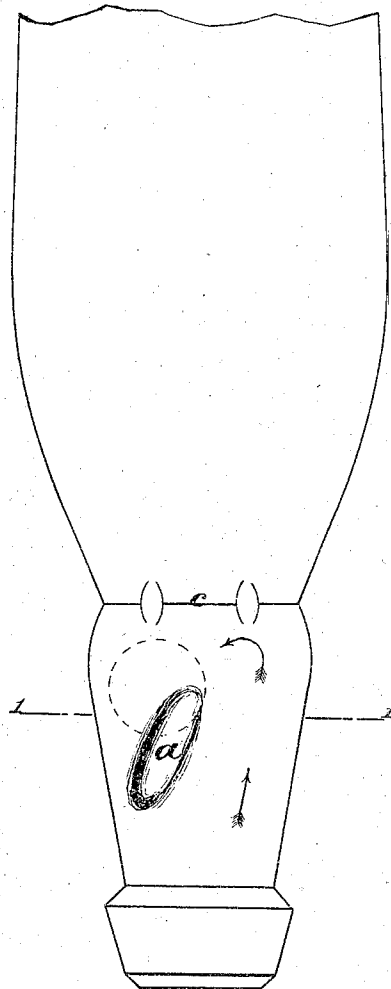
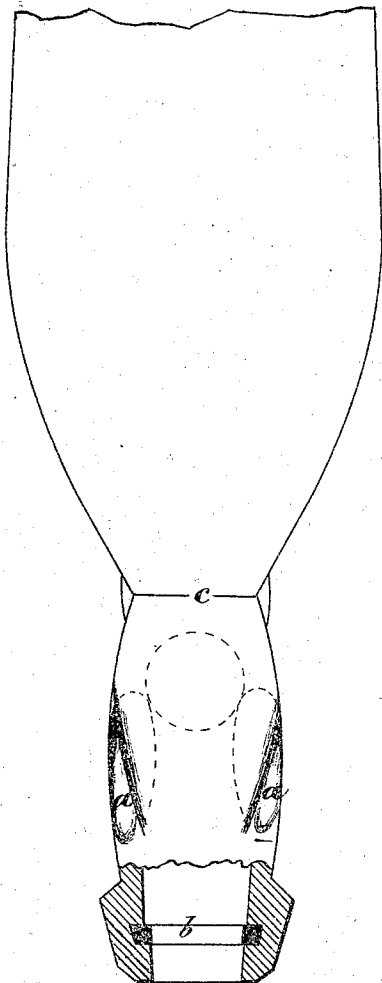


H. CODD.

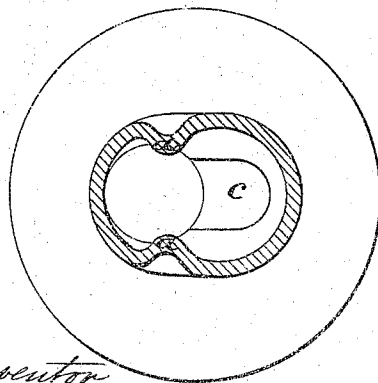
Bottles for Effervescing Liquids.

No. 138,230.

Patented April 29, 1873.



Section at I.I.



Witnesses
J. Carpmal
Geo. Pitt

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UNITED STATES PATENT OFFICE.

HIRAM CODD, OF GROVE LANE, CAMBERWELL, ENGLAND, ASSIGNOR OF ONE-HALF HIS RIGHT TO RICHARD BARRETT, OF LONDON, ENGLAND.

IMPROVEMENT IN BOTTLES FOR EFFERVESCENT LIQUIDS.

Specification forming part of Letters Patent No. **138,230**, dated April 29, 1873; application filed January 21, 1873.

To all whom it may concern:

Be it known that I, HIRAM CODD, of Grove Lane, Camberwell, in the county of Surrey, England, a subject of the Queen of Great Britain, have invented or discovered new and useful Improvements in Bottles for Containing Effervescing Liquids; and I, the said HIRAM CODD, do hereby declare the nature of the said invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof—that is to say:

This invention relates to the construction of bottles for containing effervescing liquids, and which are to be closed by a stopper held up to the mouth of the bottle by the pressure of air or gas within the bottle. The improvements consist, first, in forming the necks of such bottles with internal ridges or projections, which, when the stopper is pressed back from the mouth of the bottle, first serve as guides to guide the stopper in its fall, and afterward serve as obstructions to prevent the stopper moving back to its seat when the contents of the bottle are being poured out.

These ridges or projections may be of various forms; the simplest form is to make inclined contractions down two opposite sides of the neck of the bottle, as shown at *a* in the various views of the neck of a bottle shown at Sheet 1 of the drawing hereunto annexed. These figures show the neck of the bottle fitted with an internal ball-stopper, which is to be held up, by the pressure of air or gas within the bottle, against an elastic ring, *b*, placed in a groove formed around the interior of the mouth. The lower part of the neck is contracted at *c*, as described in the specification of a former patent granted to me, so as to prevent the ball-stopper from falling into the bottle when it is pressed back from the elastic ring. By forming the contractions *a* in the neck of such a bottle the ball-stopper will fall down in the direction shown by the arrows on one side of these contractions until it is arrested by the contraction *c*, and when the bottle is inclined to pour out its contents the ball will roll to the opposite side of the contractions, or come against their ends, and will, by them, be impeded from rolling back to the mouth of

the bottle, so that even if the bottle were inverted, as shown by the drawing, the ball could not roll back to its seat, and all difficulty in pouring out the contents of the bottle is removed. The contractions in the side of the neck may be of other forms than those shown in the drawing, and yet act in a similar manner, to prevent the stopper from rolling back to the mouth of a bottle when its contents are being poured out. As, for example, the upper part of the contractions may be inclined, as shown in the drawing, while their lower part is made of a curved form, so as to form a pocket or recess for the ball-stopper to lodge in while the contents of the bottle are being poured out; in this case the contents will pass out below the stopper.

The necks of bottles which are fitted with internal stoppers carrying an elastic ring or cap at their lower end to come against a seat formed near the mouth of the bottle may also similarly have contractions formed in their sides to guide the stopper in its fall when it is pressed downward, and to hinder the stopper from moving back to its seat when the contents of the bottle are being poured out. In this case I also contract the lower part of the neck of the bottle, as shown at *c*, and described in the specification of the patent before mentioned, to prevent the stopper from dropping into the body of the bottle.

By thus forming the neck with a contraction, *c*, and with contractions down the sides, as above described, the stopper may be formed with a much shorter stem than heretofore when the stopper was allowed to drop down to the bottom of the bottle, as in this case the stem of the stopper had to be formed of a length greater than the internal diameter of the bottle, so that it should be unable to turn over therein, whereas, if the stopper is retained in the neck, a much shorter stopper can be employed and the stopper still be retained from turning over; the stopper will also be prevented from moving back to the mouth of the bottle, while the contents are being poured out, by the elastic head or cap being caught by the contractions in the sides of the neck.

Having thus described my invention, I would have it understood that I claim—

1. The bottle having internal ridges in the sides of the neck, substantially as before set forth, to prevent the internal stopper from moving back to the mouth during the pouring out of the contents.

2. The bottle, having the base of the neck contracted, and also internal ridges in the sides of the neck between the contracted base

of the neck and the mouth, substantially as before set forth.

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Witnesses:

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