

[54] **MULTIPURPOSE HYGIENIC KIT**
 [76] Inventor: **Curtis M. Vaughan**, 1925 Jackson,
 Joplin, Mo. 64801

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Primary Examiner—Richard A. Gaudet

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Assistant Examiner—J. Yasko

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 160,771, July 8, 1971, abandoned.

[52] **U.S. Cl.**..... **128/229, 128/239, 128/251**

[51] **Int. Cl.**..... **A61m 3/00**

[58] **Field of Search** 128/229, 230, 231, 239, 128/66, 240, 248, 251, 264, 260; 251/319, 324

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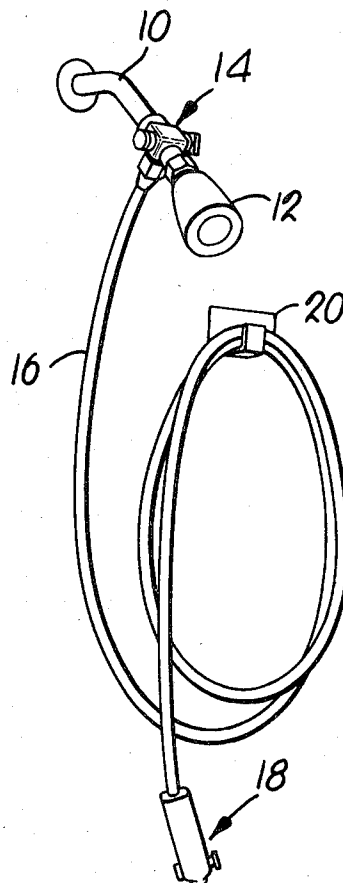
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[57]

ABSTRACT

A multipurpose, personal use hygienic kit has a diverter valve which may be connected to the water-spout of a bathtub or to the spray head of a shower installation to direct water through such fixtures or to hand-held, interchangeable components of the kit. Such components may include a jet spray nozzle, a French shower head, or a medicated douche. The medicated douche is provided with a special foraminous disc within a suppository receptacle thereof for comminuting the medicated suppository as water is forced through the receptacle, thereby causing the stream issuing from the douche to be laden with particles of medication. The suppository may be extruded into the receptacle by virtue of a special insertion tube and plunger therefor.

3 Claims, 9 Drawing Figures



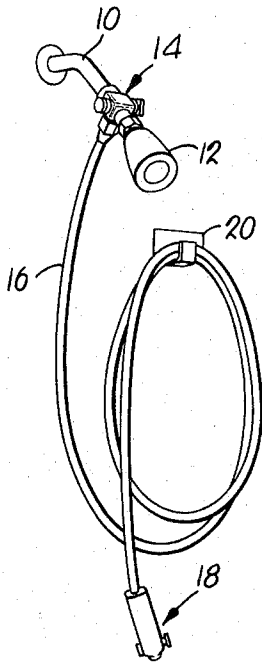


Fig. 1.

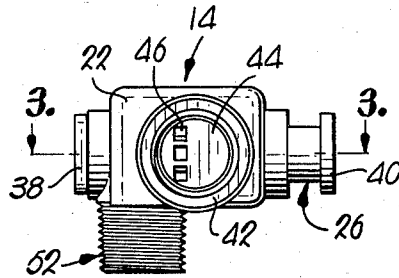


Fig. 2.

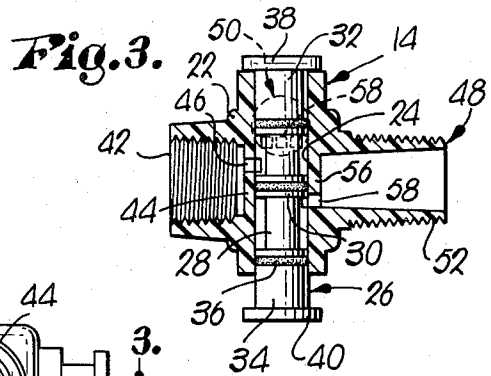


Fig. 3.

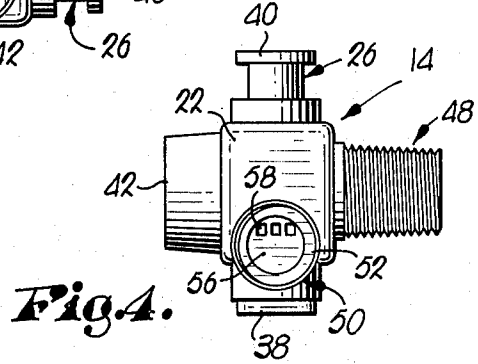


Fig. 4.

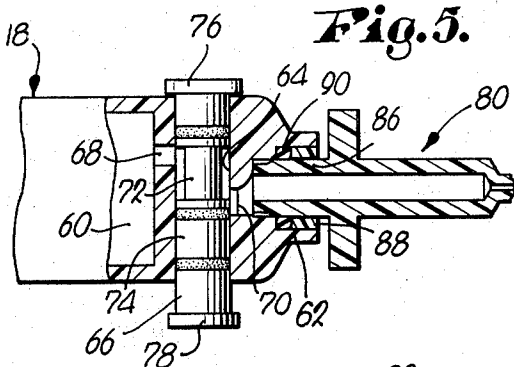


Fig. 5.

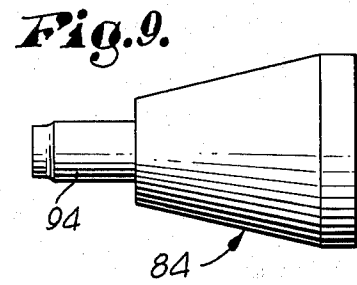


Fig. 9.

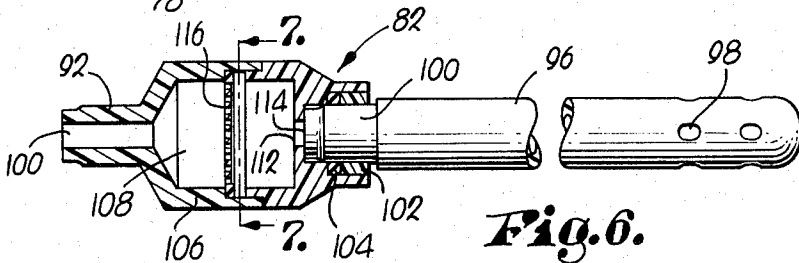


Fig. 6.

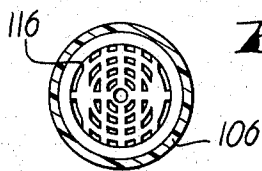
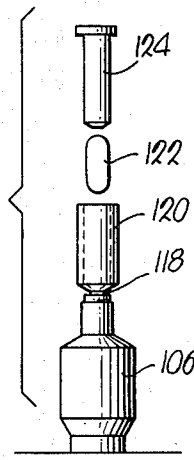


Fig. 7.

Fig. 8.



MULTIPURPOSE HYGIENIC KIT

CROSS REFERENCES

This is a continuation-in-part of my copending application Ser. No. 160,771, filed July 8, 1971 now abandoned and entitled "HYGIENIC KIT IN READINESS FOR DAILY USE."

This invention relates to a personal appliance or kit utilized in practicing principles conducive to the establishment and maintenance of good health, and has as one important object the provision of a kit which may be coupled to the waterspout of a bathtub or to the outlet of a shower head for directing cleansing streams of water to selected areas of the body as determined by the position of hand-held, interchangeable outlet components of the kit.

Another important object of the present invention is to provide a kit as aforesaid which may remain coupled with the waterspout of shower head during nonuse of the kit, yet which allows normal, unimpeded use of the shower and bathtub during the time the kit is not in operation.

Pursuant to the foregoing object, an important aim of the instant invention is to provide a special diverter that may be connected to the tub spout or to a shower head in order to direct water to such fixtures or to the kit by controlling the diverter.

A further important object of the invention is to provide a diverter as aforesaid which utilizes a shiftable spool to control the direction of water therethrough and which has enlarged outlets provided with partitions separating the outlets from the bore within which the spool operates, such partitions each having a series of rectangular openings therein which cause the water flow to the outlets to be highly controlled and yet maximized to the fullest extent.

Another important object of this invention is to provide, as one of the interchangeable components of the kit, a medicated douche which loads water flowing through the douche with particles of medication so that the douche can be used both to cleanse a body cavity, such as the vagina, and to apply medication thereto.

Yet another important object of this invention is to provide a medicated douche as set forth above which utilizes a special internal, foraminous disc to comminute a medicinal suppository in the douche when water is forced through the disc, thus effectively loading the water stream with particles of medication.

A still further important object of this invention is the provision of a special plunger and insertion tube for extruding the suppository into the comminuting compartment of the douche before the latter is connected to the source of water pressure. In the drawing:

FIG. 1 is a perspective view of the basic parts of the kit of the present invention installed on a shower head;

FIG. 2 is an enlarged elevational view of the diverter which determines whether water will flow to the shower head or to the kit;

FIG. 3 is a cross-sectional view of the diverter taken along line 3—3 of FIG. 2;

FIG. 4 is an enlarged elevational view of a side of the diverter adjacent that shown in FIG. 2 with the diverter being rotated 90° from the position shown in FIG. 2;

FIG. 5 is an enlarged, fragmentary elevational view of the adaptor valve of the kit showing a jet spray nozzle attached thereto, parts of the adaptor valve and nozzle being shown in cross section for clarity;

FIG. 6 is an enlarged, partly elevational and partly cross-sectional view of a medicated douche component which may be attached to the adaptor valve;

FIG. 7 is a cross-sectional view through the douche taken along line 7—7 of FIG. 6 and illustrating the comminuting disc thereof;

FIG. 8 is an exploded view illustrating the manner in which a medicated suppository is extruded into the receptacle of the medicated douche; and

FIG. 9 is a shower head component that may be interchanged with the jet spray nozzle and the douche.

The multipurpose kit of the present invention is adapted for use in connection with any suitable water outlet fixture such as, for example, the shower outlet shown in FIG. 1 and including an arm 10 and head 12, or it may be used in connection with the waterspout of a bathtub (not shown). A diverter 14 is inserted between the arm 10 and the head 12 for directing water to either the shower head 12 or to a hose 16 leading from diverter 14 and having an adaptor valve 18 at the end of hose 16 remote from diverter 14. If desired, a wall bracket 20 may be used to conveniently hold the coils of hose 16 when the latter is not in use.

Viewing FIGS. 2, 3 and 4, details of the diverter 14 may be clearly seen. The diverter 14 has a body 22 provided with a bore 24 extending entirely therethrough and slidably carrying a shiftable spool 26. The spool 26 has a shank 28 of reduced diameter relative to bore 24, there being a circular divider 30 on shank 28 between the opposed enlargements 32 and 34 at opposite ends of shank 28. O-rings 36 on divider 30 and enlargements 32, 34 sealingly engage the wall of bore 24 as spool 26 is shifted therewithin. A square button 38 is provided on enlargement 32 exteriorly of bore 24, and a round button 40 is provided on enlargement 34 at the opposite end of spool 26 outside of bore 24.

An internally threaded inlet 42 adapts the diverter 14 for fastening onto the externally threaded arm 10 and approaches bore 24 at right angles thereto. A partition 44 separates inlet 42 from bore 24 and is provided with a series of rectangular flow openings 46 that provide limited, controlled communication between inlet 42 and bore 24.

A pair of outlets 48 and 50 also communicate with bore 24 and are controlled by a spool 26. Each outlet 48 and 50 has a continuous circular wall 52, externally threaded, that defines a cylindrical flow space 54. At the innermost end of space 54 is provided a partition 56, similar to partition 44 of inlet 42, there being a series of rectangular flow openings 58 in partition 56 that communicate the space 54 with bore 24 in a limited manner.

The shower head 12 is threaded onto the outlet 48, while the hose 16 is secured to the outlet 50. The position of spool 26 within bore 24 thereby determines whether water from arm 10 will flow into shower head 12 or hose 16.

As shown in FIG. 5, the adaptor valve 18 has an internal chamber 60 that receives and holds water from hose 16 and a discharge 62 spaced from chamber 60. A cross bore 64 slidably carries a spool valve 66 whose axial position within bore 64 determines whether water may flow from chamber 60 to discharge 62 via ports 68 and 70 that communicate with bore 64 on opposite sides thereof. The stem 72 of spool 66 is of reduced diameter relative to bore 64 to communicate ports 68 and 70 with one another through bore 64 when spool

66 is in the position illustrated in FIG. 5, an enlargement 74 adjacent stem 72 blocks ports 68 and 70 when spool 66 is shifted to the opposite extreme from the illustrated in FIG. 5. The spool 66 may be provided at its opposite ends with a square button 76 and a round button 78 if desired to indicate the direction in which spool 66 should be actuated in order to open or close discharge 62.

The discharge 62 of adaptor valve 18 is so designed that it can accommodate a jet spray nozzle 80, shown in FIG. 5, a medicated douche 82, shown in FIGS. 6-8, a French shower head 84, shown in FIG. 9, or any other outlet component having a configuration compatible with discharge 62. Taking the nozzle 80 as an example, a connector stem 86 thereof is yieldably, yet tightly inserted into and retained by a collar 88 and an O-ring 90 associated with discharge 62. The O-ring 90 is of such a diameter relative to stem 86 that when the latter is inserted into discharge 62, the O-ring 90 must expand to a degree in order to allow stem 86 to become fully seated within discharge 62. The stems 92 and 94 of douche 82 and shower head 84 are identical in diameter to that of stem 86 so that stems 92 and 94 are yieldable yet sealingly retained when stems 92 and 94 are inserted interchangeably within discharge 62.

The medicated douche 82 is provided with an elongated, cylindrical, hollow probe 96 having one or more outlet apertures 98 adjacent the outermost tip end thereof. The probe 96 has a stem 100 similar in configuration and size to those previously described for removable retention within and by a collar 102 and cooperating O-ring 104 associated with the hollow receptacle 106 of douche 82. The receptacle 106 has a compartment 108 therewithin provided with an entry 110 at one end thereof, and an exit 112 at the opposite end thereof, the exit 112 being closely adjacent the inlet orifice 114 of probe 96.

A foraminous comminuting disc 116 divides compartment 108 into two major portions and extends completely thereacross within the path of water flowing through compartment 108 toward probe 96.

It is contemplated that the jet nozzle 80, the douche 82, and the French shower head 84 may be stored in a suitable wall-mounted holder (not shown) in the bathtub area when such components are not in use. The hose 16 may be coiled as shown in FIG. 1 and hung from the bracket 20 in the suggested manner so as not to interfere with operation of the shower head 12 or use of the bathtub. When the user desires to take a shower, the round button 40 associated with diverter 14 should be pushed to move spool 26 from its position illustrated in FIG. 3 to the opposite limit of its travel so that inlet 42 is communicated with outlet 48, thereby allowing flow to the shower head 12. During such time the diverter 30 will be located on the opposite side of the inlet openings 46 from that shown in FIG. 3, thereby precluding flow to the outlet 50 leading to hose 16. Hence, the user can enjoy a comfortable shower without any reduction in the volume of water directed to shower head 12.

On the other hand, should the user desire to employ the nozzle 80, the douche 82 or the French shower head 84, it is but necessary to depress the square button 38 or diverter 14 so as to shift the spool 26 into the position shown in FIG. 3 for diverting the water from shower head 12 to hose 16 and the selected components. With the spool 66 of adaptor valve 18 in the po-

sition illustrated in FIG. 5, water may flow from discharge 62 into the component releasably retained by adaptor valve 18. When the French shower head 84 is inserted into discharge 62, the water streams issuing from head 84 may be directed to desired parts of the body to cleanse such areas without wetting the head of the user, if such is desired. In contrast, the head 84 may be used only to wet the user's hair for shampooing purposes with splashing water on other parts of the body if the user so desires.

The jet nozzle 80 is particularly useful for cleaning the sink or tub after use. By directing the jet issuing from nozzle 80 toward dirt and ring on the tub or sink, such material can be quickly and easily removed without laborious scrubbing.

The medicated douch 82 may be used after first preparing the same in the manner illustrated in FIG. 8. The receptacle 106 is designed to accommodate the narrow end 188 of an insertion tube or syringe 120 which, in turn, freely receives an easily fusible, medicinal suppository 122. When the suppository 122 has been dropped into tube 120, the plunger 124 may be inserted into the open end of tube 120 and depressed toward the narrow end 118 to extrude the suppository 122 through entry 110 of receptacle 106 and into compartment 108 on the left side of the comminuting disc 116 (viewing FIG. 6). After the suppository 122 has been fully loaded into compartment 108, the tube 120 and plunger 124 may be withdrawn from receptacle 106 and the douche 82 attached to adaptor valve 18 in the manner earlier described.

When a current of water rushes through the receptacle 106 toward probe 96, the suppository material between entry 110 and disc 116 is pushed through the latter and hence comminuted into a myriad of particles for admixture with the flowing water. The medicant-laden water then issues from the apertures 98 to provide a soothing, healthful solution which may be applied to the walls of body cavities such as the vagina.

It should be apparent from the foregoing that the multipurpose kit as above described is fully capable of carrying out the objects of the invention initially set forth. Moreover, it will be appreciated that the relatively non-complex construction of the various elements of the kit render the latter generally inexpensive to construct and maintain without detracting from the ease with which the kit can be placed in use. It will be seen that the kit is highly versatile, can be readily installed, and does not detract from the operability of existing water fixtures such as the spout of a bathtub or the spray head of a shower installation.

Having thus described the invention, what is claimed as new and desired to be secured by letters Patent is:

1. A medicated douche comprising:
 - an elongated, tubular, perforated probe adapted for insertion into a body cavity,
 - said probe having an inlet orifice at one end thereof and
 - one or more outlet apertures at the opposite end thereof;
 - a hollow receptacle ahead of said probe adjacent said inlet and having a compartment for receiving a medicinal suppository,
 - said compartment having an entry spaced from said inlet and an exit adjacent the inlet whereby a fluid forced through the compartment and into the

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probe may carry medication therewith from said suppository; and
structure for introducing the suppository into said compartment, said structure including an insertion tube coupled at one end thereof with said entry and adapted to freely receive the suppository, and a plunger received and shiftable within said tube toward said one end thereof for extruding the suppository into said compartment through said entry.

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2. A medicated douche as claimed in claim 1, wherein said compartment is provided with means for comminuting said suppository as fluid is forced through the compartment toward said probe.

5 3. A medicated douche as claimed in claim 2, wherein said comminuting means comprises a foraminous member across said compartment and through which the suppository is pushed by the fluid.

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