

(No Model.)

G. H. PHELPS.
CLOSURE FOR BOTTLES.

No. 554,833.

Patented Feb. 18, 1896.

Fig. 1.

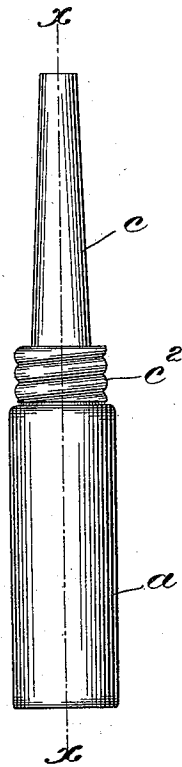
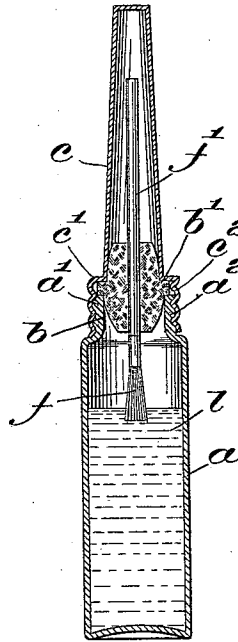


Fig. 2.



Witnesses.

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CLOSURE FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 554,833, dated February 18, 1896.

Application filed June 5, 1895. Serial No. 551,775. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. PHELPS, of Newton, county of Middlesex, and State of Massachusetts, have invented an Improvement in Closures for Bottles and the Like, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 Liquid substances which are applied in small quantities by means of a brush or sponge—such as mucilage, collodion varnish, &c.—are usually put up in bottles or other similar vessels closed by a stopper having the
15 handle of a brush extended therethrough, so that the latter can dip into the inclosed liquid when not in use. Collodion varnish is largely used in vessels of this character as a means of furnishing ready means for covering cuts,
20 burns, or abrasions of the skin with an elastic surface, and the varnish is so very volatile that at ordinary temperatures the pressure of the vapor tends to dislodge the stopper and permit the escape of the volatile constituents
25 of the varnish. This varnish, when put up in an ordinary bottle provided with the usual cork stopper, frequently cements the stopper in the neck of the bottle so that the cork is apt to be broken off in the attempt to get it
30 out, thereby causing great inconvenience and also possible loss of the varnish by evaporation if another stopper is not at hand to recork the bottle.

This invention has for its object the production of a cheap and simple closure for bottles and the like, particularly adapted for use with volatile substances, whereby the bottle is tightly closed by a stopper held firmly in place by a removable locking-cap, preventing
40 any escape of the contents of the bottle or other vessel, even if they are very volatile. The stopper is so constructed that the varnish cannot lodge thereupon sufficiently to cement it to the neck of the bottle.

45 Figure 1, in side elevation, represents a bottle or similar vessel with a closure embodying my invention applied thereto; and Fig. 2 is a longitudinal sectional view thereof on the line *x x*, Fig. 1.

I have herein shown the liquid-containing vessel as a bottle *a*, having a neck *a'*, and screw-threaded exteriorly at *a''*, Fig. 2. A stopper *b*, of cork, wood, or any other suitable material, is adapted to fit the neck *a'* only at the top of the bottle, an annular flange *b'* on the stopper between its ends resting on the top of the neck, the lower part of the stopper being cut away as in Fig. 2.

In Fig. 2 the handle *f* of a brush *f'* is extended through a longitudinal hole in the stopper, fitting snugly therein, so that the brush may from time to time be adjusted to the level of the liquid *l*.

A retaining-cap *c*, preferably conical in form and of sufficient size to inclose the upper end of the stopper *b* and the projecting handle of the brush, has an annular shoulder *c'* and a threaded base *c''*, the latter engaging the threaded neck, and by means of the shoulder *c'* engaging the flange *b'* of the stopper forces the flange tightly upon the end of the neck *a'*, hermetically sealing the bottle and retaining the stopper in place.

When it is desired to use the brush the cap is unscrewed and the stopper *b* can be at once and readily withdrawn with the brush, affording a firm hold for the fingers of the operator.

Inasmuch as it is not necessary for the stopper itself to fit tightly into the neck *a'* no force is required to remove the stopper, as must be the case when the tight fit of the stopper in the neck is depended upon to seal the bottle.

Preferably the cap is made of thin sheet metal spun up into proper shape.

The upper end of the stopper serves as an extended support for the brush-handle and a guide for the conical portion *c* of the cap; but it is obvious that the upper portion of the stopper may be dispensed with, and, if desired, the stopper and retaining-cap can be used without the brush.

I claim—

A bottle having an externally-threaded neck, a stopper therefor having an annular flange intermediate its length to rest on the end of the neck, a brush provided with a handle extended through and frictionally held in the stopper, and a conical retaining-cap hav-

ing a shoulder, and a threaded base to engage
the neck, the conical portion of the cap inclos-
ing and protecting the brush-handle and the
shoulder pressing the stopper-flange tightly
5 against the end of the neck, substantially as
described.

In testimony whereof I have signed my

name to this specification in the presence of
two subscribing witnesses.

GEORGE H. PHELPS.

Witnesses:

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