June 28, 1949. C. E. NICOLET 2,474,606

WICK-SUPPORTING DEVICE

Filed June 26, 1945

Fig. 1

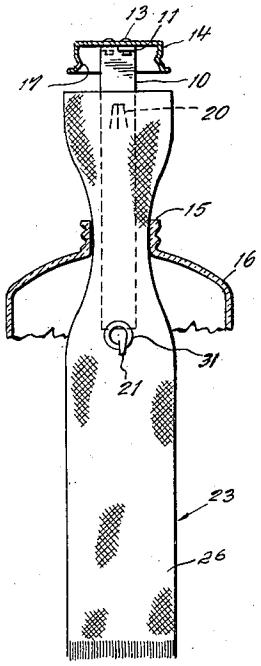


Fig. 2

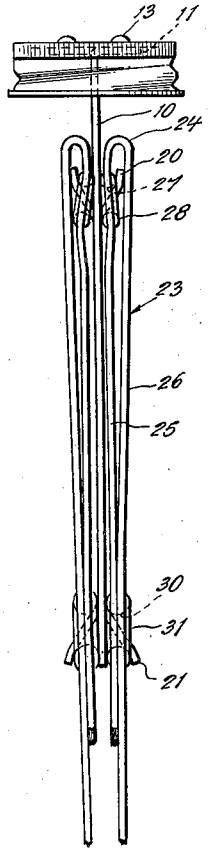


Fig. 3

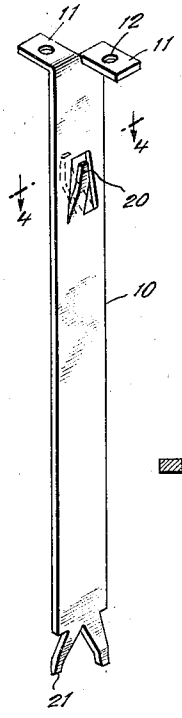
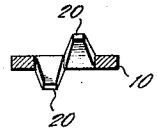


Fig. 4



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WICK-SUPPORTING DEVICE

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Application June 26, 1945, Serial No. 601,638

5 Claims. (Cl. 299—20)

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This invention relates to improved devices for removing unpleasant odors from rooms by means of evaporating volatile fluids in the area which have a tendency to neutralize, and, in many instances, absorb the foul-smelling or deleterious constituents in the air.

Many volatile fluids, when dispersed by evaporation throughout an area, have the ability to purify the air and impart more pleasing odors to it. In accordance with usual practices, a wick of some character is allowed to project from an open bottle or other receptacle containing such a fluid. The wick is of the usual woven material which is quite limp, and accordingly only a short length is allowed to project from the bottle, since if a longer length is projected from the container it would fall down over the sides.

It is accordingly an object of the present invention to provide an improved wick-supporting device which is desirably secured to the undersurface of the closure cap for the bottle or other receptacle, the device imparting rigidity to the wick and permitting a desired length thereof to be drawn from the bottle and to remain in upright position relative to the bottle opening for such period as is desired. Moreover, the operation of withdrawing the wick from the bottle is accomplished without the necessity of the hands of the user contacting the moist wick. The devices of the present invention are simple and inexpensive to construct, and never get out of order. They may be used for disinfecting, for deodorizing, fumigating and generally for purifying the atmosphere.

In the drawing:

Fig. 1 is a front elevation of an evaporator embodying the present invention.

Fig. 2 is an enlarged side elevation thereof.

Fig. 3 is a perspective view of the wick-supporting plate.

Fig. 4 is a section taken on line 4—4 of Fig. 3.

An evaporator forming one embodiment of the present invention is illustrated in Figs. 1 to 4, incl., the device comprising an elongated plate or shank 10 preferably stamped from sheet metal. At its upper end, it is cut longitudinally inwardly a short distance, and for the length of the cut the bifurcated terminals are bent in opposite directions to a plane generally at right angles to that of the plate, thus forming oppositely-facing tabs 11 which are provided with holes 12. Rivets 13 pass through such holes to firmly secure the wick-supporting element or plate to bottle cap 14 which is adapted to be received on the neck 15 of a bottle 16. The cap is formed with the usual internal screw thread 17 matching with the threads on the

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neck of the bottle, the cap serving as a fluid-tight closure when the device is not in use. Adjacent the upper end of plate 10, the material is struck in opposite directions, forming hooks 20 disposed on opposite sides of such plate. The lower end of the plate is bifurcated, and such bifurcated terminals are similarly bent in opposite directions, forming hooks 21 on opposite sides of the plate.

In the embodiment of Fig. 2, the wick 23 is shown as being formed in two separate pieces of similar shape. Each piece comprises a length of absorbent material which is folded, as at 24, thus forming an inner portion 25 and an outer portion 26. Adjacent its upper end, inner portion 25 is formed with an aperture 27 which receives an eyelet or grommet 28. Also adjacent their lower ends, both portions are formed with aligned apertures 30 which receive an eyelet 31. The distance between eyelet 28 and eyelet 31 is less than the distance between hook members 20 and 21 when the wick is not under tension. When it is desired to mount the wick on the holder, the upper hook 20 may first be passed through the eyelet 28, and the lower ends of inner and outer portions 25 and 26 of the wick then pulled downwardly, thus stretching the fabric. The wick is thus pulled down a sufficient distance to permit lower hook 21 to pass through eyelet 31. When tension is released, the parts occupy substantially the position shown in Fig. 2. The same operation is repeated on the opposite side of the plate 10 with another similarly-formed wick, and the device is now ready for use.

It will be noted from an examination of Fig. 1 that the width of the wick-forming material is greater than the width of the bottle neck. Thus, when the wick is to be used for dispersing the volatile fluid through the air, the cap 14 may be unscrewed and the wick drawn upwardly a desired distance, thus exposing the upper portion of the wick to the air. Due to the fact that the width of the wick-forming material is greater than the width of the bottle opening, the wick will remain in such elevated position due to the frictional engagement between the sides of the wick, which are slightly compressed, and the walls of the bottle opening. One of the particular advantages in this arrangement resides in the fact that the wick may be drawn upwardly a desired distance relative to the bottle neck, thus exposing a relatively small portion thereof for small rooms, or a larger portion for larger areas. The showing of Fig. 1 is, of course, exaggerated, since the width of the bottle opening need not be as small as is shown relative to the width of the wick.

It will be appreciated that the wick may be used

during its normal life, and when it has become frayed or otherwise worn, due possibly to the action of the chemicals contained in the bottle, the wick may be readily removed by placing the lower end under tension and removing the hook portions from the holes.

It is to be understood that the invention is limited neither to the mere details or relative arrangement of parts, nor to its specific embodiment shown herein, but that extensive deviations from the illustrated form or embodiment of the invention may be made without departing from the principles thereof.

What I claim is:

1. In a wick and a supporting device therefor, the combination of an elongated plate, hook portions struck outwardly from the plate adjacent opposite ends thereof on each side of the plate, and wick portions supported at their upper ends on each side of the plate by such hook portions, each wick portion comprising a length of wick-forming material folded at substantially its center to form a wick portion of double thickness, the inner fold carrying an eyelet adjacent its upper end, both folds carrying an eyelet at a point spaced from its lower end, the upper and lower eyelets, when the wick portions are free from tension, being spaced apart a distance less than the distance between the upper and lower hook portions on each side of the plate, such hook portions passing through such eyelets and supporting a wick portion on each side of the plate while under tension between such eyelets, the wick portions being of sufficient cross-sectional area to support the wick assembly in elevated position through frictional contact between the wick and the neck of the vessel, the lower terminals of the wick portions being of sufficient length to project into the fluid when the wick assembly is in such elevated position.

2. Means for evaporating a volatile fluid from a receptacle comprising, in combination, a closure cap for the receptacle, a wick-supporting device secured to the lower surface of the closure cap and a wick carried by such device, the supporting device comprising an elongated plate and oppositely-bent hook portions adjacent opposite ends of the plate on each side thereof for supporting the upper portions of the wick on each side of the plate, said wick portions having openings formed therein which, when the wick is free from tension, are spaced apart a distance less than such hook portions on each side of the plate, the hook portions receiving such openings in the wick portions and supporting the latter while under tension, the width of the wick being greater than the width of the receptacle opening to provide support for the wick assembly a desired distance above the receptacle through frictional engagement between the wick and the receptacle opening, the lower portions of the wick being of sufficient length to project into the fluid when the wick assembly is in such elevated position.

3. Means for evaporating a volatile fluid comprising a receptacle for the fluid, a closure cap for the receptacle, a wick-supporting device secured to the lower surface of the closure cap and a wick carried by such device, the supporting device comprising an elongated plate formed at its upper end with portions lying perpendicular to the plate, such portions being secured to the closure cap, and oppositely-bent hook portions adjacent opposite ends of the plate on each side thereof which are struck from the plate for supporting the upper portions of the wick on each side of the plate, said wick portions having openings formed therein and which, when the wick is free from tension, are spaced apart a distance less than such hook portions on each side of the plate, the hook portions receiving such openings in the wick portions, supporting the latter while under tension, the width of the wick portions being greater than the width of the receptacle opening to provide support for the wick a desired distance above the receptacle through frictional engagement between the wick and the reecptacle opening, the lower portions of the wick being of sufficient length to project into the field when the wick assembly is in such elevated position.

4. In a wick assembly for evaporating fluids contained within a vessel which is open at its upper end, combination of a closure cap for the vessel, an elongated plate secured at its upper end to the lower surface of the cap, wick-engaging hook portions struck from the plate adjacent upper and lower ends thereof, and a wick, the upper section of the wick being provided with spaced eyelets which receive the hook portions and support the upper section of such wick while under tension, such upper section being of sufficient cross-sectional area to support the wick assembly in elevated position through frictional contact between the wick and the neck of the vessel, the lower section of the wick being of sufficient length to project into the fluid when the wick assembly is in such elevated position.

5. In a wick and a supporting device therefor, the combination of an elongated plate, oppositely-disposed hook portions struck outwardly from the plate adjacent opposite ends thereof on each side of the plate, the upper section of wick portions supported on each side of the plate by such hook portions, each wick portion comprising a length of wick-forming material folded at substantially its center to form a wick portion of double thickness, such upper section of the wick portions carrying spaced eyelets which, when the wick is free from tension, are spaced apart a distance less than the distance between the upper and lower hook portions on each side of the plate, such hook portions passing through such eyelets and supporting a wick portion on each side of the plate while under tension between such eyelets, and handle means at the upper end of the plate for drawing such plate upwardly from a container of volatile fluid, the upper section of such wick portions being of sufficient cross-sectional area to support the wick assembly in elevated position through frictional contact between the wick portions and the neck of the vessel, the lower section of the wick portions being of sufficient length to project into the fluid when the wick assembly is in such elevated position.

CONSTANT E. NICOLET.

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The following references are of record in the file of this patent:

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Certificate of Correction

Patent No. 2,474,606. **June 28, 1949.**

CONSTANT E. NICOLET

It is hereby certified that errors appear in the printed specification of the above numbered patent requiring correction as follows:

Column 4, line 11, claim 3, for "reecptacle" read *receptacle*; line 13, same claim, for the word "field" read *fluid*;

and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 29th day of November, A. D. 1949.

[SEAL]

THOMAS F. MURPHY,
Assistant Commissioner of Patents.