J. B. WILSON.

Fruit Jar.

No. 32,805. Patented July 9, 1861.

Fig: 1.

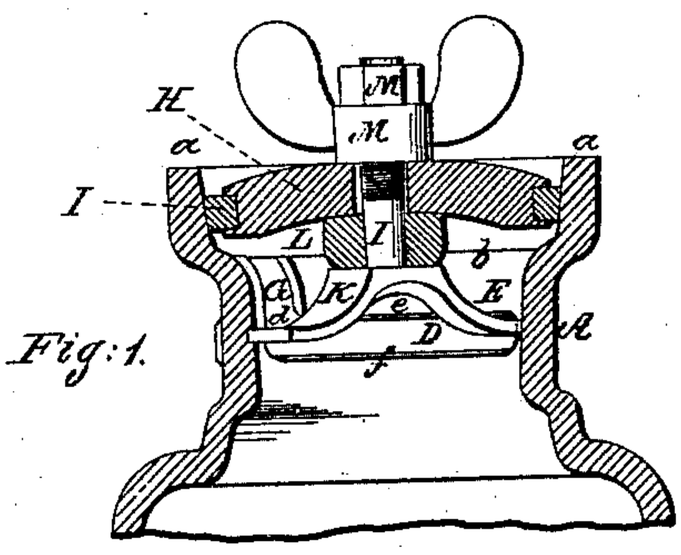


Fig: 2.

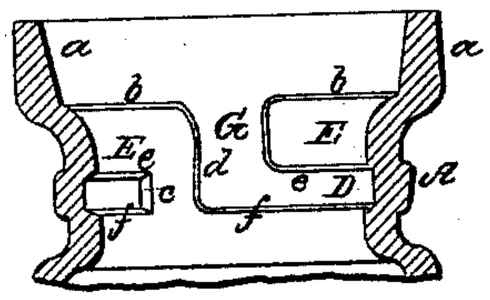


Fig: 3.

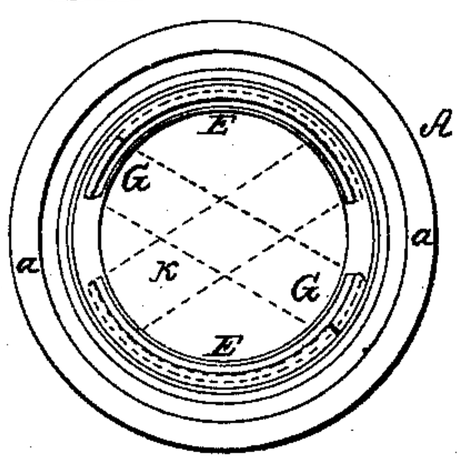
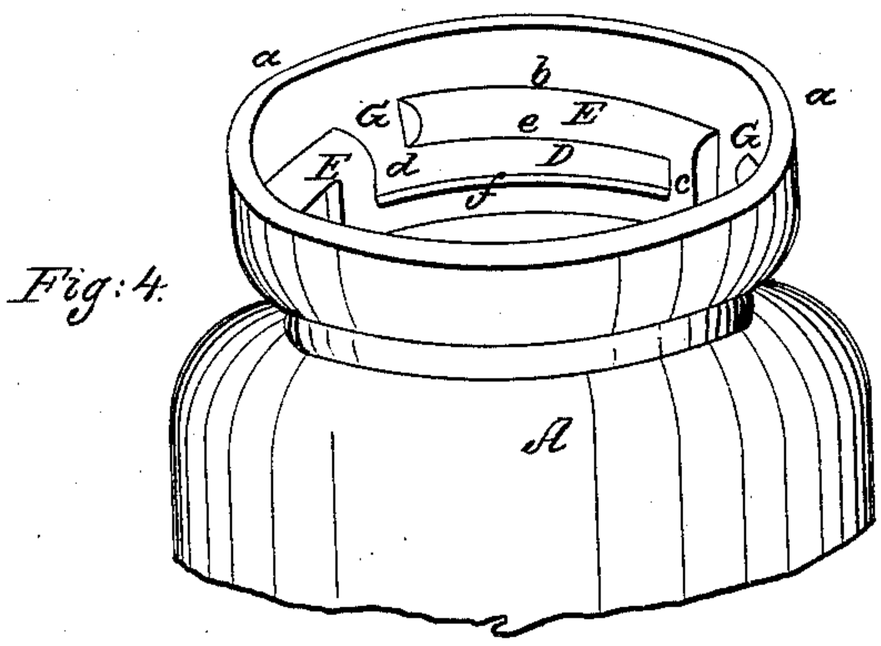


Fig: 4.



Witnesses:
Chas Howson.
Charles E Foster

Inventor.
Henry Howson
Atty for J. B. Wilson

UNITED STATES PATENT OFFICE.

J. B. WILSON, OF WILLIAMSTOWN, NEW JERSEY.

IMPROVEMENT IN STOPPERS FOR PRESERVING-VESSELS.

Specification forming part of Letters Patent No. **32,805**, dated July 9, 1861; antedated June 0, 1861.

To all whom it may concern:

Be it known that I, J. B. WILSON, of Williamstown, Camden county, New Jersey, have invented certain new and useful Improvements in Stoppers and Mouths for Preserving-Vessels; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists of a metal disk with a ring of gum-elastic stretched round its edge, a bolt passing through the said disk and having below the latter a cross-bar, and a nut above, a yielding washer intervening between the said cross-bar and the disk, and the whole being constructed and combined with the tapering mouth of a vessel, substantially as described hereinafter, so as to form a perfectly air-tight stopper, and one which cannot be forced from the mouth of the vessel by any pressure from within the same.

In order to enable others to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a vertical section of my improved mouth and stopper for preserving-vessels; Fig. 2, the same with the stopper and its adjuncts removed; Fig. 3, a plan view; Fig. 4, a perspective view of the mouth of the vessel.

Similar letters refer to similar parts throughout the several views.

A represents the upper portion of the preserving-vessel, which may be made of glass, earthenware, or other suitable material. The annular flange *a*, which forms the mouth of the vessel, decreases in diameter on the inside from its upper edge to the shoulder *b*, which forms the upper end of the vessel's neck, the latter being of less diameter than the mouth. Below this shoulder *b*, and within the neck of the vessel, is formed a horizontal recess, D, best observed on reference to the perspective view, Fig. 4. This recess is bounded on one end by the shoulder or stop *c*, on the opposite end by the stop *d*, above by the lower edge, *e*, of the rib E, and below by the shoulder *f*, there being near the stop *d* a vertical recess, G, communicating with the said horizontal recess D. A precisely similar recess similarly bounded is formed on the opposite side of the interior of the neck.

The stopper consists of a metal disk, H, in the periphery of which is formed a recess for the reception of a ring, I, of gum-elastic, and through the center of this disk a bolt, J, passes freely, the lower end of the bolt being furnished with a cross-bar, K, between which and the disk intervenes a washer, L, of gum-elastic or other suitable material, the upper screwed end of the bolt being furnished with a thumb-nut, M, and above the latter with a smaller permanent nut or head, N. The gum-elastic ring I is in the first instance much smaller in diameter than the portion of the disk which it has to embrace, so that after it is stretched over the edge of the disk it will take its place in the groove of the latter and be self-retaining therein by its own contractile force, the diameter of the ring when on the disk being such that it will fit freely into the upper portion of the vessel's mouth, but owing to the taper of the flange *a* cannot be depressed deep into the mouth without the application of considerable force, as described hereinafter.

Before the stopper is applied to the vessel's neck, its thumb-nut M is unscrewed until it reaches the head N, the cross-bar being thereby lowered so far from the disk that when the latter is dropped lightly into the mouth of the vessel, one end of the cross-bar can pass down one vertical recess G and the other down the opposite and similar vertical recess until the ends rest on the shoulders *f*. The bolt J and its cross-bar are now turned partially round by applying the finger and thumb to the head N, when one end of the cross-bar will take its place in one recess D, and the other in the opposite and similar recess of the bottle's neck, the movement of the bar being arrested at the proper point by its ends striking the stops *c* of the recesses. The thumb-nut M is now screwed down onto the washer, on reaching which it will draw the bolt with its cross-bar upward, the ends of the latter being retained by the upper edges, *e*, of the recesses D, so that on screwing the nut M farther down, the disk, with its gum-elastic ring, will be forced so tightly into the mouth of the vessel as to render the latter perfectly air-tight. At the same time the washer L will be compressed so tightly between the cross-bar K and the disk

that the entrance of air through the central opening of the disk is rendered impossible. When the stopper has to be removed, the thumb-nut M is unscrewed until it again reaches the head N, when the bolt J, with its cross-bar, can be readily turned back until one end of the bar strikes the stop *d* of one recess, D, and the other end of the bar strikes the similar stop of the opposite recess. When the bar has arrived at this point, its ends will pass freely upward through the vertical recesses G, and the stopper can consequently be elevated clear of the vessel's mouth.

Gum-elastic rings confined between two washers and caused to expand against the inside of a vessel's mouth by the pressure of the washers together are in common use as stoppers for air-tight preserving-vessels. The great objection to their use, however, is that the pressure created by the generation of gases from the contents of the vessel is apt to force the stoppers from the mouth.

It will be evident, without further explanation, that it will be impossible for any internal pressure to displace the above-described stopper.

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

The disk H, with its gum-elastic ring, the bolt J, with its cross-bar K and nut M, and the yielding washer L, the whole being constructed substantially as described, and combined with the tapering mouth of the vessel, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

J. B. WILSON.

Witnesses:
HENRY HOWSON,
JOHN WHITE.