Sept. 5, 1933. H. R. VAN KIRK 1,925,885

COMBINED BOTTLE CAP AND APPLICATOR

Filed Dec. 20, 1930

Fig. 4.

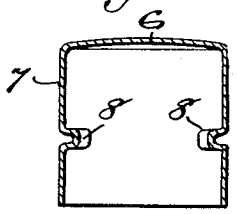



Fig. 1.

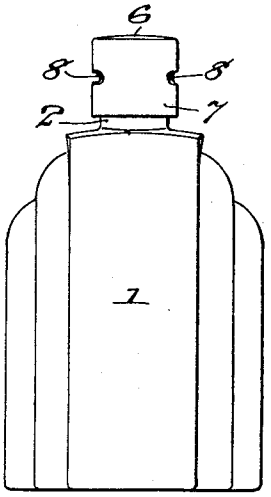



Fig. 5.

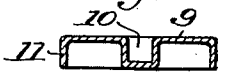



Fig. 6.


Fig. 7

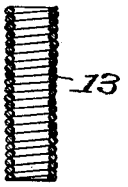



Fig. 3.

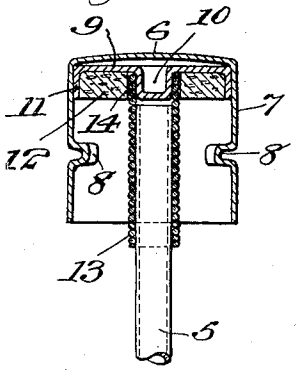



Fig. 2.

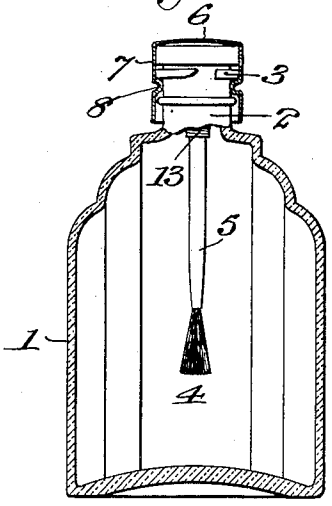
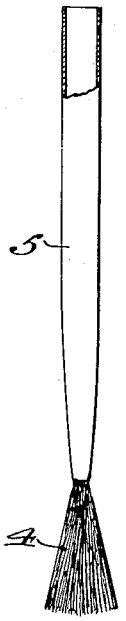



Fig. 8.




INVENTOR

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ATTORNEYS

Patented Sept. 5, 1933 1,925,885

# UNITED STATES PATENT OFFICE

1,925,885

## COMBINED BOTTLE CAP AND APPLICATOR

Howard R. Van Kirk, Larchmont, N. Y., assignor, by mesne assignments, to Marinello Company, New York, N. Y., a corporation of New York

Application December 20, 1930
Serial No. 503,798

3 Claims. (Cl. 91—67.2)

My invention is directed to improvements in the construction, form and arrangement of the several parts of a combined bottle cap and applicator whereby the parts may be readily assembled and secured together by frictional engagement with one another thus eliminating the use of glue or other adhesive for this purpose.

My invention also contemplates a device in which applicator shanks of varying sizes may be readily utilized and in which the liability of the contents of the bottle to which the device is applied, coming in contact with the user, is eliminated.

A practical embodiment of my invention is represented in the accompanying drawing in which:

Fig. 1 represents in side elevation a bottle with my combined cap and applicator in position thereon;

Fig. 2 represents a partial longitudinal vertical central section through the same;

Fig. 3 represents on an enlarged scale in vertical central section the assembly of the several parts;

Fig. 4 represents a vertical central section through the outer cap member;

Fig. 5 represents a similar view through the inner cap member;

Fig. 6 represents a similar view through the sealing element;

Fig. 7 represents a similar view of the coil spring which is frictionally secured to the inner cap member and within which the shank of the applicator is frictionally secured; and

Fig. 8 represents a side view of one form of applicator in which a brush is used.

The bottle herein represented is denoted by 1 and its neck by 2, the exterior of which neck is provided with suitably mutilated beads 3 for the removable attachment of my combined cap and applicator.

The applicator which is represented herein is shown as having a brush end 4 and a hollow shank 5 which is usually composed of a quill.

The outer cap member which is of sheet material, preferably sheet metal, comprises a domed top 6 having a depending skirt 7 distorted to form interior lugs 8 arranged to coact with the mutilated beads 3 on the neck of the bottle for securing my device thereto.

The inner cap member of my device is composed of sheet material, preferably sheet metal, and it is distorted to form a top 9, a central hollow depending lug 10 and a depending peripheral flange 11. This inner cap member is adapted to be forced into the outer cap member to a position at the domed top of the same before the outer cap member is distorted to form the interior lugs 8, the depending flange 11 of the inner cap member serving to frictionally engage the inner walls of the skirt 7 of the outer member to hold the inner cap member in position. An annular sealing element 12 of cork or other suitable material is forced into the inner cap member with the outer periphery of the sealing element in snug engagement with the depending flange 11 of the inner cap member so that the sealing element is frictionally held in position within the inner cap member. A closely coiled spring 13 is frictionally secured to the inner cap by forcing the upper end of the spring over the hollow depending lug 10 of the inner cap member, the bore 14 of the sealing element 12 being sufficiently large to permit the entrance of the upper end of the spring therein.

The hollow shank 5 of the applicator is frictionally secured to the spring 13 by forcing the upper end of the shank into the bore of the spring to a point in close proximity to the central depending lug 10 of the inner cap member.

As this shank is commonly composed of a quill it will be seen that shanks of varying diameters may be forced into the bore of the spring and held thereby.

While I have described my combined cap and applicator as applied to a bottle it is, of course, to be understood that it may be applied to vessels of any character.

From the above description it will be seen that I have provided a combined cap and applicator in which the parts are assembled and secured together by friction, thereby eliminating the use of an adhesive for this purpose. It will also be seen that applicator shanks of varying diameters can be utilized. It will furthermore be seen that the parts are so arranged that the liability of the liquid within the vessel to which the device is applied coming into contact with the person using the applicator, is eliminated.

It is evident that various changes may be resorted to in the construction, form and arrangement of the several parts without departing from the spirit and scope of my invention, and hence I do not intend to be limited to the particular embodiment herein shown and described, but

What I claim is:—

1. In a combined bottle cap and applicator, an outer cap member for removable attachment to the bottle, an inner cap member forced into the outer cap member and inseparable therefrom and

having a central depending lug, a coil spring having its upper end forced over said lug, and an applicator having its shank forced into the bore of the coil spring below said lug.

2. In a combined bottle cap and applicator, an outer cap member adapted for removable attachment to the bottle, an inner cap member forced into the outer cap member and inseparable therefrom and having a central depending lug and a peripheral depending flange, a coil spring having its upper end forced over said lug, an applicator having its shank forced into the bore of the coil spring below said lug, and an annular seal forced into the inner cap member between said depending flange and upper end of the coil spring.

3. In a combined bottle cap and applicator, an outer cap member of sheet material distorted to form means for removable attachment to the neck of a bottle, an inner cap member of sheet material forced into the outer cap member and inseparable therefrom and distorted to form a central depending hollow lug and a peripheral depending flange, a closely coiled spring having its upper end forced over said hollow depending lug, an applicator having its shank forced into the bore of the coil spring below said lug, and an annular seal forced into the inner cap member between said depending flange and upper end of the coil spring.

HOWARD R. VAN KIRK.

# CERTIFICATE OF CORRECTION.

Patent No. 1,925,885. September 5, 1933.

HOWARD R. Van KIRK.

It is hereby certified that the name of the assignee by mesne assignments in the above numbered patent was erroneously described and specified as "Marinello Company" whereas said name should have been described and specified as Marinello Corporation, as shown by the records of assignments in this office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 5th day of December, A. D. 1933.

F. M. Hopkins
Acting Commissioner of Patents.

(Seal)