J. J. PHILLIPS.
Portable-Refrigerator.

No. 206,128. Patented July 16, 1878.

Fig. 1.

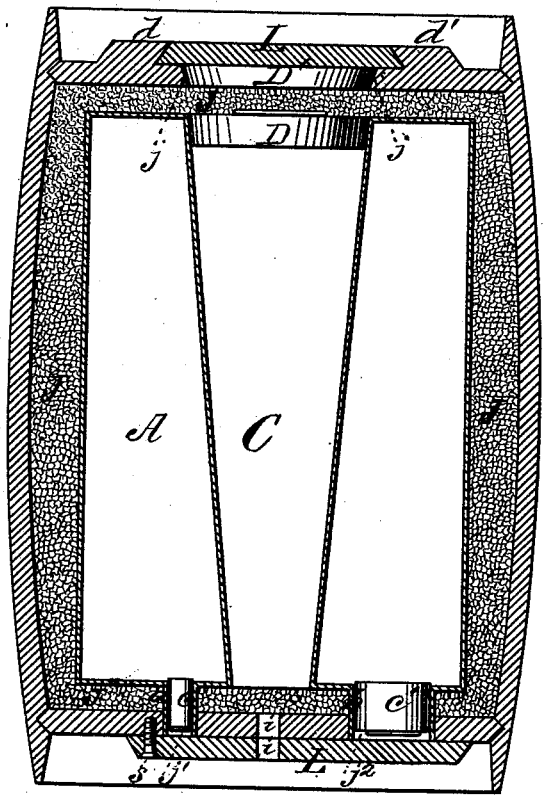


Fig 2.

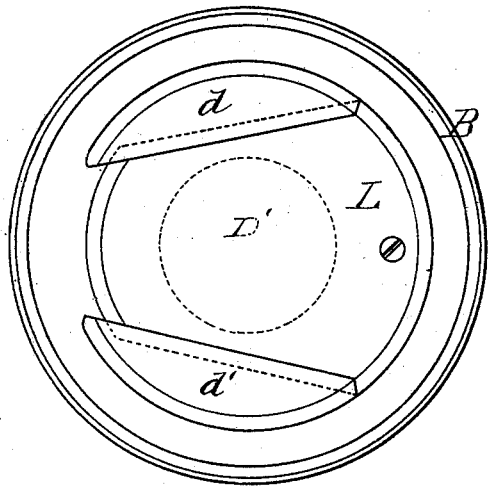
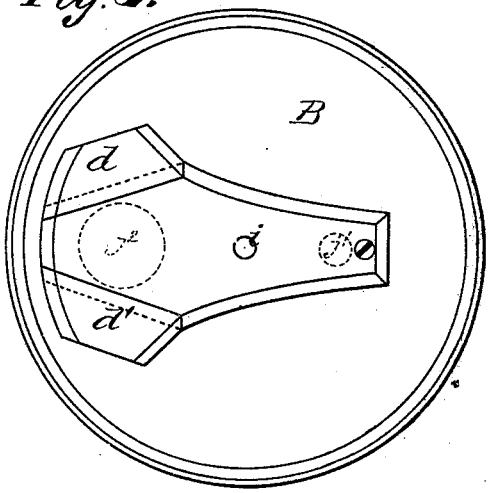


Fig. 3.



WITNESSES

Mary A. Ritley.
Frank J. Masi.

INVENTOR

James J. Phillips
by E. W. Anderson.
ATTORNEY

UNITED STATES PATENT OFFICE.

JAMES J. PHILLIPS, OF NORFOLK, VIRGINIA.

IMPROVEMENT IN PORTABLE REFRIGERATORS.

Specification forming part of Letters Patent No. **206,128**, dated July 16, 1878; application filed April 26, 1878.

To all whom it may concern:

Be it known that I, JAMES J. PHILLIPS, of Norfolk, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Portable Cans for Liquid and Semi-Liquid Substances; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a vertical central section of my improved can, and Figs. 2 and 3 are plan views of the ends of the casing.

This invention has relation to improvements in cans for transporting oysters, milk, and other liquid or semi-liquid substances.

The object of the invention is to devise a can which may be readily re-iced without disturbing its contents and without removing it from its packing-case.

The nature of the invention consists in combining, with a can having a central ice-chamber, a casing surrounding the same of larger dimensions, having in one end an opening in line with the plug closing the corresponding end of the ice-chamber, and in the other end openings in line with the stopper and spile necks, and slides closing said openings, and maintained in place by a screw or its equivalent, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates my improved can, made of any suitable metal, and having an interior tapering tube extending through its ends, and forming a tight joint therewith. This tube is open at each end, so that the drip may flow freely into the sawdust or packing below, and may be of conical, cylindrical, or rectangular form, as I may elect. The can will also be shaped in accordance with the shape of the packing-box in which it is to be placed, and may be cylindrical, barrel-shaped, or square, as I may elect. In the drawings, the can A is placed in a barrel or cask, B, having in one head an opening, *j*, in line with and somewhat larger than the adjacent end of the tube C. In the opposite end of the barrel are other openings, j^1 j^2, through one of which the spile-neck *a* projects, and through another the stopper-neck *b*, the said necks being each closed by stopples *c* c^1. The upper end of the ice-chamber is closed, when filled, by a plug, D, and the article to be preserved during transportation is introduced into the can through the neck *b*, the neck *a* being open to give vent to the air contained in its interior. The can is then introduced into the barrel and insulated by a quantity of sawdust or other non-conductor of heat, (indicated by the letter J in Fig. 1.) In this position the necks *a b* project through holes of corresponding size in the barrel-head, and the plug D is in line with the hole in the other head, this hole being closed by a plug, D′. Upon the outside of each head are rigidly secured ways *d d′*, that are undercut upon their opposite faces, as shown in Fig. 1, and designed to receive between them a tapering bevel-edged slide, L. The slide of one head accurately covers the plug D′, and that of the other the stopples of the necks *a b*, so that it is impossible that the said stopples and plug should work out so long as the slides L are in place. They are prevented from becoming displaced by the screws *s*.

To re-ice the can, the slide L is detached and the plugs D′ D successively removed, exposing the end of the ice-chamber. Ice, either in small or large pieces or in a single piece, may be then readily introduced, the plug D replaced and insulated, and by successively applying the plug D′ and slide L the closure of the ice-chamber and casing is effected.

To empty the can without removing the same from the case, the other slide L is removed and the stopples *c c′* of the necks *a b* drawn out. By tilting the case, its contents will then run out rapidly from the neck *b*. The lower head and slide L are provided with one or more registering perforations, *i*, that allow the drip to percolate through the insulating medium out of the ice-chamber without admitting air therein.

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

The combination, with a can, A, having a

central ice-chamber, C, and spile and stopper necks *a b*, of an outside casing, B, having in one end the openings j^1 j^2 to receive the necks, and in the other an opening, *j*, to receive the plug D′, the plug D under plug D′ closing the ice-chamber C, the stopples *c c′*, and the slides L, substantially as specified.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

JAMES J. PHILLIPS.

Witnesses:

JOHN T. DEZENDORF,

A. A. BLOW.