(No Model.)

J. H. DOERR.

NON-REFILLING BOTTLE.

No. 582,116. Patented May 4, 1897.

Fig. 1.

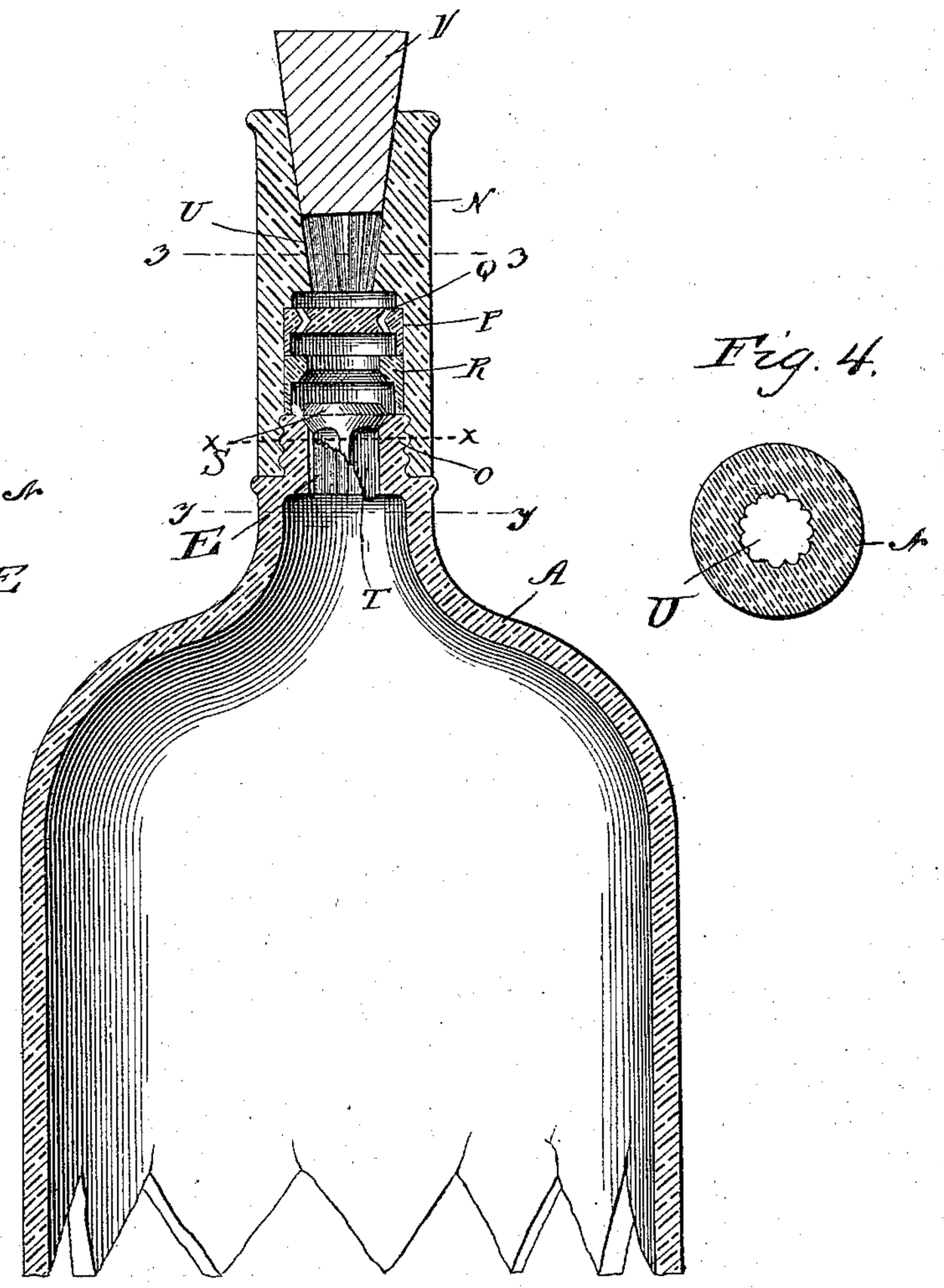


Fig. 3.

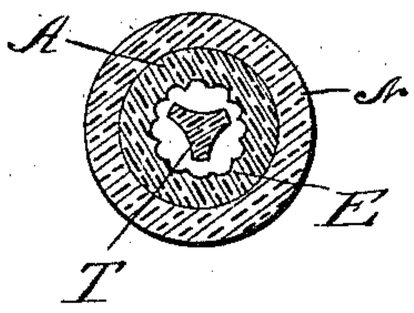


Fig. 4.

Fig. 2.

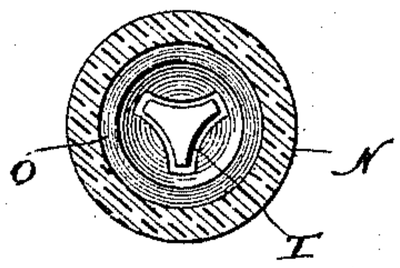
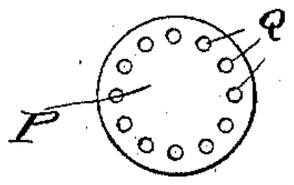


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN HENRY DOERR, OF CAMDEN, NEW JERSEY.

NON-REFILLING BOTTLE.

SPECIFICATION forming part of Letters Patent No. 582,116, dated May 4, 1897.

Application filed May 29, 1896. Serial No. 593,609. (No model.)

To all whom it may concern:

Be it known that I, JOHN HENRY DOERR, a citizen of the United States, residing at Camden, in the county of Camden and State of New Jersey, have invented certain new and useful Improvements in Non-Refilling Bottles, of which the following is a specification.

My invention relates to a new and useful improvement in non-refilling bottles, and has for its object to provide such a device that while it may be once filled and its contents poured therefrom as desired, yet it cannot again be filled without destroying the bottle itself or some portion thereof, so as to render said bottle useless.

It is a well-known fact that the goods of certain manufacturers are imitated by the refilling of the bottles in which such goods originally came, and the public is thus deceived in the purchase of an inferior article, as well as the manufacturer defrauded of his just returns; but by the use of my improvement this will be impossible, since when the bottle is once filled and sealed it cannot again be filled, after its contents have been withdrawn, without destroying the bottle.

Another disadvantage which has heretofore existed in connection with bottling certain classes of liquids, such as champagne, by the use of ordinary cork as a stopper is that such a stopper absorbs a large quantity of the champagne or other wine, thus becoming saturated therewith, and in turn the moisture in the cork will be evaporated by exposure to the atmosphere, and the process of absorption and evaporation continuing for any length of time will materially decrease the quantity of liquid within the bottle, as well as bring about a chemical change of the liquid held by the cork, so as to cause it to sour, often deteriorating the whole contents of the bottle.

I have overcome all of these disadvantages by my invention, which consists in the details of construction and combination of elements hereinafter set forth, and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction and operation in detail, referring by letter to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a central vertical section of a bottle made in accordance with my improvement. Fig. 2 is a section on the line *y y*, Fig. 3 is a section on the line *x x*, and Fig. 4 is a section on the line *z z*, of Fig. 1. Fig. 5 is a detail plan view of the keeper.

Referring to the drawings in detail, A represents the neck of the bottle, which may be of any desired length or design, and this neck has formed thereon a threaded shank E of such a size relative to the neck as to produce a shoulder against which the extension N is adapted to be screwed and sealed to the neck of the bottle at O, and within this extension is located a keeper P, having zigzag holes Q formed therein, and below the keeper is placed a cage, the cavity therein being adapted to receive the upper end of the valve S. This valve has a corrugated stem T, which serves as a guide within the opening in the neck of the bottle, and the upper end of the neck is ground or otherwise made into a seat for the reception of the valve.

A corrugated tapering cork-seat U is formed in the upper end of the extension for the reception of a suitable cork V.

In filling a bottle the contents are placed therein before the extension is sealed in place, and after this extension has been sealed in place a cork is inserted, which will prevent any outflow of the liquid in shipping. A bottle thus filled may be emptied in the usual manner, but should an attempt be made to refill the same it is obvious that liquid poured through the mouth will gain access to the chamber within the cage by passing through the zigzag holes Q and firmly seat the valve, thereby precluding the possibility of said liquid gaining access to the bottle, and as the extension has previously been sealed to the shank by cement, which is more durable than the glass of which the bottle is composed, it will be seen that the valve cannot be tampered with without breaking the extension, as the zigzag holes will permit the passage of the liquid, but prevent the insertion of an implement for tampering with the valve, and should the extension be broken this would afford easy means for the detection of a fraudulent

attempt to sell an inferior liquid for the original contents of the bottle by the most casual observer.

I am aware that slight modifications might be made in the exact construction here shown and described without departing from the spirit of my invention, and I therefore do not wish to be limited to the exact design illustrated.

Having thus fully described my invention, what I claim as new and useful is—

In combination with a bottle, the neck thereof having a threaded shank, a shoulder formed by said shank, the shank having a corrugated central opening and a valve-seat formed at the upper end of said opening, a valve adapted to fit said valve-seat having a corrugated stem, an extension adapted to be screwed onto and sealed to the neck of the bottle, a shoulder formed on the interior of said extension, a keeper having zigzag holes therein fitting against said shoulder, a cage placed below said keeper having a cavity therein adapted to receive the upper end of the valve and a tapering mouth for the reception of a cork having corrugations therein as and for the purpose described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

JOHN HENRY DOERR.

Witnesses:
S. S. WILLIAMSON,
MARK BUFORD.