

No. 746,331.

PATENTED DEC. 8, 1903.

J. M. HICKS.
MEANS FOR SECURING CAPS ON VESSELS.

APPLICATION FILED JULY 3, 1903.

NO MODEL.

Fig. 1.

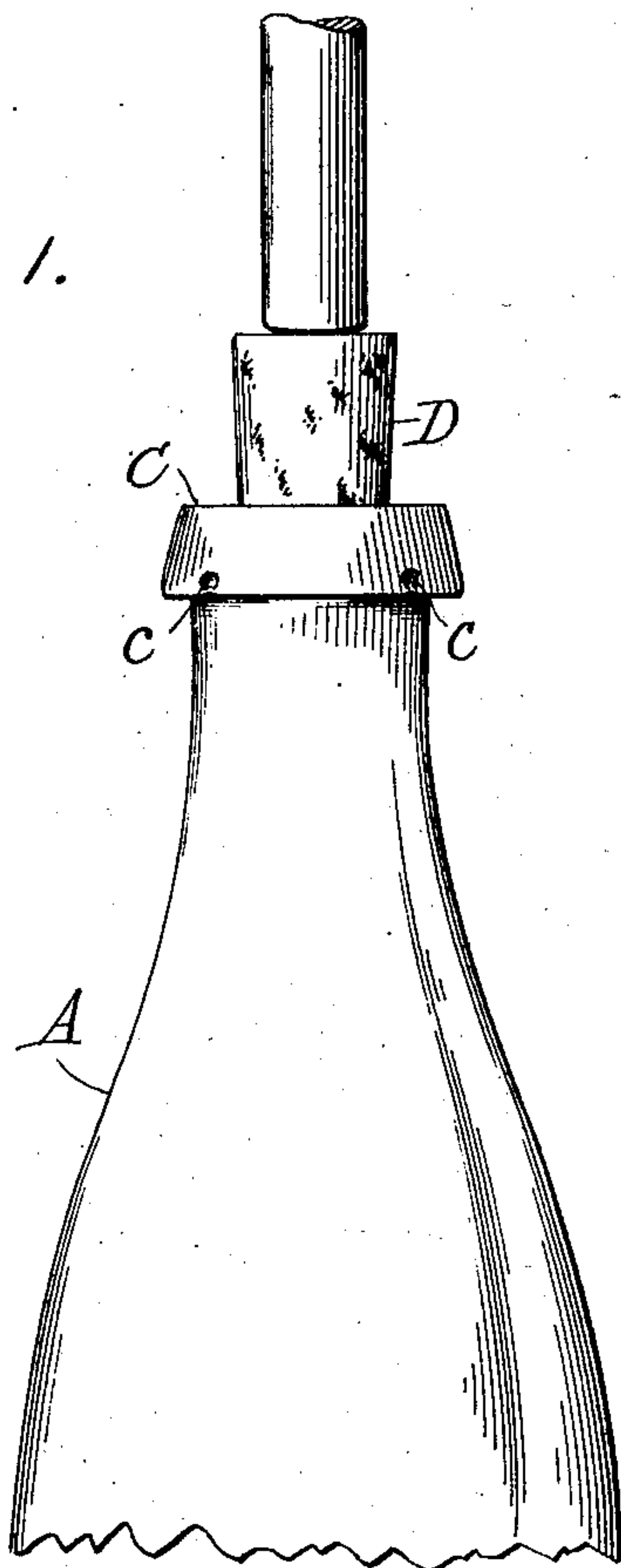


Fig. 2.

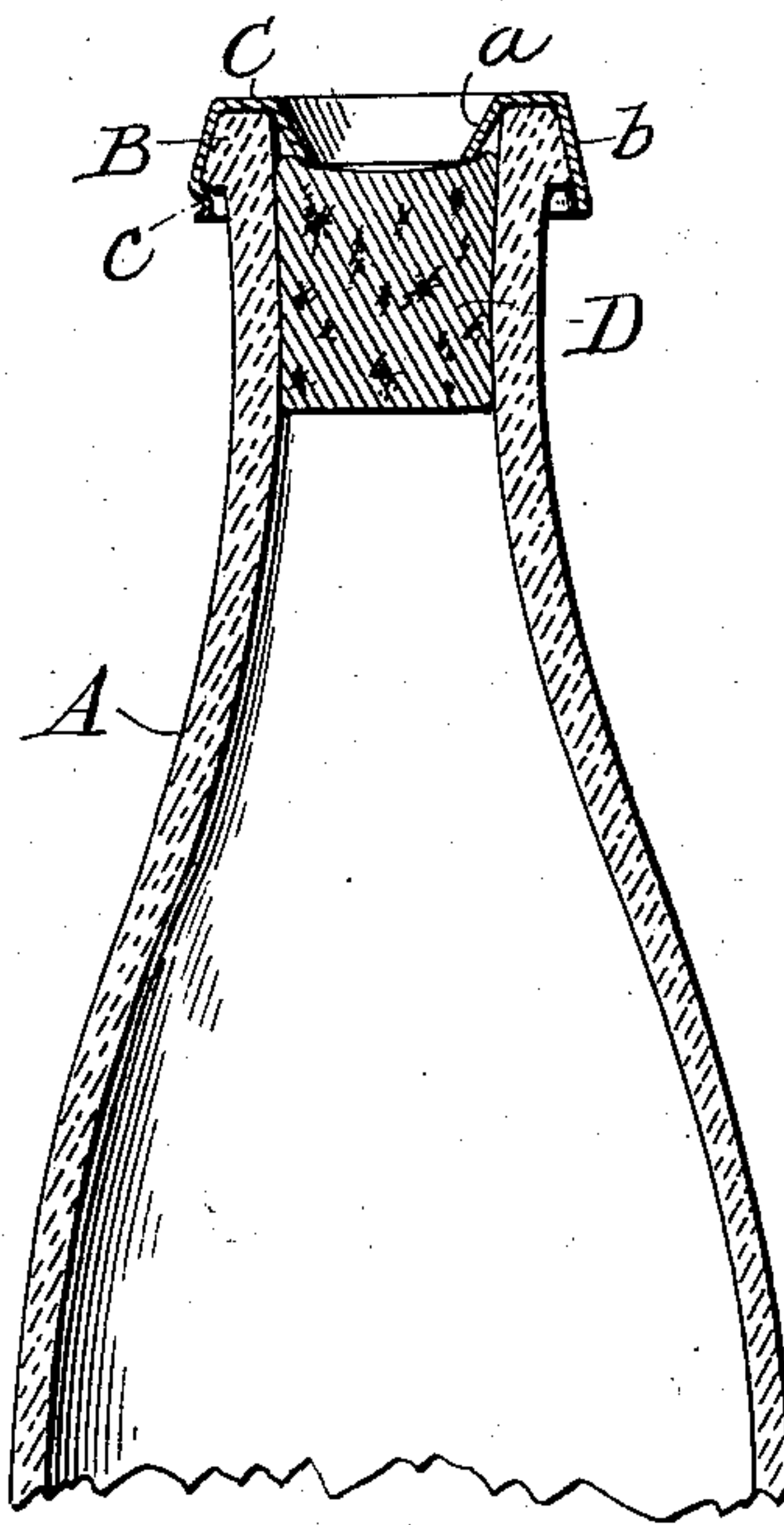


Fig. 3.

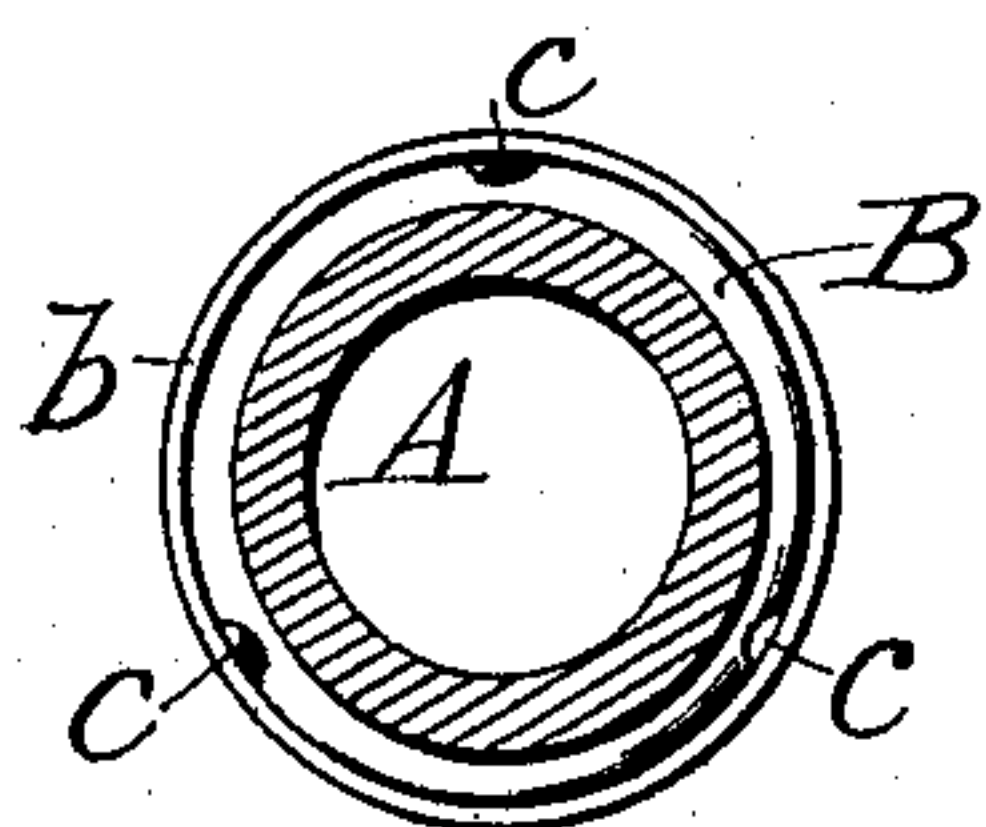
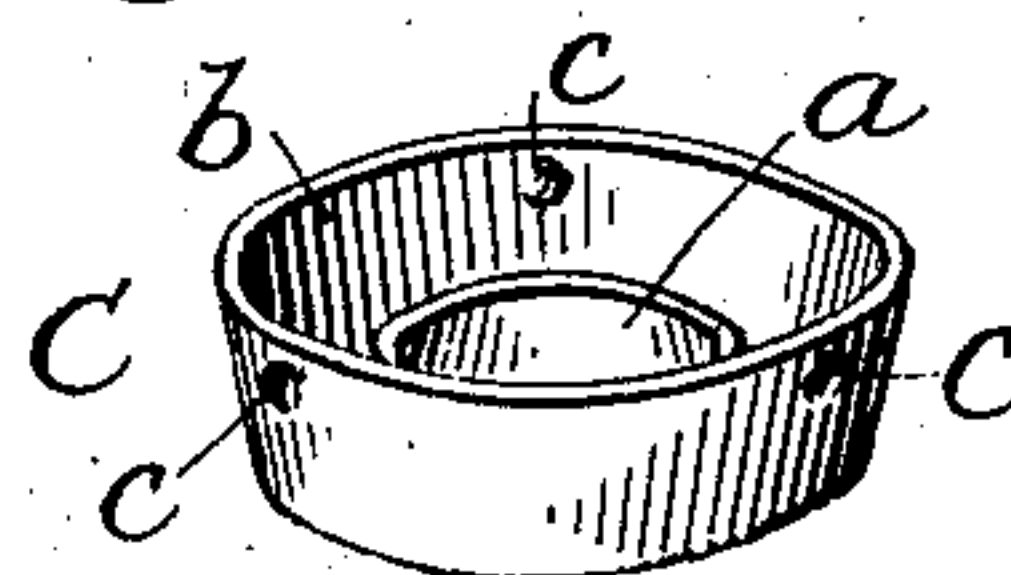


Fig. 4.



Witnesses:

James P. Duhamel

Nathaniel A. Barr

Inventor:

James Melnor Hicks

UNITED STATES PATENT OFFICE.

JAMES M. HICKS, OF SUMMIT, NEW JERSEY, ASSIGNOR OF ONE-HALF TO
ABBOT AUGUSTUS LOW, OF HORSESHOE, NEW YORK.

MEANS FOR SECURING CAPS ON VESSELS.

SPECIFICATION forming part of Letters Patent No. 746,331, dated December 8, 1903.

Application filed July 3, 1903. Serial No. 164,203. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. HICKS, a citizen of the United States of America, residing at Summit, county of Union, State of New Jersey, have invented certain new and useful Improvements in Means for Securing Caps on Vessels, of which the following is a specification.

My invention relates to means for securing the sealing-caps on vessels, especially on bottles which are to contain liquids under great pressure, such as soda-water, lager-beer, and other liquids of this class, including champagne.

In order that those skilled in the art to which my invention appertains may understand, construct, and use my invention, I will proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is an outside view of a bottle with my cap fixed to it, showing a cork stopper being inserted. Fig. 2 is a vertical longitudinal central section of a bottle with the cap applied and a cork stopper in the neck. Fig. 3 is a bottom view of the cap on the neck of the bottle, the section being taken just under the bead B, the neck of the bottle being in cross-section. Fig. 4 is a perspective view of the cap reversed.

a is the downwardly-inclined top surface of the central part of the cap surrounding an opening in it through which the cork stopper is forced in sealing the bottle.

A is the body of the bottle.

C is the cap, having a circular flange *b* pendent from the top surface of the cap.

B is a bead on the top of the outside of the bottle-neck, forming a shoulder beneath it, so that when the cap is placed on the mouth of the bottle the indents *c* (see Fig. 2) take under said shoulder and prevent the cap from being removed except by force exerted sideways by a tool made for the purpose. There are three or more of these indents made in the circumference of flange *b*. I prefer three as being sufficient for the purpose. In placing the said cap on the bottle pressure is brought to bear upon the top of the cap and the indents *c* spring outward and snap under the said shoulder. As the flange *b* is circular, it serves as a spring from one indent to another. There must not be indents enough

in the circumference of said flange *b* to destroy this spring action, as is the case with caps having a continuously-crimped flange and in common use. The tool for removing the cap is similar to those used for crimped caps, pressing downward on one side of the top of the cap and lifting the under side of the flange *b*, which action easily removes the cap; but no pressure from within the bottle acting vertically can remove the cap.

I have applied this my invention to a form of cap having an opening in its top, through which a cork stopper is inserted, to be sealed by internal pressure outward; but the invention is applicable to other kinds of caps where the bottle is filled and then sealed by forcing the cap onto a thin piece of cork located within the cap. This is accomplished by compressing the cork more than needed and allowing it to recede again, if necessary, after the indents have snapped under the shoulder before indicated.

Having now fully described my invention and the manner in which I have embodied it, what I claim as new and as my invention, and desire to secure by Letters Patent, is—

The combination in a means for securing caps on vessels, consisting of a cap having a top surface; a pendent circumferential flange, provided with indents separated from each other by spaces sufficient to form springs; a vessel having a neck, a bead located upon the top of the outside of the vessel-neck and forming a shoulder beneath said bead, whereby the said indents in said flange when the cap is placed over the vessel-mouth, spring diametrically outward, in pressing the cap downward, and close under the shoulder beneath said bead on the vessel-neck, and retain the said cap against the pressure of the contents of the vessel, and in opening the vessel-mouth said indents are forced outward, to release their hold from under said shoulder, substantially as hereinbefore specified.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 27th day of May, 1903.

JAMES M. HICKS.

Witnesses:

NATHANIEL P. BARR,
FREDK. W. FIELDING.