

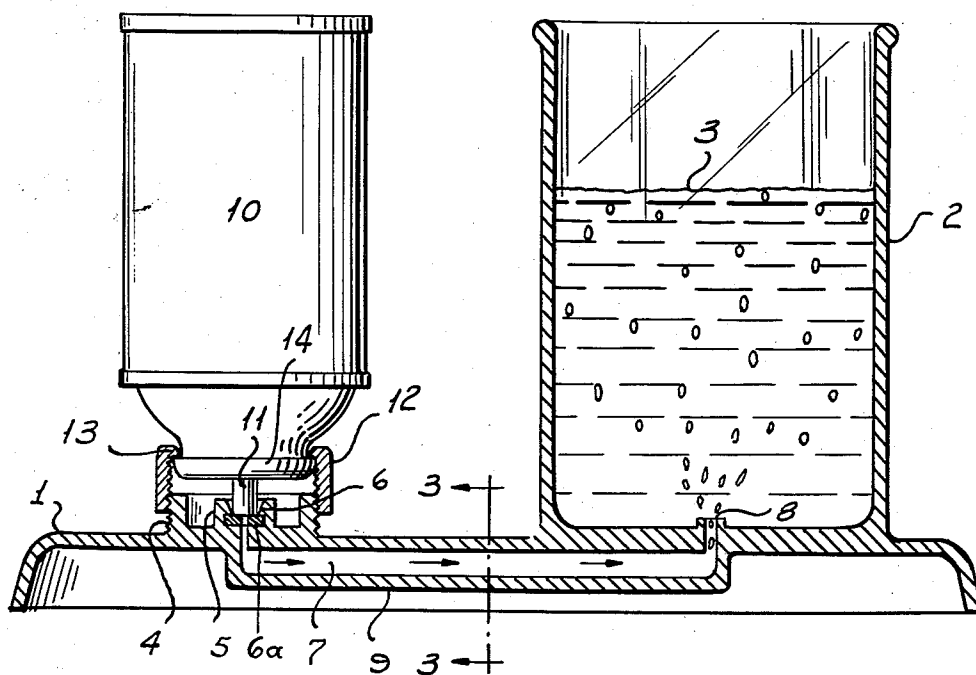
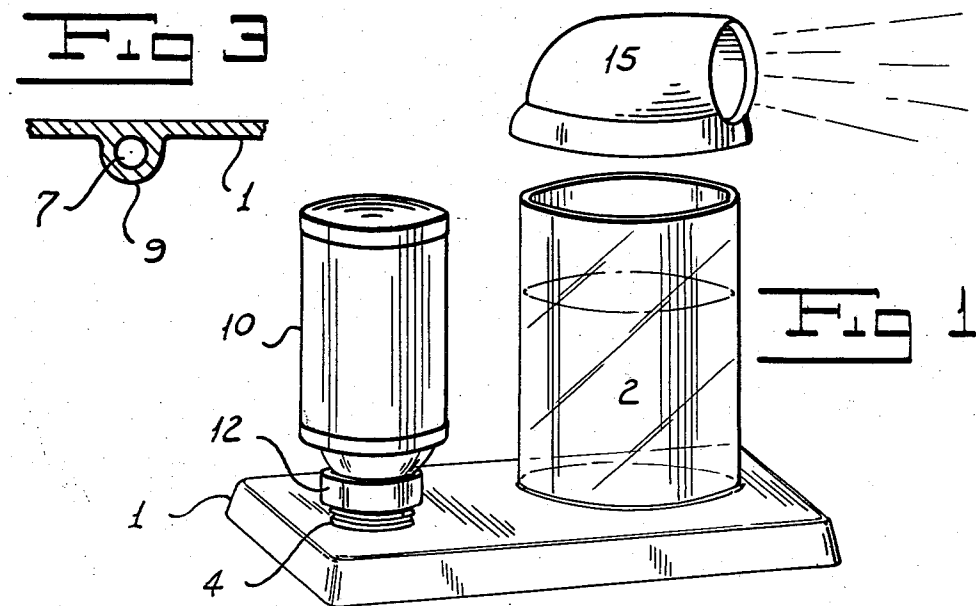
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VAPORIZER

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VAPORIZER

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This invention is a vaporizer adapted to be used in connection with deodorants, medicaments, or other liquids which it is desired to vaporize.

The object of this invention is to provide a vaporizer having numerous advantages, among which may be enumerated the following, namely:

- No electrical connections required
- No heating necessary
- A completely portable unit
- No fire hazard
- Inexpensive to manufacture and operate
- Completely controllable in its operation
- Operable over protracted periods
- Capable of employment with chemicals which cannot be satisfactorily packaged in corrosive cans
- One wherein the motive element of the combination is a conventional aerosol container.

Speaking generally, the device of this invention comprises a vessel into which the material to be vaporized may be placed. From the base of this vessel a passage leads to a coupling with which an aerosol container of gaseous pressure may be attached, preferably in such manner that the flow of gaseous pressure from such container can be regulated so as to deliver an amount of gas appropriate to the volume of vapor to be generated, the device, in its entirety, being formed on a suitable base and constituting a compact and readily portable structure.

Features of the invention, other than those adverted to, will be apparent from the hereinafter detailed description and appended claims, when read in conjunction with the accompanying drawing.

The accompanying drawing illustrates one practical embodiment of the invention, but the construction therein shown is to be understood as illustrative, only, and not as defining the limits of the invention.

FIG. 1 is a perspective view of the vaporizer of this invention.

FIG. 2 is a longitudinal vertical section of the structure shown in FIG. 1 with the aerosol container shown in elevation.

FIG. 3 is a section on the line 3-3 of FIG. 2.

In the drawings, 1 designates a base which may be of any appropriate material, but is preferably made in the form of a molded plastic. At one end of the base is integrally molded a vessel 2 into which the material 3 to be vaporized is adapted to be introduced when the vaporizer is to be used. At other times this container may be empty.

Near the other end of the base is an externally threaded upstanding wall 4 within the confines of which is a coaxial boss 5, provided in its top with a depressed seat 6 provided in the base thereof with a resilient perforated seat washer 6a. A passage 7 leads from this seat through a rib 9 molded on the under side of the base to an outlet 8 at the bottom of the vessel 2.

An aerosol container 10, provided with a tubular valve stem 11, is placed in inverted position with the end of the valve stem engaging the seat washer 6a, as shown best in FIG. 2, and supported in this inverted position by a threaded collar 12. The upper end of this collar has an intumed flange 13 adapted to engage with the bead 14 of the container 10, while the internal threads of the col-

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lar are adapted to be screwed onto an externally threaded wall 4 of the base. When not in use, the collar is backed off of the wall 4 sufficiently to permit the valve of the container 10 to assume its normally closed position.

When the invention is to be used for vaporizing purposes, the material 3 to be vaporized is placed in the vessel 2 and the collar 12 is then screwed downwardly upon the threaded wall 4 to cause sufficient upward pressure on the valve stem 11 to unseat the conventional valve of such container so that the pressurized gas within the container may flow through the channel 7 and through the outlet 8 into the lower portion of the vessel 2, to bubble upwardly through the material 3 and cause vaporization of the latter. That vapor rises through the open top of the vessel and permeates the ambient atmosphere. If desired a hood, such as indicated at 15 in FIG. 1, may be fitted over the open top of the vessel 3 to direct the fumes or vapor generated in the manner described in the desired direction.

The amount of gas fed from the container may be controlled by the extent to which the threaded collar 12 is screwed down upon the threaded wall 4. In practice, very little gas is required to effect the vaporization of the material 3, but said amount may be regulated by the position of the collar 12 to give a greater or lesser amount as particular requirements dictate.

The container may be charged with any appropriate gas, for example, a liquefied gas, such as a Freon, or a non-liquefied gas, such as nitrogen. This gas may be employed without any additive, although, if desired, a perfume or scent may be added thereto. Such additives as are otherwise incompatible with the formulation contained in the vessel 2 may be effectually caused to intermingle with the vapor generated as stated.

Experience has shown that a can of aerosol, such as referred to, will supply the necessary gas under pressure over a relatively long period of time and when any particular amount of vaporization has been produced, the container may be sealed until it is desired to use it again by merely backing off the collar 12. When all of the gas in the container has been used, a new container of conventional type may be fixed to the vaporizer to effect continued or subsequent use.

After the vapor has been used for any particular period any of the material 3 which may remain in the vessel may be removed therefrom, and the device may thereupon be immersed in wash water and thoroughly cleansed to ready it for the next use.

The foregoing detailed description sets forth the invention in its preferred practical forms, but the invention is to be fully understood as commensurate with the appended claims.

Having thus fully described the invention, what I claim as new and desire to secure by Letters Patent is:

1. A vaporizer comprising: a base provided with a vessel to receive material to be vaporized, a perforated valve seat provided with a washer, a walled duct leading from said seat to the interior of the vessel, a fluid charged aerosol container having a discharge valve operable by a tubular valve stem the free end of which rests upon said seat, and means for varying the spacing between the container and seat to regulate the valve stem and thus control the flow of fluid from the container to the vessel.

2. A vaporizer comprising: a base provided with a vessel to receive material to be vaporized, an upstanding threaded annular wall on said base, a valve seat within the confines of said wall and connected by a passage to the interior of the vessel, a perforated seat washer on said seat, a fluid charged aerosol container having a discharge valve operable by a tubular valve stem the free

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end of which rests upon said washer, and means connected to the aerosol container and having adjustable threaded engagement with said walls to control the spacing of the container relative to said seat and thus regulate the valve stem to control the flow of fluid from the container to the vessel. 5

3. A vaporizer according to claim 2, wherein said means comprises a collar engaging with a bead on the

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container and threaded to screw to a lesser or greater extent upon the threads of said wall.

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