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EYE DROPPER

Filed June 20, 1930

Fig. 1.

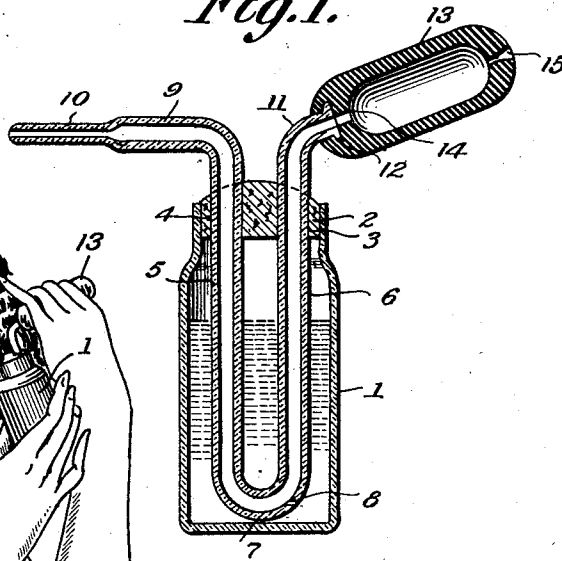
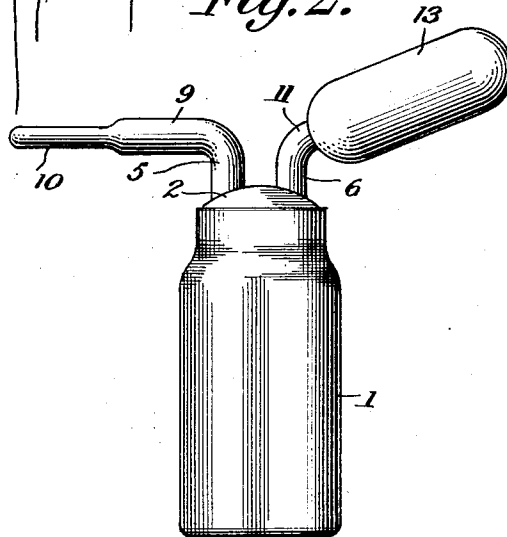


Fig. 3.



Fig. 2.



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EYE DROPPER

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This invention relates to a novel eye dropper, or in other words, a device whereby an eye lotion may be dropped in the eye, and has as its primary object to provide a device for this purpose which may be employed by the one requiring treatment, without difficulty and without likelihood of introducing into the eye too great a quantity of the lotion. It is a well known fact that most people find difficulty in properly supplying lotion to their eyes by the use of an ordinary medicine dropper embodying merely a glass tube having a reduced nozzle end, and a rubber bulb at the other end of the tube, and therefore the present invention contemplates the provision of a device so constructed that the pressure exerted upon the rubber bulb, constituting a part of the device, will effect the delivery from the nozzle of the device of a few drops of the lotion which is contained in a bottle constituting a part of the device, thus enabling the user to employ the device by standing in front of a mirror.

Another object of the invention is to provide an eye dropper by the use of which eye lotion or solution may be supplied to the outer corner of the eye and thereby flow across the eye ball to the inner corners of the eye, where the lachrymal ducts are located, and which ducts drain the eyes, so that the invention contemplates a device by which an eye lotion may be more properly applied and in a manner to obtain the best results, than by the use of the ordinary dropper.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings, and specifically pointed out in the appended claim, it being understood of course that minor changes may be made so long as they fall within the scope of the claim.

In describing my invention in detail, reference will be had to the accompanying drawings, wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a vertical sectional view

through the dropper embodying the invention.

Figure 2 is a view in side elevation of the dropper.

Figure 3 is a perspective view illustrating the manner in which one may use the dropper.

In the drawings the numeral 1 indicates a bottle, preferably of the wide mouth type into the mouth of which is fitted a cork 2 having two openings 3 and 4 formed therein and in these openings there are fitted the branches 5 and 6 of a U-shaped glass tube, the bend of which is indicated by the numeral 7. The bend 7 is formed with a small opening 8 and it is through this opening that the lotion or the like contained in the bottle, may flow into the tube until the level of the lotion is the same as that in the bottle.

The branch 5 of the tube is formed with a laterally directed extension 9 which is reduced in diameter at its outer end as indicated by the numeral 10, the bore of the tube being likewise reduced throughout the length of this portion 10 so that the lotion delivered from the small nozzle, which is in this manner provided, will issue therefrom in drops, thereby enabling the user to determine the precise amount of the lotion to be discharged by the use of the device.

The branch 6 of the glass tube is formed with an upward and lateral extension 11 which is slightly exteriorly enlarged at its end as at 12, and a soft rubber bulb 13 is fitted at one end to this extension and is provided at said end with a bore 14 in communication with the corresponding end of the bore of the tube.

A vent opening 15 is formed in the outer end of the bulb 13 and preferably flared, and the wall of the bulb, at this end, is somewhat thicker than at the body portion of the bulb so that, when pressure is exerted upon the bulb, the opening 15 will be closed, so as to trap within the bulb, the air therein.

When pressure is applied to the walls of the bulb 13 the initial pressure closes the opening 15 and the air which is trapped within the bulb 13 is forced by the final pressure into the tube 6. The liquid which has passed

into the lower portion of the tube 6 through the opening 8 is forced by the air pressure through the tube and the outlet nozzle end. The liquid will follow this course for the reason that it is along the line of least resistance and the liquid will not flow back through the opening 8 into the bottle 1 for the reason that the bottle is closed at its mouth by the cork and the internal pressure is sufficient to prevent the liquid from passing from the tube through the opening 8 into the bottle.

What I claim is:—

A liquid dropper comprising a bottle, a closure for the mouth of the bottle, a U-shaped tube having its branches passing transversely through the closure, the tube being provided in the vicinity of its intermediate bend with an opening adapted to be submerged below the level of the liquid in the bottle when the closure is applied to the mouth of the bottle, the branches of the tube having substantially oppositely disposed end portions one of which is provided with a nozzle extremity and a bulb applied to the other end of the tube and having an air inlet opening located approximately in alignment with the last mentioned end of the tube.

In testimony whereof I affix my signature.

DONALD G. STRAUSS.

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