No. 814,778. PATENTED MAR. 13, 1906.

E. N. GILFILLAN.

BOTTLE STOPPER.

APPLICATION FILED APR. 27, 1905.

Fig. 1.

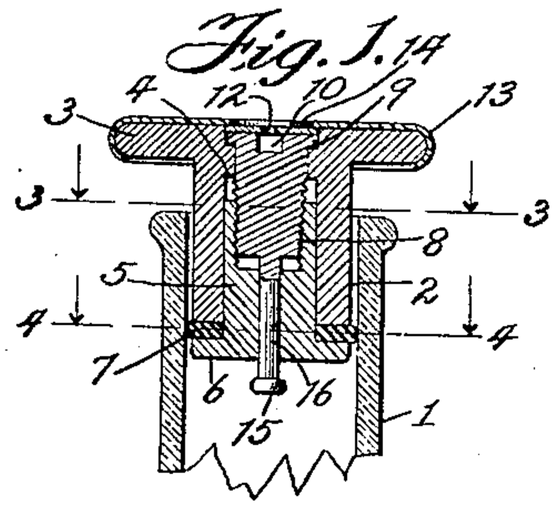


Fig. 2.

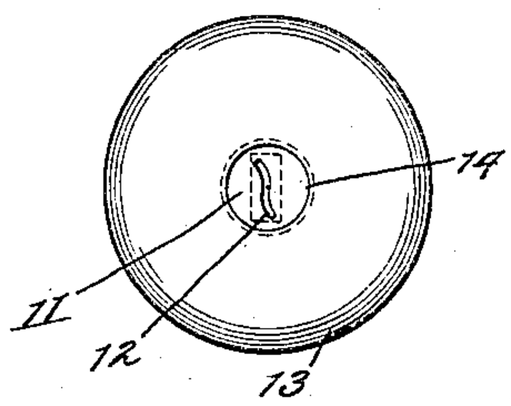


Fig. 4.

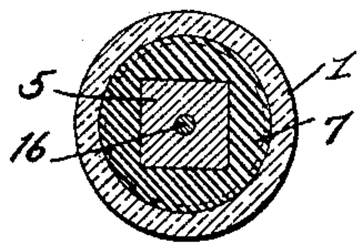
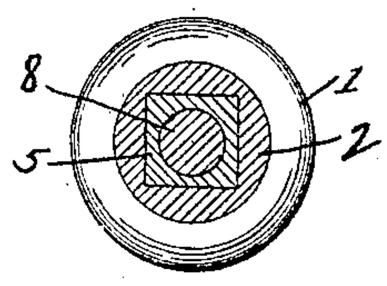


Fig. 3.



Witnesses:
B. A. D. Perry
J. B. Weir

Inventor:
E. N. Gilfillan
by Francis A. Hopkins
Atty

UNITED STATES PATENT OFFICE.

ESSINGTON N. GILFILLAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO WILLIAM M. HAYNER, OF TROY, OHIO.

BOTTLE-STOPPER.

No. 814,778. Specification of Letters Patent. Patented March 13, 1906.

Application filed April 27, 1905. Serial No. 257,582.

To all whom it may concern:

Be it known that I, ESSINGTON N. GILFILLAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a full, clear, and exact specification.

My invention relates to locked bottle-stoppers; and it has for its object to provide an improved, simple, and practicable form of bottle-stopper capable of being readily locked in the bottle by means of a key.

With a view to the attainment of these ends and the accomplishment of certain other objects, that will hereinafter appear, the invention consists in the features of novelty which will now be described with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a vertical sectional view of my improved bottle-stopper, showing the same partially inserted into the neck of the bottle. Fig. 2 is a plan view thereof. Fig. 3 is a cross-section on the line 3 3, Fig. 1; and Fig. 4 is a similar section on the line 4 4, Fig. 1.

1 is the neck of the bottle, and 2 is the body of the stopper, which may be of cylindrical exterior formation or of any other suitable form and which is provided at its upper end with a flange or head 3 for limiting its inward movement and affording means whereby it may be withdrawn. Situated within a square or other angular passage 4 in the body 2 is an interiorly-screw-threaded slide 5, complementary in shape or cross-section to the shape of the cross-section of the passage 4. In the example shown in the drawings it is square; but any other angular formation or form that will prevent relative rotation between the body 2 and slide 5 will answer the purpose. The lower end of the slide 5 is provided with a compressing-flange 6, and between this flange and the lower end of body 2 is situated a rubber or other suitable gasket 7, but preferably a gasket composed of compressible or expansible material, so that when the compressor 6 acts against it it will expand it in the neck of the bottle, and thereby firmly lock the stopper in place.

The necessary upward movement of the slide 5 for producing this expansion of the gasket or packing 7 is produced by a screw 8, which is screw-threaded into the slide 5 and is provided with a shoulder 9, supported upon the body 2. The end of the screw 8 is countersunk below the surface of the flange 3 and is provided with a wrench socket or seat 10, and arranged over this and also countersunk in the face of the head 3 is a bushing or disk 11, having a keyhole 12 of the shape corresponding to the key, the shape of the key-socket 10 being only approximate that of the key or of any shape that will prevent the key from rotating therein. The bushing 11 is capable of rotating with the screw 8, and it is held in place by a cap 13, made of sheet metal or other suitable material and formed over and flanged around the head 3, with a central keyhole 14 of circular shape to permit the key to rotate the bushing 11 and screw 8.

In order that the screw may not be rotated sufficiently to force the slide 5 entirely off of it, it is provided with a stop 15 in the form of a head formed on the lower end of a stem 16, which projects downwardly from the lower end of the screw.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. In a bottle-stopper the combination of a body, a packing or gasket carried thereby, an expanding means for said packing, a screw countersunk in said body for actuating said expanding means and having a key socket or seat, a bushing covering said screw and socket and having a keyhole, and means for rotatably holding said bushing.

2. In a bottle-stopper the combination of a body, a gasket carried thereby, means for expanding said gasket, a screw for actuating said expanding means, countersunk in said body, and having a key-seat, a rotatable bushing covering said screw and key-seat and having a keyhole, and a cap fitting over said bushing and having an aperture central with relation to said keyhole.

3. In a bottle-stopper the combination of a body, a slide movable longitudinally therein but held against relative rotation, a flange on said slide, an expansible gasket between said flange and body, a screw screw-threaded in said slide and held against longitudinal movement in said body, and a stop on said screw for limiting the downward movement of the slide.

4. In a bottle-stopper the combination of a body, a squared slide therein, a flange on the lower end of said slide below said body, a gasket arranged between said flange and the end of the body, a screw held against longitudinal movement in the body and screw-threaded into said slide, and a stem projecting from said screw through said slide and having a head located below the slide for limiting the downward movement of the slide.

E. N. GILFILLAN.

Witnesses:
FRANCIS A. HOPKINS,
A. M. UHER.