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J. T. WILLIAMS ET AL

2,510,449

COMBINED LIGHTER AND INCENSE VAPORIZER

Filed Feb. 6, 1946

FIG. 1.

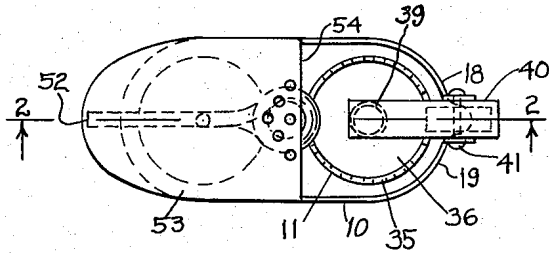
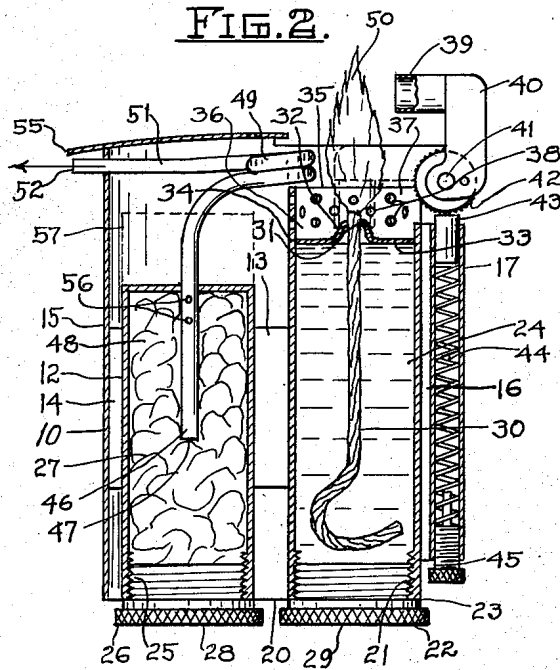


FIG. 2.



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## UNITED STATES PATENT OFFICE

2,510,449

COMBINED LIGHTER AND INCENSE  
VAPORIZER

James T. Williams, Minneapolis, and Karl F. Riese, St. Paul, Minn., assignors, by direct and mesne assignments, of one-third to said Riese, one-third to Margaret Louise Williams, one-fifteenth to James T. Williams, Jr., one-fifteenth to Robert H. Williams, one-fifteenth to Margaret Louise Lindstroth, one-fifteenth to George J. Williams, and one-fifteenth to Lawrence David Williams

Application February 6, 1946, Serial No. 645,769

6 Claims. (Cl. 21-61)

1

Our invention relates to a combined lighter and incense vaporizer and has for its object to provide a spark ignition lighter for cigarettes, cigars and the like adapted to be rested upon a table or other surface, in combination with means associated with the lighter for vaporizing and expelling into the atmosphere a desired quantity of incense vapor when the lighter is ignited.

As manufactured and used heretofore, cigarette lighters have generally been pocket pieces carried by an individual on the person and used manually from time to time whenever the lighting of a cigarette, cigar or the like is called for. But often there is need of a cigarette lighter when the person in which the pocket lighter is carried is not on the person at places such as in toilet rooms or the like, or when, in gatherings, as at a dinner table, at a card table and the like, it would be convenient and desirable to have a lighter rested upon the surface of a stand or table in convenient position for general use.

It is also true that under such conditions of use the air frequently will be permeated with unpleasant odors. Even the odors of certain foods and of stale cigarette smoke at card parties and the like become offensive at times.

We have discovered a simple and effective means of providing a lighter to be positioned upon a table top or other surface, in combination with means rendered active by igniting the lighter flame such that at the time such lighter flame is ignited a puff of incense vapor may be projected into the room.

It is a principal object of our invention therefore to provide a lighter for cigarettes, cigars and the like, of generally standard construction wherein the flame is ignited by a friction spark usually generated by lifting the snuffer cap, in combination with means adjacent and subject to the heat of said flame, which means may have automatically supplied thereto an incense fluid, said fluid being turned to vapor by the heat of the flame and said vapor being ejected or puffed into the room as desired when the lighter flame is ignited.

It is a further object of our invention to provide a casing wherein are mounted a pair of members forming cylindrical chambers with caps threaded into the lower ends thereof for the purpose of filling the chambers, said members being secured to and held within the casing, one of them holding lighting fluid and the other incense fluid, to be introduced into the chambers through the cap openings, and the caps forming a leg support for the entire mechanism.

2

It is a further object of our invention to provide a tube extending into the incense liquid within one of the cylindrical chambers, said tube having either a substantially capillary bore or a larger bore extending through it and having a part thereof coiled in a position adjacent and so as to receive the heat of the lighter flame, together with an extension of the tube out of the casing, so when the coil is heated by the lighter flame the incense liquid therein will vaporize and puff out as incense vapor.

The full objects and advantages of our invention will appear in connection with the detailed description thereof to be given in the following specification, and the novel features by which the aforesaid useful and advantageous results are secured will be particularly pointed out in the claims.

In the drawings,

Fig. 1 is a top plan view of a lighter incense vaporizer embodying the features of our invention.

Fig. 2 is a longitudinal sectional view of the same, with the screw caps out of section, taken on line 2-2 of Fig. 1.

As illustrated an outer casing 10, preferably of oval shape, is provided. Within this casing are a pair of cylindrical containers 11 and 12 which are secured together at their centers by a connector strip 13. The casing 12 is secured by a connector strip 14 to the end wall 15 of the casing 10, and the cylinder 11 is secured by a strip 16 to a vertical tube 17 which is fastened along its sides to the other end portions 18 and 19 of the casing 10.

The lower end of cylinder wall 11 comes to the bottom of casing 10 as indicated at 20. The bottom end of casing 11 is internally threaded as indicated at 21 and receives a threaded screw cap 22 which when in position makes a sealing union at 23, thus closing leak-tight a chamber 24 within cylinder 11.

Similarly cylindrical member 12 has an internally threaded lower portion 25 which receives a threaded screw cap 26. The screw cap 26 like the screw cap 22 is adapted to close the chamber 27 within cylindrical member 12 in a leak proof manner.

The chamber 24 is adapted to be filled with an inflammable and volatile liquid. This is accomplished by inverting the casing, removing the screw cap 22 and pouring the liquid into the chamber, thereafter setting the screw cap 22 in a leak proof manner upon the lower end of cylinder 11 at 23.

3

Likewise the chamber 27 will be filled with incense liquid in exactly the same manner by first inverting the entire apparatus and thereafter removing the screw cap and pouring the liquid in through the opening into chamber 27 thus made.

When the two screw caps 22 and 26 are set in sealing position their respective faces 28 and 29 fall in a common horizontal plane. These surfaces 28 and 29 provide an extensive support for the casing when set upon any surface such as the surface of a dining table, a card table, or surfaces of fixtures in a toilet.

Within the chamber 24 is a wicking 30, which is extended through a small opening 31 in the top of the cone-like extension 32 from the center of a closure plate 33. Plate 33 seals the upper end of chamber 24 at a point 34 some distance below the upper edge 35 of the cylindrical member 11, thus leaving an open-topped chamber 36 within the portion 37 of cylindrical member 11.

Chamber 36 is open at its top and extends above the plate 33. The cylindrical wall of chamber 36 is provided with a multiplicity of apertures 38 throughout its extent, to furnish adequate inlet of air to the lighter flame.

An almost cylindrical snuffer cap 39 is mounted on an arm 40 which is pivotally mounted to oscillate on a short shaft 41. The snuffer cap 39 at its lower portion makes a gas tight union with the conical member 32 which holds the end of the wicking 30, so when a flame is burning, as shown in Fig. 2, it is only necessary to swing the arm 40 and the snuffer cap 39 into position so the snuffer cap engages the conical extension 32 to extinguish the flame.

The flame is ignited in a well known way when the arm 40 and its snuffer cap thereon is pulled up to vertical position as shown in Fig. 2. When this occurs a friction disk 42 engages a spark-maker 43 and throws sparks upon the end of the wicking 30, whereby the volatile liquid brought up by capillary action and escaping as inflammable vapor therefrom is ignited.

The spark-maker 43 is pressed up against the friction disk 42 with sufficient force to insure generating sparks by means of a spring 44 mounted within the tube 17 and tensioned by a screw cap 45 threaded into the lower end of said tube.

What may be substantially a capillary tube 46, or, as shown, a larger tube 46, extends to a point 47 near the bottom of chamber 27, preferably through a mass of cotton indicated at 48, which is immersed in the incense liquid in chamber 27.

The tube 46 is formed to extend from its open bottom end 47 into a coil formed and positioned to be close to the flame 50 from the end of wicking 30. The tube 46 is extended from the coil 49 through an extension 51 to its open end 52 outside of the end wall 15 of the casing 10.

A cap or cover member 53 is secured to the upper edge of the casing 10. This cover member extends from its edge at 54 at the edge of the open-topped flame chamber 36 to the point where its end 55 is slightly beyond the end 52 of top extension 51.

In use the article is rested upon a table or other surface in convenient position to be used by one individual or any one of a group of individuals. In making such use a person wishing to light a cigarette, cigar or the like will swing the arm 40 and snuffer cap 39 from the position sealing the end of wicking 30 to the position shown in Fig. 2. This, in a known manner, will cause sparks to fly from the sparking member 43 to the area

4

above the upper end of wicking 30, which will cause the volatilized liquid at that point to ignite and produce the flame 50.

While the person is using the flame to ignite his cigarette or cigar the heat of the flame is transmitted to the coil 49, preferably formed of copper or other metal having high heat conductivity.

The coil, if the opening through tube 46 is small enough for capillary action, may in that manner be filled with incense liquid. If the opening in the coil in a desired form of the invention is too large to permit the incense liquid to go into the coil by capillary action, the coil may be filled with the incense liquid very effectively by simply tipping the container so as to permit the liquid to flow into the coil. This is possible because the chamber 27 is entirely sealed and the liquid may flow into and through the tube 46 through apertures 56 therein.

Indeed normally, in holding the lighter in the hand to light a cigarette, it will be tipped so filling will occur automatically. The form of the invention as shown in Fig. 2 is perhaps best suited to use the tipping method to get the incense liquid into the coil 46.

Where capillary action is to be employed the chamber 27 may be extended nearer to the top, as indicated in dotted lines at 57. As long as there is any substantial amount of liquid in the chamber 27, the cotton 48 by capillary action will convey the liquid to the apertures 56 and cause the delivery thereof to the inside of tube 46 for it to be conveyed therein by capillary action within the tube of the coil 49.

In whatever manner the incense liquid from chamber 27 may be conveyed into the coil 49, the heat of the flame will cause it to turn to gas which will be thrown out in a puff from the end 52 of tube extension 51. It follows that generally when a cigarette or cigar is lighted a puff of incense vapor is driven into the room, thus overriding and killing any unpleasant odors which exist at that time and giving a continuous pleasantly scented atmosphere to breathe.

The advantages of our invention will, it is submitted, quite clearly appear from the foregoing description thereof. The primary advantage is of course that a lighter is provided which may set upon any table, stand or suitable supporting surface, in combination with means such that whenever the lighter is ignited to light a cigarette, cigar or the like, a puff of incense vapor may be generated and projected into the room. The result, of course, is that, at frequent intervals and usually with no conscious intent or effort on the part of any individual using the lighter, incense vapor is ejected into the room so that the pleasant odors of the incense will override unpleasant odors from stale tobacco smoke, foods, in toilets and the like.

We claim:

1. In combination with a lighter having a holder for inflammable fluid and a wick for conveying the fluid to an ignition point, and means for igniting and extinguishing a flame at that point, a holder for incense liquid, a tube extending from the liquid therein for conveying said incense liquid to near said ignition point where it will be subject to the heat of the lighter flame when it is burning, whereby when said flame is ignited said incense liquid will be vaporized and the vapor ejected into the space where the lighter is being used.

2. In combination with a lighter having a holder for inflammable fluid and a wick for carry-

5

ing the fluid to an ignition point, and means for lighting the flame at that point, a sealed chamber for containing incense liquid, a tube open at both ends extending from said chamber to a region normally reached by the lighter flame when it is burning and then extending beyond said region, said tube being constructed and positioned to present an extended portion of its length in said region and to hold therein incense liquid supplied from said chamber.

3. In combination with a lighter having a holder for inflammable fluid and a wick for carrying the fluid to an ignition point and means for igniting a flame at that point, a sealed chamber for containing incense liquid, a tube extending from said chamber to a region normally reached by the lighter flame when it is burning, said tube formed into a coil in said region and having an extension for carrying incense vapor from the coil to the exterior of said chamber, whereby when said flame is ignited the incense liquid in the coil will be vaporized and the vapor ejected into the space where the lighter is being used.

4. In combination with a lighter having a holder for inflammable fluid and a wick for carrying the fluid to an ignition point and means for igniting a flame at that point, a sealed chamber for containing incense liquid, a tube extending from said chamber and being formed into a coil located in the region of the lighter flame when it is burning, said tube having an open end extended beyond said coil for carrying incense vapor from the coil and having a substantially capillary bore through the tube, whereby incense liquid will be carried by capillary action into the coil and when said flame is ignited the incense liquid in the coil will be vaporized and the vapor ejected from said open end into the space where the lighter is being used.

5. In combination with a lighter having a holder for inflammable fluid and a wick for conveying the fluid to an ignition point and means for igniting a flame at that point, a sealed cham-

6

ber for containing incense liquid, a tube extending from said chamber and being formed into a coil located in the region of and subject to being heated by the lighter flame when it is burning, said tube being extended beyond said coil and having an open end for carrying incense vapor from the coil and being of a size to permit ready flow of liquid from the chamber to the coil when the device is tipped to permit gravity flow, whereby when said chamber has been tipped and thereafter said flame is ignited incense liquid in the coil will be vaporized and the vapor ejected into the place where the lighter is being used.

6. In combination with a lighter having a holder for inflammable fluid and a wick for conveying the fluid therefrom to an ignition point, said lighter including a casing and a first cylinder secured within the casing having a chamber forming the holder, a second cylinder secured within the casing having a chamber for holding incense liquid, said cylinders extending to the bottom of the casing and being of a diameter to substantially fill the casing along one dimension, screw caps closing the ends of the respective cylinders and of a diameter greater than that of the cylinders forming together a support of considerable area for the casing, an open ended tubular member extending into the second chamber and into the incense liquid therein and having a coil in the region of the flame when it is burning and an extension going to the outside of the casing, said tubular member being arranged to convey incense liquid from the second chamber to the coil, whereby when the flame is ignited the incense liquid in said coil will be vaporized and incense vapor will be ejected outside the casing.

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No references cited.