E & D. Kinsey,

Bottle Stopper.

No. 9,407. Patented Nov. 16, 1852.

Fig. 4.

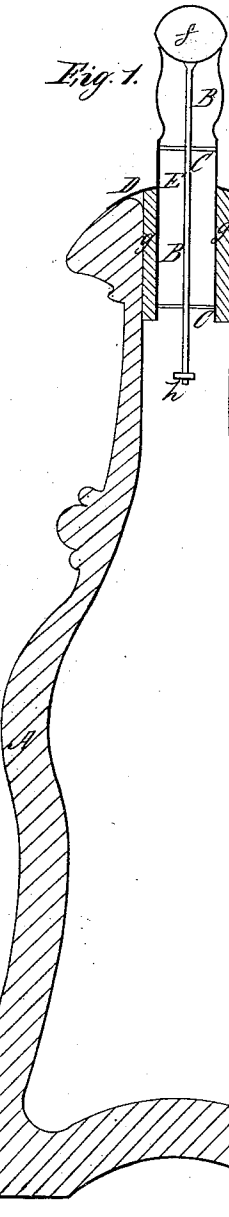


Fig. 1.

Fig. 2.

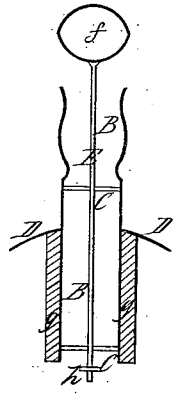
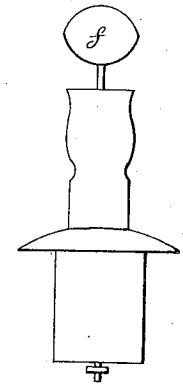


Fig. 3.



UNITED STATES PATENT OFFICE.

EDWARD KINSEY AND D. KINSEY, OF CINCINNATI, OHIO.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **9,407**, dated November 16, 1852.

To all whom it may concern:

Be it known that we, E. KINSEY and D. KINSEY, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new Improved Mode of Stopping Bottles and Cans; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a vertical section of a bottle, together with the improved stopper placed in its mouth, showing its connection with the bottle. Fig. 2 is a sectional view of the stopper in an opened position. Fig. 3 is an external view of the stopper, showing its general appearance as regards its finish, with the stopper *f* raised from its seat or mouth. Fig. 4 is a transverse section of the tube B B, showing the arrangement of the guides *c c*.

The nature of our invention consists in providing the mouth of bottles and cans with a cylindrical or other shaped tubes, made of silver, tin, or other metals or substances, if desired, with a flange projecting from around it, and the lower part of the tube furnished or surrounded with a cork, of which end is placed in the mouth of the bottle or can. The upper part of the tube is furnished with an oblong ball made hollow or solid, that rests on its mouth, with a small rod or wire projecting down from it and passing through two guides placed in the diameter of the tube, with a nut screwed on its lower end to prevent it from falling out when the bottle or can is turned up to pour out the liquid it may contain. By this arrangement the taking out and placing in of cork or stopper is dispensed with, with the exception of when it is desired to fill the vessel; then the entire stopper, with its attachment, is taken from the bottle or can. By this arrangement the stopper is rendered self-acting, inasmuch as the force of the liquid opens or raises the stopper from its seat and the gravity of itself closes it.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

In Fig. 1, A A is a vertical section of a bottle with the improved stopper placed in it. B B is the main tube, furnished with a flange, D D, that comes down on the top of the vessel it may be placed in. *g g* is a cork, in which the tube B B is passed through, which is made to fit the mouth of the bottle or can. *f* is an oblong ball, of which forms the stopper, furnished with a rod or wire, E, which passes down through the two guides *c c*, placed in the diameter of the tube B B, a transverse section of which may be seen in Fig. 4. The stopper *f* is prevented from falling out when the vessel is turned up by means of the nut *h*, screwed on the lower end of the rod E of which strikes the lower guide, *c*, when the vessel is turned up to pour out the liquid it may contain. The cork *g g* is secured to the tube by flaring out the lower part of it, which prevents it from pulling off, or by gluing it with some preparation that liquid will not handily dissolve.

Having thus fully described the manner of constructing our self-acting bottle and can stopper, we will proceed to state what we claim as our improvement and desire to secure by Letters Patent—

The combination of the ball-stopper *f*, together with the rod E, attached to it, and the guides *c c*, in the manner and for the purpose substantially as herein set forth.

EDWARD KINSEY.
D. KINSEY.

Attest:
PETER BELL,
M. BENSON.