

Aug. 1, 1933.

C. F. SCHUH

1,920,599

VAPORIZER

Filed Sept. 13, 1932

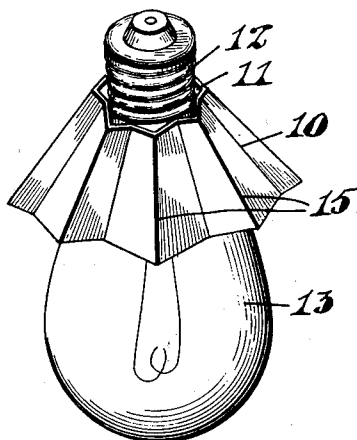


Fig. 1.

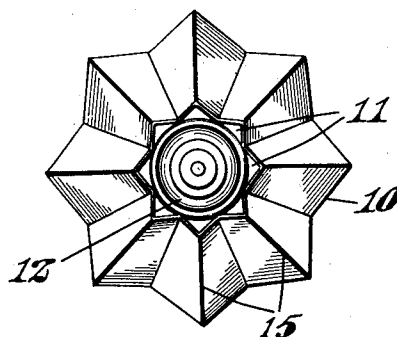


Fig. 2.

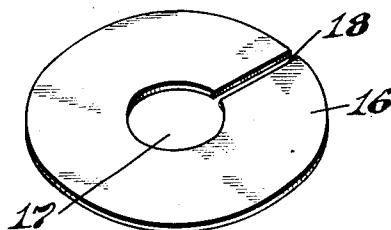


Fig. 3.

INVENTOR  
Charles F. Schuh  
BY  
Francis J. Dutton  
ATTORNEY

# UNITED STATES PATENT OFFICE

1,920,599

## VAPORIZER

Charles F. Schuh, Lexington, Mass., assignor to  
The Cando Corporation, Cambridge, Mass., a  
Corporation of Massachusetts

Application September 13, 1932  
Serial No. 632,935

4 Claims. (Cl. 167-3)

This invention relates to vaporizers and more especially to a device of that character adapted for use in connection with an electric lamp bulb.

One of the important objects of the invention is the provision of a simple, efficient and inexpensive vaporizing device for impregnating the air with a vapor having medicinal, disinfecting or perfuming qualities.

Another object is the provision of a device suitable for mounting on an electric lamp bulb so that the heat radiated from the lamp when lighted may bring about a rapid vaporization of the material carried by the device.

A further object of the invention is the provision of a device made of paper or other cheap absorbent material adapted to be impregnated with a vaporizable material and which may be discarded and thrown away after use.

An additional object is the provision of a device which when mounted on the electric lamp bulb will not diminish the light emitted from the lamp nor detract from its appearance.

Other objects of the invention will be more specifically set forth and described hereinafter.

My invention contemplates a vaporizing device made in any suitable form comprising a body portion of paper or other suitable absorbent material impregnated or saturated with any suitable vaporizable compound or substance. In its simplest form, the body portion comprises a disk either plain or fluted made from suitable absorbent material and provided with a central opening or with other means for mounting it on or attaching it to an electric lamp so that the heat from the lamp may expedite the vaporizing of the substance carried by the body portion. It is apparent that the body portion may be made in many different forms and may comprise one or more disks fluted in various ways or may be made in square or polygonal form.

In the accompanying drawing illustrating the invention, Figure 1 is a view in perspective of an electric lamp bulb having mounted thereon a vaporizing device made in accordance with my invention; Fig. 2 is a plan view of the same looking downwardly in Figure 1 and Fig. 3 is a view in perspective of a simple plain disk form of device.

In Figures 1 and 2 of the drawing is shown the preferred form of vaporizing device in which the body portion 10 is in the form of a disk having a central opening 11 for receiving the threaded shank 12 of an electric lamp bulb 13. The disk is fluted radially which causes it to assume the shape of a small lamp shade. The number

of flutes 15 may be varied to produce a variety of designs. Although I have shown the disk as circular in outline, it may be made polygonal to vary its appearance when fluted.

In Fig. 3 is shown the simplest form of the device in which the body portion is in the form of a plain, circular disk 16 having a central opening 17 and a radial slot 18 communicating with said opening. This slot permits the device to be mounted on a lamp bulb without removing the bulb from its socket. Although the fluted form of device may be provided with a radial slot, it is preferable not to do so because the slot is apt to spoil the set and appearance of the fluted form on the lamp, and it is preferable in mounting it thereon to remove the lamp from its socket, adjust the device in position and then replace the bulb.

My device may be made of any material, such as paper of various kinds or fabrics or any material which is sufficiently absorbent to contain an appreciable amount of the vaporizable material but the paper or other material must have sufficient body so that it will remain stiff and not collapse when it is impregnated with the vaporizable substance. I have found a filter paper of sufficient thickness to maintain its form when impregnated with vaporizable substance suitable for this use but it is evident that there are various other materials that can be used.

For impregnating the body portion, various vaporizable compounds may be used and one such which I have found satisfactory comprises a mixture of 50% denatured alcohol and 50% of any disinfecting, medicinal or odorizing oil soluble in alcohol. For instance, if a fragrant odor is desired, oil of rose geranium may be used; if a medicinal odor is wished, then oil of eucalyptus or menthol and if the device is to be used for disinfecting, then oil of creosote or other disinfecting oils may be employed. If a more saturated compound is desired, the proportion of oil to alcohol may be increased. It is to be understood, however, that my invention is not to be limited to the use of those oils soluble in alcohol since any vaporizable material may be employed which is suitable for impregnating devices made in accordance with my invention.

To impregnate the body portion with the vaporizable compound it is dipped in the solution and allowed to remain there until it has become saturated, when it is taken out and partially dried by the evaporation of the alcohol, after which it may be packed either in glass jars or in air tight cellophane wrappers in order to prevent further

evaporation. In this condition, the device contains a relatively large amount of the oil and while it will, when exposed to the air, impregnate the atmosphere to a certain extent with the fumes of the vaporizable substance yet under the influence of heat the device gives off the fumes very rapidly and will impregnate the atmosphere of an ordinary room in a very few minutes.

In using the device on an electric light bulb, the heat radiated from the lamp when it is turned on will diffuse the fumes throughout a room very quickly and a device impregnated according to the formula above noted will continue to give out an odor for some fifteen or twenty minutes. When a device of fluted form is mounted on an electric lamp bulb, the heat radiated from the lamp causes currents of air to pass upwardly between the lamp and out at the top of the device in the openings formed by the flutings which facilitates the impregnating of the atmosphere of a room with the fumes and causes them to be rapidly distributed therein.

The device of my invention possesses a number of distinct advantages. It produces an odor which is pure and is not mixed with the fumes of combustion which accompanies vapor produced by the burning of a foreign material with the substance to be vaporized. It is economical because all of the active material is utilized and there is no waste and the amount of the vaporizable agent in the device may be varied to suit different needs or different spaces. Furthermore, it is of great convenience because it is easily put in use and when it has served its purpose, it is as easily removed. Lastly, it is of very low cost and can be sold at a low price.

It is to be understood that my invention is not to be limited to the forms herein shown and described since it may be embodied in various other forms within the scope of the invention and the purview of the following claims.

What I claim is:

1. A vaporizing device of the character described comprising a sheet of paper or other absorbent material impregnated with a vaporizable material, said sheet having a flaring portion, and a central opening adapted to receive the neck portion of an electric lamp bulb, said flaring portion extending outwardly and projecting annularly to provide a substantial area adapted to overhang the outer periphery of the bulb thereby affording an extended heat exposed surface.

2. A vaporizing device of the character described comprising a fluted member of paper or other absorbent material impregnated with a vaporizable material, said member being provided with an opening to receive the neck portion of an electric lamp bulb, the fluted formation of the member overhanging the remainder of the bulb providing channels between the same and the bulb for the circulation of air.

3. A vaporizing device of the character described comprising a relatively thin, flat disc of paper or other absorbent material impregnated with vaporizable material, said disc having a flaring portion, and a central opening adapted to receive the neck portion of an electric lamp bulb, said flaring portion extending outwardly and projecting annularly to provide a substantial area adapted to overhang the outer periphery of the bulb thereby affording an extended heat exposed surface.

4. A vaporizing device of the character described comprising a flat disc of flexible, absorbent material of substantial area impregnated with a vaporizable material and having a central opening and a communicating slot between said central opening and the periphery of said disc permitting portions of said disc adjoining the slot to be face-wise deflected whereby the disc is adapted to be mounted on an electric lamp bulb with the neck portion of the bulb in said opening without removing the bulb from its socket.

CHARLES F. SCHUH.

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