

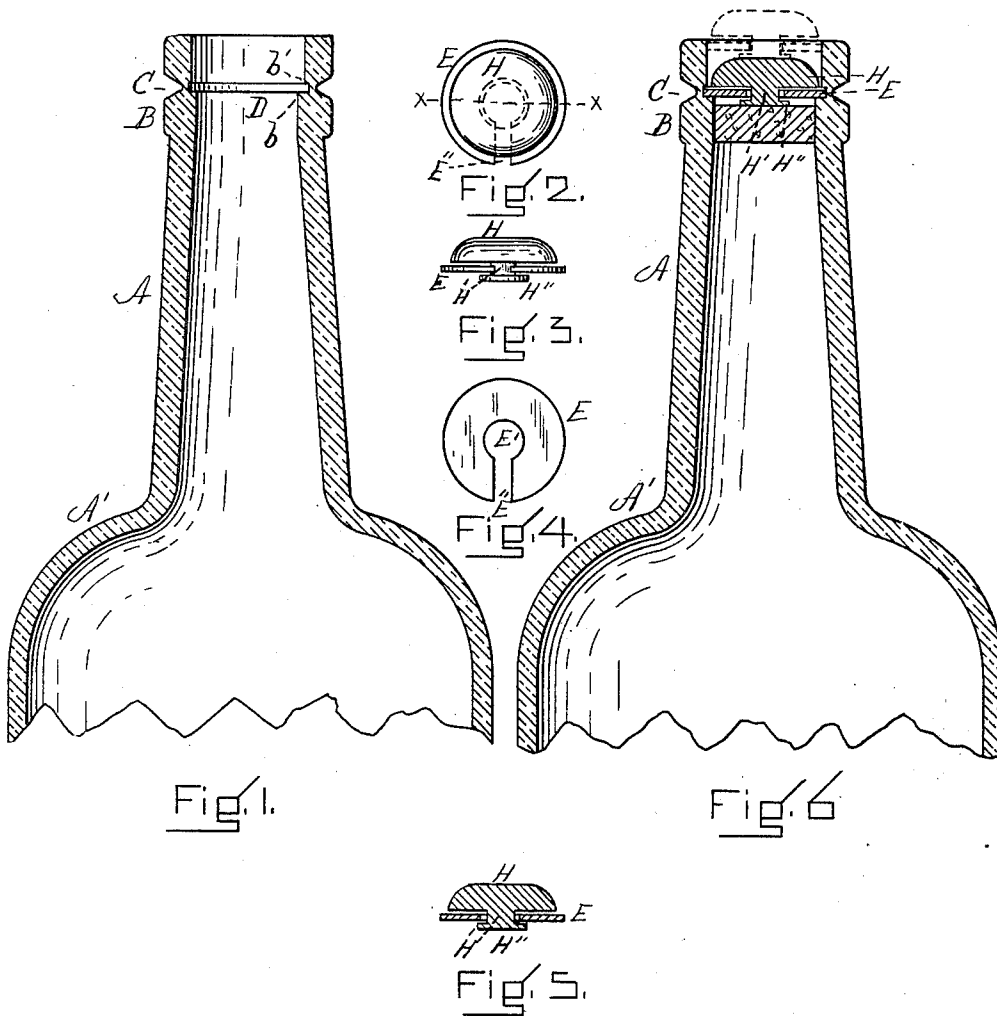
No. 657,759.

Patented Sept. 11, 1900.

W. C. CURTISS.
NON-REFILLABLE BOTTLE.

(Application filed May 8, 1900.)

(No Model.)



WITNESSES:
A. W. Boney,
E. P. Small.

INVENTOR:
William C. Curtiss,
By his Atty
Spring Williams.

UNITED STATES PATENT OFFICE.

WILLIAM C. CURTISS, OF BOSTON, MASSACHUSETTS.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 657,759, dated September 11, 1900.

Application filed May 8, 1900. Serial No. 15,959. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. CURTISS, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Non-Refillable Bottles, of which the following is a specification.

This invention relates to an improvement in bottles which after they have been filled can be neither emptied nor refilled without so far injuring the necks of the bottles as to prevent their being used again in their original state or as perfect bottles, but which can be used for what they are worth for the reception of liquids.

The nature of the invention is fully described below and illustrated in the accompanying drawings, in which—

Figure 1 is a central vertical section of the neck and a portion of the body of the bottle before the sealing contrivance has been applied. Fig. 2 is a plan view of the sealing contrivance. Fig. 3 is a side view of the same. Fig. 4 is a plan view of the washer removed. Fig. 5 is a cross-section taken on line X, Fig. 2. Fig. 6 is a central vertical section of the upper portion of the bottle sealed.

Similar letters of reference indicate corresponding parts.

A represents the neck, and A' a portion of the body, of the bottle. The thickened portion B of the neck is provided with an annular groove C, and the inner side of this portion is formed with a coincident groove D, thus rendering the wall between said grooves comparatively thin.

E represents a plate or washer of thin material and of size and shape to fit into the groove D and not only rest on the shoulder b, which forms the under side of the groove, but underlap the shoulder b', which constitutes the upper side of the groove. This washer is provided with a central hole E' and a radial passage or opening E'', extending from said hole to the periphery of the washer. By this means the washer, which being adapted to fit in the groove D is necessarily greater in diameter than the inside of the neck above the groove, can be contracted sufficiently to be inserted in the neck and allowed to expand when it has been sprung into the groove.

H represents a button or comparatively-thick metallic block with its upper surface substantially convex and its under side flat, said button being of such a diameter as to slip easily into the neck of the bottle. From the under side of the button extends a central shank H', which broadens at its end into a head H''. In practical operation the button is applied to the washer by slipping its shank through the passage E'' into the central hole B' until the parts assume the position indicated in Figs. 2, 3, and 5. A stopper K is pushed into the neck below the groove D, and the sealing contrivance is taken with the button above the washer and the thumb placed on the button and the whole thereby forced down into the neck, the spring-plate E contracting sufficiently by means of its construction to allow it to be pushed down as far as the groove D, into which it springs and rests, the position of the parts being indicated in Fig. 6.

To open this bottle, the portion above the grooves C D must be knocked off in order to free the washer. The sealing mechanism is then removed and the cork drawn out in the ordinary manner. While the bottle is thus sufficiently injured to make it impossible that it should be mistaken for and used again as a new bottle, its usefulness as a receptacle for liquid or for the liquid which came in it is not destroyed, inasmuch as the grooves C D make the break a comparatively-clean one.

The sealing contrivance can readily be pushed in by the thumb without the use of any instrument. Should an attempt be made to remove the seal by boring, it would be unsuccessful, as the effect would be to simply rotate the button.

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

In a non-refillable bottle, the neck provided with the coincident inner and outer grooves D, C formed near the upper end of the neck, the thickened portion B of the neck next and immediately below said grooves, and the shoulder b extending inward from the neck and forming a ledge next and below the inner groove D whereby the diameter of the passage below said groove is less than its diame-

terabove it; the solid button H provided with
the small central shank H' and small head H'';
and the flat, thin plate or washer E provided
with the small central hole E' adapted to fit
5 loosely around said shank and the radial pas-
sage E'' connecting said hole with the periph-
ery of the plate and sufficiently wide to allow

the shank of the button to be passed through
it, substantially as described.

WILLIAM C. CURTISS.

Witnesses:

HENRY W. WILLIAMS,
A. N. BONNEY.