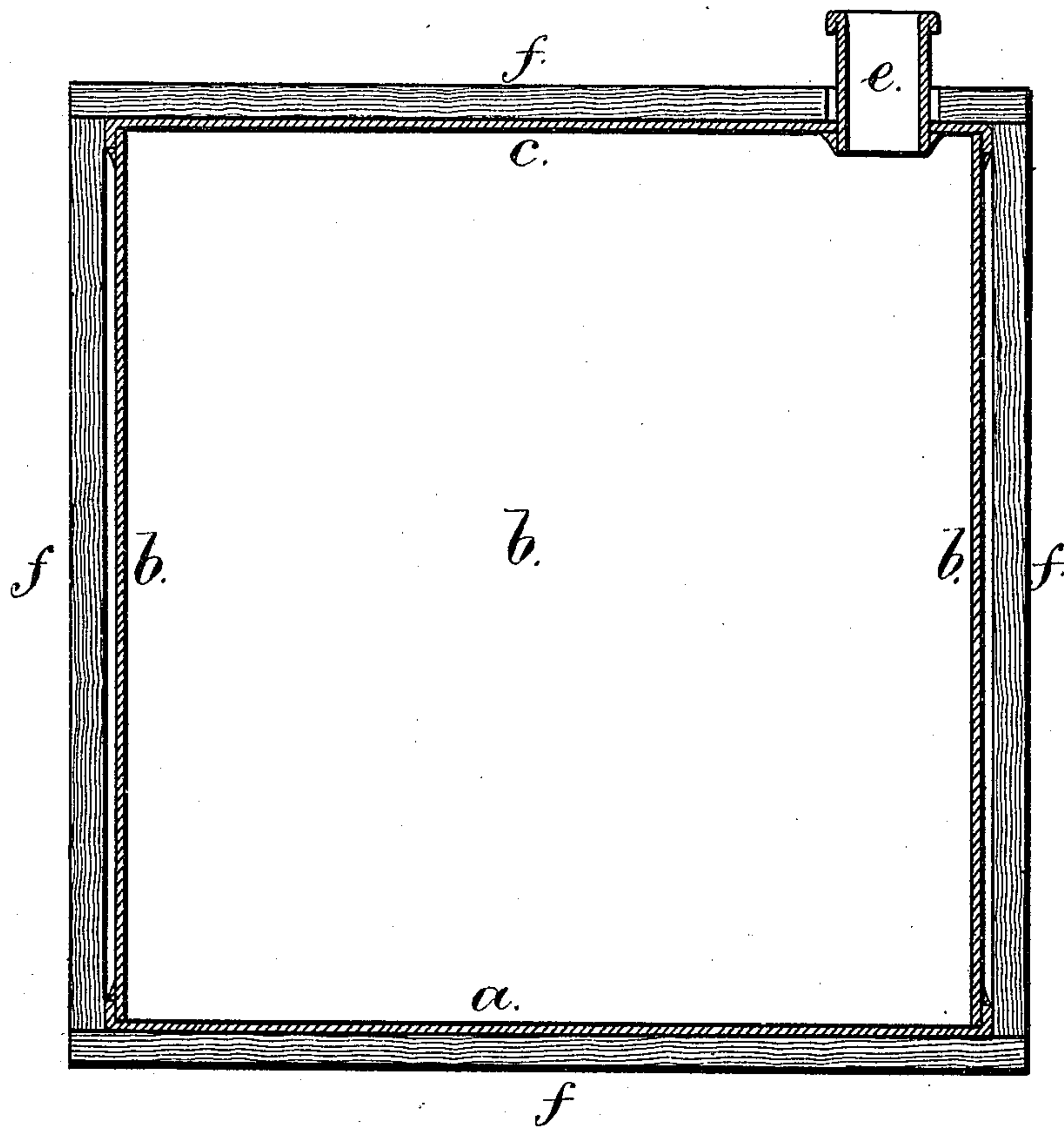


W. H. NICHOLS.
SULPHURIC ACID PACKAGES.

No. 175,734.

Patented April 4, 1876.



Witnesses

Chas H. Smith
Herold L. L. L.

Inventor

William H. Nichols

per Lemuel W. Penell
att'y.

UNITED STATES PATENT OFFICE.

WILLIAM H. NICHOLS, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SULPHURIC-ACID PACKAGES.

Specification forming part of Letters Patent No. **175,734**, dated April 4, 1876; application filed November 13, 1875.

To all whom it may concern:

Be it known that I, WILLIAM H. NICHOLS, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Packages for Sulphuric Acid and other liquids, of which the following is a specification:

Sulphuric acid is usually placed, for shipment or storage, in glass vessels, known as "carboys," and these are contained in wooden packages or boxes. These carboys are expensive, liable to be broken, cumbersome, and heavy; but heretofore no other suitable package has been employed that is adapted to such acids and substances.

I make use of a metallic box, can, or package, that is made with special reference to withstanding the effects of sulphuric acid; but the said package may be used for other liquids.

I make the can or package of sheet-iron, coated with lead, and the edges of the sheets united by melted lead, in the manner known as "burning" or "sweating." The sheets or pieces of iron are cut out of the shape required for the can or package, and then coated with lead by any of the known cleaning, scouring, and dipping methods, so as to coat the surfaces and edges in the most thorough manner. This is preferable to cutting out the sheet metal after it has been coated, in which case the edges would not be protected.

The shape and size of the can or package may vary; but in all instances melted lead is to be used for uniting the edges of the material together, because the tin that there is in ordinary solder would yield to the action of the acid, rendering the package useless.

An opening and neck, with a suitable stopper, is to be provided, preferably in the top, near one edge or angle.

In the drawing I have shown a vertical section through the pouring-neck.

a is the bottom; *b*, the sides, and *c* the top, made of sheet-iron, coated with lead, and united together by melted lead. *e* is the pouring-neck, with a removable stopper, of rubber or other suitable material.

I am aware that sheet-iron has been coated with lead; also, that sheet-iron articles have been made up in the form of barrels and other vessels, and then coated with lead. Neither of these devices alone is adapted to making a package for sulphuric acid, because if any portions of the surface or edges of the iron are exposed the acid will eat the iron away and destroy the vessel. It is therefore necessary to inspect the entire surface and edges of the iron, to be sure that it is thoroughly covered with lead before the pieces are joined together with melted lead.

A wooden box, *f*, should be used to inclose the package, and to the same handles can be attached.

I claim as my invention—

A package for sulphuric acid and other liquids, made of sheet-iron, with the surfaces and edges of the pieces of sheet-iron coated with lead, and then united together by melted lead, as set forth.

Signed by me this 12th day of November, A. D. 1875.

W. H. NICHOLS.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.