E. A. LELAND.

Pan for Water-Closet.

No. 166,209. Patented Aug. 3, 1875.

Fig 1.

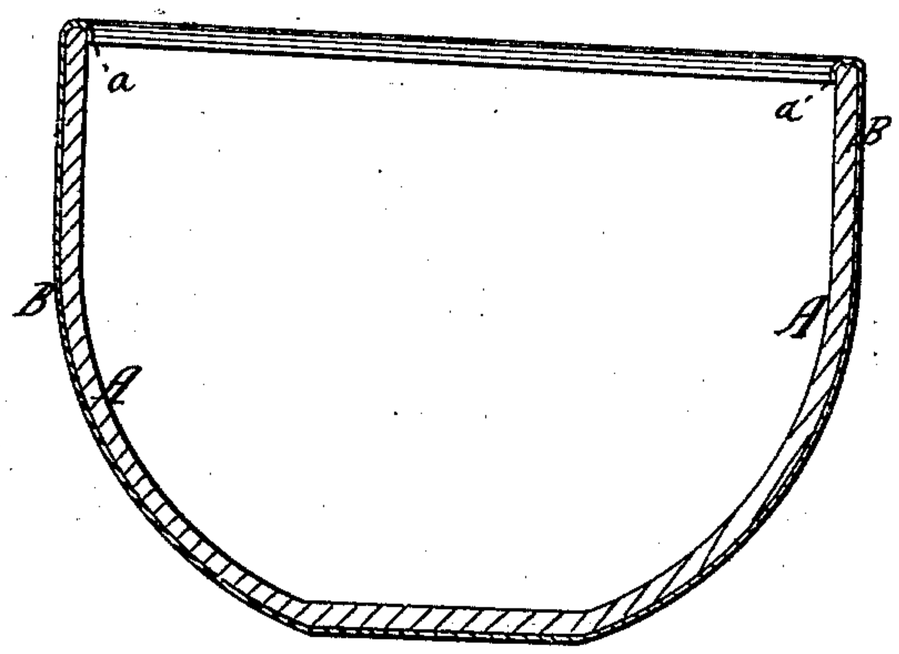
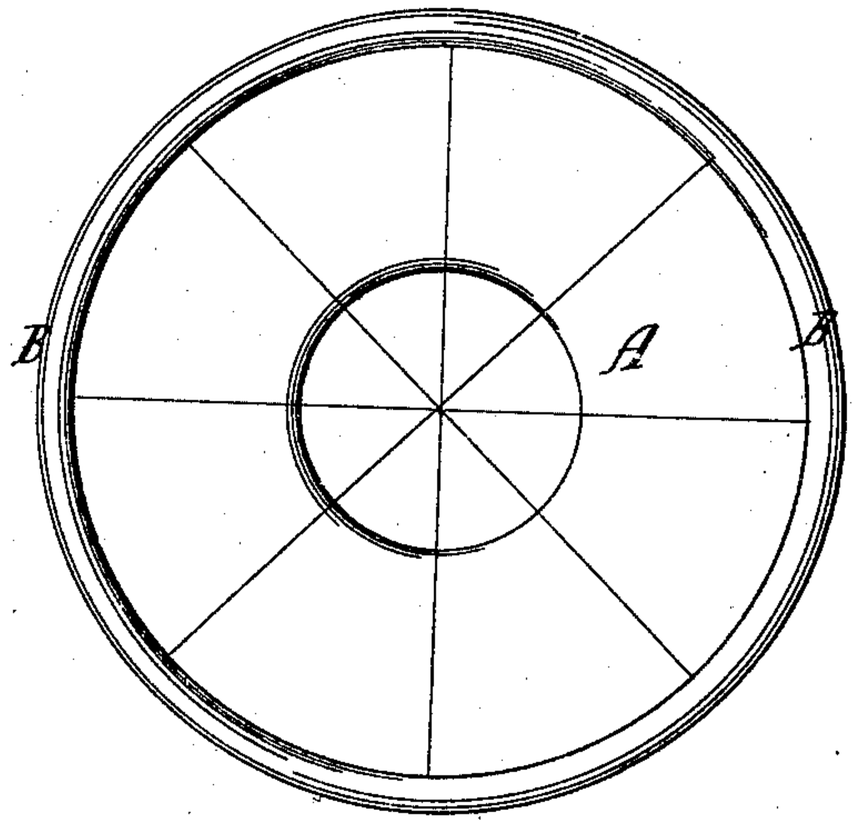


Fig 2.



Witnesses:

W. M. Edwards

H. Wells Jr.

Inventor:

Edwin A. Leland

per James A. Whitney

Atty.

UNITED STATES PATENT OFFICE.

EDWIN A. LELAND, OF PITTSFIELD, MASSACHUSETTS, ASSIGNOR TO LEONARD RICHARDSON, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN PANS FOR WATER-CLOSETS.

Specification forming part of Letters Patent No. **166,209**, dated August 3, 1875; application filed June 5, 1875.

To all whom it may concern:

Be it known that I, EDWIN A. LELAND, of Pittsfield, in the county of Berkshire and State of Massachusetts, have invented an Improvement in Pans for Water-Closets, of which the following is a specification:

The ordinary sheet-metal pan of water-closets is subject to excessive corrosion, in many places not lasting more than from three months to a year, and necessitating constant expense and inconvenience for repairs or replacement. It has been sought to remedy this by the construction of metal pans lined with enamel fixed upon the surface of the metal in the ordinary manner of enameling; but this has been found to crack and scale to an extent sufficient to more than neutralize its theoretic advantages, and the old and perishable sheet-metal pan is still the only one employed by plumbers in the construction and repair of water-closets. The pans made wholly of earthenware, as proposed in certain English patents, are, from their frangible character, unfitted for the rough usage, jarring, &c., to which the operation of the pan in the working of the water-closet apparatus necessarily subjects them.

My invention is designed to provide an efficient remedy for the drawbacks just hereinbefore set forth; and to this end it comprises a water-closet pan constructed with a porcelain inner portion surrounded by a shell of sheet metal, the upper edges of which are lapped over the edges of the porcelain in such manner as to serve the double purpose of confining the porcelain within the shell, and of protecting the edge of the porcelain from mechanical injury from contact with adjacent parts of the water-closet apparatus, there being by this means provided a pan combining the incorruptibility of porcelain with the resistance to fracture inherent in sheet metal.

Figure 1 is a central vertical sectional view of a water-closet pan made according to my invention; and Fig. 2 is a plan view, representing a modification of the same.

In the manufacture of my improved pans I provide a porcelain vessel, A, having the form, size, and configuration of the pan desired; or, in lieu of porcelain, I use earthenware of any suitable kind for the vessel A. I also provide a vessel, B, of like shape, of sheet copper or zinc, or other suitable sheet metal, of sufficient capacity to receive the vessel A within it, with the edges of the sheet metal projecting a requisite distance beyond the porcelain. I preferably seat the porcelain vessel within the sheet-metal vessel with plaster-of-paris; but this latter, when desired, may be dispensed with, the porcelain in this latter case being simply set snug within the sheet metal. This done, I place the whole in a suitable lathe or apparatus, and spin the edge of the sheet metal inward and downward over the edge of the porcelain, as represented at *a*, the inwardly-turned sheet-metal edge confining the vessel A snugly within the vessel B, and at the same time protecting the edge of the former from the effect of blows, and violent contact with adjacent parts of the water-closet apparatus during the operation or movement of the pan. The pan, as thus formed, is ready for market, being applied to use by soldering or otherwise attaching it, in the usual manner of water-closet pans, to the rock-shaft on which such pans are ordinarily supported. The porcelain vessel, being practicably incapable of corrosion, insures the permanence of the pan against all chemical action from the substances passed through it, and the sheet metal, being external to the pan, and therefore out of all contact with the corrosive liquids, is enabled to give mechanical strength and durability to the whole.

Instead of forming the vessel A in a single piece, as hereinbefore described, and shown in Fig. 1, it may be formed in sections, as represented in Fig. 2, the joints between the sections being luted by any appropriate cement.

What I claim as my invention is—

The water-closet pan constructed with the inner portion A of porcelain, and the outer portion B of sheet metal, the edge of the sheet metal being lapped or spun over the edge of the porcelain, substantially as and for the purpose herein set forth.

EDWIN A. LELAND.

Attest:
W. M. EDWARD,
H. WELLS, Jr.