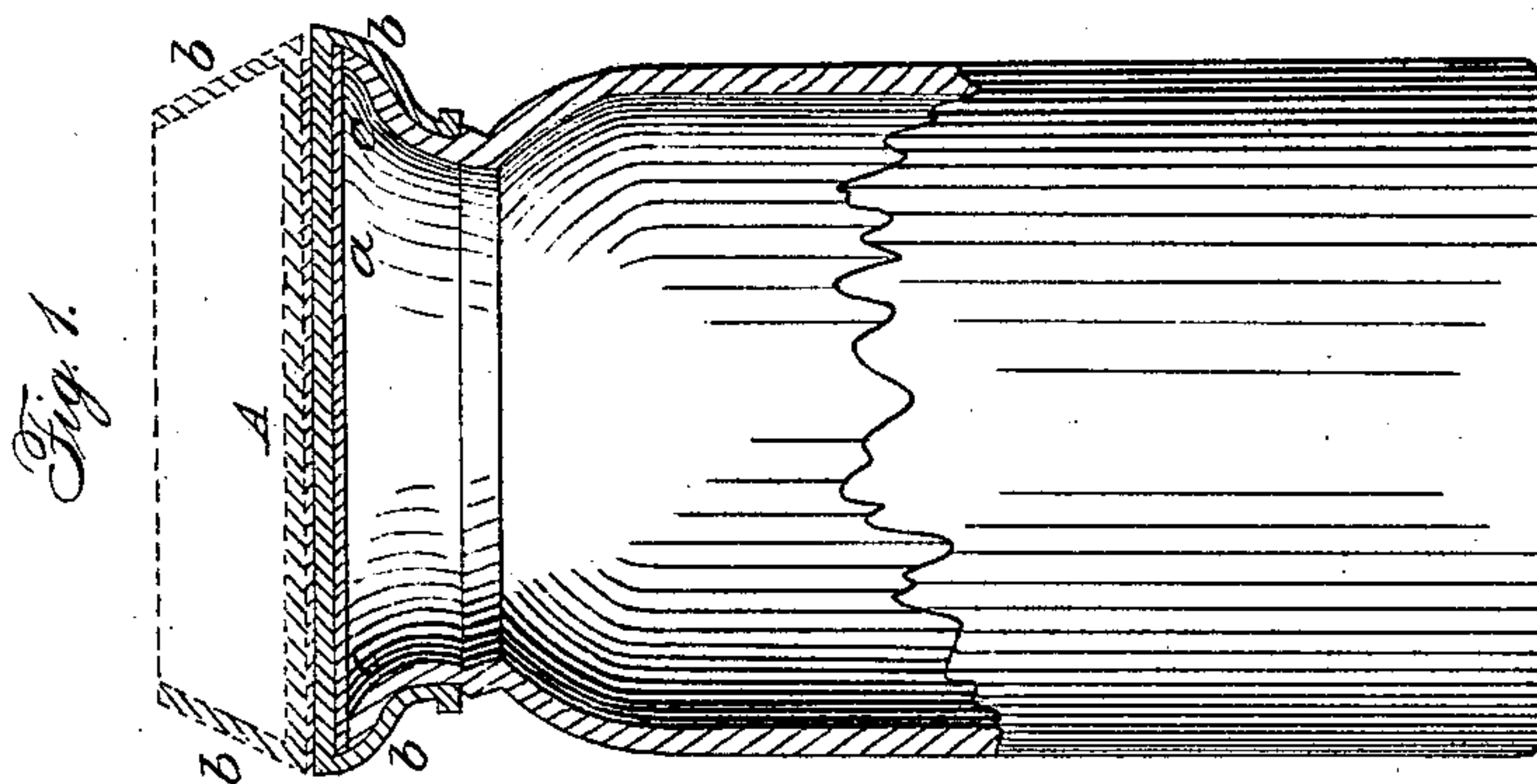
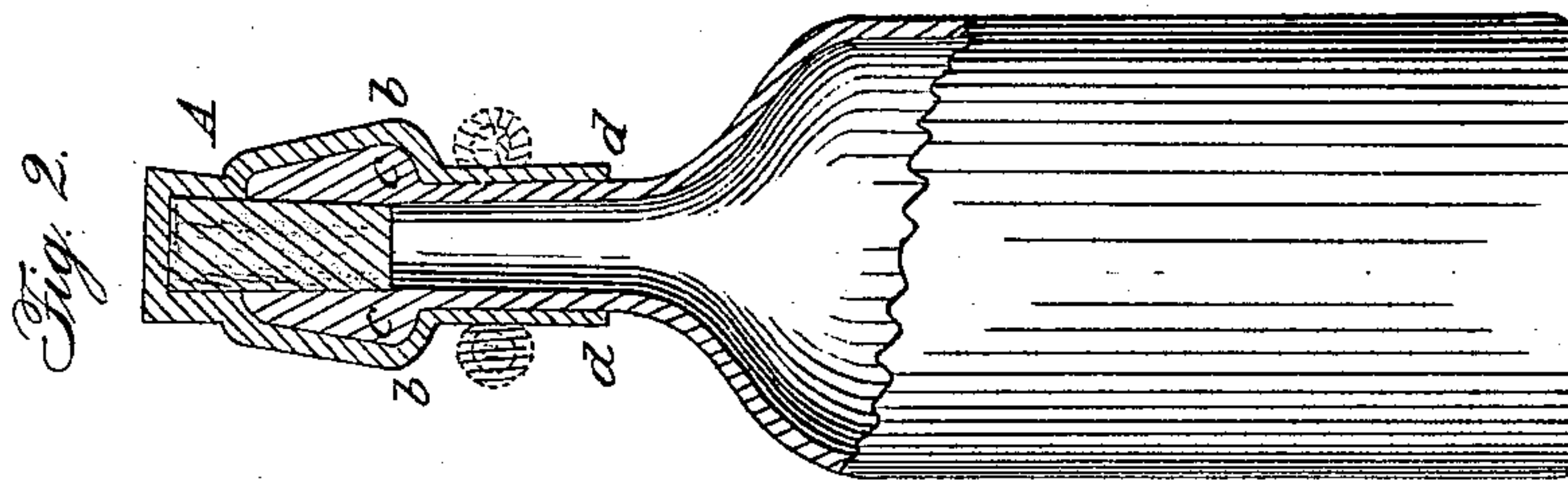


R. DAVIS
Fruit Jar.

No. 16,684.

Patented Feb. 24, 1857.



UNITED STATES PATENT OFFICE.

RHODA DAVIS, OF BROOKHAVEN, NEW YORK.

IMPROVED ELASTIC CAP FOR SEALING CANS AND BOTTLES.

Specification forming part of Letters Patent No. 16,684, dated February 24, 1857.

To all whom it may concern:

Be it known that I, RHODA DAVIS, of Brookhaven, in the county of Suffolk and State of New York, have invented a new and useful Elastic Air-Tight Self-Fastening Cover or Cap for Hermetically Sealing Jars, Bottles, &c., the same constituting a new article of manufacture; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a vertical section of the cover applied to a jar, the red lines showing it turned inside out and inverted, in order to apply it more readily. Fig. 2 is a similar section of the cover as adapted for and applied to bottles, the red lines showing its lower extremity rolled in form of a scroll, so as to facilitate its removal or application.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a new article of manufacture, viz: a cap or cover made of india-rubber, in the form hereinafter specified, for hermetically sealing jars, bottles, &c., said cover in being drawn over the collar or shoulder round the mouth of the jar or bottle expanding, and when in proper position again contracting, and by reason thereof, and its peculiar form, fitting snugly round the neck of the jar or bottle under the collar or shoulder, and thus fastening itself securely and rendering the mouth of the jar or bottle air-tight.

A, Fig. 1, of the accompanying drawings represents a cover for jars. It is cast light in india-rubber, and stiffened, if necessary, by a thin tin plate, *a*, as shown in Fig. 1. In its form it resembles the ordinary tin covers of confectionery glass jars, except that the rim *b* gradually diminishes in diameter from its upper to its lower extremity, so that, instead of being at right angles to the plane of the top, it stands at an angle of about fifteen or twenty degrees, corresponding with the angle of the shoulder *c*, round the mouth of the jar, the diameter of which is longest at the top edge of the jar. The cover A is made a little smaller in diameter than the top of the jar, and is expanded in being drawn over the shoulder *c* thereof, and consequently when it contracts it fits snugly round the neck and

under the shoulder *c*, and thus fastens itself securely and forms an air-tight joint between itself and the vessel.

In order to adapt this principle of cover to bottles, it is simply necessary to change its form, so as to have it correspond to the neck and the shoulder round the mouth of the bottle, and to provide it with an extension, *d*, below the shoulder *c*, as shown in Fig. 2.

To apply the cover to a jar, I turn it inside out, thereby inverting it, as shown in red in Fig. 1; then place it inverted on top of the jar and draw the rim down over the collar or shoulder in a manner to turn the outside out, as shown in black in Fig. 1. This being done, the tapering rim, owing to having been expanded in being drawn over the shoulder, contracts and fits snugly under the collar and round the neck, thus fastening itself and hermetically sealing the jar.

To apply the cap or cover to a bottle, its lower part, *d*, is rolled in scroll form to a greater or less extent, as shown in red, in order to facilitate and ease its application, and then drawn over the shoulder, as shown. As soon as it is thus drawn over the shoulder, it unrolls and contracts round the bottle's neck, and fits snugly under the shoulder, thus fastening itself and forming an air-tight joint. To remove the cap from the mouth of the bottle, it is also rolled, as shown in red.

This cover is very simple, cheap, and neat, and also convenient for use, as it does not require to be tied in order to have it secure, and, when desirable, it can be removed with ease and facility.

The ordinary methods of sealing the mouths of jars are by the use of wax or corks, or by covers made of soft leather tied on. All of these methods are objectionable and more or less inconvenient. The use of wax, which is the more common mode, is particularly objectionable, especially for preserve-cans, because in opening the cans the wax breaks, and is liable to become mixed with the food. To apply the wax, heat is required, and a disagreeable smell is created.

I am aware that rubber disks have been used as a packing to insure air-tightness in sealing preserve-cans. An example is seen in A. Conger's rejected application for a patent. In the device of Henry J. Bangs, for which an application for a patent was filed August 1,

1856, a rubber tube is employed, one portion of which is drawn upon the neck of the bottle and there held by the contractive power of the tube. The other end of the tube is bent over and tied closely around the neck of the bottle. I wholly disclaim such methods of using rubber. In Beltzung's screw-necked bottle, described in volume v, pages 232 and 233 of the "Practical Mechanic's Journal," a stopper-cap is used, made of gutta-percha, copper, tin, or zinc. I distinctly disclaim these devices.

I do not claim to be the inventor of flexible caps for covering the mouths of jars; neither do I claim their exclusive use. Closing the mouths of vessels by means of caps has been practiced from time immemorial, but in general the caps employed are inconvenient, because they require to be tied on or sealed with

wax in order to render them tight. But a self-acting cap made of india-rubber in the forms herein described, and possessing the virtue of yielding when drawn over the mouth of the jar and then contracting, so as to fasten itself securely around the lips of the vessel, rendering the mouth thereof perfectly airtight, is, to the best of my knowledge and belief, a new article of manufacture. Therefore

I claim and desire to secure by Letters Patent—

As a new article of manufacture, a cap or cover for sealing vessels, composed of india-rubber, when made in the form and possessing the virtues substantially as described.

RHODA DAVIS.

Witnesses:

W. TUSCH,

JAMES F. BUCKLEY.