

JACOB H. SEIBERT.

Improvement in Package for Alkalies, Acids, &c.

No. 124,859.

Patented March 19, 1872.

Fig. 1.

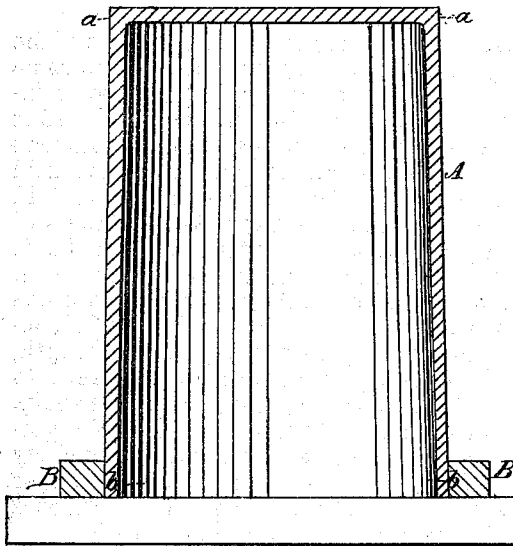


Fig. 2.

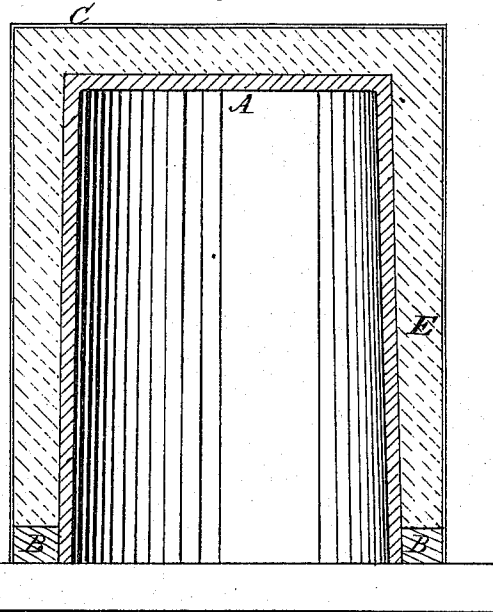


Fig. 3.

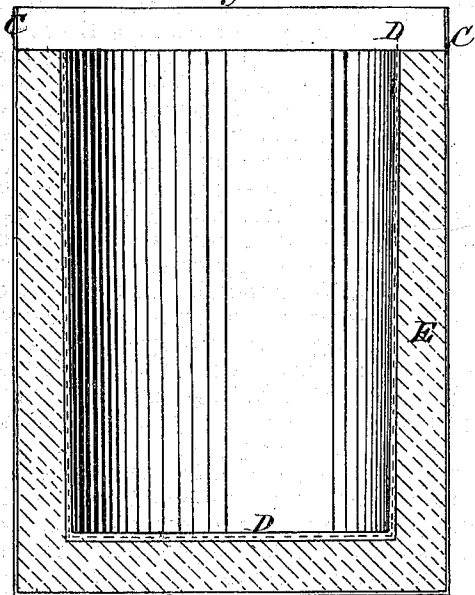
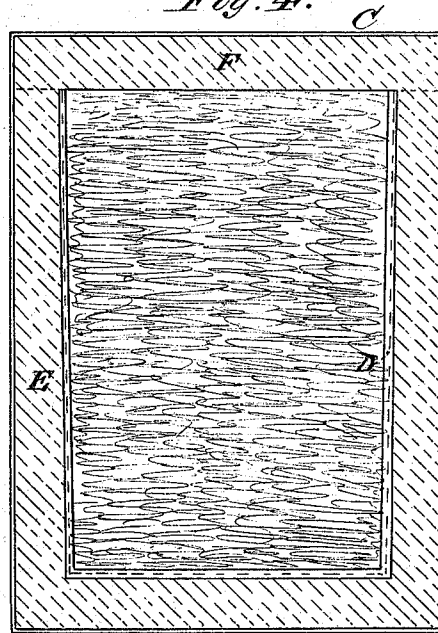


Fig. 4.



Witnesses:

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Wm. J. Peyton.

Inventor:

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UNITED STATES PATENT OFFICE.

JACOB H. SEIBERT, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN PACKAGES FOR ALKALIES, ACIDS, &c.

Specification forming part of Letters Patent No. 124,859, dated March 19, 1872.

To all whom it may concern:

Be it known that I, JACOB H. SEIBERT, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Method and Package for Putting up Caustic Alkalies, Acids, Salts, and other Chemicals, of which the following is a specification:

My invention relates to packages for putting up caustic alkalies, acids, and other articles of a corroding or deliquescent nature, and which it is necessary to protect from the effect of dampness, fire, or atmospheric influence; and it consists, first, of a mold of tapering form, cast or provided with a base-ring or surrounding collar, whereby provision is made for the cutting of a recess for the reception of the head, which can be molded or cast in place for the purpose of hermetically sealing the package, the slightly-tapering mold enabling the operator to form the sides and bottom at one and the same operation, whereby a stronger and more perfect package is secured; second, in the manner of constructing the package so that the sides and bottom thereof are formed at one and the same operation.

In the drawing, Figure 1 represents a vertical central section of the mold or former and the ring or collar. Fig. 2 is a vertical section of the package, mold, and collar, showing the sides and bottom of the package. Fig. 3 is a section of the package, showing the recess for the reception of the head, the mold and collar having been withdrawn. Fig. 4 is a section of the package when complete.

Like letters refer to like parts in the several figures.

A is the mold or former. It may be of any shape desired, provided, always, that it taper slightly from the base to the top, so that its diameter shall be slightly less at the part lettered *a* than at the bottom or part lettered *b*. The tapering form is necessary to enable the mold to be withdrawn after the package is formed. The mold is of metal or other suitable material, and is formed hollow, constituting a cup, for reasons hereinafter explained. B is a collar, ring, or surrounding frame. According as the base of the mold is square, oblong, or cylindrical, so will be the shape of this part of the apparatus. This collar corresponds in breadth to the thickness of the walls of the

package, and in height to the thickness of the head. The collar may be made of the same material as the mold, and will, in some instances, be formed solid with the mold. C is the outer covering of the package, and consists of paper, pasteboard, or other suitable material or fabric. The wrapper C rises above the mold for a distance equal to the thickness of the wall of the package. E is the intermediate or plastic mass which constitutes the package proper. This plastic material may be made in various ways and of various materials, provided, always, that the requisites of lightness, strength, and impermeability be obtained. I prefer to make it of glycerine, wax, and paper-pulp. The wax is melted, a small quantity of glycerine added, and the paper-pulp intimately worked in until a plastic mass of the proper consistency is formed. If paraffine is added a small quantity of wax will be required.

To construct the package, the mold A is placed upon a table or other suitable bed, with the collar B at its base occupying the position shown in Fig. 1 of the drawing. A sheet of paper, pasteboard, or muslin, C, is then folded around the collar B, wrapped or made in the form of a collar and placed upon the collar B, so as to form an intermediate chamber between the paper and the mold. In some instances I will cover the outside and bottom of the mold with a tight-fitting protecting wrapper of paper, wood, muslin, or other material, or asbestos may be applied directly and produce a good result. This space is filled with the plastic mass E, composed of glycerine, wax, and pulp or other suitable material, and the mass can be pressed or packed to a uniform density, if desired. As the paper or wrapper C rises above the mold for a distance equal to the thickness of the walls of the package, all that is necessary to form the bottom of the package is to fill the wrapper, completely covering in the mold. When the sides and bottom of the package have thus been formed, and the bottom has received its covering of muslin, paper, or other material, the package is lifted off the mold, which is easily accomplished owing to the tapering form of the mold. The package is now coated upon its interior surface with one or more layers composed of a solution of resin, sealing-wax, or other suitable material, and is ready for the reception of its charge.

Heretofore, in filling packages with caustic alkalies, &c., the hot liquid has been poured into the package and allowed to set therein. This I find is detrimental to the package, rendering unserviceable many packages that would otherwise fulfill all the requirements of a secure wrapping or "carrier." To avoid this, I have formed the mold or former A hollow, so that each mold will serve as a "condenser" in which to cast and congeal the alkali previous to transferring it to the package of corresponding size.

The mold A, being set upon its smaller end, is filled with the caustic alkali, which rapidly cools, and is then transferred to one of the packages formed as above described. Over the upper surface of the alkali contained in the package a thin piece of paper or other suitable material is laid and the space corresponding to F, Fig. 4, is filled with the plastic mass above described. This head hermetically seals the package, and the article is complete.

It is obvious from what has been said above that this package is adapted for putting up gunpowder and various other articles which require a secure water-proof or fire-proof wrapping; and it is also obvious that instead of using the mold A as a "condenser" and "con-

gealer," a separate vessel might be employed to perform that function.

The packages can be made of such sizes as the market demands.

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

1. A tapering mold, A, provided with a collar, B, for the purpose of casting a plastic mass upon an outside protecting wrapper for forming the bottom and sides of packages for containing caustic alkalies, acids, salts, or other chemicals.

2. A package for alkalies, acids, salts, or other chemicals, constructed so that the sides and bottom thereof are formed at one and the same operation by casting a plastic mass upon a protecting wrapper.

3. A package for caustic alkalies, acids, salts, or other chemicals formed by casting a plastic substance between an inside and outside protecting wrapper, as specified.

To the above I have signed my name this 14th day of February, A. D. 1872.

Witnesses: JACOB H. SEIBERT.

JAMES L. NORRIS,

W. J. PEYTON.