(No Model.)

J. HALE.

SHEET METAL VESSEL.

No. 255,165. Patented Mar. 21, 1882.

Fig. 1.

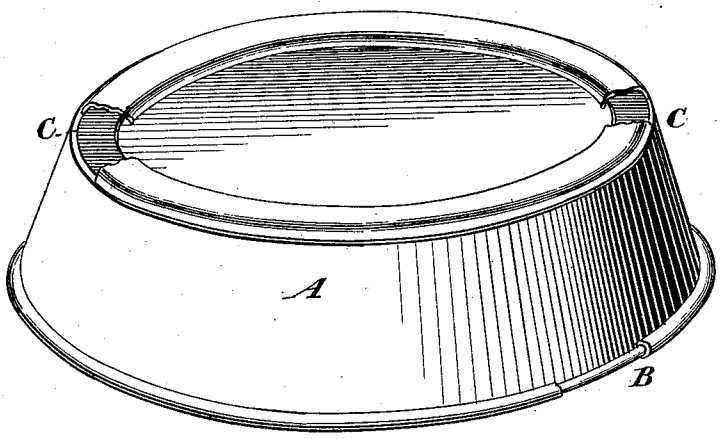
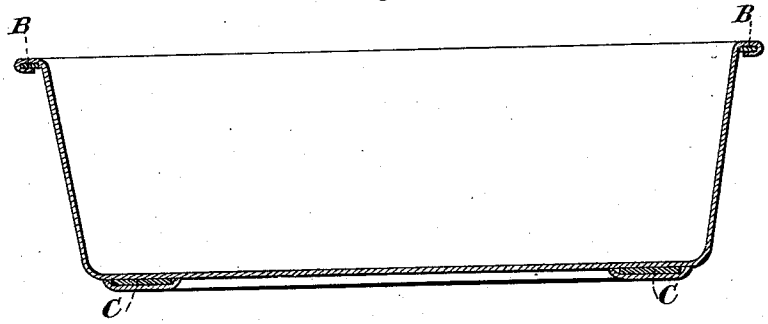


Fig. 2.



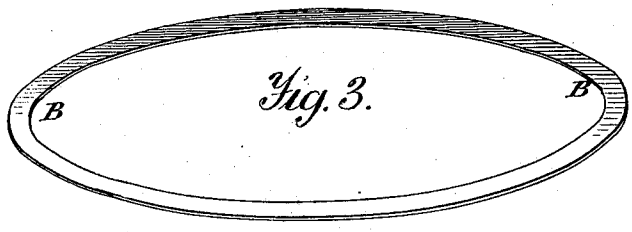


Fig. 3.

Witnesses.
A. Ruppert.
S. W. Baldwin

Jos. Hale
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UNITED STATES PATENT OFFICE.

JOSEPH HALE, OF CHEBOYGAN, MICHIGAN.

SHEET-METAL VESSEL.

SPECIFICATION forming part of Letters Patent No. 255,165, dated March 21, 1882.

Application filed December 14, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH HALE, a citizen of the United States, residing at Cheboygan, in the county of Cheboygan and State of Michigan, have invented certain new and useful Improvements in Sheet-Metal Vessels; 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, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to the manufacture of vessels made of tin, sheet-iron, or other corrosive metal; and the object of my improvement is the production of sheet-metal vessels, for household and other purposes, having rings of zinc placed around their upper and lower surfaces, applied to them in such a manner as to prevent the corrosion of the metal of which they are composed. I attain this object by the construction shown in the drawings accompanying this specification, in which—

Figure 1 is a perspective view, showing a sheet-metal vessel having a wire made of zinc secured to its upper edge and a ring of the same metal placed upon the bottom thereof and covered with tin, portions of which are broken away to show the zinc, as is also a portion of the metal covering the wire around the top of the vessel. Fig. 2 is a sectional elevation, showing a flat ring of zinc around the top of the vessel and a ring upon its bottom covered with tin or other sheet metal, and Fig. 3 is a perspective view of a ring of zinc suitable to be placed on the upper edge of the vessel.

Similar letters refer to similar parts throughout the several views.

It is well known that vessels made of tin or sheet-iron for containing liquids, or which are exposed to water or to the atmosphere, soon become corroded, and thus rendered worthless before they are worn out by use, and it has been proven that when zinc is applied to such vessels the effect produced is to prevent such corrosion. My object, therefore, is to produce, as a new article of manufacture, vessels made principally of corrosive metal, the upper and lower parts of which shall have permanently applied to them zinc in such a manner as to cause it to prevent corrosive action from occurring in the vessel, but at the same time strengthen the vessel and protect it from wear.

In constructing vessels in accordance with my method, I use sheets of tin or iron, and put them into such form as to cause them to produce a vessel of the desired form—as, for instance, a pail, pan, cup, or other vessel—one form of such vessel being shown at A. Around the top of such vessel there is placed a ring of round or flat zinc, as shown at B in Figs. 1 and 2. This ring is held in position by bending the upper edge of the vessel over it in the same way as iron wire is usually held in similar positions. It serves to protect the upper portion of the vessel from corrosion, and at the same time adds strength thereto. For the purpose of protecting the bottom of the vessel from corrosion, and at the same time from wear, there is placed upon it a ring, C, of zinc, which is, by preference, made flat, but which may be round, it being in either case covered, or partially covered, with sheet metal, which is soldered or riveted to the bottom of the vessel.

Instead of using the ring upon the bottom of the vessel, disks of zinc may be placed in different positions and covered with sheet metal, their effect being similar to that produced by the ring.

I am aware that it is not a novel feature to apply metal plates of zinc to depressions formed in the bottom of a sheet-iron vessel and to solder them therein, such a method of construction being shown in a patent granted to Thomas Evans on the 19th December, 1876, No. 185,435, and hence I do not claim the application of zinc to corrosive vessels independent of the manner of applying it; but,

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

As an article of manufacture, a sheet-metal vessel of iron or other metal subject to the corrosive action of air or liquids, having around its upper portions a ring of zinc held in position by bending over it the upper edge of the body of the vessel and upon its lower surface a ring of zinc covered and held in position by a plate of sheet metal soldered to the vessel, all substantially as shown and described, and for the purpose set forth.

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

JOSEPH HALE.

Witnesses:
D. D. McDONALD,
I. J. STEWARD.