

H. B. HALL.

Packages for Caustic Soda or Alkali.

No. 139,955.

Patented June 17, 1873.

Fig. 1.

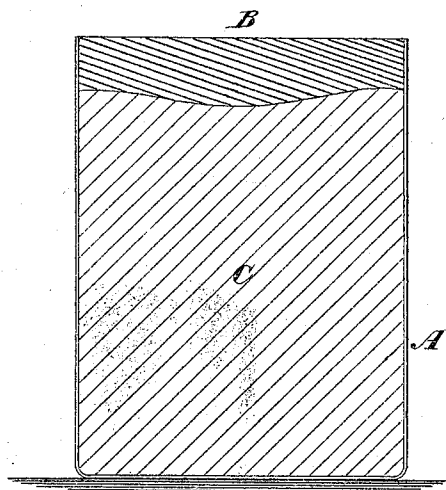
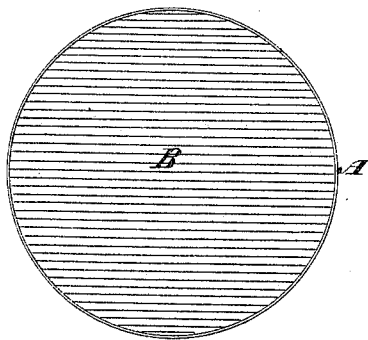


Fig. 2.



Witnesses:

C. Sedgwick
H. W. Munro.

Inventor:

H. B. Hall

Per

Munro

Attorneys.

UNITED STATES PATENT OFFICE.

HENRY B. HALL, OF NEW YORK, N. Y.

IMPROVEMENT IN PACKAGES FOR CAUSTIC SODA OR ALKALI.

Specification forming part of Letters Patent No. **139,955**, dated June 17, 1873; application filed May 17, 1873.

To all whom it may concern:

Be it known that I, HENRY B. HALL, of the city, county, and State of New York, have invented a new and Improved Caustic Soda or Alkali Package of which the following is a specification:

My invention consists of a metallic cup of soft iron, lead-foil, or lead and tin, or other alloys of lead, or the metal known as Crooke's patent foil, which is composed of lead and tin in stratum, the lead being in the inside and the tin on the outside, in which said cup I pour the caustic alkali in a liquid state, and inclose and seal it by a cover of melted resin poured in after the alkali has solidified but before it has quite cooled, the resin being tempered to correct its brittleness; any other gummy substance capable of sealing the mouth of the cup air tight will answer as well.

I make the cup by spinning up a sheet of metal in a lathe, or I may form it in dies.

The superiority of this package, as compared with other metal packages, consists in its being in one piece or sheet of absolutely air-tight material, without joints or seams, which admit the air more or less, however well made they may be, and is superior to paper or straw board packages with linings to exclude the air, for the paper is liable to be destroyed by moisture on the outside when stored in basements and other damp places. Although the metal is drawn out very thin, it is not liable to crack or tear by blows upon the packages, because it bends readily in case of any blow or shock upon the cup which incloses it and the contents. It is equally, if not more, serviceable in respect of keeping the contents dry, and its permanence, than clay or cement packages, which have sometimes been used, and is superior to such in not being brittle and liable to crack and break as they are. It can be opened to take out the contents when wanted for use easier than any other, as it can be readily cut from top to bottom with a pen-knife or any sharp instrument and peeled off.

Figure 1 is a sectional elevation of my improved alkali-package, and Fig. 2 is a plan view.

A is the metal cup; B, the cover of resin

or other gummy material, and C the material inclosed.

The cup may have a rib or groove on the inside, a little below the top, for stiffening it and binding in the cover more firmly, or the edge may be bent or turned down over the cover after it has solidified. This is not, however, very essential, as the resin adheres to the lead with considerable tenacity.

The paper label will be pasted on over the cover with paper wrappers.

These packages will be packed in cases for shipment with saw-dust or any other suitable material to prevent them from injury by moving about and striking together.

I am aware that a package consisting of a metal cylinder, open at both ends and sealed with a quantity of melted gummy material, has been used, the cylinder being made of a sheet of tin rolled or bent into cylindrical form and soldered together. My package differs from such, first, in that the cup is seamless, and is, therefore, more certain of being tight, because the joints are liable to be imperfectly made, and besides the solder is liable to be destroyed by the corrosive action of the alkali; and second, my cup is open at one end only, and thus the process of filling and sealing is considerably simplified and cheapened, for such packages have first to be closed at one end with the material used for that purpose by pouring it in in a melted state and letting it cool before they are ready for receiving the alkali, while mine are ready as soon as made, and they can be made as cheaply as the others, if not cheaper.

I do not claim, broadly, a package of caustic alkali incased or enveloped in a tight metallic integument or metallic casing; but

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

A package for caustic soda or alkali, consisting of a spun or stamped metallic cup and a cover of resin or other gummy substance poured in on the solidified contents in a liquid state, substantially as specified.

HENRY B. HALL.

Witnesses:

T. B. MOSHER,

ALEX. F. ROBERTS.