(No Model.)

J. GOETTEL.

BOTTLE STOPPER.

No. 561,883. Patented June 9, 1896.

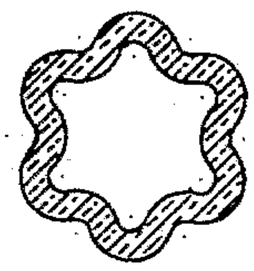

Fig. 3.

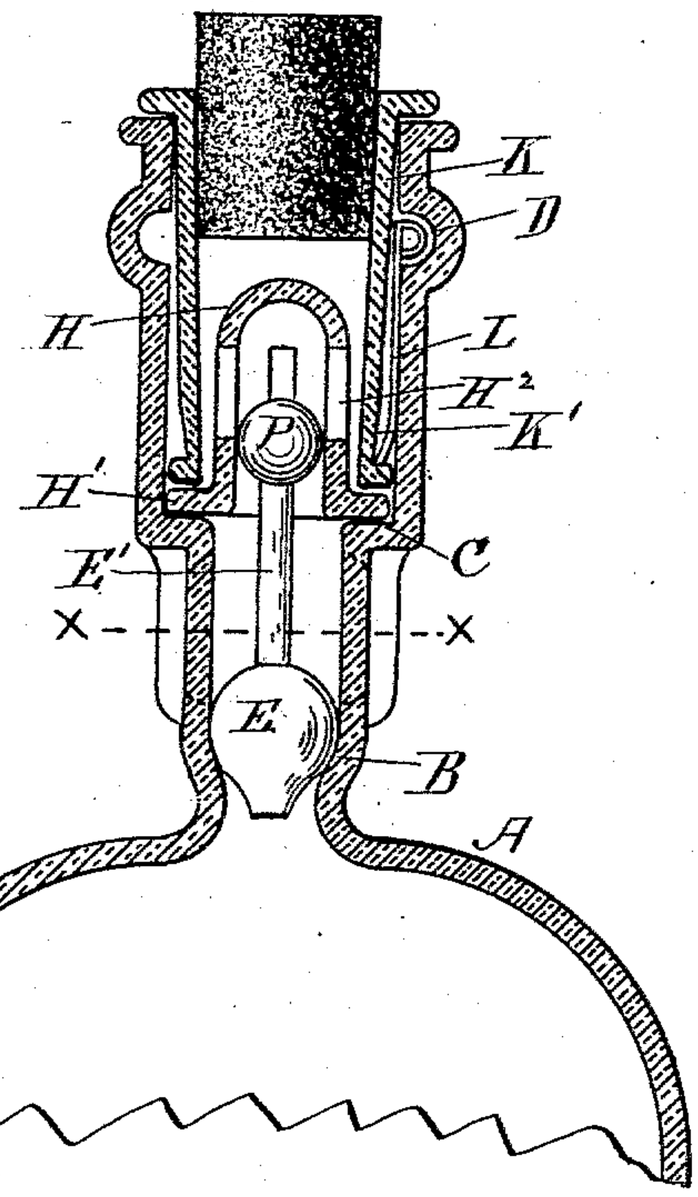

Fig. 1.

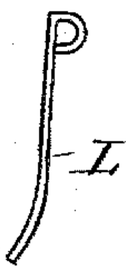

Fig. 4.

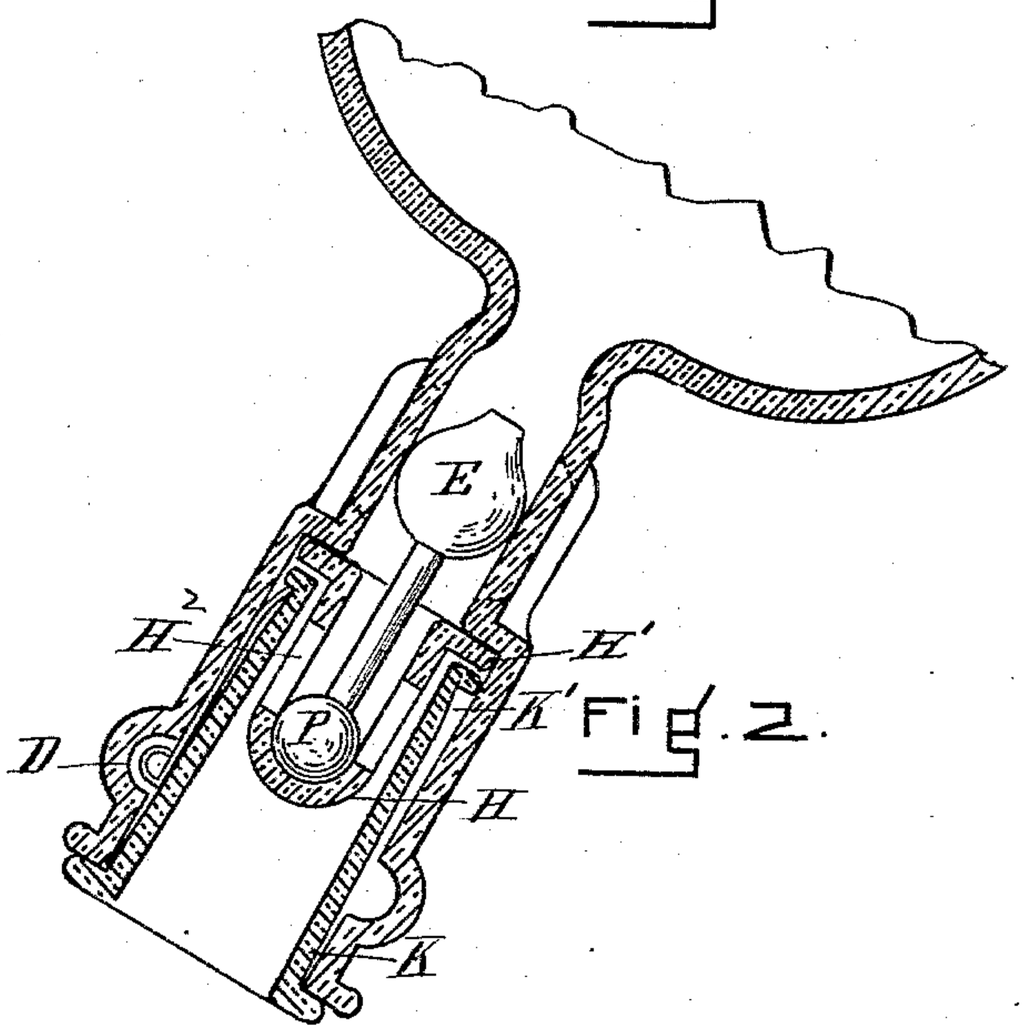

Fig. 2.

WITNESSES.
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JOHN GOETTEL, OF BOSTON, MASSACHUSETTS.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 561,883, dated June 9, 1896.

Application filed September 23, 1895. Serial No. 563,403. (No model.)

To all whom it may concern:

Be it known that I, JOHN GOETTEL, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Bottle-Stoppers, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to that class of bottle-stoppers that are intended to prevent the refilling of the bottle; and it consists in the peculiar construction and arrangement of the several parts, which may be best understood by reference to the drawings and specification.

In the accompanying drawings, Figure 1 is a vertical section showing the upper part of a bottle and the parts that constitute the stopper. Fig. 2 shows in section the same parts, the bottle being represented as turned down as it would appear when the liquid is being poured out of it. Fig. 3 is a horizontal section taken on line *x x* of Fig. 1. Fig. 4 shows a flat locking-spring, two or more of which are used in each bottle.

In the drawings, A represents a bottle, the neck of which is made as shown. A valve-seat B is formed at the junction of the neck with the body of the bottle. Immediately above the valve-seat B the neck is fluted, as shown more clearly in the section, Fig. 3. Above the fluted part an annular shoulder C is formed, and near the top of the neck an annular groove D is made. The valve E has a stem E′ and is adapted to fit the valve-seat B. Resting upon the shoulder C is a thimble-piece H, having a flange H′ and openings at H^2, as shown.

A cylindrical locking-piece K incloses the thimble H and rests upon the flange H′ of the said thimble-piece. The outside of the locking-piece K is recessed, as shown at K′, for the purpose of receiving the locking-springs L. A ball P serves to limit the motion of the valve E and also as a second valve, for when it is below the openings H^2 in the thimble no liquid can pass it.

To use my bottle, all of the parts that constitute the stoppers are left out. The bottle is filled. Then the parts are put in in the following order: First, the valve E is placed on its seat with the stem E′ upright. Then the ball P is placed upon the top of the stem and the thimble-piece H is put in position. Then the locking-springs L may be carefully placed and the locking-piece K inserted and corked, as shown in Fig. 1.

If necessary, the locking-piece K may be coated with wax or some other suitable substance for the purpose of forming a tight joint with the neck of the bottle.

In pouring the liquid out the bottle is turned, as shown in Fig. 2, so that the valve E and the ball P fall back, thus allowing the liquid to flow into the flutings of the fluted part of the neck and around the valve, thence into the thimble-piece H and through the openings H^2 to the mouth of the bottle.

I claim—

A bottle having a contracted neck, to form a valve-seat, and provided with flutings immediately above said valve-seat; a valve adapted to fit the said valve-seat and having a stem extending upward into a thimble, a thimble having openings, and a ball adapted to limit the motion of the said valve and to act as a second valve, a locking-piece fitting onto the said thimble, and locking-springs substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 18th day of September, A. D. 1895.

JOHN GOETTEL.

Witnesses:
FRANKLIN M. UPHAM,
FRANK G. PARKER.