J. B. GRIFFIN.

Bottle-Stopper Fastenings.

No. 200,191. Patented Feb. 12, 1878.

Fig. 1.

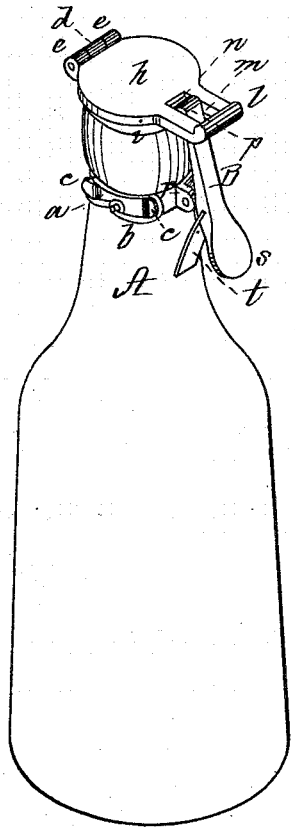


Fig. 2.

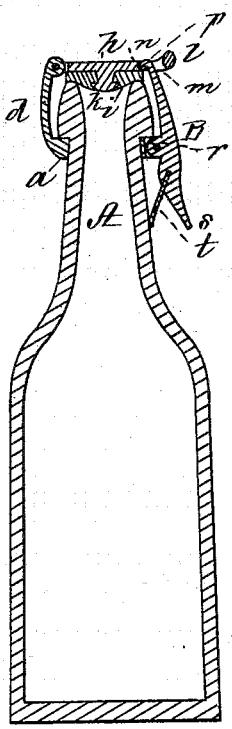


Fig. 3.

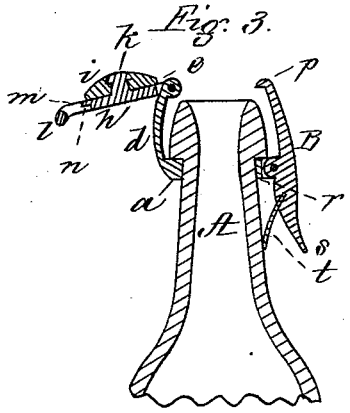


Fig. 4.

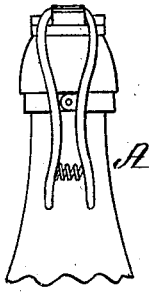
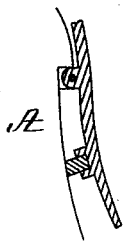


Fig. 5.



Witnesses,

W. J. Cambridge

Chas. E. Griffin.

Inventor,

John B. Griffin,

Per Teschemacher & Stearns

Attorneys.

UNITED STATES PATENT OFFICE.

JOHN B. GRIFFIN, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND JAMES C. GERLACH, OF SAME PLACE.

IMPROVEMENT IN BOTTLE-STOPPER FASTENINGS.

Specification forming part of Letters Patent No. **200,191**, dated February 12, 1878; application filed July 26, 1877.

To all whom it may concern:

Be it known that I, JOHN B. GRIFFIN, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Bottle-Stopper and Fastening therefor, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved stopper-fastening applied to the neck of a bottle, the mouth of the bottle being closed by the stopper. Fig. 2 is a vertical section through the center of the same. Fig. 3 is a similar section, representing the stopper thrown back and the mouth of the bottle open; Figs. 4 and 5, modifications to be referred to.

Bottles provided with the stoppers and fastenings of the present improved construction require the employment of both hands to open and close, besides which many, if not all, of these stoppers and fastenings require skillful handling, and it frequently happens that inexperienced persons—for instance, ladies and youths—do not know how to open and close the bottle, and, even if they did understand these operations, they are lacking strength to exert the necessary force to do so.

My invention has for its object to overcome these difficulties, and to provide a stopper and fastening of a construction so simple that they may be understood and operated with extreme facility by any person, however inexperienced with this class of devices, and by the employment of one hand only.

My invention consists in a lever pivoted to the collar which is applied to the neck of the bottle, in combination with a pivoted or hinged cap or stopper, the top of the lever being forced in by a spring to cause it to engage with and hold down the cap or stopper firmly in place to close the mouth of the bottle, the cap or stopper being unlocked and released by a simple pressure of the thumb on the lower arm of the lever, one hand only being required in these operations.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents the neck of a bottle, around which is sprung the collar *a*, which is kept securely in place thereon by means of a wire, *b*, drawn tightly over its opposite turned-up extremities *c c*. Formed in one and the same piece with the collar *a*, and projecting up from one side of the same, is an arm, *d*, to the top of which is hinged the lugs *e* of a cap, *h*, to the under side of which is secured an elastic washer, *i*, which serves as the stopper for closing the mouth of the bottle, the center of the washer being provided with a hole, in order that it may be sprung over a central stud or button, *k*, projecting from the under side of the cap *h*.

At a point diametrically opposite the top of the arm *d* the cap is provided with a projecting portion, *l*, within which is formed a slot, *m*, the top of the cap, at the inner end thereof, being cut away or reduced in thickness, so as to form a ledge or shelf, *n*, for the bent or projecting top *p* of a lever, B, to hook or catch thereover, and the under side of this ledge is made to taper upward and outward, so that the upper side of the projecting top *p* of the lever (correspondingly tapered) may freely slide thereon, and spring over the ledge, as desired. This lever is pivoted between lugs *r* on the collar *a*, located at a point diametrically opposite the lower end of the arm *d*, and extends up in a direction longitudinal with the bottle, the lower end *s* of the lever being enlarged and somewhat flattened, in order that the thumb may be conveniently applied thereto.

Within the lower arm of the lever B is secured the upper end of a bent spring, *t*, of the form seen, the lower end of the spring bearing on the neck of the bottle.

When the parts are in the position shown in Fig. 3, and it is desired to close the bottle, it is taken in one hand, and the thumb is placed on the enlargement *s* of the lower end of the lever, and a gentle pressure applied thereto to compress the spring *t*, simultaneously with which operation the forefinger is placed under the cap to bring it and the elastic stopper *i* in place over the mouth of the bottle, a pressure downward of the forefinger being exerted, which compresses the elastic stopper, during which compression the upper or inclined side

of the top of the lever slides gradually off from the under surface of the ledge *n*, and, after having passed by, it is carried in over the ledge by the expansion of the spring *t*, thus securely locking the cap and stopper down over the mouth of the bottle, and sealing the contents thereof by an air-tight joint.

When the bottle is to be opened, the parts being in the position seen in Figs. 1 and 2, it is simply necessary to grasp it by the neck in one hand, with the thumb on the enlarged portion *s* of the lower end of the lever, and the forefinger on the back or farther side of the neck, when a simple pressure of the thumb will move the lever B against the resistance of the spring *t* sufficiently to withdraw and unhook the top *p* of the lever B from the ledge *n* of the cap, which is then instantly carried or thrown by the resiliency of the elastic stopper over to one side of the mouth of the bottle, and the contents are free to be poured out.

From the foregoing it will be seen that a bottle having my improvements applied thereto may be instantly opened by one hand, even by an inexperienced person, as the manner of opening is self-evident, and readily suggests itself to the mind, for it would be quite natural for a person to press the thumb against the enlarged portion of the lever without particularly examining the construction of the fastening, and in times where a number are waiting to be served a person of ordinary skill can take two bottles (one in each hand) at the same moment, and fill two glasses from each, if desired, if the bottles be of sufficient capacity, thus serving four persons at once.

In addition to the above-described advantages derived from the use of my improved devices may be mentioned the facility experienced in filling the bottles and the saving of time resulting from the application of but one hand in closing them, which are features of considerable importance.

A pair of levers pivoted on the same side of the bottle, directly opposite and facing each other, with a bent or spiral spring located between them, and having its extremities bearing on the insides of the lower arms of the levers, may be employed, if desired, (see Fig. 4,) without departing from the spirit of my invention; but as this duplication of levers and springs involves extra expense, I prefer the construction first described.

Instead of a metallic spring, one of rubber may be employed, if desired. (See Fig. 5.)

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

The lever B, pivoted to the collar *a*, and provided with a spring, in combination with a pivoted cap or stopper, constructed to operate substantially in the manner and for the purpose set forth.

Witness my hand this 17th day of July, A. D. 1877.

JOHN B. GRIFFIN.

In the presence of—
N. W. STEARNS,
CHAS. E. GRIFFIN.