T. G. OTTERSON.

FRUIT-JARS.

No. 184,478. Patented Nov. 21, 1876.

Fig. 1.

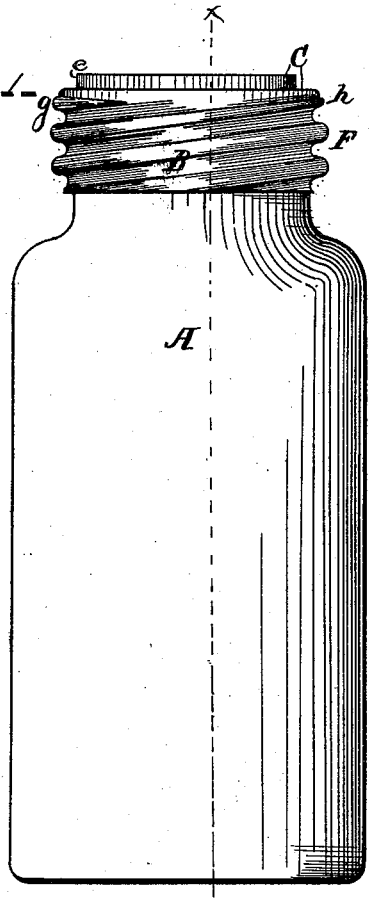


Fig. 2.

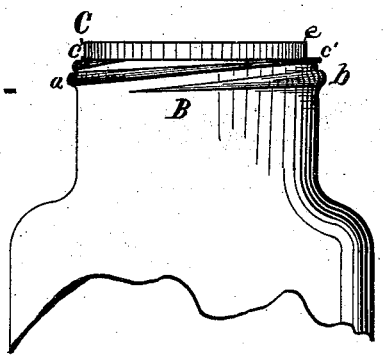


Fig. 3.

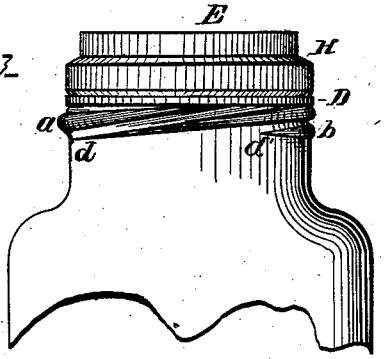
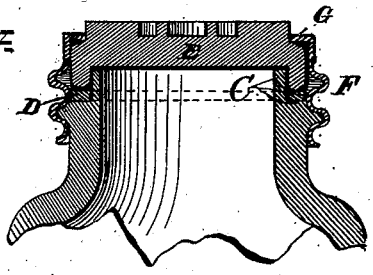


Fig. 4.



WITNESSES

C. D. Nottingham,

F. O. McCleary.

INVENTOR

Thomas G. Otterson,

By A. W. Seymour,

Attorney

UNITED STATES PATENT OFFICE.

THOMAS G. OTTERSON, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN FRUIT-JARS.

Specification forming part of Letters Patent No. **184,478**, dated November 21, 1876; application filed March 23, 1876.

To all whom it may concern:

Be it known that I, T. G. OTTERSON, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Fruit-Jars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to certain improvements in fruit-jars.

Heretofore fruit-jars have ordinarily been constructed with a single screw-thread formed on the neck of the jar, and a corresponding single screw-thread on a flanged metallic ring that serves to retain the cover against the gasket placed on the breast or shoulder of the jar.

Fruit-jars constructed as above set forth are objectionable, for the reason that the pressure exerted by the single screw is not uniformly disposed on all parts of the gasket, it being greater on that portion of the gasket nearest the screw-thread, and thereby the metallic ring tends to crimp the gasket, and does not act to press one portion of the same tightly against the shoulder of the jar. Again, in glass fruit-jars of ordinary construction the lower portion of the thread on the neck of the same is blown fuller than the upper portion of the thread. As the screw-thread on the metallic ring must be of sufficient size to work freely on the lower and larger portion of the thread, the metallic ring, when forced to its seat, draws that portion of the gasket in line with the lowest portion of the thread down snugly against the shoulder of the jar, while the opposite portion of the screw-thread fits the thread on the jar in an imperfect manner, and thereby produces an uneven pressure of the cover on the gasket, and, owing to this uneven pressure, the threads on one side of the metallic ring are often thrown entirely off the thread on the same side of the neck of the jar, thereby rendering useless many single-threaded jars.

In my Patent No. 174,638, dated March 14, 1876, which related to that class of jars wherein the covers are formed solid and secured to the neck of the jar to bear against a gasket located below the screw-threads, the improvement consists in forming the neck of the jar and the cover with two separate parallel screw-threads, which commence and terminate at diametrically opposite points on the neck and ring of the jar.

The object of this invention is to improve the construction of that class of jars wherein the shoulder and gasket are located above the screw-threads, and a separate cover is firmly pressed against the gasket by means of a screw-threaded ring formed with an inwardly-turned flange to engage with the cover; and my invention consists in the combination, with the neck of a fruit-jar, having a shoulder surmounting separate parallel screw-threads, which begin and end at diametrically opposite points in the neck of the jar, of a correspondingly screw-threaded ring formed with an inwardly-turned flange, and a separate cover constructed with a depending flange to engage with an elastic gasket supported by the shoulder of the jar.

In the accompanying drawings, Figure 1 represents a side elevation of my improved fruit-jar. Fig. 2 represents the neck of the jar. Fig. 3 shows the cap and gasket as applied to the neck of the jar. Fig. 4 is a vertical section through line *x x* of Fig. 1.

A represents a fruit-jar, having a neck, B, upon which are which formed two or more screw-threads, *a b*, the same preferably commencing at *c c'*, on opposite sides of the neck B, and terminating at *d d'*, or about midway between their starting-points. The screw-threads, being arranged relatively to each other, as shown, afford close and direct purchase for the upper threads of a metallic ring, and on opposite sides of the same, and also an equally close and direct purchase for the lower portions of the threads of the metallic ring, on a line at right angles to the upper line of direct purchase. C is a breast or shoulder formed on neck B, just below its edge *e*, and serves as a bearing or seat for an india-rubber or other elastic gasket, D. The cover E, of glass or metal, has an oval or rounded edge, *f*, that engages with the upper surface of gasket D. Ring F, preferably of metal, is formed with double screw-threads *g h*, of a form and relatively arranged to snugly fit the screw-threads *a b* on the neck of the jar. The upper portion

of the screw-ring F is formed with an inwardly-turned flange, G, of sufficient width to have a firm bearing on an annular bearing, H, of the cover E.

As heretofore stated, a jar constructed as above set forth possesses the advantage of an equalized pressure on the entire surface of the gasket, and thereby secures an air-tight joint between the cover and the jar. Also, the screw-ring having an even and direct pressure on the threads of the jar at four different points in its circumference, the ring is not liable to slip off the threads of the jar, as is the case in fruit-jars of ordinary construction.

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

The combination, with cover E and jar A, the latter having its neck B formed with separate parallel screw-threads *a b*, which begin and end at opposite points on the neck of the jar, and a shoulder, C, located above the screw-threads, of a ring, B, correspondingly screw-threaded to fit the neck of the jar, and provided with an inwardly-turned flange, G, to engage with the cover, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of March, 1876.

THOMAS G. OTTERSON.

Witnesses:

F. F. BURMEISTER,

J. GORDON SHOWAKER.