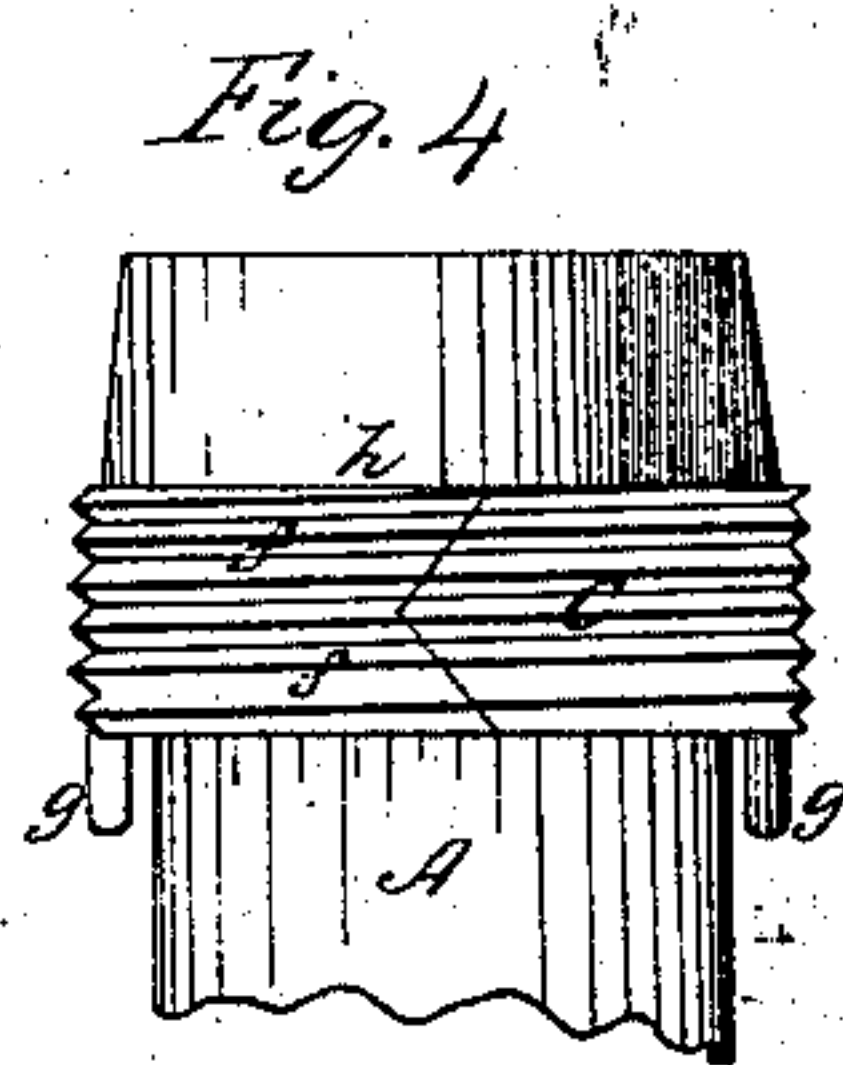
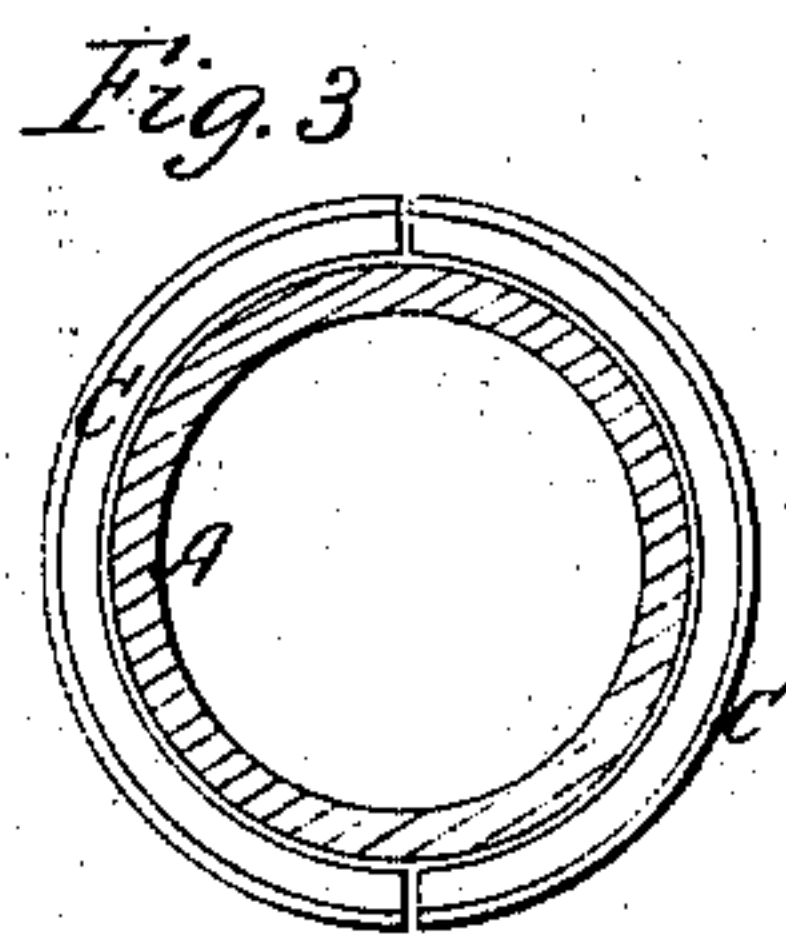
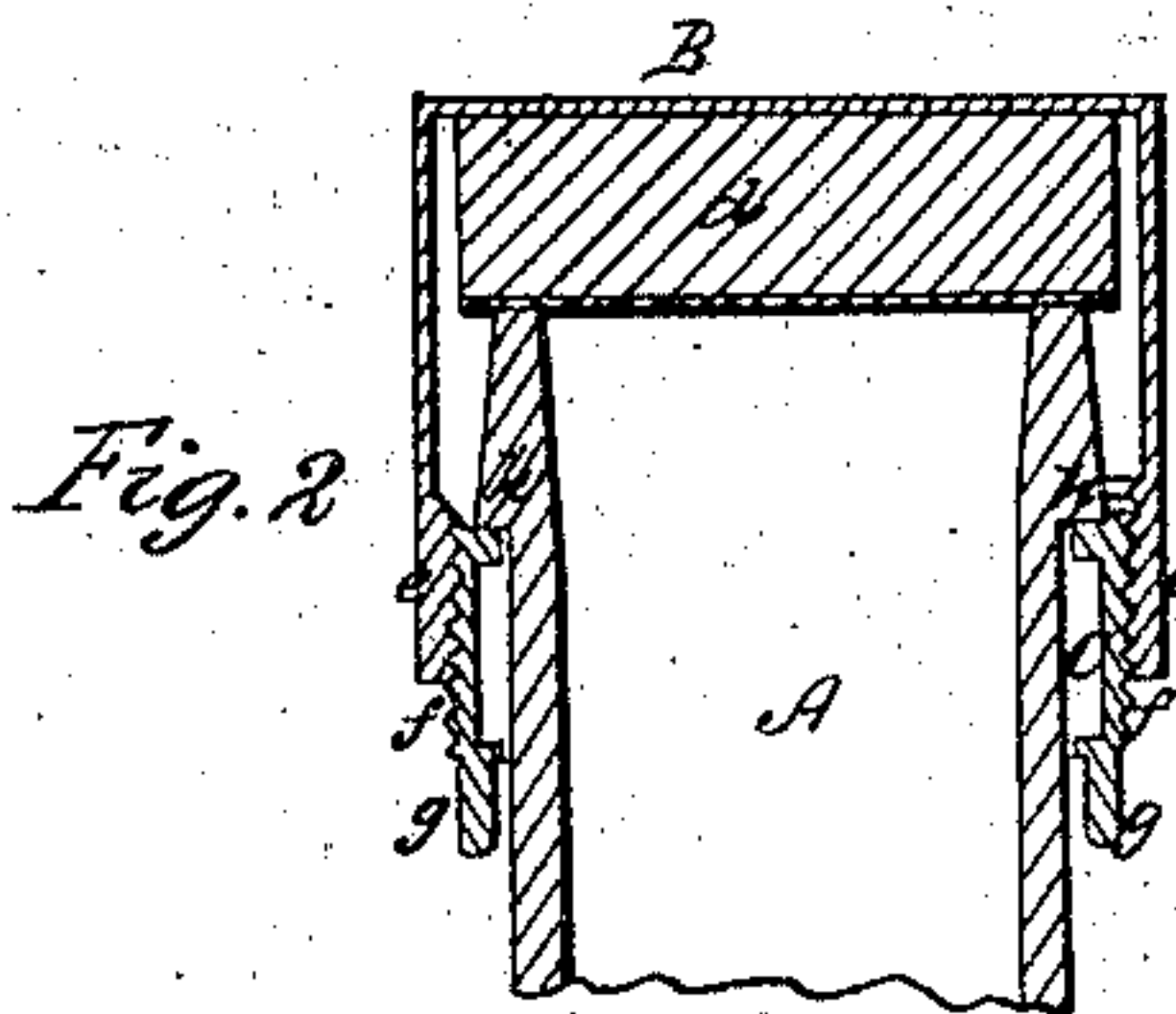
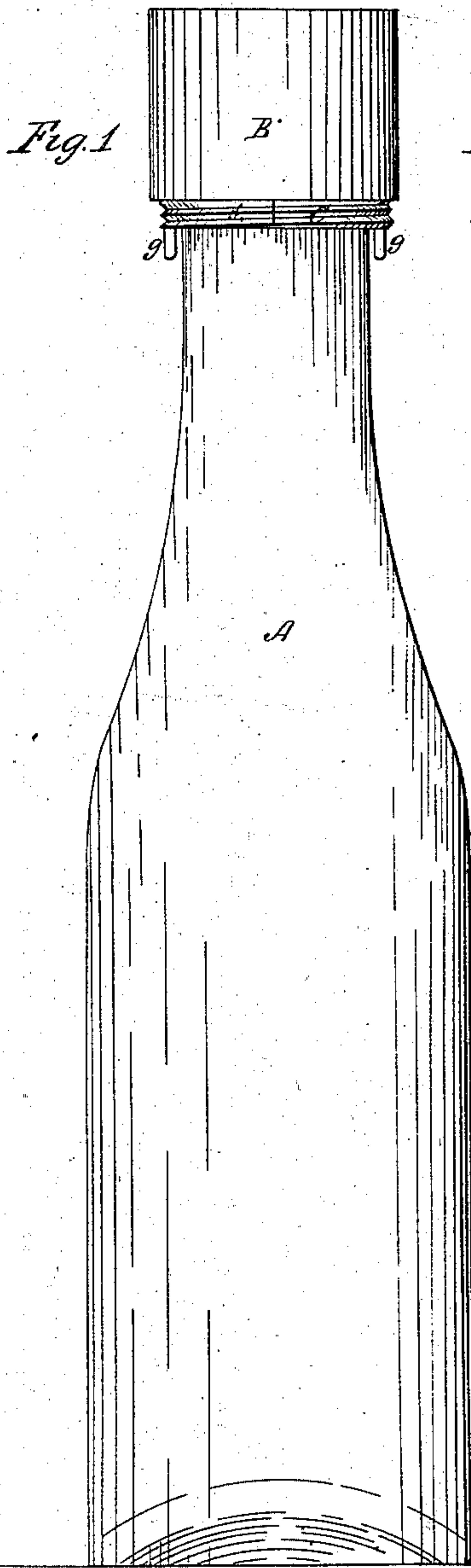


M. B. Espy,

Stopper Fastener.

N^o 15,802.

Patented Sep. 30, 1856.



Witnesses;

Jas. Pennington
Geo. Morrison

Inventor;
Mills B. Espy

UNITED STATES PATENT OFFICE.

MILLS B. ESPY, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED MODE OF HERMETICALLY SEALING BOTTLES.

Specification forming part of Letters Patent No. 15,802, dated September 30, 1856.

To all whom it may concern:

Be it known that I, M. B. ESPY, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and Improved Mode of Hermetically Closing Bottles; 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 represents a bottle hermetically closed thereby; Fig. 2, a vertical longitudinal section of the upper part shown in Fig. 1; Fig. 3, a horizontal or transverse section of the same just below the lip of the bottle; and Fig. 4, a representation of the same with the cap removed, like letters indicating the same objects in the different figures.

The nature of my invention consists in the employment of a two-part metallic collar constructed in a cylindrical form, with screw-threads around its periphery, and adapted for application around the neck of a bottle beneath and in contact with the lower edge of the lip of the same, so as to receive the screw-threads of a metallic cap containing within it a flat piece of cork or other elastic and suitable material, when the said cap is applied by screwing it upon the collar, and thus bringing the said cork in compressing contact around upon the upper edge or mouth of the said bottle and hermetically closing it.

The invention is designed for hermetically closing bottles used for preserving fruits, vegetables, &c. The vessels heretofore used for the purpose being generally composed either wholly of metal or of glass with metallic covers requiring cement to make them air-tight. These are objectionable on account of their imparting a metallic flavor to the preserve, and requiring the application of heat to soften the solder or cement before they can be opened, besides the liability to which they are subject of some of the cement becoming mixed with the preserve, and also of softening too much in hot climates and allowing thus the admission of air and the consequent spoiling of the preserve. It is, moreover, difficult and costly to procure cork sufficiently sound of the size required to close such bottles by the well-known mode of insertion. All of these serious objections and difficulties in the business of putting up fruits and vegetables for preservation are entirely obviated by the

present invention, and which I will now proceed to describe.

Referring to the drawings, A is a common glass bottle, made with a lip or solid projection around its mouth, in the usual manner; B, the metallic cap, and C the two-part collar.

The cap B is a hollow cylinder closed at one end, and has a flat cylindrical piece of cork, *d*, or other similar elastic material, cemented or otherwise secured within it at the closed end, so that when it is placed over the mouth of the said bottle the cork shall entirely cover its said mouth, and has also screw-threads *e* around on its inner side near the open end.

The collar C is cast of zinc or other soft metal in the form of a short hollow cylinder open at both ends, with screw-threads *f* around its periphery to match with those *e*, which are on the inner side of the cap, and also with two small projections, *g g*, at its lower edge. It is then sawed diametrically in two parts by a single straight cut, as shown in Figs. 1 and 3, or by two oblique cuts, as shown in Fig. 4, the latter being preferred, as it brings the severed threads in juxtaposition when the two parts of the said collar are held by the fingers around the neck of the bottle. The diameter of the inside of this collar is somewhat greater than that of the neck of the bottle where it is applied, so as to admit of the expansion of the latter by boiling-heat, and that of the outside sufficient to project the screw-threads *f* thereon beyond the lip *h* of the bottle when applied to same, while at the same time its upper edge comes in contact with the under edge of the said lip *h*, and thus prevents the collar from being drawn over the lip, as seen in Figs. 2 and 4.

In constructing the cap B it may be cast of any suitable soft metal, or may be made of tin-plate, and the screw-threads *e* subsequently cast around on the inner side of the same in a well-known manner. The cord *d*, being thin, is easily obtained sufficiently sound for the purpose.

In applying the invention to a bottle the two parts of the collar C are held by the one hand around under the lip of the bottle, while with the other the cap B is screwed into connection therewith, and until the cork is thereby brought down in compressing contact upon the upper edge of the lip of the bottle, and it is thus hermetically closed or sealed, the

small projections *g g* affording the means of preventing the collars turning around with the cap in closing or opening the bottle. It will be perceived that no metal can come in contact with the preserve, that no cement is required, and also that the bottle can readily be either closed hermetically or opened without heat, and that it is not liable to be opened by transportation.

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

The employment of the two-part screw-col-

lar C for the purpose of drawing down and holding the cover over the mouth of a bottle, so that the said bottle shall be hermetically closed by the cork *d*, or its equivalent, being compressed upon the upper edge of the lip of the same, as described, the said collar being constructed, applied, and operating substantially in the manner set forth and described.

MILLS B. ESPY.

Witnesses:

BEN. MORISON,

JAS. GLENDINNING.