

A. E. RICH.
Bottle-Stopper.

No. 214,585.

Patented April 22, 1879.

Fig. 1.

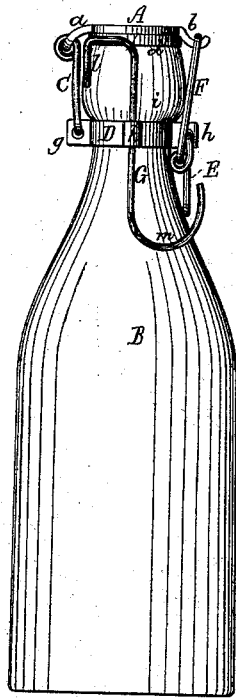


Fig. 2.

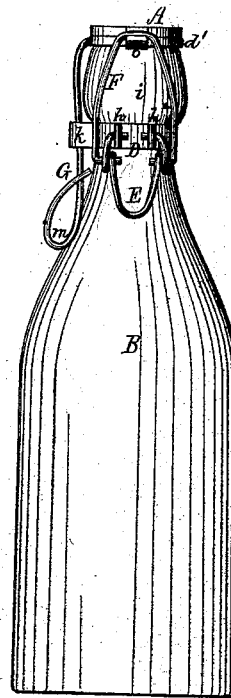


Fig. 3.

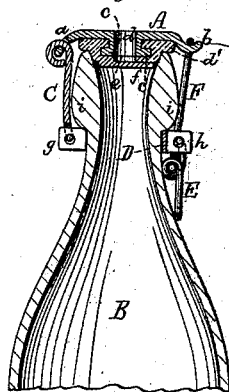


Fig. 4.

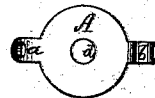
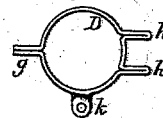


Fig. 5.



Fig. 6.



Witnesses:
L. N. Piper.
L. L. Miller.

Inventor:
Augustus E. Rich
by his attorney
R. H. Ledy

UNITED STATES PATENT OFFICE.

AUGUSTUS E. RICH, OF FALL RIVER, MASSACHUSETTS.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **214,585**, dated April 22, 1879; application filed March 25, 1878.

To all whom it may concern:

Be it known that I, AUGUSTUS E. RICH, of Fall River, of the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Bottle-Stoppers; and do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figures 1 and 2 are side views, and Fig. 3 a longitudinal section, of my improved stopper applied to the neck of a bottle.

My invention may be said to consist as follows: first, in the described stopper-fastening device, consisting of a neck-band and a link pivoted thereto and to a stopper-cap, a locking-lever pivoted to the neck-band, and a link pivoted to the said locking-lever, and adapted to engage with a projection in the stopper-cap; second, in the combination of a collar and two yokes, arranged and applied as described, with a link and with a cap provided with an induct and a valve thereto, substantially as set forth; third, in the elastic cap-washer, chambered and provided with a hole through it, and with a valve thereto, all being as and for use substantially as specified; fourth, in a valve-opener constructed, arranged, and combined, substantially as described, with the bottle-stopper, provided with an induct and valve, all essentially as set forth.

As represented, and provided with one induct and valve, the stopper is intended more especially for bottles to hold aerated liquors or liquors highly charged with carbonic-acid gas, and is to enable such bottles to be charged and discharged to advantage.

In the drawings, A denotes a metallic cap, furnished with two ears, *a b*, extended from it in manner as shown, Fig. 4 being a top view of it. To this cap there is a button or dovetailed projection, *c*, through which and the cap is a hole or induct, *d*. On the said projection is sprung a correspondingly-socketed vulcanized india-rubber elastic washer, *d*. This washer (a transverse section of which is shown in Fig. 5) has a hole, *e*, through it at its center, and is provided or constructed with a flap or valve, *f*, to cover such hole, the washer and the flap being in one piece.

The elastic washer is to fit upon and extend a short distance within the mouth of the neck

of the bottle B, and by means of one of its ears—viz., that one which is turned downward, *a*—is hinged or jointed to a link, C, which in turn is hinged or jointed to one of the ears *g*, extending, in manner as represented, from a metallic collar, D, which encompasses the bottle-neck immediately below its head *i*. Fig. 6 is a top view of the said collar D and its three ears *g h h*.

A yoke, E, pivoted to the two ears *h h* has pivoted to it near its middle another yoke, F, such yokes being formed, arranged, and applied in manner as represented in the drawings. By hitching the yoke F upon the ear *b* of the stopper-cap A, and turning the yoke E downward against the bottle, the said cap will be drawn and fastened upon the elastic washer, so as to contract it upon and cause it to close with an air-tight joint the mouth of the bottle.

Furthermore, there is used or connected with the collar a bent wire or valve-opener, G, which, formed and attached as represented, passes through an ear or projection, *k*, extending from the collar. This valve-opener is supposed to be so applied to the neck or the ear *k* as to be capable of being moved up and down, or otherwise in a manner to enable the part *l* to be inserted in the induct of the cover, and afterward to be forced therein and upon the valve by a person's finger applied to the hooked part *m* of such opener G, such being to open the valve or force it off its seat. Should the bottle be charged with a liquid and condensed air or gas, the valve will be closed on its seat by the expansive power of such air or gas. On inverting or turning down the bottle, and forcing the valve off its seat by means of the valve-opener, the liquid, by the said expansive force of the air or gas, will be discharged through the stopple, and may be intercepted or caught in a tumbler or vessel for being drank or otherwise used, the valve being closed at once on the removal of the opener. After the opener may have done its office it may be turned or moved down below the cap or out of the way thereof sufficiently to admit of the charging-tube of a gasometer or liquid-holder being properly applied to the induct.

Both ears of the cap are bent down below its upper surface, so as not to be in the way

of the charging apparatus when so applied to the top of the cap.

The above-described bottle-stopper enables a bottle to be charged with a liquid and air or gas to great advantage, for in case of the pressure in the bottle counterbalancing that in the supply-vessel, so as to interrupt or stop the flowage of liquid into the bottle, we have only to ease up the cap a little to allow of escape of more or less of the gas or air from the bottle. After the bottle may have been sufficiently charged the lower yoke should be turned down, the two yokes thus co-operating to firmly hold down the cap, so as to effect with the elastic washer a complete sealing or stoppage of the bottle.

I am aware that it is not new to use a collar and two yokes with a stopple and neck of a bottle, in which case one of the yokes has usually extended across or through the stopple, and therefore I do not claim such. Besides such I, in carrying out my invention, employ with the cap and collar the two ears and a link, such ears being projected from the cap, and the link being jointed to the collar and one of such ears, and I arrange the two

yokes so that the upper or larger of them may be hitched or hooked upon the other of such ears or unhitched therefrom, as occasion may require. Therefore,

What I claim as my invention is as follows—that is to say:

1. The described stopper-fastening device, consisting of the neck-band D, link C, pivoted to said neck-band and to the stopper-cap A, the locking-lever E, pivoted to the neck-band, and the link F, pivoted to the said locking-lever, and adapted to engage with a projection, b, on the stopper-cap, all being substantially as set forth.

2. The elastic washer d', constructed with the valve and hole and the dovetailed chamber, arranged as represented.

3. The valve-opener G, provided with a hook or projection to enter the opening d of the stopper, and applied to the collar D, substantially in manner and so as to operate as and for the purposes as set forth.

AUGUSTUS E. RICH.

Witnesses:

R. H. EDDY,
JOHN R. SNOW.