

(No Model.)

G. BOOTH.  
BATH TUB.

No. 458,995.

Patented Sept. 8, 1891.

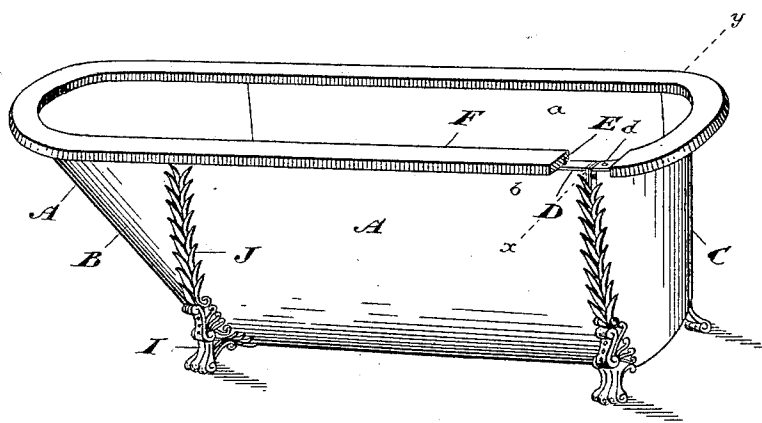


Fig. 1

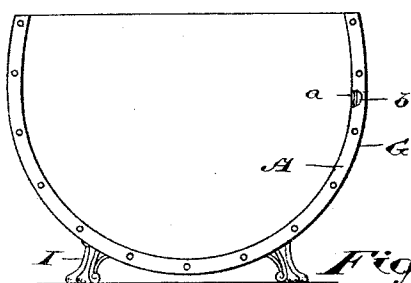


Fig. 2

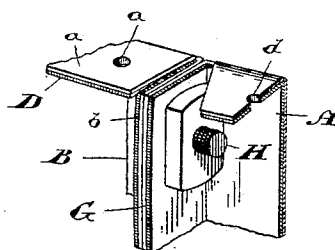


Fig. 3



Fig. 4

Witnesses

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# UNITED STATES PATENT OFFICE.

GEORGE BOOTH, OF TORONTO, CANADA.

## BATH-TUB.

SPECIFICATION forming part of Letters Patent No. 458,995, dated September 8, 1891.

Application filed December 31, 1890. Serial No. 376,368. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE BOOTH, copper-smith, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have  
5 invented a certain new and Improved Bath-Tub, of which the following is a specification.

The object of the invention is to construct a cheaply-made but practically indestructible bath-tub; and it consists, essentially, of a bath-tub composed of a casing made of light sheet-steel or such other light sheet metal as has a perfectly smooth surface, the said casing being lined with copper, aluminum, or other light flexible metal hammered, rolled, or pressed  
15 into close contact with the smooth inner surface of the casing, the said bath-tub being preferably made in three sections, each section having an outwardly-projecting flange formed on it to correspond with the flange on the section against which it abuts.  
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Figure 1 is a perspective view of my improved bath-tub, a portion of one of its legs and top being broken away to expose the formation of the flanges and joints between the  
25 sections. Fig. 2 is a sectional end view through X Y. Fig. 3 is an enlarged view showing the formation of the joints between the sections. Fig. 4 is an enlarged view showing the manner in which the inner lining is forced through the holes in the top flange of the outer casing.  
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In the drawings, A represents the center or body section of the bath-tub, B the head-section, and C the foot section. The outer casing of each section is preferably made of light sheet-steel, as the surface of sheet-steel is perfectly smooth, so that the inner lining *a* can be hammered, rolled, or pressed into close contact with its outer casing A. This inner lining *a* is made of copper, aluminum, or other light flexible metal. By using metal like sheet-steel with an absolutely smooth surface I am able to use an extremely thin lining *a*, which enables me to produce a highly-finished bath at a low price and which will be very light and portable.  
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I may mention here that it will not be possible to obtain the advantages of my invention with an outer casing made of cast metal, as owing to the shape of the bath the inner surface of the casing could not be made sufficiently smooth to receive the lining. Before

fitting the linings into the bath great care must be taken to see that the inside surface of the casing is made perfectly clean, as the slightest piece of dirt would destroy the perfect contact between the lining *a* and the casing *b*, which is necessary to enable the using of the extremely thin material which I employ for the lining.  
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It will be observed on reference to Fig. 2 that the top edges of the bath-tub are bent inwardly, so that the natural spring of the lining *a* has a tendency to hold the said lining closely against the outer casing *b*. Another advantage of this form is that it will deflect inwardly any water that may be splashed upon the sides, so that it will fall back in the tub, instead of falling outwardly onto the floor. A flange D is formed around the top edge of the bath-tub. The flange thus formed on the casing *b* has a series of holes *d* made in it. The lining *a* is likewise flanged and is secured to the casing *b* by being forced through each of the holes *d*.  
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Care must be taken to use a pointed or otherwise-shaped punch which will force the material of the lining *a* through the holes *d* without carrying away any of the material. (See Fig. 4.) In this way the lining *a* is kept in position and held closely to its casing *b*, keeping the lining and casing together before the tub is joined, so that the lining will not separate from its casing while being handled or in transportation.  
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In order to still further assist in holding the lining *a* in its position against its casing *b*, I provide a capping F, which I secure in position by screws E, passing through the holes *d*. This capping also covers any rough edges which may be formed by flanging the lining *a*, thereby protecting the bather from being scratched or otherwise inconvenienced. The end flanges G, formed on the section A, correspond with the flanges formed on the head and foot section, and all the flanges are made in the same way as the flanges D. The head-section B is secured to one end of the section A by the bolt H, and the foot-section C is secured to the opposite end of the section in a similar manner, the flanges of these sections abutting and bolted together forming substantial joints between the sections. These joints may be made water-tight by any suitable  
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means; but I prefer to fit in each joint after it is made with solder or similar material.

I may mention that a bath-tub made of a light sheet-metal casing lined with copper, aluminum, or other light flexible metal hammered, rolled, or pressed into close contact with its outer casing makes a practically indestructible bath-tub, which will always remain smooth and hard, as the lining fits the casing so tightly and closely that it cannot be bruised.

As the seams of the bath-tub made in three sections would be very unsightly, and as it is not desirable to incase a metal bath-tub with wood, I provide feet I, having legs J extending over and around the flanges and secured to the bath-tub immediately over and hiding said flanges. These legs not only hide the unsightly seams, but also serve to strengthen the bath-tub and enable it to be made of very light material.

What I claim as my invention is—

1. As an improved article of manufacture, a bath-tub composed of a smooth sheet-metal casing having a lining of copper, aluminum, or other light flexible metal hammered, rolled, or pressed into close contact with its outer casing, substantially as and for the purpose specified.

2. As an improved article of manufacture, a bath-tub composed of a smooth sheet-metal casing having a lining of copper, aluminum, or other light flexible metal hammered, rolled, or pressed into close contact with its outer casing, in combination with a capping extending over and secured to the upper edges of the bath-tub.

3. As an improved article of manufacture, a bath-tub composed of a smooth sheet-metal casing having a head, central, and foot sections, each section having a lining of copper, aluminum, or other light flexible metal, the central section having an outwardly-turned flange at each end and the head and foot sections corresponding flanges to allow the sections being securely fastened together, substantially as and for the purpose specified.

4. As an improved article of manufacture, a bath-tub composed of a smooth sheet-metal casing having a head, central, and foot sections, each section having a lining of copper,

aluminum, or other light flexible metal, the central section having an outwardly-turned flange at each end and the head and foot sections corresponding flanges and having perforations in the flanges to allow of their being securely fastened together, substantially as and for the purpose specified.

5. As an improved article of manufacture, a bath-tub composed of a smooth sheet-metal casing curved in cross-sections, so that its upper edges incline inwardly, a lining of copper, aluminum, or other light flexible metal being hammered, rolled, or pressed into close contact with its outer casing, substantially as and for the purpose specified.

6. As an improved article of manufacture, a bath-tub composed of three flanged smooth sheet-metal sections lined with copper, aluminum, or other light flexible metal, hammered, rolled, or pressed into close contact with its outer casing and secured thereto by forcing the lining through holes made in the flanges of the outer casing, substantially as and for the purpose specified.

7. As an improved article of manufacture, a bath-tub composed of three flanged smooth sheet-metal sections lined with copper, aluminum, or other light flexible metal hammered, rolled, or pressed into close contact with its outer casing, in combination with a capping extending over and secured to the flanges formed on the upper edges of the bath-tub, substantially as and for the purpose specified.

8. As an improved article of manufacture, a bath-tub composed of three flanged smooth sheet-metal sections lined with copper, aluminum, or other light flexible metal hammered, rolled, or pressed into close contact with its outer casing and secured thereto by forcing the lining through holes made in the flanges of the outer casing, in combination with a capping extending over and secured to the flanges formed on the upper edges of a bath-tub, substantially as and for the purpose specified.

Toronto, December 13, 1890.

GEORGE BOOTH.

In presence of—

CHARLES C. BALDWIN,  
JOHN E. CAMERON.