Jan. 15, 1929. 1,699,198

E. MILLMATHER

AERATING APPARATUS

Filed May 10, 1928

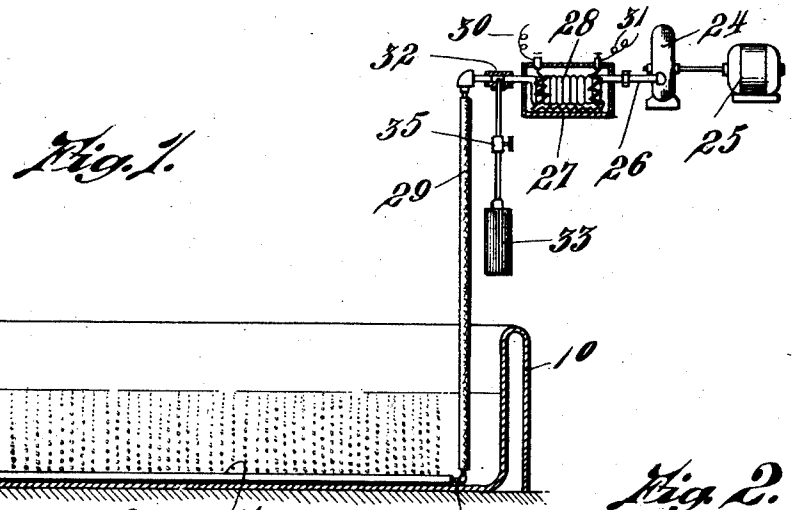


Fig. 1.

Fig. 2.

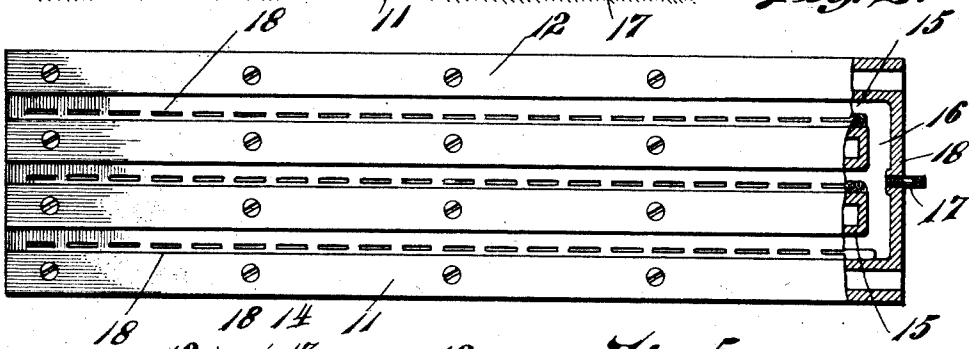


Fig. 5.

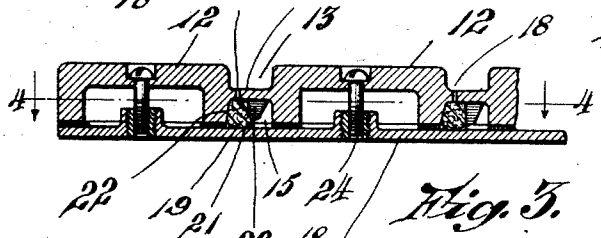
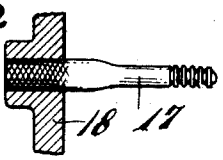


Fig. 3.



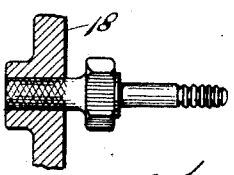


Fig. 6.

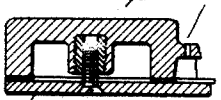


Fig. 7.

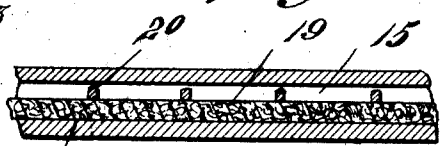


Fig. 4.

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UNITED STATES PATENT OFFICE.

ERNEST MILLMATHER, OF PROVIDENCE, RHODE ISLAND.

AERATING APPARATUS.

Application filed May 10, 1928. Serial No. 276,587.

This invention relates to a bath aerating apparatus; and has for its object to provide in such an apparatus a rack member shaped to be placed in a bath tub to support the body of the bather, the rack having perforations thru which a bath treating gas such as air, carbonic acid gas or other suitable gas, is admitted under pressure to the bath water.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings:

Fig. 1 is a side elevation partly in section showing one arrangement of my improved bath aerating apparatus.

Fig. 2 is a detail view partly in section of the rack for supporting the bather and admitting the bath-treating gas.

Fig. 3 is a cross section of a portion of the rack showing the air discharging openings located below the plane of the supporting surface of the rack, also showing the packing arranged to prevent the water from entering the gas channels in the rack.

Fig. 4 is a longitudinal section on line 4—4 of Fig. 3 showing a strip of packing as wedged in between the ribs over the discharge opening to prevent the bath water from entering the air openings in the rack.

Fig. 5 is a detail illustrating an air connecting nipple to which the rubber air tube may be readily connected.

Fig. 6 shows a detachable form of connecting nipple.

Fig. 7 is a detail showing the bottom plate as connected to the body of the rack by means of screws passing upward therethru into threaded members imbedded in the rack body.

It is found in practice that an aerated bath produces beneficial effects upon the bather, particularly on one who is of a nervous temperament as it serves to reduce blood pressure and rest the nerves and is generally refreshing to the bather. It is also found of advantage to heat the air before being admitted to the bath so as not to cool the water into which it is injected. Also in some instances, it is found especially pleasing to inject or admit a perfume into the air as it is being conducted to the bath, and to produce these advantages in a simple and effective way, I have provided an air-discharging rack which is shaped to fit into and rest upon the floor of the tub and is provided with a surface to comfortably support the body of the bather and is also provided with a multiplicity of air inlets located at points below the plane of the body-supporting surface so that the body when reclining upon this surface will not close these openings to prevent the air from freely discharging into the bath; and the following is a detailed description of the present embodiment of my invention and showing one arrangement of apparatus by which these advantageous results may be accomplished:—

With reference to the drawings, 10 designates the usual form of bath tub in which may be deposited a rack member 11 which is herein shown as being of a size and shape to rest upon the floor of the tub. This rack may be constructed of any suitable material and is preferably formed with a body member having raised longitudinally-disposed broad-faced ribs 12 forming surfaces for the comfortable support of the body of the bather.

Between these ribs is formed longitudinally-disposed channels 13 each having a bottom wall or partition 14 below which is formed an air-conducting channel 15, and all of these channels are connected together at one end by the cross channel 16, the supply of air or gas being admitted to this cross channel thru a nipple 17 fixed in the end wall 18 of the rack.

This bottom wall 14 of the channel 13 is provided with spaced slots 18 against the inner portions of which rests a strip of packing 19 for the purpose of closing these slots against admission of bath water to the inner air channel 15 to also obtain a better distribution of the air through the different slots and at the same time permit the discharge of air from the passageway 15 into the bath. In order to crowd this packing 19 closely against the inner ends of the discharge slots 14, I have provided ribs 20 spaced along the air passageway 15 opposite the slots 18 and in order to condense the packing 19 against the discharge slot openings 18, I form an inclined surface 21 on the ribs 20, also an inclined surface in the side wall 22 of the air channel 15, whereby when the bottom plate 23 is forced into position by screws 24 this packing which is preferably of fibrous nature is condensed as forced to its seat to control the admission of water from the bath back into the air passageway 15.

When air is used for treating the bath, I provide a pump 24 which is run by a motor 25, the air from the pump being forced thru pipe 26 and thru a coil 28 in an electric heat-

er 27. Thence it passes thru pipe 29 which is connected to the nipple 17 of the air-distributing rack.

The temperature in the heater may be raised by any suitable means, that herein shown being effected by resistance coils thru electrocircuit wires 30 and 31.

In some cases, it is found of advantage to be able to inject perfume into the air supply pipe which is done by an injector member 32 which draws the perfume from a bottle 33 up thru pipe 34, a valve 35 being provided for controlling the amount of perfume which shall be drawn into the entrained heated air.

I do not wish to be restricted to employing air for aerating the bath as any other suitable gas such as oxygen gas, carbonic acid gas or other suitable gas may be employed for this purpose.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

I claim:

1. In a bath aerating apparatus, a body member having air conducting channels therein, air outlet openings communicating with said channels, a finely divided material in said channels partially closing said openings, a body closing bottom plate, and means for forcing air into said channels through said finely divided material and out through said openings into the bath.

2. In a bath aerating apparatus, a chambered body member having a supporting top plate with air inlet openings therethrough, a straining material in the chamber below the top plate covering the inner ends of the openings, and a bottom plate for said body positioned to force the straining material against said openings.

3. In a bath aerating apparatus, a chambered body member having a supporting top plate with grooves in its face, the walls of said grooves having openings therethrough, a straining material in the chamber below the wall of the groove arranged to cover the inner ends of the openings, and a bottom plate for said body positioned to force said material against said opening.

4. In a bath aerating apparatus, a body member having air-conducting channels therein and air distributing openings communicating with said channels, walls in said channels, each having an inclined surface, a straining material in said channel engaging said inclined walls, and a bottom plate for said body positioned to force said material against said inclined walls to compress and condense it over said openings.

In testimony whereof I affix my signature.

ERNEST MILLMATHER.