March 10, 1931. E. BROWN 1,795,328

VOLATILIZER

Filed Nov. 9, 1929

FIG. 2.

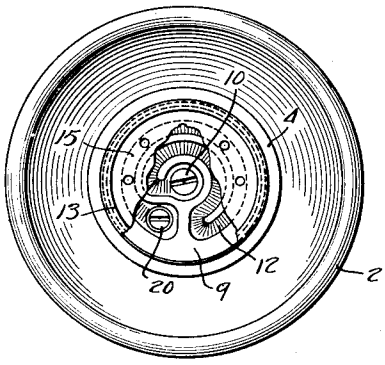
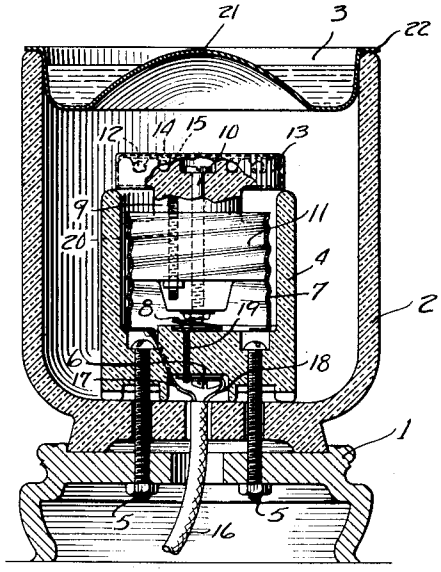


FIG. 1.



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UNITED STATES PATENT OFFICE

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VOLATILIZER

Application filed November 9, 1929. Serial No. 405,923.

This invention relates generally to electrical volatilizers, but is more particularly designed to produce a small, portable apparatus of that type which will hold as much material, the gasified constituents of which are to be inhaled for medicinal effect, as can be volatilized in a predetermined length of time when a 110 volt current is passed through the heating element in said apparatus. To this end the invention consists essentially of a bowl-shaped member in the interior of which is a standard incandescent lamp socket with external connections adapted to be plugged into any house lamp socket or base board outlet, and a plug, shaped and constructed in its lower portion like a standard lamp base, but having in its upper end a suitable resistance element connected to the usual lamp base interior contacts with which said plug is equipped, together with a shallow receptacle for material to be volatilized adapted to fit into the top of said bowl-shaped member and over the plug screwed into said lamp socket.

The best form of apparatus at present known to me, embodying my invention, is illustrated in the accompanying sheet of drawings, in which

Fig. 1 is a vertical central section with parts broken away, and

Fig. 2 is a plan view with parts broken away and the volatilizing receptacle removed.

Throughout the drawings like reference characters indicate like parts: 1 is any suitable base on which rests the outer bowl-shaped member 2. A shorter cup-shaped member 4 of lesser diameter is set inside of 2, being held in place by bolts 5, 5, passing through the bottoms of both and also through base 1. The parts 2 and 4 are usually formed of porcelain.

Inner cup shaped member 4 is in fact the insulating body or casing of a standard incandescent lamp socket, having the screw threaded metal lining 7 connected in the usual way to one wire 17 of the cable 16, which latter is provided at its outer end with the usual plug (not shown) for connection with the house lighting circuit. The connection from 7 to 17 does not show in Fig. 1 because it is located on the near side of the section plane of that figure, but it is of standard construction. The other and central, socket contact 8 is connected to the usual contact screw 6 under which the other wire 18 of cable 16 may be clamped.

9 is a plug of insulating material, usually porcelain, with its lower portion in the general form of an incandescent lamp base, having the usual center contact pin or bolt 10 and with the cylindrical, screw threaded shell 11 of metal surrounding it and adapted to screw into socket lining shell 7.

In place of the usual filament, to which center contact 10 and shell 11 of a standard lamp base are connected, I employ a heating resistance element, such as the coil 12 of nichrome wire, which, as shown, is set in the laterally extended button 13 which forms the top of plug 9, said resistance coil resting in the channel 14, or other recess in said plug interior, and 15 is a perforated cover for said groove made of refractory material, such as mica. Resistance element 12 has one end clamped under contact screw 20, the lower end of which is electrically connected to shell 11, as indicated in Fig. 1, while its other end is clamped under the head of center contact screw bolt 10, so that when plug 9 is screwed into the lamp socket (cup shaped member 4) the circuit is established from wire 17, through socket lining 7, plug shell 11, contact screw 20, resistance 12, center screw bolt 10, socket contact 8, and contact screw 6, to the other wire 18 of cable 16. A shallow receptacle 3, usually made of aluminum, fits over the top of the bowl 2 and preferably has a central, raised dome-shaped portion 21, and a flange 22 adapted to fit over the rim of said bowl.

In using my invention the parts are assembled as shown, the shallow receptacle or cup 3 is filled with material to be volatilized, after plug 9 has been screwed into the lamp socket, and cable 16 is connected to the lighting circuit. The heat given off by resistance 12 will then act both by radiation and convection of air currents in the interior of bowl-shaped member 2, to volatilize the material in cup 3.

Obviously various changes could be made in the particular construction here shown without modifying the functions and mode of operation of the parts; thus members 2 and 4 might be made integral one with the other, the particular manner of embedding the resistance element in the plug 9 might be varied, and other detail changes made without departing from the principle of the invention.

When any particular resistance element burns out the plug containing it can be thrown away, or traded in, and a new heating plug substituted at small expense. Thus the bowl, 2 which may be of costly, ornamental structure can be continued in use indefinitely, a new heating plug being purchased at small price whenever the one in use has burned out. The capacity of cup 3 is preferably calibrated to hold such quantity of a given medicated material as will be volatilized within a predetermined period of time by the heat given off from resistance element 12 during the passage through it of a 110 volt current, such heat being confined to the interior of the apparatus and applied efficiently but evenly over the bottom of cup 3.

The apparatus as shown is particularly designed to volatilize medicated material in liquid form mainly composed of oils, but could also be used to wholly or partly volatilize or vaporize other liquids or solids.

Having described my invention, I claim:

1. In an electric volatilizer the combination of a bowl-shaped member provided with a suitable supporting base, a standard incandescent electric lamp socket set in the interior of said bowl and provided with circuit connections extending outwardly through said base, a plug of insulating material having its lower portion corresponding in form and construction to a standard incandescent lamp base adapted to screw into said socket and make connections therewith and having its upper portion adapted to support a resistance element, a cup adapted to fit over the top of said bowl and said plug contained therein, and an electrical resistance element supported by said plug and having its terminals connected to the external contact members on the base portion of said plug.

2. A combination such as defined in claim 1 in which said plug has a laterally extending flat top provided with a zigzag groove, and in which said resistance element comprises a coil of wire lying in said groove.

3. A structure such as defined in claim 1 in which said plug has a laterally extending flat top provided with a zigzag groove in which said resistance element lies, combined with a perforated shield of refractory material overlying said plug top and said resistance element.

4. A combination such as defined in claim 1 in which said plug is arranged coaxially with said bowl and extends nearly to the top thereof, and in which the bottom of said cup has a raised, dome shaped central portion located over said plug top.

Signed at New York city, in the county of New York and State of New York, this 7th day of November, A. D. 1929.

EDWIN BROWN.