W. B. LANGAN.

BOTTLE STOPPER.

APPLICATION FILED MAY 15, 1915.

1,178,650.

Patented Apr. 11, 1916.

Fig. 1.

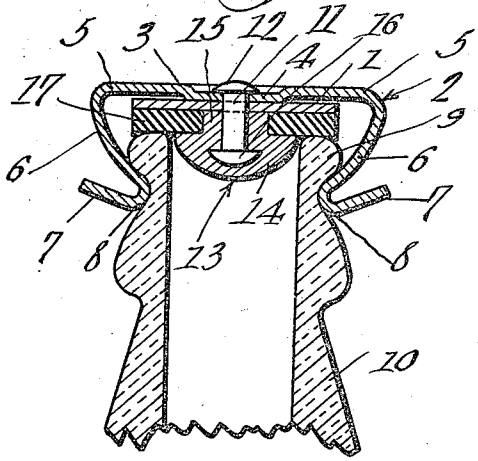
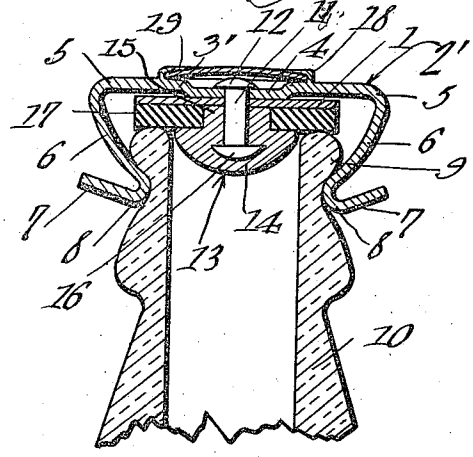


Fig. 3.



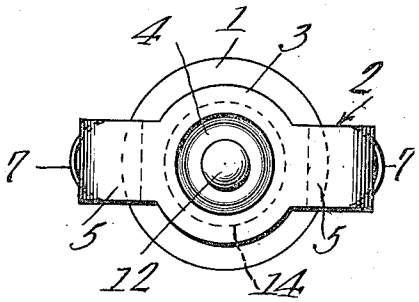


Fig. 2

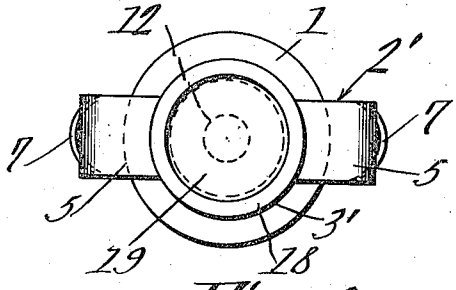


Fig. 4.

Witnesses

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BOTTLE-STOPPER.

1,178,650. Specification of Letters Patent. Patented Apr. 11, 1916.

Application filed May 15, 1915. Serial No. 28,423.

To all whom it may concern:

Be it known that I, WILLIAM B. LANGAN, a citizen of the United States, residing at Hawley, in the county of Wayne and State of Pennsylvania, have invented a new and useful Bottle-Stopper, of which the following is a specification.

The present invention appertains to bottle stoppers and is particularly an improvement over the bottle stopper disclosed in my Patent No. 1,057,066.

The object of the invention is the provision of a novel and improved bottle stopper adapted especially for application to "crown" bottles after the "crown" seals have been removed therefrom, in order that the present stopper may be employed for closing the crown bottle after it has once been opened, and to preserve the beverage or other contents of the bottle still remaining therein.

It is also the object of the invention, to provide a bottle stopper of such unique construction, whereby it may be repeatedly employed, whereby it may be readily applied to and detached from the bottles, and in order that it can be applied to crown bottles even though their beads or mouth portions vary slightly in proportions.

It is also within the scope of the invention, to improve the stopper generally in its construction and details, to enhance the utility thereof, the stopper being comparatively simple and inexpensive in construction and manufacture, and being convenient, practical and efficient in use.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is a sectional view of one form of the invention as applied to the neck of a crown bottle. Fig. 2 is a plan view of the said form of stopper. Fig. 3 is a view similar to Fig. 1 illustrating a modification. Fig. 4 is a view similar to Fig. 2 of the modification.

The present stopper embodies a metallic disk or cap plate 1, and a spring clasp or clip 2 extending over the same. The clasp 2 is constructed from a sheet metal plate having sufficient resiliency and rigidity for the purposes, and embodies a body portion 3 disposed concentrically over the disk 1, and provided with a depressed central boss 4 bearing upon the central portion of the disk 1. The clasp 2 also embodies tongues or arms 5 projecting radially from diametrically opposite portions of the body portion 3, and the arms or tongues 5 are bent downwardly and toward one another to provide the downwardly converging fingers 6, the arms 5 being bent downwardly at points spaced from the body portion 3 and the bending of the arms 5 causes the clasp to assume an arch-like form. The end portions of the arms 5 are bent back outwardly so as to project outwardly and upwardly, and to provide the inclined finger pieces or ears 7 and bends 8 between the fingers 6 and the pieces or ears 7 which bends 8 are engageable under the bead 9 of the neck 10 of the crown bottle.

The central portions of the clasp 2 and disk 1 are pivotally engaged to one another, and to this end, a rivet 11 is engaged through the central apertures provided in the disk 1 and clasp, the upper end of the rivet 11 having a head 12 seating upon the body portion 3 of the clasp within the depressed boss 3. The depressed boss bearing upon the disk 1, spaces the arms 5 above the disk 1, whereby the arms 5 may bend downwardly with respect to the disk 1, and which in connection with the inherent resiliency or flexibility of the arms 5, enable them to engage the beads of various crown bottles even though the beads be of slightly varied proportions.

A molded member 13 of lead or other soft metal or suitable material, embraces that portion of the rivet or securing element 11 which depends below the disk 1, so that the lower end portion of the rivet 11 is embedded within the member 13, for holding the rivet 11 and clasp 2 in position with respect to the disk 1. The member 13 embodies a rounded or approximately semi-spherical head 14 and a reduced neck 15 which abuts against and engages the disk 1. The rivet 11 is embedded within the neck 15 of the member 13 and the lower head 16 of the rivet is embedded within the head 14 of the member 13. The member 13 also

serves as a means for holding a soft rubber gasket 17 in place against the bottom of the disk 1, the gasket 17 being applied by stretching it over the head 14 of the member 13, in which event, the gasket 17 will contract and embrace the neck 15 of the member 13 between the head 14 and the disk 1. The gasket 17 and disk 1 are of larger diameter than the head 14, whereby the head 14 is adapted to enter the mouth of the bottle neck, so that the gasket 17 may seat upon the bead or upper end 9 of the neck, as depicted in Fig. 1.

In use, after the crown seal has been detached from the bottle, the present stopper may be employed for again closing the bottle, if the bottle is not completely emptied, and whereby the remaining contents of the bottle may be preserved.

To apply the present stopper to the bottle, the stopper is pressed downwardly over the upper end of the bottle neck which will cause the arms 5 to snap around and under the bead 9 of the bottle neck, as illustrated in Fig. 1, and which will slightly spring the arms 5, so that the tension thereof will pull the disk 1 and gasket 17 downwardly, to bring the gasket with air and liquid tight pressure against the bead or upper end 9 of the bottle neck.

The head 14 of the member 13 serves to guide the stopper into proper place on the bottle neck, and also serves to center the stopper. It is also to be noted that the boss 4 of the clasp 2 enables the disk 1 and clasp 2 to rotate freely relative to one another, and furthermore, the boss 4 in spacing the arms 5 above the disk 1, enables the arms 5 to spring downwardly, when necessary for engaging under certain forms of beads. The finger pieces or ears 7 enable the stopper to be readily detached from the bottle neck since the thumb or finger in being pressed against one of the finger pieces or ears 7 enables the corresponding arm 5 to be readily snapped out of engagement with the bead 7, and in which event, the stopper will be loosened from the bottle neck. Furthermore, the boss 4 of the clasp in bearing upon the central portion of the disk 1, will provide a uniform pressure upon the gasket 17 under all conditions when the stopper is applied to the bottle, since the pressure created by the tension of the clasp 2 will always be applied to the central portion of the disk 1 and as a consequence the pressure will be distributed uniformly to the gasket 17.

In the variation illustrated in Figs. 3 and 4, the general structure is the same as above described, and in addition, the modified form of stopper is provided with an advertising medium and means for covering the depressed boss 4 and head 12 of the rivet 11. Thus, the body portion 3′ of the clasp 2′ is provided with an upwardly projecting annular overhanging flange or lip 18 which receives the periphery or margin of the disk 19, whereby the disk 19 will cover the depressed boss 4 and rivet 11, and will also serve as an advertising medium, since a suitable trade mark or other data may be impressed in or imprinted upon, or otherwise provided upon the disk 19. The disk 19 being applied upon the clasp 2′ in the manner indicated, will provide a neat finish for the stopper, which will also be of service, for advertising purposes, it being noted that the flange or lip 18 may be bent upwardly to allow the disk 19 to be inserted or removed during the assemblage or separation of the parts, respectively.

Having thus described the invention, what is claimed as new is:—

1. A bottle stopper comprising a disk, a clasp bearing thereon having downwardly bent arms for engaging under the bead of a bottle neck, a securing element engaged through the clasp and disk, the clasp having an upwardly projecting annular overhanging flange, and a disk having its periphery engaged under the said flange, the last-mentioned disk covering the securing element.

2. A bottle stopper comprising a disk, a clasp having a depressed boss bearing upon the disk and having downwardly bent arms for engaging under the bead of a bottle neck, a rivet engaged through the disk and boss and having a head seated upon the clasp within the boss, the clasp having an annular upwardly projecting overhanging flange, and a disk having its periphery engaged under the said flange, the last-mentioned disk covering the said boss and rivet.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM B. LANGAN.

Witnesses:

CHAS. J. MCHALE,

WM. THOS. SOTHWICK.