

(No Model.)

E. H. & C. MORGAN.

BOTTLE STOPPER.

No. 350,598.

Patented Oct. 12, 1886.

Fig. 1.

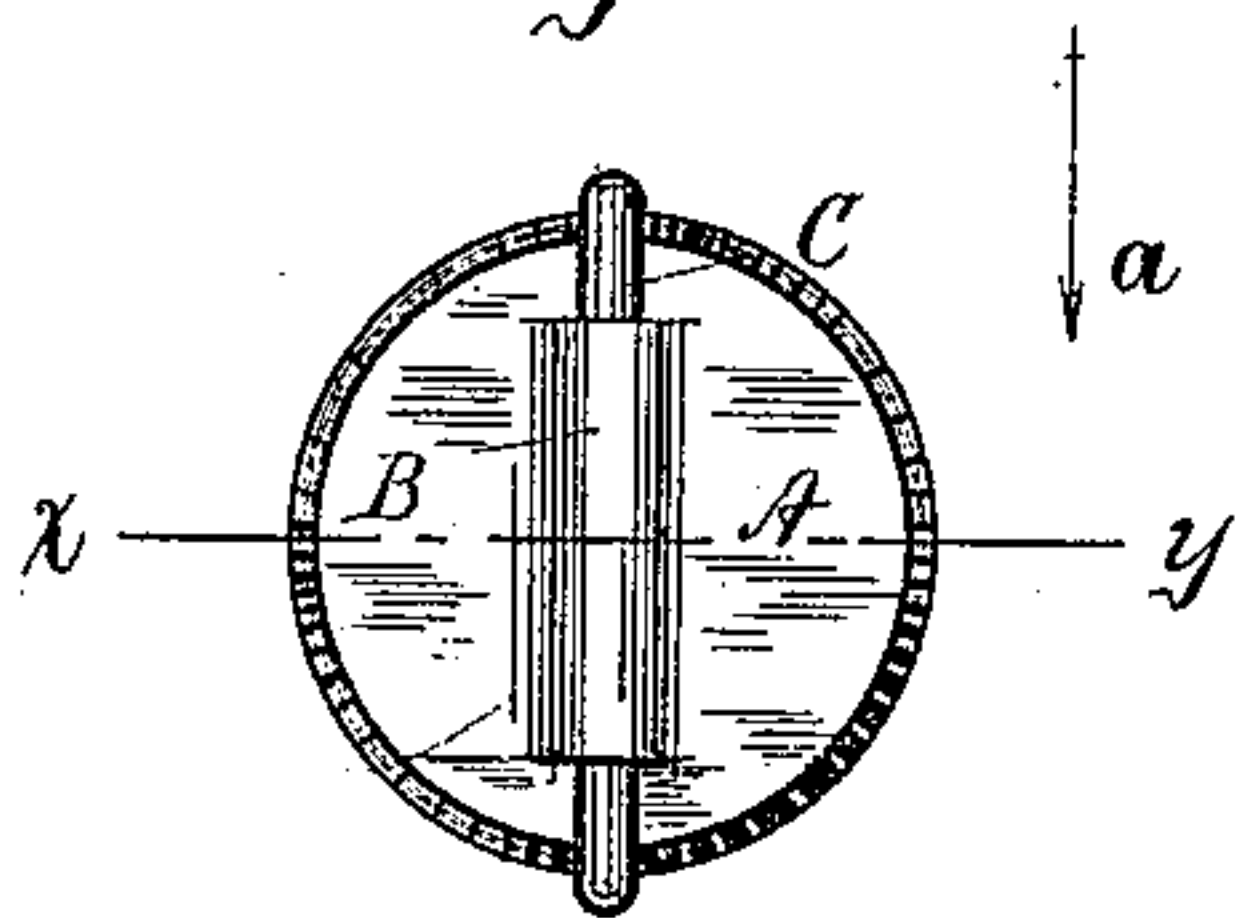


Fig. 4.

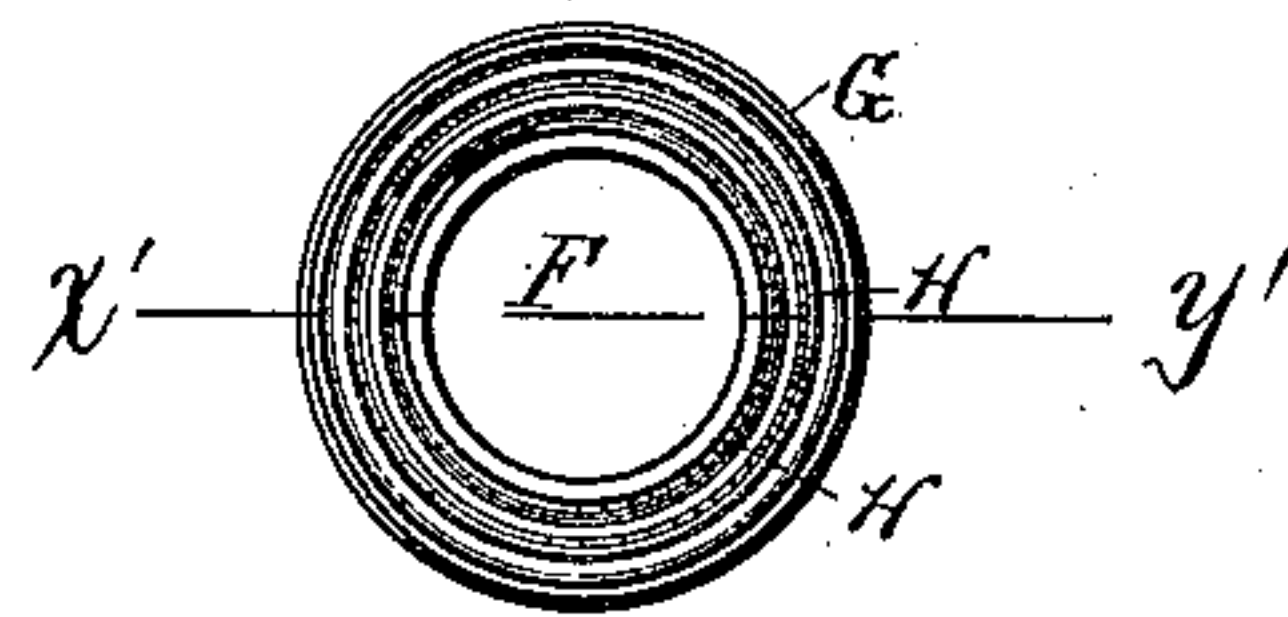


Fig. 3.

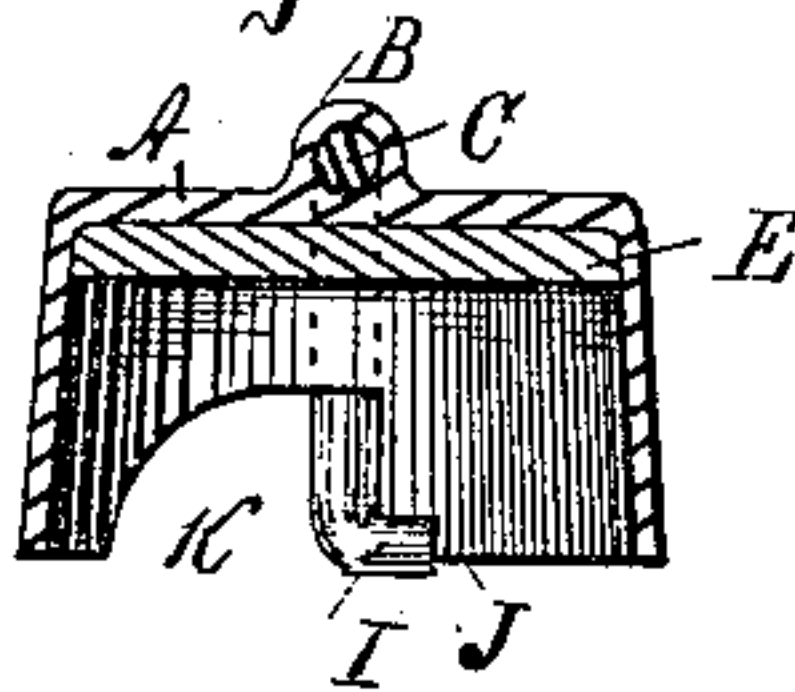


Fig. 2.

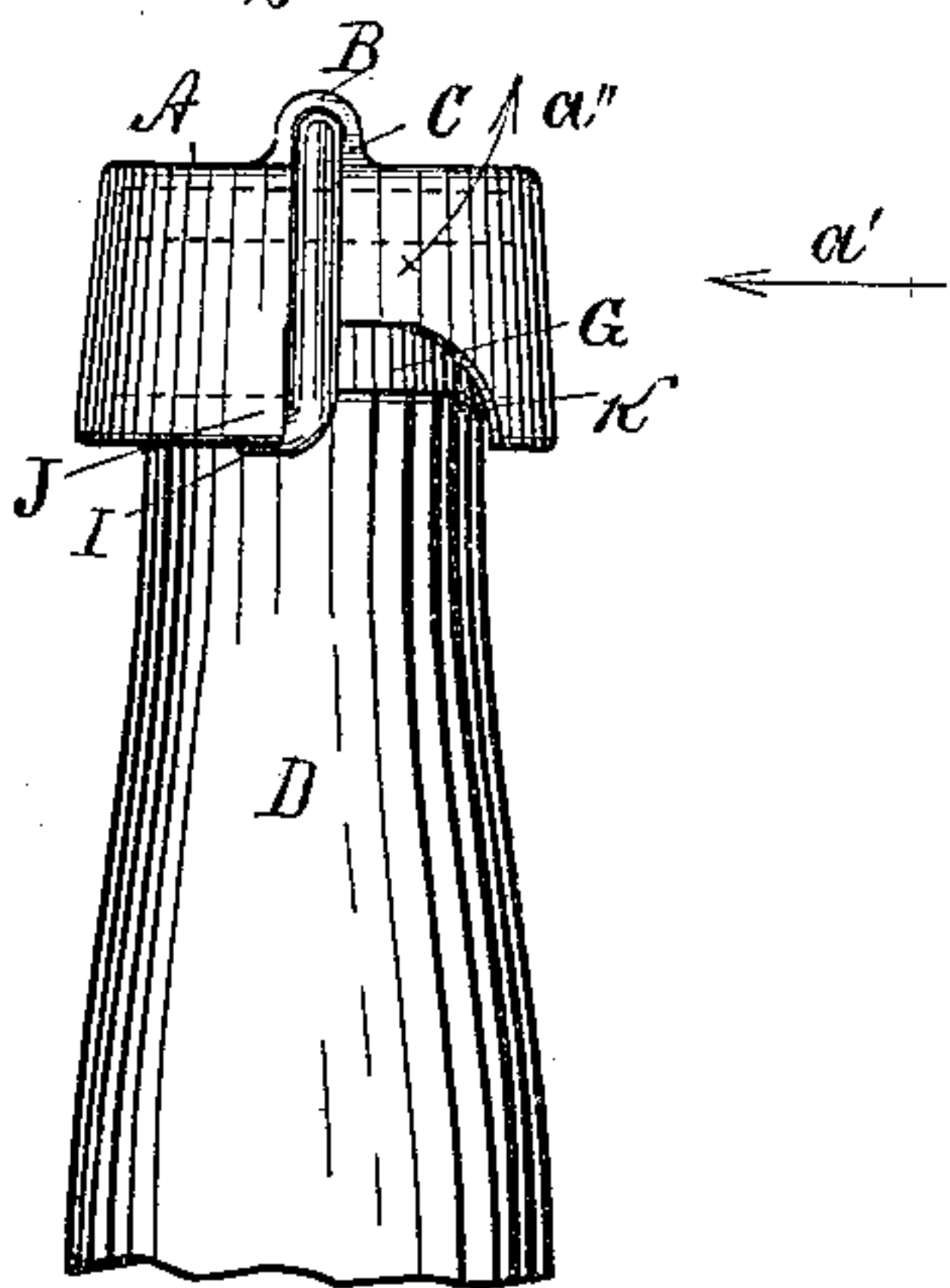


Fig. 5.

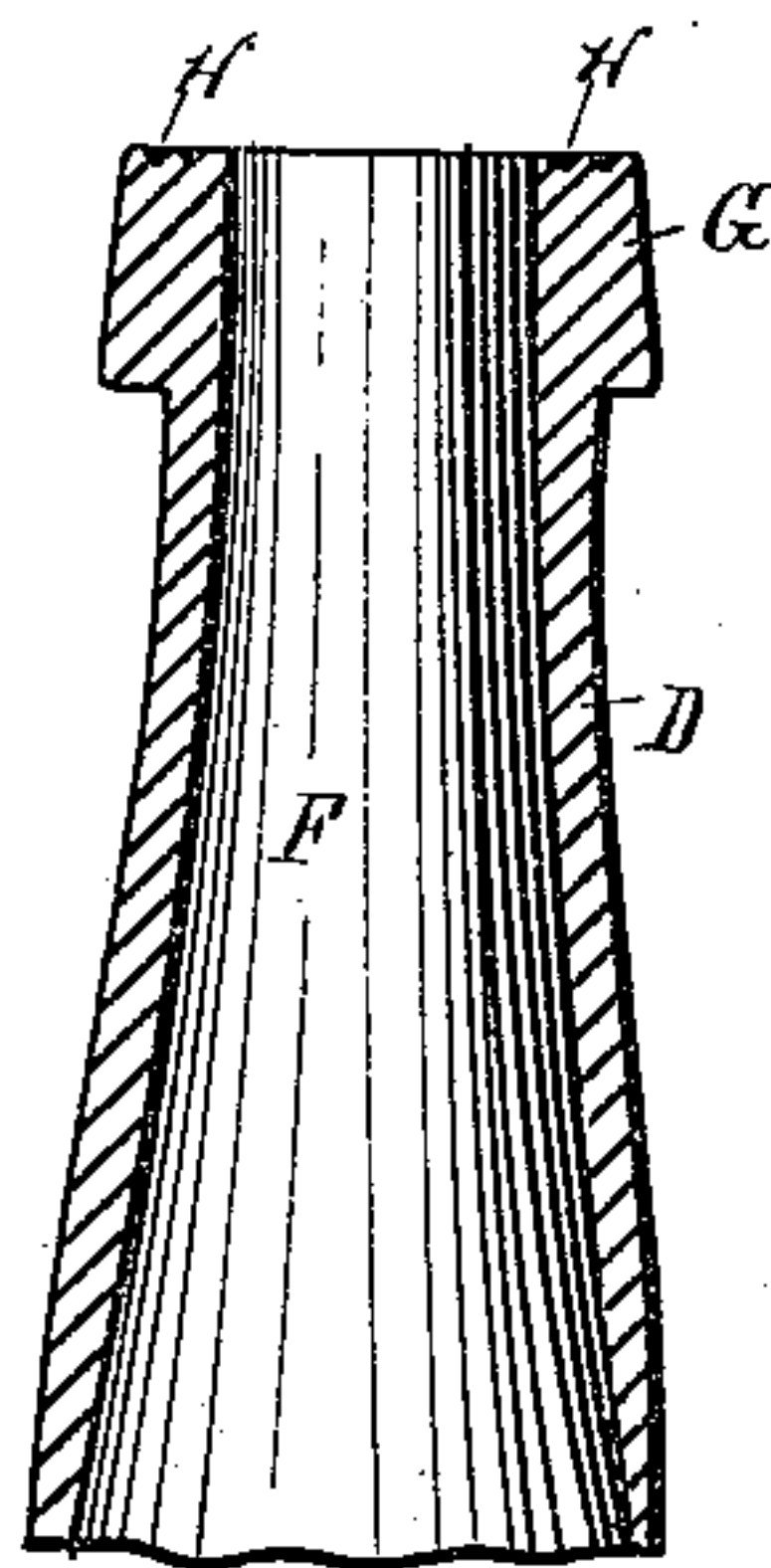
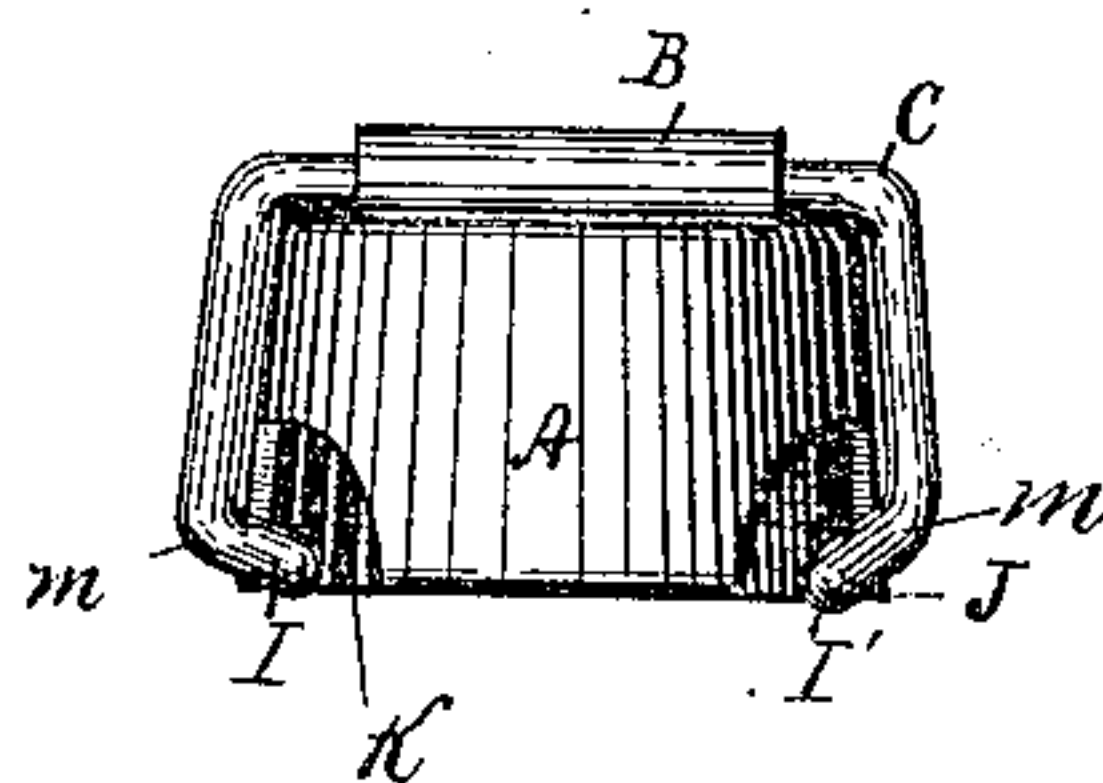


Fig. 6.



Witnesses

Alexander  
Chas. Gilbert

Inventors.

Edgar H. Morgan  
Charles Morgan

By their Attorneys

Wiles & Greene.

# UNITED STATES PATENT OFFICE.

EDGAR H. MORGAN AND CHARLES MORGAN, OF FREEPORT, ILLINOIS.

## BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 350,598, dated October 12, 1886.

Application filed February 23, 1886. Serial No. 192,790. (No model.)

*To all whom it may concern:*

Be it known that we, EDGAR H. MORGAN and CHARLES MORGAN, residents of Freeport, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Means for Stopping Bottles; and we 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 pertains to make and use the same.

The object of our invention is to provide means for quickly and securely closing bottles, dispensing with the ordinary long cork and securing-wires, and for readily opening the bottles again without the use of distinct appliances for that purpose. Our means comprise a layer of cork or other elastic material retained over the mouth of the bottle by an inverted cup-shaped cap and revoluble arms mounted on said cap and adapted to engage with the shoulder formed by the usual enlarged neck of the bottle.

In the accompanying drawings, to which this specification refers, Figure 1 shows the cap and arms in plan. Fig. 2 is an elevation of the same with the upper part of a bottle neck. Fig. 3 is a section on the line X Y, Fig. 1, looking in the direction *a*. Fig. 4 is a plan of the bottle with the cap removed. Fig. 5 is a section on the line X' Y', Fig. 4. Fig. 6 shows the cap and arms seen in the direction *a'*, Fig. 2.

In the drawings, A is a cap fitting over the mouth of the bottle and extending somewhat below the enlarged portion G of the bottle-neck D. A cylindrical rod, C, lies diametrically across the upper surface of the cap A, and has each of its ends bent downward to form arms on opposite sides of the cap. The arms are bent inward in their own plane at *m*, Fig. 6, passing beneath and in contact with the lower surface of the projecting portion G of the bottle-neck. They are again bent at right angle to their plane *m* C, Fig. 6, and terminate in short straight portions I I', substantially in contact with the surface of the bottle. To allow their inward bending at *m*, the side walls of the cap A are cut away at K, Figs. 2, 3, and 6, and the slot so formed in the cap is enlarged on one side sufficiently to allow the arms to rotate freely

in that direction, while the edge of the slot prevents rotation in a contrary direction. The bearing B incloses the straight connecting portion of the rod between the two arms.

E, Fig. 3, is a layer or disk of cork, rubber, or other similar substance, remaining constantly on the cap, and is of such thickness that when the ends of the arms C are in position beneath the shoulder formed by the enlargement G it must be compressed against the end of the bottle. To insure between the cork and the end of the bottle-neck such contact that no liquid can pass, annular grooves H H are formed in the glass, as shown in Figs. 4 and 5. The grooves are narrower at the bottom than at the top, so that the part of the stopper forced into them may be compressed laterally as well as vertically.

To apply the cap to a bottle, the arms are thrown back in the direction of the arrow *a''*, Fig. 2, and the cap placed over the mouth of the bottle. It is then pressed down upon the end of the neck by any suitable means until the yielding of the disk E is sufficient to allow the inwardly-bent arm ends to pass under the shoulder G, when the pressure may be removed and the bottle is securely stopped. No upward pressure upon the cap can cause the wire or rod C to spring out and disengage the ends from the shoulder G, for the ends I I' lie under and are retained by the lips J of the cap. In removing the cap the rod C is rotated in the direction *a''*, Fig. 2, in the bearing B. Should internal pressure against the cap under the revolving of the rod C be difficult, the cap may be rested against any fixed object and the bottle be pressed into it until the internal pressure is overcome.

The layer of cork may be replaced by an ordinary stopper inserted in the bottle and the remaining parts of the apparatus act as a simple cork-retainer; and if both forms of cork be employed our entire device operates as has been set forth and gives extraordinary security of closing.

Having now explained the construction and operation of our invention, what we claim is—

1. In means for stopping bottles, a cork adapted to the neck of the bottle, a cup inverted over said cork and the bottle-neck, diametrically-opposite arms revolubly attached



to said cup and adapted to engage suitable projections upon the exterior of said bottle-neck, said cup extending below said projections and adapted to receive the ends of said arms and to permit only tangential displacement thereof.

2. In combination with the neck of a bottle and a cork adapted thereto, the cap A, provided with notches K in its margin, and bearing revoluble inwardly and laterally bent arms C *m* I, said arms being adapted by their inwardly-bent portions to engage a shoulder upon the bottle-neck and by their laterally-bent ends to be retained by the edges of the cap, substantially as set forth.

3. The grooved neck having a shoulder, the elastic stopper, the cap A, having notches K in its dependent flange, the arms C, having inwardly-bent portions *m* and laterally-bent ends I, all combined and operating substantially as shown and described.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

EDGAR H. MORGAN.  
CHARLES MORGAN.

Witnesses:

CHAS. GILBERT,  
S. A. BUCKMAN.