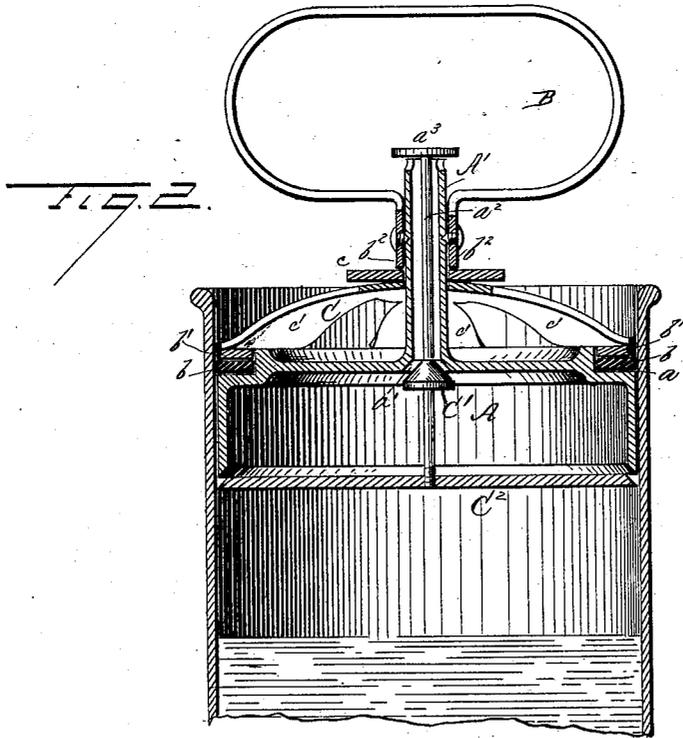
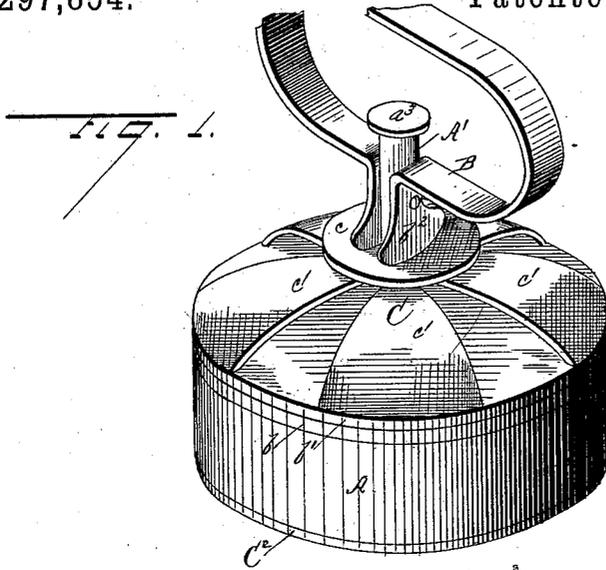


(No Model.)

H. C. SAMPLE.
ADJUSTABLE LID FOR VESSELS.

No. 297,854.

Patented Apr. 29, 1884.



Witnesses:

W. C. McArthur,
W. S. McArthur.

Inventor:

Henry C. Sample

per

H. Harrison

Attorney.

UNITED STATES PATENT OFFICE.

HENRY C. SAMPLE, OF PHILADELPHIA, PENNSYLVANIA.

ADJUSTABLE LID FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 297,854, dated April 29, 1884.

Application filed September 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. SAMPLE, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Adjustable Lids for Vessels, of which the following is a specification, to wit:

This invention relates to an improvement in adjustable covers for vessels; and it consists in a cover adapted to be adjusted at any depth within a vessel and locked securely in position, substantially as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and arrangement, referring to the accompanying drawings, in which—

Figure 1 is a perspective view of my cover, and Fig. 2 is a central vertical section of the same applied to a vessel.

A represents a hollow cover of sheet metal, having an open bottom and its upper corner recessed, as seen at *a*, in which recess lies an annular rubber ring or gasket, *b*, covered by a metal ring, *b'*. The center of the cover A is provided with a projecting tube, *A'*, to which is pivoted the handle B. The lower ends of this handle below their pivotal point are broadened out, so that when the handle is turned down the broad ends *b²* act as cams to force down a washer, *c*, loose upon the tube *A'*, which in turn presses down and expands a concavo-convex spring-plate, C, having radial spring-arms *c'*, as shown, which rest upon the metal ring *b'*. The lower end of the tube *A'* is formed with conical valve-seat *a'*, and within the tube is a stem, *a²*, having a cap or thumb piece, *a³*, upon its upper end, covering the end of the tube and carrying a valve, *C'*, in position to seat itself in the valve-seat *a'* when the stem is pushed upward. Upon the lower end of the rod or stem is a disk or plate, *C²*, adapted to close the lower end of the cover.

The operation of the device is as follows: In cans or vessels containing milk or other liquids it is often desirable to close the vessel in such a manner that there shall be the least

possible motion of the liquid while being handled. With the ordinary cover this is impossible, unless the vessel be filled entirely with the liquid, so that the bottom of the cover may rest upon it. By my invention the vessel may be only partly filled, if desired, and the cover is inserted and pushed down into the vessel till the plate *C²* rests upon the contents. While doing this the thumb is kept pressed upon the thumb-piece *a³*, holding the valve *C'* and plate *C²* down, to allow the escape of air from the vessel through the tube *A'*, which is perforated at its upper end, to prevent the cap *a³* from entirely closing it. When the plate *C²* rests upon the contents of the vessel, the pressure of the thumb is released and the valve closes, shutting off the ingress or egress of air, and the handle is turned down to either side, its broadened or cam-shaped ends forcing down and expanding the spring-plate C, its pressure expanding the gasket *b*, and the cover is secured firmly in place by both the spring-arms of the plates C and the rubber gasket *b*, and at the same time is rendered air and liquid tight.

It is obvious that this device may be varied in details of construction without departing from the spirit of my invention.

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

1. A cover adapted to be pressed entirely within a vessel, and having a vent tube and valve adapted to allow the escape of air beneath the cover, in combination with a spring-plate and means for expanding the same to secure the cover, substantially as shown and described.

2. A cover formed with an annular recess containing a rubber packing-ring and a metal expanding ring, and provided with a vent-tube having a valve to regulate the passage of air, in combination with spring-plate having its edges resting upon the expanding ring, and a handle adapted to expand the plate and gasket, to secure the same at any desired point within the vessel, substantially as shown and described.

3. The cover A, formed with the recess *a*, containing the gasket *b* and ring *b'*, and provided with the vent-tube *A'*, formed with the valve-

5 seat a' at its lower end, in combination with the handle B, having the cam or cams b^2 on its lower ends, the concavo-convex spring-plate C, valve-stem a^2 , having the thumb-piece a^3 and valve C', and the plate C², substantially as and for the purpose herein described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY C. SAMPLE.

Witnesses:

CHAS. KRESSMANN,
FRANK JOHNSON.