

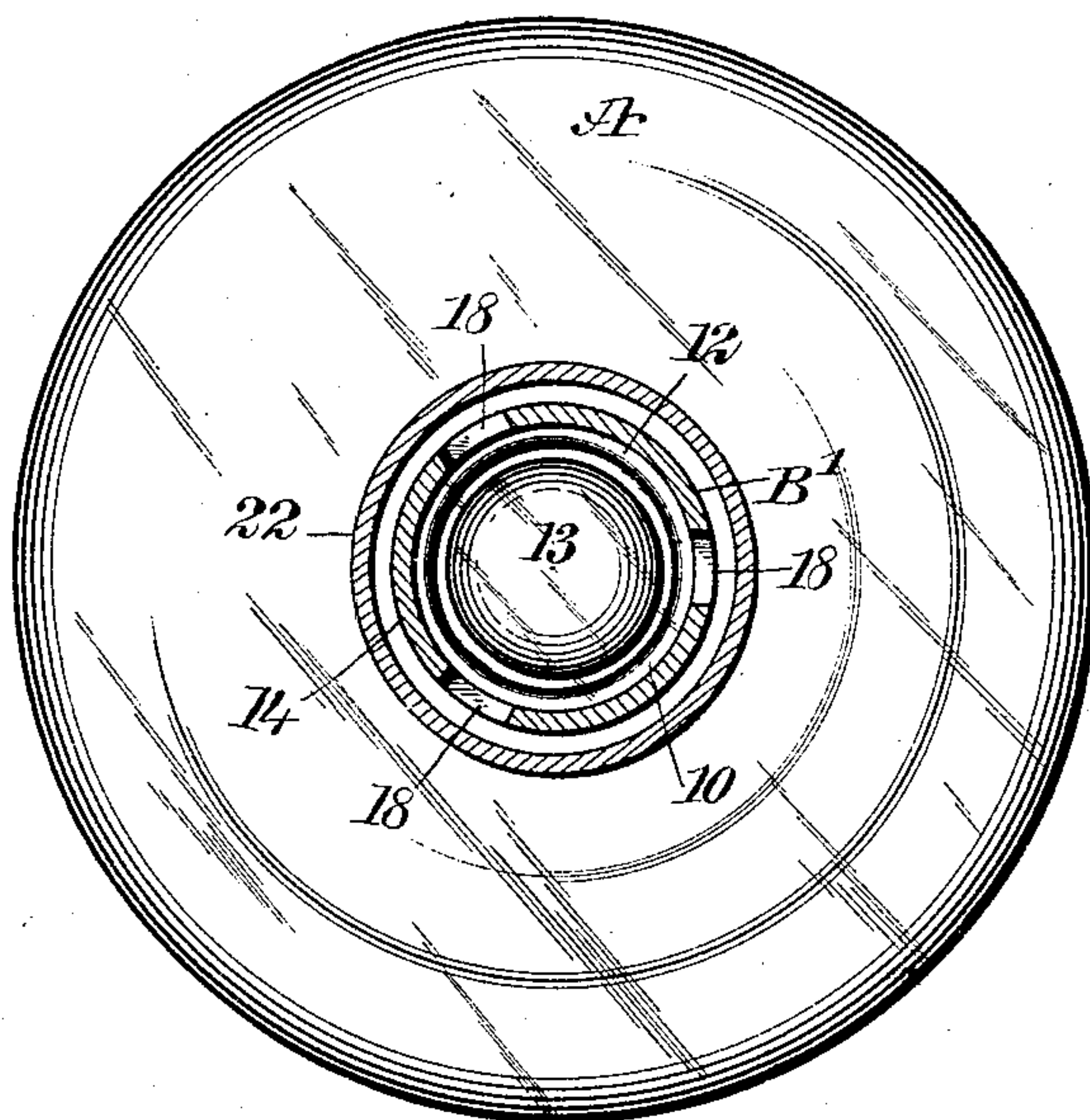
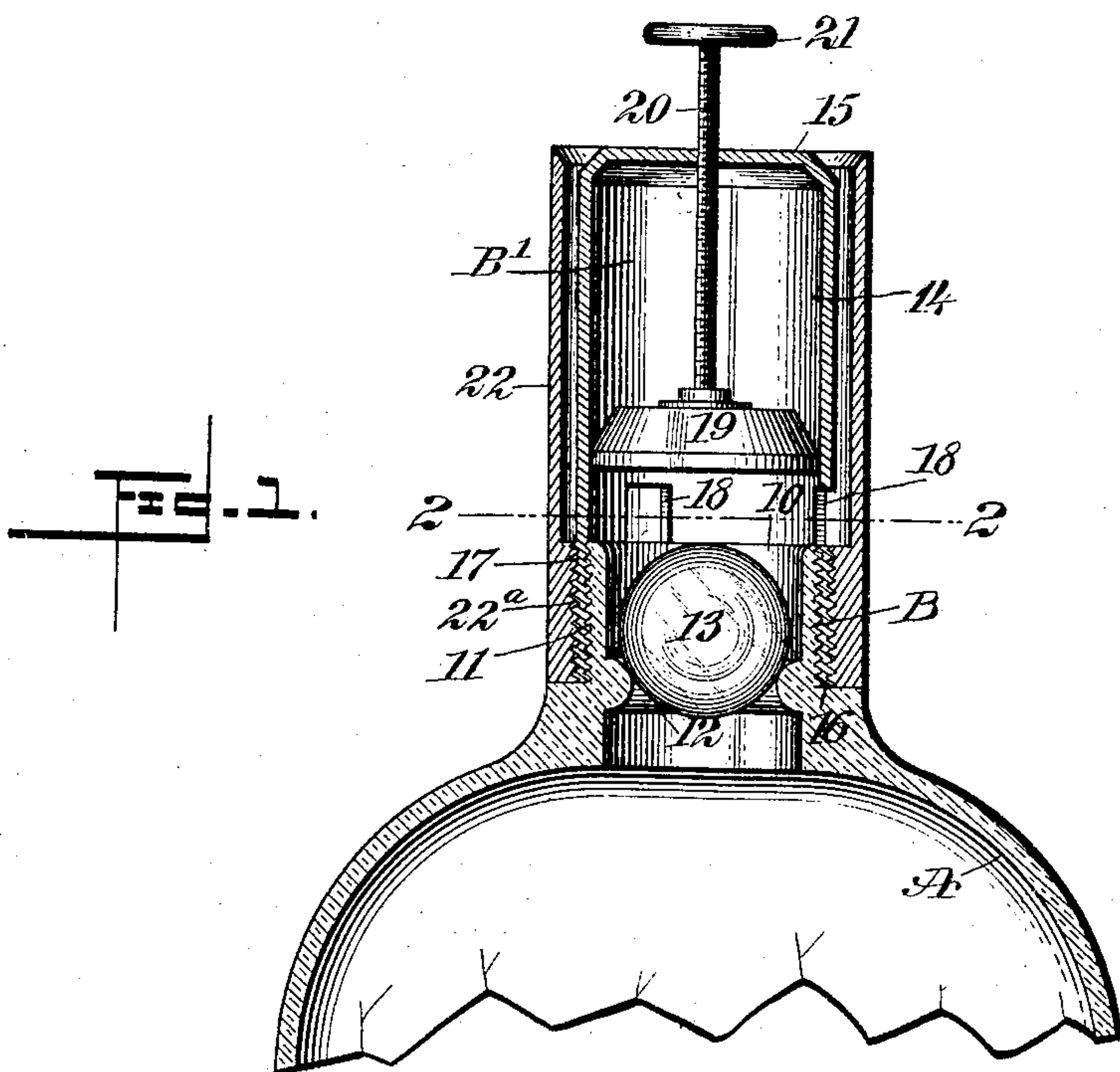
No. 782,706.

PATENTED FEB. 14, 1905.

A. J. SWAIN.

BOTTLE AND STOPPER THEREFOR.

APPLICATION FILED MAR. 3, 1904.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

AUGUST JOHN SWAIN, OF HOUGHTON, MICHIGAN.

## BOTTLE AND STOPPER THEREFOR.

SPECIFICATION forming part of Letters Patent No. 782,706, dated February 14, 1905.

Application filed March 3, 1904. Serial No. 196,268.

*To all whom it may concern:*

Be it known that I, AUGUST JOHN SWAIN, a citizen of the United States, and a resident of Houghton, in the county of Houghton and State of Michigan, have invented a new and useful Improvement in Bottles and Stoppers Therefor, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a bottle and a stopper for the same so constructed that after the bottle has been filled and sealed and emptied of its contents it cannot be refilled and again presented as an original package without evidence of the fact being made apparent.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a vertical section through the neck and stopper of the bottle and a portion of the body, and Fig. 2 is a horizontal section taken practically on the line 2 2 of Fig. 1.

A represents the body of the bottle, and B the neck, the latter being quite short as compared to the ordinary neck of a bottle, and B' represents the stopper proper for the bottle. The neck B is provided with a reduced mouth portion 10, and this mouth portion has an exterior thread 11 produced thereon, while within the said neck between the mouth and the body of the bottle an annular rib 12 is formed, preferably segmental in cross-section, and a ball-valve 13 is adapted to normally rest on the rib 12 and close communication between the mouth of the neck and the body of the bottle. The body A and the neck B, together with the ball-valve 13, are preferably made of glass; but the stopper B' is usually made of a suitable metal. This stopper B' consists of a body-shell 14, having a closed top 15 and being open at the bottom and provided at its lower edge with an interior thread 16 and an exterior thread 17, the interior thread 16 being made to engage with the exterior thread of the mouth 10 of the neck B when the body-shell

14 of the stopper is in position, as is illustrated in Fig. 1. Apertures 18 are made in the body-shell 14 at suitable points between the top and the bottom, preferably near its junction with the neck, through which apertures 18 the liquid is adapted to escape when the bottle is tilted to unseat the ball-valve 13. The ball-valve 13 is held seated when desired through the medium of a plunger 19, fitted quite snugly within the body-shell 14, and a threaded stem 20 is attached to this plunger, which stem extends out through a threaded opening in the top 15 of the body-shell and is provided with a handle 21 or a knob at its outer end, whereby to readily operate the plunger from the exterior of the stopper. The construction of the stopper is completed by the addition of an outer shell 22, which is spaced from the inner shell 14, and the outer shell 22 is open at the top and at the bottom, being provided at its lower portion upon its inner face with a thread 22<sup>a</sup>, which engages with the exterior thread 17 at the bottom portion of the inner shell when the two shells are placed in position on the neck of the bottle. I desire it to be understood that any suitable cement may be employed in connection with the threaded surfaces of the shells of the stopper and the mouth portion of the bottle-neck to securely hold the said parts in adjusted relation to each other.

When liquid is to be poured from the bottle, it passes out through the openings 18, as has been stated, and into the space between the inner and outer shells of the stopper and out at the open upper end of the outer shell. The outer shell 22 of the stopper in addition to serving to direct the liquid from the bottle serves also to prevent the introduction of a wire or other article or implement into the stopper through an opening 18 for the purpose of dislodging the ball-valve 13.

When the bottle is filled for transportation, the plunger 19 is carried downward until it seats itself upon the neck B, thus holding the ball-valve 13 in its seating position. When liquid is to be poured from the bottle, the plunger is raised and the ball-valve can then unseat itself and the liquid escape through the parts or openings 18 into the space between



the two shells 14 and 22 and find an exit at the upper portion of the shell 22. In fact, there is but one possible way of refilling the bottle, which is to submerge it in the liquid,

5 and as the bottle is especially adapted to be filled with whisky or other beverages the labels on the bottles will be destroyed or damaged by such submersion, enabling persons to readily detect that a package is not an original one.

10 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In bottles and stoppers therefor, a body provided with a neck, a ball-valve located in the neck and adapted to seat therein to normally close the body of the bottle, the top side of said ball-valve extending up even with the top of the bottle-neck, a stopper comprising an inner shell closed at the top and open at the bottom and into the lower open end of which

15 shell the neck of the bottle is received, said shell having parallel side walls and provided with outlet-apertures, the lower ends or sides of said apertures being in a plane flush with the top of the bottle-neck and the top of the

20 valve therein, a plunger fitting snugly in the inner shell for longitudinal movement therein, a stem projecting through the upper end of said shell for operating said plunger, and an outer shell surrounding the inner shell and

25 secured to the lower portion thereof below the outlet-openings therein, the portion of said shells above the lower ends of said openings being parallel with each other and spaced slightly apart and the outer shell being open

30 at its top.

2. In bottles and stoppers therefor, a body provided with a neck, a ball-valve located in the neck and adapted to seat therein to normally close the body of the bottle, a stopper

40 comprising an inner shell closed at the top and

open at the bottom and into the lower open end of which shell the neck of the bottle is received, said shell having parallel side walls and provided with outlet-apertures at the lower end thereof, a plunger fitting snugly in the

45 inner shell for longitudinal movement therein, a stem projecting through the upper end of said shell for operating said plunger, and an outer shell surrounding the inner shell and secured to the lower portion thereof, below the

50 outlet-openings therein, the portion of said shells above the lower ends of said openings being parallel with each other and spaced slightly apart, the outer shell being open at its top.

3. In bottles and stoppers therefor, a body provided with a neck, a ball-valve located in the neck and adapted to seat therein to normally close the body of the bottle, a stopper comprising an inner shell closed at the top and

60 open at the bottom and projecting above the top of the bottle-neck, said shell being of even internal diameter throughout its length and provided with outlet-apertures at the lower end thereof, a plunger fitting snugly in the inner

65 shell for longitudinal movement therein, a stem projecting through the upper end of said shell for operating said plunger, and an outer shell surrounding the inner shell, and secured at its lower end to the bottle-neck, below the outlet-

70 openings in said inner shell, said outer shell being open at its top and spaced from the inner shell.

In testimony whereof I have signed my name to this specification in the presence of two sub-

75 scribing witnesses.

AUGUST JOHN SWAIN.

Witnesses:

R. SHEFF SHELDEN,  
J. G. BERTRAND.