

J. McPHERSON, JR.
LAVATORY.
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932,054.

Patented Aug. 24, 1909.

Fig. 1

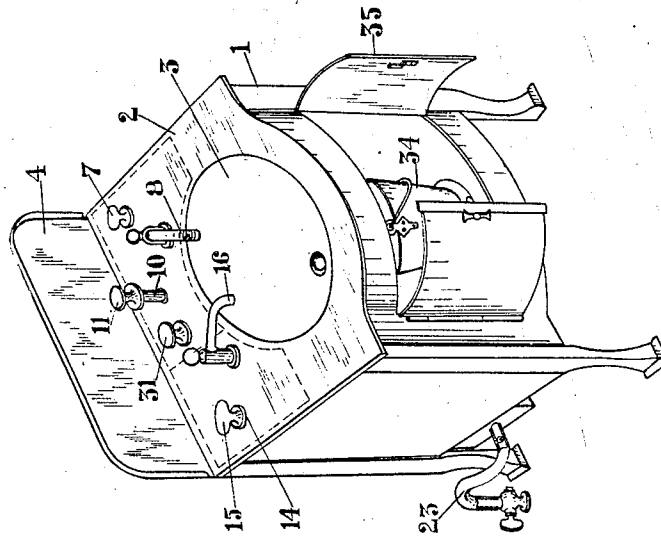


Fig. 2

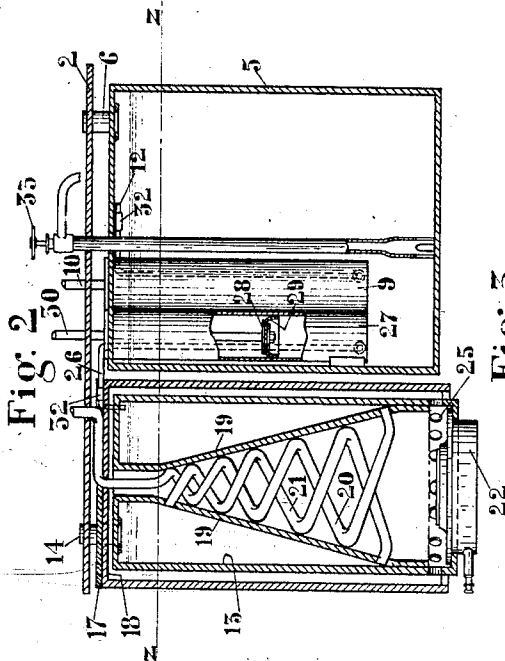
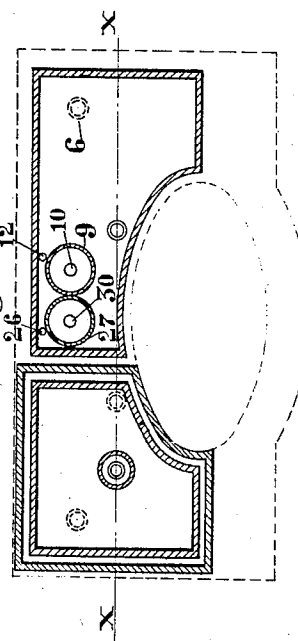


Fig. 3



WITNESSES:

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JOHN McPHERSON, JR., OF DETROIT, MICHIGAN.

LAVATORY.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN McPHERSON, JR., a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Lavatories, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention refers to a lavatory of a portable type for use where running water is not available, and more especially to means for supplying both hot and cold water, and for discharging water under pressure without the use of gravity or overhead tanks, the apparatus possessing sanitary features which make it suitable for sick room and hospital use, and for hotels.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

Referring to the drawings, Figure 1 is a view in perspective of a lavatory embodying features of the invention. Fig. 2 is a view in vertical section, showing a different form of discharging faucet. Fig. 3 is a view in horizontal section, taken on or about line $z-z$ of Fig. 2, a section line $x-x$ indicating the place at which the view in Fig. 2 is taken.

As herein illustrated, an outer casing 1, preferably of enameled sheet metal or the like, has a regulation slab 2, set bowl 3 and splash board 4, forming its top.

A closed cold water tank 5 is placed within the casing and is preferably supported from the slab, as by a nipple 6 forming an inlet closed by a removable screw plug 7 or the like, and an open faucet 8 discharging into the set-bowl 3. An air pump cylinder 9 in the casing, that may conveniently be suspended from the slab, has a piston adapted to be operated by a stem 10 extending through the slab with an appropriately shaped handle 11, and is connected by a properly disposed pipe 12 so that a down-stroke of the piston forces air into the tank and, by displacement, a corresponding amount of water into the bowl. A second tank 13 for hot water is likewise supported in the casing, preferably from the slab by an inlet nipple 14 with closure 15, and faucet 16 discharging into the set bowl. The sides and top of this tank are preferably hollow, and a sheet 17 of asbestos or like non-conducting material is placed between the upper plate

18 of the top and the slab 2. A conical wall 19 extends from top to bottom of the tank, and a spiral heating coil 20 within the wall 19 leads from near the bottom of the tank into the faucet 16. A second spiral heating coil 21 in the cone 19 connects the upper and lower ends of the tank. Any convenient form of heating means, as for example, a gas burner 22, adapted to be connected by flexible tubing 23 to the nearest available gas jet is placed in the lower part of the conical opening in the tank under the coils, the second coil 21 setting up a circulation in the tank when heated, and the water being additionally heated in the discharge coil 20, the latter imparting heat almost immediately to its contents whereby the hot water is available about as soon as the burner is lighted. Apertures 25 in the tank wall furnish air for the burner. If gas is not convenient, any suitable form of oil or gasoline lamp may be substituted.

The hot water tank is connected at its top by a pipe 26 with a second air pump cylinder 27. The piston 28, similar to that in the cylinder 9, has the usual cupped flexible packing disk 29, and a stem 30 projecting through the slab with handle 31. Check valves 32 are placed in the pipes 12 and 26, to close on the pump up-stroke.

To prevent the packing of the air pump from drying, the cylinders of both are preferably immersed in the cold water tank.

The faucets may be open, as indicated in Fig. 1, or provided with closures having operating handles 33, as indicated in Fig. 2. A waste pail 34 is likewise provided to receive water from the bowl drain, doors 35 in the casing giving easy access to the interior.

In operation, if the open cocks are used, a single down-stroke of either pump forces a good supply of water into the bowl from the respective tanks. If the cocks are of the closable type the air in each tank may be compressed by the pumps to sufficient extent to fill the bowl a number of times.

In either form of construction, a self-contained portable lavatory is obtained which may be designed to present a pleasing exterior, and which is free from all exterior fitting. The heating arrangement, with the air space around the hot water tank, precludes any injury or danger from overheating and the apparatus is readily kept in

clean, sanitary condition, fitting it especially for country houses and hotels, and for hospitals.

Obviously, changes in the details of construction may be made without departing from the spirit of the invention and I do not care to limit myself to any particular form or arrangement of parts.

What I claim as my invention is:—

10 1. A portable lavatory comprising a casing having a set bowl in its top, water tanks in the casing having connections discharging into the bowl, means for heating the contents of one of the tanks, and means for
15 forcing water from the tanks into the bowl by displacement with air.

2. A portable lavatory comprising a casing having a set bowl in its top, water tanks in the casing having connections discharging
20 into the bowl, means in the casing for forcing air under pressure into each tank, and means for heating the contents of one of the tanks within and below said tank.

3. A portable lavatory comprising a casing having a slab and set bowl forming its
25 top, water tanks in the casing having connections discharging into the bowl, air pumps in the casing each adapted to force air into one of the tanks, and means within the casing for heating the contents of one of the
30 tanks.

4. A portable lavatory comprising a casing having a slab and set bowl forming its
35 top, a pair of water tanks suspended under the slab by connections discharging into the bowl, air pumps inclosed in one tank adapted to force air into the tanks, and means for heating the contents of one of the tanks.

5. A portable lavatory comprising a casing having a slab and set bowl forming its
40 top, water tanks in the casing having connections discharging into the bowl, air pumps in the casing each adapted to force air into one of the tanks, one of said tanks

having water pipe coils exposed to the air, 45 and a burner for heating the coils.

6. A portable lavatory comprising a casing having a slab and set bowl forming its top, a pair of water tanks suspended under the slab by connections discharging into the
50 bowl, air pumps inclosed in one tank adapted to force air into the tanks, one of said tanks having water pipe coils exposed to the air, and a burner for heating the coils.

7. A portable lavatory comprising a casing closed at its top by a slab and set bowl, closed water tanks in the casing, a faucet for each tank discharging into the bowl, one of
55 said tanks having double top and side walls, an air pump connected to each tank adapted to force air into the tank, one of said tanks having a conical wall forming an air passage from bottom to top of the tank, water pipe coils within the conical wall communicating with the interior of the tank, and
60 means for heating the coils.

8. A portable lavatory comprising a casing closed at its top by a slab and set bowl, closed water tanks in the casing, a faucet for each tank discharging into the bowl, one of
70 said tanks having double top and side walls, an air pump connected to each tank adapted to force air into the tank, one of said tanks having a conical wall forming an air passage from the bottom of the tank to the air space
75 in the hollow top wall thereof, a circulating heating coil in the conical wall opening into the tank near its bottom and its top, a discharge heating coil in the conical wall connecting the tank near its bottom with the
80 faucet and a burner within the conical wall under the coils.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN McPHERSON, JR.

Witnesses:

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