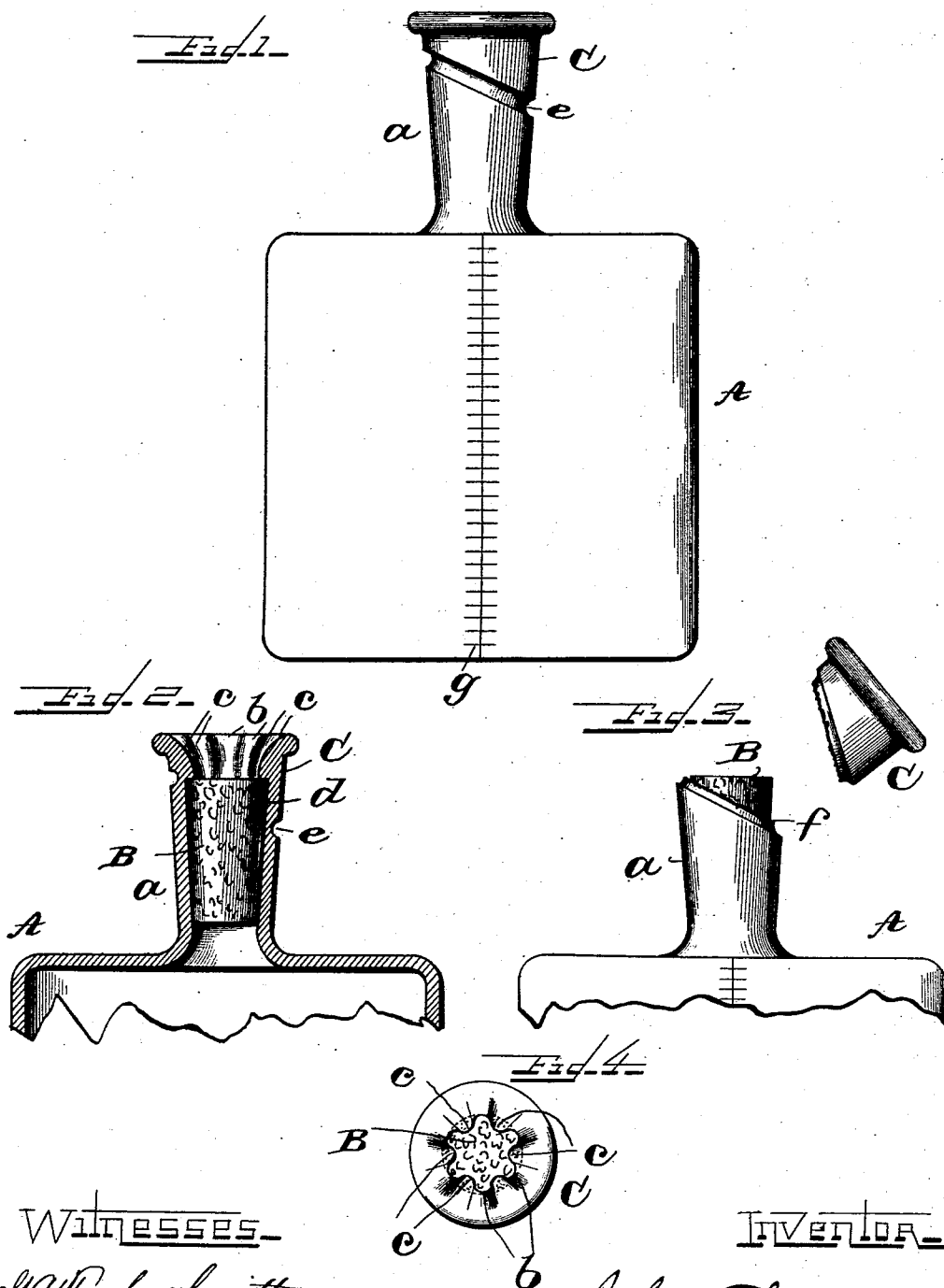


(No Model.)

J. T. SAVAGE.
NON-REFILLING BOTTLE.

No. 572,126.

Patented Dec. 1, 1896.



WITNESSES—

W. A. Pauberschmitt,
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UNITED STATES PATENT OFFICE.

JOHN T. SAVAGE, OF MIDDLETOWN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO W. B. WITHAUER, OF SAME PLACE.

NON-REFILLING BOTTLE.

SPECIFICATION forming part of Letters Patent No. 572,126, dated December 1, 1896.

Application filed February 21, 1896. Serial No. 580,209. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. SAVAGE, a citizen of the United States, residing at Middletown, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Non-Refilling Bottles; 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 appertains to make and use the same.

My invention relates to bottles, and has especial reference to that class of bottles known as "non-refilling" bottles, designed to prevent the perpetration of fraud in refilling bottles with viands of inferior quality and the manufacture of other persons than the one who originally filled the bottles and put them on the market; and the invention consists in certain improvements in construction, which will be fully disclosed in the following specification and claims.

In the accompanying drawings, which form part of this specification, Figure 1 represents a side elevation of a bottle of my improved construction; Fig. 2, a vertical section of the neck of a bottle; Fig. 3, a side elevation of the same with the neck broken and the upper part removed, and Fig. 4 a top plan view.

Reference being had to the drawings and the letters thereon, A indicates a bottle which may be of any desired or preferred form or design; *a*, the neck of the bottle, in the upper part or mouth of which are corrugations *b*, the inwardly-projecting members *c* of which extend beyond the cylindrical throat *d*, and on the outside of the neck of the bottle is a groove *e*, preferably crossing the neck diagonally, as shown.

B indicates the cork of the bottle, which is forced through the corrugated part of the neck and seated in the cylindrical throat *d* below the corrugations, and extends above and below the groove *e*, thereby strengthening the neck until it is purposely broken.

The diagonal groove *e* weakens the neck of the bottle on the line of the groove, and when the upper portion C has been broken off forms

an inclined or angular lip or spout *f*, as shown in Fig. 3, which facilitates pouring liquid out of the bottle.

In corking the bottle the corks, being soft, are readily forced through the corrugations and then swell or expand at the upper end, so as to extend outward under the inwardly-extending members *c* of the corrugations and prevent the cork being withdrawn from the bottle without breaking the neck on the line of the groove *e*, and when broken the angular end or lip *f* prevents refilling and corking again for the reason that the sharp ragged edge of the angular lip cuts into dry corks and prevents them being inserted, and the use of a machine for filling and corking is rendered impracticable because the corks expand on the free side between the upper end of the inclined lip and the lower end of the lip, and therefore will not enter the throat of the bottle. In corking the bottle the corrugations admit of a free and ready escape of air displaced by the cork until the lower end of the cork has passed the corrugations, and thus prevent bursting the bottle.

The corrugations may be formed by the use of a mandrel of less diameter than the throat of the bottle, and the groove *e* may be formed by the use of a suitable roll applied while the mandrel is in the neck of the bottle, the roll thus serving a twofold purpose in displacing the glass on the mandrel to form the internal corrugations and in forming the external groove in the neck of the bottle.

Another advantage of the diagonal groove is that after the upper part C has been broken off the neck of the bottle a large portion of the cork is exposed and can be readily removed without the use of a special improvement for the purpose.

The bottle may be graduated, as shown at *g*, to indicate the height of liquid in the bottle.

The bottle thus constructed is easy of manufacture and costs but a trifle, if any, more than the ordinary bottles in use.

Having thus fully described my invention, what I claim is—

1. A bottle having a diagonal groove in its

neck, in combination with a cork extending above and below said groove.

2. A bottle having an external diagonal groove in its neck and internal corrugations
5 in the upper end of the neck extending inward beyond the wall of the throat of the bottle, in combination with a cork extending above and below said groove.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN T. SAVAGE.

Witnesses:

S. B. GINGRICH,
JAS. J. NEAGLE.