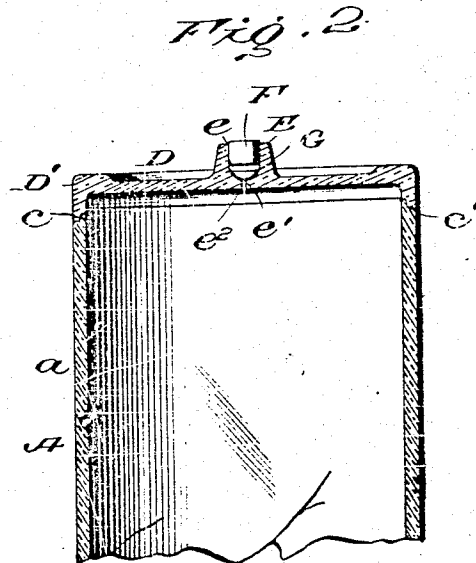
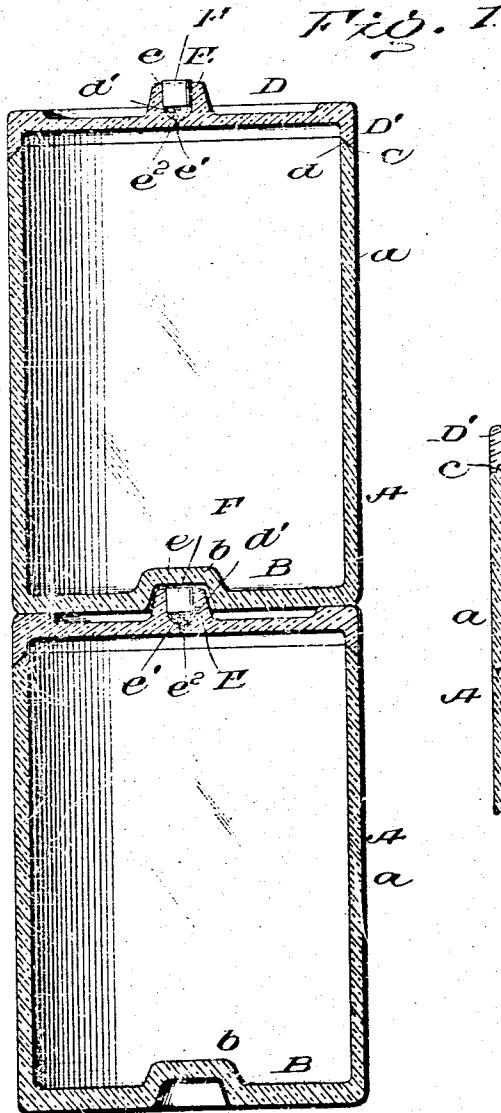


No. 769,171.

PATENTED SEPT. 6, 1904.

J. A. KRAY.
HERMETICALLY SEALED JAR.
APPLICATION FILED JULY 10, 1903.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN A. KRAY, OF LANCASTER, PENNSYLVANIA, ASSIGNOR OF THREE-FOURTHS TO DANIEL M. ROTHENBERGER, OF LANCASTER, PENNSYLVANIA, AND JOHN W. ESHLEMAN AND THOMAS B. HIMES, OF MOUNT JOY, PENNSYLVANIA.

HERMETICALLY-SEALED JAR.

SPECIFICATION forming part of Letters Patent No. 769,171, dated September 6, 1904.

Application filed July 10, 1903. Serial No. 165,017. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. KRAY, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented new and useful Improvements in Hermetically-Sealed Jars, of which the following is a specification.

My invention has relation to hermetically-sealed jars, and more particularly pertains to the construction and manner of sealing and unsealing the same.

The object of my invention is to provide a jar which is self-sealing and which is provided with means for quickly and conveniently unsealing or opening it.

In the accompanying drawings, Figure 1 is a vertical sectional view of two of my improved jars, one resting upon the other. Fig. 2 is a vertical sectional view of a modification with the lower end of the jar broken away.

Referring now to the drawings, A represents the body of the jar, which is preferably composed of glass and which is preferably of the ordinary shape, having plain vertical walls. The removable top or cover D has a depending flange D', and the beveled lower edge d thereof and the correspondingly-shaped upper edge C are ground engaging seats, which form a perfectly air-tight joint. Extending from the cover D is a projection E, which is preferably centrally located and preferably round in cross-section. A cavity or opening e is longitudinally formed in said projection, the lower end of said cavity preferably tapered or cone-shaped, as shown at e', and communicating with the cone-shaped lower end is a needle vent-opening e'', which extends from said cavity into the jar, forming a communication with the external atmosphere when not sealed. Preferably the said needle-opening e'' is sealed by suitable sealing-wax d'', and this may be protected by means of a cork F.

In operation the hot fruit or other substance to be preserved is placed in the jar and the cover D (with the needle-opening e'' sealed) is placed thereon and the jar left to cool. The

cooling of the preserved substance causes a vacuum within the jar, and owing to the air-tight ground joint the jar is self-sealed, thus avoiding the usual laborious method of screwing a cap tight against a rubber gasket. When the jar is to be unsealed, it is only necessary to remove the cork F (if it is used) and pass a pin through the wax d' into the opening e'', (thus moving the wax from said opening,) which will let air flow therein and destroy the sealing-vacuum, when the cover can be lifted therefrom.

I desire it to be understood that modifications in the shape of the ground joint or seat between cover and jar can be made without departing from my invention. One modification is illustrated in Fig. 2, in which two abrupt shoulders cc' are provided, tending to hold the cover thereon and assisting in making an air-tight joint.

My invention is also capable of being used in cold preserving—that is, the air can be drawn from the jar by any suitable means. The projection E is of utility in this connection in that it affords a convenient means of applying a rubber tube of an air-exhausting pump. With a needle-opening as here shown it is possible to exhaust the air by applying the mouth to said projection. This enables the user to make a fairly good preserving-vacuum in the jar after a portion only of its contents are used should it be desired to do so. When using the jar in the manner just described, I preferably use a valve, such as an impervious flexible disk G, which will close the opening as the air is drawn from the jar, and the cork or, if desired, a suitable sealing-wax can be placed over the valve to make a sure and permanent seal.

From the foregoing it will be observed that in either method of hermetically sealing the jar is self-sealing.

A jar of the character herein disclosed is of great utility in domestic use where preserving is practically universally accomplished by the hot method. It is only necessary for

the user to fill the jar with the cooked or hot preserves, place the top thereon, and leave it to cool. The sealing will be automatic and wholly self-acting, while at the same time the jar can at any time be conveniently opened by inserting a pin and moving the wax from the vent-opening, as before described, which obviates the ordinary laborious and often difficult task of unscrewing a tight cap or cover.

I desire it to be understood that the movable closing means mentioned in the claims is any hermetic closing means capable of being moved, removed, or punctured to relieve the vacuum when the cover is hermetically held by vacuum in the jar.

In order to enable my jar to be nested for storing or shipping purposes, the bottom thereof is provided with a cavity *b* of a size adapted to receive the projection *E* of the cover.

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

1. A self-sealing jar comprising a body and a removable cover having engaging ground seats making an air-tight joint, which will automatically hermetically seal by vacuum action in the jar, and a vent-opening having a movable closing means.

2. A self-sealing jar comprising a body and

a cover having engaging seats making an air-tight joint which will automatically hermetically seal by vacuum action in the jar, the cover having a minute vent-opening, and movable sealing means for said vent-opening.

3. A self-sealing jar comprising a body and cover having engaging ground seats making an air-tight joint which will automatically hermetically seal by vacuum action in the jar, an external cavity having a minute vent opening at its inner end communicating with the interior of the jar, and a movable sealing means in said cavity and sealing said vent-opening.

4. A self-sealing jar comprising a body and a cover having engaging seats making an air-tight joint which will automatically seal under vacuum action in the jar, one of said members having a projection for exhausting purposes, the projection having a minute opening communicating with the interior of the jar, a valve and a movable sealing means for said minute opening.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN A. KRAY.

Witnesses:

W. M. H. KREADY,
B. C. KREADY.