No. 615,606. Patented Dec. 6, 1898.

L. H. BROOME.

BOTTLE STOPPER.

(Application filed Feb. 21, 1898.)

(No Model.)

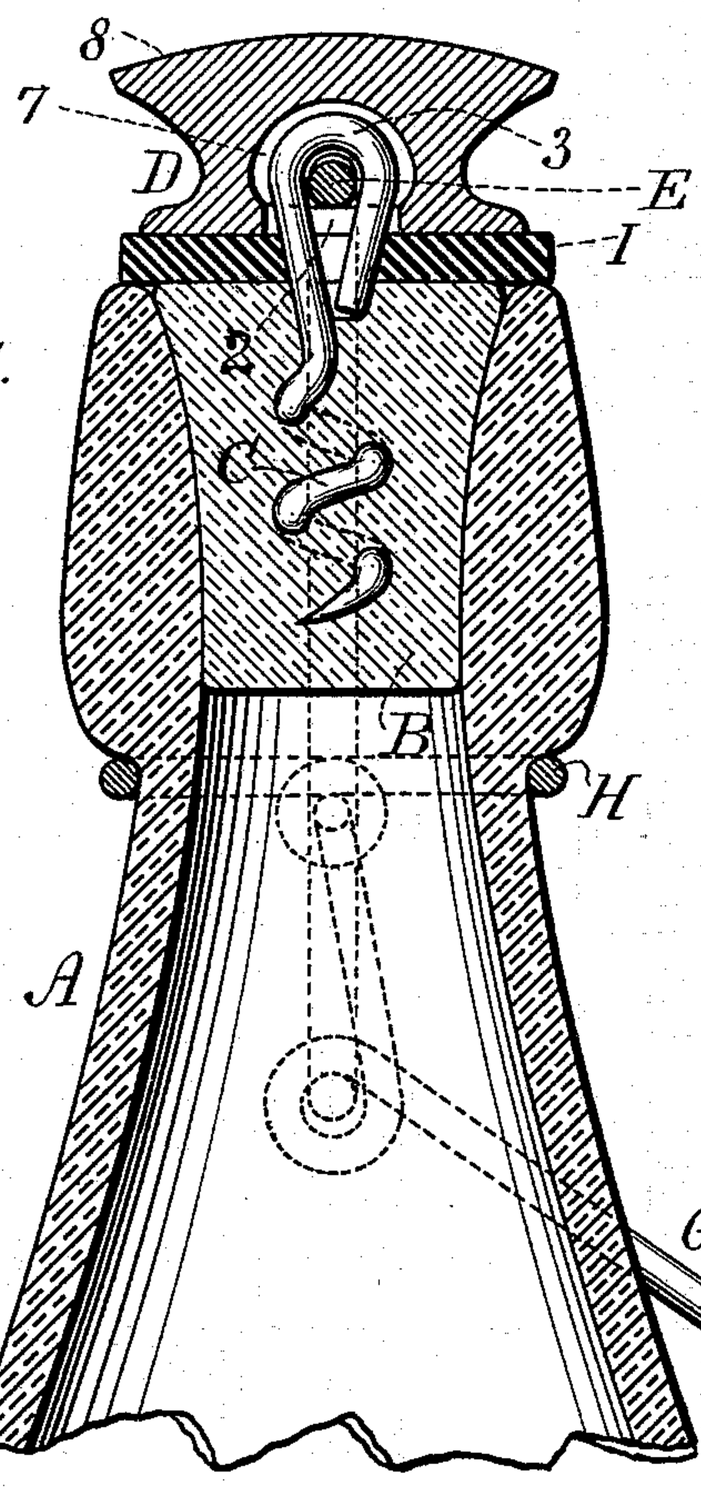

Fig. 1.

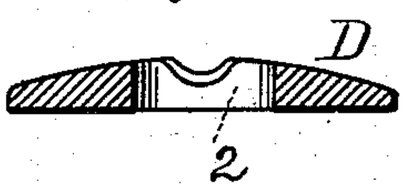

Fig. 3.

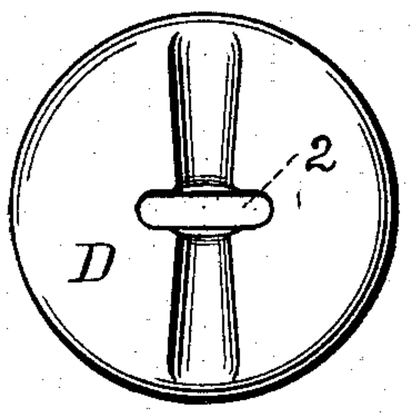

Fig. 2.

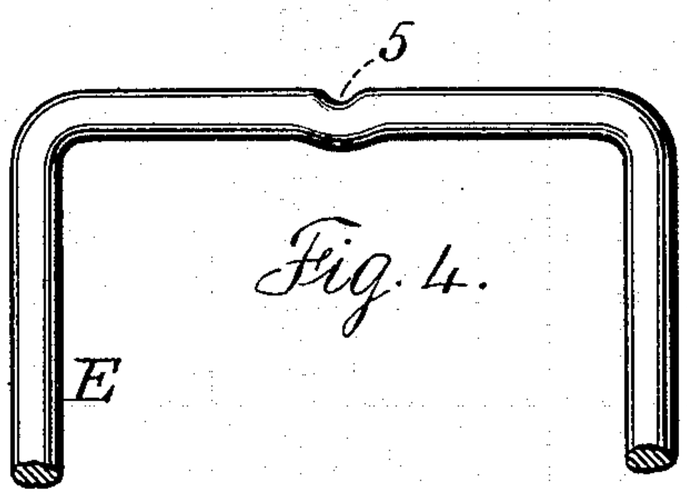

Fig. 4.

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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. 615,606, dated December 6, 1898.

Application filed February 21, 1898. Serial No. 671,013. (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.

Movable stoppers for bottles have heretofore been made with corks to enter the necks of the bottles and come into contact with the liquid contained in such bottles in order that such liquid may not be deleteriously affected by contact with rubber or similar material that has been extensively employed in connection with bottle-stoppers, and where a cork is employed a corkscrew has been entered into such cork for connecting the same with the bail-wire, lever, and neck-band employed in movable stoppers.

My invention is made for facilitating the construction of stoppers of the general class indicated and for lessening the expense of the same and for facilitating the attachment or removal of the cork from the corkscrew.

In my present improvement the corkscrew is made of wire, with a wire eye at one end, through which the bail-wire passes, so that the bail-wire can be employed in rotating the corkscrew or in holding the same while the cork is screwed upon the screw, and the wire eye of the corkscrew is within a mortise in the metal cap that intervenes between the bail-wire and the top of the cork, so that the pressure of the bail-wire is distributed uniformly upon the cork, and in some instances I make use of a disk of rubber or similar material intervening between the metal plate and the end of the cork.

In the drawings, Figure 1 is a vertical section illustrating the present improvement, the same being shown on a large scale for greater clearness. Fig. 2 is a plan view, and Fig. 3 is a section, of the cap in one form; and Fig. 4 illustrates the bail-wire where it passes through the eye of the corkscrew.

The bottle is of any desired size and character. In the drawings, A represents a portion of the neck of the bottle, and B a cork adapted to fit the neck of the bottle, and into this cork the corkscrew C of wire is introduced, the lower end of the wire being pointed, and there is an eye 3 at the upper end of the corkscrew. This eye may be formed by bending over the wire at the end, or it may be formed by a bend in the wire when the corkscrew is made of double coils of the wire bent up into the proper form for passing into the cork.

The cap D is of metal and in the form of a disk sufficiently large to cover the upper end of the cork B, and in this cap is a mortise 2, through which the eye 3 of the corkscrew passes freely, and the bail-wire E passes across above the disk of the cap and through the eye of the corkscrew, and it is advantageous to make a depression in the wire, as shown at 5, Fig. 4, to lessen the risk of the bottle-stopper slipping laterally upon the bail-wire. This bail-wire E is of any desired character, and its ends are usually connected to the lever, a portion of which is shown at G, and this is pivoted upon the neck-band, as shown at H. The devices, however, for pressing the stopper into the mouth of the bottle or for withdrawing the same being well known do not require further description or illustration.

It will be apparent that when pressure is applied through the bail-wire E upon the cap D the cork B is forced into the bottle, and when the reverse movement is given to the bail-wire the cork is withdrawn thereby from the bottle.

It is usually advantageous to make the cap D sufficiently large to extend over the mouth of the bottle and to apply a disk of rubber, as shown at I, between the cap and the end of the bottle to insure the stopper being tight and at the same time to prevent foreign substances getting in between the cap and the glass of the bottle.

In cases where the cap is to receive a name, advertisement, or other mark it is advantageous to make the same sufficiently thick, as shown in Fig. 1, for a cross-mortise 7 to be made in the cap through which the bail-wire passes, so that the upper surface 8 of the cap may be sufficiently smooth for receiving the marks, designations, or advertisement, and in this instance the cross-mortise 7 should be sufficiently wide for freely passing the hook that is usually provided at each end of the bail-wire, and when the bail-wire is threaded through the eye of the corkscrew the corkscrew can be held by the bail-wire while the

cork is being screwed upon the same, or the corkscrew can be turned by the bail while the cork is held stationary.

By this improvement the cork can be easily removed and replaced by another if the cork becomes injured, and the parts can be separated with facility whenever desired for cleaning or disinfecting the parts of the stopper.

I claim as my invention—

1. The combination with the cork, of a wire corkscrew having an eye at the upper end, a cap having a slot for the passage of the eye of the corkscrew, the cap being sufficiently large for covering the end of the cork, a bail-wire passing through the wire eye of the corkscrew, and the connections for the bail to the bottle-neck for applying pressure to the cork or for withdrawing such cork, substantially as specified.

2. The combination with a cork, of a corkscrew of wire passing into the same and having an eye at the upper end, a cap having a mortise through which the eye of the corkscrew passes, and a cross-mortise for the passage of the bail-wire and a bail-wire passing through the eye of the corkscrew, and the connections for such bail-wire to the bottle, substantially as set forth.

Signed by me this 9th day of February, 1898.

L. H. BROOME.

Witnesses:
GEO. T. PINCKNEY,
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