

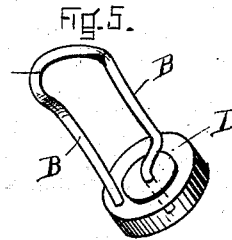
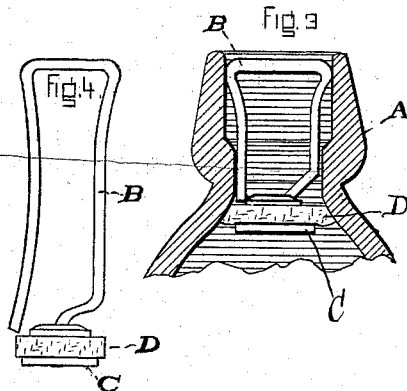
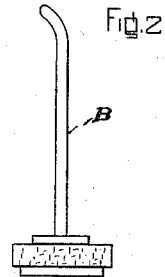
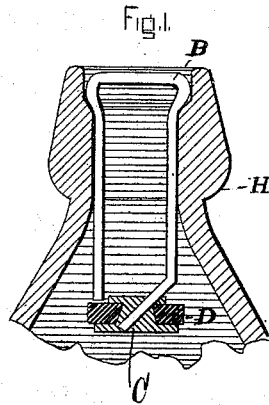
(No Model.)

H. B. ANDERSON.

BOTTLE STOPPER.

No. 262,912.

Patented Aug. 22, 1882.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

HENRY B. ANDERSON, OF ST. LOUIS, MISSOURI.

## BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 262,912, dated August 22, 1882.

Application filed October 11, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY B. ANDERSON, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

Heretofore in stoppers of this class the legs of the retaining-wire have been free of each other, so that the entire strain is borne by the center of the upper loop of the holder. The spring, for this reason, soon became so weak as to render the stopper worthless. It is also necessary, in stoppers that have the rubber placed upon them before they are inserted in the bottle, that the upper collar be much smaller than the under one, or the rubber itself, to permit the rubber to turn up between the periphery of the upper collar and the bottle-neck when the stoppers are inserted. This small collar is relied upon to force the rubber from its seat, and in doing so the rubber is bulged down in the center before it is released, and if, which is often the case, the rubber should stick to its seat the collar will be pushed through the rubber washer. The upper bend of the wire in the old form of stoppers extends across the center of the opening in the bottle and obstructs the passage so much as to interfere with the use of the siphon or funnel in filling. These defects are all overcome by my improvements. By extending the unincumbered leg of the holder down, so that when the stopper is drawn to its seat said leg will, by its contact with the bottle-neck, be forced inward, and find a bearing against the periphery of the upper collar and upon the projecting rim of the rubber, the strain is partially taken off of the upper loop of the holder, and when the stopper is forced down to open the bottle the extended leg resting upon the rubber assists to push the same from its seat, and with the opposite leg bent out to also project above the rubber washer it is impossible to strip the rubber from the stopper-body in forcing down the stopper. By giving the upper end of the retaining-wire a bend to make it conform somewhat to the circumference of the bottle-mouth I am enabled to insert the siphon or funnel to fill with still liquids. By making the legs of my holder straight, or nearly so,

the stopper is held wherever pushed or drawn, as said legs will, in consequence of their springing action, always remain in frictional contact with the neck of the bottle.

In the accompanying drawings, Figure 1 is a central vertical section of a bottle provided with my improved stopper. Fig. 2 is a view of the stopper, taken at right angles to the views shown in the other figures. Fig. 3 represents in central vertical section a short stopper-holder and enlarged mouth bottle to admit of the bottle being closed without projecting the end of the stopper above the bottle-head. Fig. 4 is a stopper shown in elevation. The lower end of the wire in this is curved above the stopper and the end vertical to receive metal disks which are secured upon the wire holder a sufficient distance apart to receive the rubber D between them. Fig. 5 is a perspective view of my improved stopper-holder and stopper.

For the sake of clearly showing the parts the legs of the holder are represented in Figs. 1 and 3 of the drawings as having a little lateral play within the bottle-neck; but I wish it understood that in practice said legs will always be in contact with the bottle-neck, the end of the unincumbered leg being, when the stopper is removed from its seat, in about the position shown in Fig. 1 with relation to the upper collar of the stopper, and when the stopper is seated, as shown in Fig. 3, the end of said unincumbered leg should rest against the periphery of said upper collar.

A represents a bottle, which may be of the ordinary form, or, as shown, have the mouth enlarged to receive within it the upper loop of the stopper-wire B.

C represents the stopper, as shown in Figs. 1, 2, and 3. This is a cast body, made preferably of block-tin molded upon the wire holder, the lower end of which is bent at an angle to provide a shoulder above the rubber and to prevent the wire from pulling out. The unincumbered leg of the wire B extends down, when in the bottle, to the top of the rubber ring D, and when the stopper is drawn to its seat bears against the periphery of the upper collar of the stopper, thus partially relieving the upper loop of the holder from strain, and, with the

bend upon the opposite leg of the holder, preventing the rubber from being drawn over the collar while inserting the stopper or forcing it down from its seat. The upper loop of the holder is bent over to stand parallel, or nearly so, to the stopper-body, and when in the bottle will lie close against the walls of the bottle-mouth, thus leaving the center space of the bottle-mouth entirely free for the insertion of a funnel. In this form of loop the strain is borne by the side curves instead of by the center of the loop, as heretofore.

I claim—

1. In a bottle-stopper, the combination of the stopper C and wire holder B, said stopper being secured to one leg of the holder, the opposite leg of the holder extending down free, and capable of being forced to rest against the periphery of the upper collar of said stopper and above the rubber ring D, substantially as specified.

2. In an inside bottle-stopper, the combination, substantially as before set forth, of the wire holder B, having a loop upon top of greater diameter than the stopper-body, and standing parallel therewith, and straight or nearly straight legs, with stopper C secured to one of said legs, and the opposite leg of said holder being free and capable of bearing against the upper part of said stopper.

3. The combination, as hereinbefore set forth, of stopper C and a stopper-holder, B, said holder having the upper end bent to lie close to the wall of the bottle-mouth to afford free access to the bottle, as set forth.

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Witnesses:

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