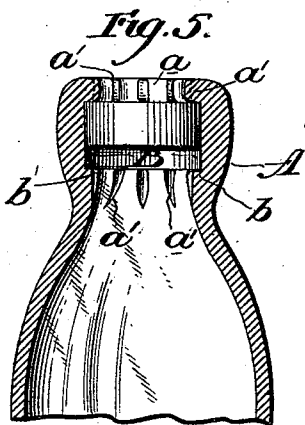
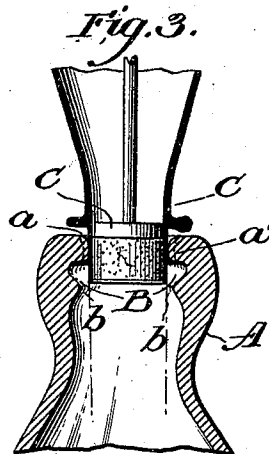
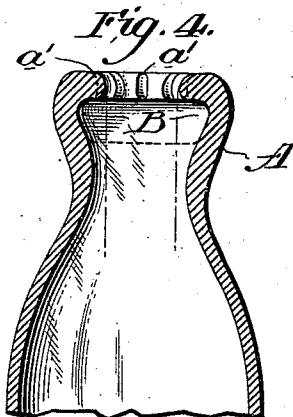
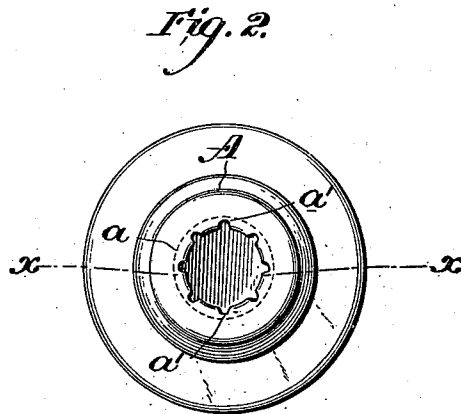
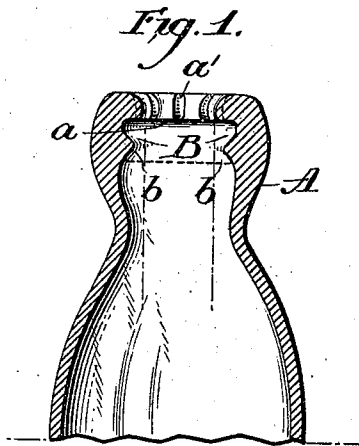


(No Model.)

F. E. BLAISDELL.
BOTTLE.

No. 525,128.

Patented Aug. 28, 1894.



WITNESSES:
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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. 525,128, dated August 28, 1894.

Application filed January 28, 1893. Serial No. 460,136. (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, in which—

Figure 1, is a view of my improved form of bottle, in central vertical section thereof; Fig. 2, a top plan view of such bottle; and Fig. 3, a view thereof similar to Fig. 1, showing the stopper or seal used with such bottle in process of being inserted therein. Figs. 4, and 5, are views similar to Fig. 1 of modified forms of the construction shown in such Fig. 1.

Referring to the drawings:—The reference letter A designates the neck of the bottle, projecting inward over the throat orifice or outlet of which, preferably at the extreme outer end thereof, as shown, is a serrated flange or rib consisting of a number of lugs or projections *a* which are separated one from another by grooves *a'* which extend from top to bottom of the said rib, flange, or contracted portion of the throat orifice or outlet of such bottle in such manner that when a circular cork or stopper of ordinary form is inserted in the ordinary manner in that portion of the throat orifice or outlet of the bottle surrounded by and forming the passage through the serrated flange, such grooves will still be only partially closed, so that the liquid in the bottle will leak through the same when the bottle is inverted.

In the main or enlarged portion B of the throat orifice or outlet of the bottle, is preferably located an inwardly extending annular rib or projection *b*, which extends into such throat orifice or outlet a little less than the depth to which the lugs *a* extend over the same, and this rib *b* is preferably situated but a short distance below the serrated flange formed by the said lugs *a*, so that when the expansible seal is inserted in the bottle the center of the sides thereof will be adjacent to such rib, and such seal will be expanded therein, so as to form a tight joint thereon as shown in dotted lines in Fig. 1, and in some instances it may be preferable to have the rib *b*, situated so far below the serrated top flange that the seal when inserted, will be wholly between such flange and such rib, as shown in Fig. 5, and in such case if preferred, such rib may extend as far inward into the throat orifice or outlet as does the serrated top flange, and when so extended it is of necessity, in order to prevent closure of the bottle by the insertion of a cork long enough to pass down by the same, of the same serrated form as is the top flange, consisting in such case of a series of lugs *b'*, separated one from another by suitable grooves *a''*.

The stopper or seal R designed to be used with my improved form of bottle is of well known form, being a thin disk of any suitable expansible material, preferably india-

rubber, and the same is inserted in the bottle, as shown in Fig. 3, preferably by being placed in a tube C the bottom end of which is of such size as to be inserted within the outlet orifice surrounded by the serrated flange formed by the lugs *a* and grooves *a'*, from which tube such seal is forced into the expanded portion B of the throat orifice or outlet of my improved bottle, by a plunger C', reciprocating in such tube C, said tube has been inserted in the bottle, as shown in Fig. 3.

As will be seen by an examination of Fig. 2, in which the circular dotted line denotes the area in cross-section of the main portion of the throat orifice or outlet of the bottle lying below the serrated flange, the grooves *a'* lying between the lugs *a* do not extend fully into the flange to the entire depth thereof, whereby that portion of the under side of the flange lying nearest to the wall of the main portion of the throat orifice or outlet forms a circular unbroken seat for the expansible seal R when the same has been forced through the orifice in the flange to its position beneath the same, and unless such circular unbroken seat is provided for such seal to rest against, it will be found practically impossible to close the bottle even with the seal, sufficiently tight to prevent leakage, especially when the bottle is filled with beer or other effervescent liquids, for containing which the same is more particularly designed to be used.

It is not my intention to confine myself strictly to the exact form of construction shown, as it will be seen that the number, shape and position of the lugs *a* and also of the lugs *b'*, may be greatly varied without departing from the scope of my invention, and I consider the same to consist broadly of a bottle having a series of lugs projecting inward over the throat orifice or outlet thereof, and springing at the base from a circular unbroken seal-seat, such lugs and seat being formed integral with the bottle neck, and being adapted to hold in position beneath them an expansible seal of substantially the form shown, in such manner as to tightly seal the bottle, said lugs being of such form as to at the same time prevent the closing of the bottle by the insertion therein of a cork of ordinary circular form when once the expansible seal has been removed.

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

1. In a bottle, the combination with a serrated flange or rib provided with a series of lugs *a* projecting inward over the throat ori-

fice or outlet in such manner as to receive and retain beneath the same a suitable seal for closing the bottle, of an annular rib *b* projecting inward into such throat orifice below the serrated flange, substantially as shown and described. 65

2. A bottle having two serrated flanges or ribs projecting inward into the throat orifice or outlet thereof so as to receive and retain in the space between them a suitable seal, substantially as shown and described. 70

3. The combination, with a bottle, having two serrated flanges or ribs projecting inward into the throat orifice or outlet thereof, of a seal of expansible material lying in the space between the two flanges in such manner as to be retained therein by the same so as to close the bottle, substantially as shown and described. 75

4. In a bottle, the combination with a flange projecting inward over the throat orifice or outlet thereof and forming a circular unbroken seal-seat, of a series of lugs or projections *a* springing at the base from such flange and also projecting inward over the throat orifice or outlet of the bottle, the seal-seat and projections being formed integral with the bottle-neck, substantially as shown and described. 80

5. The combination, with a bottle, having a flange projecting inward over the throat orifice or outlet thereof and forming a circular unbroken seal-seat, which flange is provided with a series of lugs or projections *a* springing at the base from such flange and also projecting inward over the throat orifice or outlet, of a seal of expansible material forced beneath and expanded below the lugs or projections *a* so as to close the bottle by pressing against the seal seat, substantially as shown and described. 85

6. In a bottle, the combination with a serrated flange or rib having a series of lugs *a* projecting inward over the throat orifice or outlet in such manner as to receive and retain beneath the same a suitable seal for closing the bottle, of a circular unbroken seal-seat located between the bases of the projections *a* and the wall of the throat orifice or outlet and formed by the under side of the flange bearing such projections, and an annular rib *b* projecting inward into such throat orifice or outlet below the flange forming the seal-seat, substantially as shown and described. 90

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

FREDERICK E. BLAISDELL.

Witnesses:

FRANK S. BUSSER,
HERBERT A. HALL.