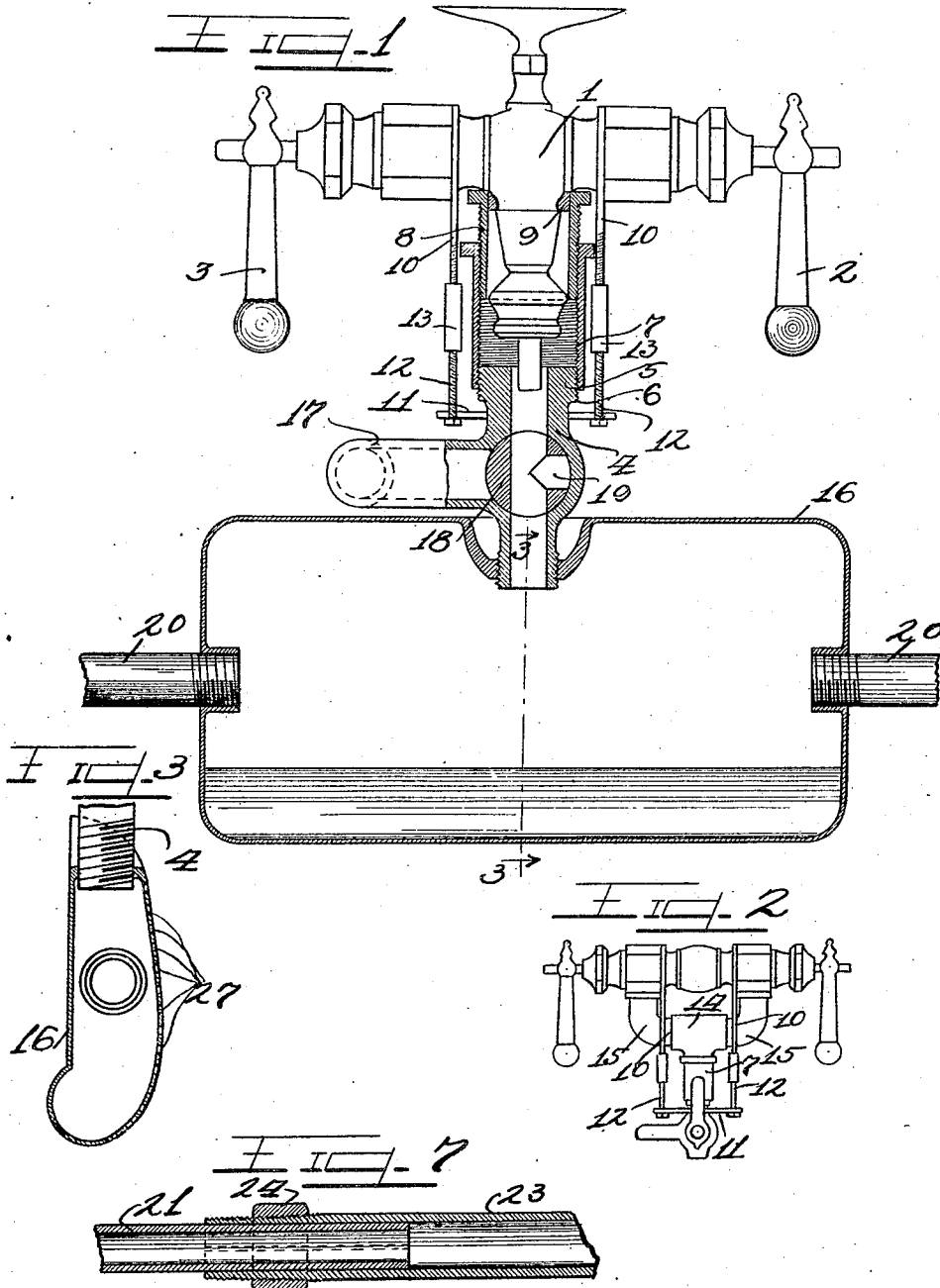


W. C. BOOTH.
SHOWER SPRAYING ATTACHMENT FOR BATHTUBS.
APPLICATION FILED NOV. 8, 1920.

1,415,014.

Patented May 9, 1922.
2 SHEETS—SHEET 1.



WITNESSES

A. J. Marks
Charles W. Mills, Jr.

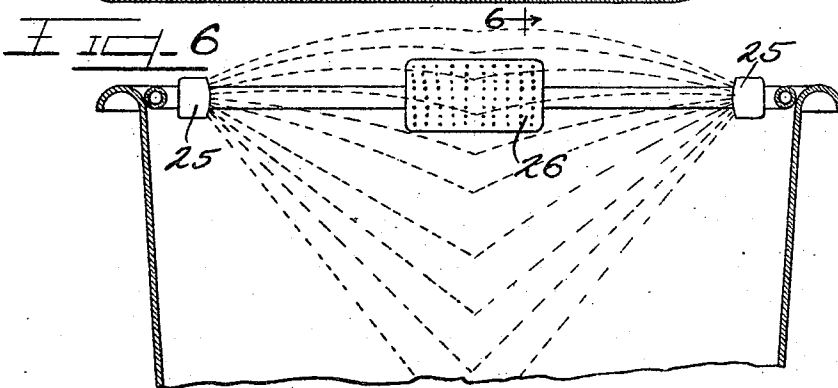
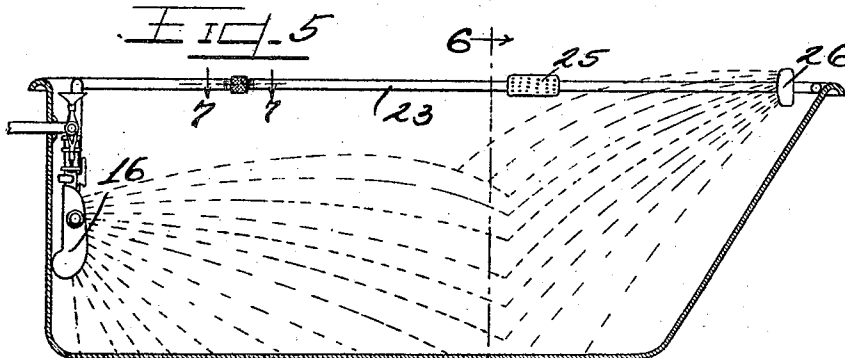
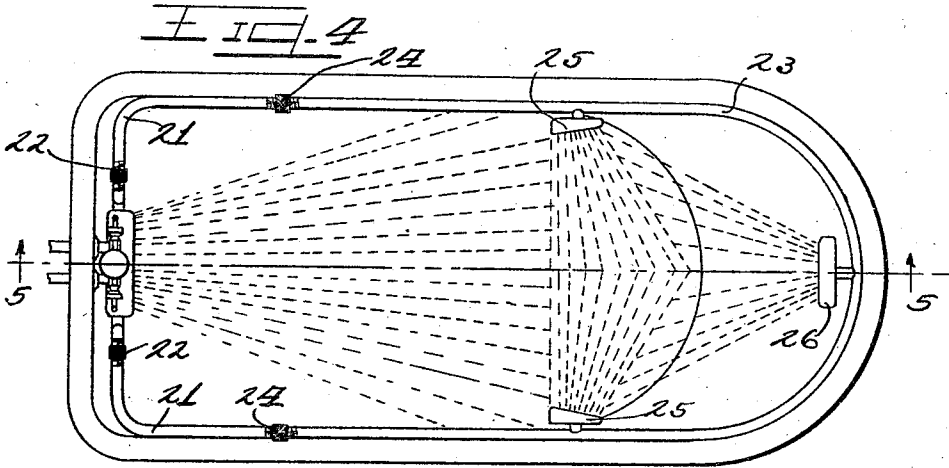
INVENTOR

William C. Booth
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Charles W. Mills

INVENTOR

William C. Booth
Charles W. Mills ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM C. BOOTH, OF EVANSTON, ILLINOIS.

SHOWER OR SPRAYING ATTACHMENT FOR BATHTUBS.

1,415,014.

Specification of Letters Patent.

Patented May 9, 1922.

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To all whom it may concern:

Be it known that I, WILLIAM C. BOOTH, a citizen of the United States, and a resident of the city of Evanston, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Shower or Spraying Attachment for Bath-tubs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the numerals of reference marked thereon, which form a part of this specification.

My invention relates more particularly to a shower or spraying attachment or device adapted for attachment to bath tubs, and comprises means for spraying the body of a person in recumbent position from different directions.

It is an object of this invention to provide a spraying device that circumvents the inner periphery of the bath tub with a plurality of spraying nozzles directed inwardly.

It is also an object of this invention to provide means whereby this device may be attached to either a single faucet or a double faucet such as are often used in bath tubs.

It is a further object of this invention to provide an adjustable device that may be varied to accommodate different sized tubs.

Other and further important objects of this invention will be apparent from the disclosures in the specification and drawings.

The invention (in a preferred form) is illustrated in the drawings and hereinafter more fully described.

In the drawings:

Figure 1 shows an ordinary single faucet for hot and cold water in elevation with a fragment of my device in section showing its attachment to the faucet, on an enlarged scale.

Figure 2 is an elevational view showing my attachment as modified for attachment to a pair of faucets, one for hot water and the other for cold water.

Figure 3 is a section on the line 3—3 of Figure 1 with the supply pipe in elevation, and illustrating the front spraying nozzle.

Figure 4 is a top plan view of a bath tub with my attachment applied thereto and illustrating the spraying action.

Figure 5 is a section on the line 5—5 of Figure 4, illustrating the action of the front and rear nozzles with the side nozzle in plan view.

Figure 6 is a section on the line 6—6 of

Figure 5, illustrating the action of the side nozzle with the rear nozzle in elevation.

Figure 7 is a section on the line 7—7 of Figure 5 illustrating the adjustability of the device.

As shown in the drawings:

Similar features are denoted by the same reference numeral in the different views.

In Figure 1 there is illustrated the standard single faucet 1 having the usual hot and cold water pipes connected thereto, the valves of which are operable by the handles 2 and 3. My shower or spraying device is attached to this faucet in a novel and practical way that admits of proper adjustments to suit the exigencies of any particular case. As shown, the attaching pipe 4, which I use to connect the spraying mechanism with the faucet, is provided with a screw threaded boss 5 forming the annular shoulder 6. The threaded boss 5 is designed to receive the internally threaded sleeve 7, which in turn connects with an externally threaded sleeve 8. The sleeve 8 is designed to abut against a rubber washer or packing 9 near the top of the nozzle 1, and the threaded telescopic relation of the sleeves 7 and 8 allows relative longitudinal adjustment to lower or raise the spraying attachment to fit the specific arrangement of any tub. To securely hold the sleeve 8 in abutting relation with the packing to provide a tight fit, I have provided adjustable suspended mechanism which comprises a pair of saddle members 10 screw-threaded at their lower ends and supported by means of yokes or the like at their upper ends from the faucet, and a stirrup or yoke 11 abutting the annular shoulder 6, and provided with the upwardly extending screw-threaded rods 12 which are connected to the rods 10 by the turnbuckles 13. The screw threads on the rods 10 and 12 are of opposite hand so that upon turning the turnbuckle the ends of the rods will be brought toward each other, whereby the stirrup or yoke 11 will raise the attachment until the sleeve 8 is in tight relation with the rubber packing 9.

When both a hot and cold water faucet are used, the internally threaded sleeve 7 may be provided with a T 14 to which the short elbow pipes 15 are connected and which short pipes extend over the respective hot and cold water faucets and abut proper rubber packing or the like, as illustrated in Figures 1 and 2.

The supply pipe 4 in either of the above

cases is connected preferably by means of screw threads with a small reservoir 16, and this pipe 4 may be provided with an extending branch 17 for supplying water directly to the bath tub. In such a case, it becomes necessary to provide a valve in the pipe 4, and accordingly there is illustrated a three-way cock 18 which is shown adjusted so as to allow the water from the faucet 1 to enter the reservoir 16, but by turning it through an angle of 90 degrees to the right so that the port 19 will register with the upper bore of the pipe, the water will be forced to flow through the branch 17.

From each end of the reservoir 16, there extends a pipe 20 which has an upward bend in proximity to the reservoir (as shown in Figure 5) to about the top of the tub where it extends again in a horizontal plane and telescopes with an elbow pipe 21 which has a conical screw-threaded split end upon which a nut 22 is screwed to clamp the pipe sections together. Each elbow pipe section 21 telescopes with an end of a pipe 23 bent to conform to the rear end of the tub as shown in Figure 4. These ends of the pipe 23 are split, conical and screw-threaded and designed to receive nuts 24 to clamp the pipes 23 to the pipes 21. The arrangement of parts is such that the nuts 24 can be loosened and the pipe 23 adjusted longitudinally for any length of tub. Likewise the nuts 22 can be loosened and the pipes 21 adjusted to fit the breadth of the tub. In this way the spraying mechanism may be said to be extensible as to both length and breadth to fit any bath tub.

At suitable points the aforescribed pipes are provided with spraying nozzles 25 and 26; the holes in these nozzles are preferably so directed that a part or all the jets of water may take a divergent course. The nozzle 26 being placed approximately at the rear in the center rim of the tub and directs its jets forwardly and downwardly in a divergent manner, while the nozzles 25, only two of which are shown, one on each side of the tub, direct their jets inwardly, rearwardly and downwardly in a divergent manner, as illustrated in Figures 4, 5 and 6. The shower or spray for the front part of the tub is obtained direct from the reservoir 16 which is provided with a plurality of divergent holes 27, as shown in Figure 3, for directing the jets in a rearward direction. In order that the jets of water may not be directed too far above the tub, the upward divergence of the holes in the nozzles should not be too great. It should be noted that the nozzles at the sides of the tub are positioned that the spray therefrom is adapted to strike a person sitting in the tub, and the front and rear sprays will play upon the front and back of the person, so that the sprays might be said to be directed toward a predetermined point.

In applying this attachment to a bath tub, it is contemplated that either the single or double nozzle attachment may be used, and that the connection to the faucet be so adjusted that the horizontal pipes 21 and 23 may be brought to the proper elevation. The packing may then be applied to the faucet and the saddle members 10 properly suspended. The turnbuckles may now be properly operated to firmly draw the attachment in place. If the pipes 21 and 23, which are so arranged as to surround the upper inner circumference of the bath tub, do not properly fit the tub, the nuts 22 and 24 may be loosened and through the telescope connections the pipes can be so adjusted as to properly fit the circumference of the tub, as is obvious, and by tightening the nuts the pipes will be held in rigid relation. The operation of the shower or spraying device is clearly obvious and requires merely the operation of the valves in the faucets to allow the water to enter the reservoir 16 and pipes connected therewith, and the flow or force of the jets can be regulated by valves of the faucet.

It will accordingly be observed that I have devised a novel shower or spraying device which can be adjusted to fit any bath tub and which surrounds the upper part of the tub in such a way that jets of water are directed to all parts of the body in a recumbent position in the tub.

I am aware that numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted otherwise than necessitated by the prior art.

I claim as my invention:

1. The combination with a bath tub, of a spraying device therefor comprising a system of adjustable pipes fitting the inner upper edge of the tub, a plurality of spraying nozzles extending from said system of pipes and adapted for spraying water from the sides and ends of the tub in downwardly divergent sprays, the spraying device at the foot of the tub comprising a downwardly extending reservoir.

2. A spraying device for a bath tub comprising a system of pipes adjustable for fitting the inner upper edge of said tub, means for adjustably connecting said system of pipes to the faucet, and a plurality of spraying nozzles extending from said system of pipes and so arranged as to direct the sprays divergently downward into the tub and toward a predetermined point.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

WILLIAM C. BOOTH.

Witnesses:

E. E. BENNETT,

JOHN T. UENLAND.