

(No Model.)

G. L. MATTHEWS.
BOTTLE STOPPER.

No. 526,247.

Patented Sept. 18, 1894.

Fig. 1

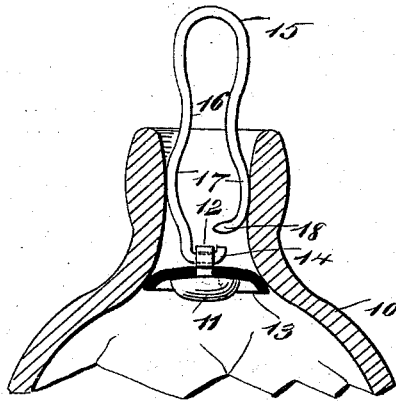


Fig. 2

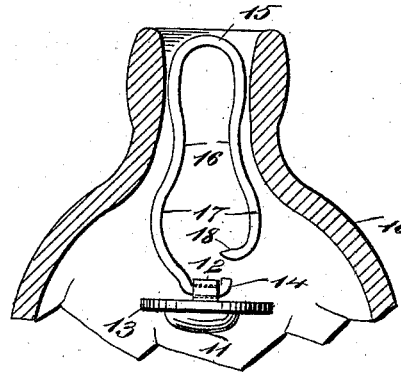


Fig. 3

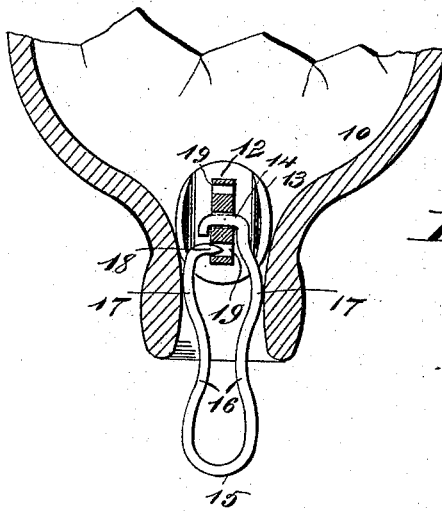


Fig. 4

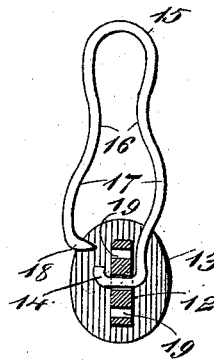
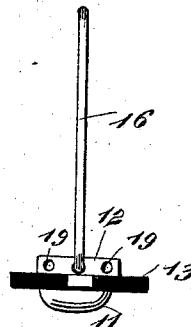


Fig. 5



WITNESSES:

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UNITED STATES PATENT OFFICE.

GILBERT L. MATTHEWS, OF NEWTON, ASSIGNOR OF ONE-HALF TO THEODORE W. CRANE, OF BEEMERVILLE, NEW JERSEY.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 526,247, dated September 18, 1894.

Application filed July 13, 1894. Serial No. 517,458. (No model.)

To all whom it may concern:

Be it known that I, GILBERT L. MATTHEWS, of Newton, in the county of Sussex and State of New Jersey, have invented a new and Improved Bottle-Stopper, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of bottle stoppers which are used in connection with bottles containing gaseous liquids, and which are held in place by the pressure of gas within the bottle. It is necessary to remove these stoppers in order to properly cleanse the bottles, and the object of my invention is to produce an extremely cheap and simple bottle stopper of this class, which may be easily applied to a bottle, which is held firmly in place without fear of accidental derangement by the gas pressure within the bottle, but which by a little manipulation may be easily removed when necessary, to the end that the bottle may be thoroughly and easily washed.

To these ends my invention consists of a bottle stopper, the construction of which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken detail sectional view of a bottle provided with my improved stopper, which is shown in closed position. Fig. 2 is a similar view but with the stopper pushed in sufficiently to permit the liquid in the bottle to be poured out. Fig. 3 is a detail sectional view showing the position of the bottle stopper and its loop when the stopper is being extracted. Fig. 4 is a detail sectional plan of the bottle stopper with the loop turned to one side; and Fig. 5 is a side elevation of the stopper.

The bottle 10 may be of any usual kind and its neck is closed by a stopper which has a button 11 with an oblong shank 12, which is inclosed by a gasket 13 usually and preferably of rubber, which gasket rests on the top of the button 11 and overlaps the button, and is adapted to tightly close the bottle neck. When the button and gasket are adjusted as in Fig. 1, the pressure from within the bottle holds the gasket snugly in its seat, but the

button is large enough so that while in this position the stopper cannot be pushed out. The shank 12 of the button is at its center pivoted on the bent lower end 14 of a wire loop 15, which is doubled near the center to form two opposite members 16, one of which terminates, at its lower end, in the bend 14 just referred to, and near the lower ends the members are curved outwardly and oppositely as shown at 17, thus forming a sort of socket between the upper and lower ends of the loop, so that when the loop is partially pushed in as shown in Fig. 2, the curved portions 17 will spring apart and hold the stopper in the position shown in Fig. 3, so that the liquid may be poured out. This arrangement, however, is not new.

The second member of the wire loop terminates at its lower end in the hook 18, which is adapted to enter the sockets or holes 19, made laterally in the shank 12 of the button near the ends of the shank. When the bottle is tipped on its side the button tips over into the position shown in Fig. 3 and may be drawn out edgewise, as the gasket 13 doubles up in this position so as to slip through the bottle neck and, as soon as the wire loop is pulled out with the button and gasket in the side position referred to, the curved portions 17 of the loop are pushed inward by the neck of the bottle and the hook 18 is thus jammed into one of the holes 19 and the loop is thus connected with the button shank at two points, and rigid connection with the button is thus made which effectually prevents it from tipping and enables it to be readily pulled out of the bottle.

The stopper is inserted with the parts in the position described for removing it, and when the curved portions 17 of the loop pass through the bottle neck, they spring apart, permitting the hook 18, to withdraw from the hole 19 and the gravity of the button causes it to assume a horizontal position, so that when the loop is again pulled partially out, the button and gasket close the neck as illustrated in Fig. 1.

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

A bottle stopper, comprising a button, hav-

ing a shank with a central pivot hole and
with holes on opposite sides of the pivot hole,
a gasket embracing the shank and lying on
the button, and a wire loop having oppositely
5 curved members, one member terminating in
a bend which enters the central hole of the
button shank, and the other member termi-

nating in an in-turned hook adapted to enter
the other holes of the button shank, substan-
tially as described.

GILBERT L. MATTHEWS.

Witnesses:

FRANCIS HEYDER,
LEVI WESTBROOK.