J. S. WATT.
Sheet-Metal Vessel.

No. 211,813. Patented Jan. 28, 1879.

Fig. 1.

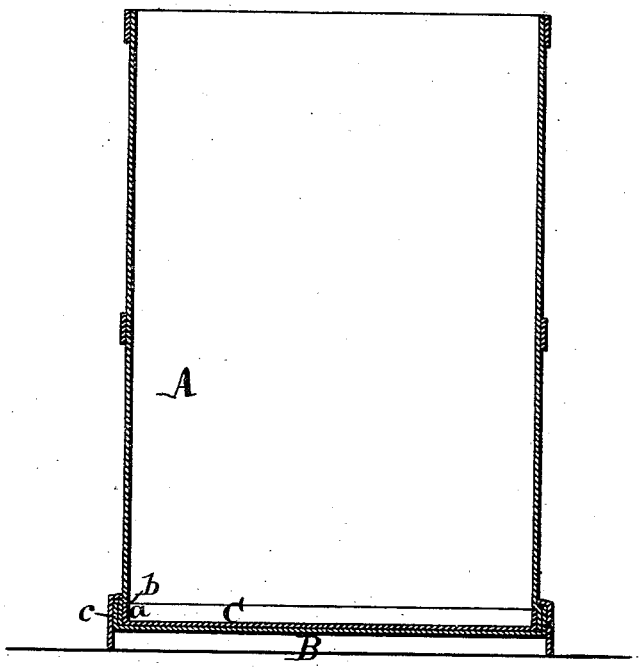
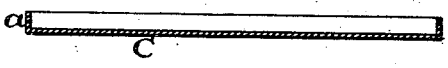


Fig. 2.



Witnesses.
Chas. Wahlers.
W. C. Hauff

Inventor.
James S. Watt.
by his attys.
Van Santvoord & Hauff

UNITED STATES PATENT OFFICE.

JAMES S. WATT, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SHEET-METAL VESSELS.

Specification forming part of Letters Patent No. **211,813**, dated January 28, 1879; application filed August 1, 1878.

To all whom it may concern:

Be it known that I, JAMES S. WATT, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Sheet-Metal Vessels, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a vertical central section. Fig. 2 is a detached section of my anti-corrosive bottom.

Similar letters indicate corresponding parts.

This invention consists in the combination, with a sheet-metal vessel, of a secondary anti-corrosive bottom, which is provided with a raised flange or rim, and soldered or otherwise secured in the interior of the vessel, close to its regular bottom, so that if the vessel is filled with a liquid containing traces of sulphuric acid, or of any other material liable to corrode the metal from which said vessel is constructed, such corrosive action is prevented by my secondary bottom, the body of the vessel being provided with a circular recess to receive the flange of the anti-corrosive bottom, so that when this bottom has been secured in position the inner surface of the vessel appears to be unbroken, and the sulphuric acid or other corrosive material precipitates on the anti-corrosive bottom without injuring the body of the vessel.

My invention is designed particularly for petroleum-cans; but it can be applied to cans intended for spirits of turpentine or other liquids.

It is a well-known fact that petroleum, after having been refined, contains traces of sulphuric acid, and when petroleum is put into sheet-metal cans and allowed to stand for some time, the sulphuric acid settles down on the bottom of such vessel and produces corrosion, the bottom of the vessel becomes leaky, and the can has to be repaired or exchanged for a new one. In many cases—for instance, in the light-houses of the United States, where petroleum is generally used—such repairs or exchanges are a source of great trouble and expense, which, however, is avoided by my invention.

In the drawings, the letter A designates the body of a sheet-metal can, of any suitable form or shape, and made of tinned sheet-iron, galvanized iron, or other material generally used for petroleum-cans, or for vessels of a similar nature. With this body is combined a bottom, B, made of the same material, and fastened thereto in the manner best adapted for the purpose. With this regular bottom B is combined a secondary bottom, C, which is made of sheet-lead, and provided with a vertical flange or rim, *a*, which fits the inside of the body A, and is secured to the same by solder or any other suitable means.

In order to preserve an unbroken surface in the body A, I provide this body at its bottom end with a circular recess, *b*, adapted to receive the flange or rim *a*, as shown in Fig. 1. In this case the anti-corrosive bottom C is introduced from below before the regular bottom B has been applied, said regular bottom being provided with a rim, *c*, which fits the outside of the lower portion of the body A.

If a can of this class is filled with petroleum, the traces of sulphuric acid contained therein precipitate on the inner lead bottom, C, and the main bottom B, as well as the sides of the body A, are protected against the corrosive action of the sulphuric acid, such action taking place when the sulphuric acid precipitates, and not while the same is diffused throughout the entire mass of the petroleum.

The material which I use for my anti-corrosive bottom must, of course, be selected according to the liquid to the action of which it will be exposed.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, with the body A and with its anti-corrosive secondary bottom, C, of a circular recess, *b*, formed in said body, and adapted to receive the rim or flange *a* of the anti-corrosive bottom C, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 27th day of July, 1878.

JAMES S. WATT. [L. S.]

Witnesses:

W. HAUFF,

CHAS. WAHLERS.