J. MENZIES.

BOTTLE STOPPER.

APPLICATION FILED DEC. 30, 1916.

1,258,236. **Patented Mar. 5, 1918.**

Fig. 1.

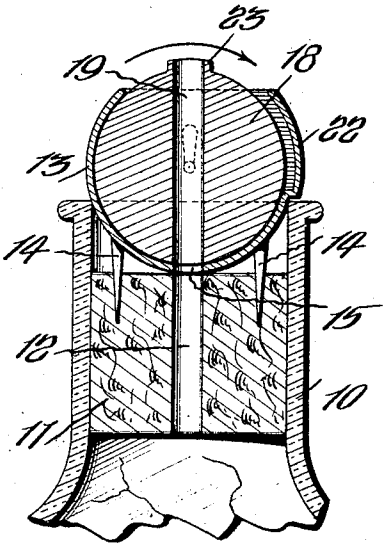


Fig. 2.

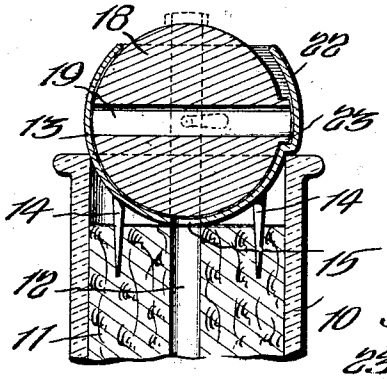


Fig. 3.

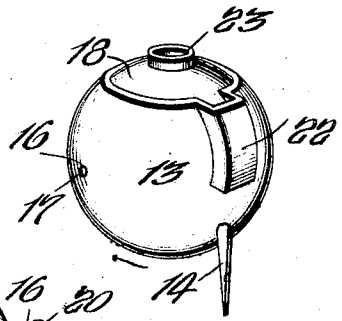
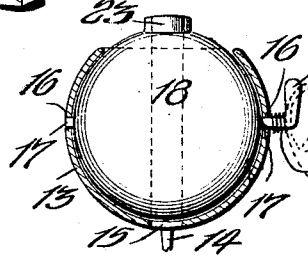


Fig. 4.



WITNESSES

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BOTTLE-STOPPER.

1,258,236. Specification of Letters Patent. Patented Mar. 5, 1918.

Application filed December 30, 1916. Serial No. 139,742.

To all whom it may concern:

Be it known that I, JAMES MENZIES, a subject of the King of Great Britain, and a resident of Wilmington, in the county of New Hanover and State of North Carolina, have invented a certain new and useful Improvement in Bottle-Stoppers, of which the following is a specification.

My present invention relates generally to bottle stoppers, and more particularly to stoppers for temporary use for utilization in place of the permanent stoppers of sauce, catsup, and other bottles, having means whereby the fluid outlet may be readily and quickly cut off at any time, in order to provide against the drying up and deterioration of the contents of the bottle between its periods of use.

With these and other objects in view which will be hereinafter made plain, my invention resides in the features of construction, arrangement, and operation to be now described in connection with the accompanying drawing, forming a part of this specification, in which:

Figure 1 is a vertical sectional view through a bottle neck illustrating the practical application of my improvements, with the parts open;

Fig. 2 is a similar view with the parts closed;

Fig. 3 is a perspective view of my improved bottle stopper removed, and

Fig. 4 is a vertical section through the bottle stopper shown in Fig. 3.

Referring now to these figures and particularly to Fig. 1, my improvements are adapted for connection at the upper outer end of a bottle neck 10, having a centrally apertured cork or other filler 11, forming a part of the usual closure, the central channel 12 of which provides for the outlet of the fluid from the bottle when the usual solid glass stopper, not shown, is removed.

To this end, my invention consists of a dispensing stopper, consisting of a substantially spherical shell 13, the axial diameter of which is slightly greater than the internal diameter of the bottle neck, so as to adapt the shell to seat partially within the upper open end of the neck 10, said shell having a pair of substantially parallel spaced spurs 14 which project into the bottle neck and into the material of the relatively soft filler 11, so as to effectively hold the shell 13 in position, with its lower aperture 15 in line with its vertical axis and with the channel 12 of the filler 11.

The shell 13 also has diametrically opposed apertures 16, as seen in Fig. 4, in line with its horizontal axis, to receive the trunnions 17 of a rotatable core in the form of a ball 18, which may be solid and provided with a diametrical channel 19 for movement with the ball into and out of registry with the shell opening 15 and the channel 12 of the filler 11. In order to effect desired movement of the core or ball 19, one of the trunnions 17 thereof is extended beyond the shell 13, and provided with an angular extension forming a handle 20, the said extended trunnion supporting a coiled spring 21 between the handle 20 and the external surface of the shell 13, in order to normally maintain the ball with its channel 19 in the horizontal position shown in Fig. 2.

Thus, with the ball 18 turned to the position shown in Fig. 1, by manipulation of the handle 20, the ball channel 19 being then in registry with the shell opening 15 and the channel 12 of the core 11, the parts are in position permitting of egress of a portion at least of the contents of the bottle, when the latter is inverted, while when the ball or core 18 is released and turned by its spring 21 to the position shown in Fig. 2, inclined out of registry with the shell opening 15 and the channel 12 of the filler 11, the bottle is effectively closed and its contents protected from exterior influences, contamination, and drying out or deterioration from exposure.

The upper portion of the spherical shell 13 is truncated to permit a portion of the ball 18 to project therethrough, and a portion of its surface at 22 is pressed outwardly, as best seen in Figs. 1, 2, and 3, to form an inwardly and upwardly opening box adapted, when handle 20 is released, to receive the annular rib 23 of the ball 18 and effectively close the outer end of the channel 19. The rib 23 just mentioned forms an effective pouring spout and obviates spilling of the material upon the ball and shell.

It is thus obvious that my invention provides an effective, simple, and inexpensive stopper for the purposes first above outlined, and for various other uses, and one which may be readily removed from one

bottle and inserted in place in connection with another bottle, as fast as the bottle contents become exhausted.

I claim:—

1. The combination with a bottle neck having a relatively soft filler therein below its outer end and provided with a dispensing channel, of a stopper consisting of a spherical shell having diametrically opposed openings and seated within and adapted to partially extend into the upper open end of the bottle neck, said shell having spurs extending therefrom and projecting within the bottle neck and adapted to be pressed into the material of said filler to detachably support the shell and normally hold the same immovably in position, and a ball interfitting the shell having a diametrical channel, and movable to shift said channel into and out of registry with the said openings, of the shell.

2. The combination with a bottle neck having a relatively soft filler provided with a dispensing channel, of a stopper consisting of a spherical shell seated within the upper open end of the bottle and having spurs extending within the bottle neck and into the material of the said filler, said shell having its upper portion truncated and having a lower opening in line with its vertical axis and with the channel of the filler and also having diametrically opposed openings in line with its horizontal axis, a ball movably interfitting the shell and having diametrically opposed trunnions extending into the last mentioned openings and provided with a diametrical channel therethrough for movement with the ball into and out of registration with the lower opening of the shell and channel of the filler, said ball having an annular rim around the upper end of its channel and said shell having an outwardly pressed box opening inwardly and upwardly to receive the said rib and form a cover for the discharge end of the channel within said rib, one of said trunnions of said ball being extended beyond the shell and provided with a handle for rotation of the ball, and a spring coiled about the projecting portion of the said trunnion between its said handle and the external surface of the shell, for the purpose described.

3. The combination with a bottle neck having a relatively soft filler provided with a dispensing channel, of a stopper seated partially within the upper open end of the bottle neck and having inwardly projecting spurs extending into the material of said filler, said stopper consisting of a stationary shell and a movable core within the shell and provided with dispensing openings for registry in line with the channel of said filler, said core member having a rib around the discharge end of its channel, and said shell having an outwardly pressed box portion in the line of movement of the rib of the core to receive the latter in the non-registered inoperative position to form a cover for the discharge end of the channel of the core member.

JAMES MENZIES.

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