

No. 109,212.

PATENTED NOV. 15, 1870.

W. L. HOEFER.
BOTTLE STOPPER.

Fig. 1

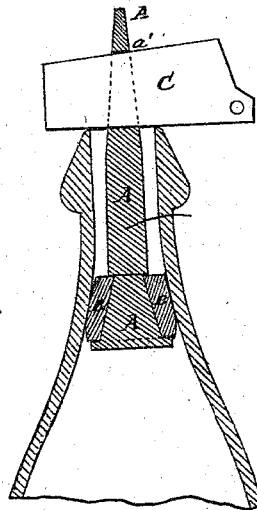
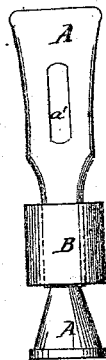


Fig. 2



Witnesses:

A. W. Almquist
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United States Patent Office.

WILLIAM L. HOFFER, OF JEFFERSONVILLE, NEW YORK.

Letters Patent No. 109,212, dated November 15, 1870.

IMPROVEMENT IN BOTTLE-STOPPERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM L. HOFFER, of Jeffersonville, in the county of Sullivan and State of New York, have invented a new and useful Improvement in Bottle-Stopper; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a detail sectional view of my improved bottle-stopper, showing it as applied to a bottle.

Figure 2 is a detail side view of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish a simple, convenient, inexpensive, and effective stopper for bottles containing soda-water or other effervescing liquids, and which shall be so constructed that, after being once applied to the bottle, it is retained by the wedge, so that it cannot be pushed fully in, but may be readily pushed far enough inward to allow the liquid to flow out freely.

A is the body or solid part of the stopper, which may be made of wood, metal, or other suitable material.

The upper part of the body A is made thin and of such a breadth that it may pass into the mouth of the bottle nearly to its upper end, which is made wider, as shown in fig. 2.

The middle part or neck of the body A is made small, as shown in figs. 1 and 2.

The lower part of the body A is made conical in form, its upper part being of a lesser and its lower part of a greater diameter than the neck or middle part of said body.

Around the extreme lower end of the body A is formed a narrow flange, as shown in figs. 1 and 2.

B is a short piece of rubber tubing, which is placed upon the body A.

The tube B is placed upon the middle part or neck of the body A, as shown in fig. 2.

The lower end of the stopper is then inserted in the mouth of the bottle, and the said stopper is forced down to its place. The ends of the rubber tube B being unsupported, the said tube can be elongated and compressed so as to pass into the mouth of the bottle. The tube B is then worked down, by means of a slender tool inserted into the mouth of the bottle, until it is forced upon the lower conical part of the body A, its lower end resting against the flange at the lower end of said body, and its upper end resting against the shoulder formed upon the said body A at the upper end of the conical part of said body. If, now, the stopper is drawn or forced up into the neck of the bottle, it will close it tightly, and the outward pressure of the liquid will only force it more firmly to its place.

The body A should be made of such a length that when the stopper has been forced into the bottle as far as it can be its lower end may drop upon the breast of the bottle, and thus allow the liquid to flow out freely.

The upper part of the body A has a slot, *a'*, formed in it to receive a wedge-key, C, the lower edge of which, when the said key is inserted in the said slot, rests against the edge of the mouth of the bottle.

The wedge-key C is designed to be used when the filled bottles are to be transported, to prevent the stoppers from being forced inward by an accidental blow.

Having thus described my invention,

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

The body A *a'*, of the form described, the wedge C, and the rubber ring B, combined and applied as set forth, to form an improved bottle-stopper.

The above specification of my invention signed by me this 30th day of August, 1870.

WILLIAM L. HOFFER.

Witnesses:

GEO. W. MABEE,
JAMES T. GRAHAM,