

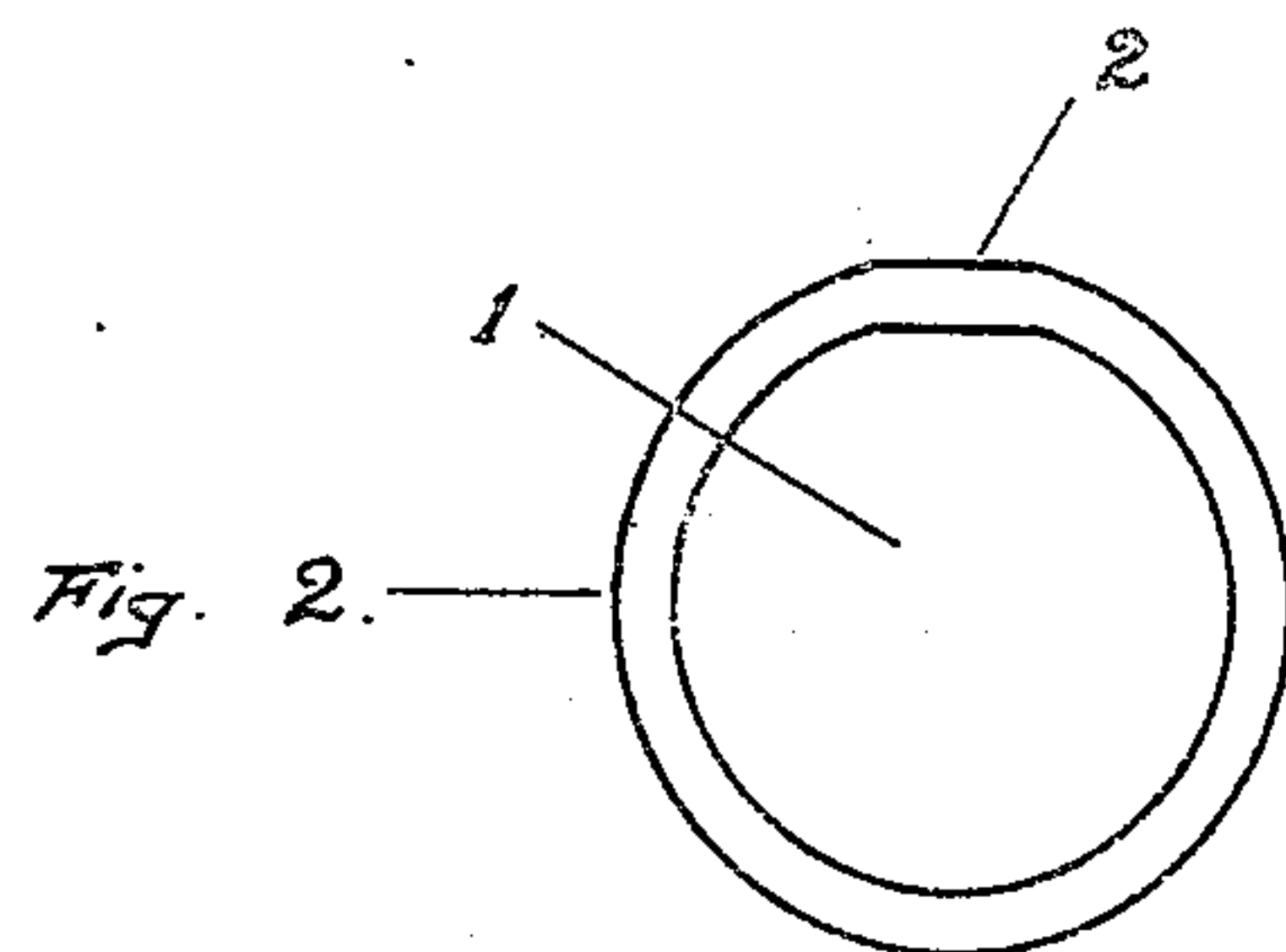
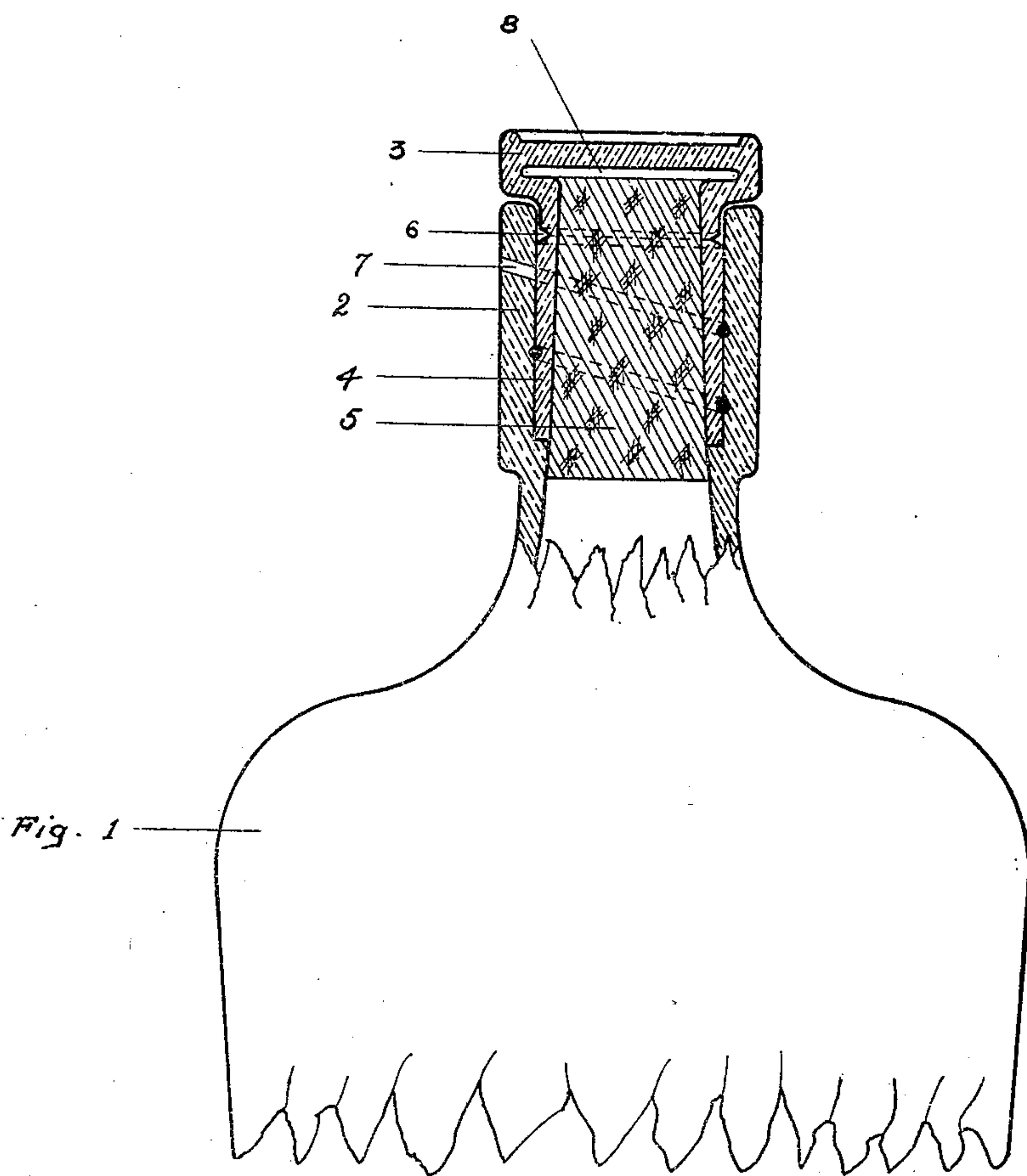
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PATENTED JAN. 23, 1906.

E. S. HAYFORD.

REFILLED BOTTLE DETECTOR AND IDENTITY DESTROYER.

APPLICATION FILED JULY 17, 1903.



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Witnesses

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UNITED STATES PATENT OFFICE.

EUGENE S. HAYFORD, OF BOSTON, MASSACHUSETTS.

REFILLED-BOTTLE DETECTOR AND IDENTITY-DESTROYER.

No. 810,647.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed July 17, 1903. Serial No. 166,038.

To all whom it may concern:

Be it known that I, EUGENE S. HAYFORD, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Refilled-Bottle Detectors and Identity-Destroyers, of which the following is a specification.

My invention relates to an improved bottle-stopper compromising device for preventing the refilling of a bottle after its original contents has been poured out or discharged, also by the same means to destroy the original identity of the bottle.

There are a great many so-called "non-refillable" bottles on the market; but they are too expensive to be practical. In most cases the so-called non-refillable bottles cost more than the contents of the bottle. Consequently they defeat the object for which they were designed. It has been found by actual test that under a few atmospheres of pressure the aforesaid non-refillable bottles can be refilled where the valves in same would remain practically tight at atmospheric pressure and not resist the refilling operation. Consequently they are not effective.

The object of my invention is to provide a tubular stopper to be placed in the neck of a bottle and secured by suitable means, this stopper to be made, preferably, of glass, porcelain, or any suitable material which will answer the purpose and with a cork or other suitable filler or inner stopper to be so constructed that it can be withdrawn after breaking off the locking cap or seal. This stopper is provided with a recess on exterior of the tubular portion of its neck. The object of this recess is to guarantee a positive breaking-point, thereby preventing rough or uneven edges at the breaking-point, this breaking-point to be located below the top of the neck of the bottle, so that it would be impossible for the broken edge to come in contact with any external body or means that would be used to manipulate the bottle, or, in other words, to be arranged so that any person would not receive cut or injury from the broken stopper or bushing, which would remain within the neck of the bottle after the top or seal has been broken off. The stopper is so constructed that the inner stopper can be easily withdrawn and contents of the bottle poured out, after which the portion of the outer stopper remains secure with-

in the neck of the bottle, preventing the bottle being refilled and sealed as the original package.

My invention consists in features of construction and novel combination of parts in a refilled-bottle detector and identity destroyer, as hereinafter described and claimed.

In the annexed drawings, Figure 1 is a vertical view, partly in section, of the neck portion of a bottle provided with my improved sealing device for preventing the bottle being refilled without detection and for destroying the identity of same, also showing the preferred means of constructing same. Fig. 2 shows a plan view of the seal.

Referring to the drawings, the numeral 2 designates a section of the neck of a bottle adjacent to the tube of the sealing-plug, this portion of the neck being larger in diameter to receive the tubular part of the sealing-plug, (designated in the drawings by numeral 4.) Within the body of the sealing-plug I insert a stopper of cork or other like substance, as indicated by numeral 5, the sealing-plug being provided with a recess, as shown at 6, this being provided so as to bring the breaking-point below the opening of the neck of the bottle.

As a means of securing the sealing-plug within the neck of the bottle, I prefer to provide an opening through the neck of the bottle, as shown at 7, the bottle being provided with spiral recesses within its neck to correspond with like recesses on the surface of the tubular portion of the sealing-plug 4. Sectional views of these recesses are shown and indicated by the black spots in the drawings as a means of securing the sealing-plug within the neck of the bottle. I prefer to force a metallic body by a suitable means within the orifice shown at 7. Either a metallic or cement body can be used and forced in by suitable means, so as to secure the sealing-plug 4 within the wall 2 of the neck of the bottle. The cap of the sealing-plug is to be provided with a recess or inner surface for inserting a seal, monogram, or other means of identity, as shown at 8 in the drawings.

3 indicates a glass or other transparent crystal or protection which is provided to insure the seal remaining intact until the cap has been broken off or removed in any suitable manner.

The seal, monogram, or other means of

identification of the package is to be made preferably of wax or other plastic material, so as to crumble or break and positively destroy the seal on removing the cap. The cap
5 or top of the sealing-plug is so constructed as to provide a crystal or glass top over the seal so as to protect same and provides a positive means of protection against alteration or tampering with said seal or monogram without
10 destroying the package.

In Fig. 2 numeral 1 represents the plan view of the sealing-plug, showing the space to be occupied by the seal, monogram, or other descriptive matter. The flat portion (indicated
15 by numeral 2 in Fig. 2) serves as a striking or breaking point at which the cap may be struck to break it from the tubular portion of the sealing-plug when the bottle is to be opened. I provide a cork or other suitable material in the
20 form of a stopper to be placed within the sealing-plug, as indicated by 4, the stopper, as indicated by 5, being provided so as to be withdrawn after the seal or locking device has been broken and the cap removed.

What I claim as my invention is—

1. The combination with a bottle, of a sealing-plug secured within the neck of the bottle and having a weakened portion below the top of the neck, substantially as described. 25

2. The combination with a bottle, of a sealing-plug having a tubular portion secured within the neck of the bottle, an expanded upper end of substantially the diameter of the neck of the bottle, and a weakened portion
30 located below the top of the neck, substantially as described. 35

3. The combination with a bottle, of a tubular sealing-plug having a weakened portion, and a stopper secured within the plug
40 and extending above the weakened portion, substantially as described.

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

EUGENE S. HAYFORD.

Witnesses:

A. M. SENIOR,
H. G. ESSELEN.