(No Model.)

G. D. COREY.

BOTTLE STOPPER.

No. 312,096. Patented Feb. 10, 1885.

Fig. 3

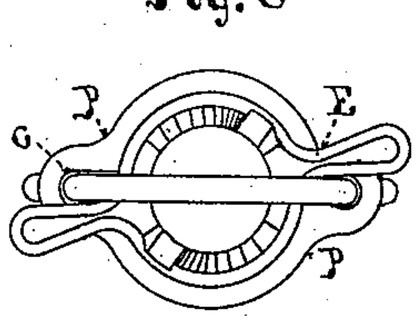


Fig. 4

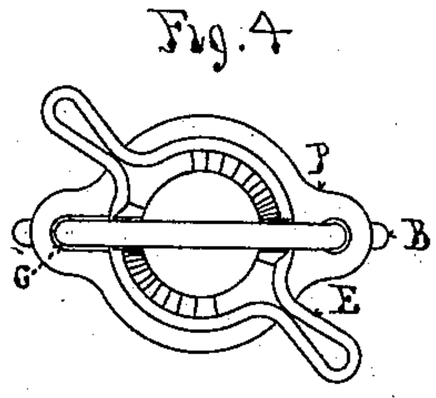


Fig. 8

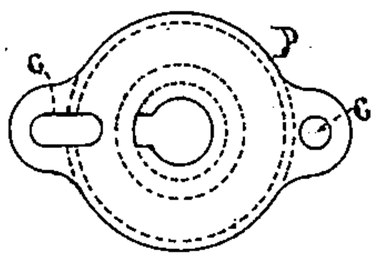


Fig. 1

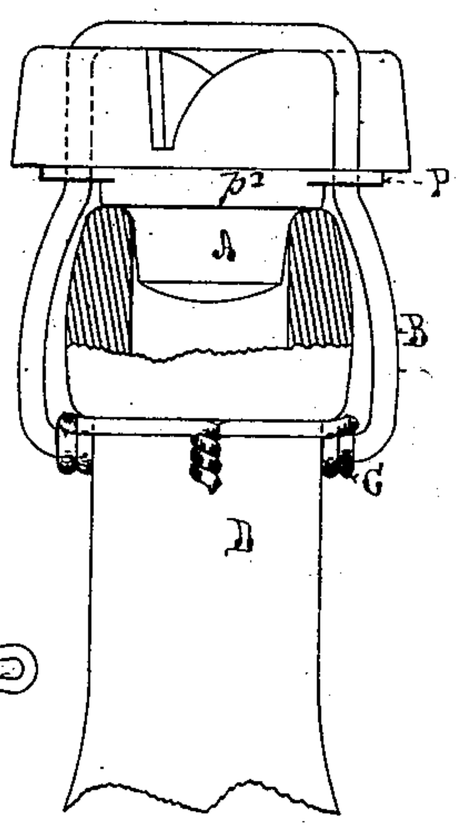


Fig. 2

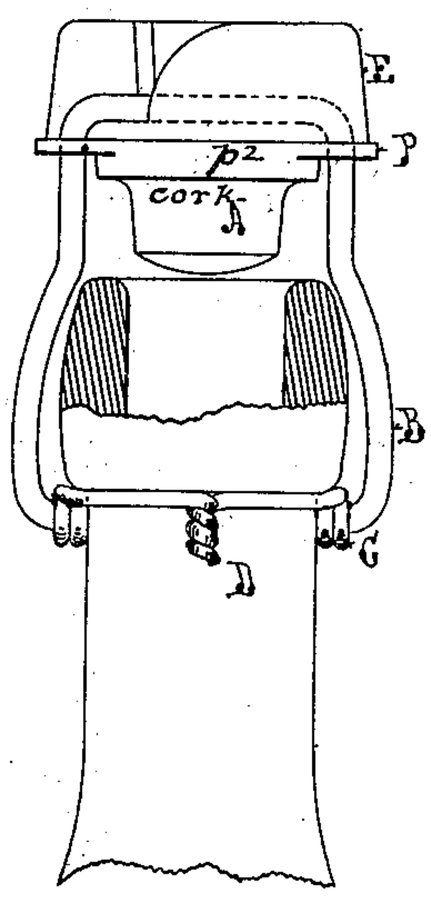


Fig. 7

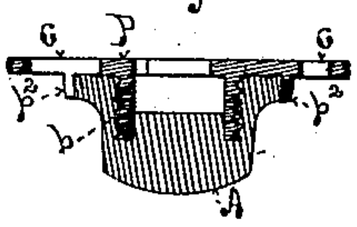


Fig. 6

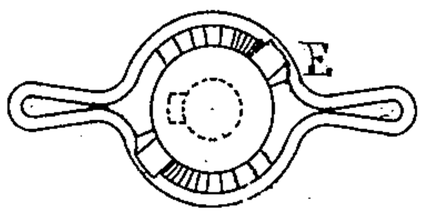


Fig. 5

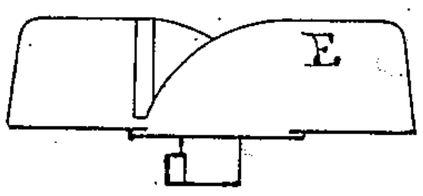


Fig. 11

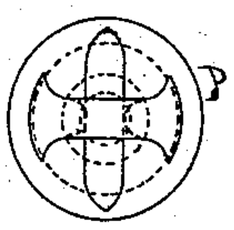


Fig. 12

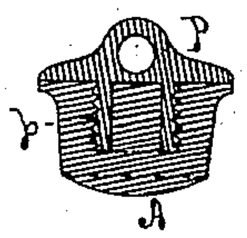


Fig. 9

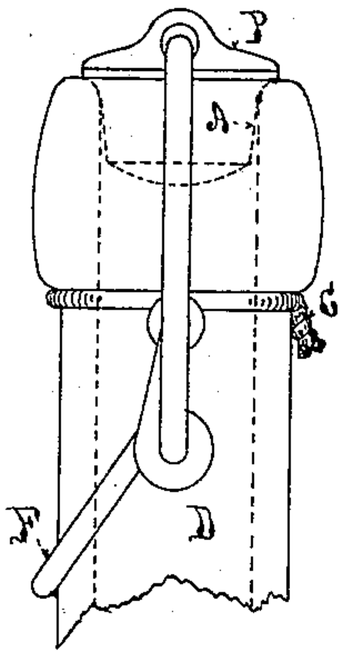
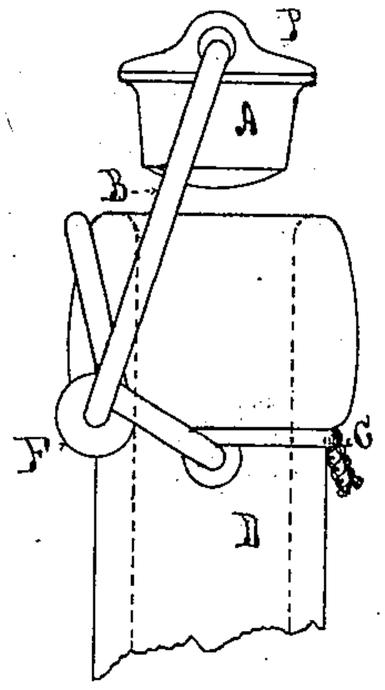


Fig. 10



Witnesses

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A. P. Ockington

Inventor

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By David Hall Rice

atty

UNITED STATES PATENT OFFICE.

GEORGE D. COREY, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO WOODS, SHERWOOD & CO., OF SAME PLACE.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 312,096, dated February 10, 1885.

Application filed March 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. COREY, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

My invention relates to stoppers for bottles and similar receptacles; and it consists in certain improvements in bottle-stoppers to enable cork to be used with the same, substantially as hereinafter described and claimed.

In the drawings, Figure 1 shows a well-known form of bottle-stopper provided with my improvement in a closed position upon the bottle-mouth, partly in section. Fig. 2 is a view of the same in an open position. Fig. 3 is a top view of Fig. 1. Fig. 4 is a top view of Fig. 2. Figs. 5, 6, and 8 are detail views of parts of the bottle stopping and unstopping mechanism. Fig. 7 is a vertical section of the plate or cap on top of the bottle-stopper and the cork attached, showing how they are connected. Fig. 9 is a side view of another form of stopper provided with my invention, with the stopper closed. Fig. 10 is a view of the same with the stopper open. Fig. 11 is a top view of Fig. 9. Fig. 12 shows a vertical section of the stopper and cap shown in Fig. 9.

It is well known that for bottling some kinds of liquids no substance equal to cork for the bottle-stopper is known, as it resists the effects of such liquids and keeps them pure and sweet in a greater degree than other stoppers.

My invention is designed to fit such stoppers of cork to a convenient bottle opening and closing device, so as to use the least amount of cork practicable, have them securely attached, and enable them to be easily removed and replaced when worn out.

A is the stopper, formed of cork, and attached to the plate P in the following manner: Upon the lower side or face of the plate P is formed a tubular sleeve, *p*, projecting downward a sufficient distance to reach partly through the cork A. This sleeve has a screw-thread formed upon its outer surface, as shown. The cork has formed in it an annular-shaped cavity corresponding to the sleeve *p*, and of slightly less breadth than the thickness of the sleeve, so that when the latter is screwed into the cavity it will fit tightly in it, as shown. When the plate P is screwed on and into the cork A, the latter bears against the lower face of the plate and on the exterior part and inside of the sleeve *p*, thus giving it a very solid support against all strains and shocks to which it may be subjected in use.

In order to assist in supporting the cork, I attach to the plate P, Fig. 7, a second annular sleeve, p^2, which fits closely around the periphery of the upper end of the cork and prevents its being burst by vertical strains in closing it. This mode of fastening the cork A upon the cap-plate P will be found to render the cork extremely durable and give the same facility in opening and closing the bottle as with rubber stoppers.

The mechanism for closing and unclosing the cork on the bottle-mouth shown in Figs. 1 to 8 is substantially the same as that shown in the Letters Patent No. 294,443, dated March 4, 1884, and does not need elaborate description.

B is the bail. C is the neck-band. D is the bottle-neck. E is the rotating cam-piece. When the cork stopper is used with this closing and unclosing mechanism, however, it is found to be of great advantage to make one of the holes *c* in the plate P elongated radially inward a sufficient distance to allow the bent-in end of the bail B, which engages with the loop of the neck-band C, to pass vertically through it. I am thus enabled to attach the cork A to the plate P before putting the latter on the bail B, and the cork can thus be attached with a firmer and better fit than when it is attempted after the plate P is on the bail, which is quite important. By this construction I am also enabled to ship the parts of the stopper ready formed, including the bails bent, as shown, at the ends, and they can be applied to the bottles at the place where the latter are filled by the bottler, and if any bail becomes broken on a bottle it can be removed and a new one applied in place of it by the user.

The stopping and unstopping mechanism shown in Figs. 9, 10, 11, and 12 is also well and widely known, and does not need particu-

lar description. In the latter the lever F is used to force the stopper into the mouth of the bottle.

What I claim as new and of my invention is—

1. In combination with the cork stopper A, the cap-plate P and the tubular screw-threaded sleeve *p*, the cork taking a bearing upon the outer and inner surfaces of said sleeve and upon the lower surface of said cap-plate, substantially as described.

2. The combination of the cork stopper A, the plate P, the tubular sleeve-bearing *p*, and the tubular sleeve-bearing p^2, the cork taking a bearing upon the outer and inner surfaces of the sleeve *p*, substantially as described.

3. In combination with the stopper A and bail B, the plate P, having one of its holes *c* elongated sufficiently to allow the end of the bail to pass through the same, substantially as described.

GEORGE D. COREY.

Witnesses:
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N. P. OCKINGTON.