

No. 645,638.

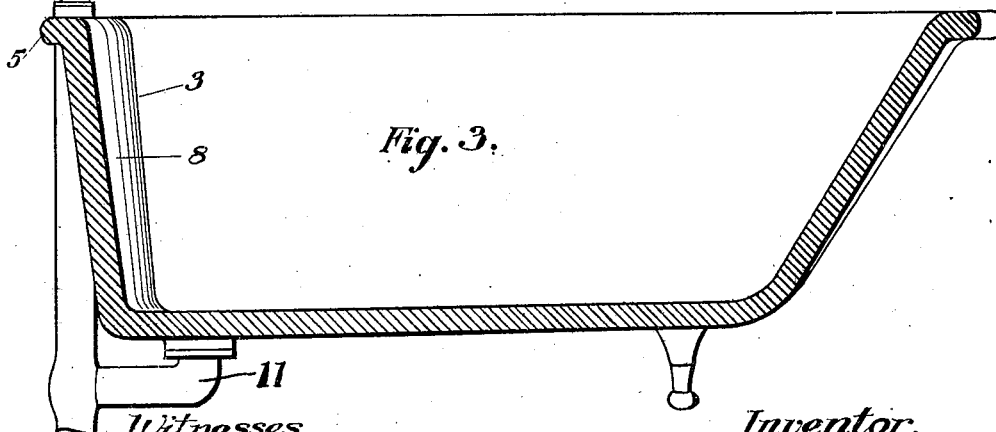
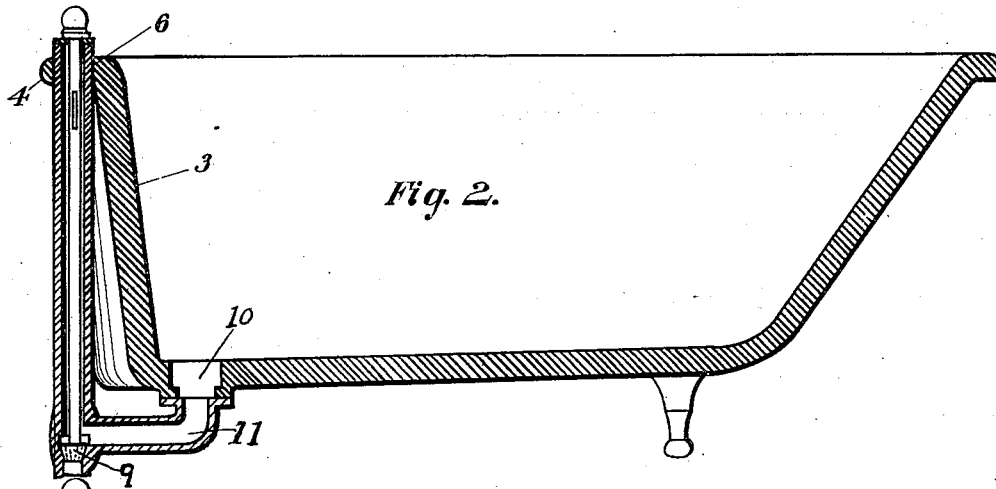
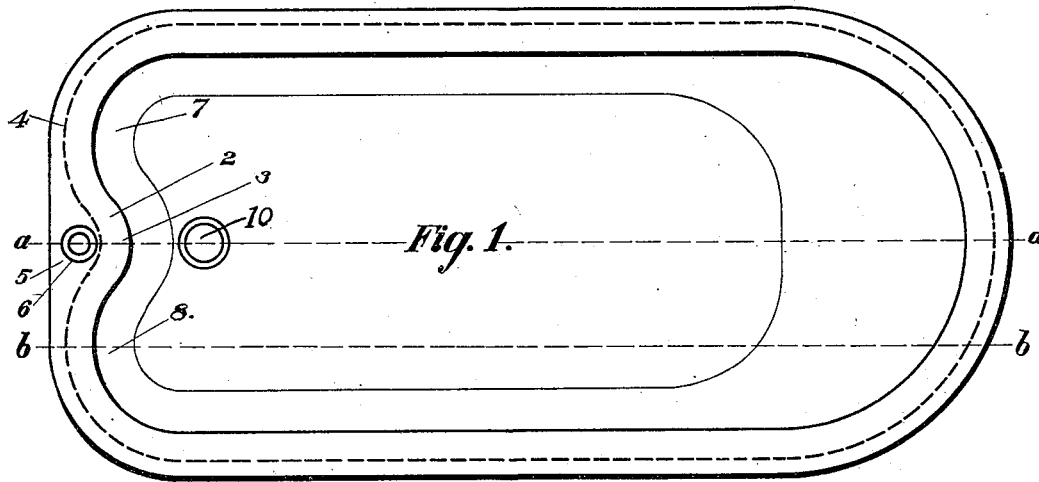
Patented Mar. 20, 1900.

W. BUNTING, Jr.
BATH TUB.

(Application filed Apr. 1, 1899.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses.
Bertrand H. Johnson.
Sanise Thurston

Inventor.
Wm. Bunting Jr.
By his Attorney.
Louis H. Herriman

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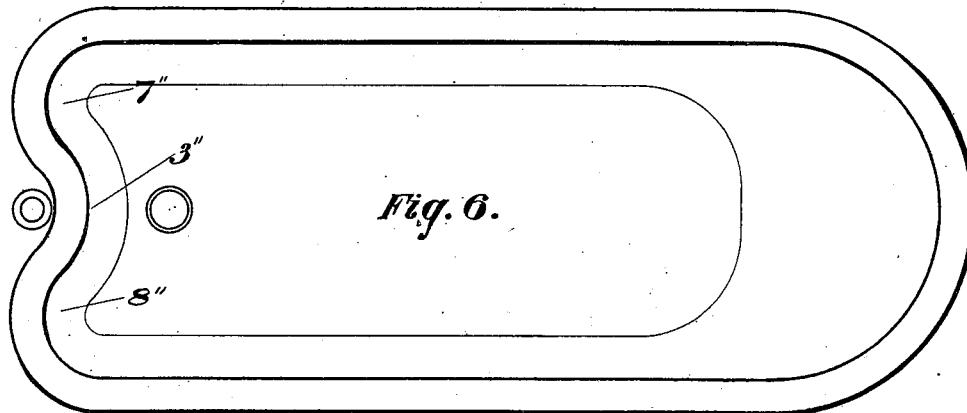
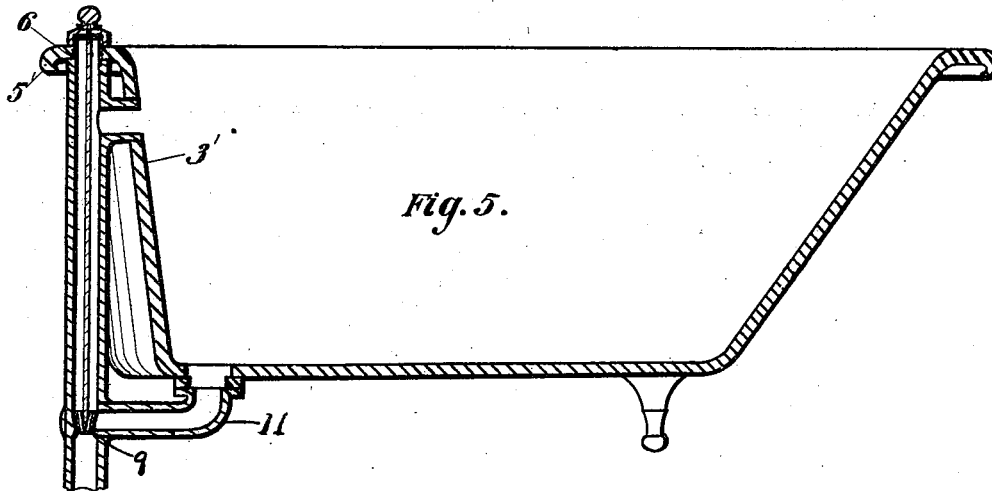
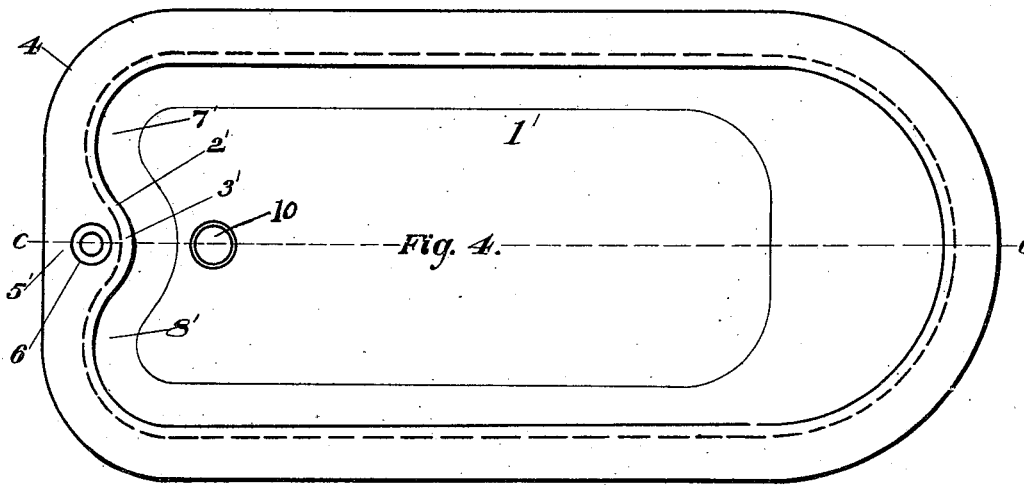
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BATH TUB.

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(No Model.)

2 Sheets—Sheet 2.



Witnesses.
Bertrand H. Johnson.
Louise Thurston

Inventor.
W. Bunting, Jr.
By his Attorney.
Louis H. Mann

UNITED STATES PATENT OFFICE.

WILLIAM BUNTING, JR., OF NEW YORK, N. Y.

BATH-TUB.

SPECIFICATION forming part of Letters Patent No. 645,638, dated March 20, 1900.

Application filed April 1, 1899. Serial No. 711,388. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BUNTING, Jr., a citizen of the United States, and a resident of New York, (Flushing,) in the county of Queens and State of New York, have invented certain new and useful Improvements in Bath-Tubs, of which the following is a specification.

In the ordinary bath-tub, which is made of porcelain or of porcelain-enameled iron, the combined overflow-pipe and waste-valve is located either within the tub or outside the tub beyond the outer line of the rim of the tub. The interior arrangement is objectionable, as the overflow-pipe is in the way of the bather and also in the way of a person who wishes to fill a pitcher or other receptacle at the bath-tub faucets. The overflow-pipe is, moreover, liable to be bent and when removable is liable to chip the glazing of the tub. Another objection to the interior overflow-pipe and waste-valve is that the nicked exterior thereof will soon become foul with soap and other matter, so that it requires constant attention to keep it clean. For these reasons the fittings are usually placed on the outside of the tub; but in many places the space for the tub is limited and it is desirable to use as large a tub as possible. The exterior arrangement of the fittings takes up a material portion of the room, which might be occupied by the tub.

The object of my invention is to make a bath-tub or similar vessel of such shape that the overflow-pipe and waste-valve and its operating device may be placed exteriorly of the tub and yet not necessitate the reduction of the length of the tub for all practical purposes where the space is limited. I accomplish this result by providing a centrally-located vertical recess for the waste-valve-operating means and an overflow-pipe in the end wall of the tub, and I provide a projecting shelf over this recess, so that the outer edge of the rim of the tub will be straight at this end, and by having the vertical pipe pass through this shelf a support is provided therefor.

For a fuller description of my invention reference is made to the accompanying drawings, in which—

Figure 1 is a plan view of a porcelain bath-tub. Fig. 2 is a cross-section on the line *a a* of Fig. 1. Fig. 3 is a cross-section on the line *b b* of Fig. 1. Fig. 4 is a plan view of a porcelain-enameled bath-tub. Fig. 5 is a cross-section on line *c c* of Fig. 4. Fig. 6 is a plan view of a modification.

In the manufacture of porcelain bath-tubs and other sanitary vessels it is essential that all parts thereof be of substantially the same thickness, so that in the baking operation the tub will dry evenly and not become distorted by variation in shrinkage. It is also necessary that any parts which overhang to any extent be supported during the baking operation; otherwise they will sink and become misshapen. For this reason it is not practicable to make an overhanging shelf in a porcelain bath-tub which is unsupported. The porcelain bath-tub I therefore mold in the following form: At the end 2 thereof I provide at its central portion and preferably in the central vertical plane thereof an inwardly-extending recess 3, arranged exteriorly of the tub, the walls being inwardly curved, as shown, and said recess extending from the rim of the tub downwardly. It is not always necessary that this recess extend fully to the bottom of the tub, although such arrangement is preferable and necessary when the inclination of the sides is slight. The rim 4 of the tub, at the end 2 thereof, extends outwardly from the end of the wall of this recess, so that the outer edge of the rim will be straight or follow a single continuous curve. By this means a shelf 5 will be formed which will be supported at three sides thereof and which will not sink or become misshapen during the baking operation or need special support. Unless some special support were provided, which would be very inconvenient, it would not be practicable to provide an all-porcelain bath-tub with a shelf which would overhang sufficiently to permit the overflow and waste-valve to pass therethrough for the reason above stated. I provide the central portion of this shelf with an aperture 6, through which the waste-operating device or overflow-pipe may pass. This shelf will form a support for the waste-pipe or valve-operating means. It has been found in practice that all-porcelain vessels may be

more easily and successfully molded when their sides are made up of curved surfaces—that is, the curves in the wall of the tub support the end wall and hold it in shape better during the drying and baking operation than when it is made straight, so that the percentage of loss will be less. The interior projection of the recess 3 at the end of the tub will form two interior recesses 7 and 8, at each side thereof. In use the bather's feet will be placed in these recesses 7 and 8, so that he may take as comfortable a bath as if the inwardly-projecting recess were not present. At the same time less water is necessary than if the recess were absent. It will thus be seen that with the peculiar shape of tub described I am able to place the overflow-pipe and waste-valve outside the tub and yet within the outer line of the edge of the rim of the tub as ordinarily constructed without reducing the width of the rim or decreasing the length of the tub for all practical purposes. With my invention wherever the space for the tub is limited I am enabled to install a tub which is practically a size larger than could be used when the overflow-pipe is placed exteriorly of the tub. The tub, moreover, is even more finished in appearance than if the recess were not present. As shown in the drawings, the waste-valve outlet 10 and outlet-pipe 11 are all in the central vertical plane of the tub, this being the usual arrangement. By using this arrangement in connection with any form of tub I secure an additional advantage over a construction in which it is necessary that the waste-valve-operating means or the overflow-pipe be placed beyond the rim—that is, by placing the waste-valve 9 nearer the outlet of the tub I materially shorten the outlet-pipe 11. This is highly advantageous from a sanitary point of view on account of the fact that the outlet-pipe 11 is materially shorter, so that there is a shorter length of pipe between the outlet and trap to become foul, and this section may, moreover, be more easily kept clean. Figs. 4 and 5 show the application of my invention to a porcelain-enameled iron bath-tub. The advantages possessed by such a tub are similar to those possessed by the porcelain, and the application of my invention is practically the same.

For the successful casting of a large iron vessel, as a bath-tub, it is necessary to have the sides slope considerably, so that the pattern may be drawn from the sand. It has been found, however, that the inwardly-projecting recess above described may have the sides cast nearly straight without increasing the cost very materially. In such case it will not be necessary to extend the recess fully to the bottom of the tub, so that the bottom will not be reduced in length in any part by the presence of the recess.

In Fig. 6 I show a modification in which the shelf is omitted and the outer edge of the rim

of the tub follows the inward projection, the width of the rim remaining the same. The same saving in room is secured as in the other forms; but no support for the overflow-pipe is provided, and the tub does not have as finished an appearance.

Obviously changes in configuration from that shown in the drawings may be made without departing from the spirit of my invention.

Having described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is as follows:

1. A bath-tub having a single solid wall at one end which is curved inwardly at the central portion thereof from the rim downwardly, forming a central vertical recess on the exterior of the tub, and two side recesses on the interior thereof, said central recess being of sufficient depth to permit an overflow-pipe to be located therein.

2. A bath-tub having a single solid wall at one end which is curved inwardly at the central portion and outwardly at each side thereof, and forming a central vertical recess on the exterior of the tub and two side recesses on the interior thereof, said central recess being of sufficient depth to permit an overflow-pipe being placed within the line between the outer edges of the rim at the exterior outwardly-curved portions thereof.

3. A bath-tub having a single solid wall at one end which is curved inwardly at the central portion from the top downwardly and forming a central vertical recess on the exterior of the tub, and two side recesses on the interior thereof, a shelf extending over the top of said exterior recess which is continuous with the rim of the tub.

4. A bath-tub having a single solid wall at one end which is curved inwardly at the central portion thereof and forming a central vertical recess on the exterior of the tub, and two side recesses on the interior thereof, a shelf extending over the top of said recess which is continuous with and on the same level as the rim of the tub, and a central aperture in said shelf which is adapted to permit the passage of the overflow-pipe or valve-operating device therethrough.

5. A bath-tub having a single solid wall at one end which is of substantially the same thickness throughout and which is curved inwardly at the central portion thereof from the rim downwardly, forming a central, vertical recess on the exterior of the tub and two side recesses on the interior thereof, said central recess being of sufficient depth to permit an overflow-pipe to be located therein.

6. A bath-tub having an overflow-pipe located outside the walls thereof, the side of said tub directly adjacent said pipe consisting of a single solid wall which is of substantially the same thickness throughout and which is curved inwardly from the rim downwardly, forming a vertical recess on the exterior

rior of the tub and two adjacent side recesses
on the interior thereof, said overflow-pipe be-
ing located in said exterior recess, and said
exterior recess being of sufficient depth to
5 permit of the overflow-pipe being located in-
side a straight line drawn from the outer up-
per edges of the tub next adjacent said ex-
terior recess, whereby the side of the tub in-

cluding said recess may be placed against the
wall of the room in which it is located. 10

In testimony whereof I have affixed my sig-
nature in presence of two witnesses.

WILLIAM BUNTING, JR.

Witnesses:

E. A. PERPALL,

A. E. PERPALL.