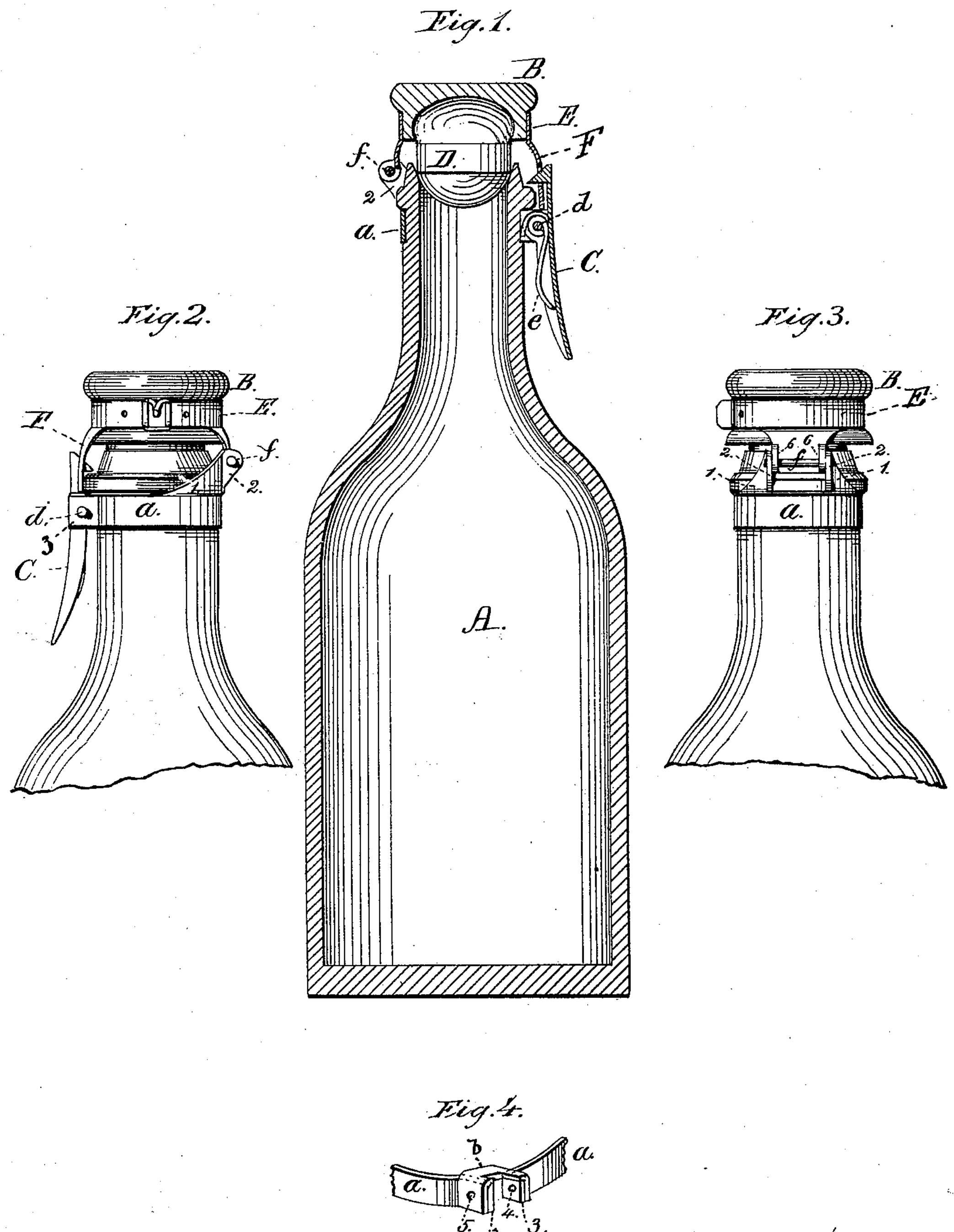
L. KUTSCHER.
Bottle-Stopper.

No. 221,324. Patented Nov. 4, 1879.



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UNITED STATES PATENT OFFICE.

LOUIS KUTSCHER, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **221,324**, dated November 4, 1879; application filed May 28, 1879.

To all whom it may concern:

Be it known that I, LOUIS KUTSCHER, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Bottle-Stoppers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

My invention relates to certain new and useful improvements in bottle-stoppers and fastenings therefor.

In the present state of the art of bottling liquors, especially such as are provided for daily consumption, such as beer, it is very desirable that the bottles should be quickly and readily closed after they are filled to economize time, and that the fastening devices should be simple in construction and operation and cheap in cost.

My invention has for its objects to obtain all these advantages; and it consists in the peculiar construction and mode of application, as will be hereinafter more fully set forth.

In order that those skilled in the art may fully understand my invention, I will proceed to describe the construction and operation of the same, referring by letters to the accompanying drawings, in which—

Figure 1 is a central vertical section of a bottle with my improved stopper and fastener secured in position thereto. Fig. 2 is a side elevation of the neck portion of a bottle with the stopper and fastener in position. Fig. 3 is a rear view of the same, and Fig. 4 a detail perspective view of the front portion of the band by which the stopper and fastener are secured to the neck of the bottle.

Similar letters indicate like parts in the several figures.

A represents a bottle, in the neck portion of which is formed a groove adapted to receive a metallic collar, *a*, which, when secured in position, is held by said groove against vertical displacement.

The collar *a* is formed of sheet metal, and from the rear portion rise two yokes or wings, 1 1, which are bent rearward at right angles to form bearings 2 2 for the rivet or hinge of the swinging top. The front ends of the collar are bent forward at right angles, forming two short arms, 3 3, (see Fig. 4,) through which are holes 4, for the purpose presently explained.

b is a yoke of sheet metal, adapted to fit over the two projecting arms 3 3, and said yoke is furnished with holes 5, coinciding with the holes 4. The front portion of the top of this yoke is cut away, to permit the introduction of a latch or trigger, C, between the arms 3 3.

A hole corresponding to the holes 5 4 is made in the trigger, and when the parts are placed in position the introduction of a pin, *d*, not only secures the trigger in place, but securely fastens the collar in place, and in removing the collar to place it upon another bottle, in case of breakage, it is obvious that it is only necessary to remove the pin *d*.

A spring, *e*, bent once around the pin *d*, with its short arm bearing against the bottle and the long arm against the under side of the trigger, forces the catch end of the latter inwardly, and causes it to latch properly when the swinging stopper is brought down to close the bottle.

The cap B may be made of wood or glass, and is formed with a laterally-elongated cavity in the under side, into which is sprung a prolate-spheroid rubber stopper, D. The outside contour of the wood or glass top or cap is such as to receive a metallic collar, E, the ends of which project and are secured by a wire, as seen at Figs. 2 and 3. The front portion of this collar has formed therewith a downwardly-projecting lip, F, with a slot or opening therein to receive the latch portion of the trigger C. The rear portion of the collar E projects downwardly, and is formed with two wings, 6 6, adapted to lie just inside of the bearings 2 2 on the collar *a*, in which position they are hinged together by a rivet, *f*.

From this construction and arrangement it is obvious that the bottle may be expeditiously closed with one hand by simply pressing down the cap and compressing the rubber D into the mouth of the bottle until the latch end of the trigger C snaps into the opening in the lip F on the collar E, and that to open the cap it is only necessary to press with the thumb upon the trigger C.

Whenever it becomes necessary to remove the cap and fastening devices from one bottle and put them upon another, all that is necessary

is the removal of the pin or rivet *d*. The metallic collars *a* E, with their respective fastening devices, are made each of sheet metal in a single piece, and are very simple, strong, and durable.

The trigger C, instead of being made of cast metal, may also be made of sheet metal, the proper bevel or incline of the latch portion being obtained by turning up the edges of the metal.

It will be observed that the peculiar shape of the rubber stopper affords a body of rubber which, being located in the peculiar cavity in the cap B, serves to hold said stopper in place, a rounded portion to fill the upper or mouth portion of the bottle, and an intermediate cylindrical portion which, when the cap B is forced down, spreads laterally to form a tight joint.

What I claim as new, and desire to secure by Letters Patent, is—

1. The collar *a*, formed of a single piece, and having the portion 1 1, 2 2, and 3 3 formed therewith, in combination with the yoke *b*, for securing the same to the bottle, in the manner described.

2. The sheet-metal collar E, stamped up from a single piece, with a strap-like body for surrounding the cap and downwardly-projecting hinge and latch portions, as shown and described.

3. The combination and arrangement, with the collar *a*, having the arms 3 3, of the yoke *b* and trigger C, the several parts being secured together by means of a single pin, *d*, in the manner set forth.

4. The cap B, provided with a cavity, as described, in combination with the prolate-spheroid rubber stopper D, substantially as and for the purposes set forth.

Witness my hand this 22d day of May, A. D. 1879.

LOUIS KUTSCHER.

In presence of—
WM. C. MCINTIRE,
F. W. SMITH, Jr.