14th day of April 1964.

(SEAL)

Attest:

ERNEST W. SWIDER

Attesting Officer

EDWARD J. BRENNER

Commissioner of Patents