

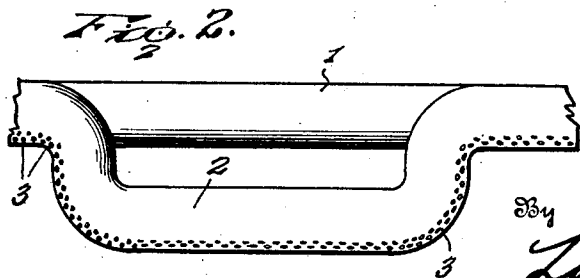
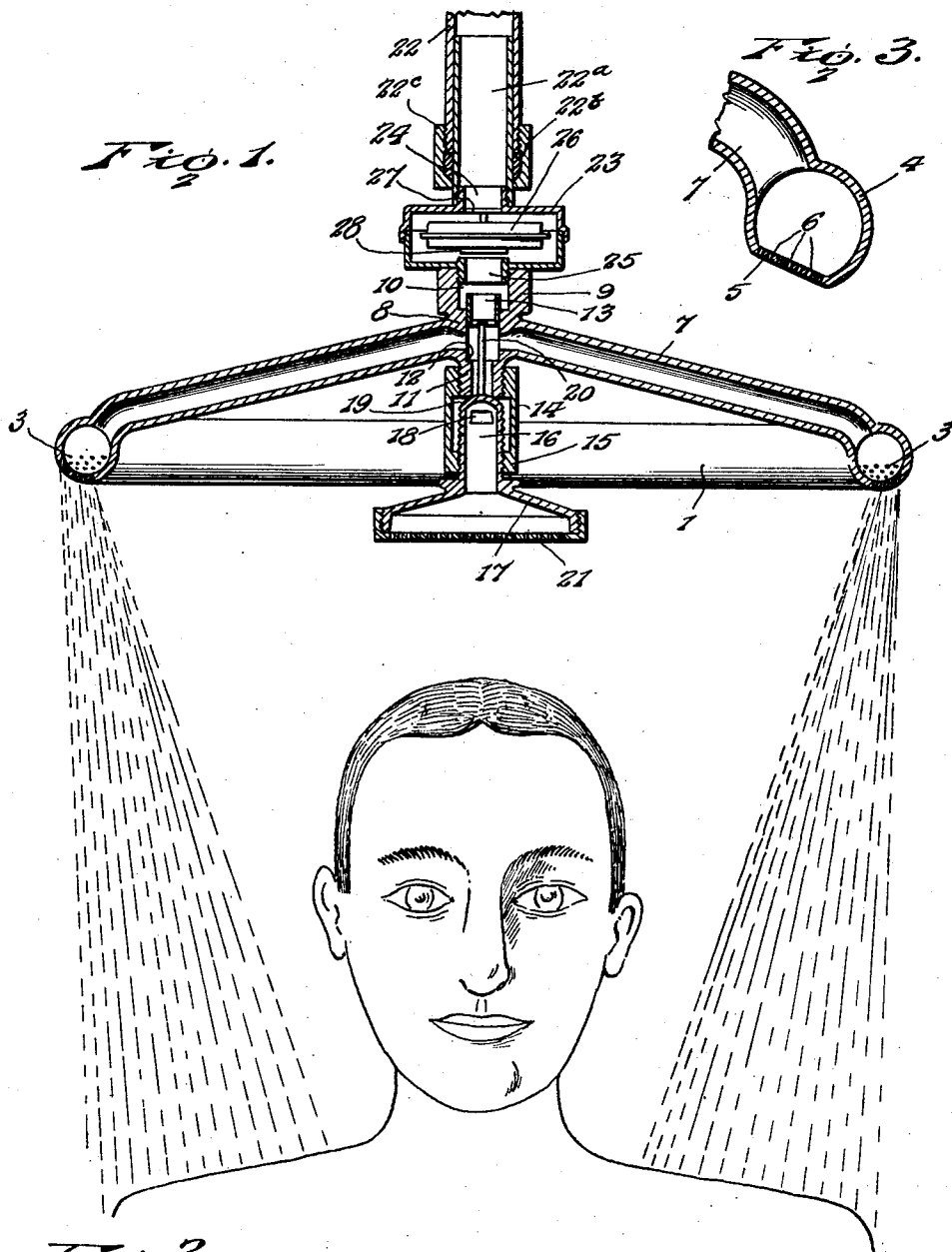
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SHOWER BATH SPRAY

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SHOWER BATH SPRAY

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This invention relates to a shower bath and more particularly to a spray apparatus. At the present time shower bath sprays are so constructed that a shower bath cannot be taken without the water striking a person's head and causing the hair to become wet. This is often objectionable and therefore one object of the invention is to provide a spray so constructed that while water may strike the shoulders and other portions of a person's body, it will be prevented from striking a person's head and causing the hair to become wet.

At other times it is desired to have the head sprayed as well as other portions of the body, and therefore another object of the invention is to provide a nozzle for directing a spray of water onto a person's head which is so associated with the body spraying portion of the device that water may be allowed to pass through this nozzle when so desired or cut off from the same.

Another object of the invention is to provide an improved type of valve for controlling the flow of water which is operatively connected with the head spraying nozzle and adjusted by manipulating the nozzle.

Another object of the invention is to provide the improved shower bath device with a valve controlled by a thermostat so that in case water passing to the shower device becomes too hot, the thermostatic valve will be moved to a closed position and the flow of water shut off before the hot water has an opportunity to scald a person.

Another object of the invention is to permit the valve controlling the flow of water through the nozzle to be moved to an adjusted position to regulate the flow of water through the nozzle while standing under the shower, thereby permitting a person to keep his head dry until other portions of his body have been washed and the water then turned into the nozzle so that the hair may be washed.

The invention is illustrated in the accompanying drawing wherein:

Figure 1 is a view showing the improved shower device in section and a person stand-

ing beneath the same without his head getting wet.

Figure 2 is a fragmentary view showing the forward portion of the annular spraying chamber extended downwardly as a positive means of preventing water from striking a person's face, and

Figure 3 is an enlarged fragmentary section view illustrating a slightly modified form of annular spraying chamber.

The improved shower bath has an annular spraying chamber 1 formed of tubing. This annular chamber may have all portions throughout its circumference extending in the same plane, or its forward portion may extend downwardly as shown at 2 thereby disposing this forward portion in a lower plane and eliminating danger of water sprayed downwardly from the chamber striking a person's face while taking a shower bath.

The lower portion of the chamber 1 is formed with perforations 3 constituting water outlets and by referring to Figure 1 it will be seen that while these perforations are formed in the lower portion of the annular chamber, they extend vertically and are so located that water sprayed downwardly therethrough will define an annular wall of sprayed water and this water will strike a person's shoulders and other portions of the body without striking the head. This is clearly brought out in Figure 1 and by referring to this figure it will be seen that by having the water strike a person's shoulders as shown, his head may be kept dry and the hair will not become wet.

In Figure 3 there has been shown a slightly modified form of annular chamber in which chamber 4 has a flat wall 5 disposed at an incline and formed with perforations 6 through which the water is sprayed. While the perforations 6 do not extend vertically as shown in Figure 1 the same effect of keeping the hair dry can be produced by forming the annular chamber of the proper diameter. Hollow arms 7 extend inwardly from the annular chamber. Any suitable number of these arms may be provided and their inner ends are connected by a union 8 which extends above and below the inner ends of the

arms and has its upper portion 9 internally threaded and formed with a chamber 10. The lower portion or neck 11 of the union is externally threaded and this neck is of a reduced internal diameter, thereby defining a shoulder or seat 12 for a sleeve valve 13 which is slidably mounted in the intermediate portion of the union. Upon the neck 11 is threaded a coupling 14 which extends downwardly and has its lower portion thickened inwardly as shown at 15 and internally threaded to receive an externally threaded stem 16 projecting upwardly from a nozzle 17. A suitable number of side openings 18 are formed in the stem 16 adjacent its upper end and the upper end of the stem is closed by a head 19 adapted to seat against the lower end of the neck 11 and connected with the sleeve valve 13 by a rod or stem 20. By turning the nozzle 17 in order to move its stem or neck 16 upwardly through the coupling 14, its head 19 may be moved into closed relation to the lower end of the neck 11 of the union, thereby preventing water from flowing downwardly through the nozzle and out through the perforations formed in the cap 21 of the nozzle. When the nozzle is in this position the sleeve valve will be supported in an elevated position above the inner ends of the arms 7 thereby permitting water to enter these arms and flow through them into the annular chamber 1 for discharge through the perforations 3. Therefore water will only be discharged from the annular chamber and this water will descend in an annular spray which will strike a person's shoulders without striking his head and causing his hair to become wet.

By turning the nozzle and its neck 16 in a direction to move it downwardly the head 19 of the neck will be moved away from the lower end of the neck 11, thereby allowing water to enter the nozzle and form a spray which will descend upon a person's head. If the nozzle is only moved downwardly a short distance, water may be discharged both from the annular chamber and from the nozzle, but if it is moved downwardly a sufficient distance to cause the sleeve valve to seat against the shoulder 12, this sleeve will be disposed in closing relation to the inner ends of the arms 7 and water will then be shut off from these arms and only allowed to pass through the nozzle. It will thus be seen that the head may be kept dry while taking a shower bath, or kept dry until other portions of the body have been washed and water then permitted to be discharged through the nozzle 17 and the hair washed. This eliminates the discomfort of having water striking a person's head and face while taking a shower bath, but at the same time allows the hair and head to be washed after the rest of the body has been washed.

Instead of directly connecting the upper

end of the union with a supply pipe 22, there has been provided a thermostatic valve which is disposed between the union and the supply pipe. This thermostatic valve has a housing 23 which has necks 24 and 25 projecting from its upper and lower ends about openings formed therein, the upper neck being screwed into engagement with the supply pipe and the upper portion 9 of the union being screwed into engagement with the neck 25. The lower portion 22a of the supply pipe telescopes into the upper portion thereof, and a water tight joint is formed by the packing 22b and gland 22c. Therefore the shower can be adjusted vertically and accommodate itself to the height of the person standing beneath the same.

A thermostat 26 is suspended in the housing 23 from a cross bar 27 extending across the lower end of the neck 24 and upon this thermostat is provided a closure element 28 which is of sufficient diameter to rest upon and close the upper end of the neck 25 when the thermostat is expanded by hot water and thereby shut off flow of water through the neck 25 to the shower device in case the water is too hot.

It often happens that when the water is first turned on, it will not be sufficiently hot to be uncomfortable whereas after it has been flowing for a certain length of time the water supplied from a hot water spigot of the shower will increase in heat until it is too hot, and very often a person will be badly scalded before the hot water spigot or valve can be shut off. In fact it sometimes occurs that a person intended to reduce the flow of hot water, will turn the hot water control in the wrong direction, thereby increasing the quantity of hot water instead of reducing it and will be badly scalded.

This cannot occur when a shower bath spray is equipped with a thermostatic shut off device such as shown in Figure 1, as the hot water passing through the housing 23 will cause the thermostat 26 to expand and close the upper end of the neck 25 before the hot water has an opportunity to reach the annular chamber 1 or nozzle 17.

What is claimed is:

1. A bath spray comprising an annular tube perforated to discharge water downwardly in an annular spray, a union, hollow arms connecting said tube with said union in spaced concentric relation thereto and constituting conduits for delivering water from the union into the tube, a depending nozzle independent of the tube connected with said union and disposed at the center of the annular tube, and a valve connected with said nozzle and actuated by adjustment thereof to control the flow of water from the union to the nozzle and annular tube.

2. A bath spray comprising an annular tube perforated to discharge water down-

wardly in an annular spray, a union disposed at the center of the annular tube, hollow arms connecting said tube with said union and spacing the union from the tube, said arms constituting conduits for delivering water from the union into the tube, a nozzle independent of the tube connected with said union in depending relation thereto, means connected with the union and adapted to shut off the flow of water into the union from a source of supply, and a valve connected with the nozzle and actuated by adjustment thereof to control the flow of water from the union to the nozzle and annular tube.

3. A bath spray comprising an annular tube perforated to discharge water downwardly in an annular spray, a union disposed centrally of the tube, hollow arms connecting said tube with said union and constituting conduits for delivering water from the union into the tube, a nozzle independent of the tube connected with said union in depending relation thereto, a valve housing to connect the upper end of said union with a source of supply, a valve in said housing disposed over the outlet thereof and adapted to close the outlet when water passing through the housing reaches a determined temperature, and a valve carried by the nozzle and actuated by adjustment thereof to control the flow of water from the union to the nozzle and annular tube.

4. A bath spray comprising an annular tube perforated to discharge water downwardly in an annular spray, a vertically adjustable nozzle centrally located with respect to the tube and depending below and spaced laterally from said tube, means for connecting the tube and nozzle with a source of water supply, and said nozzle and actuated thereby to control flow of water to the nozzle and tube.

5. A bath spray comprising an annular tube having its lower portion perforated to discharge water downwardly in an annular spray, hollow arms extending inwardly from said tube to support the same and constituting conduits for delivering water thereto, a hollow union connecting the inner ends of said arms and having its upper end adapted to be connected with a source of water supply and having an internal valve seat below the arms, a nozzle independent of the tube connected with the lower end of said union in depending relation thereto, and a valve in said union to selectively control the flow of water to the nozzle and through said arms to the annular tube.

6. A bath spray comprising an annular tube having its lower portion perforated to discharge water downwardly in an annular spray, hollow arms extending inwardly from said tube to support the same and constituting conduits for delivering water thereto,

a hollow union connecting inner ends of said arms and having its upper end adapted to be connected with a source of water supply and having an internal valve seat below the arms, a coupling depending from the lower end of said union, a nozzle independent of the tube below said coupling and having a neck extending upwardly and threaded into said coupling, said neck having a head at its upper end to close the lower end of the union when the neck is screwed tightly into place, an opening being formed in the neck below the head for the passage of water through the neck and nozzle when the neck is adjusted downwardly, and a sleeve valve to control flow of water through said arms slidable in said union and connected with the head of said neck.

7. A bath spray comprising a perforated encircling tube, a water supply pipe operatively connected with the tube, a coupling operatively connected with the lower portion of the water supply pipe, a nozzle adjustable vertically within the coupling, and a valve carried by the nozzle and actuated by said nozzle to cut off the flow of water to either the tube or nozzle or to permit the flow of water to both tube and nozzle.

8. A bath spray comprising a perforated encircling tube, a union, hollow arms connecting the tube and union, a coupling connected with the union, a nozzle adjustable vertically within the coupling, means for supplying water to the union, and a valve carried by the nozzle and actuated by the adjustment thereof to admit water to either the tube or nozzle.

In testimony whereof I affix my signature.
THEOPHILUS E. NEAL. [L. s.]

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