

(No Model.)

J. H. SHEPARD.
BOTTLE LOCK STOPPER.

No. 516,027.

Patented Mar. 6, 1894.

Fig. 1.

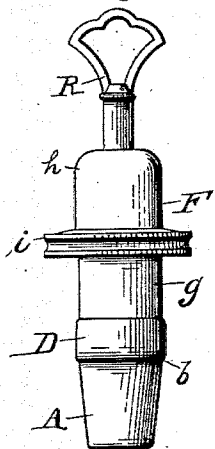


Fig. 3.

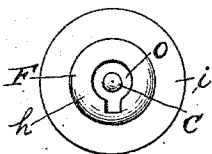


Fig. 4.

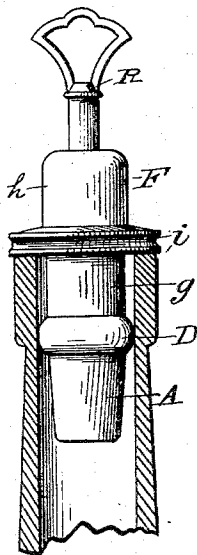


Fig. 2.

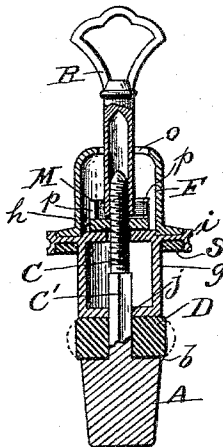
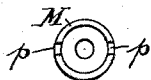


Fig. 5.

Witnesses:



Jose H. Blackwood
A. P. Doolittle.

Fig. 6.



Inventor:

John A. Shepard
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Attorney.

UNITED STATES PATENT OFFICE.

JOHN A. SHEPHARD, OF NEW YORK, N. Y.

BOTTLE LOCK-STOPPER.

SPECIFICATION forming part of Letters Patent No. 516,027, dated March 6, 1894.

Application filed December 27, 1893. Serial No. 494,881. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. SHEPHARD, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Bottle Lock-Stoppers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to bottle-stoppers, adapted also for use with decanters and demijohns, and other similar vessels.

It consists of a stopper provided with a key as hereinafter described and claimed.

The object of the device is to provide a stopper which may be placed in the neck of the bottle, there locked in place by a key, and the key removed if so desired, while the bottle is securely sealed and its contents prevented from escape or abstraction, except by use of the key.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is an exterior view of the stopper; Fig. 2, a central sectional view of the same; Fig. 3, a top view of the stopper; Fig. 4, a view of the stopper applied to the neck of the bottle; Figs. 5 and 6, details of metal washer inside the stopper.

Referring to the drawings, A is the stopper plug provided with a shoulder *b*, and a central stem *c*. The upper portion of the stem is screw threaded, and its lower portion smooth and square-shaped as at *c'*.

D is a thick rubber washer made to slip over the stem *c*, and be pressed down onto the shoulder *b*, and fit very tightly and snugly around the squared portion, *c'*, of the stem.

F is a cap composed of a lower hollow stem *g*, an upper hollow stem *h*, and a central projecting ring *i*, which unites the two stems *g* and *h*. The lower stem *g* of the cap has a square central aperture *j*, cut through its base and a round hole is cut through its top. By means of these holes the cap F is slipped on to the stem *c* of the plug A, until the lower stem *g* of the cap rests on the washer D of the plug. The square portion, *c'*, of the stem *c* of the plug enters the square walls of the hole and the cap is thereby prevented from turn-

ing on the plug A. The upper end of the screw stem *c* extends through the hole *k* of the upper stem *h*, of the cap. Within this upper stem *h*, is placed a loose metal washer M, to engage with the upper end of the screw stem, *c*, when turned by the key, and the hole in the base of this washer is screw threaded for that purpose. The top of the upper cap stem, *h*, is cut out to form a key hole, *o*, and the loose washer M, is provided with two slots, *p, p*, to conveniently receive the wing of a key, R, so that the said washer may be turned on the plug stem to screw or unscrew the plug. On the under side of the central ring, *i*, is formed an annular seat in which is placed a rubber washer, S, which is designed to form a snug air tight seat for the neck head of the bottle.

The cap is preferably at first constructed in two parts at the ring part, the washer M then inserted in the upper stem of the cap, and the two parts of the ring then soldered together to make an integral cap.

When all the parts are put together and the stopper plug inserted in the neck of the bottle in order to lock the bottle it is only necessary to insert the key in the upper stem of the cap, and in place in engagement with the washer M, and to then turn the said washer on the plug stem. This movement serves to draw the stopper plug upward bringing the thick rubber washer, D up against the lower stem, *g*, of the cap, F. As the turning of the key is continued the rubber D is made to expand laterally against the inner walls of the neck of the bottle. This expansion of the washer D results in such a tight fit against the neck of the bottle that on removal of the key from the stopper it is impossible to withdraw the stopper without breaking the bottle, and at the same time a perfectly air tight sealing of the bottle is accomplished.

It is obvious that without departing from my invention the stoppers may be made of any size, and ornamented in any desired manner. When used with fine and handsomely shaped decanters and bottles the stoppers will be made to correspond in size and attractive appearance.

In preventing unauthorized access to bottles containing poison, in carrying bottles of liquids by travelers, in transportation of va-

uable liquids generally, and in short where secure locking of the contents of a bottle is desired, at the same time an easy access thereto without the use of corkscrews or other similar means for removing the cork, my invention will be found most convenient and efficient.

Having thus described my invention, what I claim is—

10 A stopper consisting of the cap F composed of the two hollow stems *g* and *h*, a ring projection uniting said stems, a plug A provided with a shoulder, *b*, an expanding washer D held between said shoulder and the bottom

of said lower part *g*, a central stem *c* fixed 15 in the plug A, said stem having a smooth squared lower portion *c'* and an upper screw threaded end, and a screw washer M, within said upper stem portion *h*, adapted to be engaged with said screw stem by means of a 20 suitable key, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN A. SHEPHARD.

Witnesses:

JOS. H. BLACKWOOD,
H. P. DOOLITTLE.