N. FOX.
Bottle-Stopper.

No. 202,714. Patented April 23, 1878.

Fig. 1.

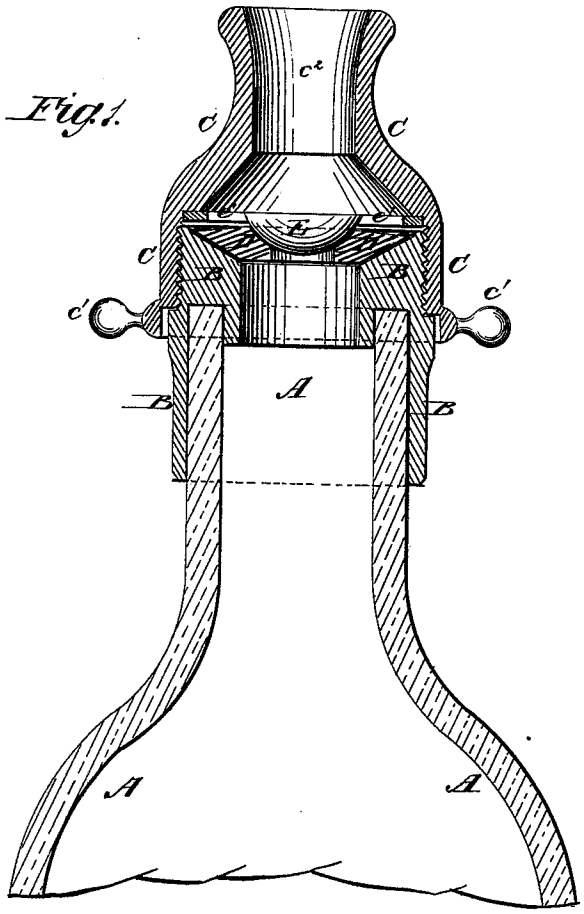
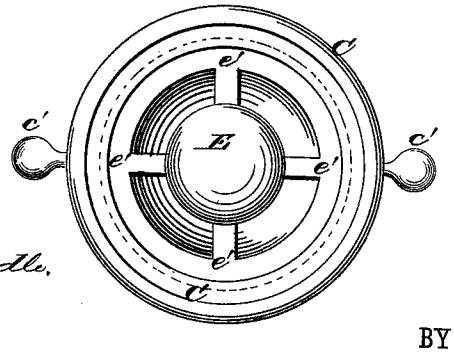


Fig. 2.



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UNITED STATES PATENT OFFICE.

NATHAN FOX, OF SAVANNAH, GEORGIA, ASSIGNOR TO HIMSELF AND JAMES RAY, OF SAME PLACE.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **202,714**, dated April 23, 1878; application filed February 9, 1878.

To all whom it may concern:

Be it known that I, NATHAN FOX, of Savannah, in the county of Chatham and State of Georgia, have invented a new and useful Improvement in Stoppers for Bottles, &c., of which the following is a specification:

Figure 1 is a vertical section of my improved stopper, shown as applied to a bottle. Fig. 2 is a detail bottom view of the upper part of the stopper.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved stopper for bottles and other vessels, which shall be so constructed as to allow a part of the contents to be poured off and the bottle again closed, so as to prevent the remaining contents from becoming flat or spoiled, and which will allow the bottle to be closed before taking it away from the filling-machine, and which shall be simple in construction and convenient and reliable in use.

The invention consists in an improved stopper formed of the collar having a screw-thread cut upon the outer surface of its upper part, and provided with a packing, the cap having a screw-thread cut upon the inner surface of its lower part, and provided with the arms or projections and the nozzle, and the ball provided with the frame, in combination with each other, as hereinafter fully described.

A represents a bottle, to the mouth of which is secured, by cement or other suitable means, a collar, B. Upon the outer surface of the upper part of the collar B is cut a screw-thread to receive a screw-thread cut upon the inner surface of the lower part of the cap C, which has arms or projections c^1 formed upon its opposite sides for convenience in screwing it on and off.

To the top of the collar B is secured a rubber packing, D, to serve as a seat for the ball E, which is rigidly connected with the inner surface of the cap C by arms or a frame, e'. The frame e' rests against a shoulder formed upon the inner surface of the cap C, so that the ball E will be firmly held to its seat.

In the top of the cap C is formed a nozzle, c^2, through which the liquid may be poured into and out of the bottle.

With this construction, by turning the cap C off a very little, the ball E will be raised from its seat, so that the liquid can be poured in and out freely, and the passage of the liquid can be instantly stopped by turning the said cap back.

This construction enables soda-water or other effervescing liquid to be poured out in any desired quantity, and the bottle to be instantly closed, so that the liquid remaining in the vessel will not become flat or stale. This construction also enables the bottles, when being filled with soda-water, &c., to be closed before they are removed from the filling-machine, which is a great convenience and saving.

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

An improved stopper, formed of the collar B, having a screw-thread cut upon the outer surface of its upper part, and provided with a packing, D, the cap C, having a screw-thread cut upon the inner surface of its lower part, and provided with the arms or projections c^1 and the nozzle c^2, and the ball E, provided with the frame e', in combination with each other, substantially as herein shown and described.

NATHAN FOX.

Witnesses:

JAMES T. GRAHAM,

C. SEDGWICK.