



# UNITED STATES PATENT OFFICE.

THOMAS J. GOODWIN, OF DALLAS, TEXAS.

## BOTTLE-CAP.

1,087,758.

Specification of Letters Patent.

Patented Feb. 17, 1914.

Application filed May 23, 1913. Serial No. 770,512.

*To all whom it may concern:*

Be it known that I, THOMAS J. GOODWIN, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Bottle-Caps; 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 caps and has for its primary object the provision of a bottle cap which may be readily applied to a bottle and in the use of which foreign matter is excluded from the interior of the bottle and the contents of the bottle strained as it flows from the mouth thereof.

A further object of the invention resides in the provision of a bottle cap including a cylindrical body adapted to be automatically closed when the bottle is in its upright position and containing a removable strainer.

With these and other objects in view, as will become more apparent as the description proceeds, the invention consists in certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which,

Figure 1 is a vertical sectional view through my improved cap and a bottle neck, Fig. 2 is a view taken on the plane of line 2-2 of Fig. 1, Fig. 3 is a bottom plan view of the cap, Fig. 4 is a detail view of the removable strainer, and Fig. 5 is an enlarged detail sectional view illustrating the manner in which the strainer is removably secured in position.

In the preferred embodiment of my invention, I provide a cylindrical body 6 open at both ends and threaded adjacent its inner end, as indicated at 7, for removable engagement with a correspondingly threaded bottle neck 8. It is to be understood that this is the preferred method of securing the body to a bottle neck but that any other suitable means may be employed. A bar or strip 9 extends transversely across the interior of the body and is rigidly secured to the sides thereof. The strip lies in a horizontal plane when the bottle is in an up-

right position, is enlarged centrally of its ends, as indicated at 10, and is formed with a central opening in which is secured a vertical guide tube 11. The tube projects some distance above and below the strip 9 and is externally threaded adjacent its upper end, as indicated by the numeral 12. A screen or strainer illustrated in Fig. 4, and comprising an outer ring 13, and an inner ring 14, connected by woven wire fabric 15, is adapted to be removably secured within the body 6. The upper end of the guide tube 11 extends through the ring 14 of the screen and a nut 16 is threaded upon said guide tube and holds the screen against the bar or strip 9.

A rod or stem 17 slides through the guide tube 11, has a knob 18 threaded upon its inner end, and carries upon its outer end a closing disk 19 which latter is adapted to engage the outer edge of the body. When the bottle is inverted the closing disk will move outwardly from engagement with the body, as indicated by the dotted lines in Fig. 1, and permit the contents of the bottle to discharge. When the bottle is returned to its upright position the disk will automatically drop into engagement with the body and close the outer end thereof.

It will be seen that a bottle cap of the above described type will effectually prevent insects and foreign matter, etc., entering the bottle and will also serve to strain the contents of the bottle as it is discharged. Often it is desirable to allow the liquid contents of the bottle to flow through the mouth thereof and retain solid particles within the bottle and my cap is especially useful at such times.

When it is desired to remove the screen in order to clean the same or replace it by another of different mesh, the body 6 is detached from the bottle, the knob 18 detached from the stem, the stem 17 removed from the guide tube 11, and the nut 16 threaded from the end of the guide tube. The screen may now be easily removed and replaced.

From the foregoing description taken in connection with the accompanying drawings, it will be apparent that I have provided a very simple, efficient, and useful bottle cap, which may be easily attached to the neck of a bottle, which may be easily taken apart to facilitate cleaning, and which is provided with a removable screen to effectually protect the contents of the bottle

from contamination and retain solid particles within a bottle.

It is to be understood that while I have shown and described the preferred embodiment of my invention, I do not wish to be limited to this exact construction, combination, and arrangement of parts, but may make such changes as will fall within the spirit and scope of the invention.

10 Having thus described my invention, what I claim is:—

A device of the character described, comprising a cylindrical body open at its end and adapted to be secured to the neck of a bottle, a strip extending transversely of the body and rigidly secured therein, a tubular guide member extending longitudinally of

the body and secured within a centrally positioned opening formed in said strip, a circular screen having a centrally positioned opening through which the upper end of the guide member projects, a nut threaded upon the guide member for holding the screen against said strip, the screen being removable from the body when the nut is disengaged from the tubular member, and a closure having a stem slidable through the guide.

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

THOMAS J. GOODWIN.

Witnesses:

WILLIAM REES,  
T. S. NEVETT.

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