July 27, 1954 S. D. VALLE 2,685,023

CANDLE LAMP

Filed Sept. 7, 1950 2 Sheets-Sheet 1

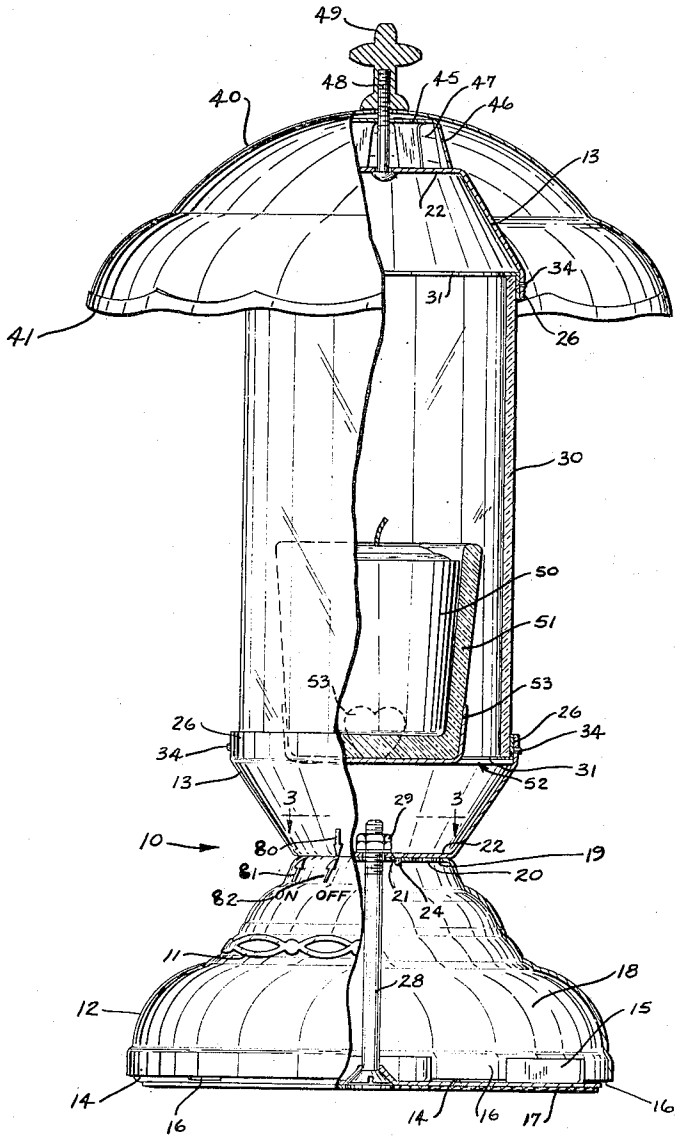


FIG. 1.

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FIG. 8

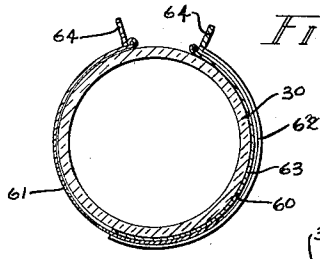


FIG. 2

FIG. 5

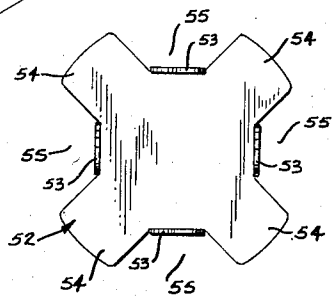


FIG. 3

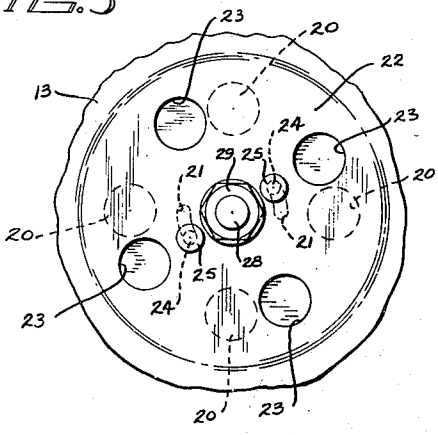


FIG. 4

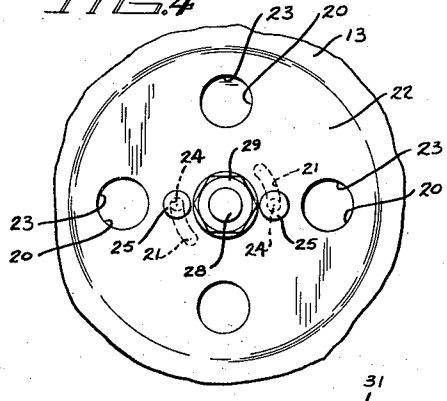


FIG. 6

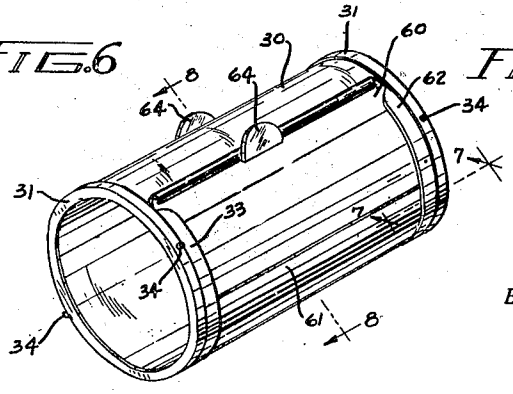
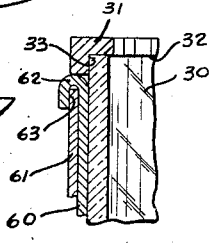


FIG. 7



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CANDLE LAMP

Saverio Della Valle, Brooklyn, N. Y.

Application September 7, 1950, Serial No. 183,576

1 Claim. (Cl. 240—13)

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This invention relates to candle lamps and more particularly to an improved chimney type lamp in which the flow of air past the candle for support of combustion may be regulated.

One of the objects of the invention lies in the provision of a chimney lamp for use with a candle in which the air draft may be regulated to the extent of candle extinguishment by a control valve.

Another object of the invention lies in the provision of a chimney lamp for a candle having an air draft control valve incorporated as an integral portion of the lamp base or other structure.

A further object of the invention lies in the provision of a candle lamp having a transparent chimney for protection from wind, rain, and other weather conditions, as well as for decorative effect.

A still further object of the invention lies in the provision of a candle lamp having a combustion draft providing chimney which is readily removable together with its canopy, from the lamp base for purposes of candle lighting, candle replacement, or chimney cleaning.

Yet another object of the invention lies in the provision of an opaque chimney guard which may be positioned about the chimney and is adjustable to permit varying the solid angle of light to be emitted from the lamp.

Still further and more general objects lie in the provision of an improved candle lamp of simple construction which is economical to fabricate, and which is of pleasing appearance, suitable for religious and memorial functions as well as purely decorative effect.

For the attainment of these objects and such other objects, features and advantages as may hereinafter appear or be pointed out, I construct the lamp of the invention in a manner illustrated in the accompanying drawings in which:

Fig. 1 is a side elevational view partly in section;

Fig. 2 is an exploded perspective of the chimney and its support and cap elements;

Fig. 3 is a top plan view taken substantially from line 3—3 of Fig. 1 and showing the valve openings in their "off" or disaligned positions;

Fig. 4 is a view similar to Fig. 3 but with the valve openings moved to their "on" or aligned positions;

Fig. 5 is a top plan view of the candle receptacle supporting bracket;

Fig. 6 is a perspective view of the lamp chimney enclosed in an adjustable guard for regulating the amount of candle light emitting surface;

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Fig. 7 is a section taken on line 7—7 of Fig. 6; and

Fig. 8 is a reduced section taken substantially on line 8—8 of Fig. 6.

Referring now to the drawings, it will be observed that the candle lamp comprises generally a base 10, a transparent chimney 30 and a canopy 40. The base and the canopy are designed to present pleasing contours and each is desirably embellished with ornamental impressions, engravings or the like, so that the lamp may be suitable either for religious, memorial, or commemorative purposes, or for purely decorative effect, as for example when used to enhance the appearance of a dining table. As examples of ornamental effects, the drawings illustrate scallops 41 at the edge of the canopy and an artistic design 11 impressed in the central portion of the base.

The lamp base 10 preferably comprises a pair of generally bell shaped members 12 and 13 which are inverted with respect to each other, the upper member 13 being rotatably mounted on the lower member 12. The base members may be formed of any suitable material. In the illustrated embodiment they are shown as being stamped and drawn out of sheet metal. The open lower end of member 12 is covered by a disk-like bottom plate 14 having a plurality of spaced, upstanding, positioning flanges 15 which center the bottom plate with respect to the base 12, and position it slightly below the lowermost edge thereof. Accordingly the spaces 16 between flanges 15, provide air inlet passages into the hollow interior 18 of the base. A pad 17, of felt or other soft material, may be glued, cemented or otherwise secured to the under face of closure plate 14 in order to provide a non-marring, supporting surface for the lamp.

The upper portion of base member 12 is desirably formed with a flattened surface 19 which is pierced, presenting a plurality of openings 20 for passage of air. A pair of arcuate slots 21 are also formed in surface 19 for a purpose to be hereinafter described.

The bell-shaped or conical member 13 is provided with a flattened lower surface 22 which is also pierced by openings 23 conforming in number, size and arrangement with openings 20 in the lower member. A pair of projections 24 extend below surface 22 and are movably seated in the slots 21. These projections may be pins, screws or other suitable parts and are illustrated

as comprising rivets whose heads 25 are welded or otherwise rigidly secured to surface 22. The upper edge of member 13 is provided with a tubular, upstanding, stiffening rim 26 for seating the chimney, and this rim is provided with a pair of L-shaped slots 27 which function to removably receive and lock bayonet type pins extending from the chimney.

The several parts comprising the base, namely members 12, 13 and closure 14, are desirably each provided with central openings through which passes a suitable fastening means. In Fig. 1 this means is illustrated as comprising a connecting bolt 28 whose head is countersunk in a conical depression in plate 14 and whose upper end is provided with one or more nuts 29 which bear on surface 22 with enough pressure to prevent separation of the assembled parts, but not so much pressure as to prevent relative rotation of members 12 and 13.

The candle 50 is desirably retained in a receptacle 51 which serves to catch the candle drippings. Receptacle 51 is removably seated on a supporting bracket 52 which positions the candle and its receptacle centrally of the base member 13 and chimney 30. Preferably the bracket 52 is formed from a flat disk-like stamping in which upstanding lugs 53 of ornamental configuration are pressed to receive and position the candle receptacle. Spaced radial arms 54 (see Fig. 5) extend outwardly between the lugs. These arms serve to removably seat the bracket in member 13, the outer edges of the arms engaging the junction of the conical wall of member 13 with rim 26. The spaces 55, between arms 54, provide air passages from the interior of member 13 to the interior of the lamp chimney.

Preferably the lamp chimney 30 is a tube of transparent material such as glass or plastic which permits viewing of the burning candle for obtaining decorative effect. To protect the chimney, which may be frangible, from breakage, it is provided at each end with a strengthening band 31. Each band is annular in shape and L-shaped in cross-section, presenting walls 32 and 33 which respectively abut the end and outer surfaces of the chimney. The bands are permanently secured to the chimney by cement, glue, or by any other desired means. Each band is provided with a pair of projecting pins 34 which cooperate with slots 27 to removably fasten the chimney to members 13 at both its upper and lower ends (see Fig. 2).

The member 13 which caps the upper end of the chimney is identical in all respects with that described as supporting the lower end of the chimney, except that, if desired, projections 24 may be omitted since they serve no useful purpose in the upper element 13.

The canopy 40 is supported in spaced relation above the apertured wall 22 of the chimney cap 13 by means of a spacer bracket 45. This bracket comprises a flat surface, centrally apertured for reception of a connecting bolt 48, and downturned spaced legs 46. The spacings 47 between the legs permit egress of air to the underside of the canopy. Cap member 13, bracket 45 and canopy 40 are secured together as an assembly by the bolt 48 and the ornamental cap nut 49.

As may be observed in Fig. 1, the base members 12 and 13 are provided with indicia in the form of arrows 80, 81 and 82 and legends for indicating the proper positions of these two members to support combustion when the lamp is "on" and to prevent passage of a combustion supporting draft when the lamp is "off." Intermediate positions of arrow 80 with respect to arrows 81 and 82 indicate intermediate settings of the control valve apertures to regulate the draft within the chimney.

The mode of use and operation of the improved candle lamp shall now be described. When it is desired to light the candle or replace it, the chimney 30 is grasped in one hand and the base member 12 in the other to twist the two with respect to each other so as to separate the lower pins 34 from the locking slots 27. Thus the entire upper portions of the lamp including the canopy, the spacer 45 and the cap 13 are removable with the chimney to gain access to the candle or its receptacle. The candle may then be lighted but preferably before replacement of the chimney, the base 13 is rotated to bring the arrow 80 in alignment with the arrow 81. This is the "on" position of the lamp, wherein the apertures 20 and 23 in the walls 19 and 22 are exactly superimposed to allow air to pass from the base to the chimney interior (see Fig. 4). Upon replacement of the chimney on base member 13, the burning candle is clearly and decoratively visible and yet is protected by the chimney against extinguishment by wind, rain or other weather effects when burned outdoors, and from drafts and the like when burned indoors. The chimney creates a flue-like draft upwardly past the candle which supports its combustion but is not so strong as to blow out the flame. The passage for air past the candle is defined by the inlets 16, the hollow interior of base 12, the valve port apertures 20 and 23, the interior of lower member 13, the bracket spaces 55, the space surrounding receptacle 51, the interior of the chimney, the interior of the cap 13, and the air outlet spaces 47 in bracket 45. The vented air is discharged under the canopy 40 and is deflected thereby in downward and outward directions. It will therefore be apparent that apertured walls 19 and 22 of the base members 12 and 13 are valve-like in their operation because by turning with respect to each other they act to entirely open, entirely close or merely restrict the cross-section size of the air passage.

It is apparent that when arrow 80 is aligned with arrow 81 the apertures 20 and 23 are in complete alignment and the air passage from the base is completely open to allow a combustion supporting draft in the chimney. When the lamp is to be used in a drafty location it is desirable to rotate parts 12 and 13 so that arrow 80 takes an intermediate position, in which the openings are partially misaligned and the air passage is restricted. When it is desired to extinguish the candle the base member 13 is turned so that arrow 80 aligns with arrow 82 and the apertures 20 and 23 are completely misaligned as shown in Fig. 3. This completely closes the air passage and snuffs out the candle flame by preventing the flow of additional flame supporting oxygen. Thus it is unnecessary to remove the chimney to blow out the candle.

It is apparent, therefore, that base members 12 and 13 as well as providing support means for the candle and chimney, are provided with integral parts which act as a valve to regulate the flow of air within the lamp. The aforementioned pins 24 riding in slots 21 serve as motion limiting stops which restrict the rotation of the base members to an arc, sufficient to clear the apertures 20 and 23 of each other, and whose ends correspond

to the described "on" and "off" positions as clearly illustrated by comparison of Figs. 3 and 4.

The chimney **30** may of course be readily detached at both its ends from the rest of the lamp structure to facilitate washing or otherwise cleaning its interior surface.

In Figs. 6–8 I have illustrated a guard which may be placed about the chimney lamp and adjusted to vary the solid angle of emitted light.

The guard is preferably made from opaque material such as metal, plastics or the like, and may be suitably embellished to present a pleasing design or appearance. The guard may be desirably formed of two semi-cylindrical parts **60** and **61**, one covering an arc of substantially 180° while the other covers a slightly greater arc. Part **60** has a radius of curvature equal to that of the outer surface of the chimney, while part **61** is preferably formed with slightly greater radius approximating that of the outer surface of part **60**. The inner semi-cylinder **60** may be applied to the outside of the chimney **30** with its ends abutting the chimney ring flanges **33**, see Figs. 6 and 7. These ends are preferably formed with flanges **62** which define channels **63** in which adjustable semi-cylinder **61** slides. Each guard part is also desirably provided with an upstanding, finger grasping portion **64**, secured thereto in any convenient manner.

It is apparent that guard **61** may be adjusted, sliding in channels **63**, to a position completely blocking emission of light through the chimney, or to a position leaving substantially 180° of the transparent chimney free to emit light, or to any position between these described positions. Thus the guard is useful not only to protect the frangible chimney but to selectively limit the light permitted to escape therefrom. This feature is useful when it is desired to cast the lamp beam in a given direction or to limit the amount or direction of light, as for example when used as a night lamp in an infant's bedroom.

When it is desired to remove the guard, part **61** is slid to that position in which it covers part **60** entirely and covers the chimney slightly more than 180°. The finger portions **64** may then be spread a small amount against the resilience of the guard portions so as to allow the guard to fall away from the lamp chimney. Similarly when applying the guard to the lamp, the parts may be spread a small amount to permit them to snap about the chimney.

While most if not all of the objectives of this invention are attained by the preferred embodiment illustrated and described herein, it will be readily understood that many of the objects are attainable by modified embodiments not described or illustrated. For example, the draft controlling valve in the preferred embodiment has been integrated with the two major parts of the lamp base for purposes of economy of manufacture and simplification of operation. Yet some if not all of the objectives may be obtained in a modified lamp having the valve structure placed elsewhere in the air passage.

In general, it will be apparent that the invention as described herein and illustrated in the drawings may be embodied in forms other than those shown and described, and that various changes in detail may be made by those skilled in the art without necessarily departing from the spirit and scope of the invention as expressed in the appended claim.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent is:

A candle lamp comprising a chimney of uniform cross-section open at both ends, a top bell-shaped closure member comprising an outwardly extending conical portion and a top wall portion at its smaller end, said top closure member being detachably secured at its larger end to the top of said chimney, openings in said top wall portion of said top bell-shaped closure member to allow air to circulate, a bottom bell-shaped closure member comprising an outwardly extending conical portion and a bottom wall portion at its smaller end, said bottom bell-shaped closure member being detachably secured at its larger end to the bottom of said chimney, openings in said bottom wall portion of said bottom bell-shaped member, a candle holder within said chimney, a canopy mounted above said chimney in spaced relation to said top closure member, a bell-shaped base member comprising an outwardly extending conical portion and a top wall at its smaller end, said base member having air vents in said conical portion to communicate with the exterior and openings in said top wall, the bottom wall of said bottom bell-shaped closure member being rotatably mounted on the top wall of said bell-shaped base member, the openings in said bottom wall of said bottom bell-shaped closure member being complementary to the openings in the top wall of the base member, whereby rotation of bottom bell-shaped closure member relative to the base member in one direction will cause the complementary openings to be in registry with each other and rotation of the bottom bell-shaped closure member relative to said base member in the opposite direction will cause said complementary openings to be out of registry with each other.

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