

(No Model.)

F. J. TORRANCE.

BATH TUB.

No. 327,973.

Patented Oct. 6, 1885

Fig 1

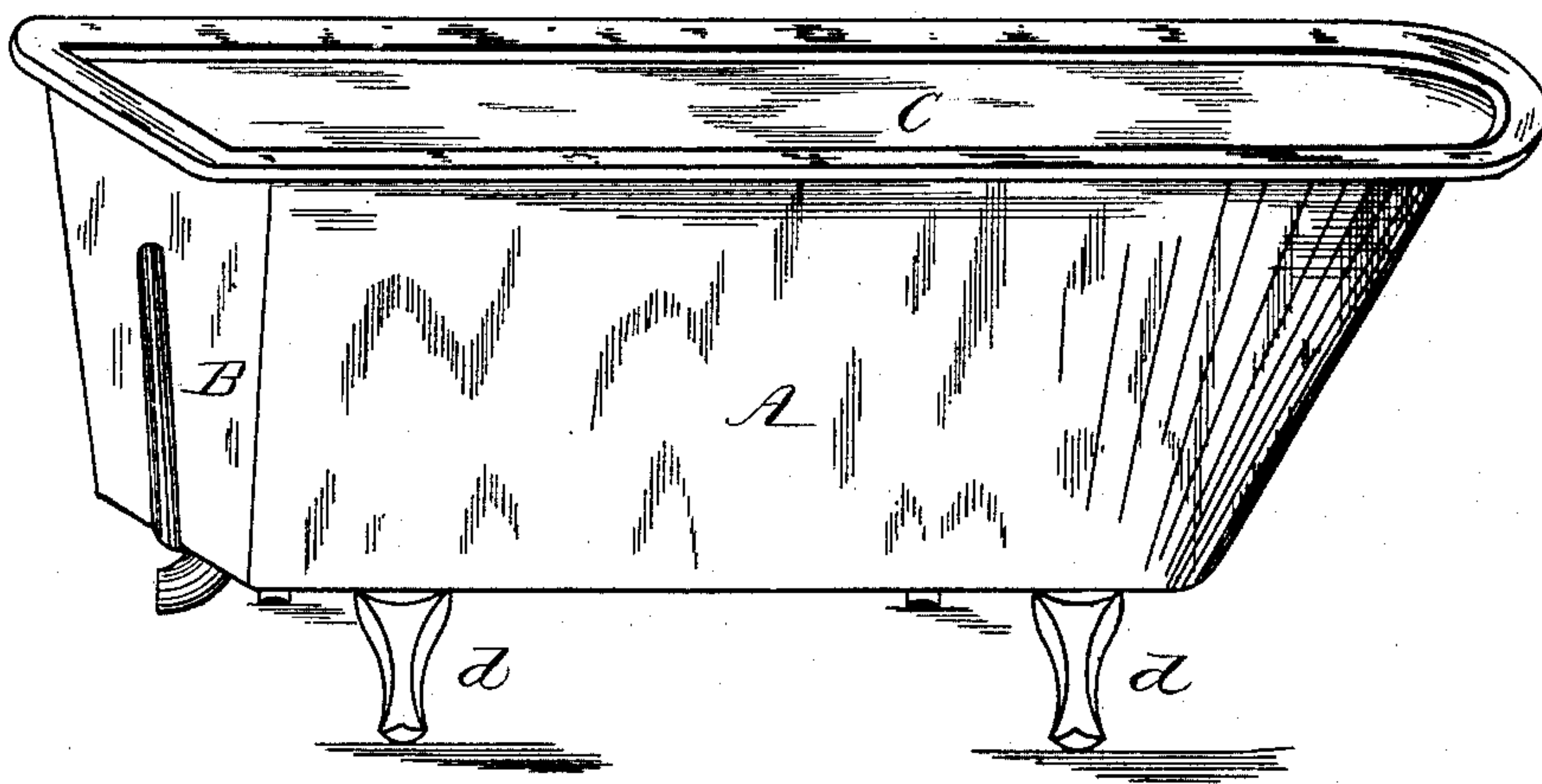
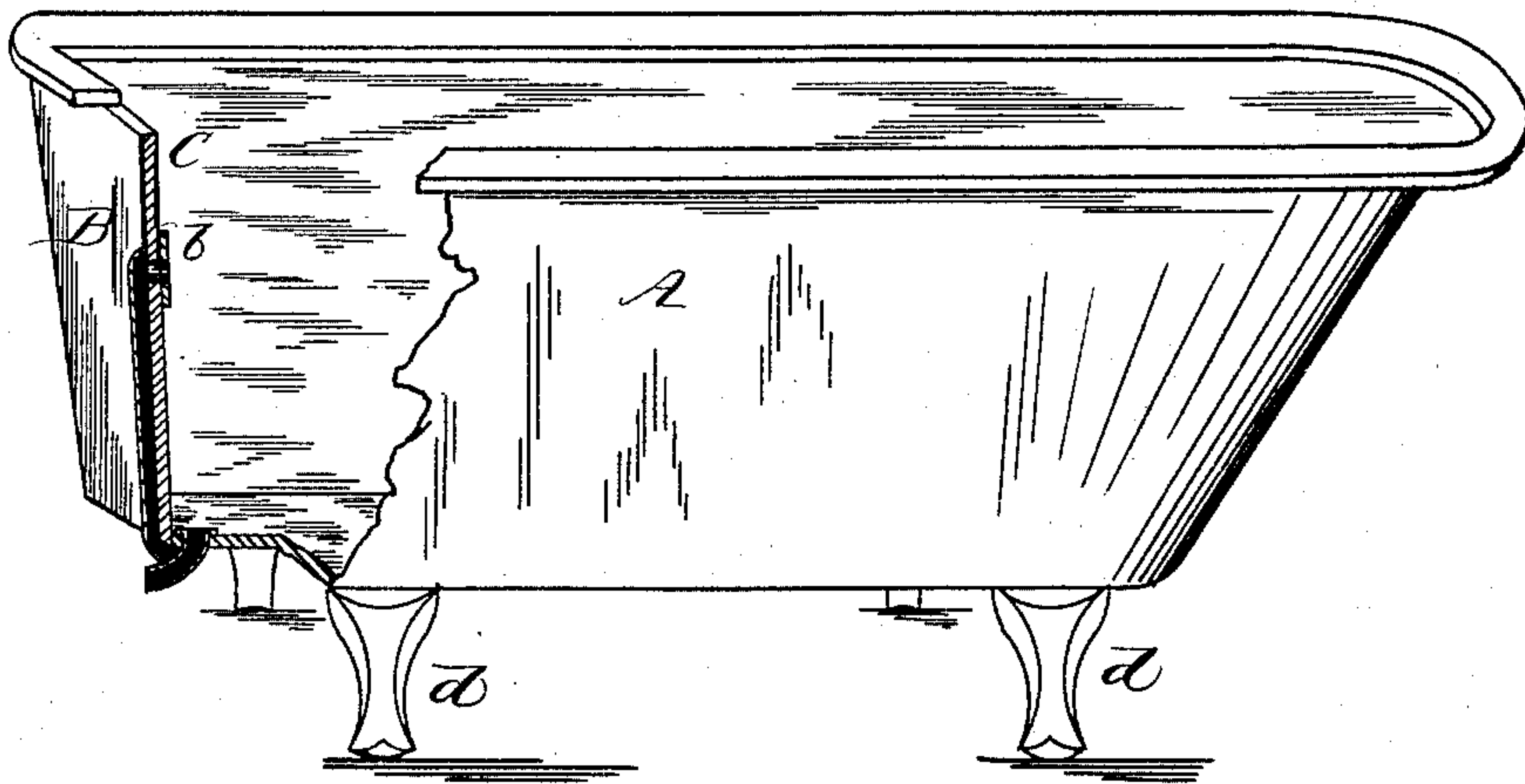


Fig 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANCIS J. TORRANCE, OF ALLEGHENY, PENNSYLVANIA.

BATH-TUB.

SPECIFICATION forming part of Letters Patent No. 327,973, dated October 6, 1885.

Application filed December 27, 1884. Serial No. 151,328. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS J. TORRANCE, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain
5 new and useful Improvements in Bath-Tubs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use
10 the same, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 is a perspective view of a bath-tub having my improvement. Fig. 2 is a
15 perspective view of the same, a portion being represented as broken away to show improvement in section.

This invention has relation to bathing-tubs of that class that are known as "cast" tubs,
20 and more particularly to those which are enameled or coated with a vitreous lining.

The object of this invention is to combine both a cast-iron and an enameled tub—that is to say, by my improved method of manufacture I am enabled to enamel the interior of
25 a cast-iron bath-tub having a cast-iron overflow made integral therewith.

My invention still further consists in a process of casting the tub and of applying the
30 interior enameled lining to the tub whereby I am enabled to apply the enamel without breaking or otherwise injuring the body or the cast overflow of the tub. It has heretofore been found impossible to enamel the interior of a cast-iron tub having the overflow-
35 pipe cast thereon, for the reason that in the process of enameling the tub it is necessary to bring the tub to a very high degree of heat, thereby expanding the metal of which the tub
40 and overflow is constructed, and while the cooling process is going on it has been found by a continuous line of practical experiments that the tub and overflow do not cool in the same period of time, the overflow, on account
45 of the comparatively small amount of metal therein, cooling much quicker than the body of the tub. As the cooling progresses the metal in the overflow contracts, and either splits the end of the tub or breaks the over-
50 flow at its junction with the tub, thus destroying the tub. To obviate this objection,

it has been found necessary to construct the tubs without the cast overflow, and to attach the same to the tub after the enameling process is completed. This manner of attaching
55 the overflow is objectionable on account of the constant danger of leakage at the point of juncture of the tub and the overflow.

My invention consists in the provision of an enameled cast-iron bath-tub, having an
60 overflow-pipe cast integral therewith, as a new article of manufacture.

In the manufacture of my new article I proceed as follows: I first cast the tub of the desired form, taking care to cast the overflow
65 of considerably less thickness than the body of the tub—that is to say, the wall of the overflow is of less thickness than the wall of the tub where the said overflow joins the same. I next proceed to enamel the interior of the
70 tub by means of the well-understood process of coating by means of a vitreous material under the action of intense heat. During the process of enameling the tub is of necessity heated to a high degree. After the enameling
75 has been accomplished the tub is allowed to cool, care being taken to allow, if possible, the end of the tub with the overflow cast thereon to be cooled as gradually as possible.

Referring to the accompanying drawings, 80
A represents the body of the tub, and B the overflow cast integral therewith, and having opening *b* into the tub, near the top of the same. C represents the enamel lining of the tub, and *d d* the legs or supports of the tub. 85

I am aware that bath-tubs have been constructed having the interior thereof enameled or coated with vitreous material, and I do not therefore broadly claim the same.

What I claim is— 90

As a new article of manufacture, a cast-iron bath-tub enameled interiorly, and having the overflow-pipe cast integral therewith and of less thickness than the body of the tub.

In testimony that I claim the foregoing as
95 my own I have hereto affixed my signature in presence of two witnesses.

FRANCIS J. TORRANCE.

Witnesses:

CHAS. R. WEITERSHAUSEN,
A. A. MOORE.