

J. W. CARTER.
BOTTLE STOPPER.
APPLICATION FILED JULY 17, 1911.

1,065,896.

Patented June 24, 1913.

Fig. 1.

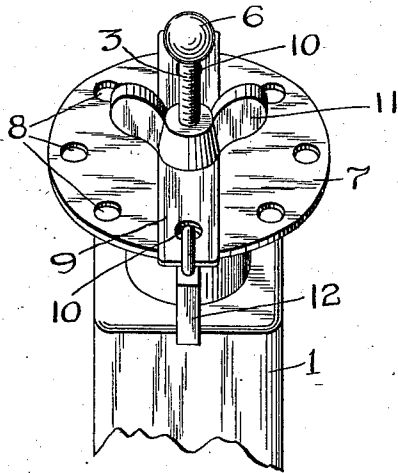
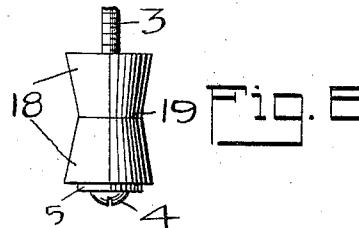
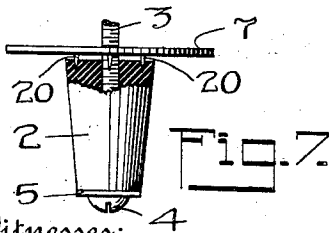
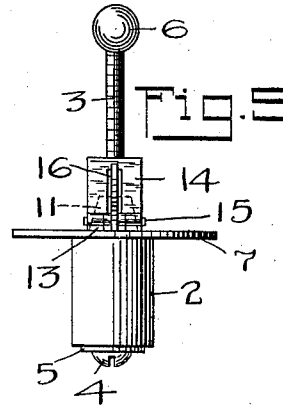
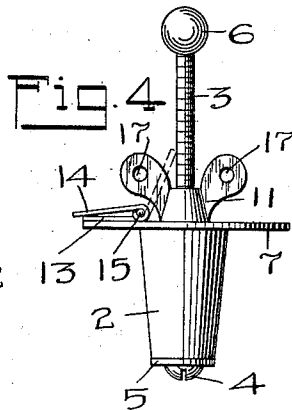
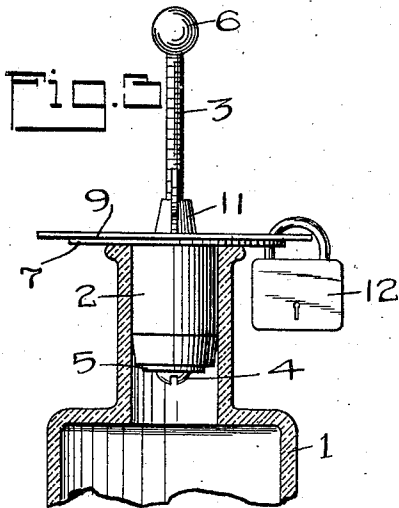
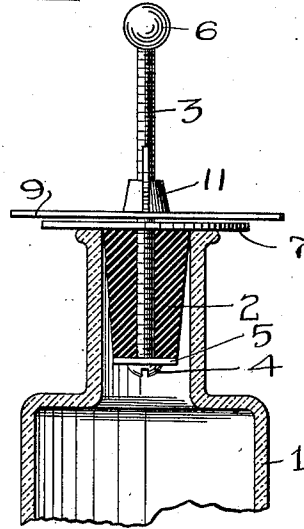


Fig. 2.



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UNITED STATES PATENT OFFICE.

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BOTTLE-STOPPER.

1,065,896.

Specification of Letters Patent.

Patented June 24, 1913.

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To all whom it may concern:

Be it known that I, JOHN W. CARTER, a citizen of the United States, residing in the borough of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Bottle-Stoppers, of which the following is a description.

This invention relates to bottle-stoppers and, particularly, to a means in combination therewith by which the stopper is prevented from being extracted from the bottle.

Among the objects of my invention may be noted the following: to provide means by which bottles can be sealed against tampering with their contents after they have once been opened; to provide a new form of stopper to be substituted for the ordinary cork stopper after the latter has been removed from the bottle; to provide a locking-device for bottle-stoppers to prevent theft of the contents of the bottle; and to provide a novel, simple and cheap form of bottle-stopper to be used with bottles containing whisky, wine, medicine, poison, etc., to prevent the same from being either stolen, or accidentally used, or taken by mistake, as is frequently the case through carelessness.

In order that my invention may be fully understood, I have provided drawings wherein:

Figure 1 is a perspective view of the top of a bottle with my invention applied thereto; Fig. 2 is a vertical, central section of the device of Fig. 1, with the cork only inserted in the bottle; Fig. 3 is a view similar to Fig. 2 with the locking device in operation; Fig. 4 is a side elevation of another form of my invention; Fig. 5 is a view of the form of Fig. 4 turned one-quarter around and showing the locking-plate in locking position; Fig. 6 is a side elevation of another form of stopper according to my invention; and Fig. 7 is a sectional elevation showing the means by which the disk and the stopper are held from movement relatively.

Referring to the drawings, the numeral 1 indicates any ordinary bottle and 2 the cork of my invention, said cork being, in this instance, made of a stiff, resilient or elastic substance, such as rubber and being given a form which is substantially that of a truncated cone.

The numeral 3 indicates a long screw-threaded rod passing directly through the stopper from end-to-end, the lower end of which is provided with a screw-head 4, which is at the smaller or inner end of the stopper and operates upon a washer 5, interposed between the same and the stopper, the head of the rod thus being prevented from being forced through into the stopper, and the washer being sufficiently large to prevent the rod from forcing it into the stopper. The outer end of the rod is provided with an enlargement 6, and said rod extends considerably beyond the stopper. A disk 7, of metal or other stiff material, is centrally perforated and passed over the screw-head 4, into engagement with the outer end of the stopper, said disk having a circle of apertures 8 near its circumference. A bar or plate 9, centrally perforated, is also placed over the screw-head 4, but is arranged above the disk 7, said bar in length being substantially that of, or a little greater than, the diameter of the disk and having an aperture 10, in each end, in size corresponding substantially with the apertures in the disk 7. A thumb-screw 11 is made integral with or rigidly secured to the bar 9, so that, by turning the same, the bar 9 can be turned until one of its apertures 10 registers with an aperture 8 of the disk 7. In order to hold the disk and bar in a fixed or adjusted relation, a padlock 12 is applied by passing its hasp through the registered apertures in the disk and bar, thus locking the disk and bar together.

In operation, by forcing the stopper into the neck of the bottle, its outer end will fit very tightly in the outer end of the neck, in the manner of an ordinary cork; but, by turning the thumb-screw until it is almost impossible to turn it any farther, the disk 7 will be clamped tightly against the neck of the bottle and the action of the head 4 of the rod upon the washer 5 will compress the stopper longitudinally, thus causing the latter to be expanded laterally and increasing the bind or friction of the outer end of the stopper upon the inside of the neck of the bottle. This action also causes the lower or inner end of the stopper to proportionately increase laterally, thus increasing

the frictional area of the stopper upon the neck of the bottle, as shown in Fig. 3. The lock will now be applied, and it will be impossible to remove or extract the stopper, as will be readily understood.

5 In the form of my invention shown in Figs. 4 and 5, the bar or plate 9, of the form shown, is dispensed with and a plate 13 secured to the disk 7, having a locking-plate 14, hinged thereto at 15, so as to swing out-
10 wardly. A slot 16 in the locking-plate will receive one of the wings of the nut or thumb-screw 11, each of which wings will be provided with an aperture 17 for the passage of
15 the hasp of the padlock, to prevent the nut from being unscrewed.

In the form of Fig. 6, the stopper is given the form of a double truncated cone, the smaller ends being joined, thus providing a
20 stopper with opposite enlarged ends 18 and a narrowed middle portion 19. When the stopper is compressed, as above described, the opposite ends will expand and make a firm grip upon the bottle neck.

25 In all the forms of my invention, it will be understood the disk 7 is either rigidly secured to the stopper, or is provided with means by which the stopper and the plate are prevented from having any relative
30 movement. In Fig. 7 of the drawings, means are shown consisting of a plurality of points or lugs 20, formed on the bottom of the disk 7 for entering the top of the stopper when the parts are compressed.

35 For assembling, the ball or head 6 of the rod is made removable by screw-threading the ball upon the end of the rod. Thus, all the parts can be assembled by sliding down

over the rod after the ball has been removed. The ball is simply for finish.

40 Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In combination with a stopper, a rod extending through the latter and having a
45 head engaging one end thereof; a disk, adapted to engage the end of a bottle-neck, fixed immovably to the other end of the stopper, said disk having a plurality of
50 apertures therein; a plate above said disk, having an aperture to register with an aperture of the disk; means for causing expansion of the stopper laterally; and means co-
operating with the plate and disk for lock-
55 ing the same together.

2. In combination with a stopper, a rod
55 extending through the latter and having means engaging one end of the stopper; a disk at the other end of the stopper and centered by the rod and adapted to engage the
60 end of a bottle-neck; means between the disk and stopper for holding them from relative circular movement; means for causing the
65 disk and stopper engaging means to compress the stopper; a plate cooperating with said disk to hold the latter from movement; and means for locking the plate and disk
together.

In testimony whereof I have hereunto
signed my name in the presence of two sub-
70 scribing witnesses.

JOHN W. CARTER.

Witnesses:

CHAS. MCC. CHAPMAN,
M. E. HELLOCK.