

No. 882,287.

PATENTED MAR. 17, 1908.

H. BEHR.
BOTTLE CLOSURE.

APPLICATION FILED JULY 11, 1907.

FIG. I.

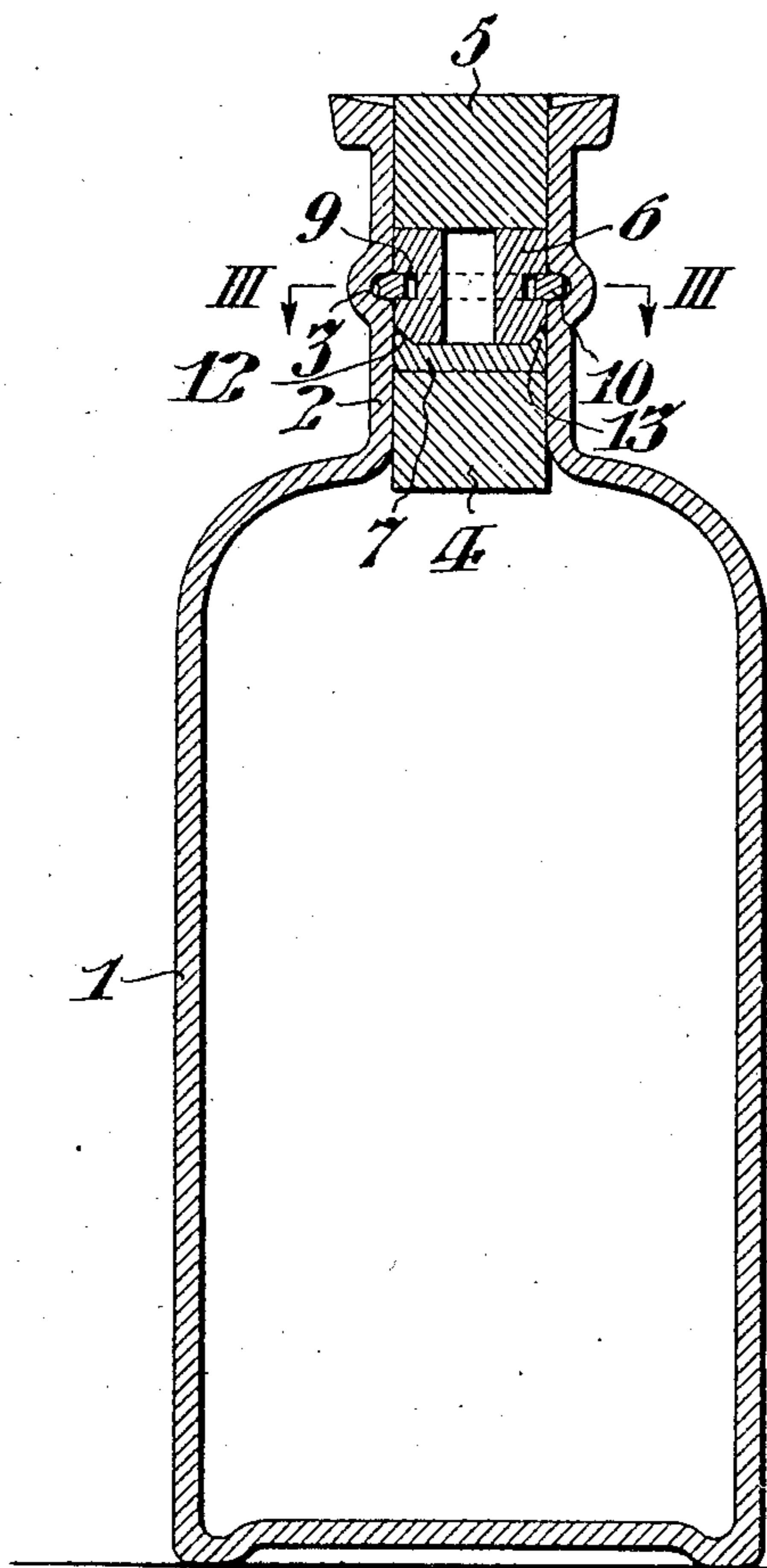


FIG. II.

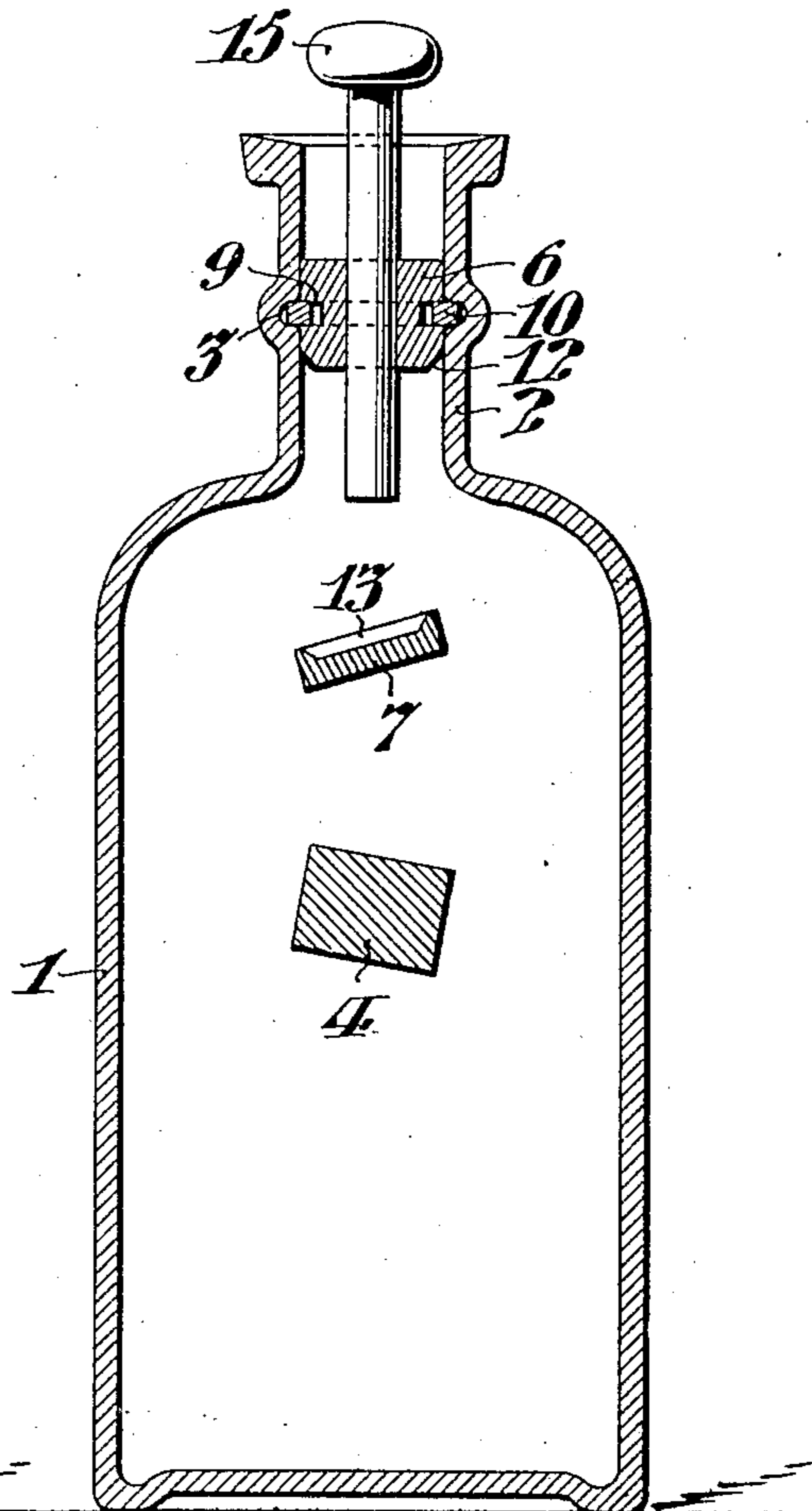
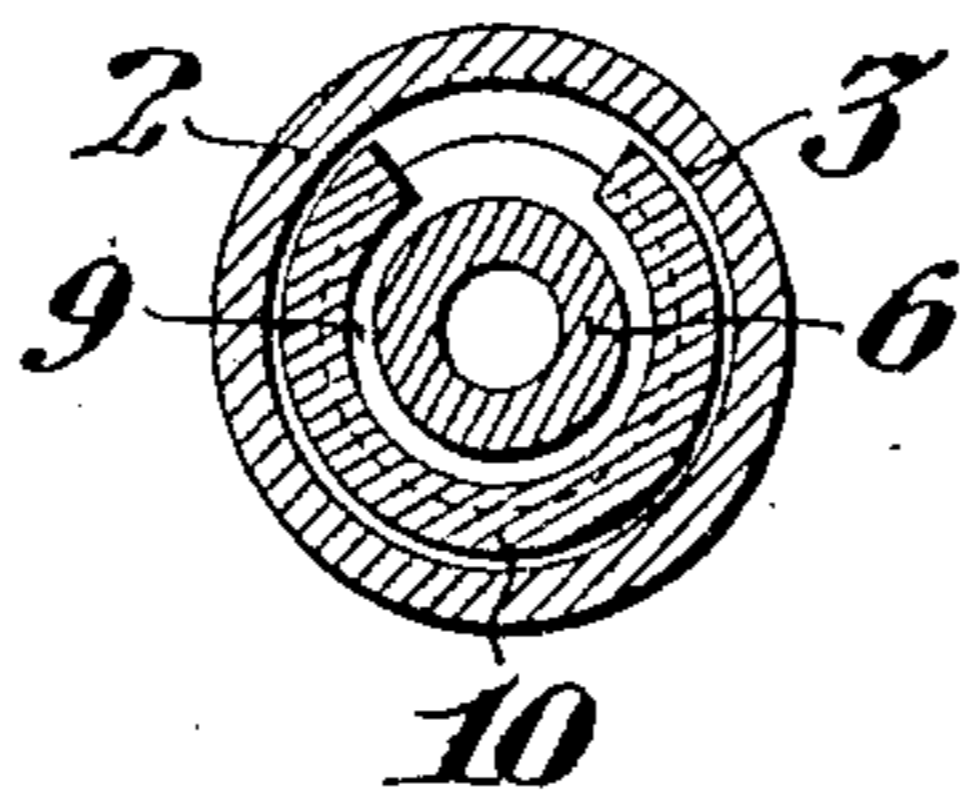


FIG. III.



WITNESSES:

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BOTTLE-CLOSURE.

No. 882,287.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed July 11, 1907. Serial No. 383,166.

To all whom it may concern:

Be it known that I, HERRMANN BEHR, of Philadelphia, in the State of Pennsylvania, have invented a certain new and useful Improvement in Bottle-Closures, whereof the following is a specification, reference being had to the accompanying drawings.

My invention relates to closures which manifest a characteristic appearance when the bottle is originally sealed, and comprise an inner stopper which may be pushed from the bottle neck into the bottle to unseal the latter, but cannot be restored to its original position, although the bottle may be readily refilled.

As hereinafter described my invention comprises an inner stopper and an outer stopper of cork or other suitable resilient material; a tube between said two stoppers, conveniently formed of porcelain or other ceramic, engaged in stationary relation with the bottle neck by a split ring fitted in an annular groove in the periphery of said tube so that it may be slipped within the bottle neck, but retained in the latter by the expansion of said ring into engagement with an annular groove in the bottle neck.

It is characteristic of my present improvement that when the bottle is originally sealed, the inner stopper is covered by a baffle plate, preferably of frangible material, for instance, ceramic, which extends from side to side of the bottle neck between said inner stopper and said tube so that the inner stopper cannot be grappled when said plate is in its normal position.

My invention comprises the various novel features of construction and arrangement hereinafter more definitely specified.

In the accompanying drawings: Figure I, is a vertical sectional view of a bottle, sealed with a closure conveniently embodying my improvement. Fig. II, is a vertical sectional view of said bottle, illustrating how the closure may be opened to permit discharge of the contents of the bottle. Fig. III, is a plan sectional view taken on the line III, III, in Fig. I.

In said drawings:—the bottle 1, is provided with the neck 2, comprising the inner annular groove 3. The bottle closure comprises the inner stopper 4, the outer stopper 5, the intermediate tube 6, and, the baffle plate 7, between said tube and the inner stopper 4. Said tube 6, has the annular groove 9, in its periphery in which is fitted the split ring 10,

which is so proportioned that when it is contracted the tube and ring may be thrust into the bottle neck 2, but when in registry with said groove 3, in the bottle neck, said ring 10, expands as indicated in Fig. III, so as to engage said tube 6, in stationary relation with the bottle neck; said ring being resilient hard rubber. The inner end 12, of said tube 6, is made conical so as to fit within the annular flange 13, on said baffle plate 7; the arrangement being such that a wire thrust through said tube 6, in an attempt to engage the inner stopper 4, would be upturned between said tube and baffle plate 7, by the flange 13, on the latter.

It is to be understood that all of the closure members above described may be assembled together and thrust into the normal sealed position shown in Fig. I, by a single movement; said ring 10, automatically engaging the groove 3, when it reaches it.

When the bottle is sealed by said closure, as shown in Fig. I, it presents a characteristic appearance which may be rendered more distinct by coloring the baffle plate 7, in contrast with the tube 6, and inner stopper 4.

In order to unseal the bottle, the outer stopper 5, may be removed and the inner stopper 4, and baffle plate 7, be thrust into the bottle by any convenient means, for instance, the plunger 15, shown in Fig. II. Said plunger being then withdrawn, the contents of the bottle may be discharged through the tube 6, and, although the bottle may be readily refilled it is impossible to restore its original sealed appearance, because the inner stopper 4, and plate 7, being thrust within the bottle, as shown in Fig. II, it is impossible to restore them to their original position shown in Fig. I; said plate 7, being coextensive with the bottle neck and preventing access to the stopper 4, when said plate is in said neck.

I do not desire to limit myself to the precise details of construction and arrangement herein set forth, as it is obvious that various modifications may be made therein without departing from the essential features of my invention, as defined in the appended claims.

I claim:—

1. The combination with a bottle neck; of an inner stopper of resilient material fitted to said neck; a baffle plate of frangible material above said stopper, extending from side to side of said neck and comprising an

- upwardly extending flange; and, means in stationary relation with said bottle neck engaging said flange and preventing the withdrawal of said plate, comprising a tube distinct from said neck, and separate means interengaging said tube and said neck in stationary relation, comprising a split ring of resilient hard rubber, substantially as set forth.
- 10 2. The combination with a bottle neck; of an inner stopper of resilient material fitted to said neck; a baffle plate of frangible material above said stopper extending from side to side of said neck and comprising an upwardly
15 extending flange; and means in stationary relation with said bottle neck engaging said flange and preventing the withdrawal of said plate, comprising a tube distinct from said neck and separate means interengaging said
20 tube and said neck in stationary relation, comprising a split ring of resilient material, substantially as set forth.
- 25 3. The combination with a bottle neck; of an inner stopper of resilient material fitted to said neck; a baffle plate of frangible material above said stopper, extending from side to side of said neck and comprising an upwardly extending flange; and, means in stationary relation with said bottle neck en-
30 gaging said flange and preventing the withdrawal of said plate, comprising a tube distinct from said neck and separate means interengaging said tube and said neck in stationary relation, substantially as set forth.
- 35 4. The combination with a bottle neck; of a baffle plate of frangible material extending from side to side of said neck and comprising an upwardly extending flange; and means above said baffle plate preventing with-
40 drawal of said plate, comprising means engaging said flange, substantially as set forth.
- 45 5. The combination with a bottle neck; of a baffle plate of frangible material extending from side to side of said neck; and means above said baffle plate preventing withdrawal of said plate, substantially as set forth.
6. The combination with a bottle neck; of an inner stopper of resilient material fitted to said neck; a baffle plate above said stopper ex- 50
tending from side to side of said neck and comprising an upwardly extending flange; and, means in stationary relation with said bottle neck engaging said flange, substan- 55
tially as set forth.
7. The combination with a bottle neck and an inner stopper of resilient material fitted to the bottle neck; of a baffle plate ex- 60
tending from side to side of said bottle neck above said stopper; and means in the bottle neck preventing the withdrawal of said plate, comprising a tube, and, separate means interengaging said tube and said neck, 65
comprising a split ring, substantially as set forth.
8. The combination with a bottle neck and an inner stopper of resilient material fitted to the bottle neck; of a baffle plate ex- 70
tending from side to side of said bottle neck above said stopper; and means in the bottle neck preventing the withdrawal of said plate, comprising a tube, and, separate means in- 75
terengaging said tube and said neck, substantially as set forth.
9. The combination with a bottle neck 75
and an inner stopper of resilient material fitted to the bottle neck; of a baffle plate ex- 80
tending from side to side of said bottle neck above said stopper; and, means in the bottle neck preventing the withdrawal of said plate, 85
comprising a tube distinct from said neck, substantially as set forth.
10. The combination with a bottle neck and an inner stopper of resilient material fitted to the bottle neck; of a baffle plate ex- 85
tending from side to side of said bottle neck above said stopper; and, means in the bottle neck preventing the withdrawal of said plate, substantially as set forth.
- In testimony whereof, I have hereunto 90
signed my name at Philadelphia, Pennsyl-
vania, this 10th day of July, 1907.
- HERRMANN BEHR.
- Witnesses:
ARTHUR BEHR.
ARNOLD KATZ.