

No. 671,649.

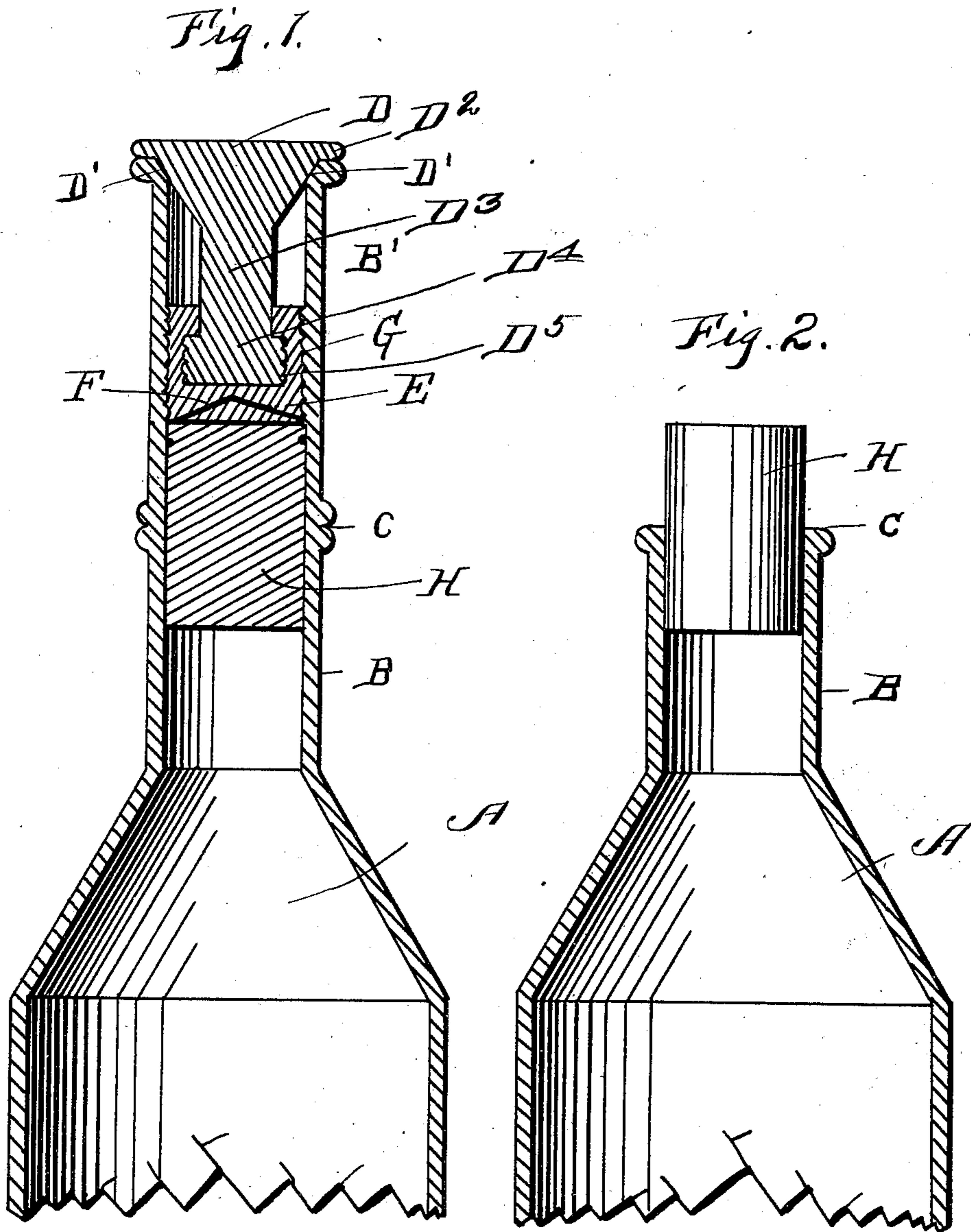
Patented Apr. 9, 1901.

R. J. KIRKLAND.

GLASS BOTTLE.

(Application filed July 12, 1900.)

(No Model.)



WITNESSES.

Harry J. Perkins.

James B. Davies.

INVENTOR,

Reynold J. Kirkland

BY his ATTORNEY

Edward Tappan

UNITED STATES PATENT OFFICE.

REYNOLD J. KIRKLAND, OF GRAND RAPIDS, MICHIGAN.

GLASS BOTTLE.

SPECIFICATION forming part of Letters Patent No. 671,649, dated April 9, 1901.

Application filed July 12, 1900. Serial No. 23,372. (No model.)

To all whom it may concern:

Be it known that I, REYNOLD J. KIRKLAND, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented new and useful Improvements in Glass Bottles, of which the following is a specification.

This invention relates to certain new and useful improvements in bottles constructed of glass and other analogous materials; and the invention consists in so constructing the neck of the bottle and combining with it the stopper or cork that when the stopper is once removed it can never be replaced, and the bottle cannot be used in its original form.

The objects of my invention are to produce a bottle which will become mutilated in opening it in order to obtain its contents, and also to produce a bottle which after the removal of the glass stopper in the upper part of the neck of the bottle will still retain enough of the neck to retain the cork, if desired. These objects I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows a longitudinal sectional view of a bottle constructed in accordance with my invention with the cork and stopper in place. Fig. 2 shows a similar view of the stopper and upper part of the neck of the bottle removed.

Similar letters refer to similar parts throughout both views.

A represents the body of the bottle.

B B' represent the neck of the bottle.

C represents a groove between the sections B and B' in the neck of the bottle. This groove C marks the point of separation of the part B from the part B'. In order to facilitate the separation, a diamond or glass-cutter may be used in deepening the grooves. The reference-letter D denotes the cone-shaped head of a glass stopper, provided with an annular flange D², adapted to seat upon the top of the neck of the bottle. The inner face of the neck, at the top thereof, is beveled, as at D', and is adapted to be engaged by the periphery of the cone-shaped head of the glass stopper, as shown. This permits of obtaining an air-tight sealing means. Extending downwardly from the head D and formed integral therewith is the body portion D³ of the stopper, which terminates into a bottom portion D⁴,

rectangular in cross-section and provided with corrugated sides D⁵, in order for the cement E to securely retain the stopper within the neck, as shown. The portion of the bottle around the cement is preferably grooved, as shown by G, in order to prevent the same from being drawn out of the bottle-neck.

H is a cork, being wholly or in part within the lower part of the neck B. I prefer to have this cork extend up into the neck, as shown in the drawings. In the drawings I have shown a wire F, which is adapted to engage with the cork H and to be embedded in the cement E, for the purpose hereinafter described. This wire, however, may be omitted and is only desirable when the bottle is filled with certain substances.

The operation of my invention is as follows: The bottle and bottle-neck, constructed substantially as described, are fitted with the cork H after having been filled by the manufacturer of the contents of the bottle. The cement in a plastic state is then placed in the neck of the bottle above the cork. The stopper D is then pressed down into the neck of the bottle until its upper surface makes an air-tight joint. The cement G will harden, filling the grooves in the part B' of the neck, and engages with the lower end of the stopper D, so that the said stopper cannot be removed. In order to open the bottle, it is necessary to separate the part B' of the neck from the part B, the separation being effected at the groove C. Originally my bottle will be so constructed that this separation can be made without the use of a diamond or other cutting-tools; but in case the groove is not deep enough a cutting-tool may be used. Having separated the part B' from the part B, it is removed, leaving the cork H in the part B of the neck. This cork can be removed with a corkscrew or any suitable means. Should it be found desirable to remove the cork H at the same time the part B' of the bottle-neck is removed, the wire F may be used, which engages with the stopper H and the cement E, as above described.

Having thus described my invention, what I claim to have invented, and desire to secure by Letters Patent, is—

In a bottle, the combination with the neck portion divided into two sections by a periph-

eral groove, the upper of said sections having
a portion of its inner face corrugated, of a
cork mounted in said sections and provided
with a wire, a stopper mounted within the
5 upper of said sections and consisting of a
cone-shaped head, terminating at its upper
end in an annular flange adapted to engage
the top of the neck portion, a corrugated bot-
tom portion substantially rectangular in
10 cross-section and arranged parallel with the
corrugated portion of the inner face of the
neck and a body portion connecting the head

and bottom together, and means for securing
said stopper within said section to prevent
the removal thereof and in which said wire is 15
embedded, substantially as described.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit-
nesses.

REYNOLD J. KIRKLAND.

Witnesses:

EUGENE BOISE,
EDWARD TAGGART.