J. F. POMPHREY.

ENVELOP MOISTENER.

APPLICATION FILED MAY 17, 1909.

945,982. Patented Jan. 11, 1910.

Fig. 1

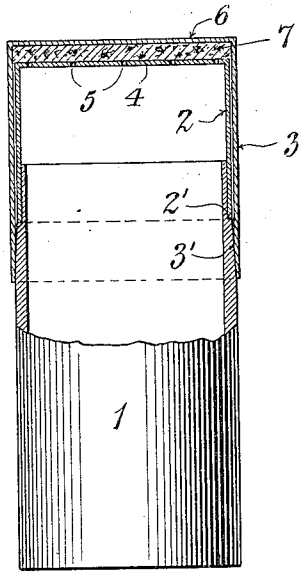


Fig. 2

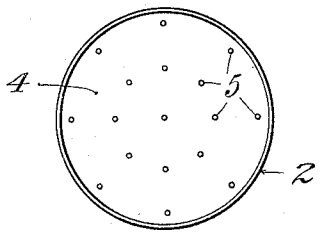
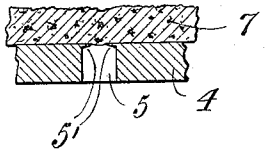


Fig. 3



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ENVELOP-MOISTENER.

945,982. Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed May 17, 1909. Serial No. 496,836.

To all whom it may concern:

Be it known that I, JOHN F. POMPHREY, a citizen of the United States, and resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Envelop-Moisteners, of which the following is a specification.

This invention relates to moistening devices and particularly to that type commonly termed envelop moisteners.

The object of the invention is the provision of a compact and effective, portable device which, upon contact with glutinous surfaces, is adapted to automatically supply in a uniform manner the exact amount of liquid which is required to properly moisten the same.

Heretofore the devices usually employed for moistening envelops and the like have consisted of an ordinary sponge, a rubber cylindrical roll in permanent contact with liquid in a vessel on which said roll was mounted and other devices adapted to deliver variable amounts of liquid to the glutinous surfaces treated.

This invention is based upon the principle of capillary action and surface tension, the same being accomplished in the following manner, reference being had to the accompanying drawings forming a part of the specification in which,

Figure 1 is a vertical sectional view, partially in elevation, of the preferred envelop moistener embodying the improvements hereinafter claimed. Fig. 2 is a plan view, from above of the moistener with the closure-cap removed and Fig. 3 is an enlarged detail sectional view of a fragment of the top 2 and the seal 7 showing the construction of the wall 5′ of the orifices 5.

Referring to the construction shown in the drawings, the reference numeral 1 designates a container of cylindrical configuration of slightly reduced diameter at its open end. A removable end-piece which is adapted to lie flush with said container and snugly fit the reduced ouen-end 2′ of said container, abuts the shoulder 2′ when in position thereon. A closure-cap 3 of sufficiently greater diameter than said end-piece to envelop the same wthout actual contact with their respective side-walls, is adapted to frictionally engage the walls of said container at the area of greatest diameter 3, the lips of said cap being sufficiently thin to render the same relatively elastic and thereby permit of more secure engagement with the walls of the container.

The end 4 of the removable end-piece 2 is provided with perforations, preferably termed pores, 5, which are drilled transversely through the same. These pores are sufficiently small to admit of appreciable capillary action, being bored with a drill, preferably said drill is of 42 gage. In order to interrupt the flow of water, or other moistening liquid, once the same is induced by the intimate application of the outer surface of the end-piece 4 to a glutinous surface, the cross-sectional area of the outer-end of said pores is reduced by any suitable means until it is of but slightly greater than the cross-sectional area of an ordinary brass pin-point, as can be readily determined by causing a pin-point to frictionally engage the outer surface of said end-piece, when, upon passing over the area occupied by said pores the pin-point will enter the same to the slightest possible extent, yet sufficiently to interrupt its free passage along said surface. When the container is constructed of metal, such for example as sterling silver, as is preferably the case, this reduction in the cross-sectional area is accomplished by the well known polishing operations. This polishing produces a bur or circular lip 5′ as indicated in Fig. 3, which so reduces the cross-sectional area that there is no tendency for the liquid to voluntarily flow out of said receptacle when in an inverted condition, except as the same is induced by contact with an independent surface and particularly a glutinous surface which has a peculiar affinity for water and will cause the superficial distribution of water to a much greater extent than is the case when the moistener is applied to an ungummed or plain paper surface.

Since the contact of an independent surface with the outer surface of the end-piece 4 immediately induces the flow of water or other moistening liquid through the pores 5, it is essential if the device is to be a portable one that suitable sealing means be supplied. To this end the closure cap 3 is provided with a cork-insert or cork inner-seal 7, suitably cemented on the inner face of the end 6 of said cap and this serves to effectually close the pores 5, as indicated in Fig. 3, when said closure-cap is applied to the container with sufficient pressure to force the portions of the cork into said pores 5 or at

least in sufficiently close proximity to the mouth of said pores to prevent the escape of water or other moistening liquid therethrough.

Without departing from the spirit of the invention as claimed various modifications including among others the change in configuration of the container to polygonal such as an octagonal container to prevent rolling thereof, may be made and all such minor changes are within the scope of the appended claims.

It is evident that upon the application of the perforate surface of the cap to a glutinous surface that the liquid confined in the pores thereof and which is normally incapable of flowing freely therethrough, owing to the affinity of said liquid for the walls of said perforations or pores, will be induced to flow through said pores onto the glutinous surface and that then the frictional engagement of the said rigid surface with the glutinous surface will effect the simultaneous displacement of a portion of the liquid along said glutinous surface with respect to its point of application thereto.

Having thus described my invention I claim:

1. In an envelop moistener, a liquid container provided with a plurality of openings extending through one of the walls thereof, the cross-sectional area of the mouth of an opening being substantially less than the mean diameter of the bore of an opening and of sufficiently small diameter to prevent the self-induced passage of moistening-liquid through an opening while admitting of the continuous, induced passage of moistening-liquid therethrough in response to the affinity possessed by an independent glutinous surface permitted to contact with moistening-liquid normally retained in said opening.

2. In an envelop moistener, a liquid container having a reduced open-end, a removable cap adapted to slidably engage the said reduced end and to lie flush with the walls of said container, said cap being provided with a plurality of openings extending transversely therethrough, the cross-sectional area of the mouth of said openings being substantially less than the mean diameter of the bore of said openings and an auxiliary cap containing an elastic sealing medium, adapted to confine said sealing medium intermediate the inner face of the end of said auxiliary cap and the said perforate cap and thereby seal the latter against the escape of liquid therethrough.

Signed at New York in the county of New York and State of New York this 12th day of May A. D. 1909.

JOHN F. POMPHREY

Witnesses:
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