(No Model.)

W. B. STEVENS.

BOTTLE STOPPER.

No. 519,510. Patented May 8, 1894.

Fig. 4.

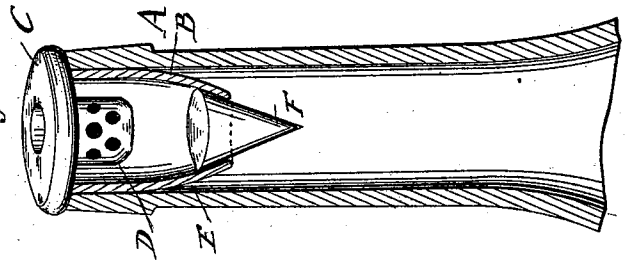


Fig. 3.

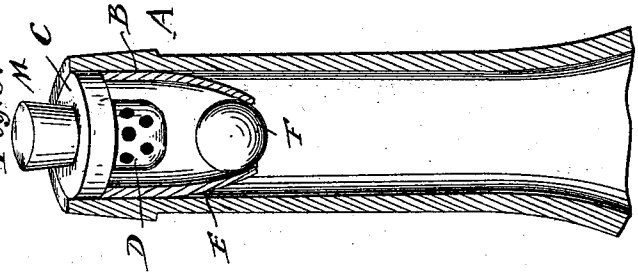


Fig. 2.

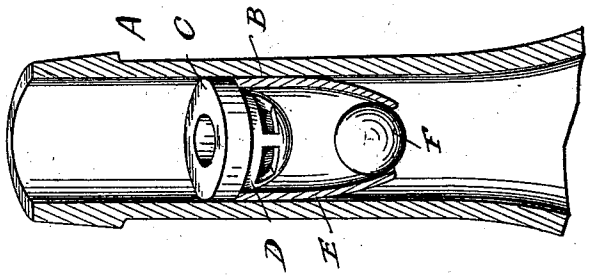


Fig. 1.

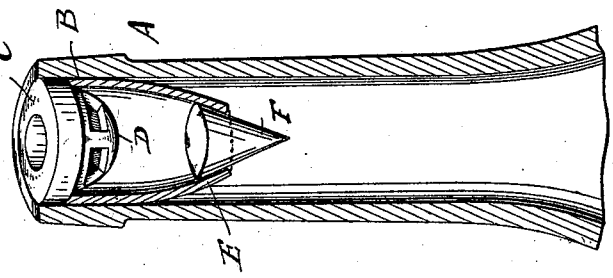
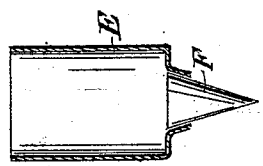


Fig. 5.



WITNESSES:

Charles Schroeder.

Adolph Scherer.

INVENTOR

W. B. Stevens

BY Geipel & Kaigener

ATTORNEYS.

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLARD B. STEVENS, OF NEW YORK, N. Y.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 519,510, dated May 8, 1894.

Application filed June 22, 1893. Serial No. 478,434. (No model.)

To all whom it may concern:

Be it known that I, WILLARD B. STEVENS, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

This invention has reference to an improved stopper for bottles which are designed for the shipping and sale of whisky and similar liquors, the stopper being designed with a view of permitting the pouring out of the contents of the bottle, but preventing refilling of the same, so that the manufacturer has a certain kind of protection that his bottles will not be used over again by unauthorized parties or unscrupulous competitors.

The invention consists of a bottle stopper which comprises a centrally apertured head that is inserted into the mouth of the bottle and provided with a perforated guard cup attached to the under side of the top of the stopper, a cage on the under side of the head and provided with a seat for a valve that closes by gravity the bottom orifice of the cage when the bottle is placed in vertical position or nearly so.

In the accompanying drawings, Figure 1 represents a vertical central section of the mouth of a bottle, showing my improved stopper partly in section and partly in perspective view, inserted into the same. Fig. 2 is a similar section, showing the stopper inserted at sufficient depth into the mouth of the bottle so as to permit the insertion of a cork above the stopper, and Figs. 3 and 4 are also vertical central sections, showing my improved stopper inserted into the same and provided respectively with a ball valve and a conical or cup-shaped valve, Fig. 3, showing furthermore a closing cork inserted into the central opening of the same. Fig. 5 is a vertical section of the stopper, showing a different shape.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the mouth of a whisky or other bottle, and B the stopper for the same, which stopper is composed of four main elements, namely, a centrally perforated head C which is preferably made of hard wood, glass, metal or other suitable material, a guard cup D which is either made integral with the head C or in a separate piece and attached to the under side of the same. The guard cup D is provided with apertures at its sides, but is closed at the bottom for the purposes hereinafter to be mentioned.

A cage E is attached to the under side of the head C and made of sheet-metal, glass or other suitable material, the cage being made in conically tapering shape, or curved or tapered at its bottom, so as to form a contracted orifice which forms the seat for a valve F which can be made either in the shape of a ball or in the shape of a hollow cup of conical or other shape, as preferred. The valve F is preferably made of glass, when the round form of valve is used, of or aluminium or other suitable metal when the conical shape is used. Whatever be the shape of the valve, it acts in the nature of a gravity valve so as to close the bottom orifice of the cage E, whenever an attempt is made to refill the bottle.

The stopper is cemented or otherwise secured into the bottle mouth after it is filled with the liquor that is to be sold, in the same. The bottle is then corked by inserting the cork stopper M into the central aperture of the head C, said stopper closing thereby the discharge orifice of the stopper E.

When it is desired to close the bottle in the ordinary manner by corks that fit into the mouth of the bottle, the stopper is cemented into the bottle mouth at a sufficient depth below the rim, so that sufficient space is left for the insertion of the cork above the stopper, as shown in Fig. 2. After drawing the cork, the bottle can be emptied without any difficulty as by the tilting of the bottle and by the pressure of the liquid on the valve the latter moves in the cage until stopped by the guard cup D, the liquid passing then through the bottom opening in the cage and the apertures in the guard cup to the outside. Any refilling of the bottles is prevented, or at least connected with considerable difficulty and loss of time, so that the original bottle cannot be used for the sale of inferior liquors.

When a hollow sheet-metal conical valve is used, any attempt of filling is rendered still more difficult, inasmuch as the filling of the valve by a portion of the liquor will tend to

hold the same in position by gravity, so that the same resists in a greater measure than a round valve any attempt from placing the same from its seat. Whenever an attempt is made to fill the bottle by holding the same in a horizontal position by the action of the siphon, the hollow cone valve would be floated in a position on its seat by the pressure of the liquid attempted to be introduced, and thereby close the cage so that no liquid could be conducted into the bottle. The stopper described, therefore constitutes a safeguard to the distiller or wholesale dealer as it guarantees to some extent the article being an original package, while it prevents the refilling of the bottle at any time after the original contents of the same are taken from the bottle.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A bottle-stopper, adapted for permanent insertion into a bottle, consisting of a head having a central discharge-aperture, a guard-cup located at the under side of said head and inclosing said discharge-aperture, said cap having perforated sides and an imperforate bottom, a cage extending from the under side of the head downward and provided with a valve-seat at its lower end, and a gravity valve received by said seat when the bottle is in upright position and adapted to rest on said imperforate bottom when the bottle is in reversed position, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

WILLARD B. STEVENS.

Witnesses:
PAUL GOEPEL,
CHARLES SCHROEDER.