(No Model.)

A. MACKIE.

BOTTLE AND STOPPER

No. 456,420. Patented July 21, 1891.

FIG. 1.

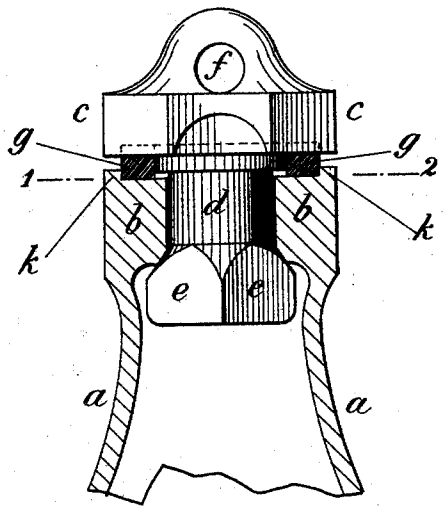


FIG. 3.

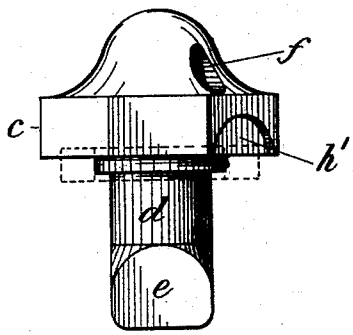


FIG. 2.

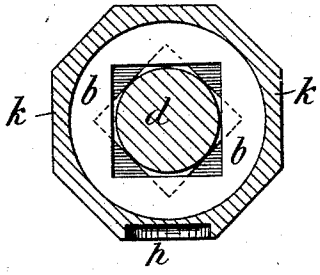


FIG. 4.

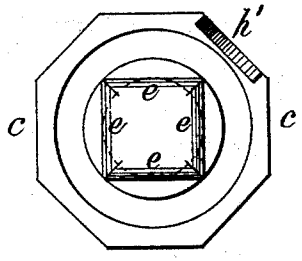


FIG. 7.

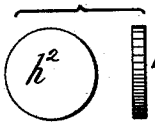


FIG. 5.

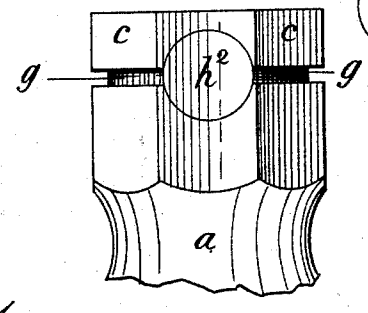
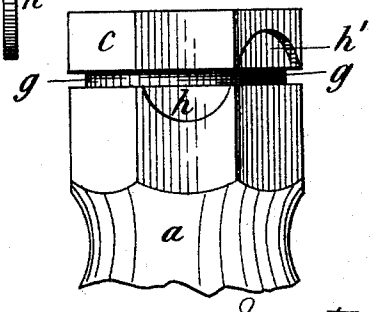


FIG. 6.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALEXANDER MACKIE, OF LONDON, ENGLAND.

BOTTLE AND STOPPER.

SPECIFICATION forming part of Letters Patent No. 456,420, dated July 21, 1891.

Application filed April 4, 1891. Serial No. 387,650. (No model.) Patented in England April 11, 1889, No. 6,184.

To all whom it may concern:

Be it known that I, ALEXANDER MACKIE, builder, a subject of the Queen of Great Britain, residing at Winchester Place, Peckham, London, in the county of Surrey, England, have invented certain new and useful Improvements in Stoppering Bottles, Jars, and other Vessels, (for which I have obtained a patent in Great Britain, No. 6,184, bearing date April 11, 1889,) of which the following is a specification.

This invention has for its object to provide a novel stopper for bottles and similar vessels; and it consists in the features of construction and the combination or arrangement of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a sectional elevation showing a portion of a bottle with my invention applied thereto. Fig. 2 is a section on the line 1 2 of Fig. 1. Fig. 3 is an elevation of the stopper at about forty-five degrees to that shown in Fig. 1. Fig. 4 is a plan view of the under side of the stopper shown in Fig. 3. Fig. 5 is an elevation showing the position of the stopper when locked. Fig. 6 shows the same unlocked. Fig. 7 illustrates the locking-disk.

Referring to the drawings, *a* is the neck of the bottle.

b is the thickened portion of the neck, having a square hole formed therein.

c is the head of the stopper.

d is the circular stem, and *e e* are the flats of the lower (square) end of the stem.

f is a hole in the head of the stopper for the insertion of a pencil or pen-holder, or other piece of wood or metal which may be at hand, as a lever for turning the stopper.

g is a washer, formed of cork, rubber, or other elastic or flexible material. This washer may be made annular or it may be circular outside and have a square hole formed therein.

h is a segmental recess at the upper part of the neck, and *h'* is a corresponding recess in the head of the stopper. h^2, Fig. 7, is a thin disk of metal, wood, or other hard substance of slightly smaller diameter than the circle *h h'*.

k is a raised ledge or lip for confining and locating the washer *g*.

In closing the bottle the washer *g* is first placed in position. The stopper is then inserted and forcibly turned until the angles project below the flats of the bottle-neck, and the segmental recesses *h h'* are in the positions to receive the disk h^2, as shown in Fig. 5. The disk is then inserted and sealed with wax. This locking-disk may be utilized for a name or trade-mark.

Having thus described my invention, what I claim is—

The combination, with a bottle or similar vessel having its neck provided with an external recess *h* and an angular interior surface, of a stopper having the external recess *h'* and provided with the circular stem *d*, having the flattened portions *e*, and the disk h^2, engaging the recesses *h h'* of the neck and stopper, substantially as described.

Dated this 12th day of March, 1891.

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