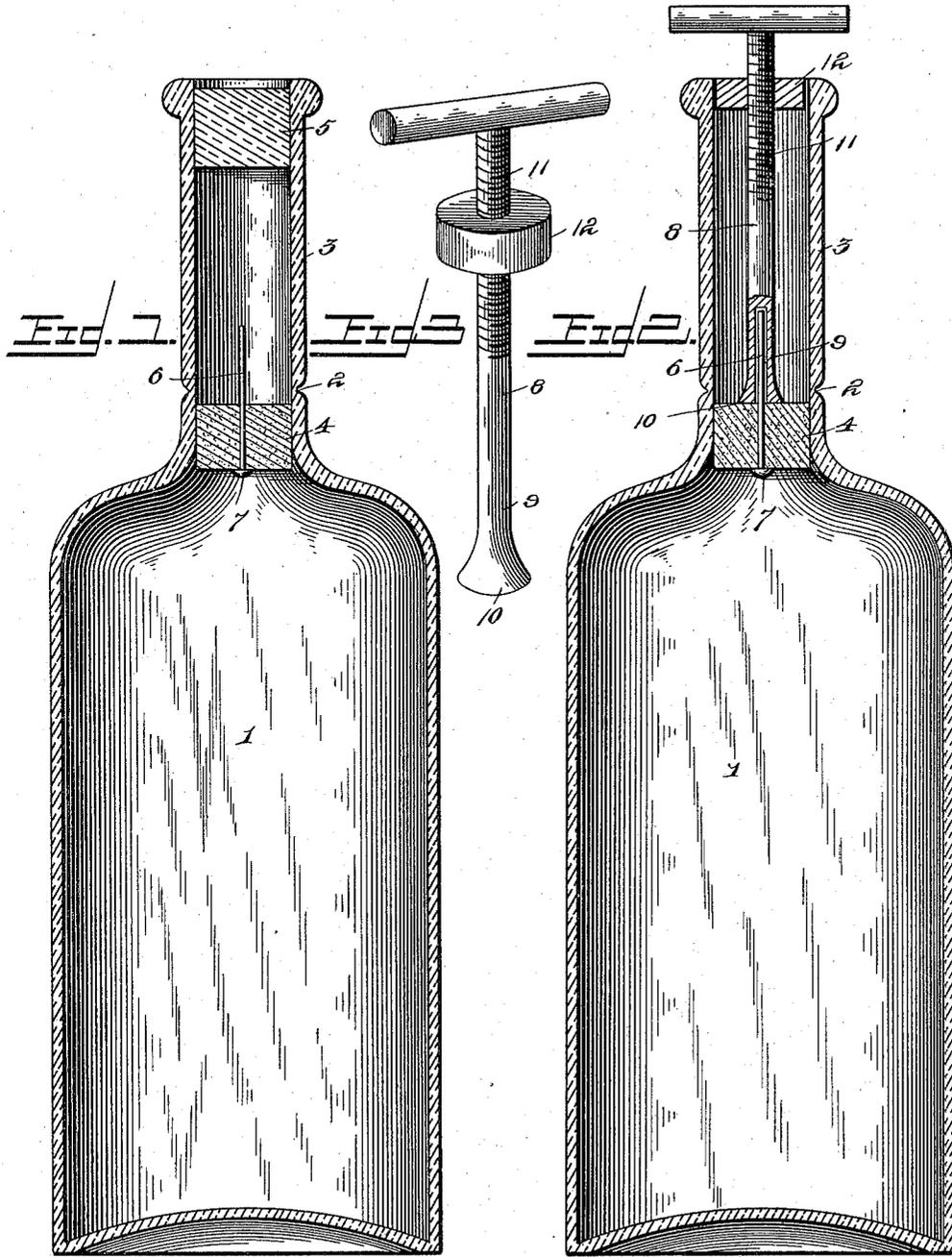


(No Model.)

D. S. BRUNER.
ANTIREFILLING BOTTLE.

No. 580,545.

Patented Apr. 13, 1897.



Inventor

David S. Bruner.

Witnesses

W. J. Leland.

J. F. Riley

By his Attorneys,

C. Snow & Co.

UNITED STATES PATENT OFFICE.

DAVID S. BRUNER, OF MORRISTOWN, TENNESSEE.

ANTIREFILLING BOTTLE.

SPECIFICATION forming part of Letters Patent No. 580,545, dated April 13, 1897.

Application filed July 20, 1896. Serial No. 599,880. (No model.)

To all whom it may concern:

Be it known that I, DAVID S. BRUNER, a citizen of the United States, residing at Morristown, in the county of Hamblen and State of Tennessee, have invented a new and useful Antirefilling Bottle, of which the following is a specification.

The invention relates to improvements in antirefilling bottles.

The objects of the present invention are to improve the construction of antirefilling bottles, and to provide a simple, inexpensive, and efficient one, which, in order to obtain access to its contents, will have to be sufficiently mutilated or disfigured to prevent it from afterward being refilled and sold in trade in imitation of its original shape.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a vertical sectional view of an antirefilling bottle constructed in accordance with this invention, the upper and lower corks or stoppers being in position. Fig. 2 is a similar view illustrating the manner of introducing the lower cork or stopper into the bottle. Fig. 3 is a detail perspective view of the plunger.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a bottle provided on the exterior of its neck with an annular groove, forming a thin connecting-ligament 2, whereby the upper portion 3 of the neck of the bottle is made frangible and is adapted to be readily broken by a light blow.

A lower cork or stopper 4 of the ordinary construction is arranged within the lower portion of the neck of the bottle below the frangible ligament 2, and the interior of the upper portion of the neck of the bottle at the mouth thereof is ground and receives a ground-glass stopper 5, which when in position has its upper face located below the upper edge of the neck of the bottle. The ground-glass stopper fits tightly within the neck of the bottle and is positively retained therein by coating the contiguous faces of the stopper and the neck of the bottle with a thin

varnish or shellac. This retains the glass stopper firmly in position, and as its upper face is located below the upper edges of the neck no hold can be obtained for withdrawing the glass stopper, and the neck of the bottle must be broken off in order to obtain access to the lower cork and to the contents of the bottle.

The lower cork by being arranged below the connecting frangible ligament prevents fragments of glass from entering the bottle when the neck is broken off, and in order to enable the lower cork to be readily extracted after the neck of the bottle has been broken off a wire 6 is provided. The wire 6 passes centrally through the cork and extends upward therefrom, and its extended portion is adapted to be readily grasped by a person to withdraw the cork. The lower terminal of the wire is provided with a suitable head 7, arranged at the lower face of the cork for securing the wire to the same.

The lower cork is introduced into the neck of the bottle by a plunger 8, consisting of a stem and a handle. The lower portion 9 of the stem is hollow to receive the projecting portion of the bottle, and the lower end of the stem is provided with an enlargement or head 10 for engaging the upper face of the cork 4. The rigid wire fits within the hollow stem and serves to center the plunger on the cork and retain it in position and prevent it from slipping and accidentally striking and fracturing the frangible portion of the neck of the bottle. The upper portion 11 of the plunger is threaded and receives a nut 12, capable of adjustment longitudinally of the stem in order to provide a gage, so that the cork 4 may be introduced into the lower portion of the neck and to prevent a cork from being forced inward too far. By means of the adjustable nut the plunger may be employed on bottles with necks of different lengths.

It will be seen that the antirefilling bottle has to be mutilated in order to obtain access to its contents, thereby preventing a bottle from being opened and refilled or adulterated and afterward sold. Furthermore, it will be apparent that simple and effective means are provided for introducing the lower corks into the necks of bottles and for accurately positioning the same with relation to the frangi-

ble ligament, so that a cork is prevented from being forced inward too far, and that a plunger is centered on the cork by the extracting-wire and is prevented by the same from slipping and striking the frangible upper portion of a bottle.

What I claim is—

In a device of the class described, the combination of a cork or stopper provided with an upwardly - extending extracting-wire, a stem having an upper threaded portion and provided with a lower hollow portion adapted to receive the upwardly-extending wire, whereby the stem is centered on the cork or

stopper and prevented from accidentally slipping or striking the frangible portion of an antirefilling bottle, a handle arranged at the upper end of the stem, and a nut adjustably mounted on the threaded portion of the stem and forming a guide, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DAVID S. BRUNER.

Witnesses:

JNO. B. HOLLOWAY,
JAMES A. RICE.