May 25, 1971 G. GIGLIO 3,579,667

BATHTUB CONSTRUCTION

Filed June 5, 1969

FIG. 1.

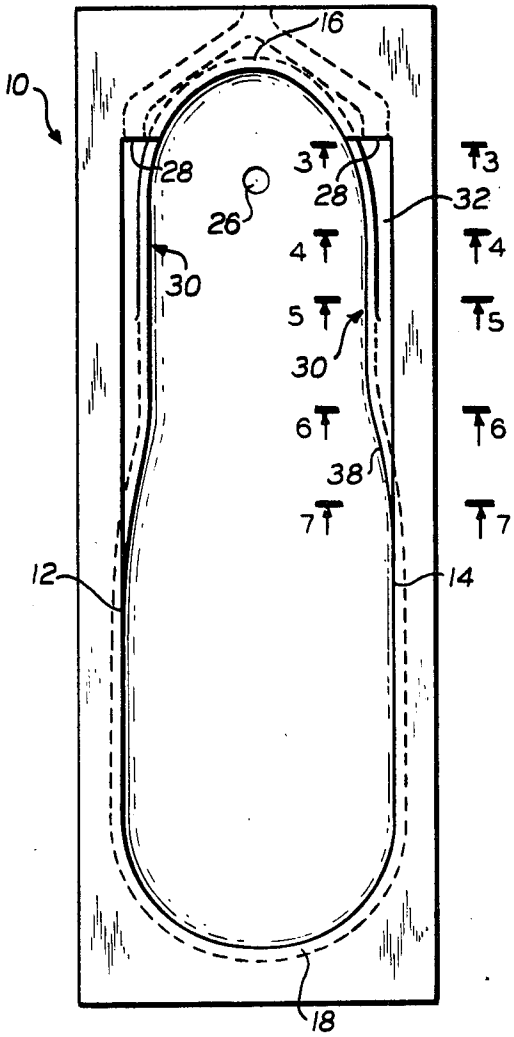


FIG. 3.

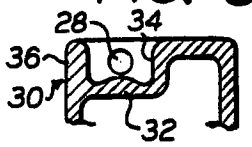


FIG. 4.

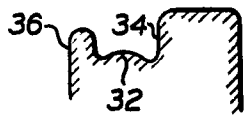


FIG. 5.

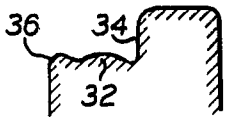


FIG. 6.

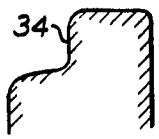


FIG. 7.

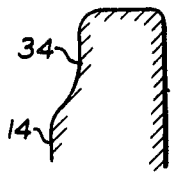
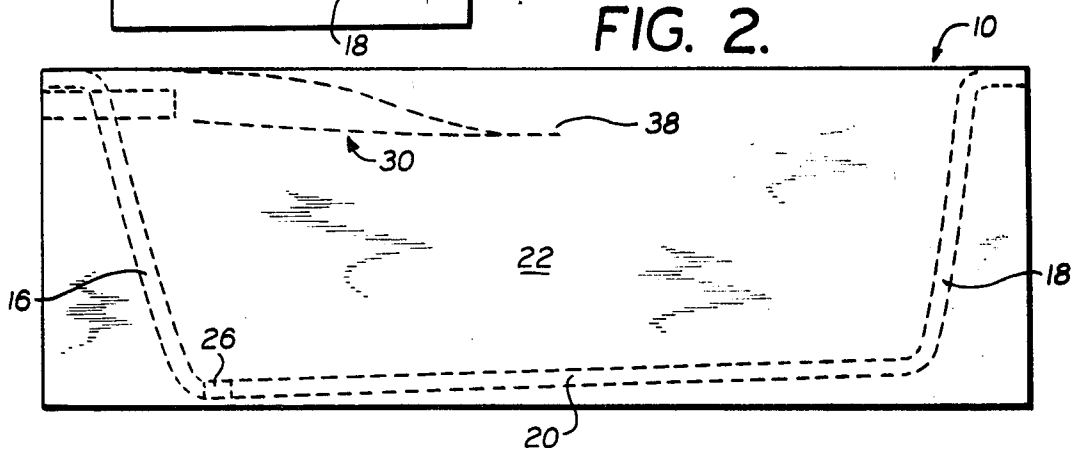


FIG. 2.



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3,579,667

BATHTUB CONSTRUCTION

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U.S. Cl. 4—181 4 Claims

ABSTRACT OF THE DISCLOSURE

A bathtub formed with a water distribution channel arranged along one side of the tub adjacent the water entry to the tub, with the channel formed to guide the entering water horizontally along the upper edges of the side walls of the tub, whence the water falls along the side walls to continuously wash the side walls of the tub as the water is being admitted thereto, to prevent water falling through air to eliminate splashing, and to impart a swirling, mixing motion to water in the tub. The channel is formed with an inner wall of progressively decreasing height serving to implement desired direction of the water.

BACKGROUND OF THE INVENTION

This invention relates to the art of bath apparatus, and more particularly to an improved bathtub providing for silent non-splash filling, with the entering water continuously washing the surfaces of the tub, mixing with and stirring the previously admitted water, and ultimately deposited at a point remote from the drain, thus not interfering with and enhancing bathtub drainage, facilitating the maintenance of cleanliness of the tub, and facilitating the mixture of bath oils, bubble soaps, or medicaments in the tub, and eliminating hot or cold spots in the tub material itself, and in the previously admitted water.

Conventional bathtubs, as widely known, are usually formed with water inlets and drainage fittings at the center of one end of the tub bottom. This is done in order to facilitate plumbing installation, permitting all the plumbing connections to be made in one end of the tub to a single pipe containing wall. Though facilitating plumbing installation, these conventional tubs are subject to a variety of difficulties. Thus, the conventionally used water inlet spigots project either into the tub, or from the wall above the tub producing a dangerous projection potentially injurious to the tub user. Additionally, the water filling spigot causes the water to fall into the tub producing undesired noise and splashing resulting in damage to the surrounding wall area, and requiring cleaning. Other problems arise in that with the water inlet and the drain on the same end of the tub, the splashing of the water from the filling spigot tends to displace the used water being drained from the tub, and where it is desired to rinse out the tub after use, simultaneous filling and drainage is substantially unobtainable. Additionally, in filling the conventional tub, to hand sense the temperature of the incoming water it is necessary for the user to reach over to the centrally positioned spigot requiring bending and the assumption of an unsafe and awkward position of unbalance. Further, it is found that mixture of the water in the tub is uneven, with resultant hot and cold spots in the water as well as in the material from which the tub is made.

In an attempt to overcome some of these problems, a variety of bathtubs have been evolved in the past, which though suggestive of the elimination of some of the problems, require plumbing of the tub itself which mitigates against efficient tub manufacture since it is difficult, if not impossible to mold conventional conduits formed of pipe into a conventional cast iron or ceramic tub, or do

not attain desired results sufficiently to warrant a change in the widely accepted tub construction.

Thus More in U.S. Pat. 3,198,631 recognized the desirability of positioning the water inlets remote from the drain. However, this necessitated plumbing conduits in the tub.

Exton-Porter in U.S. Pat. 2,705,329 recognizes the problems of providing a desired mixture of hot and cold water, and the desirability of introducing water to the tub at a point remote from the drain, however, as with More, extensive additional plumbing in the tub walls is required.

Carroll in U.S. Pat. 2,993,213 recognizes the problem of effecting a mixture of water, and the problem of eliminating projecting spigots, but, like More and Exton-Porter produces a structure requiring plumbing of the tub, which requires positioning of pipes in the tub walls.

BRIEF DESCRIPTION OF THE INVENTION

It is with the above considerations in mind, that the present improved bathtub has been provided serving to permit production of a bathtub by conventional tub forming techniques, not requiring plumbing pipes in the tub, and not requiring a change from conventional plumbing practices. The novel tub functions to introduce water at a point remote from the standard drainage outlet of the tub in a fashion such that the introduced water is mixed, and additionally provides for the introduction of the water in a fashion such as to wash over the surfaces of the tub, warming or cooling the tub surfaces, serving to clean same, and eliminate splashing and noise.

It is accordingly among the objects of this invention to provide an improved bathtub construction subject to being formed by conventional bathtub fabrication techniques, and subject to installation without requiring plumbing other than that conventionally employed for installing a bathtub.

A further object of the invention is to provide a bathtub in which the admission of water to the tub does not interfere with the drainage of the tub and in fact enhances drainage, without requiring more than conventional plumbing.

Another object of the invention is to provide a bathtub in which cleaning is facilitated.

A further object of the invention is to provide a bathtub in which water splashage and noise on admission of water is eliminated.

A further object of the invention is to provide a bathtub in which dangerous projections, such as produced by conventional water inlet spigots is eliminated.

It is also an object of the invention to provide a bathtub construction permitting the user to test the temperature of the water being admitted without having to assume an unsafe awkward posture.

Another object of the invention is to provide a bathtub in which tub staining at the point of admission of water is substantially hidden.

It is also an object of the invention to provide a bathtub insuring mixing of the contents to eliminate hot and cold spots in tub material and contents and to facilitate mixing of introduced bath oils, bubble soaps or medications.

These and other objects of the invention which will become hereafter apparent are achieved by forming a bathtub with an entry inlet at the upper edge of the tub adjacent one end thereof. Extending from this water entry inlet is a water guide channel formed in one of the side walls of said tub extending from the water inlet to a central part of the side wall, with the channel contoured to guide the water so that it flows into the tub around the walls thereof and falls over the interior surfaces of the walls of the tub to wash same. The channel is formed

hot and cold water within tub, as well as any bath oils, bubble bath, or medications used in the tub.

Upon draining of the tub, the water which is admitted to rinse the tub does not interfere with the passage of water to the drain, and in fact enhances any washing down of foreign matter towards the drain by virtue of the fact that the water being admitted moves over the side walls of the tub and then washes toward the drain, thereby washing the bottom surface **20**.

The upstanding inner walls **36** of the channel **32** not only serve to guide the water in the channel, but also provide a hand grip to aid the user of the tub in standing up, as will be apparent.

It is thus seen that a simple bathtub construction has been provided readily subject to fabrication by conventional bathtub fabrication techniques, which does not increase the cost of production, and which serves to improve the facility with which the tub may be used, enhancing the cleanliness of the tub, the mixture of water in the tub, and providing a more useful, safer, and cleaner appearing tub.

What is claimed is:

1. Bath apparatus comprising a bathtub having spaced side walls, end walls and a bottom wall defining a water containing bathing recess, with a smooth transition surface between said walls; at least one water inlet opening in one of said end walls adjacent the upper end thereof; and a water guide channel along at least one of said side walls extending directly from said water inlet to a central part of said wall, said channel contoured in transverse cross-section with a substantially horizontally extending bottom surface having an outer edge parallel to the top of the tub, an outer channel wall extending vertically from the bottom channel surface to the top of said tub, and an inner channel wall upstanding from the bottom channel surface, said inner channel wall being of a progressively decreasing height as measured from the bottom channel surface decreasing in height from the part of the channel adjacent the water inlet opening toward a point on said channel remote from said water inlet opening, and said bottom channel surface being inclined downwardly from the water inlet.

2. Bath apparatus as in claim **1** in which said inner channel wall merges at a transition surface with said channel bottom surface.

3. Bath apparatus as in claim **1** in which said water guide channel merges at a transition surface with the tub side wall along which said channel extends.

4. Bath apparatus as in claim **1** having a water inlet opening on an end wall adjacent both side walls, and a water guide channel positioned along each side wall extending from said water inlet openings.

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