Sept. 17, 1935. C. A. STUMM 2,014,639

CONTROL AND MIXING APPARATUS FOR HOT AND COLD WATER

Filed March 13, 1934

Fig. 1

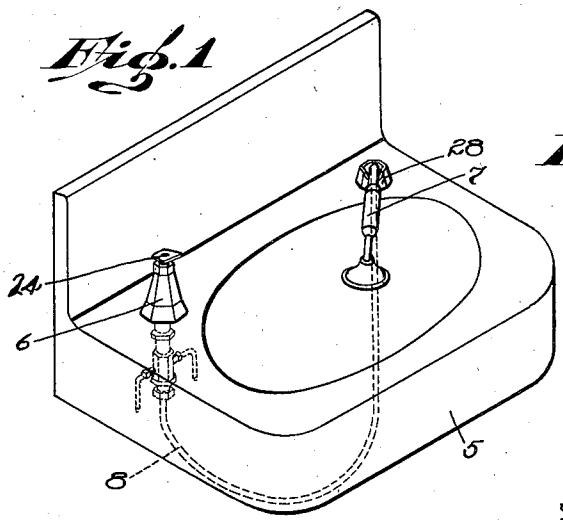


Fig. 2

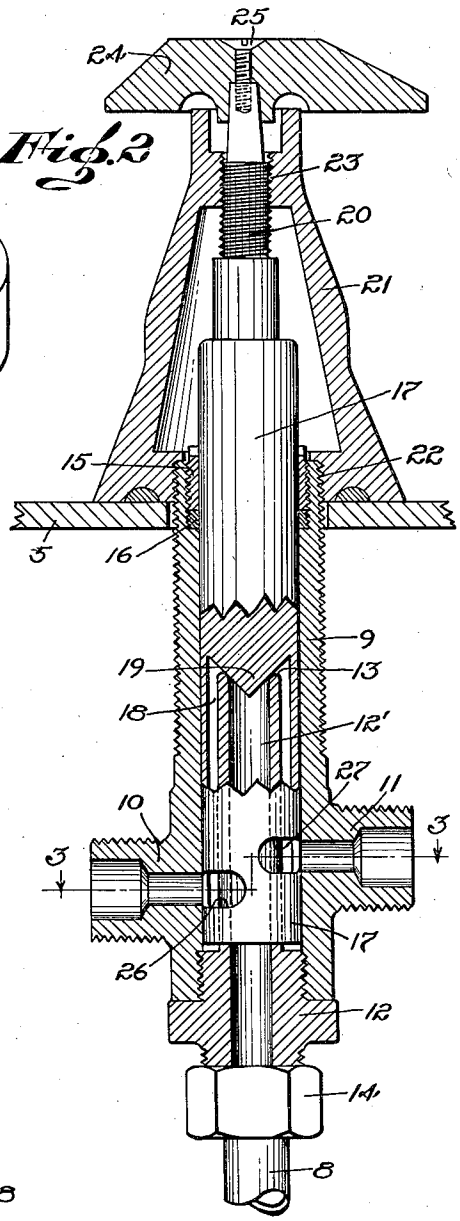


Fig. 3

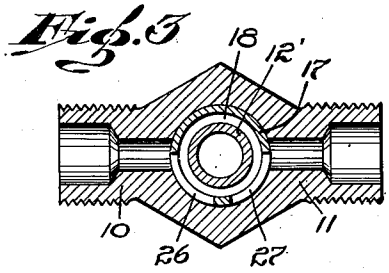
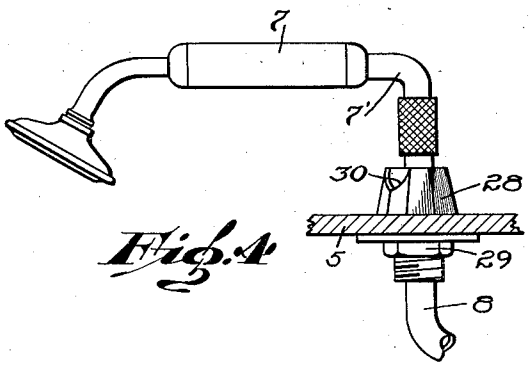


Fig. 4



INVENTOR.
Charles A. Stumm

BY
ATTORNEY.

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CONTROL AND MIXING APPARATUS FOR HOT AND COLD WATER

Charles A. Stumm, Huntington Park, Calif.

Application March 13, 1934, Serial No. 715,319

5 Claims. (Cl. 277—7)

My invention relates to control and mixing apparatus for hot and cold water, and more particularly to an apparatus especially designed for use in beauty parlors, barber shops and other places where it is desired to have, in combination with a wash bowl or the like, an apparatus by means of which it is possible and convenient to readily control the flow, as well as the temperature, of the water with a single member, manually operated, together with a shower or spray head connected and mounted for manual movement and manipulation whereby to get the best results with the greatest convenience to the patron.

Among the salient objects of my invention is to provide in such an apparatus a valve mechanism within which there is a valve element for controlling the inflow of cold or hot water selectively to a mixing chamber, with a control valve element simultaneously operated for control of the discharge from said apparatus; to provide in connection with the discharge from said apparatus a shower or spray device connected for manual manipulation and movement, said connection being such as to permit the free movement of said shower or spray device; to provide in combination therewith a holding seat for said shower or spray device, whereby the same is normally held over the bowl in a way not to be accidentally misplaced or moved so as to discharge water outside of the bowl proper.

Other objects and advantages will be disclosed in connection with the following more detailed description of one practical embodiment of my invention, shown on the accompanying sheet of drawings, which I will now describe. In the drawing—

Figure 1 is a perspective view of a wash bowl with my invention in combination therewith;

Figure 2 is a longitudinal sectional view through the control and mixing device of my apparatus;

Figure 3 is a cross sectional view taken on line 3—3 of Fig. 1; and

Figure 4 is a side elevation of the shower or spray device of the apparatus, slightly raised out of the holding seat.

Referring now in detail to the drawing, 5 designates a wash bowl, to which the control and mixing device, designated as a whole 6, and the shower or spray device, designated as a whole 7, of my apparatus, are attached, said devices being connected by means of a flexible hose 8, whereby the shower or spray device of the apparatus can be lifted from its seat and manipulated as may be necessary to give the best results.

Referring now to Fig. 2, I will describe in detail the control and mixing device 6. A body 9, externally threaded, with a cylindrical bore therethrough, has two lateral, integral extensions 10 and 11, to have connected therewith, from any suitable source, hot and cold water supplies for supplying hot and cold water into the body 9. Into the lower end of said body is screwed a plug member 12, having a tubular extension 12' extending up into the body 9, with its upper open end forming a valve receiving seat, as at 13, said member 12 also forming a coupling means for the hose 8, with nut 14.

Screwed into the upper end of the body 9, is a bushing 15, with packing 16, and through this bushing and packing is a cylindrical member 17, the lower portion of which is bored out to form a chamber 18, which becomes a mixing chamber around the tubular extension 12', while the inner juncture between the chamber and the solid portion of the cylindrical member 17 is formed into a conical or needle valve 19, positioned to seat into the end of the tubular extension 12', as shown in Fig. 1. The upper end of said member 17 is shown reduced in diameter, with its upper end externally threaded, as at 20, to receive a finishing member 21, of ornamental form, provided at its lower end with an internally threaded portion 22, to screw on to the upper end of the body 9, and to rest down upon the bowl body 5, as indicated. The upper end of said finishing member 21 is reduced in diameter and provided with an internally threaded portion 23, to receive the threaded upper end of the body portion of the member 17, whereby as said member 17 is turned by means of an ornamental operating handle 24, said body 17 is raised and lowered to seat and unseat the valve 19, as will be clear from the showing in Fig. 1. The handle 24 is secured in place on the upper end of the member 17 by means of a screw 25. The lower end of the member 17, in which is the chamber 18, is provided with inlet openings 26 and 27, extending circumferentially and positioned to register with the inlets at 10 and 11 together or separately.

Thus the cylindrical member 17 can be turned so as to put the openings 26 and 27 in partial register with the inlets 10 and 11 at the same time so as to admit both cold and hot water into the chamber 18, or either can be cut off and only the other put in open communication with said chamber 18, making it possible to get a mixture of hot and cold water, or to get all hot, or all cold water, or any mixture desired, as will be understood from the showing made in Figs. 2 and 3.

To the other end of the hose 8, is attached the

shower or spray device 7, the hose passing up through a bushing member or body 28, secured through the bowl body 5, and held in place by means of a nut 29, the upper end of said member 28 having therein a formed seat 30 into which the angle portion 7' of said shower or spray device fits and by which it is held to project out over the bowl proper. It will be understood, of course, that the shower or spray device 7 can be lifted from its seat 30, the hose moving freely up through the member 28 as may be necessary for the free use of the device 7.

Thus I have provided a neat and attractive device for beauty parlors, barber shops and the like, but do not limit my invention to any particular place of use or any particular embodiment, realizing that many changes can be made in the details of construction and arrangement without departing from the spirit of the invention, and it is my intention that the invention shall be limited only by the appended claims.

I claim:

1. In a control and mixing apparatus for hot and cold water, a body having a chamber therein with inlet means for connecting supply pipes therewith for hot and cold water, a tubular outlet member extended into said chamber and having means for connecting a discharge pipe with said body and said tubular member, a cylindrical valve member rotatably mounted in said body and telescoping at its lower end over said tubular outlet member and having a part therein for seating upon and closing the upper end of said tubular outlet member, the lower end of said valve member having openings through its wall positioned to be turned into and out of register with said supply inlets to said body for selectively opening and closing said inlets, and a single handle for turning said cylindrical valve member to selectively open the inlets and also the outlet through said tubular member to the discharge pipe.

2. In a control and mixing apparatus for hot and cold water, a body having a cylindrical chamber therein with inlet means for connecting supply pipes therewith for hot and cold water, a tubular outlet member extended into said chamber and having means for connecting a discharge pipe with said body and said tubular member, a cylindrical valve member rotatably mounted in said body and telescoping at its lower end over said tubular outlet member and forming an annular chamber around the said tubular outlet member within said cylindrical valve member, said cylindrical valve member having openings through its side wall positioned to be turned into and out of register with said supply inlets to said body for selectively opening and closing said inlets, said cylindrical valve member having therein a solid part positioned to seat upon the upper end of said tubular outlet member for closing the same, and unitary means for turning said valve member to selectively open the inlets to said body and for simultaneously opening the outlet through said tubular member to said discharge pipe.

3. In an apparatus of the character referred to a body having a cylindrical chamber therein with inlet openings thereinto and means for connecting supply pipes therewith, a tubular outlet member extended up into said chamber and having means at its lower end for connecting a discharge pipe with said body and said tubular outlet member, a cylindrical valve member rotatably mounted in said cylindrical chamber with its lower portion of tubular form telescoping over the upper end of said tubular outlet member and with a conical valve part therein positioned to seat in said tubular outlet member for closing the same, said cylindrical valve member having openings through its side wall positioned to be turned into and out of register with the inlet openings into said body to selectively admit hot and cold water into said cylindrical valve member, means for turning said cylindrical valve member, and screw means connected therewith for moving the valve member axially to open and close the outlet through said tubular outlet member.

4. In combination, a body having a chamber therein with means for connecting hot and cold water supply pipes therewith, an outlet tube extended into said chamber and of less diameter whereby to provide an annular chamber around said tube to receive the water flowing into said body, the upper end of said outlet tube being axially removed from said inlets, whereby hot and cold water can mix in said annular chamber, and a valve member adapted to simultaneously open said inlets to said annular chamber and said outlet tube, said valve member being operable to selectively admit hot or cold water to said mixing chamber.

5. In a control and mixing device for hot and cold water of the character referred to, a body with chamber, means for connecting hot and cold water pipes therewith, an outlet tube extended into said chamber beyond said inlets, and a valve member having a part covering said inlets and movable to selectively open and close said inlets, and having a part operable to close the open end of said outlet tube, and means for manually operating said valve member as a single unit.

CHARLES A. STUMM.