

(No Model.)

J. T. FORD.  
BOTTLE AND STOPPER THEREFOR.

No. 453,731.

Patented June 9, 1891.

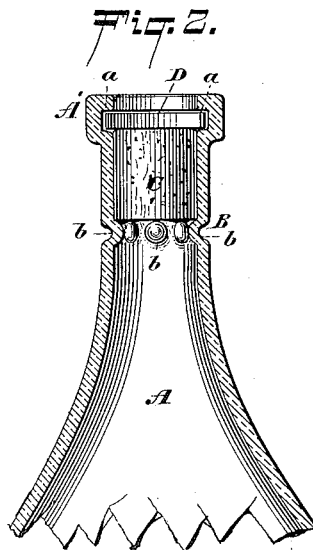
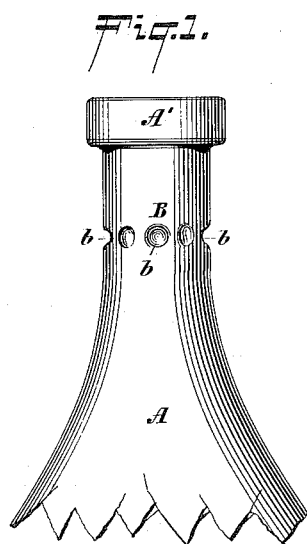


Fig. 3.

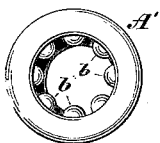
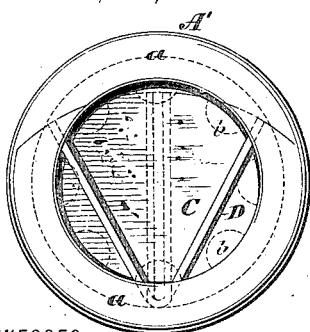


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## BOTTLE AND STOPPER THEREFOR.

SPECIFICATION forming part of Letters Patent No. 453,731, dated June 9, 1891.

Application filed November 26, 1890. Serial No. 372,730. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES THOMAS FORD, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in 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 an improvement in bottles, and especially to certain improvements in the necks of bottles, whereby a much smaller cork than ordinary can be employed and any liability of the cork being driven inward beyond a certain point, as a result of carelessness or other cause, is absolutely prevented.

With this end in view my invention consists of a bottle having a ring of internal projections formed by indentations made from the outside.

It further consists in a bottle having a ring of internal projections and an annular lip or recess located a sufficient distance from the projections to receive a cork, in connection with a spring-fastener constructed to lie in the annular recess, resting edgewise upon the upper end of the cork and holding the latter between itself and the projections; and it still further consists in certain novel features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation of the upper end of a bottle. Fig. 2 is a sectional view. Fig. 3 is a plan view, and Fig. 4 is an enlarged plan view showing the fastener.

A represents the body of the bottle, and B the neck. Inside of this neck and a sufficient distance from the outer end to receive a cork there is molded a ring of projections *b b*. These projections are preferably rounded or convex and formed by indentations made in the neck of the bottle from the outside, making it easier to mold the bottles without an interior core or device for pressing the projections when cast solid. These projections are adapted to form a shoulder to prevent a cork from being forced inward beyond them. Being round, they also serve as bearing-points

to facilitate the use of a funnel and preserve air-passages around it when placed in the neck of the bottle.

At the mouth of the bottle there is preferably formed an enlargement *A'*, and in it an annular recess *a* is made, or a lip is formed. *D* is a stopper-fastener comprising a narrow piece of spring metal bent in the middle to form two members, and as the latter tend to expand or spread outwardly the fastener has contact at three points against the wall of the neck inside of the recess *a* or under the annular lip, as shown in Fig. 4. To apply the fastener its members are forced together, as indicated in dotted lines, and placed over the cork and allowed to expand. The cork *C* is of sufficient length to fill the space between the ring of projections and the recess. As this fastener rests edgewise against the cork, its greatest strength is taken advantage of. By its use all wiring and outside fasteners are dispensed with, thus giving a neat appearance and producing a secure fastening. When the fastener has been applied, the top may be serrated in any approved manner, if desired, to give a neat appearance and further insure tightness.

It will be observed that a great saving is made in corks, the corks employed being about one-third the usual size necessary.

In this invention the cork is held firmly at both ends, and it is impossible for it to move in either direction, and by forming a stop for it and forcing it with great pressure against that stop and then applying the fastener to keep it in place the slightest possibility of air or gases passing is prevented.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a bottle constructed with internal projections in its neck and a recess located some distance from the projections, of a stopper and a stopper-fastener consisting of a strip bent into V shape and adapted to be sprung into the recess to retain the stopper between the recess and the projections, said fastener engaging in the recess by its angle and ends, substantially as set forth.

2. The combination, with a bottle con-

structed with an annular recess located near  
the outer end of the neck, of a stopper, a  
stopper-fastener consisting of a spring-metal  
strip bent into V shape and adapted to be  
5 sprung into the annular recess to retain the  
stopper in position in the neck of the bottle,  
said fastener engaging the recess by its an-  
gle and ends, substantially as set forth.

In testimony whereof I have signed this  
specification in the presence of two subscrib- ing witnesses.

JAMES THOMAS FORD.

Witnesses:

JOHN J. ENNIS,

WILLIAM H. LIPPIATT.