

# UNITED STATES PATENT OFFICE

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## EVAPORATION APPARATUS

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1 Claim. (Cl. 299—24)

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This invention relates to a wick-holder and more particularly involves a wick-holder for an evaporating apparatus to be used for deodorizing purposes.

Known evaporating devices utilizing a wick appear to depend on the use of a wire wick-holder which in the operable position is withdrawn with the wick from the container and is held in the withdrawn position by frictional engagement of the wire arms of the wick-holder with the inner portion of the container. There are certain disadvantages in devices of this nature, the most obvious being in the fact that weight of the wick and the absorbed fluid tends to cause the wick and wick-holder to fall back into the container. This is especially true after a relatively long period of use since the wire can be easily bent just sufficiently to lose its frictional grip within the neck of the container. Another, and more serious, disadvantage lies in the difficulty of manufacture and assembly of the frictional engagement devices. It has been found that unless the wire legs squarely abut each other and crossing of the legs is avoided, frictional engagement of the unit within the neck of the container cannot be maintained.

The present invention is an improvement in wick-holders for its main object the positive positioning of the wick and holder so that they cannot slide back into the container.

Another object is to provide a wick support which can be easily removed from the container, mounted thereon for use, and returned to the container at will.

Other objects and features of the invention will become apparent from the following description.

In describing the invention in detail, reference will be made to the accompanying drawing in which certain embodiments of the invention have been illustrated.

In the drawings,

Fig. 1 is a sectional elevation of the deodorizer container with the wick and wick-holder within the container when not in use;

Fig. 2 is an elevational view of the deodorizer container with the wick and wick-holder shown in use, the wick-holder resting on the neck of the container and the wick extending from the loop near the top of the holder to substantially near the bottom of the container;

Fig. 3 is a fragmentary plan view, with the cap removed;

Fig. 4 is an elevational view of a preferred form of the wick-holder;

Fig. 5 is an end view of the wick-holder shown in Fig. 4;

Fig. 6 is an enlarged fragmentary sectional view of the wick-holder taken at the line 6—6 in Fig. 4;

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Fig. 7 is an enlarged sectional view of the wick-holder taken at the line 7—7 in Fig. 4.

Referring to the drawings, the bottle 1, as shown in both Figs. 1 and 2, comprises a liquid-diameter neck portion 2 and a relatively smaller diameter neck portion 3. The liquid-containing section holds the deodorizer liquid 4, and, when the deodorizer is not in use as shown in Fig. 1, it is closed by a cap 5 having a gasket closure 6. The cap may be attached in any suitable manner, the usual screw type being illustrated. Within the container as illustrated by Fig. 1 and completely enclosed thereby when not in use is shown the wick-holder 7 and the wick 8.

The wick-holder 7, shown in detail in Figs. 4, 5, 6, and 7 comprises a tab or lifting head 9 generally proportioned for easy grasping and lifting. As shown in Figs. 1 and 3, its diameter is such as to approximate the width of the neck. The tab also is provided with an aperture or slot 10 sufficiently large to accommodate a wick 8 which is looped therethrough as shown in Figs. 1, 2, and 3.

The wick-holder is provided with resilient legs 11 which are positioned to the head in spaced relationship as shown in Fig. 4. A strengthening fin or web is shown at 12, but it may be pointed out that this is provisional, depending on the material of which the wick-holder is made and the necessity therefor. While a preferred material for the wick-holder is a plastic such as cellulose acetate or nitrate or polystyrene or any suitable plastic of like nature, the wick-holder may be made of metal tape or wire, or even vulcanized rubber or wood, provided sufficient resiliency is present to permit the legs to be pressed together and to return to their original position on release of pressure. It will be noted that the legs should be of sufficient length and the overall length of the wick-holder should be such that it will naturally remain in a substantially upright position when fully within the container. In this position, noting Figs. 1 and 3, the total length is such that the lifting head is easily grasped for withdrawal.

In order to keep the wick-holder in a withdrawn position on the deodorizer container as illustrated in Fig. 3, a bowed-out portion is provided at an intermediate point on the legs, as illustrated at 13 in Fig. 4. The amount of bowing given to the legs is such that the width at this point is somewhat greater than the diameter of the deodorizer container neck 3. By this means, the wick-holder may remain in an extended position outside the container with the bowed-out portion resting on the top of the bottle. Since the diameter or width at the widest section of the legs is greater than the diameter of the container neck, the resiliency of the legs permits compression so that this enlarged sec-