

March 19, 1929.

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1,706,249

BOTTLE STOPPER AND APPLICATOR

Filed June 15, 1928

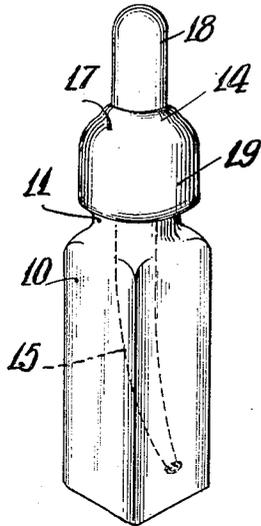


FIG. 1.

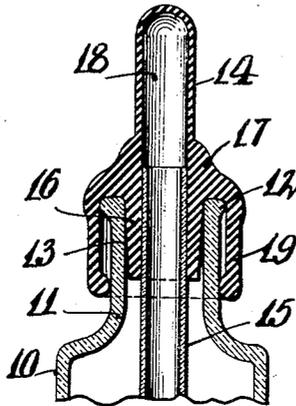


FIG. 2.

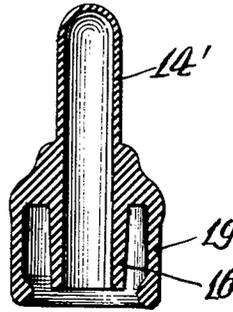


FIG. 3.

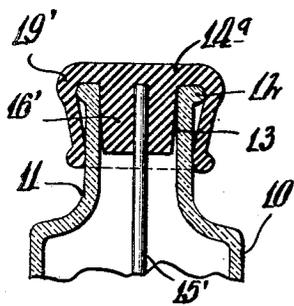


FIG. 4.

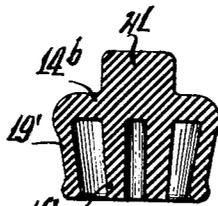


FIG. 5.

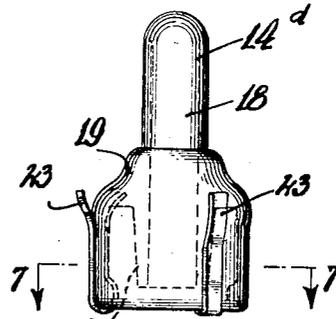


FIG. 6.

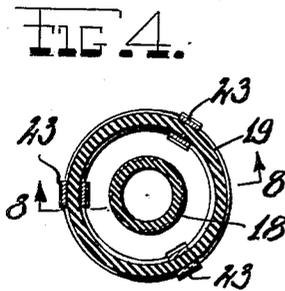


FIG. 7.

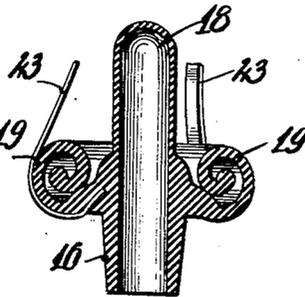


FIG. 8.

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BOTTLE STOPPER AND APPLICATOR.

Application filed June 15, 1928. Serial No. 285,545.

This invention relates generally to bottles, and has more particular reference to a novel stopper or applicator therefor.

The invention has for an object the provision of a device of the class mentioned, which is of simple durable construction, desirable and efficient in action and which can be manufactured and sold at a reasonable cost.

The invention proposes the use of an outer flange integral with or permanently secured to an inner stopper, both flange and stopper being made out of rubber or a composition possessing elastic qualities. The device is a combination of an inner stopper and an outer stopper as a double protection to the contents of the bottle, and the inner stopper may be arranged for accommodating various attachments such as droppers, drip rods, or the like. An important feature of the instant organization is that it serves to prevent glass droppers or other applicators engaged in the inner stopper from being broken chipped or loosened by preventing wobbling as would be the case were the integral flange eliminated.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing, forming a material part of this disclosure:

Fig. 1 is a perspective view of a bottle and stopper therein constructed according to this invention.

Fig. 2 is an enlarged fragmentary vertical sectional view thereof.

Fig. 3 is a central vertical sectional view of a stopper similar to the one shown in Fig. 2, but of modified form.

Fig. 4 is a view similar to Fig. 2, but illustrating a modified form of the device.

Fig. 5 is a view similar to Fig. 3, but illustrating a modified form of the device.

Fig. 6 is a side elevational view of a stopper per se constructed according to a modified form of this invention.

Fig. 7 is a horizontal sectional view, taken on the line 7—7 of Fig. 6.

Fig. 8 is a vertical sectional view, taken on the line 8—8 of Fig. 7, but with the outer flange rolled-up.

The reference numeral 10 indicates generally a bottle of any design or construction,

and form with a neck 11 having a beaded upper end 12, and a mouth opening 13. A stopper 14 is shown engaged in the mouth 13 and on the neck 11, and is arranged with a dropper 15.

More specifically stated, the stopper 14 consists of an inner stopper portion 16 adapted for engaging in the mouth 13, and formed with a central opening into which the top end of the dropper 15 is forced in. Integral with the portion 16 is a massive central portion 17 and integral therewith an end bulb 18, said central portion 17 being hollow so that the bulb 14 communicates with the opening in the stopper and consequently with the dropper 15. It is pointed out that should the bulb 18 be unknowingly bent and quickly released, the massive central portion 17 will absorb vibrations set up by this act, so that they are not transmitted to the dropper 15 and cause the dropper to strike the inside of the bottle 10 and break. Integral with the central portion 17 is an outer flange 19 arranged for engaging over the neck 11.

The stopper 16 and outer flange 19 act as a double stopper to check evaporation of the contents of the receptacle. Also the outer flange 19 tends to draw down upon all sides of the central portion 17 so as to help steady and absorb possible vibrations from the bulb 18 from reaching and vibrating the dropper 15.

The modification of the invention illustrated in Fig. 3, illustrate a stopper 14' comprising only the bulb 18, the inner stopper 16 and the outer flange 19 which is integral with the bulb and stopper. This stopper also acts as a double stopper to check evaporation of the contents of the receptacle, and the flange 19 is depended upon to check vibrations from the bulb from reaching a dropper inserted in the central opening of the device.

In Fig. 4 a stopper 14^a has been shown, consisting of an inner stopper 16' and an integral outer flange 19'. The stopper is shown applied on the bottle 10, and a glass drip rod, or applicator 15' is connected with the inner stopper. In Fig. 5 the stopper 14^b is shown the same as stopper 14^a, but has an additional top projection 21.

In Figs. 6, 7 and 8 a modified form of stopper 14^a has been illustrated, in which several straps 23 have one of their ends attached to the inner stopper 16 directly at the junction between the inner stopper 16 and the outer

flange 19 and these straps extend downwards along the inside of the flange 19 and then upwards along the outside of the same flange. In removing this stopper from a receptacle, 5 the straps 23 are first drawn upwards for rolling the flange up as shown in Fig. 9, then the inner stopper 16 is withdrawn. In replacing the stopper on a receptacle the inner stopper 16 is first placed in the mouth of the re- 10 ceptacle, and then the outer flange 19 turned down over the neck of the receptacle.

While I have shown and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to 15 the precise construction herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention what 20 I claim as new and desire to secure by United States Letters Patent is:

1. In a bottle stopper and applicator, an inner stopper portion with a central opening for receiving an applicator, an outer flexible

flange for engaging over the neck of a bottle 25 and adapted to be rolled upwards into a roll, and integral with the said inner stopper, and straps attached at one of their ends on the points of joining of the said flange and the inner stopper, and extending downwards 30 along the inside of the said flange and then upwards along the outer side of the same said flange.

2. In a device of the class described, an inner stopper portion for engaging in the neck 35 of a bottle, an outer flexible flange for engaging over the neck of the bottle and adapted to be rolled upwards into a roll, and integral with the said inner stopper, and straps at- 40 tached at one of their ends on the points of joining of the said flange and the inner stopper, and extending downwards along the inside of the said flange and then upwards along the outer side of the same said flange.

In testimony whereof I have affixed my 45 signature.

HARRY D. NAUM.