March 15, 1932. J. C. CROMWELL 1,849,346

BATHTUB

Filed June 16, 1928 4 Sheets-Sheet 1

Fig. 1.

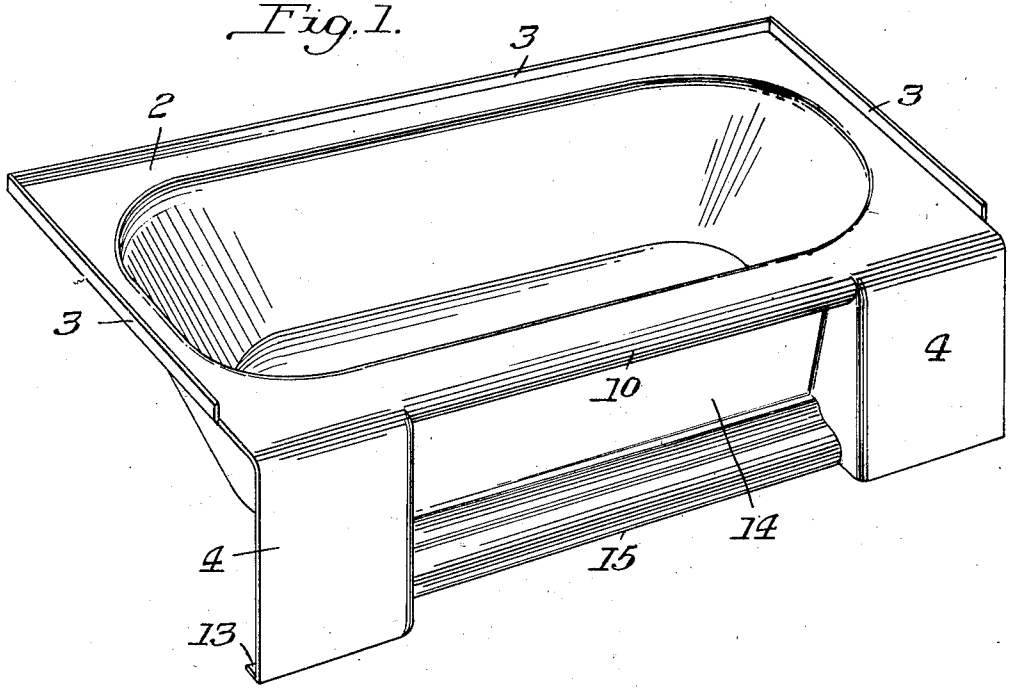
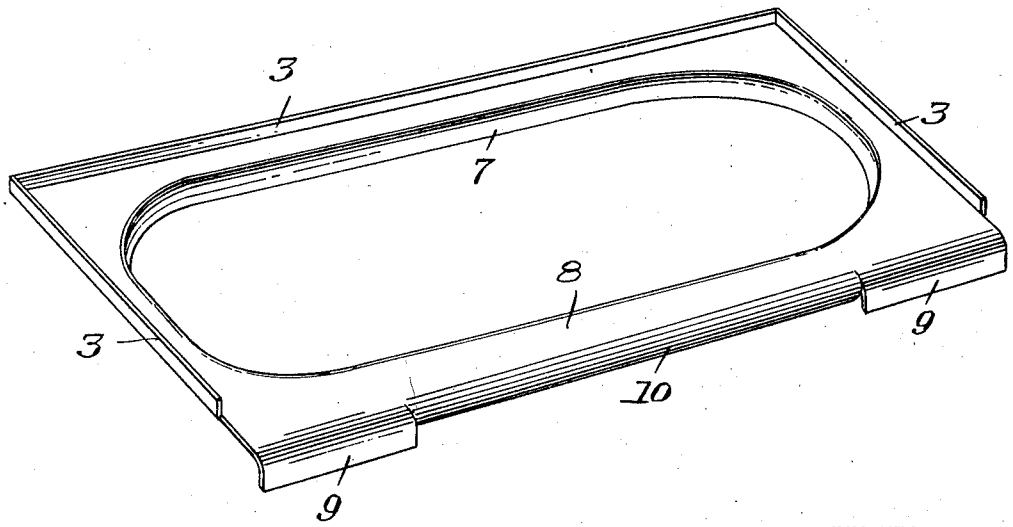


Fig. 2.



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March 15, 1932. J. C. CROMWELL 1,849,346

BATHTUB

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Fig. 3.

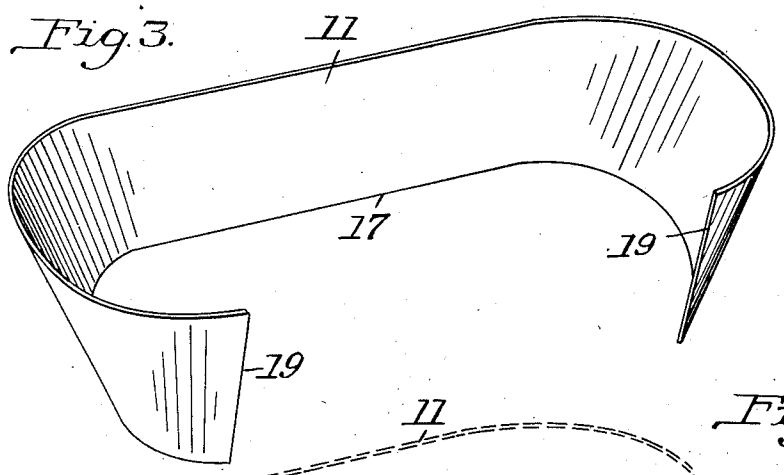


Fig. 4.

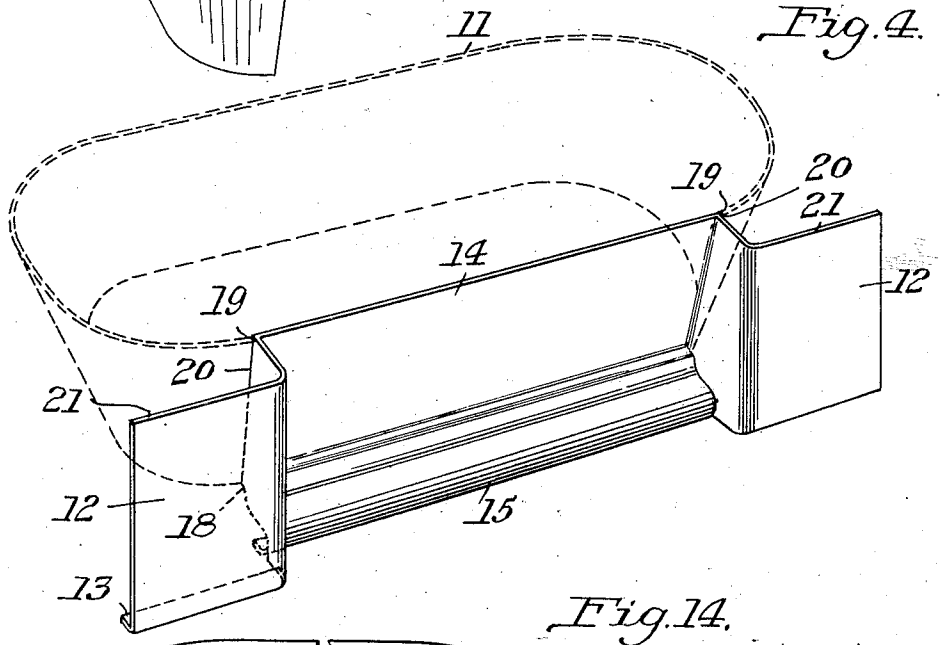
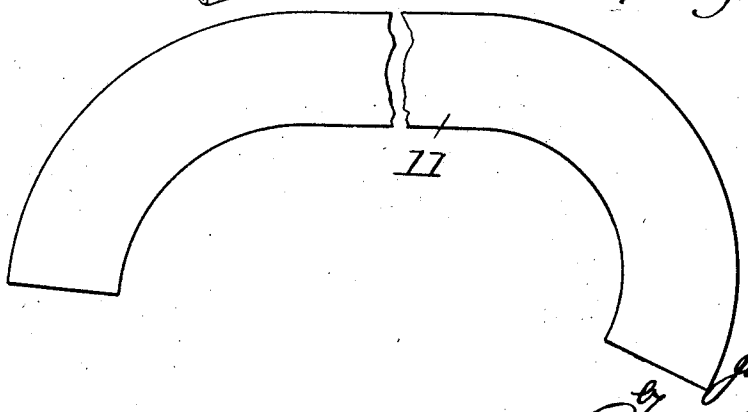


Fig. 14.



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BATHTUB

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Fig. 5.

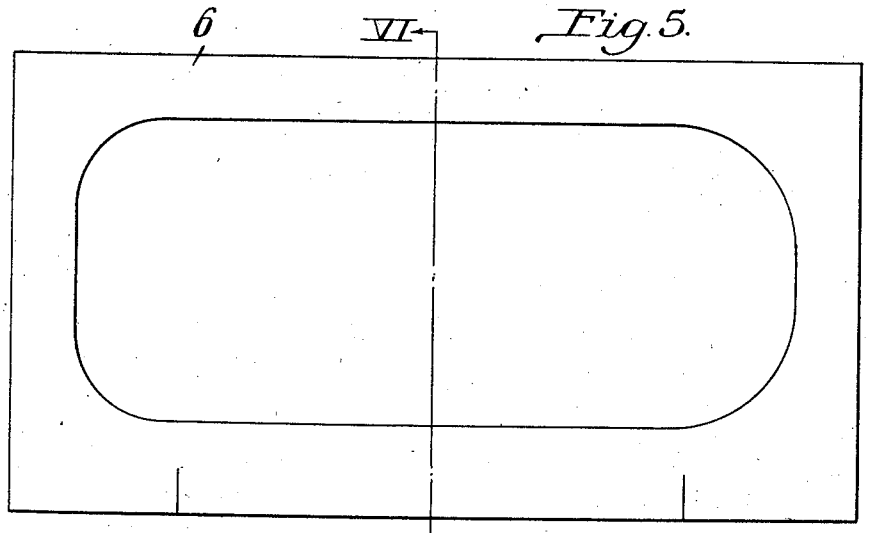


Fig. 6.

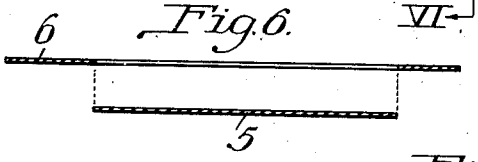


Fig. 7.

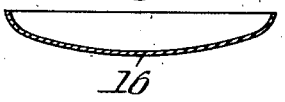


Fig. 8.

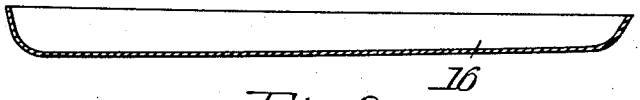
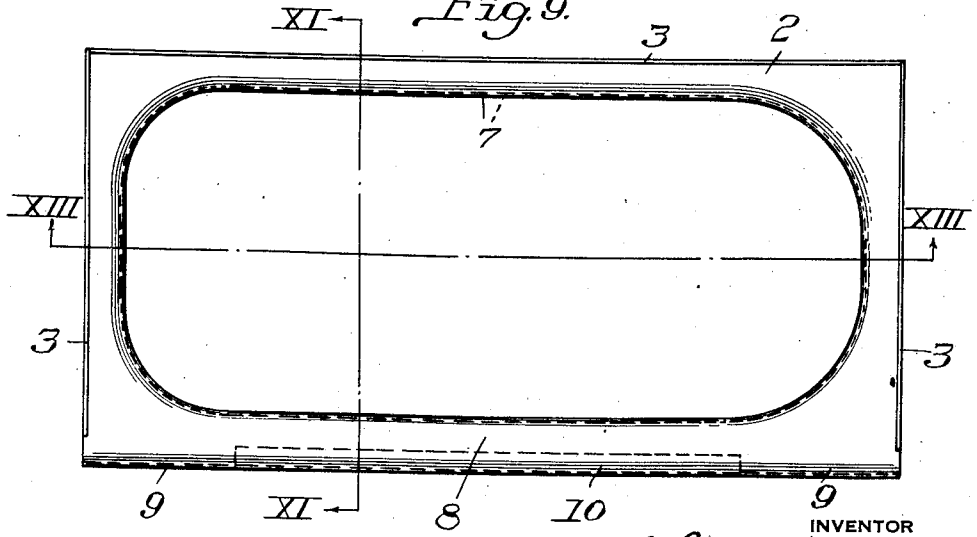


Fig. 9.



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BATHTUB

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Fig. 10.

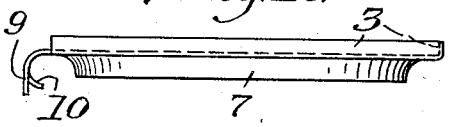


Fig. 11.

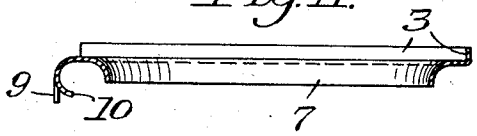


Fig. 12.

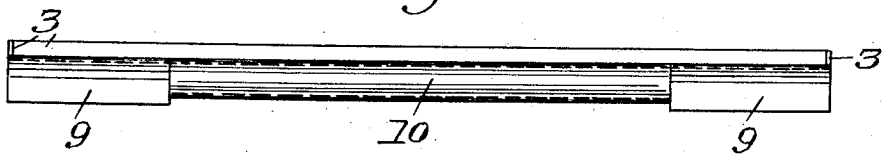


Fig. 13.

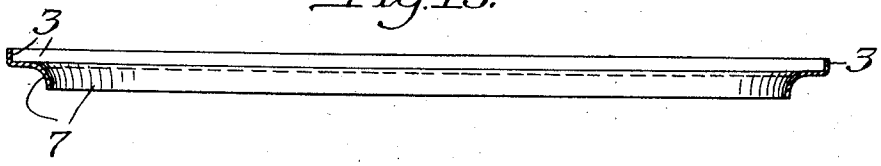
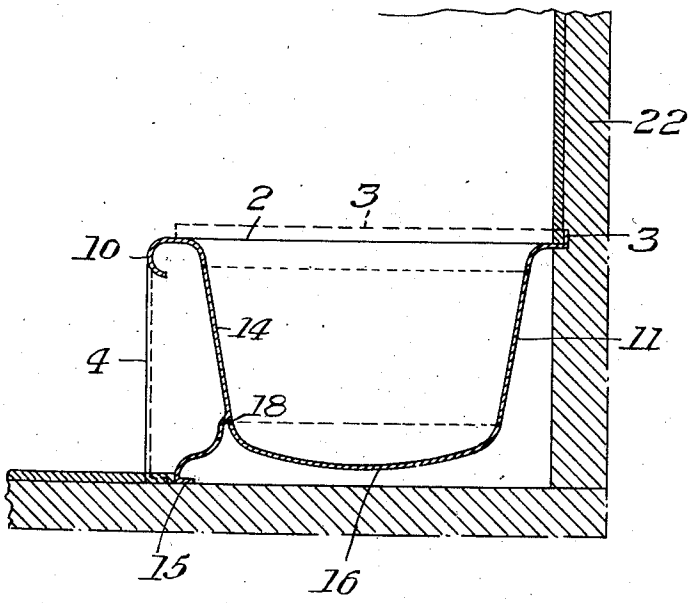


Fig. 15.



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Patented Mar. 15, 1932 1,849,346

UNITED STATES PATENT OFFICE

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BATHTUB

Application filed June 16, 1928. Serial No. 286,028.

The present invention relates broadly to an improvement in bath tub structures, and more particularly to a tub of the built-in type provided with pedestals, adapted to be made of cast metal or of sheet metal.

In the accompanying drawings I have illustrated a preferred embodiment of my invention, together with a preferred method of making the same.

In the drawings:

Figure 1 is a perspective view of a top structure in accordance with the present invention;

Figure 2 is a perspective view of a tub section adapted to be utilized in the formation of my improved tub when making it of any metal sections;

Figure 3 is a perspective view of the main body section;

Figure 4 is a perspective view of the pedestal and side forming section, the main body section being shown in dotted lines in cooperative relation thereto;

Figure 5 is a top plan view of the blank from which the section of Figure 2 is formed;

Figure 6 is a transverse sectional view on the line VI—VI of Figure 5 illustrating the bottom section punched therefrom;

Figure 7 is a transverse sectional view through the bottom section after it has been shaped;

Figure 8 is a longitudinal sectional view through the bottom section after it has been shaped;

Figure 9 is a top plan view of the top section after subjecting the same to a shaping operation;

Figure 10 is an end elevational view of the section of Figure 9;

Figure 11 is a transverse sectional view on the line XI—XI of Figure 9;

Figure 12 is a front edge elevational view of the section of Figure 9;

Figure 13 is a longitudinal sectional view on the line XII—XII of Figure 9;

Figure 14 is a plan view of the blank for forming the main body section of Figure 3; and

Figure 15 is a vertical transverse sectional view through a portion of a room having the tub of Figure 1 in position therein.

In accordance with the present invention there is produced a bath tub having a rim 2, from both ends and one side of which a reinforcing, water-restraining and anchoring flange 3 projects upwardly. Adjacent each end of the tub there is formed a pedestal 4, extending downwardly from the rim and offset with respect to the main body of the tub, as clearly indicated in Figure 1 of the drawings.

A tub of the general construction referred to may be formed either of cast metal or of sheet metal, and is herein termed, for sake of convenience, a single shell tub.

Due to the many advantages inherent in properly constructed sheet metal tubs, I prefer to manufacture my improved tub of sheet metal, and preferably of sections secured together by welding, whereby all deep drawing operations, together with the strains incidental thereto, are eliminated.

In accordance with the preferred method of carrying out the present invention, I utilize a substantially rectangular sheet of metal of the required dimensions, indicated generally in Figure 5 of the drawings, and punch therefrom a bottom forming section 5, as illustrated in Figure 6, thereby leaving a rim forming section 6 in the form of a continuous band or annulus. The rim forming section is then subjected to suitable dies to a shaping operation to provide the upstanding flange 3 thereon and to form a downturned edge 7 continuously around the punched opening. At the same time, the wider side 8 of the rim section is shaped to provide downturned end portions 9, as clearly indicated in Figure 2, and an intermediate downwardly and inwardly turned portion 10. The blank, after the shaping thereof, is illustrated in perspective in Figure 2 of the drawings.

To form the main body of the tub, I may utilize a body forming section 11, as illustrated in plan in Figure 14 of the drawings and shape the same around a suitable former, in any desired manner, to impart thereto the general contour illustrated in Figure 3.

For cooperation with the main body forming section 11, I subject a suitable blank to a shaping operation to form a combined pedestal and body forming section, as illustrated in Figure 4 of the drawings, such section having offset pedestal portions 12 thereon, each provided with an inturned reinforcing and supporting flange 13 at the lower edge. Intermediate the pedestal forming portions 12, the blank is offset to provide a portion 14, adapted to constitute a continuation of the main body section 11, as illustrated in Figure 4, and shaped to provide a supporting portion 15.

The bottom forming blank 5 removed by the punching operation, is then shaped in any desired manner, to form the bottom section 16 of Figures 7 and 8. Due to the relatively smaller dimension of the bottom of a bath tub, the section punched from the rim forming section provides sufficient metal for the construction of the bottom. After the four sections above described have been completed, they are assembled into the shape illustrated in Figure 1, in which position the bottom 16 abuts the bottom edge 17 on the body forming section 11, and the offset portion 18 on the pedestal and bottom forming section along a line extending substantially circumferentially of the top. The rim forming section 6 likewise abuts the sections referred to along their upper edges and along a substantially circumferentially extending line, lying in a plane generally parallel to the line first referred to. The ends 18 of the body forming section abut against the shoulders 19 of the combined pedestal and body forming section and constitute a continuation of the portion 14 of such section.

These parts may conveniently be secured together by welding along the circumferentially extending lines and along the ends of the body forming section. The downturned edges 9 of the top section also abut against the upper edges 20 of the pedestal forming sections to which they may be welded.

From the foregoing it will be apparent that I may form a complete tub from a series of easily produced sheet metal sections comprising a top section, a bottom section, a main body section, and a combined pedestal and body forming section, the bottom section of which is formed by the metal removed from the top section. The utilization of a single section for forming the front of the tub and the pedestals provides a tub of single shell construction, thereby greatly decreasing the weight of the finished article. This advantage is obtained in the manufacture of a sheet metal tub or a cast metal tub.

In the completed tub, the pedestal portions 4 impart a distinctive and attractive appearance in addition to cooperating with the walls of the room in which the tub is placed.

As clearly illustrated in Figure 15, the flange 3 on the top section is adapted to extend into, and to interlock with, a wall 21, thereby preventing movement of the tub relatively to the wall, and also providing such an abrupt change of section as to prevent the passage of water over the tub either by capillary attraction or under the influence of gravity.

While I have herein illustrated a preferred construction and a preferred method of making the same, it will be understood that changes in the construction and contour may be made without departing either from the spirit of my invention or the scope of my broader claims.

I claim:

1. As an article of manufacture, a sheet metal tub comprising a plurality of shaped sections, and pedestals formed thereon.

2. As an article of manufacture, a tub comprising a main body section forming one side and both ends of the tub, and a combined pedestal and body forming section forming the other side of the tub and secured to said first named section.

3. As an article of manufacture, a tub comprising a two-piece body portion, and pedestals integral with one only of the pieces constituting the body, there being a top section and a bottom section secured thereto.

4. As an article of manufacture, a single shell tub having a rim and having pedestals, said pedestals having the major portion thereof lying substantially in the plane of the edge of said rim and constituting a continuation thereof.

5. As an article of manufacture, a single shell tub having a rim and having a pedestal adjacent each end of the tub, said pedestals having a major portion thereof lying substantially in the plane of the edge of said rim and constituting substantially a continuation thereof.

6. As an article of manufacture, a single shell tub comprising a sheet metal body having sheet metal pedestals formed adjacent each end thereof.

7. As an article of manufacture, a sheet metal tub comprising a main body section forming the two ends and one side of the body, and a second section secured thereto and having pedestals formed thereon.

8. As an article of manufacture, a sheet metal tub comprising a main section forming the two ends and one side of the body, and a second section secured thereto and having pedestals formed thereon adjacent each end thereof.

9. As an article of manufacture, a sheet metal tub comprising a main body section forming the two ends and one side of the body, and a second section secured thereto and having pedestals formed thereon, said sections having a separate sheet metal rim common thereto.

10. As an article of manufacture, a sheet metal tub comprising a main body section forming the two ends and one side of the body, and a second section secured thereto and having pedestals formed thereon adjacent each end thereof, said sections having a separate sheet metal rim common thereto.

In testimony whereof I have hereunto set my hand.

JOHN C. CROMWELL.