W. vom HOFE.
Bottle-Stopper.

No. 221,558. Patented Nov. 11, 1879.

Fig. 1.

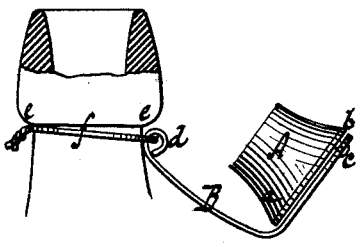


Fig. 2.

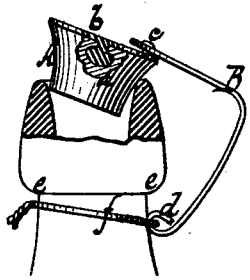


Fig. 4.

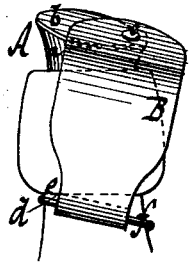
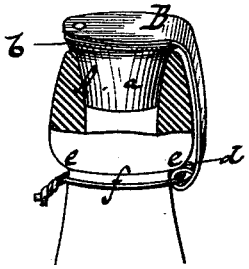


Fig. 3.



Witnesses
Otto Hufeland
William Miller

Inventor.
William vom Hofe
by
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his attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM VOM HOFE, OF NEW YORK, N. Y.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **221,558**, dated November 11, 1879; application filed October 9, 1879.

To all whom it may concern:

Be it known that I, WILLIAM VOM HOFE, of the city, county, and State of New York, have invented a new and useful Improvement in Bottle-Stoppers, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a sectional side view when the bottle is open. Fig. 2 is a similar view of the same when the stopper is placed in the mouth of the bottle but not depressed. Fig. 3 is a similar view when the bottle is closed. Fig. 4 shows the stopper partly depressed in the bottle-mouth.

Similar letters indicate corresponding parts.

This invention relates to stoppers for bottles and other vessels requiring stoppers; and it consists in the combination, with a suitable stopper, of a locking-bar, bent or shaped to catch at one end over the stopper and at its opposite end beneath the shoulder on the neck of a bottle, said locking-bar and stopper being united by an eccentric swivel-connection, so that when the locking-bar is turned out away from the center of the stopper the stopper can be introduced into the mouth of a bottle, and by turning the locking-bar back the stopper is forced into the mouth of the bottle and locked in its closing position. The locking-bar is connected with a neck-band or wire extending round the neck of a bottle, so that if the bottle is opened the stopper and its locking-bar remain suspended thereon.

In the drawings, the letter A designates the stopper, which may be constructed in any manner suitable for the purpose. In the example shown in the drawings said stopper consists of an elastic body, *a*, which is secured to a metallic supporting-plate, *b*. This stopper is connected by a pivot, *c*, to a locking-bar, B, said pivot being fastened eccentrically in the supporting-plate *b*, so that the locking-bar when being turned or swiveled round on said pivot assumes different positions in relation to the stopper, as indicated in the drawings.

By referring to the drawings, it will be seen that the locking-bar B is bent or arranged so that one of its ends extends over the stopper to engage with the pivot *c*, while its other end is provided with a lip, *d*, adapted to bear against the shoulder *e* on the neck of a bottle.

The lip *d* is made in the form of an eye, to engage with a wire, *f*, which extends loosely round the neck of the bottle. If desired, however, the neck-band may be provided with a projection to engage with the locking-bar, or the connection may be made in any desirable manner.

When the bottle is open, as shown in Fig. 1, the locking-bar, together with the stopper, remain suspended from the neck-wire *f*, so that the stopper is at hand whenever it is desirable to close the bottle. When the bottle is to be closed, the locking-bar is turned out to the position shown in Fig. 2, and then the stopper can be placed in the mouth of the bottle in an oblique position, leaving the lip *d* of the locking-bar to bear against the shoulder *e* of the bottle. If the locking-bar is now turned from the position shown in Fig. 2 to that shown in Fig. 3, the stopper is depressed into the mouth of the bottle and firmly retained in its closing position.

When the bottle is to be opened, the locking-bar is turned out away from the center of the stopper, and when it reaches the position shown in Fig. 2 the stopper opens either by itself, impelled by the internal pressure of the gases in the bottle, or it can be very easily removed from the mouth of the bottle by the proper manipulation of the locking-bar.

Fig. 4 shows the stopper partly depressed into the mouth of the bottle, the locking-bar, as it is turned on its pivot *c* over the stopper, forcing the latter down into the mouth of the bottle. The locking-bar is turned until the bar lies diametrically across the stopper, and the stopper is brought down squarely into its closing position.

This bottle-stopper is very simple in its construction, and it can be easily operated both in closing and in opening the bottle.

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

1. The combination, with a suitable stopper, of a locking-bar arranged or bent to catch at one end over the stopper and at its opposite

end beneath the shoulder on the neck of a bottle, said locking-bar and stopper being united by an eccentric swivel-connection, substantially in the manner shown and described.

2. The combination, with a suitable stopper, a locking-bar, and an eccentric swivel-connection for uniting the stopper and locking-bar, of a neck-band or wire adapted to engage with the locking-bar, substantially as and for the purpose set forth.

3. The combination, with a stopper, of a locking-bar arranged to catch over the stopper and also under the shoulder or neck of a bottle, said locking-bar and stopper being united by an eccentric swivel-connection, and so arranged that when the stopper is placed into the mouth of the bottle and the locking-bar is turned on its pivot the locking-bar is free to accommodate itself to the change of position of the stopper as it enters the bottle-mouth, substantially as shown and described.

In testimony whereof I have hereunto set my hand and affixed my seal this 7th day of October, 1879.

WILLIAM VOM HOFE. [L. S.]

Witnesses:

J. VAN SANTVOORD,

W. C. HAUFF.