

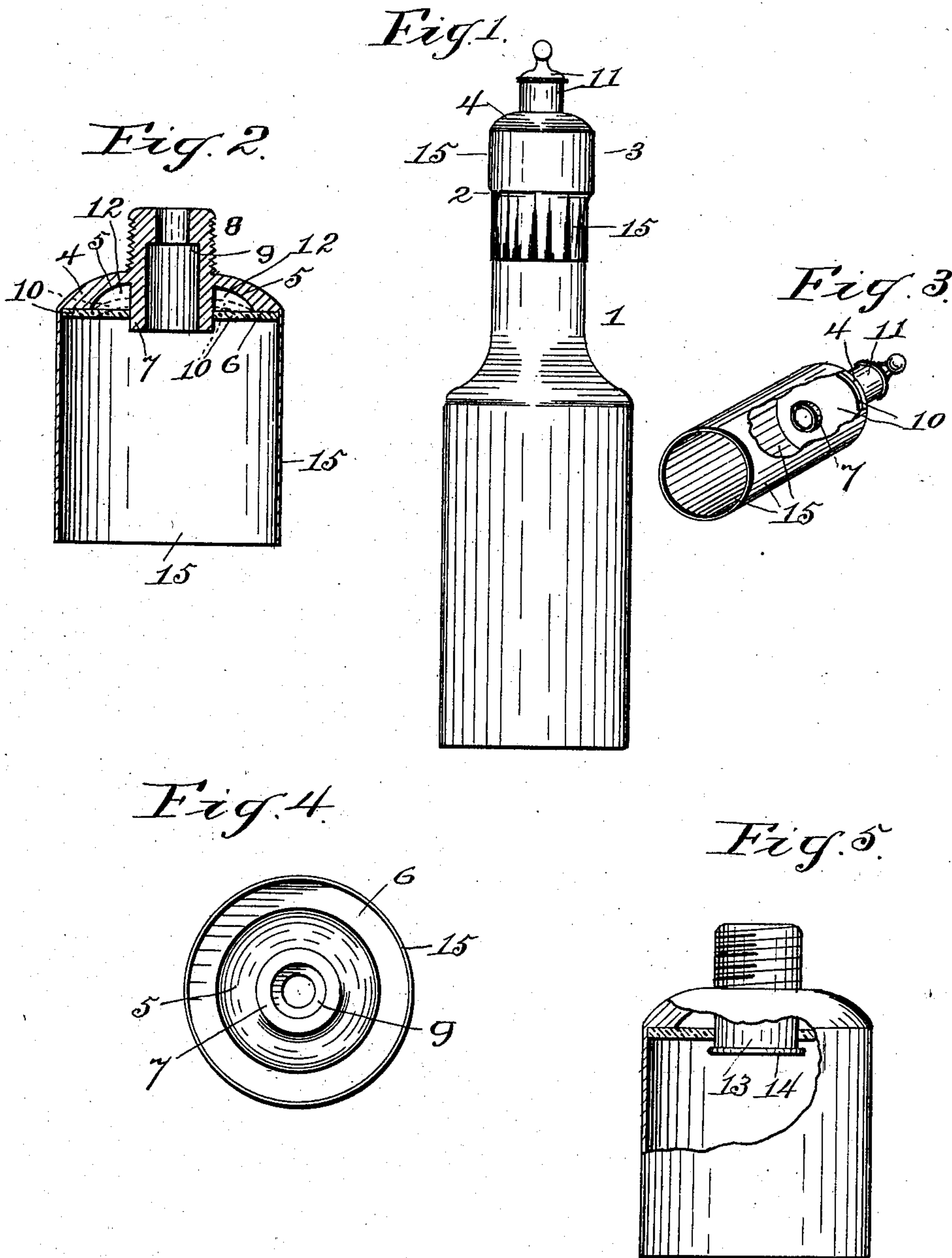
No. 757,216.

PATENTED APR. 12, 1904.

E. A. McILHENNY.
SPRINKLER CAP BOTTLE CLOSURE.

APPLICATION FILED JUNE 24, 1903.

NO MODEL.



Witnesses
C. J. Bell
W. L. Smith

Edward A. McIlhenney, Inventor

By Taber & Whitman Co.

Attorneys

UNITED STATES PATENT OFFICE.

EDWARD A. McILHENNY, OF NEW IBERIA, LOUISIANA.

SPRINKLER-CAP BOTTLE-CLOSURE.

SPECIFICATION forming part of Letters Patent No. 757,216, dated April 12, 1904.

Application filed June 24, 1903. Serial No. 162,953. (No model.)

To all whom it may concern:

Be it known that I, EDWARD A. McILHENNY, a citizen of the United States, residing at New Iberia, in the parish of Iberia and State of Louisiana, have invented certain new and useful Improvements in Sprinkler-Cap Bottle-Closures; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to bottle-stoppers, and pertains especially to the class of sprinkler-cap bottle-closures and means for permanently fixing the cap to a bottle.

The object of this invention is to provide a sprinkler-closure for bottles of such novel and peculiar construction that it may be fixed permanently to ordinary bottles, such as are used for my well-known "tabasco sauce," without employing gaskets or without any special preparation of the bottle neck or mouth and without using a stopper.

A further object of the invention is to provide in one and the same device a bottle-closure and sprinkler of such structure that it may be permanently fixed to a bottle after the latter is filled, so that the contents may be sprinkled without detachment of the device and so that the bottle may not be refilled without such injury to the device as will render it incapable for further use.

A still further object of the invention is to provide a device adapted to seat an apertured disk on the mouth of a bottle and cushion it there and having a sheet thimble or foil adapted to fit the bottle-head and be crimped around the bottle-neck for the purpose of fixing the device to the bottle and for holding said disk over the mouth of the bottle.

It is well known that sprinkler screw-caps have been employed on bottle closures and stoppers of various description; but such closures and stoppers have as many various means of attachment to the bottle head or neck—for example, by screwing the closure to the bottle-neck or otherwise preparing the bottle neck and head for attaching the closure and by providing the bottle neck or head with a gas-

ket and turning a flange of the closure under the gasket. It is therefore the purpose and intent of this invention to overcome the expense, disadvantages, and objections found in such sprinkler-closures and to furnish a sprinkler-closure of simple, inexpensive, and novel form and of such structure as to be expeditiously applied to and form a part of a bottle without special preparation of the latter or supplying it with means to connect the closure thereto.

In the accompanying drawings, forming part of this application, Figure 1 is an elevation of an ordinary bottle with my invention exemplified. Fig. 2 is an enlarged detail section of the closure without its closing-nut, showing in dotted lines the movement of the disk. Fig. 3 is a detail perspective view partly broken away. Fig. 4 is an inverted view with disk removed. Fig. 5 is a sectional elevation showing a modification.

The same numeral references denote the same parts throughout the several views of the drawings.

The bottle here used to illustrate the invention is a sample of those I have employed many years for my tabasco pepper sauce. It has a long neck 1 and a slight or small shoulder 2, found in ordinary bottle-necks near the head or mouth 3.

The device for closing the bottle-mouth consists of a slightly conical plate or stiff metallic cap 4, having formed therein an inner annular concavity or groove 5; a flat seat or bearing-surface 6, surrounding the concavity; a short hollow stem 7, projecting from the cavity; a screw-nipple 8, forming a continuation of the stem, with an inner shoulder 9 intervening, so that the nipple-passage or bore is of smaller diameter than the stem-passage or bore, and said shoulder forms a restricted sprinkler-passage of such size as to readily discharge by shaking or striking the bottom of the bottle, but not of sufficient size to permit the bottle to be filled therethrough; a thin flexible cushion-disk 10, of cork, rubber, or other suitable material, having a central aperture to fit the stem 7, and thereby held to its seat or bearing-surface 6; a metallic sheet or

foil thimble 15, capable of being twisted or crimped, formed in with the cap 4 and extending from the periphery of the cap or the bearing-surface 6, and a closure-nut 11 for the nipple 8. There is an interval or space 12 between the cushion and the cap, which is formed by the concavity, so that the impact of the contents of the bottle when shaken will be received by the cushion-disk opposite said space, and the latter will permit a vibratory action of the disk, and thereby prevent or avoid any action of the contents of the bottle on the cap or its foil by repeated shaking of the bottle. Repeated shaking or continuous use of a bottle having the cap or closure held to the bottle only by the foil may in time tend to loosen or break the foil if the contents of the bottle were permitted to make impact against the cap. Hence the disk is arranged to vibrate slightly and forms a cushion for such impact.

The modification shown in Fig. 4 is the same as the preferred form just described, except that the stem 13 has a bead 14, over which the disk is stretched to insure the latter against displacement.

The disk being placed within the thimble and upon the seat 6 and the bottle filled, the device is attached by simply pushing the foil-thimble over the head of the bottle until the disk is seated upon the mouth of the bottle. Then the foil is made to impinge the head, shoulder, and neck of the bottle by a hand-grasp of the foil to crimp the latter.

It is obvious that inasmuch as the foil and the cap are both in one piece there can be no vent for or escape of the contents of the bottle other than through the sprinkler when the nut is removed, that when the cap is attached the bottle is ready for the market or table use, that there are no separate parts to be furnished with the bottle or its cap, that the cap and bottle are intact, and that the refilling of the bottle by inferior or fraud sauce can be readily detected by observing the condition of the foil with respect to the cap—that is, the foil and the cap should not be separate and no stopper should hold the cap nor intervene between the cap and the foil, nor should the disk be visible; but the periphery of the cap should lie close to and flush with the outer periphery of the bottle-mouth, so as to allow the foil to hang smoothly over the head of the bottle.

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

1. A stopperless bottle-cap having a sprinkler-nipple formed thereon, and a foil formed

on the cap and adapted to be twisted or crimped about the neck of a bottle to fix the cap thereto.

2. A bottle-cap having an annular concavity formed therein, a disk covering the concavity, and a thin sheet or foil thimble formed on the cap.

3. A bottle-closure comprising a cap having a sprinkler-nipple, a concavity formed in the cap, a seat surrounding the concavity, and a disk applied to the seat over the concavity.

4. A bottle-closure comprising a cap having a sprinkler-nipple, a stem in communication with the nipple, a seat surrounding the stem, a flexible disk held by the stem on the seat, and a foil formed on the cap and projecting from the periphery of the seat.

5. A bottle-closure comprising a cap having a sprinkler-nipple, a stem of larger internal diameter than the internal diameter of the nipple formed on the cap, a concavity or groove surrounding the stem, a seat surrounding the concavity, a flexible disk fitting the stem and resting on the seat over the cavity, and a foil formed on the cap and projecting from the periphery of the seat.

6. A bottle-closure comprising a cap having a sprinkler-nipple, an inner stem the bore of which is of larger diameter than the bore of the nipple, a shoulder at the juncture of the stem and nipple to limit or restrict the discharge of the latter, a seat surrounding the stem, a disk held by the stem on the seat, and a foil formed on and depending from the cap to form a crimpable thimble.

7. A bottle-closure comprising a stiff metallic cap-plate having a sprinkler-nipple formed thereon, a seat in the face of the plate opposite the nipple, a stem on the seat-face of the cap forming a continuation of the nipple, and a thin sheet or metallic foil projecting from the cap for attaching the latter to a bottle.

8. A bottle-closure comprising a cap having a sprinkler-nipple, a stem in communication with the nipple, a bead on the stem, a flexible disk fitting the stem and held thereon by the bead, and a foil-thimble depending from the cap.

9. A bottle-cap having a sprinkler-nipple, a stem on the cap and forming a passage from the bottle to the nipple, a cork disk carried by the stem, and a flexible foil depending from the cap and adapted to be twisted or crimped about the bottle-neck to fix the cap.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD A. McILHENNY.

Witnesses:

H. J. DUPUY,
A. COUSIN, Jr.