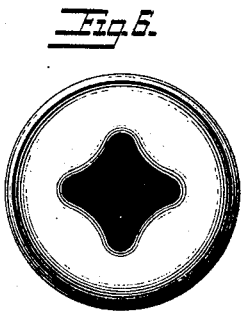
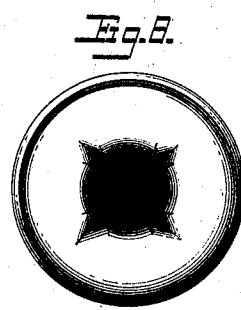
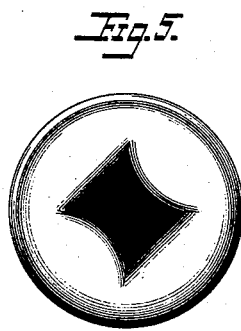
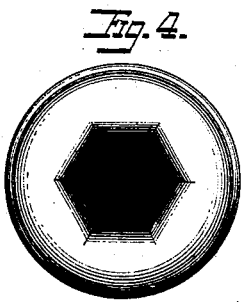
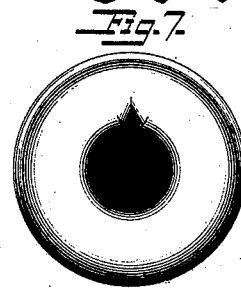
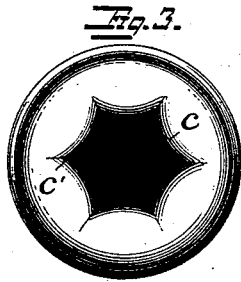
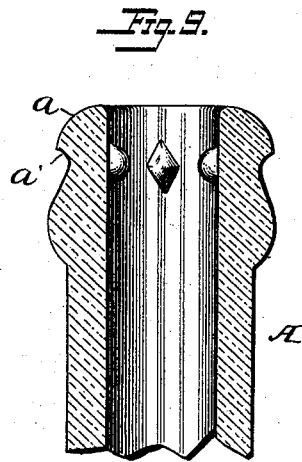
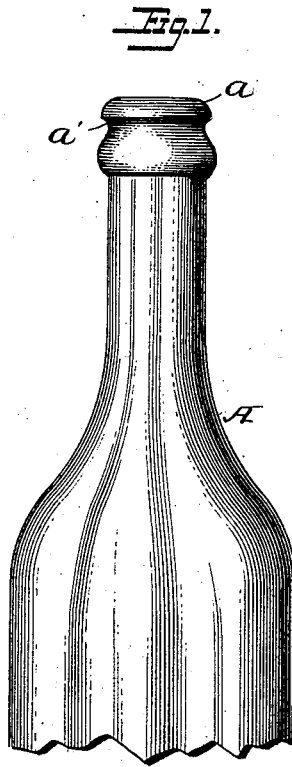
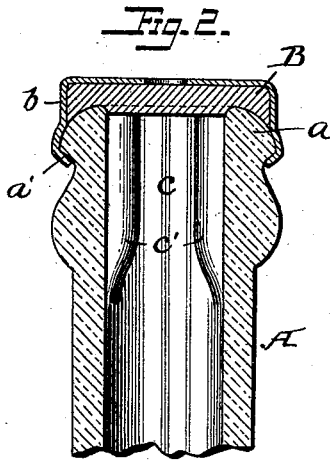


(No Model.)

A. L. STRAUS.  
BOTTLE.

No. 491,198.

Patented Feb. 7, 1893.



Witnesses  
*J. H. Hinkel*  
*Wm. E. Keff*

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Attorney

# UNITED STATES PATENT OFFICE.

ALEXANDER L. STRAUS, OF BALTIMORE, MARYLAND.

## BOTTLE.

SPECIFICATION forming part of Letters Patent No. 491,198, dated February 7, 1893.

Application filed May 16, 1892. Serial No. 433,200. (No model.)

*To all whom it may concern.*

Be it known that I, ALEXANDER L. STRAUS, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Bottles, of which the following is a specification.

My invention relates to bottles and more especially to that class of bottles which are adapted to be closed by caps which fit upon and around the head of the bottle without entering the neck.

In many branches of trade material put up in bottles is sold independently of the bottle, the latter being at all times the property of the bottler. A source of great expense and annoyance to brewers and others arises from the loss of bottles which have been distributed to dealers to be returned when the contents are sold. This loss arises mainly from the appropriation of the bottles to other purposes by the retail dealers and consumers, such bottles usually being readily convertible to domestic uses, such as putting up ketchup, pickles, &c. When the bottles are used for such purposes it is customary to close them with corks or other stoppers of circular section.

The object of my invention is to provide bottles of such shape that they cannot be closed by ordinary circular stoppers of cork or other material, thus preventing the loss of bottles by rendering them useless to persons not supplied with proper capping machinery. I accomplish this object by making the sectional outline of the throat or interior of the neck of the bottles irregular or other than circular in outline so that it will be impossible to close the bottle with an ordinary cork or stopper although the bottle may be used over and over again by the proper owner who is provided with the necessary mechanism for applying the caps or outside seals.

In the accompanying drawings, Figure 1 shows a side view of the upper part of a bottle made according to my invention. Fig. 2 is a central sectional view of the head of such a bottle with a sealing device applied thereto. Fig. 3 is a plan view of the head of the bottle shown in Figs. 1 and 2. Figs. 4, 5, 6, 7 and 8 are views similar to Fig. 3 showing different forms of throat sections, and Fig. 9 shows a cylindrical throat formed with inward projections.

In the drawings A represents the neck of a bottle and *a* an annular lip which surrounds the mouth of the bottle.

B is a cap of any suitable material which as shown is provided with a depending flange *b* adapted to be pressed into an annular groove *a'* beneath the lip to retain it firmly upon the bottle.

To accomplish the object of my invention I form the throat or inside surface of the neck of the bottle near the mouth with either projections or depressions, thus departing from the usual cylindrical throat. I preferably form the throat with one or more acute angular grooves running longitudinally inward from the mouth and which it would be impossible to close completely with an ordinary cork or stopper. As shown in Figs. 1, 2 and 3 the inner surface of the neck is fluted, having rounded inwardly projecting shoulders *c* and angular grooves *c'* extending from the mouth some distance inward. In Figs. 4 to 8 inclusive other forms of throats are shown, and such forms might be multiplied to any extent without departing from the spirit of my invention, the main feature of which is to prevent the closing of bottles of the class described by the ordinary means such as corks or stoppers of rubber or other material which are adapted to close bottles of the usual construction.

Instead of longitudinal grooves and ridges I may use one or more isolated projections upon the surface of the throat, which may be otherwise cylindrical if desired, as shown in Fig. 9.

I am aware that the necks of bottles have been formed with internal projections and depressions for the purpose of retaining corks or stoppers, and also to prevent corks from being pushed into the body of the bottle. But my invention is to a certain extent for an opposite purpose, that is, it is to prevent bottles from being closed by ordinary corks or stoppers; and it applies only to "seal bottles" or bottles which are closed by pressing upon them an outside cap or seal.

Without limiting myself to the precise forms shown, I claim:

1. A bottle having the interior of its neck near the mouth other than circular in sectional outline, and its head constructed to receive

and retain a cap or seal, substantially as described and for the purpose set forth.

2. A bottle having one or more projections or depressions in its throat near the mouth  
5 and its head constructed to receive and retain a cap or seal, substantially as described and for the purpose set forth.

3. A bottle having a lip and an annular groove on its head to receive and retain a cap

and projections or depressions in its throat near the mouth, substantially as described and for the purpose set forth.

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

ALEXANDER L. STRAUS.

Witnesses:

J. A. WATSON,

THEODORE L. STRAUS.