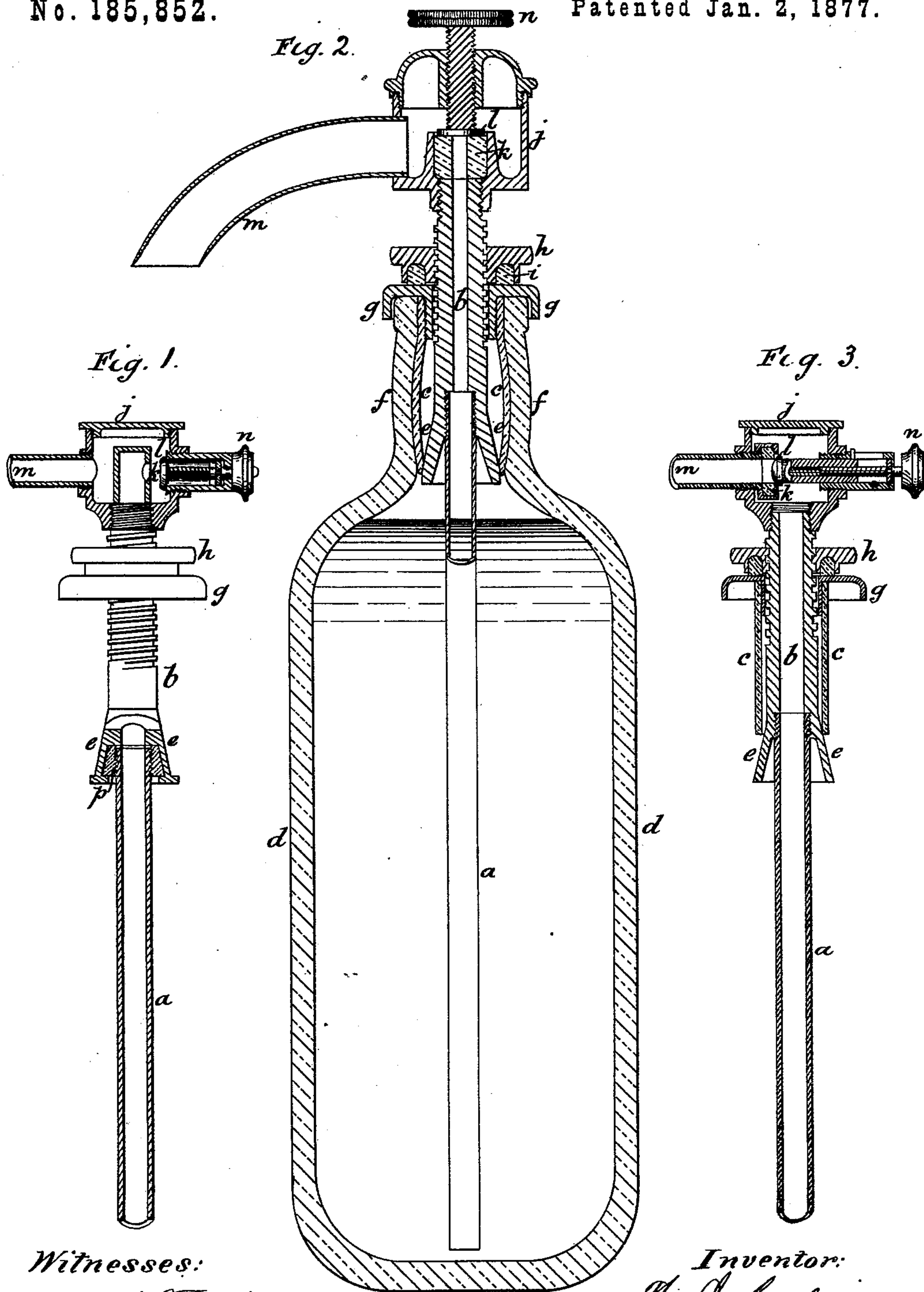


H. J. COLE.

COMBINED SIPHON TAP AND STOPPER FOR AERATED LIQUID  
BOTTLES.

No. 185,852.

Patented Jan. 2, 1877.



Witnesses:

Donn S. Twitchell,  
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Inventor:

H. J. Cole,  
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# UNITED STATES PATENT OFFICE.

HENRY JAMES COLE, OF WANDSWORTH ROAD, ENGLAND.

## IMPROVEMENT IN COMBINED SIPHON-TAP AND STOPPER FOR AERATED-LIQUID BOTTLES.

Specification forming part of Letters Patent No. 185,852, dated January 2, 1877; application filed November 3, 1876.

*To all whom it may concern:*

Be it known that I, HENRY JAMES COLE, of Wandsworth Road, in the county of Surrey, England, have invented a Combined Siphon-Tap and Stopper for Aerated-Liquid Bottles, of which the following is a specification:

This invention relates to a combined siphon-tap and stopper for aerated-liquid bottles; and consists of a tube attached to another tube, which passes through the bottle-neck, the latter tube being surrounded by a short length of rubber tube, which can be expanded by impinging against a cone at one end, and by abutting against a cap, which carries it at the other. The cap is capable of being forced down by a screw button or plate, which rests upon the cap, and the rubber tube, which is expanded, acts as a stopper and hermetically closes the neck of the bottle against escape of the liquid, or the gas with which the liquid is charged.

My invention is clearly shown in the accompanying drawings.

*a*, Figures 1, 2, and 3, is the first mentioned tube, and *b* the one above, forming an extension thereof. *c* is the rubber tube, which, when in the neck of a bottle, *d*, as in Fig. 2, impinges against the cone *e* and the bottle-neck *f* when the cap *g* is forced down by the screw button or plate *h*, whereby the rubber tube *c* is expanded and caused to act as a stopper and hermetically close up the neck of the bottle. I fit a rubber ring, *i*, in the button or plate *h*, to prevent any escape of gas,

should there, by any chance, be an imperfection in the rubber tube. *j* is the head, surmounting the tube *b*, and is fitted with a valve-seating, *k*, against or upon which the valve *l* is caused to impinge, to close the passage through the tubes *a b*, which lead to the nozzle or outlet *m*, when the outside button *n* is screwed home.

The tube *a* can be screwed into a metallic, cork, or other suitable packing, *p*, placed in the tube *b*, as in Fig. 1, or it may be screwed direct into the tube *b*, and the valve *l* may be flat on the face, as in Figs. 1 and 2, or of rounded form, as in Fig. 3, so long as the passage through from the bottle to the outlet be effectually closed by it.

What I claim as my invention is—

1. The tube *b*, provided with a valve, *l*, and the cone *e*, in combination with the rubber or elastic packing *c*, and the siphon-tube *a*, all constructed to operate substantially as described.

2. The combination, in a bottle-stopper, of an elastic packing and a cone for expanding the same, with a siphon-tube and a valve, substantially as described, whereby the apparatus, as a whole, may be attached to or detached from the bottle at will.

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