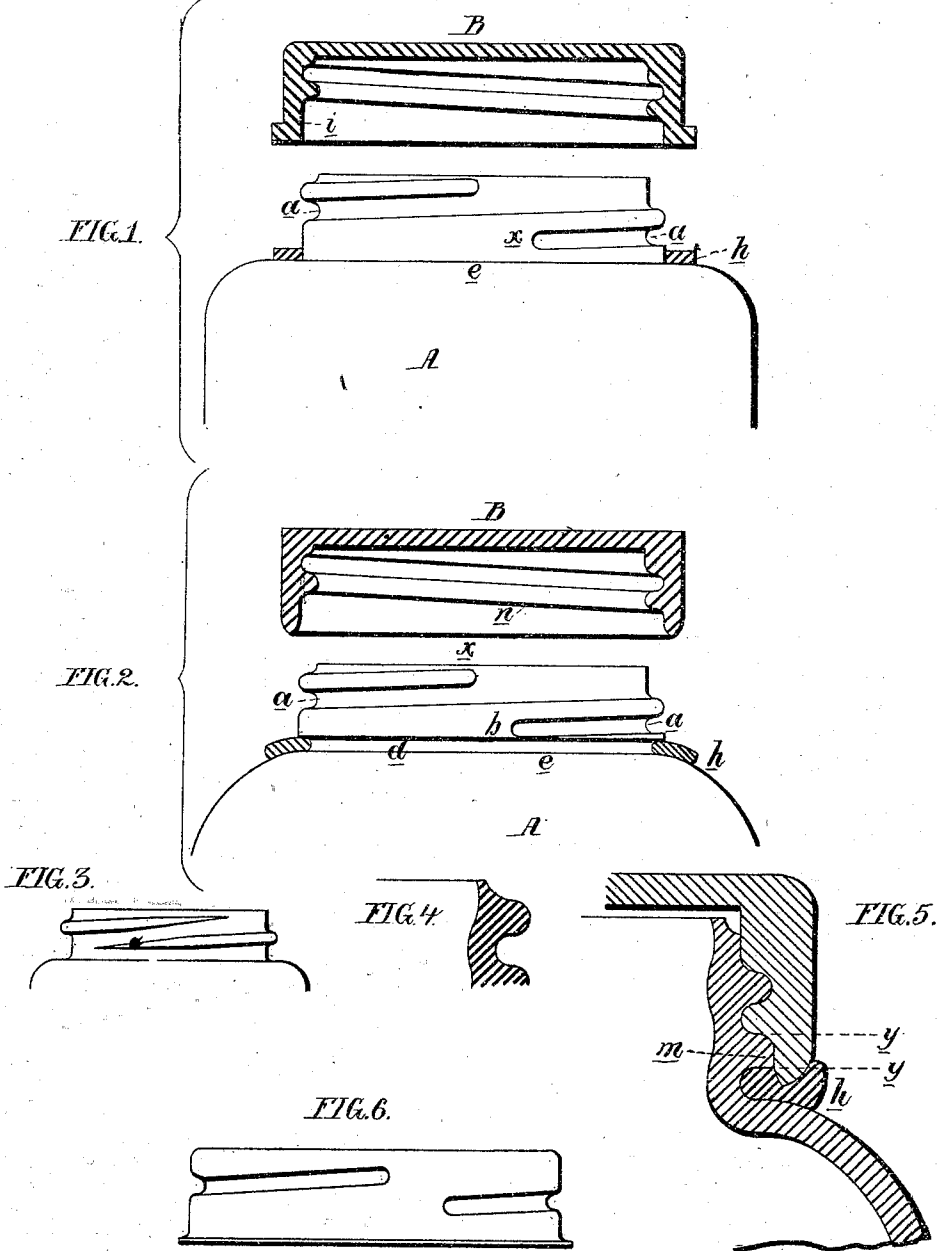


H. HOWSON.

Fruit-Jars.

No. 135,430.

Patented Feb. 4, 1873.



Witnesses } *Wm. A. Steel*  
*Harry Smith*

*Henry Howson*

# UNITED STATES PATENT OFFICE.

HENRY HOWSON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO  
SALMON B. ROWLEY, OF SAME PLACE.

## IMPROVEMENT IN FRUIT-JARS.

Specification forming part of Letters Patent No. 135,430, dated February 4, 1873.

*To all whom it may concern:*

Be it known that I, HENRY HOWSON, of Philadelphia, Pennsylvania, have invented certain Improvements in Fruit-Jars, of which the following is a specification:

My invention relates to that class of fruit-jars in which there is an external screw-thread or inclined ribs on the neck to receive a screw-cap, by which a packing-ring is forced against an external shoulder below the screw on the neck of the jar. The object of my invention is to make a cheap jar of this class, to insure a more perfect packing, and to enable me to use a simple, strong, and effective screw-cover of glass.

These objects I attain mainly by forming a spiral groove, *a*, in the neck of the jar *A*, as shown in Fig. 1 of the accompanying drawing, instead of forming a spiral rib or thread on the neck, as usual, the spiral groove *a*, or, as it may be termed, the sunken thread, terminating below at a point, *x*, above the shoulder *e*, between which and the end of the thread the neck is perfectly cylindrical and plain, and, being as large or larger in diameter than any other portion of the neck, is embraced by the lower cylindrical portion *i* of the screw-cap *B*, which thus isolates and confines the rubber packing *h*, and thereby insures a tight joint. The sunken thread terminating above the shoulder *e* also enables me to make a continuous annular recess, *d*, in a plane at right angles to a vertical central line, *x x*, of the jar, for receiving and retaining the edge of the packing-ring *h*, as shown in Fig. 2. The sunken thread also enables me to employ a glass cap, *B*, the internal thread of which terminates at a point above the lower edge of the cap, where it is not liable to fracture—a feature which is of especial importance when a glass cap is employed.

In order that a more thorough understanding of the nature and advantages of my invention may be obtained, it will be well to refer to and compare it with an ordinary jar of this class, as illustrated in Fig. 3, where it will be observed that the screw-thread is, as it were, built on instead of being sunk into the neck of the jar, as in my improvement, the thread disappearing or vanishing at both ends into the neck with a gradual taper. This the ordinary

screw-neck involved the necessity of employing a screw-cap with an internal thread continued entirely down to the lower edge of the cap, a feature which I am especially anxious to avoid for a purpose explained hereafter.

The discontinuation of the lower end of the thread in the manner shown in Fig. 3, and the continuation of the thread of the cap to its lower edge, which was consequently irregular, prevented that snug fitting of the lower portion of the cap to the lower portion of the neck and that isolation of the packing which I have attained. It may be remarked, moreover, that no opportunity is afforded in Fig. 3 for the formation of the annular recess *d*, by which alone the packing-ring can be properly retained in its place. As for the vanishing threads, their tapering portions, while they occupy considerable space, afford no effectual hold for the screw-cap.

It will be observed, on reference to Fig. 2, that the spiral rib formed by the sunken thread *a* commences abruptly at the upper edge of the jar, or, by preference, slightly below the same, the rib at its commencement being beveled off to the extreme upper edge, as shown in the enlarged sectional view, Fig. 4. The lower termination of the sunken thread is equally abrupt, its termination being above the annular recess *d*, so that between the latter and the thread there may be the above-mentioned cylindrical portion of the neck surrounded by the lower cylindrical portion of the cap. This feature will be best observed on reference to the enlarged sectional view, Fig. 5, which shows a portion of the cover applied to the jar. The portion of the neck of the jar between the dotted lines *y y* is cylindrical and plain, being free from either grooves or projections, this cylindrical portion being in some places deeper than in others, but always present throughout the circumference of the neck to some extent, and this portion of the neck is surrounded by the cylindrical interior of the lower portion of the cap; hence, no part of the rubber packing can rise beyond the corner *m*, and the rubber being thus confined becomes a most efficient means of producing a tight joint.

The above-described screw-cap is especially well adapted to a glass cover, for it permits

the thread *n* of the latter to be terminated at a point above the lower edge of the cap, where it is more free from injury than a thread continued down to the edge would be. The cover may, however, be made of thin metal, as shown in Fig. 6, the internal thread being formed by indenting the exterior; in this case, also, the lower portion of the cap will be cylindrical and surround the cylindrical portion of the neck.

It is essential to my invention in all cases that the lower cylindrical portion of the neck above alluded to should be as large as or a trifle larger than the exterior of the spiral ribs or their equivalents formed by a sunken thread or section of a sunken thread.

Fruit-jars made in accordance with my invention and having covers made solely of glass may be made at a much cheaper rate than most of the modern fruit-jars.

I claim as my invention—

1. A fruit-jar having in its neck a sunken thread terminating at a point above a shoulder, *e*, and a plain cylindrical portion between the two, substantially as described.

2. The combination, with the said neck, of a cap, *B*, having an internal thread discontinued above the lower edge of the said cap, leaving below the thread a plain cylindrical portion, as specified.

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

HENRY HOWSON.

Witnesses:

THOMAS McILVAIN,  
HARRY SMITH.