

W. D. BALL.
POISON BOTTLE STOPPER.
APPLICATION FILED MAY 6, 1909.

1,044,726.

Patented Nov. 19, 1912.

Fig. 1.

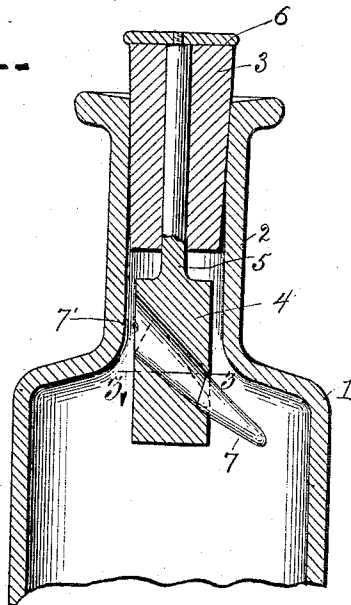


Fig. 2.

Fig. 3.

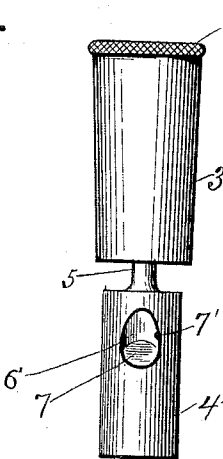
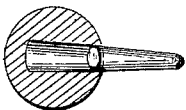
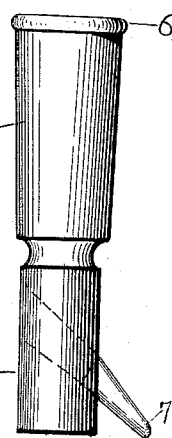


Fig. 4.



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UNITED STATES PATENT OFFICE.

WALTER D. BALL, OF PHILADELPHIA, PENNSYLVANIA.

POISON-BOTTLE STOPPER.

1,044,726.

Specification of Letters Patent.

Patented Nov. 19, 1912.

Application filed May 6, 1909. Serial No. 494,421.

To all whom it may concern:

Be it known that I, WALTER D. BALL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Poison-Bottle Stoppers, of which the following is a specification.

This invention relates to improvements in bottles and embraces the construction of a bottle especially designed for holding poisons and dangerous materials.

One of the objects of the invention is the provision of means for effectively distinguishing poison carrying bottles from ordinary bottles so that a person will not mistake a poison bottle for an ordinary bottle, with the usual disastrous results.

Another object of the invention is the provision of means for distinguishing poison carrying bottles which may be adapted for use in connection with standard bottles, and without involving any change in the construction of the same.

Another object of the invention is the construction of a cork having locking means thereon, adapted to prevent the ready removal of the same in the ordinary way.

A still further object of the invention is the construction of a cork having means thereon that will normally lock the same to a bottle neck but which may be removed from the bottle neck by tilting the same and agitating the locking means.

With the above and other objects in view the invention embraces certain combinations, constructions and arrangements of parts clearly illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal sectional view through a bottle neck provided with my improved device. Fig. 2 is a view in elevation of the device, Fig. 3 is a transverse sectional view thereof, and Fig. 4 is a view in elevation of a modified form of the device.

Referring to the accompanying drawings, which are intended for illustrative purposes, 1 denotes a bottle having a neck 2, of the usual kind, such as is formed on ordinary medicine bottles. This neck may be of any design, however, as the device may be adapted for use in connection with any neck, by slight mechanical changes in the shape of the same.

My improved device embraces a cork 3,

composed of any suitable material, and a supplemental or extension member 4, which is formed of a slightly smaller diameter than the diameter of the cork, and which is connected thereto by an integral arm 5, extended through the center of the cork and fastened in place by a threaded washer or nut 6.

The lower end of the extension 4 extends below the lower end of the bottle neck, and said extension is formed with a diagonally disposed bore 6', which narrows from its upper end to its lower end. A gravity locking member or lug 7 is slidably held in the bore 6', being formed with a taper corresponding to the shape of the bore. In order to prevent the locking member from escaping from the bore a lug or projection 7' is formed on the extension so as to project inwardly on the upper end of the bore and engage with the upper end of the locking member. The locking member is adapted to slide rather stiffly and to be slightly jammed, under normal circumstances, against the wall of the bore, when the lower end of the locking member projects below the lower end of the bore and the neck. When secured in place the locking member is slightly spaced apart from the lower end of the neck so as to allow for a small upward movement of the cork, and when an effort is made to remove the cork said locking member is adapted to engage the neck shoulder of the bottle and prevent said removal, thereby warning the operator that the contents of the bottle are of a dangerous nature. When it is desired to effect the removal of the bottle cork the bottle is tilted to a side position and the neck is sharply forced against an abutment, so that the locking member will be released from its lower and jammed position and will slide wholly into the bore, thereby enabling the ready removal of the cork.

In Fig. 4 I have illustrated a modified form of my invention embracing a device having the extension 4 formed integral with the cork, the entire device including the locking member being formed out of glass or similar material, while the extension and locking member in the former construction is formed out of metal.

My improved device can be manufactured very cheaply and can be adapted for use in connection with various bottles of a large or small size, and used either for holding liquids, solids or semi-solids. When the

device is applied for use in connection with bottles intended to hold acids or materials capable of decomposing metals and ordinary corking materials, the device may be
5 manufactured out of glass, porcelain or material having acid proof qualities.

The device will be found especially useful in connection with the merchandising of medicines and will be found invaluable in
10 hospitals, homes and all places where medicines are dispensed. It may also be used in connection with the handling of acids.

Having described my invention I desire to secure by Letters Patent:

15 1. A bottle stopper having a portion adapted to depend below the shoulder of a bottle, a sliding lock therein, a diagonally disposed bore in said stopper to accommodate said lock, said bore tapering to its lower
20 end, said lock being conical, the large end of said lock being larger than the small end of said bore whereby said lock will be prevented from sliding from the lower end of said bore.

25 2. A bottle stopper having a portion adapted to depend below the shoulder of a

bottle, a gravity actuated sliding lock therein, a diagonally disposed bore in said stopper to accommodate said lock, said bore tapering to its lower end, said lock being
30 conical, the large end of said lock being larger than the small end of said bore whereby said lock will be prevented from sliding from the lower end of said bore.

3. A bottle stopper having a portion
35 adapted to depend below the shoulder of a bottle, a gravity actuated sliding lock therein, a diagonally disposed bore in said stopper to accommodate said lock, said bore tapering to its lower end, said lock being
40 conical, the large end of said lock being larger than the small end of said bore whereby said lock will be prevented from sliding from the lower end of said bore, and means
45 for preventing said lock from sliding from the upper end of said bore.

In testimony whereof I affix my signature, in presence of two witnesses.

WALTER D. BALL.

Witnesses:

DANIEL K. BALL,
LEWIS S. LEE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."