

(No Model.)

F. E. BLAISDELL.
BOTTLE.

No. 525,129.

Patented Aug. 28, 1894.

Fig. 1.

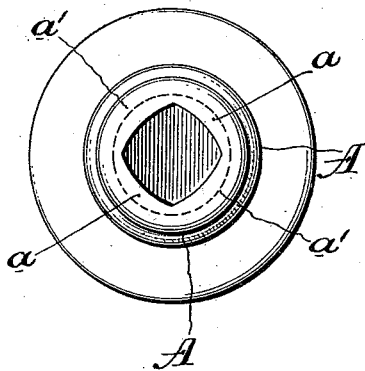


Fig. 2.

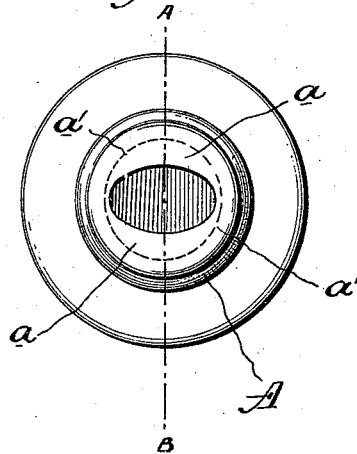


Fig. 3.

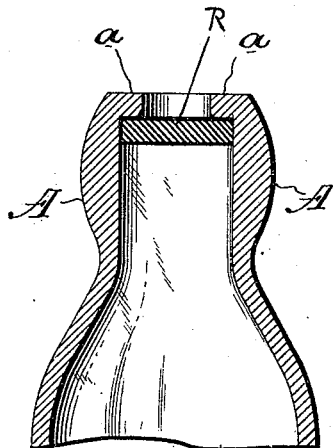
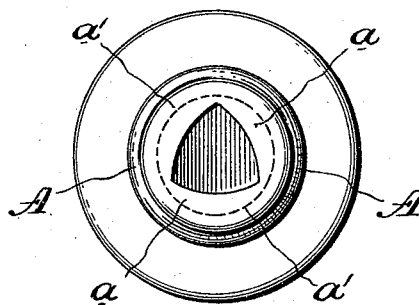


Fig. 4.



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UNITED STATES PATENT OFFICE.

FREDERICK E. BLAISDELL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR
OF ONE-THIRD TO ELMER Z. TAYLOR, OF SAME PLACE.

BOTTLE.

SPECIFICATION forming part of Letters Patent No. 525,129, dated August 28, 1894.

Application filed January 28, 1893. Serial No. 460,137. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK E. BLAISDELL, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Bottles, of which the following is a specification, such as will enable others skilled in the art to which it appertains to make and use the same.

It is the custom among bottlers of beer and other beverages, to sell only the beverage and retain the ownership of the bottle in which the same is furnished to the customers, who are expected to return the bottle when empty to the bottler, to be refilled. But, inasmuch as the bottles used are convenient receptacles for holding various liquids, it is found that they are frequently permanently retained by those into whose hands they fall, and the bottler is consequently compelled to replace all such bottles so retained at great inconvenience and expense; and the object of my invention is to provide a bottle of such form that the same will be utterly useless to the general public, for the reason that the same can only be closed or stopped by the insertion in the throat orifice thereof of a stopper or seal of peculiar form, which can only be inserted in such bottle by the use of a costly and cumbersome machine, which only persons engaged in the bottling business can afford to possess; whereby, such bottles being of no use to the persons to whom the contents are sold, the same will invariably be returned to the bottler when emptied; and this I accomplish by means of the peculiar construction of my improved form of bottle, shown and described in the following specification of which the accompanying drawings form a part, wherein similar letters of reference designate like or equivalent parts wherever found throughout the several views, and in which—

Figure 1 is a top plan view of my improved form of bottle; Figs. 2 and 4, views similar to Fig. 1 of modified forms of the construction shown in Fig. 1, and Fig. 3, a side-view, in central vertical section thereof, of the top or neck portion of my said improved form of bottle.

My invention consists broadly in forming

a bottle, with a throat orifice or outlet which is contracted near the outer end thereof by a flange which projects inward over such outlet in such manner as to retain in the enlarged portion of the throat orifice below, such flange, an expansible stopper which has been forced through the contracted portion, and in making the contracted portion of the throat orifice passing through and surrounded by the flange of any irregular form other than a circle, which cannot be tightly closed by the insertion therein of a circular cork of ordinary form.

Referring to the drawings:—The reference letter A designates the neck of the bottle, and this neck is turned over inward at or near the top thereof so as to form a flange *a* which projects inward over the main portion *a'* of the throat orifice or outlet, which main portion *a'* forms the chamber beneath such flange *a* in which the expansible seal R expands after being inserted therein, by being forced through the irregular opening through the flange, and while the opening through the flange is necessarily of some irregular form other than a true circle, the larger portion *a'* of the throat orifice, beneath the flange, is preferably of substantially circular form as shown.

As will be seen by an examination of Figs. 1, 2, and 4, wherein the circular dotted lines show the area of the enlarged or expanded portion of the throat orifice or outlet *a'*, as compared with the area of the irregular orifice through the flange *a*, the greatest diameter of the irregular orifice through such flange, is in all cases considerably less than the diameter of the circular expanded portion of the throat orifice immediately below such flange, and by making my bottle of this construction, and using a compressible elastic and expansible seal which will expand beneath the flange *a* so as to completely fill the area of the expanded portion *a'* of the throat orifice or outlet, I am able to do away with the use of a seat formed separate from the bottle and introduced through the irregular orifice and cemented in position beneath the flange *a*, as is the case with bottles using non-expansible seals, and in bottles of this form, unless such separate seat is

used, or the diameter of the expanded portion a' of the throat orifice or outlet of the bottle is greater than the greatest diameter of the irregular orifice or outlet, as it is formed in my improved bottle shown herein, so that the outer portion of the flange nearest the wall of the bottle neck forms itself a circular unbroken seat for the expansible seal, it will be impossible, especially when beer and other effervescent fluids are placed in the bottles, to prevent leakage around the edge of the stopper at the point where there is no flange above the same, even when such expansible seals are used, and especially so when seals of hard inflexible material designed to be inserted through the irregular orifice edgewise are used.

It will be seen upon examination of the drawings that while it is possible to close bottles of my improved form of construction with expansible seals of the form shown at R which are forced through the irregular orifice in the flange a , and which expand in the main portion a' of the throat orifice or outlet, that an ordinary stopper of circular form, or of any form which does not expand beneath the flange a' will not close the bottle. In other words a round stopper cannot be made to fit the irregular orifice in the flange a , and inasmuch as the seal R can only be inserted in the bottle by a special machine, such bottles will be useless to persons other than those engaged in the bottling business and having such machines, and will consequently be returned to the owner.

It is evident that many changes and modifications in the form of the orifice in the flange a , and also in other portions of my improved bottle, may be made without departing from the scope of my invention, and I do not intend to limit myself to the exact form of construction shown, but

Having now particularly described and ascertained the nature of my said invention, what I claim, and desire to secure by Letters Patent, is—

1. A bottle having a throat orifice or outlet, the main portion of which outlet is of substantially circular form in cross-section, and a flange projecting inward over the main portion of such orifice or outlet in such manner as to retain beneath it an expansible seal, that portion of the throat orifice or outlet passing through and surrounded by the flange being of a form other than a true circle and smaller in its greatest diameter than is the main portion of the outlet below the same, substantially as shown and described.

2. A bottle having a throat orifice or outlet, the main portion of which outlet is of substantially circular form in cross-section, and a flange projecting inward over the main portion of such orifice or outlet in such manner as to retain beneath it an expansible seal and having a passage through and surrounded by the same of a form other than a circle which cannot be closed by the insertion of a circu-

lar cork of ordinary form therein, such passage through the flange being smaller in its greatest diameter than is the throat orifice immediately below the flange, and that portion of the under side of the flange lying nearest to the wall of the main portion of the outlet or orifice forming a circular unbroken seat for the seal, substantially as shown and described.

3. A bottle having a flange projecting inward over the throat orifice or outlet thereof near the outer end of such orifice in such manner as to retain beneath the same an expansible seal, that portion of the outlet passing through and surrounded by the flange being of irregular form in cross-section and smaller in its greatest diameter than is the throat orifice immediately below the same, and that portion of the under-side of the flange lying nearest to the wall of the main portion of the outlet or orifice forming a circular unbroken seat for the seal, substantially as shown and described.

4. A bottle having a contracted throat orifice or outlet of less diameter than the main portion or body of the bottle, and a thin flange projecting inward over such throat orifice or outlet and having a passage through and surrounded by the same of an irregular form other than a circle which cannot be closed by the insertion therein of a circular cork of ordinary form, the passage through the flange being smaller in its greatest diameter than is the main portion of the throat orifice or outlet immediately below such flange, and that portion of the under side of the flange lying nearest to the wall of the main portion of the throat orifice or outlet forming a circular unbroken seat for the expansible seal when the same is inserted in the bottle, substantially as shown and described.

5. The combination with a bottle having a throat orifice or outlet of less diameter than the main or body portion of the bottle, and a flange projecting inward over such throat orifice or outlet and having a passage through and surrounded by the same of an irregular non-circular form which cannot be closed by the insertion therein of a circular stopper or cork of ordinary form, such passage through the flange being smaller in its greatest diameter than is the main portion of the throat orifice or outlet immediately below the same, and that portion of the under side of the flange lying nearest to the wall of the main portion of the throat orifice or outlet forming a circular unbroken seat for an interior seal, of an expansible seal held in the throat orifice below the flange and against the seat after being forced through the irregular passage through the flange, substantially as shown and described.

6. The combination with a bottle having a throat orifice or outlet of less diameter than the main or body portion of the bottle, and a flange projecting inward over such throat orifice or outlet and having a passage through

and surrounded by the same of an irregular non-circular form which cannot be closed by the insertion therein of a circular stopper or cork of ordinary form, such passage through
5 the flange being smaller in its greatest diameter than is the main portion of the throat orifice or outlet immediately below the same, and that portion of the under side of the flange lying nearest to the wall of the main
10 portion of the throat orifice or outlet forming a circular unbroken seat for an interior seal, the flange and seat formed by a portion of

same being formed integral with the bottle neck, of an expansible seal held in the throat orifice below the flange and against the circular unbroken seat after being forced through the non-circular passage through the flange, substantially as shown and described. 15

In testimony of which invention I have hereunto set my hand.

FREDERICK E. BLAISDELL.

• Witnesses:

FRANK S. BUSSE,

HERBERT A. HALL.