

Jan. 31, 1961

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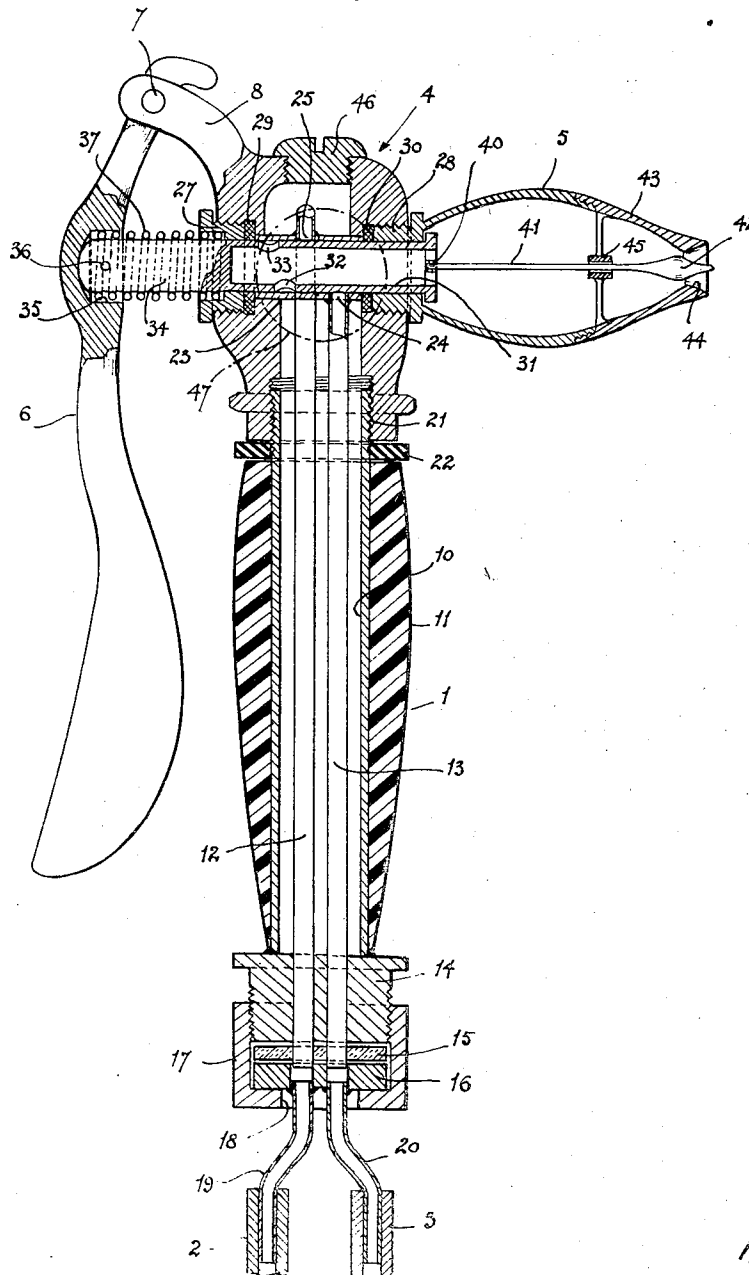
2,969,923

WATER-MIXING ARRANGEMENT FOR SHOWER BATHS

Filed Feb. 20, 1958

4 Sheets-Sheet 1

Fig: 1



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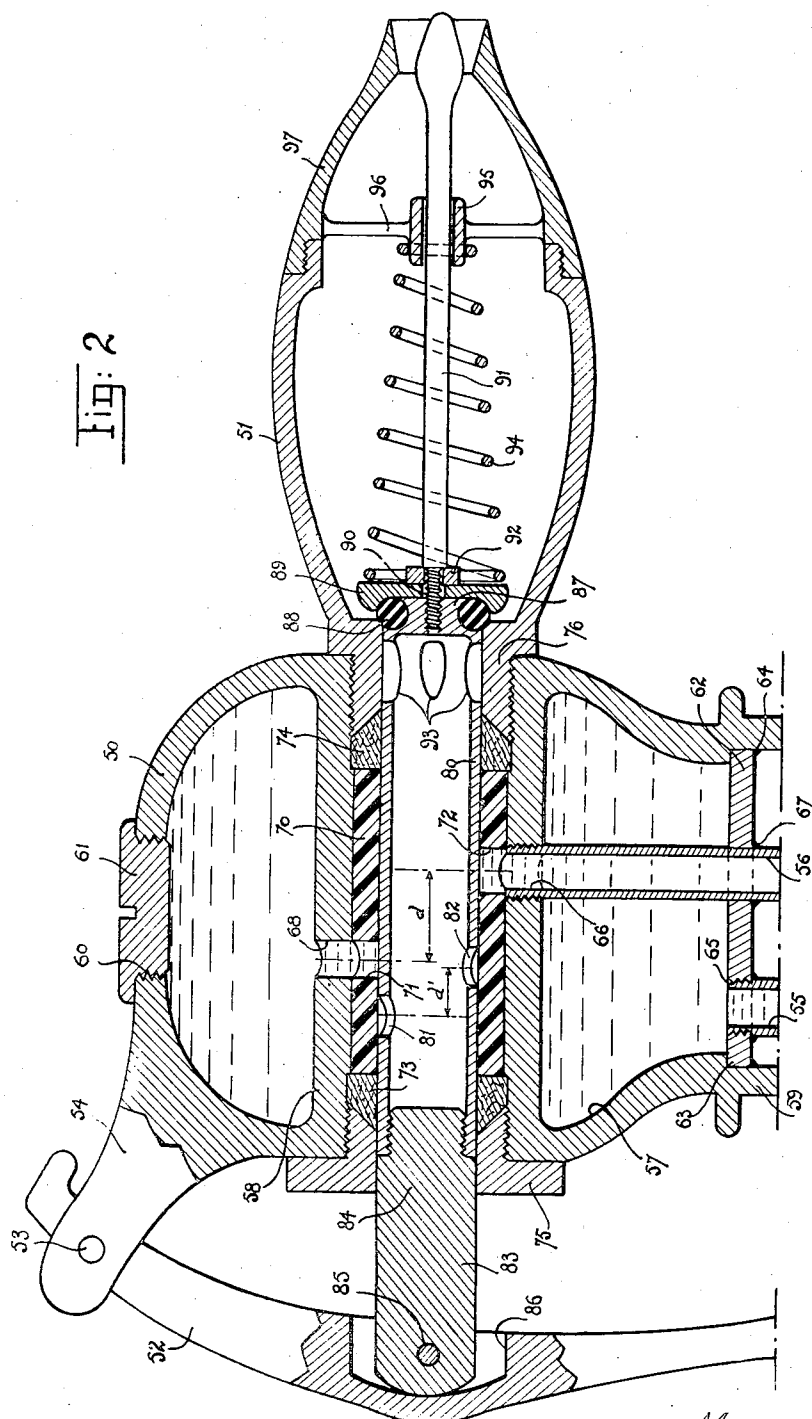
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4 Sheets-Sheet 3

Fig: 3

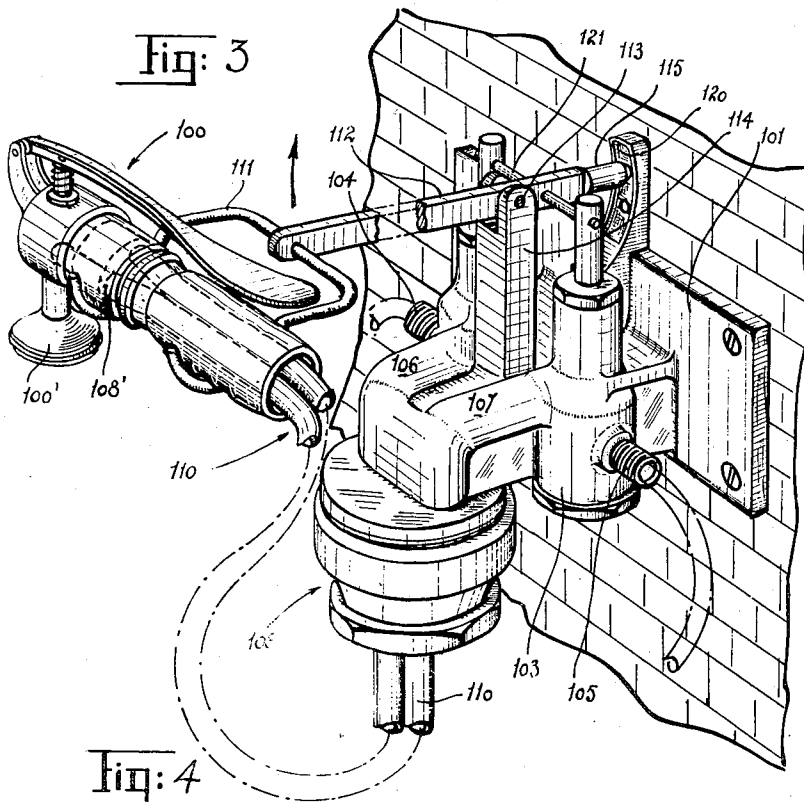
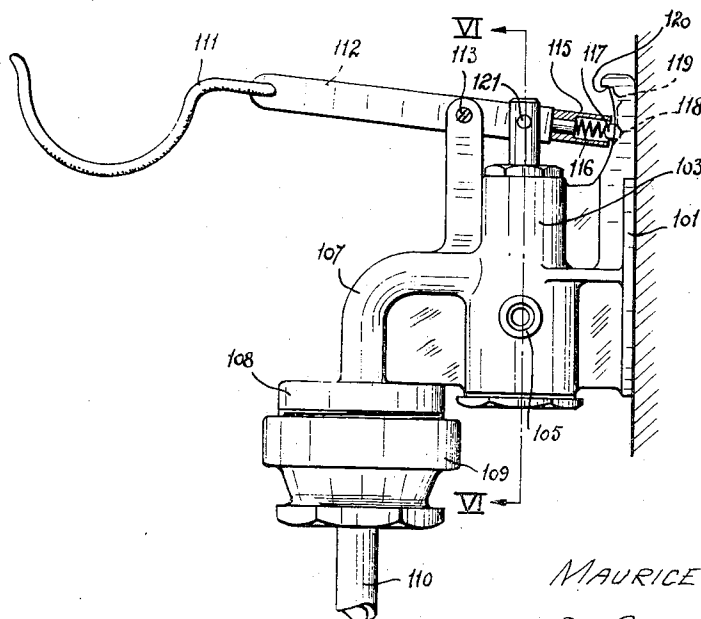


Fig: 4



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4 Sheets-Sheet 4

Fig: 5

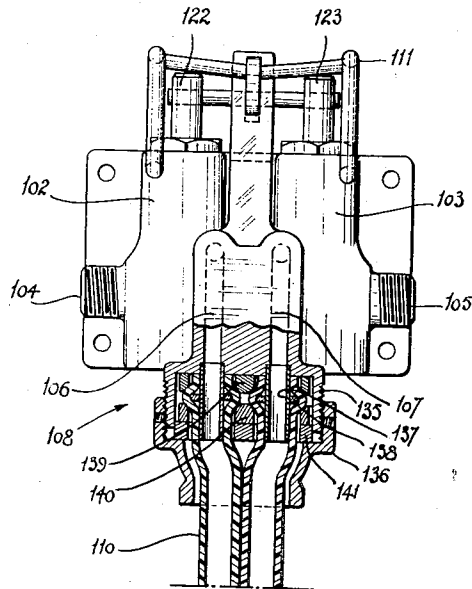
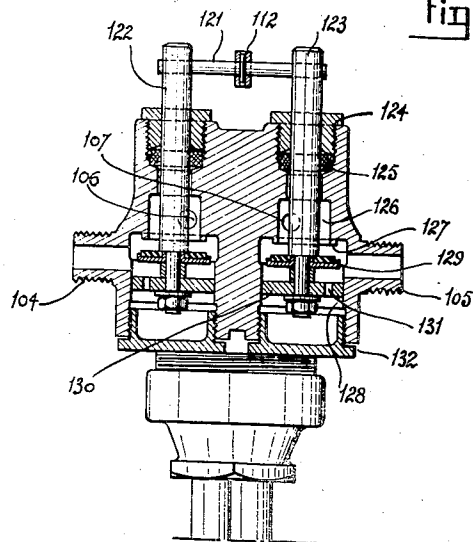


Fig: 6



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WATER-MIXING ARRANGEMENT FOR SHOWER BATHS

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5 Claims. (Cl. 239—415)

My invention has for its object a water-mixing arrangement for shower baths which leads to the execution of a light and portable apparatus, the use of which is highly convenient for the user.

My improved arrangement includes in combination with a body adapted to be held in the user's hand, a shower bath rose and an adjustable water-feeding head which allows obtaining under the action of an increasing pressure of the user's hand the distribution of the water first with a gradual increase in its volume and then with a gradual increase in its temperature.

According to a preferred embodiment, the arrangement includes inside a hollow head, a stationary guiding tube provided with two input ports extending along two different generating lines which are axially shifted with reference to each other and are connected with the distribution of cold and hot water respectively, while a hollow slide valve which is open at one end and closed at the opposite end is adapted to slide inside said guiding tube but is prevented from rotating with reference to the latter, said slide valve being provided with two admission ports extending along generating lines registering with the generating lines on which are formed the input ports in the stationary guiding tube, said admission ports being axially shifted with reference to each other by an amount smaller than the shifting of the admission ports, the sprinkling rose being connected with the head in registry with the open end of the hollow slide valve and control means being associated with the head in registry with the closed end of the hollow slide valve with a view to adjusting the length of engagement of the latter.

Through this arrangement and when using for instance for the control of the length of engagement of the slide valve a handle associated with a return spring, I obtain a portable apparatus in which the extent of opening of the ports provided for the flow of water and the adjustment of the temperature of the mixture of cold and hot water are controlled through a mere pressure exerted on the handle, said pressure being suitably defined.

Thus, by depressing against the pressure of the return spring, the control handle to which is coupled the distributing slide valve, the movement of which is for instance rectilinear, it is possible to uncover in succession and to a variable extent the ports admitting cold and hot water respectively.

According to a further object of my invention, the working of the arrangement may be ensured in a fully reliable manner in spite of the modifications in temperature to which the movable distributing members may be subjected to a substantial extent.

It is also possible to provide inside the actual arrangement a fluidtight closure for the distribution of water so as to cut out the necessity of operating frequently the cocks controlling the pipes feeding the hot and cold water ahead of the corresponding branch pipes entering the arrangement.

According to an advantageous feature of the invention,

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a sleeve of plastic material is fitted between the stationary guiding tube and the distributing slide valve inside the latter; the insertion of such a plastic sleeve protects the movements of the distributing slide valve against any risk of wedging and ensures the efficient action of the return spring urging the slide valve into its inoperative position.

According to a further feature of my invention, the connection between the distributing slide valve and the rose of the shower bath is controlled by a valve associated with said slide valve and ensuring a fluidtight closure when said slide valve is in its inoperative position.

The water mixing arrangement according to my invention is fed generally by means of yielding pipes connected with inputs of hot water and cold water respectively. According to a preferred embodiment, said connection is performed through the agency of a water distributing apparatus including a carrier member adapted to carry the water-mixing arrangement when the latter is not in use and to ensure in this case the switching off of both water inputs without any further operation of a cock being required. The features and advantages of my invention will appear clearly in the reading of the following description given by way of example, reference being made to the accompanying drawings wherein:

Fig. 1 is an axial sectional view through a longitudinal plane passing through the axes of the water input pipes of a first embodiment of my improved water-mixing arrangement.

Fig. 2 is a partial axial sectional view also through a longitudinal plane passing through the axes of the water input pipes of a modified embodiment.

Fig. 3 is a perspective view of the water-mixing arrangement lying on its distributing carrier controlling the feed of water to said arrangement.

Fig. 4 is a lateral elevational view of the actual distributor including the carrier and associated parts.

Fig. 5 is a front elevational view of the distributor, part of which is torn off to show its connection with the yielding pipes leading to the water-mixing arrangement.

Fig. 6 is a transverse sectional view of said distributor, through line VI—VI of Fig. 4.

In Fig. 1, the tubular body 1 is connected at one end with two yielding pipes 2 and 3 connected in their turn respectively to a pipe feeding cold water and to a pipe feeding hot water, said pipes being described hereinafter with further detail; the body 1 is provided at its other end with a head 4 carrying on one side a shower bath rose 5 and on the other side a handle 6 pivotally secured to a stud 7 at the end of an arm 8 forming an extension of the head.

The body 1 is constituted by a tubular metal member 10 extending inside a sleeve 11 of plastic or refractory material such as ceramic ware for instance. Inside the tubular member 10 extend two pipes of which one, 12, feeds the cold water and the other, 13, feeds the hot water. These two pipes pass through a threaded plug welded through its terminal surface to the inner end of the member 10, said plug holding in position said two tubes 12 and 13. The ends of the tubes 12 and 13 pass beyond the outer surface of the plug 14 through a yielding packing 15 and register with two cooperating bores formed in a perforated disc 16, said packing and disc being clamped over the plug 14 by a cap 17 screwed over the latter and provided in its bottom with a passageway 18 for two connecting pipes 19 and 20 which are fitted and welded on the one hand inside corresponding bores in the perforated disc 16 and which are fitted, on the other hand, inside the yielding pipes 2 and 3. These latter may furthermore be arranged side by side inside a yielding sheath of any desired length and are connected with the supplies of hot and cold water.

The tubular member 10 forming the body terminates with a threaded section 21 which is screwed into a bored section of the head 4 with the interposition of a yielding packing 22. The feed pipes 12 and 13 extend inside the head and are connected with a stationary transverse guiding tube 23. The pipe feeding hot water 13 opens into registry with a port 24 formed in the stationary guiding tube while the pipe 12 feeding cold water is connected therewith after it has passed along one side of the tubular guide, i.e. behind the latter in Fig. 1 and after it has been bent back towards the latter into which it opens in registry with a port 25 formed in said guiding tube on a generating line diametrically opposed to the port 24 and axially shifted with reference thereto towards the left hand side of Fig. 1 in the case illustrated.

The stationary transverse guiding tube 23 is held inside the head of the apparatus between two plugs 27 and 28 screwed into the head with the insertion between said plugs and the corresponding ends of the tubular guides of two washers or packings 29 and 30 made of graphite containing asbestos for instance. The two plugs are bored to a diameter equal to or slightly above the inner diameter of the stationary tubular guide 23, so as to allow the sliding through the plugs and guide of a distributing slide valve 31.

Said hollow slide valve is provided with two admission ports 32 and 33 extending along diametrically opposed generating lines and axially shifted with reference to each other so that they may register during operation respectively with the input port 24 for the hot water and with the input port 25 for the cold water. The slide valve includes an extension facing the handle and constituted by a solid section 34, the end of which engages a recess 35 provided for this purpose on the inner surface of the handle to which it is connected by the coupling screw 36. A coil spring 37 is compressed between the cup-shaped recess 35 and a corresponding recess in the screwed plug 27 urges the handle and the slide valve into the position illustrated for which the admission ports 32 and 33 are spaced with reference to the cooperating input ports 24 and 25.

At its open end, the slide valve terminates with a cross-shaped member or spider 40 into the center of which is screwed the rod 41 of a jet-controlling member 42. The latter cooperates in a conventional manner with the sprinkling rose 5 of the shower bath which is rigid with the screwed plug 28. As obvious from inspection of the drawing, the rose includes two sections of which the outer section 43 forming the actual nozzle 44 is screwed over the inner section and rigidly carries a stationary cross-member or spider 45 guiding the rod 41.

It is of advantage to provide an opening which is normally closed by a threaded plug 46 in the upper end of the head, said opening allowing the access to and the adjustment of the connection between the input port 25 and the cold water pipe 12 and a similar opening may be provided in one or both sidewalls of the head as illustrated at 47 for allowing an access to the port 24 which is fed by the input of hot water.

The yielding pipes 2 and 3 being connected respectively with the means feeding the cold water and the hot water, the cold water is available at the port 25 and the hot water at the port 24. The operator holding the arrangement in his hand urges the handle 6 towards the body 1 so as to shift the sliding valve 21 inside the latter. During this inward movement, first the admission port 33 enters into registry with the input port 25 for cold water which is alone to flow at the beginning of operation. The inward movement continuing, the second admission port 32 registers in its turn with the input port 24 for hot water. The movement may continue until the cold water admission port 33 is completely closed again and only hot water is allowed to flow. The relative positions of the ports are selected in a manner

such that at the beginning of the operative stroke for instance, the two input ports 24 and 25 may be equally uncovered, so as to register with the corresponding admission ports in the slide valve. The jet-modifying arrangement being carried along with the slide valve, the jet may be more or less spread out according to the original adjustment of the relative positions of said jet-modifying member 42 and of the nozzle 44. The final position may correspond to a closing of the connection between both pairs of cooperating ports or else generally to the connection through the cooperating hot water ports only.

In the modification illustrated in Fig. 2, the body of the support remains the same as in the case of Fig. 1 and only the head 50 of the actual mixing apparatus is different and has been illustrated. Said head is provided on one side, as precedingly with a shower bath rose 51 and, on the opposite side, with a handle 52 pivotally secured to a spindle 53 secured to the end of an extension 54 of the head. The reference numbers 55 and 56 designate respectively the pipe feeding cold water and the pipe feeding hot water. The head 50 is constituted in the case of Fig. 2 by a hollow unit forming a chamber 57 round a central hollow core 58 cast in one with the body and forming a stationary tubular guide. Said unit is provided at one end with a cylindrical connection 59 leading towards the body carrying the water-feeding means and which is not illustrated and, at the opposite end, with an opening 60 which is normally closed by a screwed plug 61. The cylindrical connection 59 is closed at its end facing the hollow body of the device by a disc 62 engaging an outwardly facing shoulder 63 formed on the head; said disc may be secured, if desired, by a peripheral weld, as shown at 64.

The pipe feeding cold water 55 has its output end 65 screwed into a tapped bore formed in the disc 62 and opens thus into the chamber 57. The pipe 66 feeding hot water extends through the disc 62 and its end is screwed into a tapped input port provided for this purpose in the stationary tubular guiding core 58. An annular weld 67 may be provided, after fitting round the hot water pipe 56 to secure it to the disc 62.

Along a generating line which is diametrically opposed to the input of hot water 66, the guiding core 58 is provided with an input port 68 for cold water, an axial shifting d being provided with reference to the input of hot water. The core 58 is lined inwardly by a sleeve 70 of a plastic or yielding material, such as that sold under the name of nylon, hard rubber, or the like. Said sleeve is provided with two ports 71, 72 registering respectively with the input of cold water at 68 and with the input of hot water at 66. Stuffing boxes 73, 74 are arranged at the ends of the sleeve and are held fast in position respectively by an annular screwed plug 75 and by the nozzle 76 forming part of the rose 51 and similarly screwed into the tubular core 58.

Inside the sleeve 70 may slide, with slight friction, a distributing slide valve 80 provided with a port 81 for the admission of cold water and with a port 82 for the admission of hot water. These ports are axially shifted by a distance d' which is smaller than the shifting d between the input ports 66—72 and 68—71. The slide valve is coupled with the handle 52 through a rod 83 extending through the plug 75 and the end of which 84 is screwed into the end of the slide valve while a spindle 85 provides for the pivotal connection of its outer end across the inside of a recess 86 formed to this end in the handle. At its other end, the slide valve is provided with a solid bottom 87 surrounded by a torse-shaped elastic packing 88 which is compressed by a flat valve head 89 urged against the said bottom by the screwing into the latter of the threaded end 90 of the rod 91 with the insertion of a bearing washer 92 between a shoulder on the rod and the valve head. A series of exhaust ports 93 is provided in the side-wall of the distributing slide valve ahead of the valve thus constituted.

The rose of the shower bath, 51 in the present case, by way of example, includes a jet-controlling and adjusting member, as well known per se, the above referred to sliding rod 91 of which is made rigid, as described, through its threaded end 90 with the distributing slide valve 80. A spring 94 returns the sliding moving system thus constituted which includes, starting with the handle 52, the rod 83, the slide valve 80 and the rod 91, and is constituted by a helical spring surrounding the rod and compressed between the valve head 89 and the guiding sleeve 95. The latter is held in position by a transverse or cross-shaped spider 96 rigid with the front section of the nozzle 97 forming the outer section of the rose 51.

The operation of this arrangement is similar to that described precedingly with reference to Fig. 1. The gradual shifting of the distributing slide valve 80 under the action of the pressure exerted by the operator on the handle 52 brings first the admission port 81 into registry with the admission of cold water and then the admission port 82 into registry with the admission of hot water, the movement continuing until complete closing of the cold water port 81, hot water alone being then fed through the port 82.

A first difference consists however in the fact that, when the apparatus is inoperative, the valve head 89 associated with the packing 88 provides a complete and fluidtight closing of the distribution of water without it being necessary to operate any cock ahead of the apparatus. During operation, the water admitted into the slide valve flows out of the latter and into the rose 51 through the ports 81.

A further important difference consists in that, by reason of the presence of the sleeve of plastic or yielding material 70, the sliding of the distributing slide valve remains ensured without any risk of wedging, in spite of the substantial modifications in temperature to which is unavoidably subjected the apparatus, as a consequence of its actual operation.

The execution and mounting of the arrangement are furthermore simplified and made easier with reference to the precedingly described embodiment.

In order to obtain without operating any cock and while retaining perfect reliability, a fluidtight closing of the distribution of water when the arrangement described is not operative and more particularly with a view to preventing any mishap ascribable to a failure of the yielding pipes under the action of a fortuitous overpressure in the feeding means, the connection with the water supplies is performed advantageously through the water switching off means illustrated in Figs. 3 to 7.

Said distributor or water switching off apparatus includes a supporting plate 101 adapted to be secured to a wall for instance, and carrying two symmetrical valve bodies 102, 103 connected respectively on opposite sides of the apparatus with the cold water input 104 and with the hot water input 105. To the front of said valve bodies are connected the corresponding feed pipes 106, 107 leading to a double connection 108 adapted to receive the two yielding pipes 110 feeding the water mixing apparatus such as that illustrated in Figs. 1 and 2 and designated as a whole by the reference number 100 in Fig. 3. Said apparatus is laid as illustrated on a carrier hook 111 rigid with the end of an elongated arm forming part of a rocking lever 112. The latter is pivotally secured to a transverse spindle 113 rigid with the upper end of a central upright 114 of the water switching off means. The shorter inner arm of the lever 112 includes a terminal tubular section 115 in which is contained a small helical compressed spring 116 urging outwardly a ball 117 adapted to engage either of two locking notches 118, 119 of an arcuate extension 120 rigid with the bodies 102, 103 and with the carrier plate 101.

To an intermediate point of the inner shorter arm of the locking lever 112 is secured a transverse arm 121 carrying at its ends two valve rods 122, 123. Each of

said rods passes, as illustrated in Fig. 6, through a plug 124 screwed into a corresponding recess formed in the compound body 102—103 so as to compress inside said recess a packing 125, beyond which the rod 122 or 123 extending through said recess enters a bore 126 connected with the feed pipe 106 or 107, said bore opening through a valve seat 127 into the cylindrical chamber 128. Into each cylindrical chamber 128 opens furthermore the input pipe 104 or 105; the lower end of each rod 122 or 123 carries a valve body 129 adapted to cooperate with the valve seat 127 and furthermore an extension forming a piston 130 in which is provided an opening 131, said piston sliding with slight friction over the cylindrical wall of the cooperating cylindrical chamber 128. The lower end of said chamber is tapped, so as to be closed by a threaded plug 132.

The double connection 108 which is shown in Fig. 5 with further detail includes a male section 135 which is outwardly threaded and is engaged by the tapped female section 136. The ends of each of the yielding pipes 110, which correspond to those designated by 2 and 3 in Fig. 1 are engaged with a force fit over rigid tubular sections 137 provided each with an outer annular shoulder 138, said tubular section being fitted in the output end of the feed pipe 106 or 107 according to the case. The expanded terminal section of each yielding pipe 110 is clamped between two discs 139 and 140 providing a passage for each of the said pipes 110, the passages thus provided being bevelled along their edges adjacent the shoulder 138. The expanded section of each pipe 110 is compressed between the two discs upon clamping of the female section 136 of the double connection over the male section 135, said compression being obtained by means of a third disc or compression disc 141 which also provides a passageway for each of the pipes 110.

It is of advantage to resort, as shown in Fig. 3, to a double connection 108 of a similar structure for connecting the yielding pipes 110 with the pipes 55 and 56 of the arrangement illustrated in Fig. 2 feeding hot and cold water into the actual mixing apparatus.

Fig. 6 shows the valves in their lower open positions corresponding to the raised position of the rocking lever 112 illustrated in Fig. 4. The input pipes 104 and 105 are then respectively connected with the feed pipes 106 and 107. When the water-mixing apparatus is laid on its carrier hook 111, this rocks the lever 112 into its lower position and urges its arm 115 into its upper position, as defined by the engagement of the ball 117 inside the upper notch 119 (Fig. 4), in the arcuate extension 120, whereby the two valve heads 129 are urged into their upper closed positions. During the movements assumed by said valves, the perforated pistons 130 exert a braking or damping action through a dash-pot effect, which prevents any water hammering. It should be remarked that the thrust exerted by the pressure of the water in the supplies on the valve heads 129 when in their closed positions urges said valve heads onto the corresponding seats and prevents thus any untimely opening of the water switching off apparatus, as long as the water-mixing apparatus 100 remains laid on its carrier hook.

When the water mixing apparatus is lifted off its carrier, the lever 112 has a tendency to remain in its inoperative position which is illustrated in Fig. 3, as a consequence of the fact that the valve heads 129 remain urged on their seat. To open the valves, it is sufficient to produce a slight thrust on the hook 111 so as to rock the lever 112.

It is also possible to provide, if desired, a return spring which is not illustrated and which urges the valve-controlling lever 112 into its valve-opening position. However, the necessity of positively actuating the hook 111, so as to obtain the actual opening of the valves corresponds to a further safety in operation. The outer elongated arm of the rocking lever 112 has, in all cases, a

length which is amply sufficient for ensuring its rocking into the valve-closing position under the action of the weight of the water-mixing apparatus when laid on the hook 111.

Instead of the vertically moving valves which have just been described, the water switching off apparatus may as well include horizontally moving valves. On the other hand, the rocking lever instead of rocking round a substantially horizontal position may be given an angular setting approximating verticality in which case its rocking towards the valve-opening position would be produced for instance by an outwardly directed tractional movement as provided by the removal of the water-mixing apparatus from its carrier hook or hooks.

Various other modifications are still possible, without unduly widening the scope of the invention as claimed in the accompanying claims. It should be remarked as a matter of fact, that the water mixing apparatus illustrated roughly in Fig. 3 includes a sprinkling rose 100' of the conventional type, including a perforated plate and no longer jet-controlling means incorporating a sliding rod, as in the case of the rose 5 illustrated in Fig. 1 or of the rose 51 illustrated in Fig. 2. Means may also be provided for holding fast the handle 6 or 52 together with the cooperating slide valve, in any selected position. The slide valve may be replaced by an equivalent member adapted to assume a helical or even a rotary movement. Similarly the yielding sleeve 70 illustrated in Fig. 2 would retain in all embodiments and modifications its utility, corresponding to the cutting out of all risks of wedging under the action of the modifications in the temperature of the water mixture.

What I claim is:

1. A device for mixing hot and cold water for shower baths, comprising a hollow grip body, a tubular member extending across the hollow part of said body and opening at its front end outside said body, said tubular member being provided with two water input ports at longitudinally spaced points thereof, a sprinkling rose fitted on the outside of the body coaxially with the front end of said tubular body, a sliding tubular valve engaging coaxially the inside of the tubular body closed at its rear end, and provided with lateral openings near the end facing the rose to thereby ensure communication between the rose and the inside of the valve through the lateral openings of the latter upon forward shifting of said valve, said valve being further provided with two ports the spacing between which is slightly less than the spacing between the ports in the tubular body, said valve ports being normally located to the rear of the corresponding ports in the tubular member registering selectively upon forward sliding of the tubular valve out of a rear inoperative position towards the rose into two successive operative positions with the said corresponding ports in the tubular member, the ports in the tubular member and sliding valve further remote from the rose registering with each other for the first operative position of the valve and the ports nearest the rose registering for the second operative position, means feeding hot water into the port of the tubular member nearest the rose, means feeding cold water into the other port of the tubular member, hand-operable means pivotally secured to the body and adapted to act on the closed rear end of the ported sliding valve to make it enter in succession its two operative positions, a transverse closure secured to the front end of the tubular member beyond the lateral openings therein and adapted to fluid-tightly close the connection between the rose and the tubular member when the valve is in its inoperative rear position, and means urging elastically said closure into engagement with the front end of the tubular member and thereby the sliding valve and hand-operable controlling member into their inoperative position.

2. A device for mixing hot and cold water for shower baths, comprising a grip body, a tubular member extend-

ing across said body and opening at its front end outside said body, said tubular member being provided with two water inputs ports at longitudinally spaced points thereof, a sprinkling rose fitted on the outside of the body coaxially with the front end of said tubular body, a sliding tubular valve engaging coaxially the inside of the tubular body, closed at its rear end, opening at its front end into the rose and provided with two ports the spacing between which is slightly less than the spacing between the ports in the tubular body, said valve ports being normally located to the rear of the corresponding ports in the tubular member, registering selectively upon forward sliding of the tubular valve out of a rear inoperative position towards the rose into two successive operative positions with the said corresponding ports in the tubular member, the ports in the tubular member and sliding valve further remote from the rose registering with each other for the first operative position of the valve and the ports nearest the rose registering for the second operative position, means feeding hot water into the port of the tubular member nearest the rose, means feeding cold water into the other port of the tubular member, hand-operable means pivotally secured to the body and adapted to act on the closed rear end of the ported sliding valve to make it enter in succession its two operative positions, means urging the hand-operable means and sliding valve back into their inoperative position, a pivoting carrier member for the body of the device, pipes feeding hot and cold water into the water feeding means, a valve in each of the last-mentioned pipes, and means whereby the pivoting carrier member when subjected to the weight of the body carried by it urges the valves onto their seats to close last-mentioned pipes.

3. A device for mixing hot and cold water for shower baths, comprising a grip body, a tubular member extending across said body and opening at its front end outside said body, said tubular member being provided with two water input ports at longitudinally spaced points thereof, a sprinkling rose fitted on the outside of the body coaxially with the front end of said tubular body, a sliding tubular valve engaging coaxially the inside of the tubular body, closed at its rear end, opening at its front end into the rose and provided with two ports the spacing between which is slightly less than the spacing between the ports in the tubular body, said valve ports being normally located to the rear of the corresponding ports in the tubular member, registering selectively upon forward sliding of the tubular valve out of a rear inoperative position towards the rose into two successive operative positions with the said corresponding ports in the tubular member, the ports in the tubular member and sliding valve further remote from the rose registering with each other for the first operative position of the valve and the ports nearest the rose registering for the second operative position, means feeding hot water into the port of the tubular member nearest the rose, means feeding cold water into the other port of the tubular member, hand-operable means pivotally secured to the body and adapted to act on the closed rear end of the ported sliding valve to make it enter in succession its two operative positions, means urging the hand-operable means and sliding valve back into their inoperative position, a hook-shaped pivoting lever adapted to carry the body of the device and to rock under the action of the weight of the latter between an inoperative position and an operative position, and means whereby the rocking of the lever under the weight of the device cuts off the feed of the water through the water feeding means.

4. A device for mixing hot and cold water for shower baths, comprising a grip body, a tubular member extending across said body and opening at its front end outside said body, said tubular member being provided with two water inputs ports at longitudinally spaced points

thereof, a sprinkling rose fitted on the outside of the body coaxially with the front end of said tubular body, a sliding tubular valve engaging coaxially the inside of the tubular body, closed at its rear end, opening at its front end into the rose and provided with two ports the spacing between which is slightly less than the spacing between the ports in the tubular body, said valve ports being normally located to the rear of the corresponding ports in the tubular member, registering selectively upon forward sliding of the tubular valve out of a rear inoperative position towards the rose into two successive operative positions with the said corresponding ports in the tubular member, the ports in the tubular member and sliding valve further remote from the rose registering with each other for the first operative position of the valve and the ports nearest the rose registering for the second operative position, means feeding hot water into the port of the tubular member nearest the rose, means feeding cold water into the other port of the tubular member, hand-operable means pivotally secured to the body and adapted to act on the closed rear end of the ported sliding valve to make it enter in succession its two operative positions, means urging the hand-operable means and sliding valve back into their inoperative position, a hook-shaped pivoting lever adapted to carry the body of the device and to rock under the action of the weight of the latter from an operative position into an inoperative position, a spring-urged ball fitted in the free end of the pivoting lever, an arcuate member registering with the path of the spring-urged ball when rocking with the lever and provided with notches adapted to be engaged by the spring-urged ball respectively for the inoperative and for the operative position of the rocking lever, and means whereby the rocking of the lever under the weight of the device into its inoperative position cuts off the feed of water through the water-feeding means.

5. A device for mixing hot and cold water for shower baths, comprising a grip body, a tubular member extending across said body and opening at its front end outside said body, said tubular member being provided with two water input ports at longitudinally spaced points thereof, a sprinkling rose fitted on the outside of the body coaxially with the front end of said tubular body, a sliding tubular valve engaging coaxially the inside of the tubular body closed at its rear end, opening at its front end into the rose and provided with two ports the spacing between which is slightly less than the spacing between the ports in the tubular body, said valve ports being normally located to the rear of the corresponding ports in the tubular member registering selectively upon forward sliding of the tubular valve out of a rear inoperative position

towards the rose into two successive operative positions with the said corresponding ports in the tubular member, the ports in the tubular member and sliding valve further remote from the rose registering with each other for the first operative position of the valve and the ports nearest the rose registering for the second operative position, means feeding hot water into the port of the tubular member nearest the rose, means feeding cold water into the other port of the tubular member, hand-operable means pivotally secured to the body and adapted to act on the closed rear end of the ported sliding valve to make it enter in succession its two operative positions, means urging the hand-operable means and sliding valve back into their inoperative position, a hook-shaped pivoting lever adapted to carry the body of the device and to rock under the action of the weight of the latter between an inoperative position and an operative position, intermediate pipes feeding hot and cold water respectively to the hot and cold water feeding means, input pipes adapted to supply hot water and cold water to the intermediate pipes respectively, a spindle carried by the rocking lever extending transversely with reference to the lever and adapted to rock round its axis, two parallel rods rigid with said revoluble spindle and perpendicular thereto, cylinders provided with ports into which the corresponding intermediate and input pipes open at different levels and in which the corresponding rods are adapted to slide axially, each cylinder being provided with a valve seat between the ports corresponding to the cooperating pipes, a valve carried by each rod inside the corresponding cylinder and adapted to engage the seat thereon upon rocking of the lever under the action of the weight of the device into its inoperative position to cut out the connection between the ports in each cylinder.

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