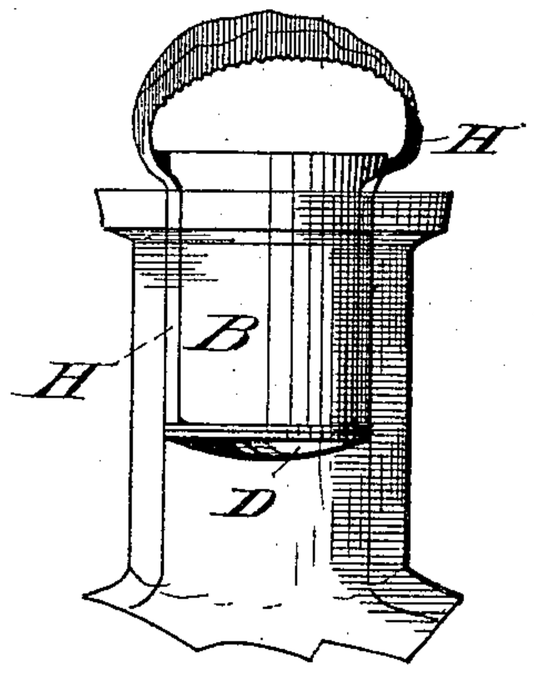
(Model.)

G. W. CANTERBURY.

BOTTLE STOPPER.

No. 326,272. Patented Sept. 15, 1885.

Fig I,



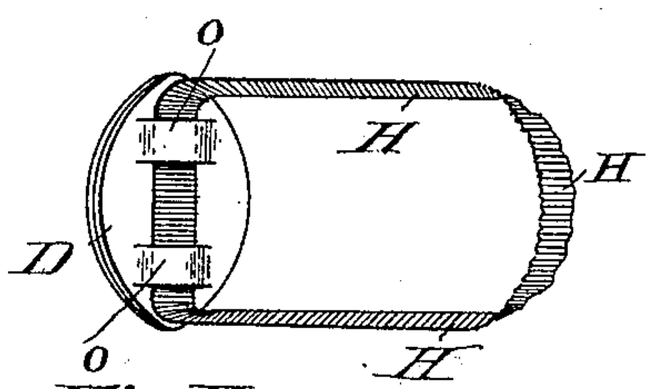


Fig II,

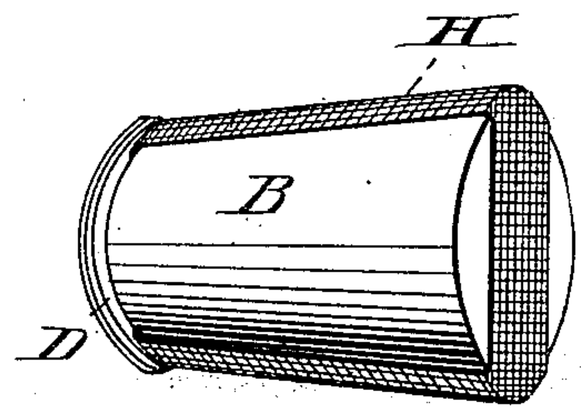


Fig III,

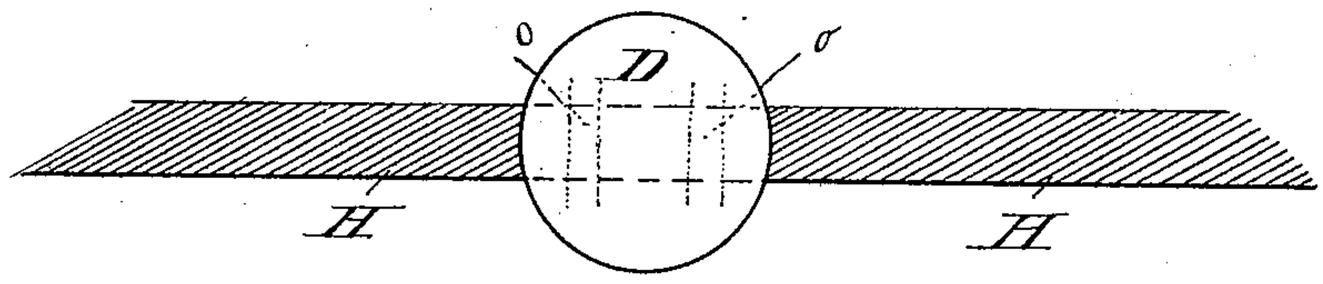


Fig IV.

Witnesses,
W. H. Burrall
Richmond J. Cantury.

Inventor,
G. W. Canterbury,
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Atty.

UNITED STATES PATENT OFFICE.

GEORGE W. CANTERBURY, OF BONDSVILLE, MASSACHUSETTS.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 326,272, dated September 15, 1885.

Application filed May 14, 1885. (Model.)

To all whom it may concern:

Be it known that I, GEORGE W. CANTERBURY, a citizen of the United States, residing at Bondsville, in the county of Hampden and State of Massachusetts, have invented a new and useful Bottle-Stopper, of which the following is a specification.

This invention relates to an improved stopper for bottles; and it consists in the construction and arrangement as described in the specification, and particularly pointed out in the claim.

This invention is fully illustrated in the accompanying drawings, in which Figure I is a side elevation of my improved stopper combined with the neck of a bottle. Fig. II is a perspective view of a part of the stopper. Fig. III is a perspective view of the complete stopper, and Fig. IV is a plan view of a portion of the stopper.

B is an ordinary cork, such as is employed in stopping bottles and vials, and adapted to be crowded into the cylindrical mouth of said bottle.

D is a disk of flexible gas-tight material, and consequently impervious to fluids. The disk D is made of appreciable thickness, as shown, so as to have a periphery capable of being crowded to fill the inner surface of the neck of the bottle upon a line transverse to its axis. I prefer to form the disk also of some material not acted upon easily by acids—such as rubber or asbestus—though in the case of liquids having no acid in their composition a disk built up of layers of silk or other fabric rendered homogeneous and gas-tight by any well-known process answers all purposes.

The disk D, as shown, is adapted to rest upon the bottom of cork B, and is held in position by strips H passing from opposite sides of the upper surface of said disk along opposite sides of the cork B to extend above the bottle and clear of it. The strips H are composed of a strong thin material capable of being pressed by the cork against the sides of the bottle to form in effect a portion of the cork itself, and for such purpose I prefer to use a fabric such as tape or narrow ribbon protected by shellac. The ends of strips H outside of the bottle are prolonged to form a handle, by means of which the cork with the disk are easily extracted.

To form a better extractor, I prefer to unite the outside ends of strips H to form a loop, as shown in Fig. I, by means of which, with one finger of the hand, any cork, combined with side strips H, may be easily pulled.

In Fig. III a disk, D, is shown combined with a cork, B, by means of rubber strips H, forming a continuous loop around the cork, and held by the elasticity of the rubber close to the cork upon all sides.

When crowded into a bottle, a stopper so constructed has the strips compressed to leave a loop above the top of the cork, which loop, extensible by its elasticity, will receive a finger or tool to serve as a handle to admit of the extraction of the stopper. In a stopper so formed the strips H and disk D, forming the other elements of the combination, maintain their position upon the cork B without other means of attachment.

When the strips are not held to the cork by their elasticity, they may be secured to the top of the cork to secure the disk in position upon its bottom in any convenient way, and the looped ends of strips H above the cork may, when the stopper is in place in a bottle, be bent over and secured to the bottle-neck out of the way when not required.

The disk D, when pushed into a bottle, presents a convex side to the contents, and any action of the fluid in agitation, or of gas, closes the edge of the disk against the bottle-neck to effectually cut off all escape.

By means of the strips H the tightest stopper is, by a slight exertion, removed, and a permanent stopper is provided in place of a bar-cork, most commonly perforated and mutilated in being removed by a tool, as in ordinary practice.

The action of the side strips H upon the cork, through a pull exerted upon the loop above the cork, is to compress two sides of the cork and remove so much friction in the way of its extraction.

In the drawings the disk D is shown formed of two washers cemented at corresponding edges to form in effect a single disk, and the top one coming nearer the cork B is slit to permit the strip H to be passed under bands *o o*, thus left in the top washer and integral therewith, by which means the lower face of disk D is left unbroken, and a convenient

method of attachment for disk D and strip H provided, though as the flexible disk D opposes no resistance in the extraction of the cork, it may be of a single thickness, and be sufficiently secured to strip H by being cemented thereto, or riveted so as to preserve a gas-tight under surface.

Now, having described my invention, what I claim is—

The within-described improved stopper for bottles, consisting of a cork, B, a washer gas-check, D, and side strips H, all combined and operating as and for the purpose set forth.

GEORGE W. CANTERBURY.

Witnesses:
R. F. HYDE,
L. H. SMITH.