(No Model.)

W. G. WEBSTER.

NON-REFILLABLE BOTTLE.

No. 605,591. Patented June 14, 1898.

Fig: 1.

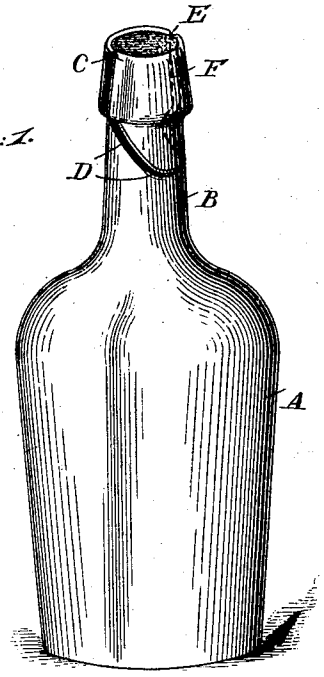


Fig: 2.

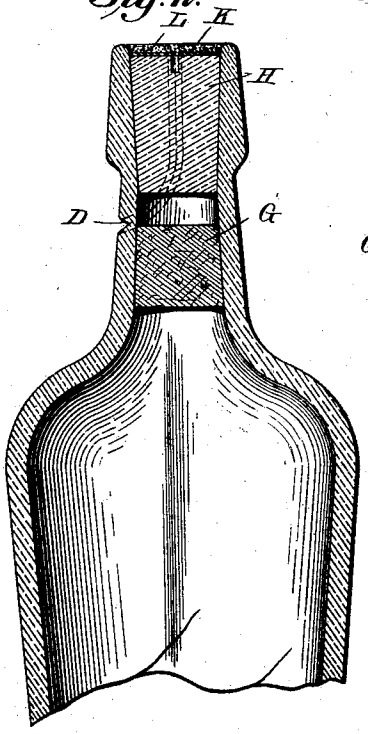


Fig: 4.

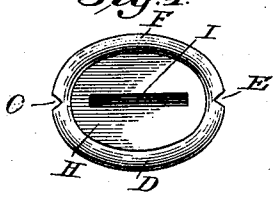


Fig: 5.

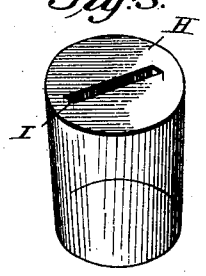
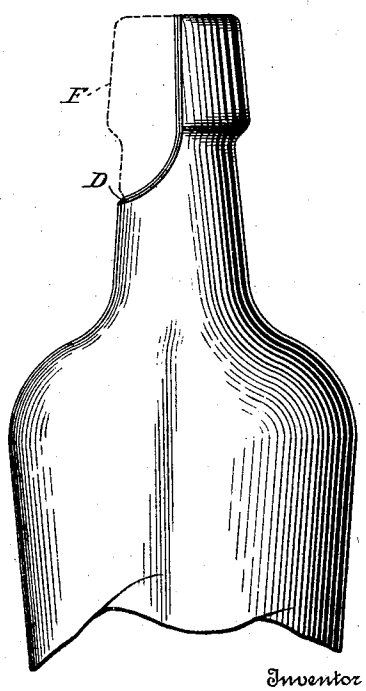


Fig: 3.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM G. WEBSTER, OF GRAND RIVER, OHIO.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 605,591, dated June 14, 1898.

Application filed January 20, 1898. Serial No. 667,237. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. WEBSTER, a citizen of the United States, residing at Grand River, in the county of Lake and State of Ohio, have invented a new and useful Non-Refillable Bottle, of which the following is a specification.

My invention relates to bottles, and has for its object to provide an improved bottle of that class known as "non-refillable" bottles.

With this object in view my invention consists in a bottle provided with a weakening-groove extending from the mouth downward on the outside of the neck a short distance, thence in an inclined position around one side of the neck, and finally to the mouth again, the outer portion of the neck of the bottle in which this groove is formed being of elliptical shape in cross-section to receive a similarly-shaped plug of glass having a nick or slot in its outer end to receive the point of a screw-driver, whereby when this plug is turned by means of the screw-driver the portion of the neck of the bottle bounded by the weakening-groove will be broken off.

My invention further consists in the improved construction, arrangement, and combination of parts hereinafter fully described and afterward specifically pointed out in the appended claims.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a bottle constructed in accordance with my invention. Fig. 2 is a vertical section through the same, the bottom being broken away to shorten the view. Fig. 3 is an exterior view in elevation with that portion of the neck bounded by the weakening-groove broken off. Fig. 4 is a top plan view of the neck of the bottle with the elliptical plug in position. Fig. 5 is a detail perspective view of the elliptical plug removed from the bottle.

Like letters of reference mark the same parts wherever they occur in the various figures of the drawings.

Referring to the drawings by letters, A indicates the body, and B the neck, of a bottle, the neck being provided with a groove reaching from its outer surface almost to its inner surface, beginning at a point C at one side of the mouth of the bottle, extending downward, then carried in a curved line downward and around the neck, as at D, and finally ending at the point E on the opposite side of the mouth of the bottle from its beginning. This groove is formed during the operation of manufacturing the bottle and so weakens the glass that the portion F bounded by the groove may be easily broken off.

The outer portion of the neck of the bottle is made elliptical in cross-section, so that the diameter between the points C and E is greater than the diameter at any other points.

The inner portion of the neck of the bottle may be circular in cross-section or of any other suitable shape.

After the bottle has been filled a cork G is forced into the inner portion of the neck beyond the groove, and an elliptical plug H, preferably of ground glass, is placed in the outer elliptical portion of the neck, snugly fitting therein.

The elliptical plug H is provided in its upper surface with a nick or groove I to receive the head of a screw-driver. After the elliptical plug has been placed in position a sheet of paper K or other equivalent device is laid over its upper surface to cover the nick I, and the bottle is then sealed with wax, as at L, as is usual.

In opening the bottle the wax L and paper K are removed, a screw-driver inserted into the nick I of the elliptical plug H, and a twisting or turning force applied thereto. This attempt to turn the elliptical plug will cause it to act with a cam or eccentric action upon the portion F of the neck of the bottle surrounded by the weakening-groove, which being unable to withstand the pressure brought upon it will be broken off, permitting the elliptical plug to be removed. The cork G is then removed with a corkscrew in the usual manner.

From the foregoing description of the construction and operation of my invention it will be evident that it will be impossible to turn the elliptical plug in order to remove it without breaking off a portion of the neck of

the bottle, which will be evidence that the bottle has been once used and is unfit for further use.

While I have illustrated and described the best means for carrying out my invention, I do not wish to be understood as restricting myself to the exact construction shown, but hold that such changes as might suggest themselves to the ordinary mechanic would properly fall within the limit and scope of my invention.

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

1. A bottle provided with a neck, the outer portion of which is elliptical in cross-section, having a weakening-groove extending from the mouth along the neck, around one side thereof and back on the opposite side to the mouth, and a non-elastic, rigid plug, elliptical in cross-section, fitting in the elliptical portion of the neck, and means for turning the plug whereby the neck is broken at the weakening-groove, substantially as described.

2. A bottle provided with a neck, the outer portion of which is elliptical in cross-section, having a weakening-groove extending from the mouth along the neck, around one side thereof and back on the opposite side to the mouth, a non-elastic, rigid plug, elliptical in cross-section, fitting in the elliptical portion of the neck, provided in its outer end with a nick or groove to receive the blade of a screw-driver for the purpose of turning it, whereby the neck is broken at the weakening-groove, substantially as described.

WILLIAM G. WEBSTER.

Witnesses:
JAMES H. AVERILL,
JAMES HUTCHINSON.