E. ADAIR.

BATHTUB.

APPLICATION FILED FEB. 25, 1921.

1,392,901. Patented Oct. 11, 1921.

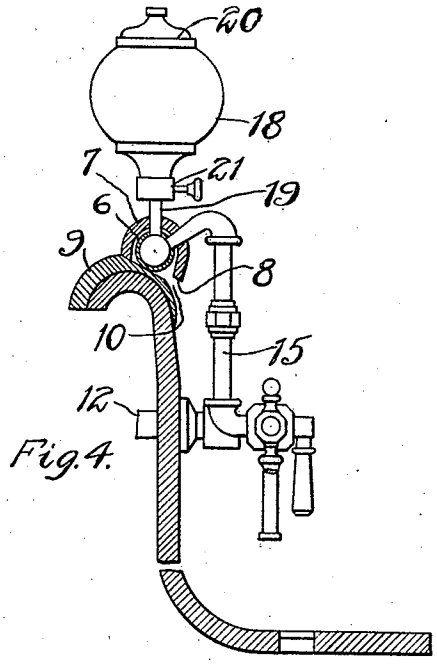


Fig.4.

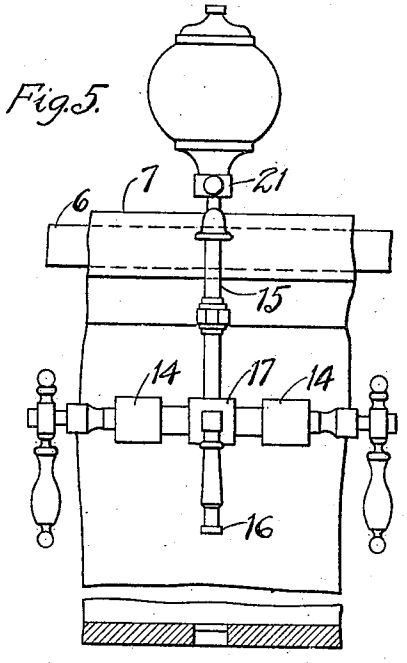


Fig.5.

Fig.2.

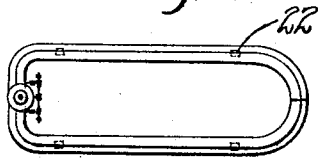
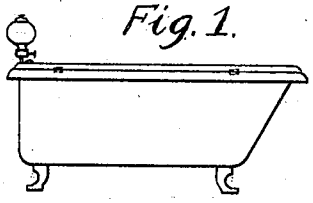


Fig.1.



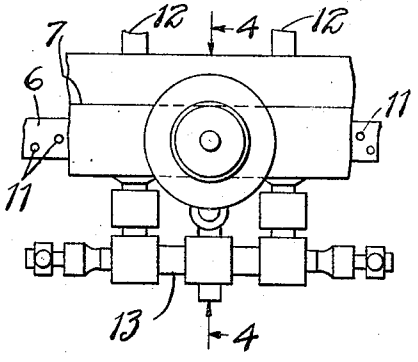


Fig.3

Witness:-

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UNITED STATES PATENT OFFICE.

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BATHTUB.

1,392,901. Specification of Letters Patent. Patented Oct. 11, 1921.

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To all whom it may concern:

Be it known that I, ELMER ADAIR, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bathtubs, of which the following is a specification.

This invention relates to bathtubs, and has for its object providing means for supplying water to the tub, particularly in the form of a sheet covering substantially the entire inner surface of the tub, so that the tub may be flushed and cleansed by the sheet of water both before using and after using, if desired. A further object is to provide additional means for shower baths in the tub itself, whereby, when the shower bath is in use, the water will pass not only out of the outlet for the bath but also through the apparatus for forming the sheet; and thus, as the shower bath is in progress, the sheet of water will be cleaning out the tub. A further object is to provide suitable means for passing into the flushing water, a suitable disinfectant so that the tub not only will be thoroughly cleaned by the sheet of water but will be disinfected as well. Other objects of the invention will be apparent from a consideration of the accompanying drawings and the following description thereof.

Of the accompanying drawings Figure 1 is an elevation of a bathtub with apparatus attached thereto which embody the features of my invention; Fig. 2 is a plan view of the same; Fig. 3 is an enlarged fragmental plan view of a portion of the apparatus and tub; Fig. 4 is a sectional view along the line 4—4 of Fig. 3; and Fig. 5 is a fragmental elevation of a portion of the inner part of the tub.

In order to properly clean the bathtub, either before or after using, I arrange to pass a sheet of water with suitable force over the entire inner surface of the bathtub. Any suitable apparatus may be provided for this purpose. I prefer the following apparatus: Mounted, in any suitable manner, on the upper edge of the bathtub is a pipe 6, which entirely surrounds the upper edge, and is adapted to receive water under pressure from any suitable source of supply. Entirely covering this pipe is a curved housing 7, which is spaced a suitable distance away from the pipe 6, but which substantially encircles the pipe except on the lower side thereof. The lower edge 8 of the housing is spaced a suitable distance away from the edge of the bathtub, or, in this instance, from the support 9, which I provide for supporting the apparatus on the upper edge of the tub, leaving the narrow spaces 10 between the lower edge 8 of the housing and the support. A plurality of openings 11 are formed in the pipe, particularly along the upper surface thereof, of suitable size to allow sufficient water to flow therefrom. The water striking upon the housing 7 flows down the inner surface thereof and passes out through the slot 10 in the form of a sheet flowing downwardly along the inner surface of the bathtub; the openings being so arranged that the water, as it passes downwardly through the slot 10, forms a continuous sheet over the entire inner surface of the tub.

Any suitable means may be provided for supplying the water under pressure to the pipe 6. I prefer for the purpose the ordinary means for supplying hot and cold water to the bathtub, consisting of hot and cold water pipes, such as pipes 12, passing through the wall of the tub and connecting in any usual or suitable manner with a common delivery pipe 13; each of the supply pipes being provided with the ordinary control valves 14. From the common pipe the water is passed through a delivery pipe 15, which is suitably connected to the pipe 6, as indicated in Fig. 4. By these means hot or cold water can be passed to the distributing pipe 6 in such quantities as may be desired and whenever desired.

Any suitable type of shower bath apparatus may be used in connection with my apparatus, in any ordinary or suitable manner. I provide an outlet 16 for such a purpose so that the ordinary supply pipes 12 can supply the water to the shower bath controlled by the ordinary valves 14. But the supply of water, in such a case, which passes to the shower is suitably proportioned to the total amount of water supplied, so that, as the shower is in operation, a suitable amount of water will also pass through the distributing pipe, thus cleaning the bathtub. The supply of water to the shower may also be controlled by means of a valve 17; and it is to be understood that, when the ordinary bath is to be taken, the water may be passed out of the shower outlet as well as from the distributing pipe. This is frequently desir-

able, after the bathtub has been cleaned in the ordinary manner, in order to expedite the filling of the tub.

A further object of my invention is to provide suitable means for disinfecting the tub, and, for this purpose, any suitable means may be provided for passing a disinfectant into the distributing pipe and mixing it with the water which flushes the bathtub. I provide for this purpose a container 18 which is connected, in any suitable manner, to the distributing pipe 6, for example, by means of a pipe 19. The container has a suitable cover 20, which can be removed for introducing a disinfectant, and the pipe 19 is controlled by means of the valve 21, which is preferably closed automatically. When desiring to disinfect the tub the valve is pushed inwardly by the operator until a suitable amount of disinfectant has entered the distributing pipe, and, then by passing the water into the distributing pipe it will mix thoroughly with the disinfectant and carry the same over the surface of the tub; but it is immaterial whether the disinfectant is passed into the pipe first or passed in with the water.

By these means it will be seen that I provide a bathtub which may be used in all respects similarly to an ordinary bathtub, but which at the same time may be thoroughly flushed and cleansed over its inner surface either before or after bathing, and may also, at the same time, be thoroughly disinfected. It is to be understood that any suitable disinfectant substance may be used for the purpose. It will be seen also that the arrangement of the apparatus is such that any disinfectant which is passed into the distributing pipe, purposely, or inadvertently because of leakage or otherwise, will remain in the pipe until the flushing water is passed therein, as the openings are in the upper portion of the pipe and the supply pipe 15 enters the distributing pipe in the upper side thereof; and there is no opportunity for the disinfectant to pass out of the distributing pipe without being carried up by the flushing water through the openings. In order to give access to the distributing pipe for any purpose whatever, the housing is mounted on the support 9, by means of hinges 22, being composed of two pieces so that it can be turned off from the distributing pipe whenever desired, giving access to the said pipe.

I claim as my invention:

1. The combination of a bathtub, a frame resting on the upper edge of said tub, a pipe resting on said frame, a housing supported by said frame and covering said pipe, the inner edge of said housing being spaced away from said frame, said pipe having holes in its walls, and means for passing water under pressure into said pipe.

2. The combination of a bathtub, a frame resting on the upper edge of said tub, a pipe resting on said frame, a housing supported by said frame and covering said pipe, the inner edge of said housing being spaced away from said frame, said pipe having holes in its walls, and means for passing water under pressure into said pipe, the inner edge of said frame tapering to an edge and the edge fitting snugly against the inner surface of said tub.

3. The combination of a bathtub, a frame resting on the upper edge of said tub, a pipe resting on said frame, a housing supported by said frame and covering said pipe, the inner edge of said housing being spaced away from said frame, said pipe having holes in its walls, means for passing water under pressure into said pipe, the said frame, pipe and housing extending substantially around the entire upper edge of said tub, and said housing consisting of a plurality of separate parts.

4. The combination of a bathtub, and means for flushing the walls of said tub; said means comprising a frame adapted to rest upon the upper edge of said tub, a pipe supported by said frame, and a housing covering said frame, the inner edge of said housing forming with the inner surface of said frame a narrow slot extending around the inner surface of said tub, said pipe having holes through its walls, and means for passing water under pressure into said pipe.

In testimony whereof, I hereunto set my hand.

ELMER ADAIR.