

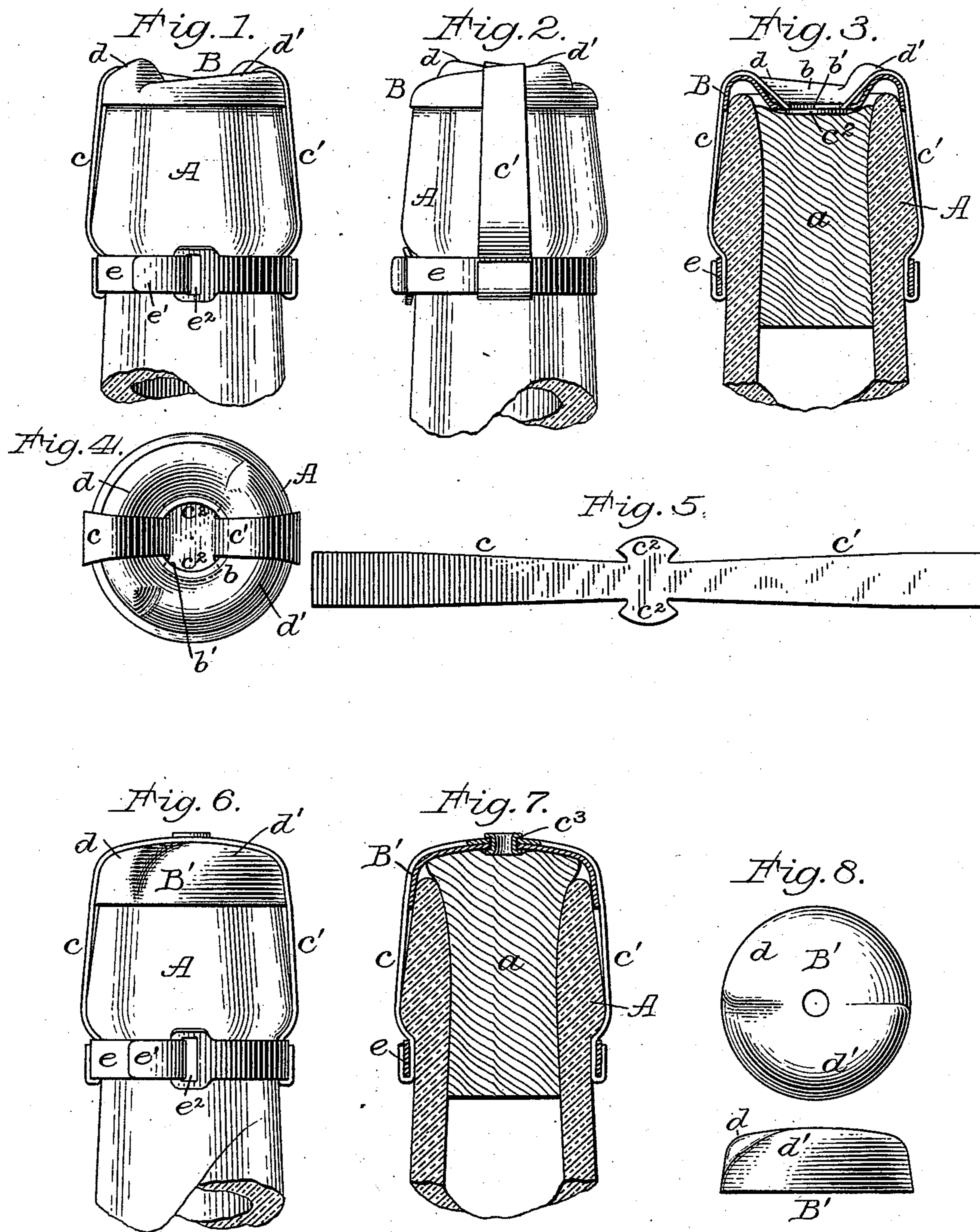
(No Model.)

2 Sheets—Sheet 1.

W. H. NORTHALL.
CORK HOLDING BOTTLE CAP.

No. 528,380.

Patented Oct. 30, 1894.



Attest:
Howell Gault
J. W. Deane

Inventor:
William H. Northall.
By *Wm. H. Northall*
Attorney.

(No Model.)

2 Sheets—Sheet 2.

W. H. NORTHALL.
CORK HOLDING BOTTLE CAP.

No. 528,380.

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Fig. 9.

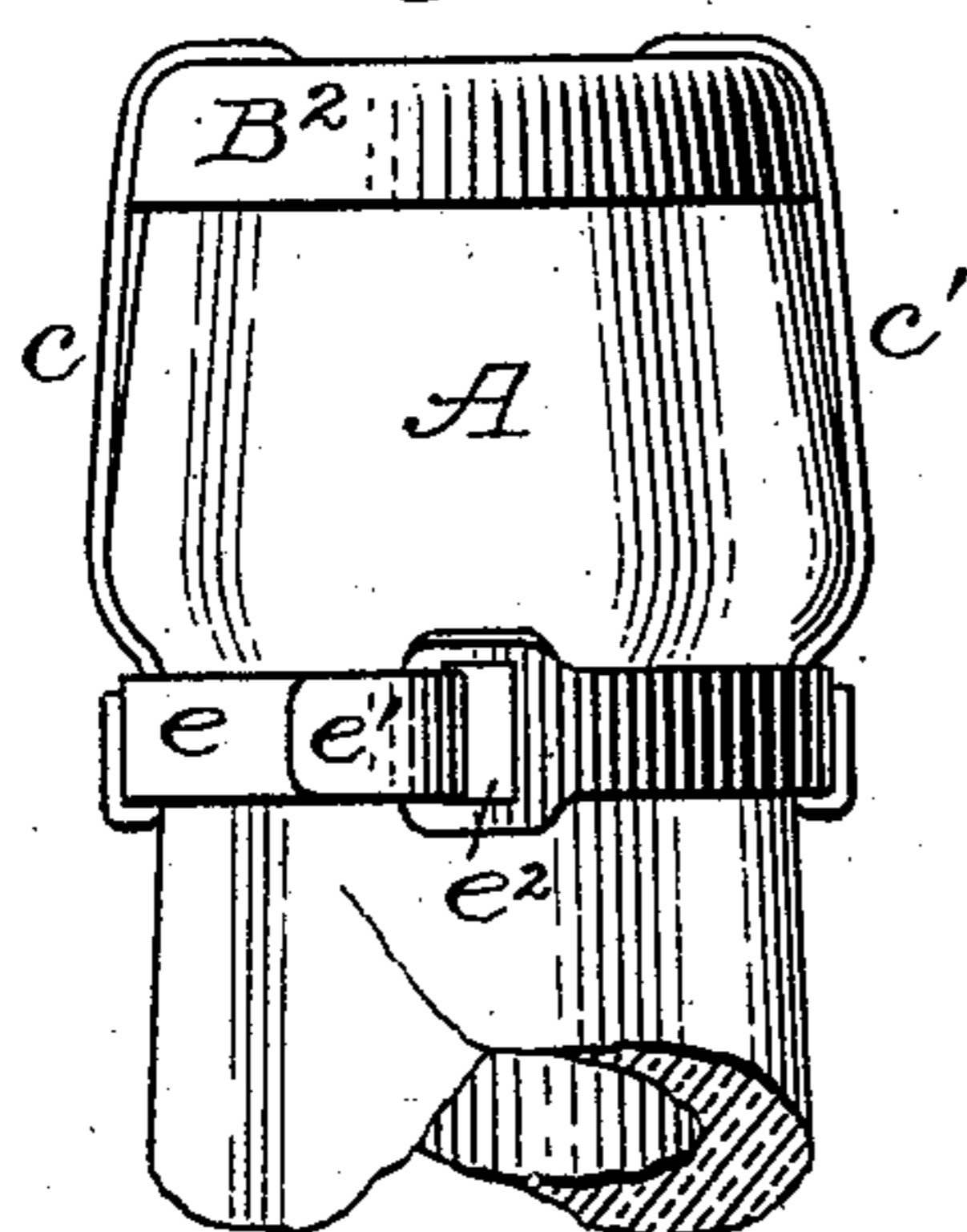


Fig. 10.

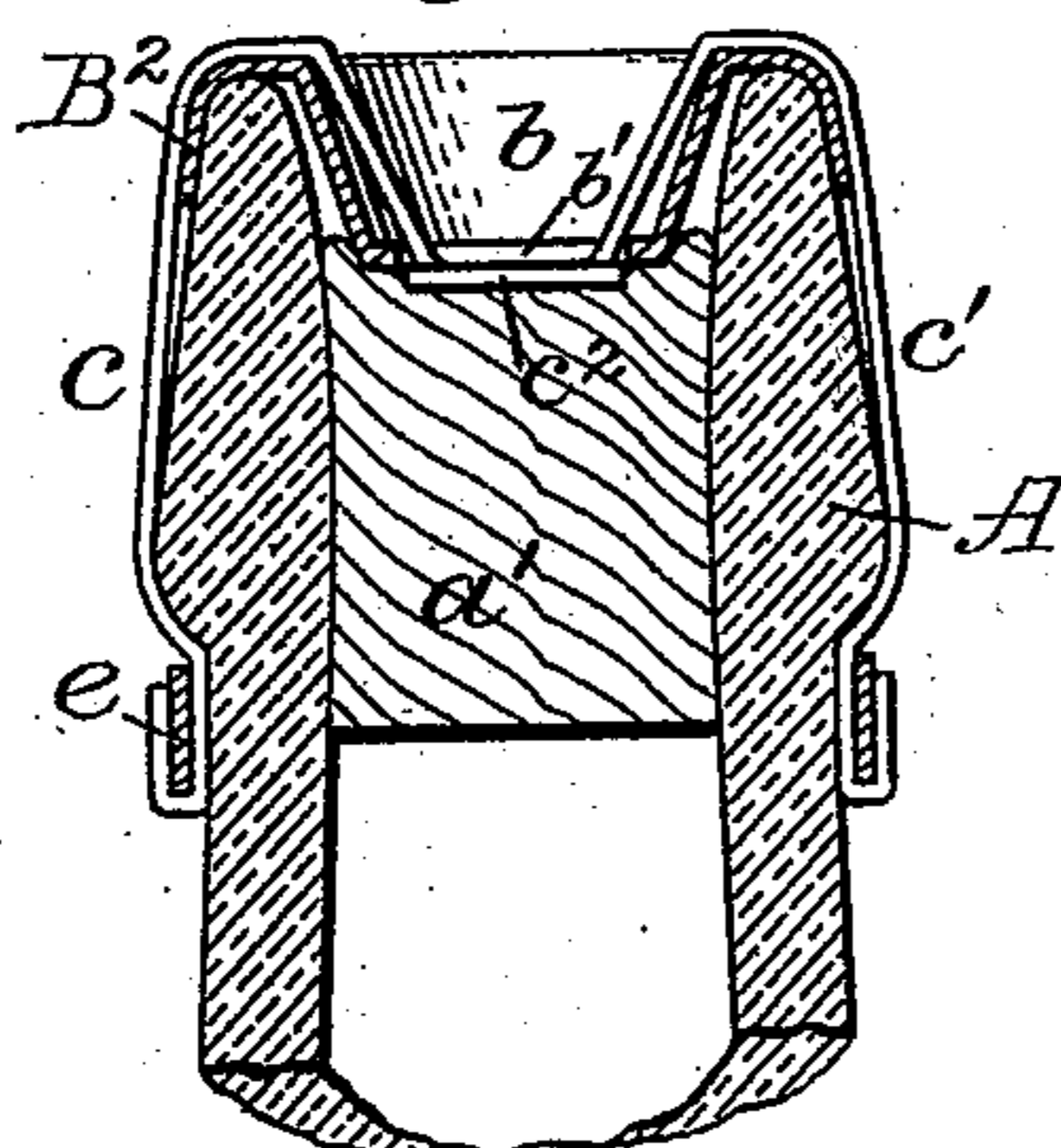


Fig. 11.

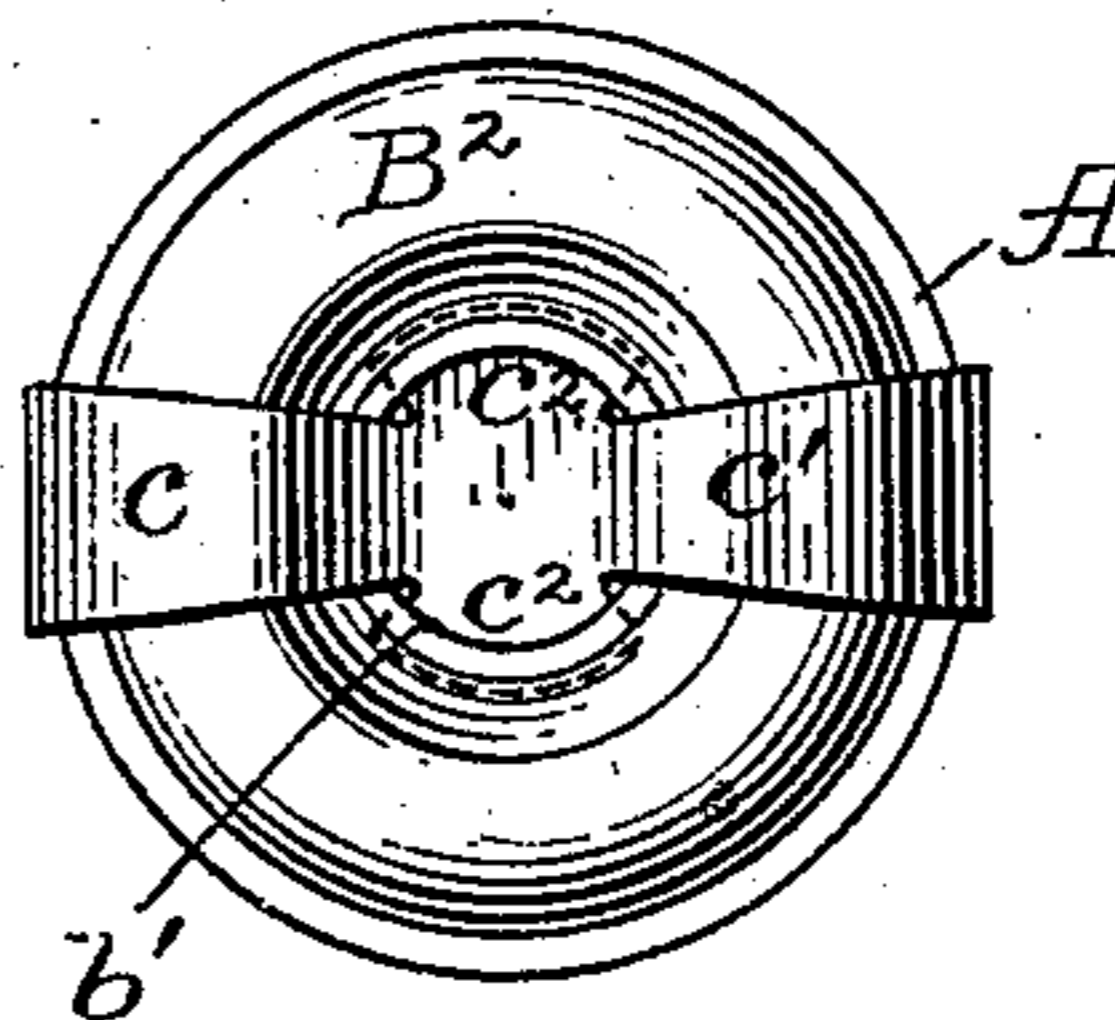


Fig. 12.

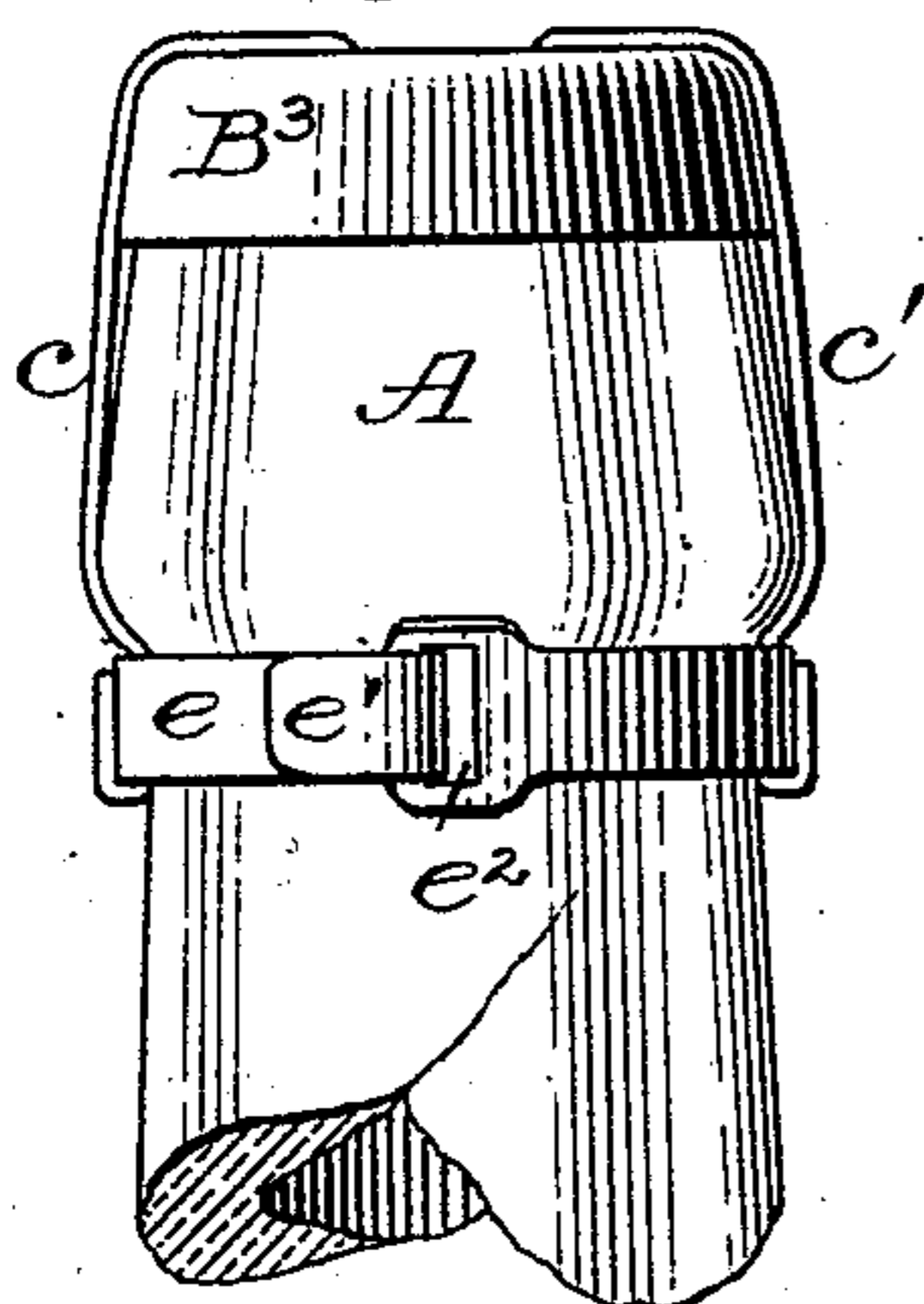


Fig. 13.

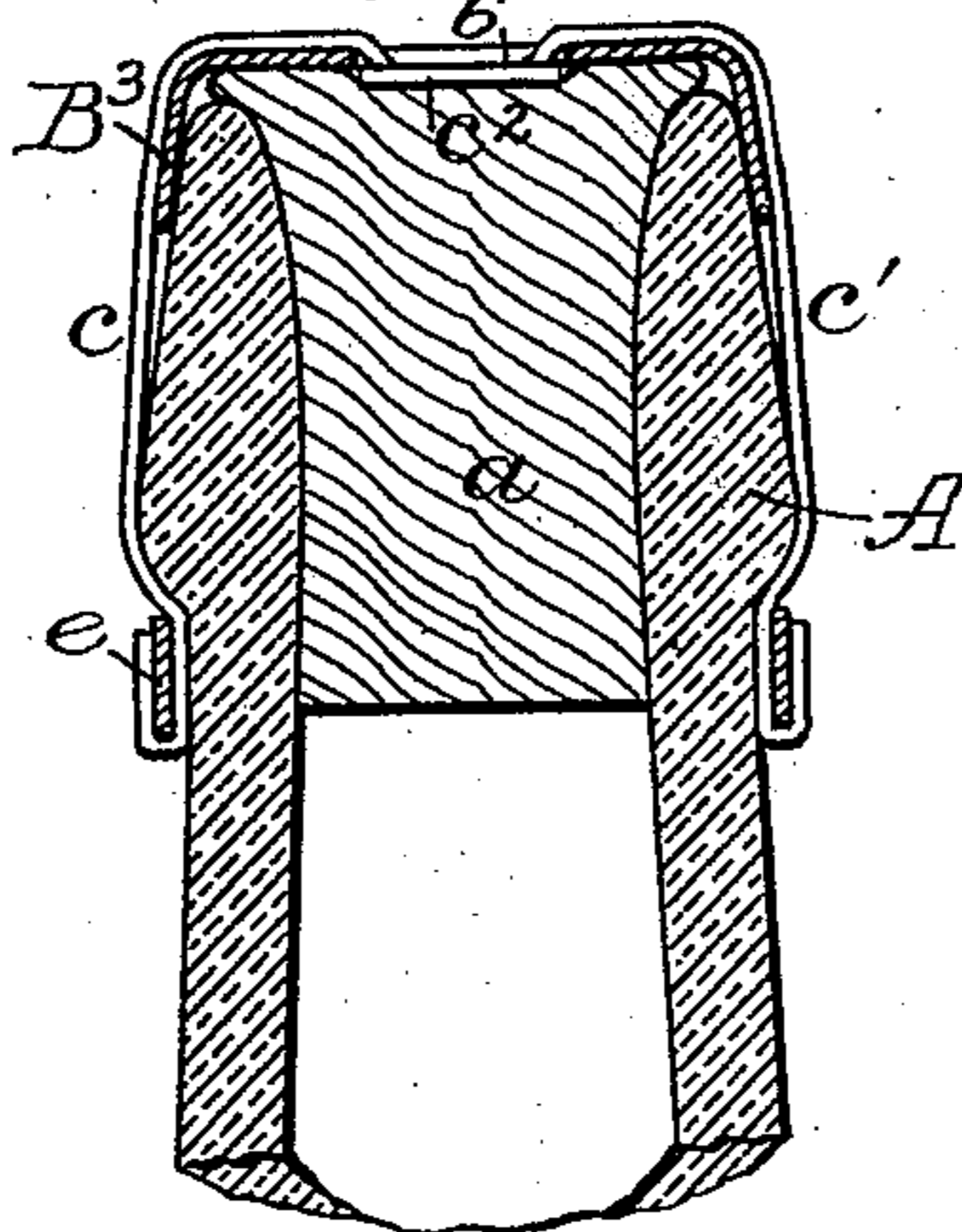
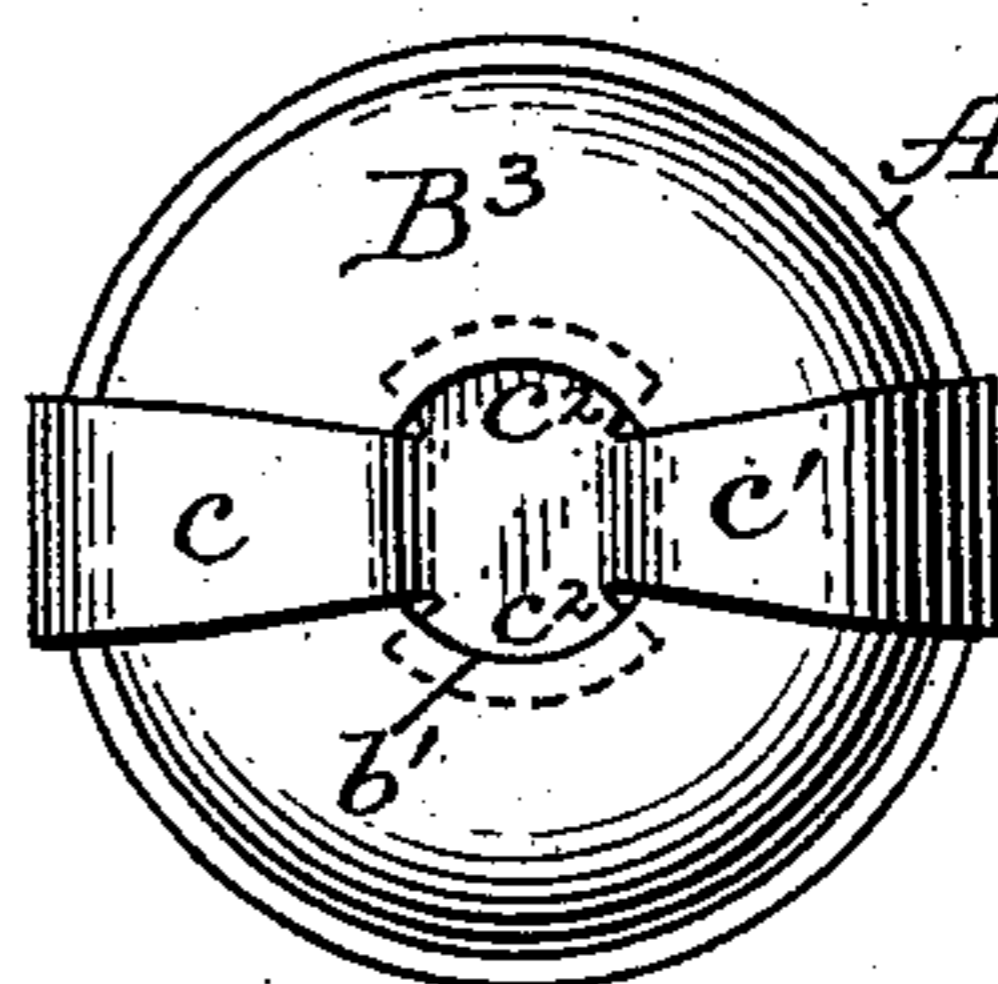


Fig. 14.



Attest:
Howell Zastler
J. W. Deane

Inventor:
William H. Northall.
By *Wm. C. Wood*
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM H. NORTHALL, OF EVANSVILLE, INDIANA, ASSIGNOR OF TWO-THIRDS TO J. H. POLSDORFER & SONS, OF SAME PLACE.

CORK-HOLDING BOTTLE-CAP.

SPECIFICATION forming part of Letters Patent No. 528,380, dated October 30, 1894.

Application filed December 28, 1893. Serial No. 494,987. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. NORTHALL, of Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Cork-Holding Bottle-Caps; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear, true, and complete description of my invention.

One object of my invention is to enable a cork holding bottle cap to be forcibly strained into close confining relations with reference to an inserted bottle cork, after the device has been applied to a bottle head. This end is attained by means of a novel combination of a sheet metal cap provided with cam surfaces on its top, side strips which are centrally pivoted to the cam-faced cap, and a neck band coupled to the side strips.

With a view to confining a cork at its initially depressed position below the lip of a bottle, another feature of my invention consists of the combination with a neck band and side strips, of a cap which is pivotally connected to said side strips, and is centrally depressed, for occupying the throat of a bottle, above a properly depressed cork.

With a view to securing a specially simple, effective, and economical construction, another feature of my invention consists in the combination with a neck band, and side strips which are connected to the neck band and are integral with each other, and are centrally provided with lateral wings or projections, of a cap which is centrally perforated, and is connected with the integral side strips, at and by their wings. This last recited combination does not necessarily include a cap having cam surfaces, nor one which is centrally depressed, and it is equally true that neither of said forms of cap necessarily involve the use of an integral pair of side strips having central wings, so long as the side strips and the cap are pivotally connected, as will hereinafter be more fully explained.

Referring to the drawings: Figures 1 to 5, illustrate in connection with a bottle head, my cork holding bottle cap in what I deem to be one of its best forms, and including

my entire invention. Figs. 6 to 8, similarly illustrate one form of my bottle cap embodying that portion of my invention which includes a cam surfaced cap in combination with side strips and a neck band. Figs. 9 to 11, similarly illustrate another form of my bottle cap embodying that portion of my invention which includes a cap centrally perforated and depressed in combination with a neck band, and an integral pair of side strips, centrally provided with wings which occupy the central perforation in the cap. Figs. 12 to 14, similarly illustrate still another form of my cap embodying that portion of my invention which includes a cap, centrally pivoted, side strips which are integral and provided with central wings, and a neck band.

The entire organization of neck band, side strips, and cap is herein generally designated as "a cork holding cap," it being obvious that the cap proper has no holding capacity without side strips and a neck band. As shown in Figs. 1 to 5 inclusive the bottle head A is of a usual form, and the cork *a* therein is of the regular form, forced inwardly as usual to a point somewhat below the lip of the bottle, as is quite common in bottling operations.

The cap B, is the cap proper, and it is centrally depressed, as at *b*, and centrally perforated at *b'*. The side strips *c*, *c'*, are integral, being cut from a single piece of tin, and provided centrally with laterally projecting wings *c²*, *c²*. The width of the side strips across the wings is greater than the diameter of the central opening *b'* of the cap B, and the width of the adjacent portions of the side strips, is less than the diameter of said hole or perforation *b'*. The two side strips being first bent so as to be parallel with each other, can then be readily passed upwardly through the central perforation *b'*, until the wings *c²*, *c²*, abut flatly against the under side of the cap, and then the two side strips are bent downward in close contact with the lowest portions of the top surface of the cap. In other words, at the lowest portions of the cam surfaces *d*, *d'*, and at their ends, the said side strips are connected with the neck band *e*, which, as in the well known Miller stopper of United States Patent No. 57,356, dated August 21, 1866, is provided with an end or

tongue e' , and eye e^2 , for enabling the ends to be tightly buckled and secured around the neck of a bottle. The cam surfaces d, d' , are struck up integrally from the sheet metal composing the cap, by means of suitable dies, which simultaneously form the central cup like depression, and at the same time the central perforation b' can be cut, if desired, this only involving the use of appropriate complex dies. The side strips, and neck band can be very economically produced, because their dimensions are within the range of much scrap waste tin which is usually available at trifling cost. It will be seen that with this form of my cap, a bottle cork can be seated with its top below the lip of the bottle, and the device applied with the center of the cap near or in actual contact with the cork, and the neck band, then buckled beneath the head of the bottle; and then by rotating either the cap or the band, and side strips, the latter will be made to forcibly override the high portions of the cam surfaces so that all the slack at the several connections of the parts will be taken up, and the central portion of the cap either forced upon the cork, or located closely adjacent to it, and thus enable the cork to be practically confined at its originally seated position in the bottle.

The outwardly displacing strains on the cork due to gaseous pressure, will cause the top of the cork, at its edges, to closely conform to the inner contour of the cap, and to be securely wedged between the depressed portion of the cap and the adjacent portions of the mouth of the bottle, thus enlarging its sealing effect. With this form of my cap, the central depression b , can be so far extended as to enable comparatively short corks to be effectively used. It will be obvious that if economy in tin be disregarded, there may be three side strips, integral as described, and with three wings instead of two, without any departure from this portion of my invention.

In some classes of bottling it is often deemed imperative that very long corks should be employed, and even that their tops should not be forced below the lip of the bottle, and hence the cap B' of Figs. 6 to 8 inclusive is not depressed, but is dome shaped on top, and has its cam surfaces d, d' , appropriate to that form, as clearly indicated. In this instance it is immaterial how the cap B' and the side strips c, c' , may be pivotally connected, but, with a view to economy, the cap is centrally perforated so as to receive an eyelet or flared to afford the equivalent of an eyelet which is clinched in a well known manner into a central hole c^3 in the integral side strips c, c' , the latter being connected as before described to the neck band e . With this form of my cap, the best results will accrue by leaving the top of the cork above the lip of the bottle, placing the device in position, then forcing the cap downwardly until the neck band can be buckled, and then ro-

tating the cap or the side strips and band until a proper strain has been applied by means of the cam surfaces d, d' , thus assuredly maintaining the cork at its maximum sealing position.

With certain other classes of bottling, wherein quite light pressures are involved, very short corks may be relied upon, and the cork holder need not be strained, and hence with a short cork a' , a simple form of my caps is used as shown in Figs. 9 to 11 inclusive, at B^2 , which is not provided with cam surfaces, but has a deeply extended center b , centrally perforated at b' , and coupled with integral side strips c, c' , having the central wings as before described.

In still another form of my caps, as shown at B^3 , Figs. 12 to 14 inclusive, no cam surfaces are employed, and the top of the cap is flat, but perforated at b' , and coupled with side strips c, c' , having the central wings c^2 , and as before described united to a neck band e . This form of my cap is well adapted for use with corks whether seated with their tops below the bottle lip, or projected above the cap, and having a specially wide flange, which is or may be slitted if desired, and thus enabled to closely conform to the tapered outer surfaces of certain forms of bottle heads, and to be firmly seated thereon, even when above the bottle lip and above the top of the cork, this being a desirable feature in view of slight variations in the form and length of bottle heads.

I am aware that caps having cam faced tops have heretofore been organized with swinging yokes in various forms for use on fruit jars, and that centrally depressed bottle caps have been heretofore used in connection with short corks, and organized with neck bands and overlying side strips or yokes, but without the pivotal feature of my caps; and also that bottle caps and side strips or yokes have been heretofore organized with rotative neck bands provided with cam slots, but none of these prior organizations, of which I have knowledge, would practically fill the well known requirements of ordinary bottling operations, which demand a simple inexpensive device, which can be discarded after a single use.

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

1. In a cork holding bottle cap, the combination with a sheet metal neck band, of sheet metal side strips, and a sheet metal cap centrally pivoted to the side strips, and provided on top with struck up, integral cam surfaces, substantially as described.

2. In a cork holding bottle cap, the combination with a sheet metal neck band and sheet metal side strips, of a sheet metal cap centrally depressed, and pivotally connected to said side strips by means of lateral wings on the side strips, substantially as described.

3. In a cork holding bottle cap, the combi-

5 nation with a sheet metal neck band and sheet metal side strips, of a sheet metal cap centrally depressed, provided on top with struck up integral cam surfaces, and pivotally connected with the side strips, substantially as described.

strips, in one piece, centrally provided with lateral wings, and a cap centrally perforated, and coupled to said side strips at and by the said wings, substantially as described.

WILLIAM H. NORTHALL.

Witnesses:

LOUIS O. RASCH,
CHAS. W. MCKINNEY.

4. In a cork holding bottle cap, the combination with a neck band of a pair of side