

July 30, 1935.

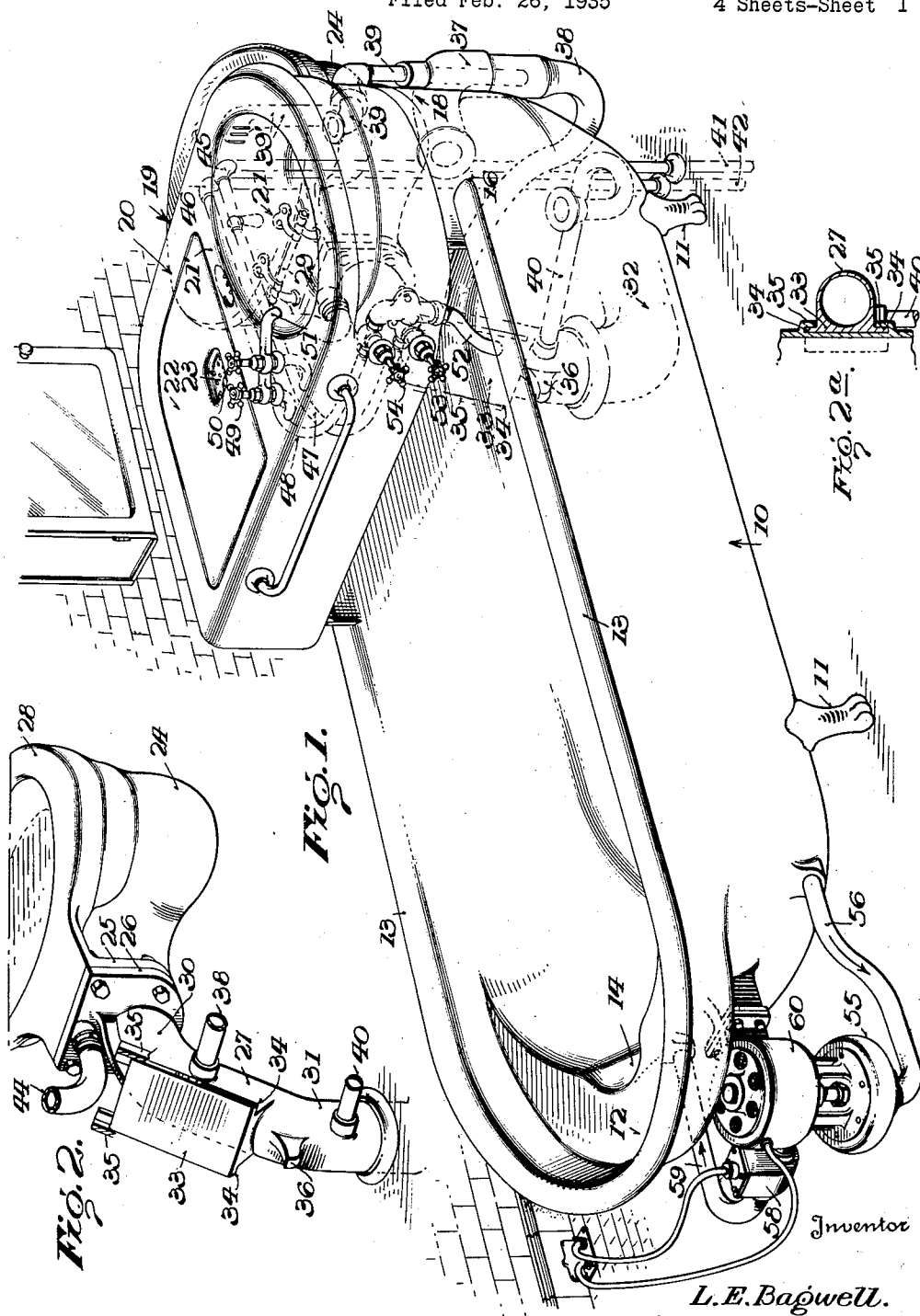
L. E. BAGWELL

2,009,756

TOILET STRUCTURE FOR BATHROOMS OR THE LIKE

Filed Feb. 26, 1935

4 Sheets-Sheet 1



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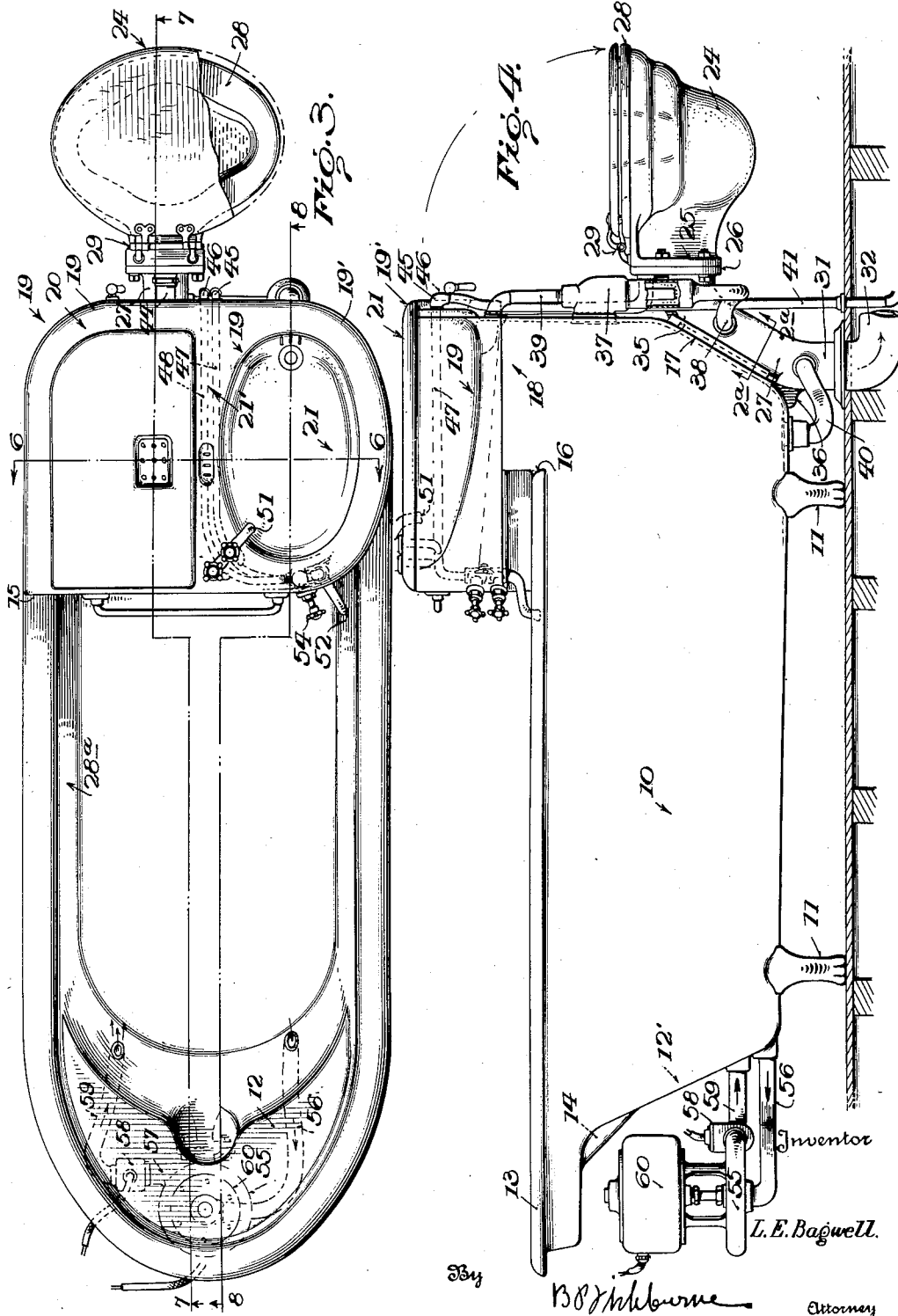
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Fig. 6.

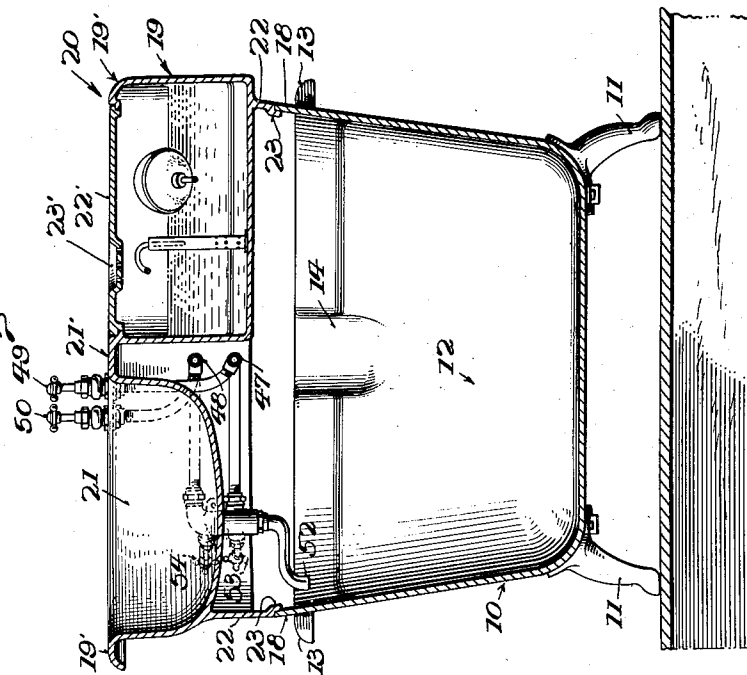
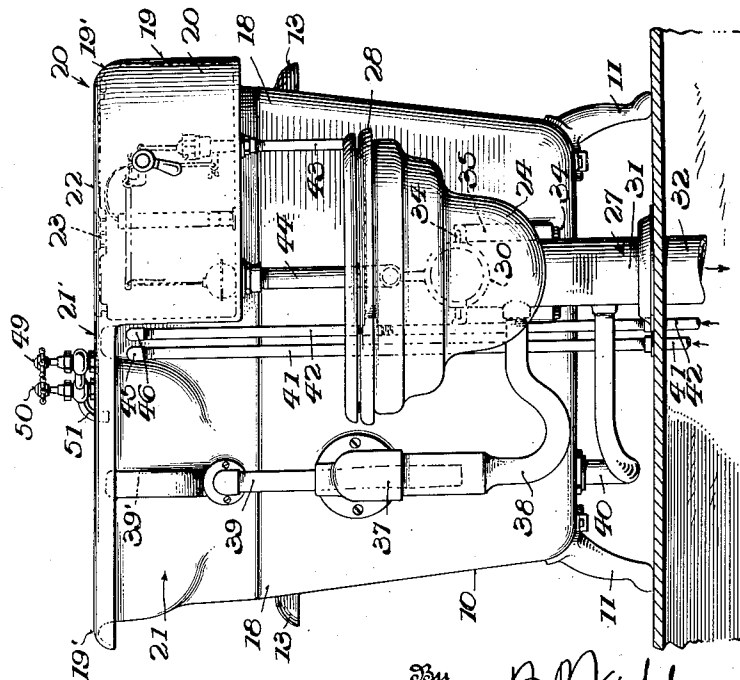


Fig. 5.



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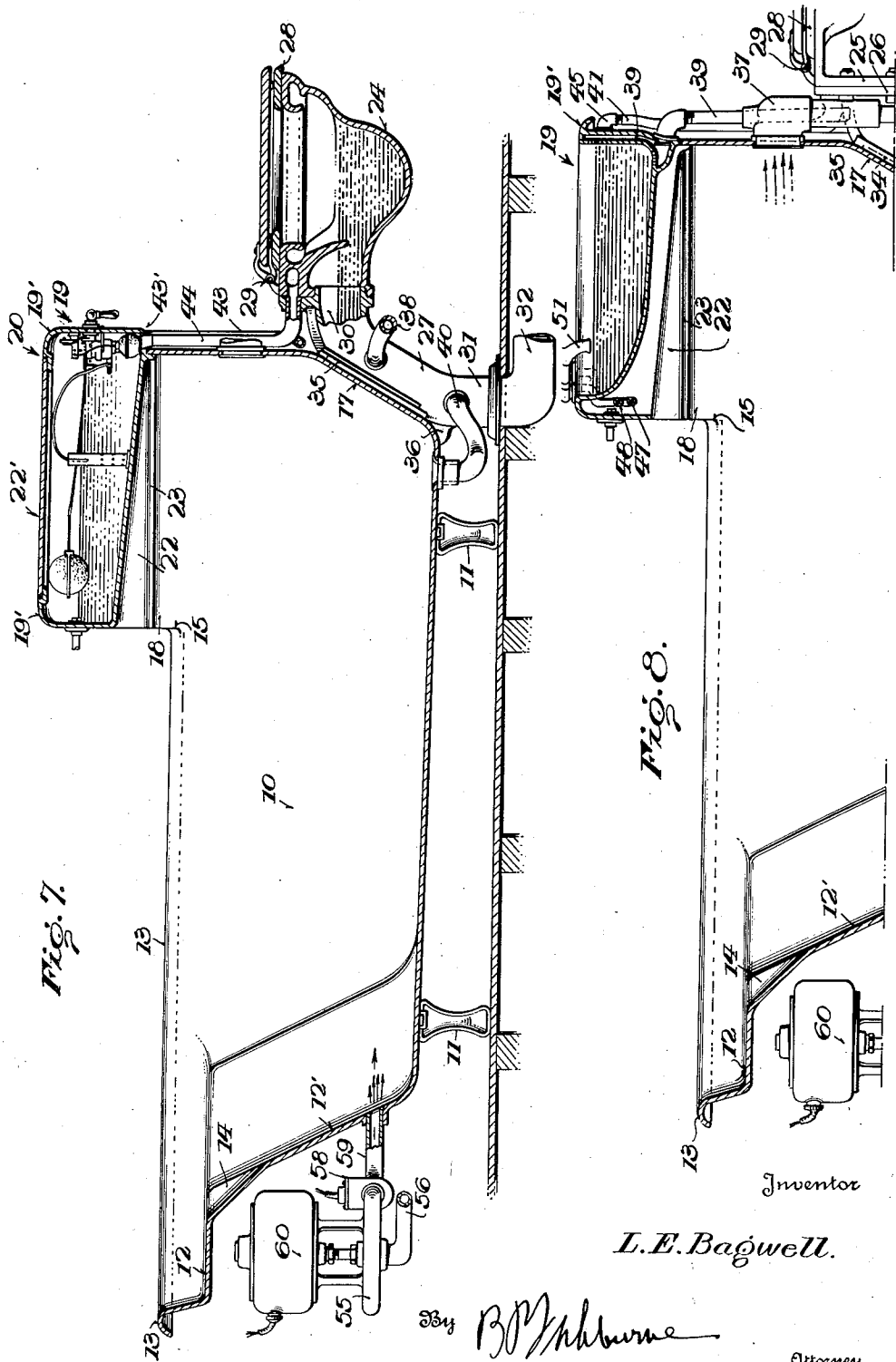
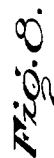
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TOILET STRUCTURE FOR BATHROOMS OR THE LIKE

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4 Sheets-Sheet 4



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UNITED STATES PATENT OFFICE

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TOILET STRUCTURE FOR BATHROOMS
OR THE LIKE

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Application February 26, 1935, Serial No. 8,391

9 Claims. (Cl. 4-2)

My invention relates to a toilet structure for bathrooms, or the like.

An important object of the invention is to provide a toilet structure wherein a bath-tub, lavatory bowl and commode bowl are assembled, to occupy the minimum space, without sacrificing the convenience of the user.

A further object of the invention is to provide a coupling to attach the commode bowl to the bath-tub, for supporting the same.

A further object of the invention is to provide a coupling of the above mentioned character, which is also adapted to serve as a common drain for the several units of the structure.

A further object of the invention is to improve the construction of the tub, for promoting the convenience of the user, when sitting or lying therein.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this application and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a perspective view of a toilet structure embodying my invention,

Figure 2 is a perspective view of the drain pipe and closet bowl attached thereto,

Figure 2a is a detailed section taken on line 2a-2a of Figure 4.

Figure 3 is a plan view of the plumbing structure,

Figure 4 is a side elevation of the same,

Figure 5 is an end elevation of the same,

Figure 6 is a transverse section taken on line 6-6 of Figure 3.

Figure 7 is a longitudinal section taken on line 7-7 of Figure 3, and,

Figure 8 is a similar view taken on line 8-8 of Figure 3.

In the drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 10 designates a tub, supported by legs 11. This tub is provided at its rear end 12' with a horizontal seat or shelf 13, surrounded by a curved longitudinal flange 14, and having a recess 14, constituting a head rest. The end 12' is inclined downwardly in a forward direction. The flange or bead 13 continues longitudinally of the tub and terminates at a point 15, upon one side thereof and at a point 16 upon the opposite side. The tub has a forward inclined end portion 17, serving as a

foot rest. Between the points 15 and 16, the flange 13 is omitted, and the wall of the tub projects upwardly in the form of a generally vertical extension or lip 18, see more particularly Figures 1, 4 and 5.

The numeral 19 designates a combined lavatory bowl and flush tank unit, including a flush tank 20 and lavatory bowl 21, preferably formed integral and having a horizontal web 21', between them. The flush tank 20 has a cover 22', provided with a perforated depression 23', adapted to serve as a soap dish and drain back into the tank. This unit embodies a side wall 22 having a laterally and inwardly offset flange 23, at its lower edge, to engage within the extension 18, and lock the side wall to the extension, in position. The unit 19 has a rounded edge 19', as shown. This unit is directly mounted in a horizontal position, upon the foot end of the bath-tub, and overlaps such foot end, but is not in the way, as the feet may be inserted in the forward end of the bath tub beneath this unit.

The numeral 24 designates a commode bowl, having a flange 25 upon one side thereof to be bolted or rigidly attached to a flange 26 formed upon a combined drain pipe and support 27. The bowl 24 is of the usual construction except that it is connected with the drain pipe on its side, instead of at the back, as is customary, and it is flushed by water entering the same at the side. This bowl has a seat 28, hinged at its side, as shown at 29, and the longitudinal axis of the seat extends transversely of the tub so that the user will be arranged transversely of the tub when positioned upon the seat, and the seat may be used with right or left hand tubs. The drain pipe 27 is arranged to one side of the central longitudinal axis of the tub, so that the commode bowl will be offset rearwardly with respect to the said axis of the tub, the side 28a of the tub being regarded as the rear side, next to the wall. This tub is a right hand tub.

The drain pipe 27, see more particularly Figures 2, 2a and 4, is positioned outwardly of and adjacent to the inclined end portion 17 of the tub and has a corresponding inclination throughout the major portion of its length, but has an upper horizontal portion 30 and a lower vertical portion 31. At its lower end the drain pipe is suitably connected with the house pipe 32, as is customary. The drain pipe 27 is provided with an attaching plate 33, formed integral therewith, and this attaching plate affords flanges 34, to interlock within flanges or guide-ways 35, preferably formed integral with the outer side

of the inclined end portion 17 of the tub, as shown. The pipe 27 is provided near and spaced from the attaching plate with a supporting or stop lug 36, having an upper face of desired contour to engage beneath and with the bottom of the tub. This supporting or stop lug enables the drain pipe 27 to serve as an additional leg or support for the tub, and limits the upward movement of the pipe with relation to the tub, the pipe being inserted in position by an upward movement. The drain pipe constitutes the sole supporting means for the commode bowl.

The commode bowl drains into the pipe 27. The tub has its overflow connection 37 leading into the drain pipe 27 by means of a pipe 38, and the lavatory bowl 21 has its drain pipe 39 leading into the overflow fitting 37 of the hub. The lavatory bowl has its bottom inclined in a direction longitudinally of the tub and the drain pipe 39 leads into the bottom of the bowl 21 adjacent to its lower end, as shown. The pipe 39 leads into a passage 39', Figure 8, formed upon the end of the bowl, and serving as a drain and overflow passage. The tub 10 has a drain pipe 40 leading into its bottom at its lower end, and this pipe 40 leads into the common drain pipe 27.

As more clearly shown in Figure 5, the numerals 41 and 42 designate service hot and cold water pipes. A branch pipe 43 is connected with the pipe 42 and leads into the bottom of the flush tank 20, and the usual float controlled valve is employed to regulate the supply of water into the tank 20, through the pipe 43. The tank 20 projects rearwardly beyond the wall 22, to provide the projecting bottom portion 43', so that the pipes may be properly attached to the tank. A flush pipe 44 is also connected with the bottom of the flush tank 20, and is covered and uncovered by the usual hollow ball valve, and this flush pipe 44, Figure 2, leads into the bowl at the flanges 25 and 26. The bowl is flushed in accordance with the usual practice, the only difference being that the water is supplied at the side of the bowl instead of at the back. The pipes 41 and 42 are connected at their upper ends with elbows 45 and 46, respectively, and these elbows are connected with horizontal pipe extensions 47 and 48, which pass between the connected tank 20 and bowl 21, beneath the connecting web 21'. Valves 49 and 50 are connected with the pipes 47 and 48, respectively, and these valves discharge the water into a common spout 51, which is arranged over the lavatory bowl 21, preferably at the end thereof remote from the drain. Hot and cold water is supplied into the tub through a spout 52, which is connected with valves 53 and 54, in turn connected with the pipes 47 and 48, respectively.

Means are provided to circulate the water within the tub, while bathing, thus preventing the accumulation of sediment upon the tub, and for heating the circulating water. This means comprises a centrifugal rotary pump 55, having its intake end connected with a pipe 56, and this pipe leads into the tub 10 adjacent the bottom of the inclined end 12', as shown. The pump discharges the water through an outlet pipe 57 and then forces the water through an electrical heater 58 of any well known or preferred type, which is connected with a return pipe 59, which causes the heated water to be returned into the tub, at a point near the bottom of the inclined end 12', but at a higher elevation than the pipe 56. The centrifugal pump 55 is horizontally arranged and its rotor is driven by a horizon-

tally arranged motor 60. The pump and associated elements are all arranged beneath the seat 12 and covered thereby.

In view of the foregoing description it will be seen that I have provided a toilet structure which is self-contained and includes a tub, lavatory basin, commode bowl and associated means for supplying and draining water to the same. The apparatus embodies three major units, namely, the tub, the lavatory bowl and flush tank unit, and the closet bowl, and these units are adapted to be securely assembled to provide a highly compact structure, which will take up the minimum space without sacrificing the convenience of the user. The lavatory bowl and commode bowl are used in the ordinary manner, and the tub may be used in the ordinary manner. When the pump 55 is set into action, the water in the tub, while one is taking a bath, may be circulated and heated. If desired, the water may be introduced into the tub cold and then circulated and heated or it may be supplied at a suitable warm temperature and the circulation effected with or without heating.

While I have shown the invention as embodied in a right hand tub, it is not restricted to such arrangement, as a left hand tub may be used. When a left hand tub is used, the tank 20 and bowl 21 are reversed and pipe 27 would be disposed upon the opposite side of the central axis of the tub.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of my invention or the scope of the subjoined claims.

Having thus described my invention, what I claim is:

1. A toilet structure for bathrooms or the like, comprising a tub having an end wall, an upstanding drain pipe arranged adjacent to and exteriorly of the end wall and securely attached to the end wall, and a commode bowl disposed exteriorly of and spaced from the tub and bodily mounted upon the upper end of the upstanding drain pipe, the drain pipe constituting the sole support for the commode bowl.

2. A toilet structure for bathrooms or the like, comprising a tub, an upstanding drain pipe disposed exteriorly of the tub and attached thereto throughout the major portion of its length, said drain pipe being provided at its upper end with a generally horizontal portion, a commode bowl having a generally horizontal tubular coupling for attachment to the generally horizontal portion of the drain pipe, the commode bowl being arranged exteriorly of and spaced from the tub and entirely supported by the upstanding drain pipe.

3. A toilet structure for bathrooms or the like, comprising a tub provided upon its exterior with guide flanges, a drain pipe provided with flanges extending longitudinally thereof and adapted for insertion within the guide flanges to interlock therewith, and a commode bowl mounted upon the drain pipe to be supported thereby.

4. A toilet structure for bathrooms or the like, comprising a tub provided near its foot end with an inclined wall, flanges secured to the exterior of the inclined wall, a drain pipe having a plate rigidly secured thereto and extending longitudinally of the same and adapted for insertion within the flanges for interlocking therewith, a com-

mode bowl bodily mounted upon the upper end of the drain pipe, a lavatory bowl and flush tank unit disposed above the foot end of the bath-tub and mounted upon such foot end to be supported thereby, means for supplying water to the commode bowl from the flush tank, and means to drain water from the lavatory bowl and bath-tub into the drain pipe.

5. A toilet structure for bathrooms or the like, comprising a tub provided near its foot end with an upstanding marginal projection, a lavatory bowl and flush tank unit comprising an upstanding marginal wall to be directly mounted upon the upstanding marginal projection, such unit extending over and being arranged at an elevation above the foot end portion of the tub, a commode bowl arranged adjacent to and exteriorly of the foot end portion of the tub and attached thereto the arrangement of the lavatory bowl and flush tank unit and the commode bowl being such that the interior of the foot end portion of the tub is entirely unobstructed, and means for supplying water from the tank to the commode bowl.

6. A toilet structure for bathrooms or the like, comprising a tub provided near its foot end with a marginal wall, a lavatory bowl and flush tank unit comprising an upstanding marginal wall to be mounted upon the first named marginal wall and having means to interlock therewith, such unit extending over the foot end portion of the tub and being at an elevation above the foot end portion, a commode bowl arranged adjacent to and exteriorly of the foot end portion of the tub and having its longitudinal axis extending transversely of the tub, the arrangement of the lavatory bowl and flush tank unit and the commode bowl being such that the interior of the foot end portion of the tub is entirely unobstructed, drain means leading into the side of the commode bowl, and means for supplying water from the tank to the commode bowl and leading into the side of the commode bowl.

7. A toilet structure for bathrooms or the like, comprising a tub provided near its foot end with a marginal wall, a lavatory bowl and flush tank unit comprising a marginal wall to be mounted upon the first named marginal wall, such unit extending over the foot end portion of the tub and being arranged at an elevation above the same, a drain pipe having means extending throughout a substantial portion of its length for attaching the pipe to the foot end portion of the tub, a commode bowl arranged adjacent to and exteriorly of the foot end of the tub and having its longitudinal axis extending transversely of the tub and being attached at its side to the drain pipe and supported thereby the arrangement being such that the lavatory bowl and flush tank unit and the commode bowl do not obstruct the interior of the foot end portion of the tub, means to supply water from the tank to the commode bowl and leading into the side of such bowl, means for receiving the drain from the lavatory bowl and the tub and leading into the drain pipe, and means for supplying water to the flush tank, lavatory bowl and tub.

8. A toilet structure for bathrooms or the like, comprising a bath-tub, a lavatory bowl and flush tank unit mounted upon the tub and entirely supported thereby at an elevation above the tub, a commode bowl arranged exteriorly of and attached to the tub and entirely supported thereby and having drain means the arrangement of the unit and the commode bowl being such that the interior of the tub is entirely unobstructed, and means for supplying water from the flush tank to the bowl.

9. A bath-tub provided at one end with a projection forming a seat providing a relatively large space beneath the same, and water heating and circulating means connected with the tub and arranged within the space beneath the seat.

LANDRUM E. BAGWELL.