

June 10, 1930.

O. H. AYERS ET AL

1,763,209

BATHROOM EQUIPMENT

Filed Oct. 6, 1927

2 Sheets-Sheet 1

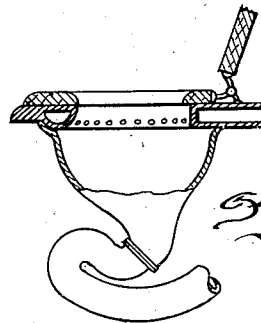
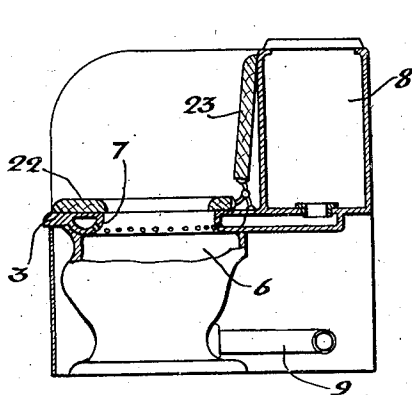
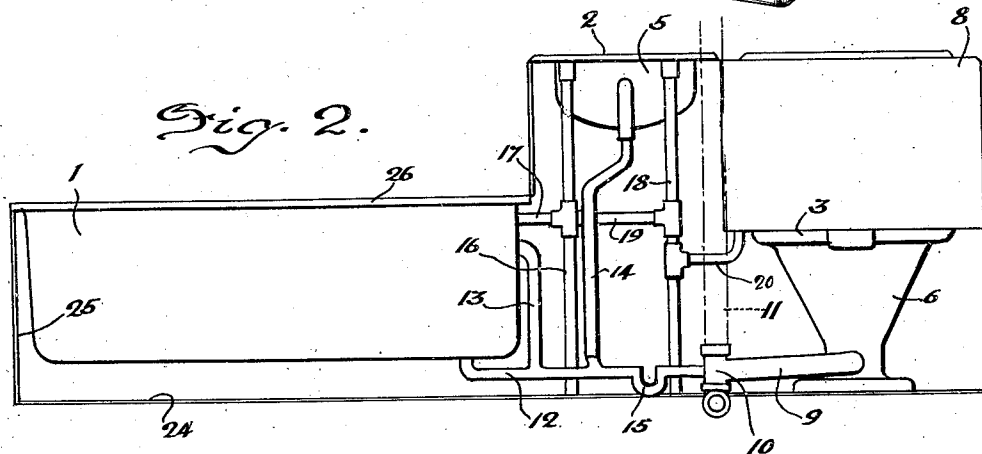
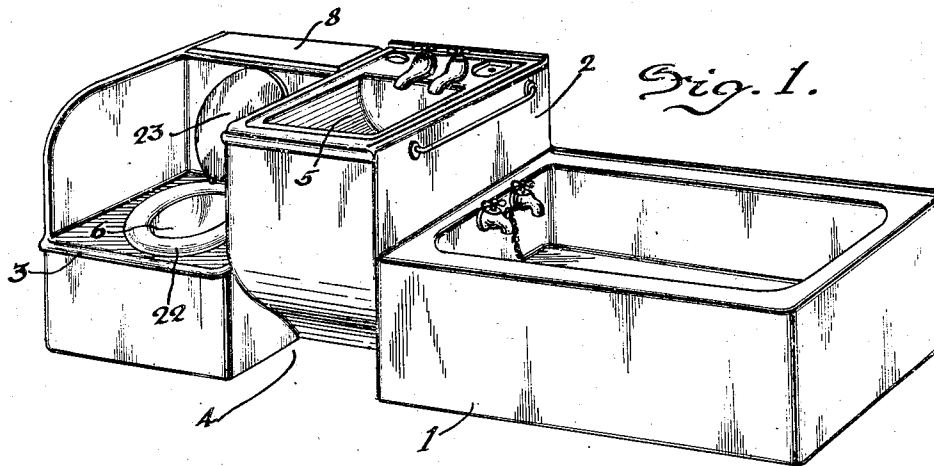


Fig. 6.

Fig. 3.

Inventor

Owen H. Ayers
Charles H. Kelley
J. L. Walker

Attorney

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2 Sheets-Sheet 2

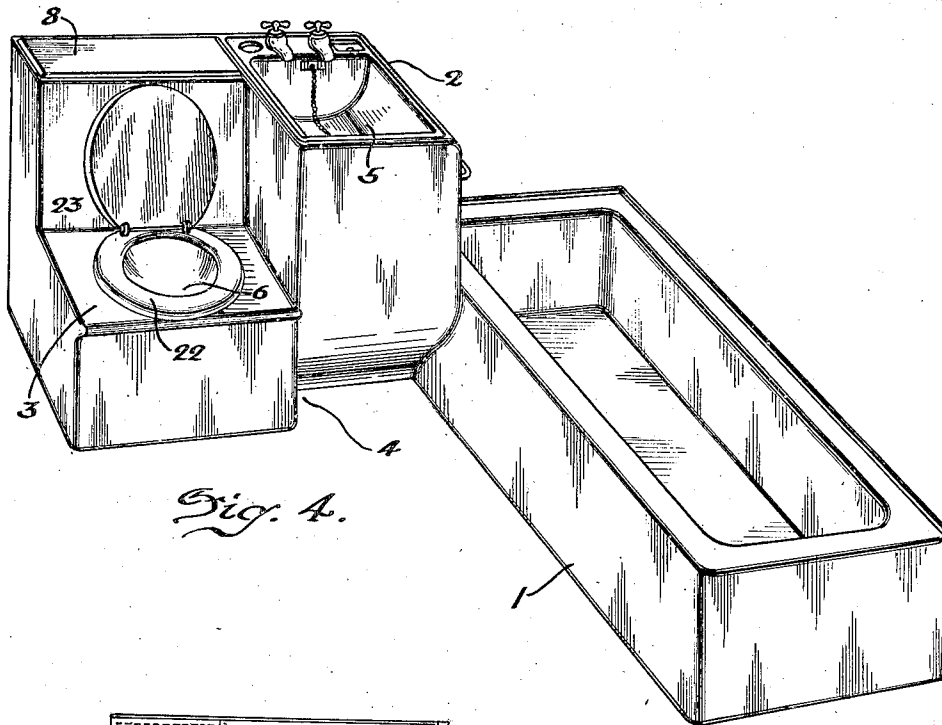


Fig. 4.

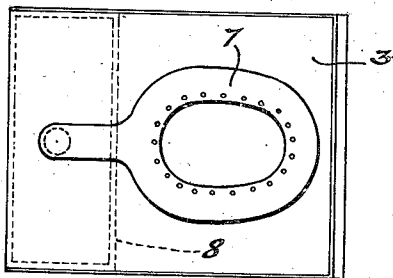


Fig. 5.

Inventor
Owen H. Ayers
Charles Mobley
By J. L. Walker
Attorney

UNITED STATES PATENT OFFICE

OWEN H. AYERS AND CHARLES MOBLEY, OF DAYTON, OHIO

BATHROOM EQUIPMENT

Application filed October 6, 1927. Serial No. 224,395.

Our invention relates to bathroom equipment, and more particularly to a unitary structure embodying a bath tub, a lavatory stand, and water closet or commode with the necessary plumbing connections contained and concealed within the unit to facilitate installation with single supply and drain connections.

Ordinarily bath room equipment consists of separate structures independently installed, whereby each unit must have its own drain and supply connection. This necessarily complicates the plumbing system and involves needless excessive expense and labor for installation. Moreover, the care and attention necessary to keep such plumbing connections in proper condition is materially increased.

While we are aware that heretofore attempts have been made to combine bathroom units into a single unitary structure, the arrangement and connections have been more or less unsatisfactory and inconvenient and particularly have not been in accordance with the standard plumbing code requirements.

The object of the invention is to simplify the structure, as well as the means and mode of installation of such unitary bathroom equipment, whereby it will not only be more efficient in use but is capable of being more easily and quickly installed with minimum expense and labor operations, durable, compact and unlikely to get out of repair.

A further object of the invention is to provide an improved multiple collection and distribution system for such unitary bathroom equipment whereby the several elements may be supplied and drained through common supply and drain connections, thus minimizing the necessary plumbing system.

A further object of the invention is to provide an improved form of toilet or water closet structure as a part of such unitary equipment consisting of a recessed seat in which is enclosed an independent detachable bowl, which for economy of manufacture may be an enameled metal bowl or one of analogous character.

A further object of the invention is to provide a compact unitary equipment and plumbing

connections therefor which can be installed in compartments of small size.

With the above primary and other incidental objects in view, as will more fully appear in the specification, the invention consists in the features of construction, the parts and combinations thereof, and the mode of assembly and installation, or their equivalents, as hereinafter described and set forth in the claims.

In the accompanying drawing, wherein is shown the preferred, but obviously not necessarily the only form of embodiment of the invention, Fig. 1 is a perspective view of the unitary bathroom equipment structure forming the subject matter hereof. Fig. 2 is a rear elevation thereof showing the system of plumbing connections. Fig. 3 is a vertical sectional view through the water closet section of the structure. Fig. 4 is a perspective view of the modification of the unit wherein the tub and the lavatory and closet are arranged in right angle relation to enable the unitary structure to be installed in a corner of the bathroom. Fig. 5 is a bottom plan view of the closet seat. Fig. 6 is a detail view of a conventional type of cast iron toilet bowl applied to seat or housing structure of the present installation.

Like parts are indicated by similar characters of reference throughout the several views.

Referring to the drawings, 1 indicates the bath tub section of the unitary equipment structure of which 2 is the lavatory or wash stand and 3 the toilet or closet section. These several parts are formed as an integral unit either from porcelain or porcelain coated or enameled metal ware, as is customary with equipment of this character. While the several sections have been shown in Fig. 1 arranged in lineal succession to accommodate the equipment to bathrooms of small dimensions and adapt it for corner installation, the several sections have been shown in Fig. 4 arranged in an angular succession. It will be understood that the unit whether straight or of angle formation will be made in both right and left hand assemblies, that is to say, in order to meet different conditions of in-

stallation and accommodate the unit to different bathroom plans, the relative position of the bath tub and water closet at opposite sides of the lavatory stands, may be reversed.

5 The lower portion of the lavatory stand is indented at 4 to provide foot space and enable one to stand close to the front of the unit. The interior of the lavatory stand beneath the bowl 5 affords a comparatively large

10 compartment open at the back to accommodate the plumbing connections. The plumbing connections may be installed in the unit at the factory or at the plumbing shop before taking the unit to the place of installation.

15 It then remains to connect the supply and drain couplings, which are accessible through a suitable opening in the bathroom wall as is usually provided. The water closet or commode comprises a seat having a vertical

20 front and flat top forming therebeneath a compartment in which is located the closet bowl 6. This bowl 6 is formed independent of the seat or bathroom unit. Inasmuch as the bowl is entirely concealed within the seat

25 section 3 it may be of enameled metalware and hence less expensive than the usual all porcelain bowl. The flush ring 7 for the closet bowl 6 is formed integral with the top of the seat section 3 and is connected through

30 a passage or conduit 7 formed in the structural unit beneath the top of the seat 3 with the flush tank 8. This flush tank is located at the rear of the seat 3 and comprises a portion of the unitary structure.

35 The closet bowl 6 is connected at 9 with a soil pipe coupling 10 to the lower end of which is preferably, though not necessarily, connected a drainage elbow which will permit a limited degree of adjustment of the unit

40 relative to the outlet conduit. The upper end of the hub 10 is adapted to receive the vent pipe shown by dotted lines at 11 which is preferably connected with the coupling 10 by a forty-five degree elbow, thus permitting

45 the vent pipe 11 to be extended upwardly through the wall of the bathroom back of the unit. Leading from the bath tub 1 is a conduit 12 communicating with the main outlet in the bottom of the tub, and having a branch

50 conduit 13 leading from the overflow outlet of the tub. This drain conduit 12 is joined by a vertical drain conduit 14 leading from the overflow and drain of the lavatory bowl 5. Intermediate the coupling 10 and

55 the juncture of the drain conduit 13 and 14 with the conduit 12, the latter is provided with the customary trap 15. Thus the drainage conduit from the several sections of the unitary structure lead to the outlet coupling

60 10 above the floor level and within the compartment interiorly of the lavatory stand. A hot water supply conduit 16 leads upwardly to the lavatory bowl 5 and is provided with a branch conduit 17 leading to the tub 1. A corresponding cold water conduit 18 also

leads upwardly to the wash bowl 5 and is provided not only with a lateral conduit 19 leading to the tub 1, but also a second lateral branch conduit 20 which supplies the flush tank 8 of the water closet section. By providing elbow fittings on the lower ends of the hot and cold water supply conduits 16 and 18 a limited degree of adjustment is possible to enable the convenient connection of these conduits with the hot and cold water supply lines.

The opening from the flush rim supply passage to the interior of the flush tank 8 is adapted to receive the usual screw-threaded bushing with which is connected the valve seat for the flush valve of the closet. The closet bowl is preferably provided with attachment lugs by which it may be bolted or otherwise secured to the underside of the top portion of the seat 3, the margin of the bowl being cemented or sealed with a packing of putty or similar material. On top of the seat 3 is provided the usual seat rim 22 of wood or composition, to which is hinged the usual lid 23. To provide suitable support and to enable the unit to be embedded or set into the wall of a bathroom the base margin of the unit is provided with an inturned flange 24 while the vertical margins 25 are projected rearwardly for embedment in the bathroom wall and the top margin of the tub 1 is provided with a rear marginal upstanding flange 25 which, when embedded or inset into the wall of the bathroom will prevent any moisture draining from the wall behind the unit.

For convenience of manufacture and to facilitate installation the top of the lavatory stand including the bowl and soap and glass tray may be formed separately from the lavatory stand and removably attached thereto. Such construction, however, is not essential and such top may be formed integral with the remainder of the unit.

The construction is such that the plumbing connections may be assembled as standard units interchangeable with different equipment assemblies, not only of the same style but of reverse type, angular or lineal, as the case may be. Such standardization of the plumbing connections greatly minimizes cost and facilitates installation.

From the above description it will be apparent that there is thus provided a construction of the character described, possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modification in its form, proportions, and arrangement of parts, without departing from the principle involved or sacrificing any of its advantages.

While in order to comply with the statute the invention is described in language more or less specific as to structural features it is to be understood that the invention is not

limited to the specific details shown, but that the means and construction herein disclosed comprise the preferred form of several modes of putting the invention into effect, and the invention is therefore claimed in any of its forms or modifications within the legitimate and valid scope of the appended claims.

Having thus described our invention we claim:

1. In a plumbing unit of the character described, a unitary structure including a tub, a lavatory and a housing for a water closet bowl, formed integrally with each other, said seat portion comprising vertical wall and top portions enclosing a compartment, an independent closet bowl within the compartment, a seat on top of said housing and independent thereof, a flush rim for said bowl formed integral with the top portion of the housing and independent of the bowl and seat, a flush tank for supplying water thereto formed integrally with the unit, and a passage within said unit connecting the flush tank with said flush rim.

2. In a plumbing unit a unitary structure including in combination a tub, a lavatory and a housing for a water closet bowl integrally united with each other and a seat portion superposed on said housing, said housing having vertical walls and an apertured top portion, an independent water closet bowl enclosed within the housing, a flush tank formed integral with said top portion, a perforated flush rim formed integral with the top portion of said housing independent of the bowl and seat and surrounding the aperture on the under side of the top of said housing, a passage integrally formed in the top of said housing and leading from the flush tank to the flush rim.

3. In a plumbing unit, a one-piece structure including a bath tub, a lavatory stand, and a housing for a water closet bowl, an independent closet bowl enclosed within said housing and detachably connected thereto, an independent seat member superposed on said housing, a flush rim for said bowl integral with the housing and independent of the bowl, an integral flush tank forming a part of said unit and an integral conduit connecting the flush tank and flush rim.

4. A unitary bathroom equipment, comprising a bath tub, a lavatory and a commode seat all integrally united into a continuous structure, wherein the lavatory portion is disposed intermediate the commode seat and the bath tub, said lavatory portion being open at its rear for access to the plumbing connections therefor, single supply, drain and vent connections common to the tub, commode and lavatory portions, and branch conduits leading therefrom to said portions of the unit, said assemblies of plumbing connections being interchangeable between units wherein the tub, lavatory and commode portions are

arranged in lineal relation and units wherein the tub is arranged at right angles to the lineal relation of the commode and lavatory.

5. A unitary bathroom equipment, comprising a bath tub, a lavatory and a commode seat, and including a water tank for supplying water to the commode, an integral flush rim on the under side of the seat, an integral conduit connecting the flush rim with the water tank, single water supply, drain and vent connections common to the tub, lavatory and commode portions of the unit concealed within the lavatory portion, branch conduits connecting the common supply, drain and vent connections with the several parts and an independent bowl attached to the under side of the commode seat.

In testimony whereof, we have hereunto set our hands.

OWEN H. AYERS.
CHARLES MOBLEY.