J. L. COHEN.

WASH ROOM FIXTURE.

APPLICATION FILED OCT. 20, 1921.

1,426,046.

Patented Aug. 15, 1922.

Fig. 2.

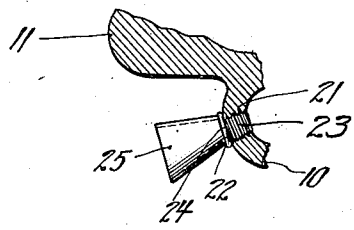


Fig. 1.

Fig. 3.

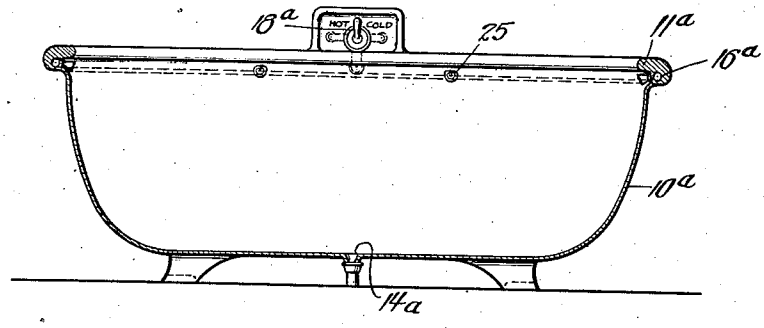


Fig. 4.

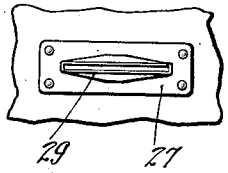
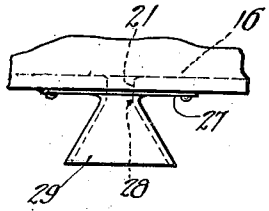


Fig. 5.



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UNITED STATES PATENT OFFICE.

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WASH-ROOM FIXTURE.

1,426,046. Specification of Letters Patent. Patented Aug. 15, 1922.

Application filed October 20, 1921. Serial No. 508,949.

To all whom it may concern:

Be it known that I, JACOB L. COHEN, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Wash-Room Fixtures, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to wash room fixtures, and more especially to lavatories or washbowls, and bath tubs. The object of my invention is the provision of:

First: A wash room fixture which, in its use, minimizes the danger of communicating diseases;

Second: A wash room fixture which renders it unnecessary for the user to wait until the bowl has been partly filled with water;

Third: A wash room fixture which directs a multiplicity of streams of water over a relatively wide area and from substantially all sides while concentrating in a smaller area of greater effectiveness;

Fourth: A wash room fixture of the shower type, employing discharge ports which will allow practically no opportunity for the accumulation of dirt; and

Fifth: A wash room fixture of comparatively simple construction and of pleasing appearance, in which no piping or kindred parts are exposed to view.

In the accompanying drawings:

Figure 1 is a longitudinal vertical section of a washbowl embodying the principles of my invention.

Figure 2 is a detail section illustrating one of the nozzles forming part of my invention.

Figure 3 is a longitudinal vertical section of a bath tub to which my invention has been applied; and

Figures 4 and 5 are a front elevation and a plan, respectively, of a modified form of nozzle.

Similar characters of reference refer to similar parts throughout the several views.

In the embodiment of my invention herein illustrated, a washbowl 10 is provided at its top with an inwardly extending rim 11 and a lateral apron 12, preferably made integral therewith, as is also the vertical back panel 13. The usual drain 14 is provided at the bottom of the bowl. Adjacent the rim 11, the upper edge of the wall of the bowl is provided with a bead 15, and within this bead is formed an endless annular passageway 16 which at the rear communicates with the water supply pipe 17 leading from a differential or mixing valve 18 by means of which the mixture of water from the hot water pipe 19 and the cold water pipe 20 may be adjusted to give the desired temperature to the water passing through the pipe 17 and into the annular passage or conduit 16. At spaced intervals a plurality of apertures 21 are provided in the inner wall of the bowl communicating with the passage 16. Into each of these apertures is screw threaded a nozzle 22 which comprises a threaded stem 23 which passes into the aperture 21, a shoulder 24 which aids in forming a water tight joint and a substantially conically flaring projection 25 which aids in directing a stream of water to the interior of the bowl 10.

As will be seen from an inspection of Figure 1, the streams discharged by the several nozzles 22 are directed to the vertical axis of the bowl, but as each stream flares considerably as it approaches the middle of the bowl, the effect is that the streams converge over a comparatively large area, so that a user may place his hands anywhere within this area and have water directed against them from practically all sides. But as the major portion of the water in each stream is directed along its middle, the major portion of the total water delivered in the bowl will be concentrated in a much smaller area around the axis of the bowl. Thus, while there is a shower or spray of water delivered over a large area about the center of the bowl, the major portion of the water is directed where it will be most effective,—that is, in a smaller area about the axis of the bowl.

As will be noted in Figure 1, these streams are not discharged into a vertical plane, but are directed somewhat downwardly so that there will be no chance of water being discharged over the rim 11 of the bowl and onto the clothing of the user. To accomplish this, the nozzles 22 are inserted under the peripheral wall of the bowl at a slight angle to the horizontal, which has a tendency of directing the bulk of the

stream downwardly toward the axis of the bowl, while the outer spray of each stream is prevented from rising above a horizontal plane by flattening the top of the conically flaring projection 25 of the nozzle, as shown in Figures 1 and 2.

If desired, the bowl may be used with a stopper in the drain opening, in which case the bowl can be filled with water, the user combining both the shower and the bowl method of washing. Where this is done, it is preferable to provide a drain overflow, such as illustrated at 26.

It will be noticed that by making the conduit 16 an integral part of the bowl 10, and by the use of the apron 12 and the back panel 13, no pipes, couplings or other plumbing fixtures are exposed to view other than the control handle of the mixing valve 18. As shown in Figure 1, the nozzles 22 lie beneath the overhanging rim 11 of the bowl in such a manner that they are practically hidden from the view. In following out my invention also, there are no crevices or other relatively inaccessible places in which dirt could readily accumulate, the bowl being substantially self-cleaning by its shower streams.

In Figure 3 I have illustrated my invention as applied to a bathtub, which comprises a bowl member or tub 10^a, a drain 14^a and overhanging rim 11^a beneath which is provided an annular passageway 16^a, which communicates with the mixing valve 18^a. All of these parts are substantially similar to the corresponding parts shown in the adaptation of my invention to a washbowl. The nozzles 25 are likewise spaced about the inner periphery of the tub and direct similar showers of water to the interior of the tub, but, because of the elongated shape of the tub, the nozzles on the lateral walls discharge at right angles to the longitudinal center of the tub, rather than being directed at a common point, as in the washbowl.

I have also illustrated, in Figures 4 and 5, a modified form of nozzle, the function of which is to discharge a flat sheet spray rather than a conical spray. This modified nozzle comprises a plate 27 in which is a central aperture 28 which registers with the aperture 21 communicating with the passage or conduit 16, and a trapezoidal spout 29 projecting from the margins of the aperture 28. In addition to flaring outwardly in a horizontal plane, this spout tapers outwardly in a vertical plane, forming at its outer end a long and flat orifice which discharges water into a diverging flat spray or sheet.

While I have thus described specific embodiments of my invention, I do not intend to thus limit myself other than by the scope of the appended claim.

What I claim is:

A wash receptacle, an inwardly extending flange at the top of said receptacle, a conduit positioned within said receptacle adjacent to said flange, said receptacle, flange and conduit being homogeneous and integral, said conduit being provided with a plurality of spaced orifices communicating with the interior of said receptacle, a plurality of nozzles positioned immediately under said flange, each nozzle having an inlet aperture, and means for securing said nozzles to the inner surface of said receptacle with their inlet apertures registering with said orifices respectively.

In witness whereof, I hereunto subscribe my name this 12th day of October, 1921.

JACOB LOUIS COHEN.

Witnesses:
LEWIS RUSKIN,
EDNA V. GUSTAFSON.