N. PRESCOTT.
Bottle Stoppers.

No. 201,891 Patented April 2, 1878.

Fig. 2.

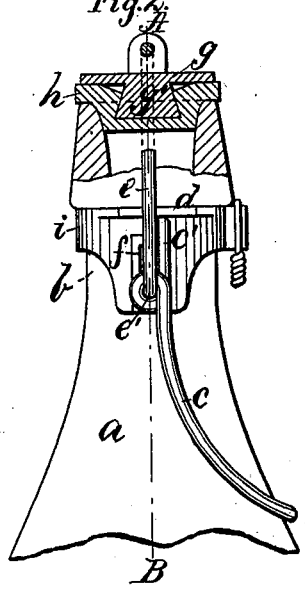


Fig. 1.

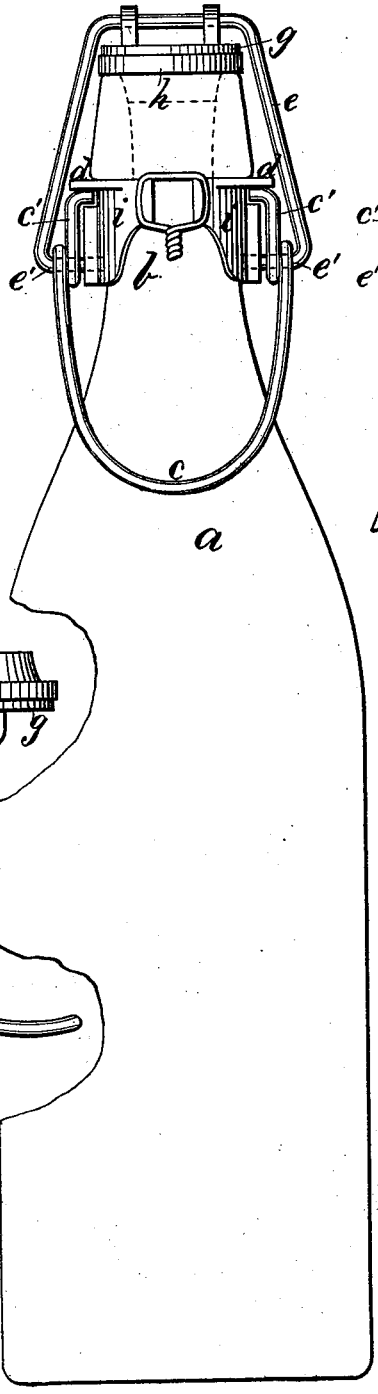


Fig. 4.

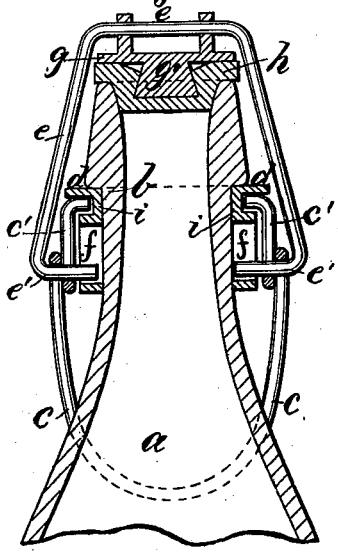


Fig. 3.

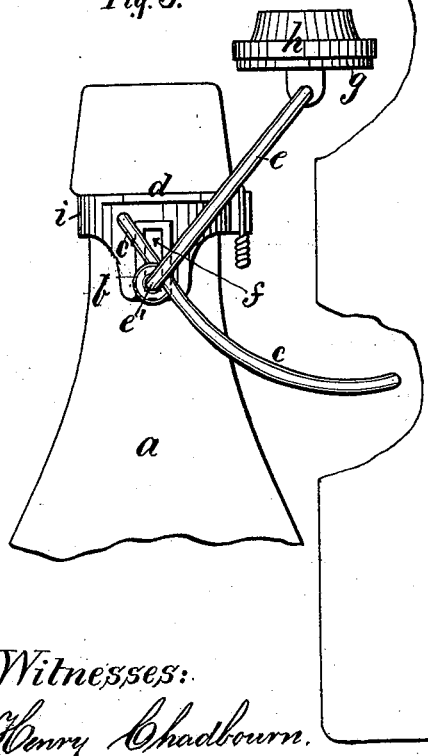
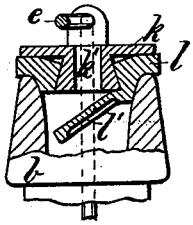


Fig. 5.



Witnesses:
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Willis E. Flint.

Inventor:
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UNITED STATES PATENT OFFICE.

NOAH PRESCOTT, OF WESTFORD, MASSACHUSETTS.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **201,891**, dated April 2, 1878; application filed February 21, 1878.

To all whom it may concern:

Be it known that I, NOAH PRESCOTT, of Westford, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Bottle-Stoppers; and I do hereby declare that the following is a full, clear, and exact description of my invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in bottle-stoppers of that kind in which the stopping devices are connected to the bottle; and my invention consists of a pair of cams located on two opposite sides of the bottle-neck, and made to operate against stationary inclines or projections, which latter may be made in one piece with the bottle-neck or be attached thereto, as may be desired. The said cams are made to swing and move around a pair of pivots projecting into and guided in slots or grooves upon the bottle-neck, which slots or grooves may be cast directly in the neck of the bottle, so as to form one piece with it, or be made in a separate piece, that is secured to the bottle-neck. Said pivots form a part of the yoke that straddles the bottle-neck, and the upper part of said yoke is inserted through a metallic plate, to the under side of which is attached an elastic stopper. The aforesaid cams, by means of which the stopper is closed, are connected together by means of a curved rod, that serves as a handle for the purpose of working the said cams.

The operation of my invention is as follows: To close the mouth of the bottle, I raise the yoke to a perpendicular position and place the elastic stopper within the mouth of the bottle, after which the curved cam-rod is depressed toward the body of the bottle, causing the cams to impinge against the stationary projections or inclines, and forcing the pivots of the yoke to descend in the slots or grooves, and thus forcing the elastic stopper within the mouth of the bottle. It will thus be seen that the elastic stopper is forced downward in a perpendicular direction after it has been placed within the mouth of the neck, and during the operation of the cams aforesaid, which is owing to the fact that the pivots of the yoke are guided in the grooves or slots upon the bottle-neck; and this is a great advantage over ordinary bottle-stopping devices, as by this means the elastic portion of the stopper is equally compressed all round, without compressing and wearing out one part more than another.

To release the stopper, it is only necessary to reverse the operation—that is, to move the curved cam-rod outward and upward—when the cams are disengaged from their stationary projections or inclines, after which the yoke and its stopper can be raised upward far enough to allow the stopper to be swung to one side of the neck of the bottle.

For ordinary bottling, I use a solid elastic stopper and solid metallic plate above it; but where it is desired to charge the beverage with carbonic-acid gas, &c., after it is bottled, I use a perforated metallic plate, in combination with a hollow elastic stopper, having a valve in its lower end opening downward, by means of which I am able to charge the beverage with carbonic-acid gas, &c., after it is bottled, and as soon as such charge is finished the valve aforesaid will close of its own accord by the internal pressure of the charged beverage.

On the accompanying drawings, Figure 1 represents a front elevation of my improved bottle-stopper, shown in a locked position. Fig. 2 represents a sectional side elevation of the same, also shown locked. Fig. 3 represents a side elevation of the same, showing the stopper removed. Fig. 4 represents a vertical section on the line A B, (shown in Fig. 2.) Fig. 5 represents a modification of the elastic stopper.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

a is the bottle, with its neck *b*, in the usual manner. *c' c'* represent the cams, and *d d* represent the stationary projections or inclines upon the neck of the bottle. *e' e'* represent the pivots on which the cams *c' c'* turn. *f f* represent the slots or grooves into which the pivots *e' e'* project, and into which they are guided during the operation of the cams *c' c'*.

e represents the yoke forming a part of the pivots *e' e'*, the upper part of which projects through perforations in the plate or cover *g*, beneath which is secured the elastic stopper *h*, as shown. I prefer for this purpose to provide the plate or cover *g* on the under side with a dovetailed annular projection, *g'*, that is inserted into the hollow part of the elastic stopper *h*. *c* represents the curved rod or handle forming a part of the cams *c' c'*, and by means of which the said cams are operated, as described.

In the drawings, the projections *d d*, as well as the slots or grooves *f f*, are shown as forming a part of the metallic band *i* that is secured to the bottle-neck; but I do not wish to confine myself to this exact construction, as I may, to equal advantage, make the said projections and the said slots or grooves in one and the same piece with the bottle.

It will be seen that when the locking device is in its locked position, as shown in Fig. 2, that in this position the upper ends of the cams *c' c'* are moved beyond the central line of the perpendicular yoke *e*, so as to keep the device in a locked position, without liability of accidental opening.

In Fig. 5, *k* represents the perforated metallic plate or cover, with its perforation *k'*. *l* represents the hollow stopper, with its automatic valve *l'*, for the purpose as herein set forth and described.

What I wish to secure by Letters Patent, and claim, is—

1. In a bottle-stopping device, the combination of the pivoted cams *c' c'*, hinged to the movable fulcrums *e' e'* and projecting into the slotted guides *f f*, and the stationary projections or inclines *d d*, as and for the purpose set forth.

2. The herein-described bottle-stopping device, consisting of the cams *c' c'*, stationary projections or inclines *d d*, pivots *e' e'*, projecting within the slots or grooves *f f*, the yoke *e*, elastic stopper *h*, and curved cam-rod *c*, as and for the purpose set forth.

In testimony that I claim the foregoing as my own invention I have affixed my signature in presence of two witnesses.

NOAH PRESCOTT.

Witnesses:
ALBAN ANDRÉN,
WILLIS E. FLINT.