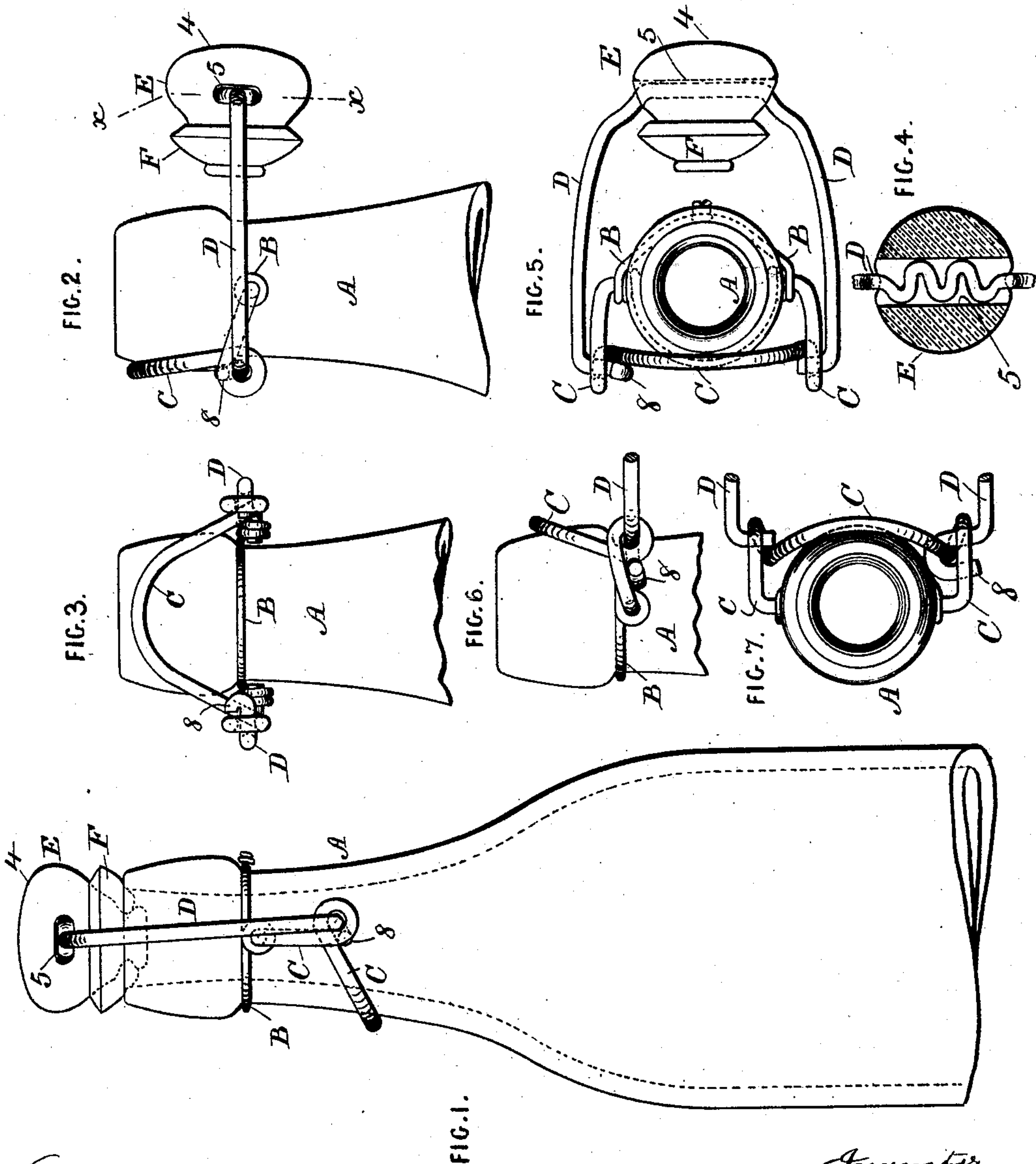


(No Model.)

L. H. BROOME.
BOTTLE STOPPER.

No. 603,725.

Patented May 10, 1898.



Witnesses
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UNITED STATES PATENT OFFICE.

LEWIS H. BROOME, OF JERSEY CITY, NEW JERSEY.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 603,725, dated May 10, 1898.

Application filed May 18, 1897. Serial No. 637,043. (No model.)

To all whom it may concern:

Be it known that I, LEWIS H. BROOME, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented an Improvement in Bottle-Stoppers, of which the following is a specification.

Bottle-stoppers have been constructed with a bail-wire pivoted upon a lever, the lever being pivoted upon the neck-band, and these stoppers have in some instances been made with a hole across for the passage of the bail-wire; but in this instance the stopper is free to revolve upon the bail-wire. In other instances the stopper has been rigidly connected to the bail-wire, but it has been difficult to make this rigid connection where the body of the stopper is of porcelain.

The present invention is especially intended for use with porcelain stoppers having a flat or convex upper end for the reception of the name of the maker, the contents of the bottle, or advertising matter printed thereon, and in this improvement the stopper-body is connected with the bail-wire, so as to be held substantially rigid thereon, in order that the stopper may come properly into position when the bail-wire is swung up to bring the stopper over the mouth of the bottle, and I provide upon the bail-wire a projection that forms a stop for holding the bail-wire substantially horizontal when the bottle is opened in order that the printed matter upon the upper end of the stopper-body may be in the proper position to be easily seen by the person making use of the contents.

In the drawings, Figure 1 is a side view representing the stopper in position for closing the bottle. Fig. 2 is a side view representing the stopper and bail as swung back for opening the bottle. Fig. 3 is a view at right angles to Fig. 2. Fig. 4 is a section at the line $x x$ of Fig. 2. Fig. 5 is a plan view with the parts in the position shown in Fig. 2, and Figs. 6 and 7 show a modification.

The bottle is of any desired character, having a neck A, and around this the neck-band B is applied, the same having eyes for the lever C. These parts may be of any desired construction, and the bail D is pivoted at its ends upon the lever C, and such bail passes through a mortise in the stopper-body E, and

the elastic washer F surrounds the stem of the stopper and forms a tight eye with the mouth of the bottle where the parts are closed.

The stopper-body is advantageously made of porcelain with a flat or convex head 4, adapted to receive letters or numbers either to designate the contents of the bottle or the party filling the same, or advertising matter may be printed thereon, and the opening passing across the stopper instead of being a round hole, as usual, is made as an elongated mortise 5, the longest diameter of which is advantageously parallel, or nearly so, to the flat head 4, and the bail D instead of passing as a straight wire through the mortise is corrugated, so as to make the width of the bail correspond, or nearly so, to the width of the mortise for the twofold purpose of preventing the stopper-body moving laterally or turning upon the bail-wire, thereby rendering the stopper substantially rigid upon the bail-wire, the slight amount of movement of the parts being sufficient to allow the stopper and its elastic washer to take a proper bearing upon the mouth of the bottle, and the bail-wire extending down at each side of the bottle-neck prevents the stopper moving laterally upon the bail-wire; and I remark that it is advantageous to bend the bail-wire to its proper shape, including the corrugations, one leg of the bail-wire, however, being left sufficiently in the plane of the corrugations for this leg of the bail to be passed through the mortise in the stopper-body and the corrugations drawn into such mortise, after which the leg of the bail-wire is to be bent down into the plane of the other leg of the bail-wire, with the hook-shaped ends of the bail in their proper relative positions for passing into the eyes of the lever.

If the parts before described only are employed, the stopper will remain in its proper position on the bail-wire and will come over the mouth of the bottle when the bail is swung up into position, and when the pressure is removed by turning the lever C the stopper and bail can be swung from over the mouth of the bottle, and the edge of the elastic washer projecting will usually prevent the body of the stopper from striking the glass of the bottle forcibly. It is, however, advantageous to hold the bail-wire substantially horizontal

when the bottle is open in order that the letters or marks upon the end of the stopper may be plainly visible, and with this object in view the wire of the bail at one end is left
 5 sufficiently long to form a stop that comes into contact with some portion of the lever or neck-band when the bail is swung down horizontally. It is advantageous to make one end of the bail-wire in the form of a hook, as
 10 seen at 8, such hook being a continuation of the bail-pivot and coming into contact with the wire of the lever, adjacent to the eye thereof. Hence the projection 8 becomes a stop for arresting the movement of the bail
 15 and holding the same substantially horizontal, with the top of the stopper-body plainly visible.

It is to be understood that the projecting end 8 of the wire which forms the stop may
 20 be of any desired shape and bent in the required direction to come into contact with a portion of the lever C or with the neck-band when the bottle is opened and the stopper and bail swung down horizontally or nearly so.

25 The stopper may be of any desired shape and of metal or other suitable material, and an elastic plug may take the place of the elastic washer, as these devices are well known.

When the stop 8 is in the plane of the bail-
 30 wire, as seen in Figs. 6 and 7, the bail and stopper can be swung over in the opposite direction to that shown in Fig. 3, so that the bail is at the same side of the neck as the lever, and the lever should have sufficient friction in the eyes of the neck-band to hold such

lever, with the bail, in the position indicated in Figs. 6 and 7, so that the weight of the stopper may not swing the lever away from the neck of the bottle.

I claim as my invention—

1. The combination with the stopper having a transverse horizontal mortise, of a bail-wire having several horizontal corrugations fitting the horizontal mortise, the bail-wire at the ends of the mortise being vertical at the
 45 sides of the stopper and extending down to the pivots of the lever, substantially as specified.

2. The combination in a bottle-stopper with the neck-band and lever, of a stopper and a
 50 bail, one end of the wire of which bail, beyond the pivoted connection to the lever, forms a stop for holding the stopper with the bail substantially horizontal, substantially as set forth.

3. The combination in a bottle-stopper with the neck-band and lever pivotally connected, of a bail and a stopper having a mortise through which passes the bail-wire, the same
 60 being corrugated at this place to hold the stopper from turning upon the bail-wire, there being a projecting end of the bail-wire beyond the pivotal connection to the lever for forming a stop to hold the bail substantially
 65 horizontal, as set forth.

Signed by me this 2d day of March, 1897.

L. H. BROOME.

Witnesses:

GEO. T. PINCKNEY,
 E. E. POHLÉ.