

(No Model.)

2 Sheets—Sheet 1.

S. F. WILLIAMS.
BATH TUB.

No. 557,926.

Patented Apr. 7, 1896.

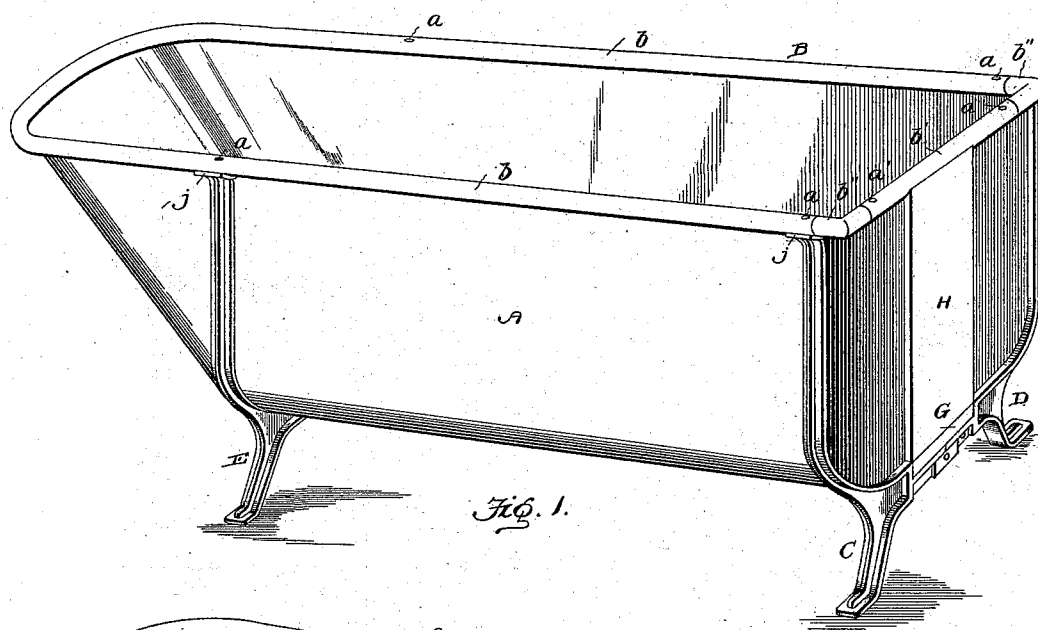


Fig. 1.

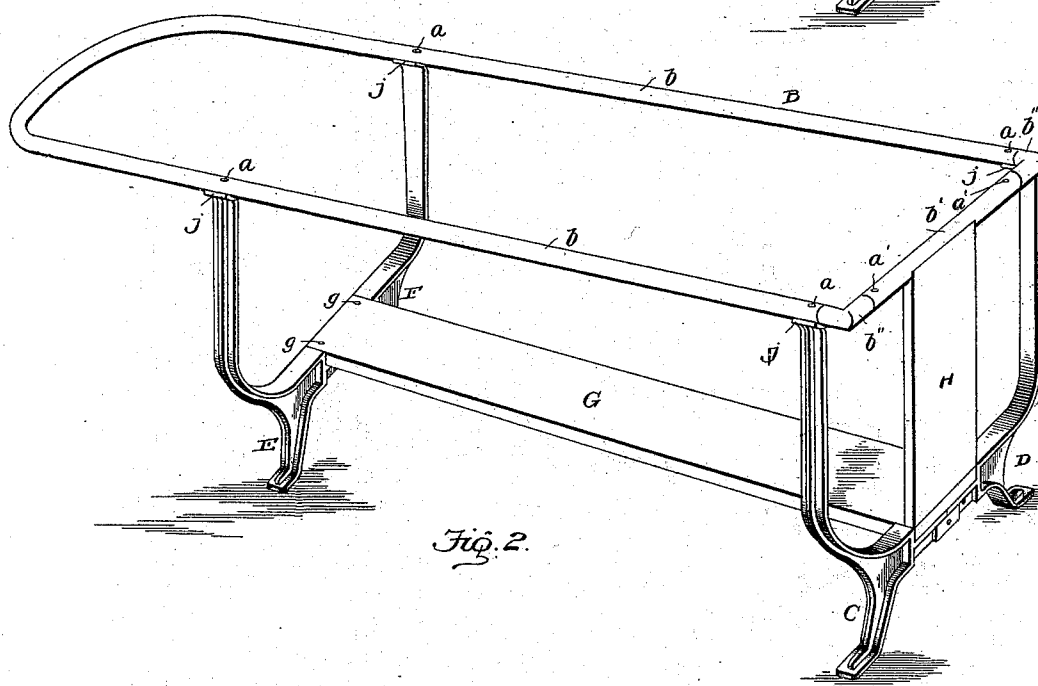


Fig. 2.

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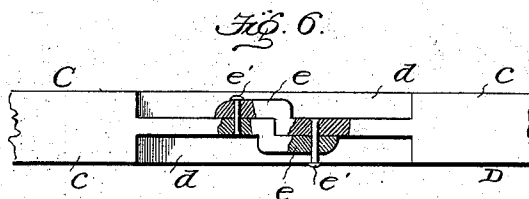
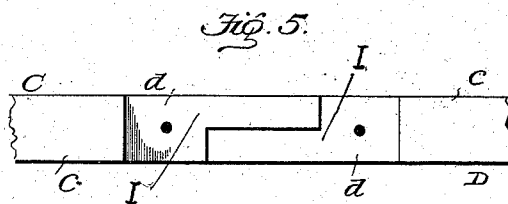
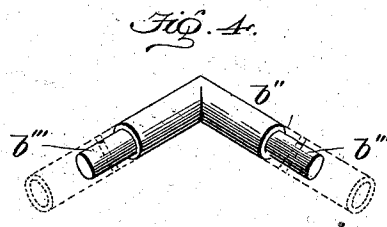
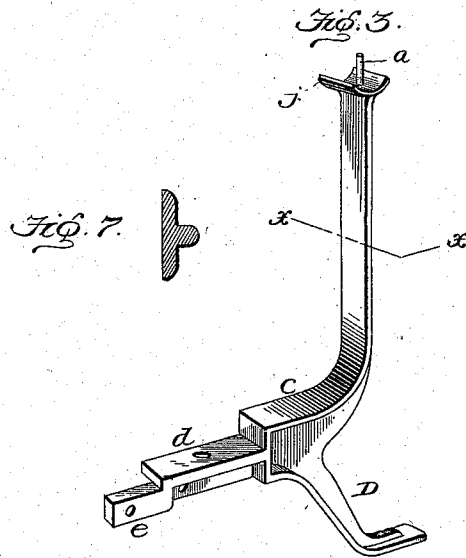
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2 Sheets—Sheet 2.

S. F. WILLIAMS.
BATH TUB.

No. 557,926.

Patented Apr. 7, 1896.



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UNITED STATES PATENT OFFICE.

SAMUEL F. WILLIAMS, OF SAN DIEGO, CALIFORNIA.

BATH-TUB.

SPECIFICATION forming part of Letters Patent No. 557,926, dated April 7, 1896.

Application filed September 26, 1895. Serial No. 563,766. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL F. WILLIAMS, a citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Bath-Tubs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to improvements in bath-tubs, and the construction is adapted to serve either as a portable or stationary tub.

The objects of my invention are, first, to provide a simple and cheap construction in which the legs are each cast in a single piece and so formed that they may be readily and accurately assembled together; secondly, to provide a means for securely holding the bottom board in place, upon which bottom board the tub is adapted to rest, and, thirdly, to dispense with the separate rim usually provided in bath-tubs around the top edge of the body thereof.

To the accomplishment of these ends, the invention consists in the novel combination of devices and in the construction and arrangement of parts, as will be hereinafter fully described and claimed.

To enable others to understand my invention, I have illustrated the preferred embodiment thereof in the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a perspective view of a complete bath-tub constructed in accordance with my invention. Fig. 2 is a perspective view of the framing of the tub, showing the bottom and the end boards in place, but with the body of the tub omitted for the sake of clearness in illustrating the framing. Fig. 3 is an enlarged detail perspective view of one of the legs to clearly illustrate the casting. Fig. 4 is a detail perspective view of the angular elbow which forms a part of the pipe-like top frame. Figs. 5 and 6 are detail views of the scarf-joint formation between the arms on the two legs at the place where they are coupled together. Fig. 7 is a detail cross-sectional view through the vertical part of the leg, on the plane indicated by the dotted line $x x$ of Fig. 3, to show the form of the leg which I prefer to use.

Like letters of reference denote correspond-

ing parts in all the figures of the drawings, referring to which—

A designates the body of the bath-tub, which in all essential particulars is similar to the common or any preferred type of bath-tub familiar to those skilled in the art, with the important exception, however, of the omission of the separate rim around its top edge, which is usually supplied to the bath-tubs as manufactured for the trade and placed on the market. In lieu of this separate rim, detachably fastened to the top edge of the body A, I fasten the upper edge of the body to a horizontal pipe-like frame B, the joint between the body A and the horizontal frame B being secured by soldering the body A to the frame B or by uniting said parts together in any equivalent manner.

The body A is supported by and within a metallic frame consisting of the horizontal top frame B, to which reference has just been made, the four legs C D E F, arranged in pairs near the ends of the body A, the bottom board G, and the end board H.

The horizontal top frame preferably consists of two pieces of pipe or tubing $b b'$ and the angular corner irons or unions $b'' b'''$. The pipe or tube b is long enough to form, when bent to the proper shape, the two sides and rounded end at the top edge of the body A, and the tube or pipe b' is a straight piece or length across the square end of the tub. The angle irons or unions b'' are each cast in a single piece, with the tenons b''' , which are of less diameter than the pipes or tubes $b b'$, whereby the ends of the tubes $b b'$ may be slipped or fitted over the tenons b''' of the angular unions. These tenons b''' and the ends of the pipes or tubes $b b'$ are perforated, and they are so adjusted relatively to one another that the apertures are alined to permit the rivets $a a'$ to be passed through said openings, whereby the parts of the top frame B are united securely together. The rivets or bolts a' between the straight end piece or tube b' and the unions b'' may be of any preferred kind; but the rivets a between the bent tube or pipe b and the angular unions are preferably attached to the upper ends of the legs C D E F, whereby the top frame B is rigidly secured to the legs of the tub-framing.

Each leg C D E F is cast in a single piece of metal in substantially the manner shown by the detail view, Fig. 3, of the drawings.

The leg shown by this figure has a horizontal offset cast thereon at an intermediate point of its length, as indicated by the letter *c*, and from this offset portion *c* extends a horizontal arm *d*, which arm is provided with the horizontal flange *e*. The arm *d* lies below the plane of the top edge or face of the offset *c*, and the flange *e* has one of its vertical faces cut away to form the squared space to receive the corresponding flanges *e* on the companion leg of the pair of legs, so that the two flanges are adapted to abut squarely together and form the scarf-joint between the horizontal arms of the pair of legs at one end of the tub.

The legs C D form one pair at one end of the tub, while the legs F E form the other pair of legs at the opposite end of the tub. The offsets and arms on the legs C E on one side of the tub project inwardly from the right-hand side of the legs C E, while the offsets and arms on the legs D F project from the left-hand sides of the legs D F, as shown by Fig. 2. By this construction and arrangement the flanges *e e* on the legs C D are adapted to overlap one another to form the scarf-joint, while the flanges *e e* on the legs F E form a similar scarf-joint between the legs F E.

When the legs are properly assembled together, the arms *d d* thereof fit flush to form the recesses or seats I I, and in these seats are fitted the ends of the horizontal bottom board G. On this board G rests the bottom of the tub-body A, which board is thus made to sustain the weight of the body A, and relieves, to a large extent, the strain on the joint between the top part of the body and the frame B.

The flanges *e e* of the legs are united solidly together by means of the rivets *e' e'*, which pass through the flanges, as shown by the detail view, Fig. 6, and the ends of the bottom board G are fastened to the legs by means of rivets or bolts *g g*, which pass through openings provided in the arms *d d* and said board G. The legs and the bottom board are thus solidly united together in a manner to enable the parts to be readily separated in case it is desired to pack or ship the bath-tub.

The end board H is placed in a vertical position at the end of the tub, between the straight end bar *b'* and the joint between the legs C D, said vertical board H being fastened in place in any suitable way.

Each leg of the tub-framing has a curved enlarged seat or socket *j* cast thereon, which seat conforms in shape to the pipe or tubing *b* of the top frame B, and from the center of this seat *j* rises the rivet *a*, which may be either integral with the seat *j* or made of malleable iron separate from the seat and suitably attached thereto. The tube or pipe *b* of the top frame B fits or rests snugly in these seats *j* on the upper ends of the legs, and said frame B is attached to the legs by means of the rivets *a'*, which pass through openings in the pipe or tube *b* and have their upper ends

headed down upon the pipe *b*, as will be readily understood.

I prefer to make the legs in the form of angle-iron, as shown in Fig. 7 of the drawings; but I would have it understood that I do not strictly confine myself to the particular configuration shown by the drawings, nor do I confine myself to making the top frame B in two pieces of tubing or pipe.

The parts of my bath-tub can be easily and readily assembled together, and the tub can be set up for use in an expeditious manner. The legs C D and E F are placed together so that the flanges *e e* overlap, and the flanges are then riveted or bolted together. The bottom board G is now placed in position and fastened to the arms *d d* of the legs, and the frame B is now applied to the seats *j* and fastened thereto by the rivets or bolts *a'*, after which the tub-body is placed in position within the framing to rest upon the board G, and the top edges of the body A are soldered or otherwise united to the top frame B without the use of a separate rim.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A bath-tub framing comprising the legs assembled in pairs, the legs of each pair having inwardly-extending arms coupled together by a scarf-joint, and said arms forming a seat to receive a bottom board, substantially as and for the purposes described.

2. In a bath-tub, a top frame comprising the bent tube or pipe *b*, a straight cross-pipe *b'*, and the angular unions having tenons to receive the ends of the two pipes, in combination with the legs having the seats *j* and the rivets *a*, and a body attached directly to the pipes or tubes of the top frame, substantially as and for the purposes described.

3. In a bath-tub, the legs arranged in pairs and each pair being joined together by arms which are recessed to form the seats, I, in combination with a board G having its ends secured in the seats, I, a top frame B united to the upper ends of the legs, and a body resting upon the board G and attached to the top frame B, substantially as and for the purposes described.

4. In a bath-tub, the two pairs of legs C, D, and E, F, each cast in a single piece with the offset *c*, the arm *d*, and flange *e* and adapted when assembled together to be united by the scarf-joint and form the seats I, in combination with a board G secured in the seats, the top frame B attached to the upper ends of the legs, and the body resting upon the bottom board and attached to the top frame, substantially as and for the purposes described.

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

SAMUEL F. WILLIAMS.

Witnesses:

CHARLES T. TICHBORNE,
F. F. TYLER.