Nov. 2, 1937. S. W. BURNHAM 2,097,912

BOTTLE NECK CONSTRUCTION

Filed June 8, 1934

Fig. 1.

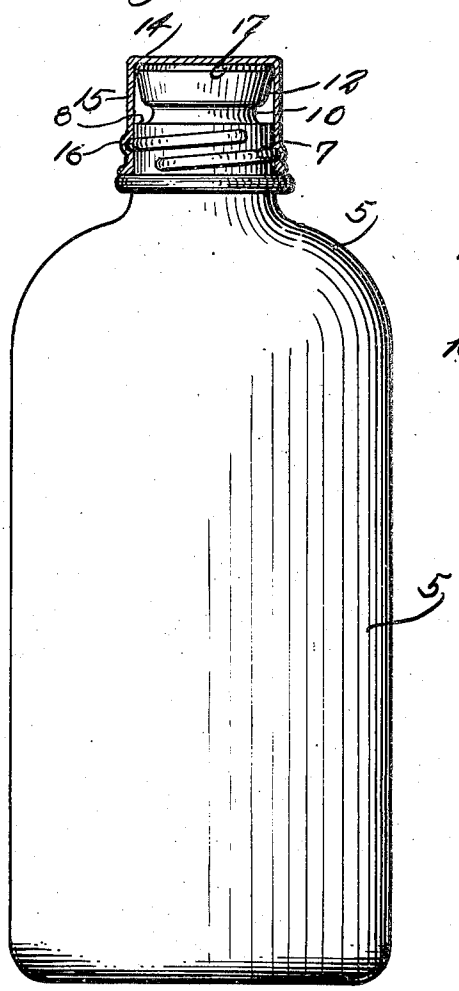


Fig. 3

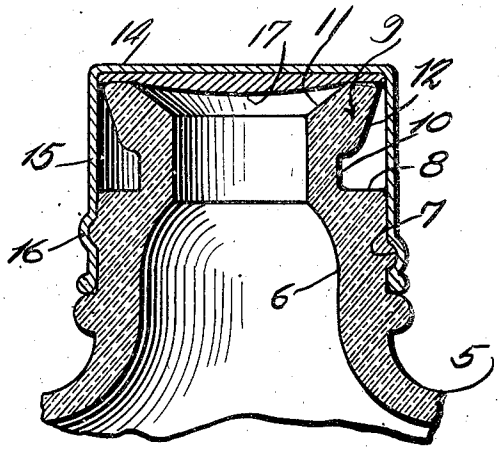


Fig. 4.

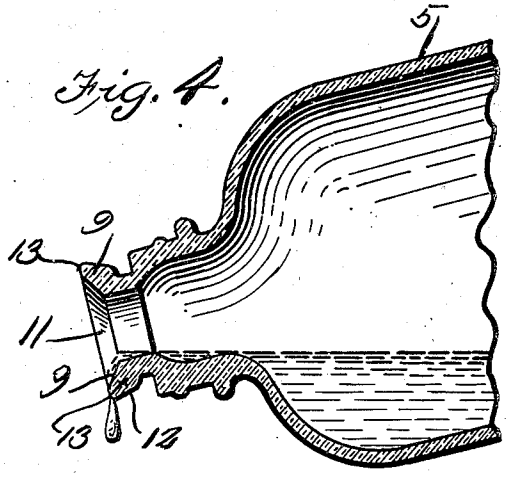
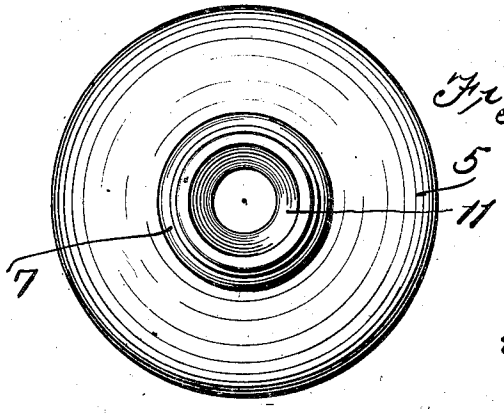


Fig. 2.



Inventor

Stanley Ward Burnham

By Charles A Dakin

Attorney

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BOTTLE NECK CONSTRUCTION

Stanley Ward Burnham, Elizabeth, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

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2 Claims. (Cl. 215—31)

This invention relates to certain new and useful improvements in bottle neck constructions.

The primary object of the invention is to provide improvements in connection with bottle neck constructions wherein the pouring lip thereof is designed for the dropping of fluid from a bottle and to eliminate the flowing of the fluid around the pouring mouth or lip and over the exterior of the bottle neck, the inner face of the pouring lip being inclined outwardly toward the pouring edge for the reduction of aqueous tension before the liquid reaches the discharge edge of the pouring lip.

A further object of the invention is to provide a bottle neck construction of the foregoing character wherein the neck is provided with an externally threaded base portion of a diameter at least as great as or greater than the diameter of the pouring lip to facilitate the attachment of a cover-all screw cap that freely passes over the pouring lip for engagement with the neck threads, the cap containing a gasket for sealing contact with the pouring lip.

With the above and other objects in view that will become apparent as the nature of the invention is better understood, the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing:—

Figure 1 is a side elevational view of a bottle with the improved neck constructed in accordance with the present invention with the cover-all cap shown in section in threaded engagement with the base of the neck and spaced from the pouring lip;

Figure 2 is a top plan view of the bottle with the cap or closure removed;

Figure 3 is an enlarged fragmentary longitudinal sectional view of the bottle neck showing the threaded annular base portion of the neck having a diameter slightly larger than the diameter of the pouring neck with cover-all cap in threaded engagement with the threaded portion of the neck; and

Figure 4 is a fragmentary sectional view of the bottle in tilted or pouring position and illustrating the flowing of the liquid contents of the bottle by drops with a drop escaping the pouring lip and out of contact with the exterior or annular surface of the pouring lip.

Referring more in detail to the accompanying drawing, the reference character 5 designates the bottle of any preferred design and said bottle is provided with a reduced neck 6. The base of the neck 6 is exteriorly threaded as at 7 and the bottle neck 6 at the outer end of the threaded base 7 is provided with an angle shoulder 8.

A pouring lip 9 is formed at the upper terminal end of the neck 6 and is connected to the threaded base 7 at the angle shoulder 8 by means of the reduced neck portion 10. The upper surface of the pouring lip 9 is inclined upwardly and outwardly as at 11 and the outer annular surface of the pouring lip 9 inclines inwardly and downwardly as at 12. It will be observed that the diameter of the outer annular edge 13 of the pouring lip 9 is slightly less than the diameter of the threaded base portion 7 of the neck 6, this combination and arrangement of elements facilitating the placement of the cover-all screw cap upon the bottle neck 6.

The cap 14 has an annular skirt 15 that is threaded adjacent its free edge as at 16 for threaded engagement with the threaded base 7 of the bottle neck. The sealing gasket 17 is interposed between the pouring lip 9 and cap 14.

It will be observed that the cover-all cap 14 freely passes over the pouring edge 13 of the pouring lip 9 to present the threaded open end 16 thereof for engagement with the threaded base 7 of the neck 6. While the edge 13 of the pouring lip 9 is illustrated in Figure 3 as being slightly spaced from the annular skirt 15 of the cover-all cap 14 and of a diameter slightly less than the threaded base 7 of the neck, it is to be understood that the diameters of the pouring edge and threaded base may be substantially equal and the same results accomplished.

The feeding of the liquid contents from the bottle by drops is illustrated in Figure 4, the inner and upper inclined surface 11 of the pouring lip 9 relieveing aqueous tension and permitting a smooth and even flow of the liquid contents while the outer inclined surface 12 or prescription finish of the pouring lip prevents the flow of the liquid contents over the outer surface of the bottle neck and cooperates with the inner and upper inclined surface 11 in producing well formed drops that leave the pouring lip from the edge 13 thereof. An important feature of this invention is the combination of the pouring lip 9 and the threaded base 7 of the bottle neck and especially their particular relation which permits the placement of the cover-all cap upon the bottle neck with a secure threaded connection between the cap and bottle neck that is spaced from the pouring lip.

From the above detailed description of the invention, it is believed that the construction and

use thereof will at once be apparent and while there is herein shown and described the preferred embodiment of the invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

I claim:—

1. A bottle-neck construction having a pouring lip co-extensive with the entire circumference of the bottle neck formed by an upwardly and outwardly inclined inner face and a downwardly and inwardly inclined outer face, and a well defined horizontally-spaced pouring ledge between the upper ends of said faces and forming an acute angular dropping edge with said outer face.

2. A bottle-neck construction having a pouring lip co-extensive with the entire circumference of the bottle neck, and formed by an upwardly and outwardly inclined inner face and a downwardly and inwardly inclined outer face, and a well defined horizontally-spaced pouring ledge between the upper ends of said faces and forming an acute angular dropping edge with said outer face; and having, in combination, a threaded base on the neck, a threaded cover-all cap having its closed end engaged with the horizontally spaced pouring ledge substantially throughout its entire area, and threaded at its open end for engagement with the threaded base of the neck, the said pouring lip being of a diameter not greater than the diameter of the threaded base, and the inner side walls of the cap being free from contact with the downwardly and inwardly inclined portions of the outer face of the bottle neck.

STANLEY WARD BURNHAM.