

July 17, 1928.

H. L. WOOLFENDEN

1,677,160

BATHTUB

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Fig. 2.

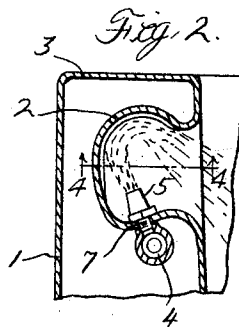
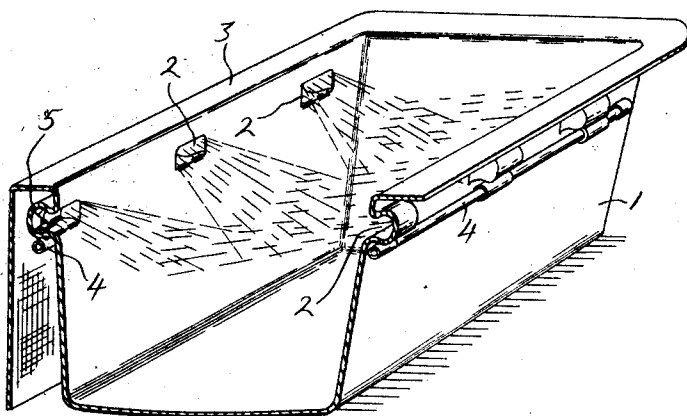


Fig. 3.

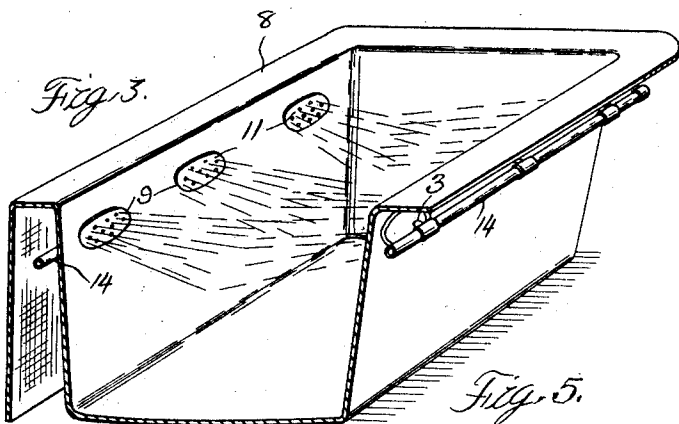
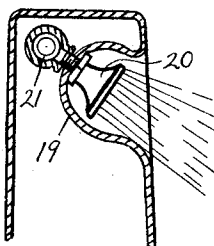
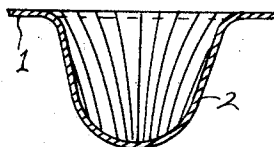


Fig. 5.

Fig. 4.



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BATHTUB.

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This invention relates to bath tubs, and particularly relates to constructions providing for use of a bath tub for shower bath purposes.

5 Among the objects of the invention are to render the use of a bath tub more sanitary; to facilitate cleaning of a bath tub; to enable the occupant of a bath tub to receive a shower bath without necessity of curtains or
10 any over-head attachment or appliance; to permit the occupant of a bath tub to enjoy a shower bath without necessity of wetting his or her hair; to adapt a bath tub for use for shower bath purposes without requiring
15 appreciably more space for the installation than is occupied by the tub itself; and to provide for the delivery of water into a bath tub in the form of a shower or spray discharging from one or more walls of said tub at a sufficient number of points thereof to be
20 effective upon substantially the entire body of a person recumbent in the tub.

These and various other objects are attained by the construction hereinafter described, and illustrated in the accompanying drawings, wherein:

Figure 1 is a perspective view partially in section of a tub equipped with the improved features.

30 Figure 2 is an enlarged view of a sectional portion of Figure 1 showing one of the shower nozzles.

Figure 3 is a view similar to Figure 1 but disclosing an alternative arrangement of the
35 shower outlets.

Figure 4 is a cross-sectional detail view, on line 4—4 of Figure 2, showing the grooved top face of the pocket seen in the latter figure.

40 Figure 5 is a view similar to Figure 2 but disclosing an alternative arrangement of the nozzle.

In these views, the reference character 1 designates a bath tub, which as regards its
45 general shape and form, conforms to standard practice. Each side wall of said tub is outwardly indented at a plurality of points, forming pockets 2 which are preferably distributed lengthwise of the tub slightly below the rim 3 thereof. Said pockets preferably have their rear and upper faces
50 curved approximately spherically, said upper face having a slight downward inclination toward the mouth of the pocket. It is preferred further to form said faces with
55 shallow grooves extending in a slightly

divergent relation toward said mouth. (See Figures 2 and 6.) Exteriorly adjacent to each side wall a pipe 4 extends lengthwise of the tub, preferably just below the pockets
60 2 of said wall. Each of said pipes connects with a plurality of discharge nozzles 5 each of which opens upwardly into one of said pockets in such a manner that the stream discharging from said nozzle will encounter
65 said curved grooved face of the pocket and deflect a fan-shaped stream downwardly into the tub at a suitable angle to the walls thereof. In the illustrated construction, the streams enter the tub at angles of approximately
70 sixty degrees to the walls.

Preferably the nozzles 5 serve to secure the pipes 4 exteriorly to the tub. Thus said nozzles may seat upon the lower walls of the pockets 2 and may be formed with
75 nipples 7 projecting through said walls and threaded into said pipes.

In that form of the invention which is illustrated in Figure 3, the tub 8 is formed with a series of openings 9 in each side wall,
80 adjacent to the rim thereof, each receiving a shower head 11. Each of said heads has its front wall perforated to provide for the discharge of water in shower form, and each head has its rear portion adapted, as indicated at 13, for connection to a supply pipe
85 14. As in the first described construction, there are two of the supply pipes 14, one extending exteriorly adjacent to each wall of the tub. It will be noted that the construction just described establishes the heads 11 in a substantially flush relation with the interior face of the tub.

It will be evident from the foregoing description that the improved construction
95 provides for a discharge of water from each side wall of the tub against the opposing wall and against the tub bottom in such a manner as to exercise a desirable cleaning effect when the tub is unoccupied. When
100 the tub is occupied the jets play substantially upon the entire body of the occupant instead of merely upon the head and shoulders as in the case of an ordinary over-head shower fixture. In the event that the occupant of the tub desires to avoid wetting of
105 his or her hair it is necessary only to maintain a sitting posture or to hold the head elevated above the range of the jets. The construction effects an advance in the direction of sanitation in that it permits a thorough and expeditious cleaning of a tub prior

to and after use and further in that it permits a bather to wash off any dirt adhering to his or her feet or to the body prior to permitting the tub to fill.

5 It is important to note that the improved construction occupies no more space than the tubs heretofore used and that it eliminates necessity for any unsightly or inconvenient overhead fixtures or fittings, as
10 well as rubber or other curtains frequently used to prevent splashing of water from the tub. The construction furthermore may be less expensively produced than the majority of tub shower attachments now on the
15 market.

In Figure 5 there is shown a pocket 19 in a bath tub wall somewhat similar to that seen in Figures 1 and 2, but having a nozzle 20 so disposed therein as to throw a jet or
20 shower directly into the tub without the deflecting effect that is derived from the first described pocket 2. A pipe 21 (or other suitable supply means) extending above the pocket 19 delivers water to the
25 nozzle 20.

What I claim is:

1. The combination with a bath tub having a pocket formed by one of its walls opening into the space between said walls
30 but located exteriorly of said space, said pocket having its top surface formed with grooves extending toward the tub interior, of means for discharging water upon said face, said grooves directing the flow of such
35 water toward the outlet of the pocket.

2. The combination with a bath tub having a marginal rim and formed with a series of openings adjacent to said rim, of a plurality of spaced members carried by the
40 tub exteriorly thereof forming separate pockets individually communicating with the tub through said openings, nozzles dis-

charging into the tub through walls of said pockets, and means arranged beneath the rim of the tub for delivery of water to said
45 nozzles.

3. The combination with a bath tub having an opening in one of its walls, of a member carried by said wall exteriorly of
50 the tub, and forming a pocket communicating with the tub through said opening, said member being formed with grooves in the top surface of the pocket extending toward
55 said opening, and means for discharging water into the pocket against the grooved face thereof, said grooves serving to direct the flow of water toward said opening.

4. The combination with a bath tub having an opening in the wall thereof, and having upon said wall in exterior rela-
60 tion to the tub, a member forming a pocket in free communication with the tub, through said opening, of a nozzle mounted in one wall of said pocket in a completely exterior relation to the tub, and discharging against
65 an opposite wall of said pocket, said opposite wall being shaped to deflect the jet from said nozzle across the tub.

5. The combination with a bath tub having a marginal rim, and carrying upon op-
70 posite walls thereof, adjacent to said rim and exteriorly of said tub, a plurality of members, spaced longitudinally of said rim, forming individual pockets in separate open communication with the tub, and a plurality
75 of nozzles opening into said pockets, exteriorly of the tub and discharging against walls of said pockets shaped to deflect crossing streams into the center portion of the tub from said opposite walls of the tub.
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In testimony whereof I sign this specification.

HENRY L. WOOLFENDEN.