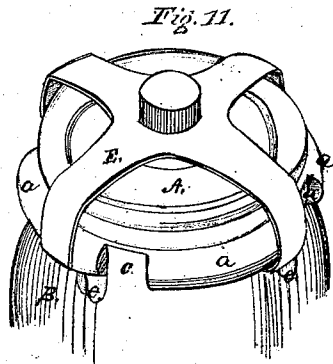
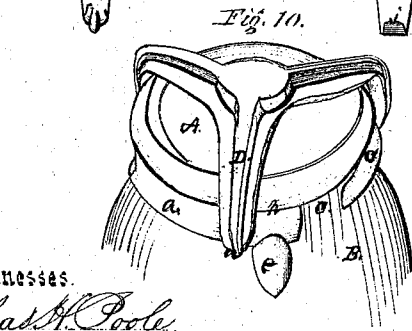
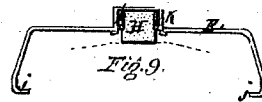
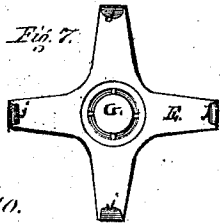
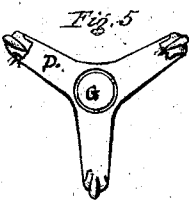
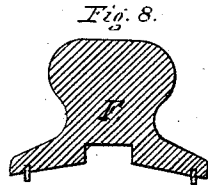
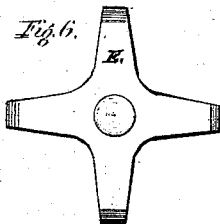
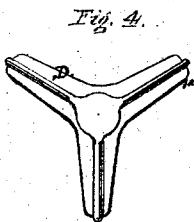
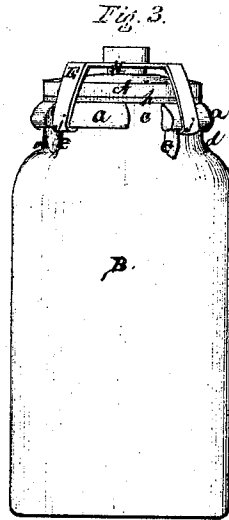
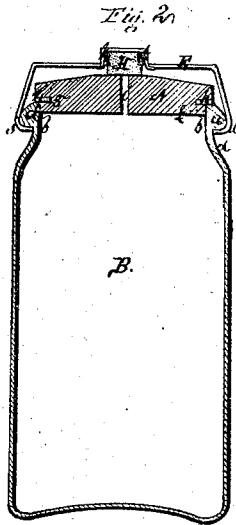
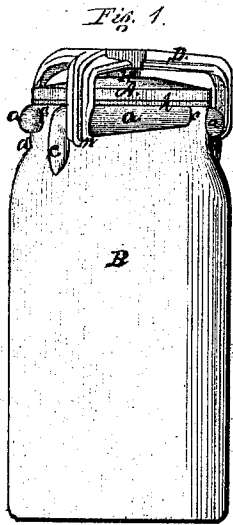


I. Buckman, Jr.,

Fruit Jar.

No. 100,496.

Patented Mar. 8, 1870.



Witnesses.

Chas. H. Poole
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Inventor.

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United States Patent Office.

IRA BUCKMAN, JR.. OF WILLIAMSBURG, NEW YORK.

Letters Patent No. 100,496, dated March 8, 1870.

IMPROVEMENT IN FRUIT-JARS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, IRA BUCKMAN, JR., of Williamsburg, in the county of Kings, and State of New York, have invented certain new and useful Improvements in the method of securing glass, porcelain, or other non-corrosive covers for closing and also opening Fruit-Jars; and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 represents an exterior view of a glass jar and cover, held on by a rigid metal clamp, with a central rubber spring-valve, for closing the center orifice in the cover or lid.

Figure 2 shows a vertical section through a fruit-jar, with grooved cover, gasket, center vent, rotating flexible valve, and spring clamp.

Figure 3 shows an exterior view of the same.

Figure 4 shows a detached top view of the rigid metal clamp.

Figure 5 is an under-side view of the same.

Figure 6 represents a top view of a yielding metal clamp.

Figure 7 is an under-side view of the same.

Figure 8 shows a sectional view of the wrench or key, for setting the clamps in closing the jar.

Figure 9 is a sectional view of the yielding clamps, showing the method of holding the rubber valve.

Figure 10 represents a perspective view of the rigid clamp, glass cover, and top of a jar, (No. 1.)

Figure 11 shows in perspective a view of the yielding clamp, cover or jar-lid, and top of jar, (No. 2.)

The object of my invention is to increase the facilities for hermetically sealing fruit-jars, and also to greatly facilitate the opening of the same, when sealed, and the cover held by atmospheric pressure, without injury to the jar, cover, or packing, so that they may be used many times, or during a succession of years, and be preserved in as perfect a state as when new, the liability of breaking the glass covers being considerably lessened.

My invention consists in making the projecting flanges at the top of the jar with vertical ribs or stops, for the double purpose of strengthening the neck of the jar, and also preventing the clamps from being turned too far.

Likewise, in the application of a key or wrench, fitting the clamps, for easily adjusting them in place on the jars.

To enable others to make and use my improvements, I will describe them more fully, referring to the drawings and the letters of reference marked thereon.

My improved method of securing the glass or other non-corrosive cover A to a jar, B, enables me to en-

large the mouth or opening *b b* to nearly the diameter of the body or the cylindrical portion of the jar.

The flanges or projections *a a* on the outside of the neck *d*, at the top, are provided with two or more notches or openings, *c c*, and on one side of each opening are vertical ribs or stops *e e*, which strengthen the neck of the jar, and also prevent the clamp D from being turned too far, so as to let the clasps off.

The cover *a* is made nearly flat, on both top and bottom, the whole diameter being of sufficient size to cover the top of the jar B, it having an offset, *f f*, so that the central portion is thicker, and projects down, fitting loosely into the mouth *b b* of the jar.

In the edge of the offset *f* of the cover A is a circular groove, *g*, of sufficient depth to receive the inner edge of the ring rubber packing *h* or gasket, and hold it firmly in its place, the outer edge of the packing being flush or even in a line with the periphery of the cover A, which rests on the top of the jar B, which should be about the same diameter of the cover.

In the center of the cover is a small orifice, *i*, to admit air into the jar, in order to equalize the atmospheric pressure, to allow the cover to be removed.

My improved method of constructing the clamps D and E is to make them either rigid or yielding. The rigid clamp D may be made of cast metal, in the proper form, with two or more clasps *n n*, to come over the outside of the neck *d* of the jar, the clasps passing down in the spaces *c c* in the projections *a a*, and by turning the clamp the clasps *n n* take a firm hold of the flanges.

The yielding clamp E is cut or pressed out of sheet metal of sufficient thickness, having two or more clasps, *j j*, and may be struck up in the proper form to be put on, and held in its place by the clasp under the flanges *a a*, and is prevented from being turned too far by the stops *c c* on the neck *d*.

In the central portion of either the rigid or the yielding clamp, on the under side, is a round sunken chamber or recess, *a*, in which the elastic spring H is secured by guides *k* on its sides.

The rubber spring operates as a valve to close the orifice *i*, when the clamp is placed over the cover A on the jar B.

The guides *k* hold the valve H firmly in the center of the recess G, so that it will turn with the clamp, and at the same time leave a space on all of its sides, to allow it to be compressed sufficiently to admit the clamp to be easily placed in position.

Should the yielding clamp E be made with more than two clasps, a simple key or wrench, F, with projecting hubs, may be placed on the clamp and forced gently down, and turned sufficiently for the clasps *j j*

to catch and hold under the flanges *a a*, thus enabling a weak person to put on or take off the clasps easily, which greatly facilitates this process of putting up and preserving fruit in glass jars.

Having thus fully described my improvements in the construction of clamps, covers and jars, for self-sealing and opening.

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

1. The vertical projections *e e* in combination with the flange *a a* upon the neck *d* of the jar, as described, for the purposes set forth.

2. The wrench or key *F*, provided with projecting studs, and so shaped as to fit on the clamp and its arms, and to engage with the latter, to attach and detach the same to and from fruit-jars.

In testimony whereof I hereunto subscribe my name.

IRA BUCKMAN, JR.

Witnesses:

CHAS. H. POOLE,
J. B. WOODRUFF.