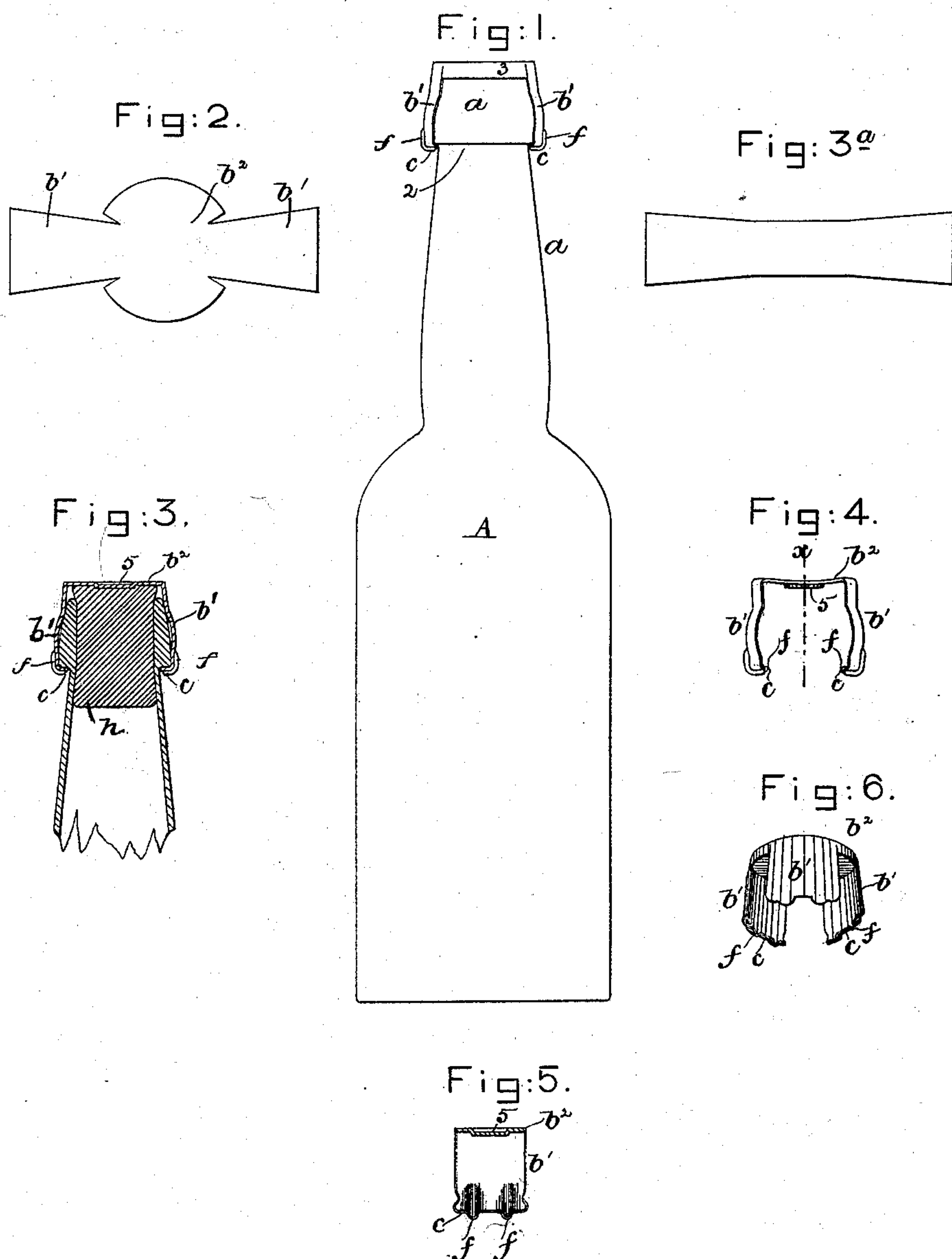


(Model.)

G. P. GOULDING.
BOTTLE STOPPER.

No. 406,832.

Patented July 9, 1889.



Witnesses:

Howard F. Eaton.

Frederick L. Emery.

Inventor.

George P. Goulding,

by Lemby Gregory *Atty.*

UNITED STATES PATENT OFFICE.

GEORGE P. GOULDING, OF ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF TO YAWMAN & ERBE, OF SAME PLACE.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 406,832, dated July 9, 1889.

Application filed January 12, 1889. Serial No. 296,133. (Model.)

To all whom it may concern:

Be it known that I, GEORGE P. GOULDING, of Rochester, county of Monroe, and State of New York, have invented an Improvement in Bottle-Stoppers, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to provide a simple and durable device for securing corks in bottles, the device being easily applicable to and readily removable from the neck of a bottle, and being practically of a single piece of metal without joints.

The invention consists of a cork-holder made of elastic metal—such as stiff tin or other sheet metal, or thin steel—and composed of a top plate from which depend a number or arms turned in at their lower ends to form fingers to grasp the shouldered neck of the bottle, and provided at such lower and in-turned ends with longitudinal corrugations to stiffen the arms and fingers in the direction of strain and resist unbending, distorting, and breaking of such arms and their fingers, substantially as I will proceed now particularly to set forth and claim.

Figure 1, in elevation, represents a bottle, supposed to be a beer-bottle, supplied with a holder made in accordance with my invention. Fig. 2 shows the blank from which the holder may be made. Fig. 3 is a sectional detail of a modification applied to the neck of a bottle. Fig. 3^a shows a blank for the holder of Fig. 3. Fig. 4 shows the holder of Fig. 3 removed from the neck of the bottle; Fig. 5, a vertical section of Fig. 4 in the line *x*, and Fig. 6 a modified form of holder.

The bottle A has a neck *a*, provided with an enlargement *a'*, the lower end of which has a well-defined shoulder 2, substantially at right angles to the main part of the neck, the shoulder being quite prominent, so as to be easily engaged by the holder.

The holder represented in Fig. 1 is made from a blank of the shape shown in Fig. 2, the said blank being bent and struck up in dies to form two or more arms *b'*, and the plate or cap part *b*² and the rim 3, although this rim may be omitted, and in that case a blank of

the shape shown in Fig. 3^a will be used. The arms *b'* are turned in at their lower ends to form fingers *c*, and the arms and fingers are corrugated longitudinally, as at *f*, to stiffen them in the direction of strain, and thus enable them to resist unbending, distortion, and breaking in use. The corrugated fingers *c* engage the shoulder 2 of the bottle-neck to secure the holder in place over the cork, and when the rim 3 is employed it embraces the upper end of the neck of the bottle.

The shape of the holder is such that when off from the bottle the top plate *b*² will be concavo-convex normally, and the arms will be somewhat convergent at their free ends, so as to require to be somewhat separated when being pushed upon the bottle-neck laterally for application thereto. The engagement of the fingers *c* with the collar or shoulder 2 will serve to straighten substantially the top plate *b*², and thereby add to the pressure of the holder upon the cork *h*, Fig. 3. Without the corrugations on the fingers the engagement of the holder with the shoulder would not be so secure as with them. These holders are very cheap in construction, and may be easily slipped laterally upon the neck of the bottle after the cork has been forced into the mouth of the bottle, the holder keeping the cork in place.

The holder may be easily removed by pushing the same laterally from the enlargement of the neck of the bottle; but to prevent too easy lateral movement of the said holder I prefer to emboss the top plate of the fastener or to indent the said top plate, as at 5, to enter the cork *h*. The inner sides of the arms *b'* of the holder are concaved or shaped to fit the exterior of the enlargement of the neck, as in Fig. 3.

In practice I prefer to provide the holder with but two arms, as in Figs. 3, 3^a, and 4; but it may have three arms, as at Fig. 6.

My improved holder may be formed of stiff tin or stiff sheet metal, or thin steel, and the holders may be formed by swaging in a die of proper shape.

The projection 5 will preferably be made by striking the plate *b*², a punch being used, after the cork has been driven and the holder

has been put in place on the neck; but it may be made when the holder is being shaped from the blank.

I claim—

5 1. The herein-described cork-holder, made of elastic metal and having the top plate b^2 , with depending arms b' , bent at their lower ends to form the fingers c , to engage the shoulder 2 of the bottle-neck, the arms and
10 fingers being corrugated longitudinally, substantially as described.

2. The herein-described cork-holder, made of elastic metal and consisting of a top plate

b^2 , provided with the projection 5 to enter the cork, and having the depending arms b' bent 15 at their lower ends to form fingers c , to engage the shoulder 2 of the bottle-neck, the arms and fingers being corrugated longitudinally, substantially as described.

In testimony whereof I have signed my name 20 to this specification in the presence of two subscribing witnesses.

GEORGE P. GOULDING.

Witnesses:

GEORGE A. MYLOUSINE,
DE L. CRITTENDEN.