Nov. 14, 1944. M. KEIM 2,362,903

EVAPORATOR

Filed March 20, 1944

Fig. 1.

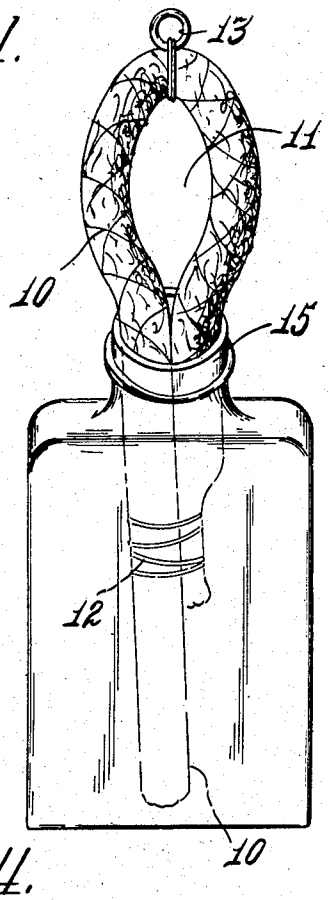


Fig. 2.

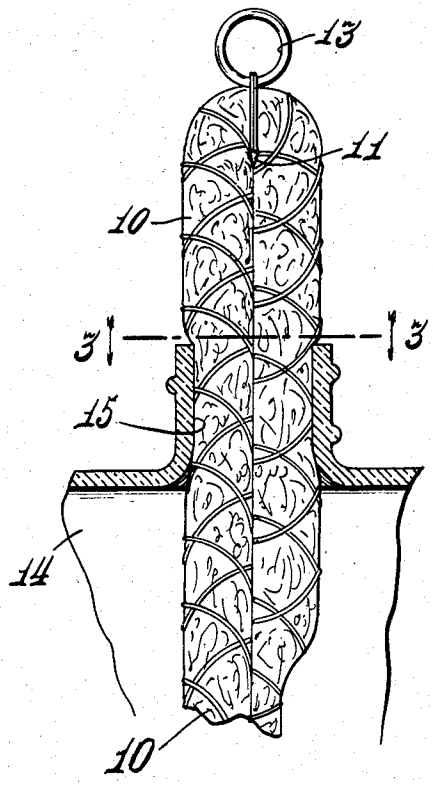


Fig. 4.

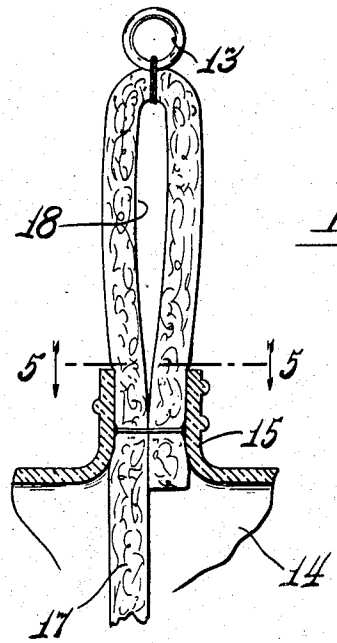


Fig. 5.

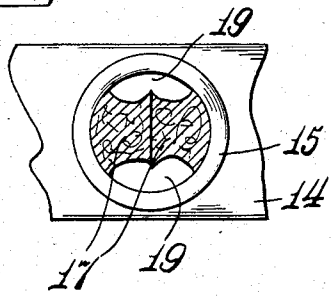
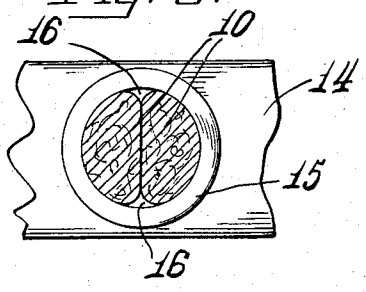


Fig. 3.



INVENTOR
MELVILLE KEIM

By: Brayton G. Richards
ATTORNEY

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EVAPORATOR

Melville Keim, Chicago, Ill.

Application March 20, 1944, Serial No. 527,317

5 Claims. (Cl. 299—20)

The invention relates to improvements in evaporators especially adapted for use in disseminating room deodorizing or other vapors, and has for its object the provision of an improved arrangement of this character which is of simple construction and highly efficient in use.

Other objects will appear hereinafter.

The invention consists of the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing forming a part of the specification and in which—

Fig. 1 is a perspective view of an evaporator embodying the invention and shown in condition of use;

Fig. 2, an enlarged vertical section through the upper portion of said evaporator;

Fig. 3, a section taken substantially on line 3—3 of Fig. 2;

Fig. 4, a partial view illustrating a modified form of construction; and

Fig. 5, a section taken substantially on line 5—5 of Fig. 4.

The embodiment of the invention illustrated in Figs. 1, 2 and 3 comprises a cylindrical wick 10 which is doubled upon itself to form a loop 11, the doubled end of said wick being secured to the body thereof by means of a binding 12. A ring 13 is attached at the top of the loop 11 to facilitate adjustment of said wick. The wick thus provided is of a size and shape adapted to be arranged in a container, such as a bottle 14, having a mouth 15, through which said loop 11 is adapted and arranged to protrude as indicated. As shown, the wick 10 is of a diameter somewhat greater than one-half the diameter of the mouth 15 so that when said wick is doubled upon itself so as to form the loop 13, the width of said loop in one dimension being somewhat greater than the corresponding width of the mouth 15, whereby said wick will be compressed by said mouth in its greater dimension and expanded laterally in its lesser dimension, but thereby leaving drainage spaces 16 at each side of said loop. By this arrangement the loop may be readily withdrawn from the bottle 14 to the various positions of adjustment and opened or expanded, as indicated, in Fig. 1 to increase its exposed surface to correspondingly increase the rate of evaporation. When it is desired to discontinue the evaporation, the loop 11 is compressed and forced downwardly through the mouth of the bottle into the body thereof, any liquids squeezed from said wick during this process draining back into the bottle through the spaces 16. Then the ordinary screw cap may be applied to the bottle, thus preventing any further evaporation.

In the modification illustrated in Figs. 4 and 5, a square wick 17 is illustrated of transverse dimensions somewhat greater than one-half of the diameter of the bottle mouth so that the total width of the loop 18 will be somewhat greater than the corresponding diameter of said mouth and whereby the same results are obtained as before, any liquid squeezed from the loop 18 in replacing it in the bottle 14, draining into said bottle through the spaces 19 at each side thereof.

While I have illustrated and described the preferred forms of construction for carrying the invention into effect, these are capable of variation and modification without departing from the spirit of the invention. I therefore do not wish to be limited to the precise details disclosed, but desire to avail myself of such variations and modifications as fall within the scope of the appended claims.

I claim:

1. The combination with a container having a mouth, of a wick therein arranged to protrude through said mouth, said wick being of a thickness in one dimension somewhat greater than the corresponding dimension of said mouth and of a width in its other dimension slightly less than the corresponding dimension of said mouth, thereby causing compression of said wick by said mouth in one dimension and expansion thereof in its other dimension to hold said wick securely in various positions of adjustment and provide spaces at its sides for drainage into said container of liquid squeezed from said wick.

2. The combination with a container having a mouth, of an evaporating wick therein bent upon itself to form a loop for protrusion through said mouth, said wick being of a thickness somewhat greater than one-half the width of said mouth to cause the width of said loop to be greater than the width of said mouth and consequent compression of said loop by said mouth, whereby said loop will be securely held in various positions of adjustment and spaces provided at its sides for drainage into said container of liquids squeezed from said wick.

3. The combination specified in claim 2 in which the loop is substantially one-half the length of the wick.

4. The combination specified in claim 2 in which said wick is cylindrical in form.

5. The combination specified in claim 2 in which said wick is rectangular in cross section.

MELVILLE KEIM.