AESTHETIC ILLUMINATING DEVICE

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Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Fig. 8

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Aesthetic illuminating device

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Abstract of the disclosure

A buoyant member to support a short candle when floating upon the surface of a body of liquid and formed from cellular waterproof sheet material of limited compressibility, said member having a hole coaxial with the center of gravity of said member and of a diameter slightly less than that of said candle to frictionally engage and support the candle substantially vertically, said candle having a coating of slower burning material than that from which the inner body of the candle is formed so as to retain a pool of melted body material around the wick and prevent escape thereof onto said member.

Background of the invention

Various types of decorative or aesthetic types of illuminating devices and arrangements are available of the type which primarily comprise a wick floating upon a pool of oil in a suitable container. The pool of oil usually floats on top of a body of water within the same container. Frequently, the container is glass and is either transparent or translucent, often being made of colored glass of suitable hue. Handling the container and arranging the wicks in such arrangements sometimes presents at least limited problems due to the characteristic nature of such illuminating fluid, especially in regard to cleaning the container in which the oil has been burned.

Typical examples of floating wick devices of the type referred to above are illustrated in U.S. Patents, Nos. 2,246,346 to Carroll, dated June 17, 1941, and 3,183,688 to Sobelson, dated May 18, 1965.

At least one attempt has been made to provide a floating or buoyant holder for a short candle which is intended to be suspended in a body of liquid, as illustrated in U.S. Patent No. 2,330,705 to Hamblet, dated Sept. 28, 1943. The concept described in said patent however comprises using sheet material such as crepe paper dipped in wax to render it waterproof after being shaped to form a vessel adapted to displace some of the liquid in which it is to float to render the device buoyant in the same manner as a boat is buoyant. Cup-shaped socket means are required to accommodate the base of the candle supported by such arrangements.

Summary of the invention

The principal purpose of the present invention is to provide an extremely simple, inexpensive, as well as attractive and artistic buoyant supporting member which preferably is stamped from cellular, waterproof sheet material and provided with a hole of slightly smaller diameter than that of the candle to be supported thereby. The material is at least slightly compressible and thereby permits a short candle to be inserted through said hole so as to provide firm frictional engagement between the buoyant member and the candle.

In the preferred construction, certain portions of the edge of the buoyant member extend radially from the axis of the hole a greater distance than other portions of the edge of the member, thereby enhancing resistance to tilting and otherwise making it possible to support a candle of slightly greater height than otherwise would be possible when using a supporting member of smaller overall diameter. Such radially extending portions may be fashioned artistically to resemble leaves, geometrical configurations and otherwise, while also serving the utilitarian function of increasing buoyancy and minimizing the possibility of tipping.

The type of candle also preferred to be used is one in which the body portion primarily comprises paraffin or other suitable type of candle wax presently used and a sheath or coating is applied to the outer wall thereof of a slower burning or melting nature than the inner body portion, whereby such coating serves as a barrier wall around the upper end of the candle, when lit, so as to maintain a small pool of melted wax or paraffin within the wall which is continually consumed as the burning of the candle progresses. The exterior coating gradually melts or is burned as the candle is consumed but always is sufficiently high to prevent the spilling of the liquid wax or paraffin onto the buoyant member. Should such spilling occur, it could result in eccentrically loading the buoyant member and thus cause tipping thereof, but such tipping is prevented by the employment of the preferred type of coating on the body of the candle as described above.

Brief description of the drawing

FIG. 1 is an exemplary perspective view of a container in which a body of water is disposed and upon which a buoyant member is shown floating to support a short candle in accordance with the principles of the invention.

FIG. 2 is a side elevation of the illuminating arrangement shown in FIG. 1.

FIG. 3 is a plan view of an exemplary group of buoyant supporting members arranged in a sheet of material from which they are stamped and providing a convenient arrangement for merchandising a group of said members.

FIG. 4 is an enlarged transverse sectional view of an exemplary floating member of the type shown in the preceding figures and illustrating in slightly exaggerated manner a layer of soluble dye on the lower surface of the member.

FIG. 5 is an enlarged side elevation of one of the buoyant members arranged in supporting relationship upon a short candle to be floated in accordance with the invention.

FIG. 6 is a view similar to FIG. 5 but showing the supporting member in phantom and the candle is partially sectioned to illustrate a coating surrounding and fixed to the interior body portion of the candle.

FIG. 7 is a side elevation, partly in section, showing the manner in which the coating on the candle functions to maintain a pool of melted candle material immediately around the wick so as to prevent spilling of the melted material onto the buoyant member.

FIG. 8 is an enlarged fragmentary vertical sectional view illustrating a typical type of incising pattern impressed into one surface of a sheet of cellular waterproof material to form the outline of supporting members in a sheet of such material as shown in FIG. 3.

Description of the preferred embodiments

Referring to FIGS. 1 and 2, an exemplary container is shown which preferably is of a so-called hollowware nature such as a bowl, brandy sniffer, compote or the like. Preferably, the container is formed of transparent or translucent material such as glass or appropriate plastics such as a suitable synthetic resin. The container also may be tinted or colored appropriately to add to the aesthetic impression of the arrangement comprising the illuminating device of the present invention described hereinafter.

The container 10 is filled to a desired height with a body of Liquid 12, such as water. If desired, the water...
initially may be colored a desired hue but, in accordance with the principles of the invention, such coloring may readily be achieved by means described hereinafter.

The device employing the present invention primarily consists of a relatively flat, buoyant member 14 which, for example, may be formed by stamping the same or incising the outline thereof from a sheet 16 of cellular waterproof material of suitable thickness. For example, when supporting a candle 18 that fits tightly one inch high and three-quarters of an inch in diameter, sheet material which is approximately one-sixteenth of an inch in thickness is appropriate, particularly if the buoyant member 14 for example, is approximately two inches in diameter. These dimensions however are to be regarded as illustrative of not the ultimate size of the candles are desired, thicker cellular material and/or larger diameters may be employed in members 14.

One form of commercial type of cellular waterproof material such as sheet 16 may be formed from suitable regenerated cellulose or the like, appropriately processed to the size of the candle cell 17. This arrangement is preferably of such material is sold under the trade name "Styrofoam." It is also to be understood that the buoyant member 14 preferably should be of light weight and relatively stiff. The appropriate commercial types of such material referred to above also are at least slightly compressible. This is advantageous with respect to the present invention for reasons described hereinafter.

It will be seen from FIGS. 1 and 3 in particular that the buoyant member 14 preferably is shaped to have an aesthetic configuration, the specific illustration employed herein comprising an eight pointed star. Such arrangement is merely to be considered illustrative rather than restrictive however since it is obvious that numerous other aesthetic shapes are possible such as various configurations of leaves, floral outlines, as well as many other types of geometric configurations than that illustrated. It is preferred that in conjunction with selecting a suitable aesthetic outline for the member 14, certain portions of the periphery extend radially a greater distance than other portions so as to enhance the stability of the member when tilting when floating upon a body of liquid, such as the exemplary quantity of water 12 in the container 19.

Formed within each member 14, coaxially with the center of gravity of the member, is a hole 20 which, in the preferred construction, is slightly smaller in diameter than the diameter of the candle 18 desired to be employed with the member 14. Due to the limited compressibility of the material from which the member 14 is formed, when candle 18 is pressed into the hole 20, the perimeter of the hole is capable of being expanded and thus fractionally engage and support the candle preferably perpendicularly with respect to the plane of the member 14 when in use. Such arrangement provides an extremely simple and reliable means for effectively supporting a candle 18 in desired relationship with respect to the buoyant member 14. Due to the fact that the candle also will remain distanced with the hole 20 and the type of a suitable wick 21 may be combined with the member 14, the center of gravity of the member 14, under normal burning conditions, the candle 18 will float vertically upon the upper surface of the body of liquid 12.

When forming the members 14 from a sheet 16 of appropriate cellular waterproof material, one preferred method of achieving the same is to provide a suitable die having a configuration of knife-like edges arranged to resemble the desired outline design for the member 14, and then press such die against the upper surface of the sheet 16 to form outlining incisions 22, one exaggerated, enlarged exemplary cross sectional illustration of which is shown in FIG. 8. Under such conditions, it is preferred that the incisions 22 do not extend entirely through the entire thickness of the material 16. The incisions should be sufficiently deep however that simply by lightly pressing upon the members 14, they may be punched neatly and cleanly from the sheet 16. Such method and arrangement affords a ready means of not only manufacturing but also merchandising a plurality of such buoyant members 14 such as in an appropriate envelope or other packaging means.

Further to enhance the aesthetic capability of the buoyant supporting members 14 and the candles 18 supported thereby, it is additionally contemplated by the present invention to provide on the lower surface of each of the members 14 a layer or coat of a suitable color or hue. Such dye preferably is readily soluble in whatever type of liquid one intends to float the member 14 upon when a candle 18 is assembled therewith. For example, if the liquid is water, the dye 24 should be readily water soluble. Upon placing the member 14 upon the surface of the water with the layer 24 lowermost, said dye readily and quickly dissolves in the water and diffuses rapidly throughout so as to impart a uniform hue or color to the liquid 12. This adds substantially to the aesthetic value of the illuminating device comprising the invention. The aesthetics may be further enhanced by coloring the upper surface of members 14 a desired hue harmonious with the colored liquid.

While it is possible to use a candle 18 of substantially customary construction, such as by molding the same entirely from paraffin or other commonly used type of wax to form candles, it is preferable to employ a candle 18 to be employed in accordance with the present invention have an interior body portion 26 of readily burnable material such as paraffin or other appropriate type of candle wax, and that the exterior surface thereof be provided with an outer layer or coating 28 which adheres firmly to the interior body 26. The coating 28 may be formed of any of a number of appropriate substances, one highly suitable material comprising cellulose acetate propionate. The specific reference to this latter material is not to be regarded as restrictive however since there are a substantial number of other types of organic resins of synthetic resin nature as well as appropriate so-called hard waxes and the like, which may be used with substantially equal facility as long as such material, in use, melts and is consumed more slowly than the material from which the interior body 26 of the candle is formed. Such coating also may be suitably colored or tinted and thereby enhance the aesthetic arrangement of the invention.

The purpose of providing the particular type of outer coating 28 as described above is best illustrated in FIG. 7 wherein there is an exemplary illustration of such a candle 18 in use. It will be seen that the interior body portion 26 of the candle is consumed more rapidly than the outer coating 28, whereby the upper end 30 of the coating forms an annular wall or barrier within which is a limited amount of melted paraffin or wax 32 is retained immediately around the candle wick 34. As a result of this, there is substantially no tendency for the melted wax 32 to escape and run onto the buoyant member 14, for example, at a localized area thereon. Should such localized accumulation of wax occur at an eccentric location upon the member 14, it is obvious that the same would tend to tilt and this would lead to the further escape of melted wax 32, thus even further accentuating the eccentric loading of the member 14 and causing it to tilt to an undesirable extent such as would detract from or destroy the desired aesthetic effect of the entire illuminating arrangement.

From the foregoing, it will be seen that the present invention comprises preferably a combination of a simple, aesthetic, inexpensive but highly effective members 14 and buoyant member arranged to be floated upon the surface of a pool of suitable liquid, such as water, in an attractive container and support a relatively short candle preferably perpendicularly with respect to the plane of the buoyant member and the surface of the liquid. When the candle is lit, it will provide limited illumination of a type highly acceptable for dining and cocktail purposes as well as other circumstances and situations such as after dark outdoor occasions where such aesthetic and limited type of
illumination is desirable. The preferred construction of the candle as described above enhances the operability of the buoyant member and the preferred provision of a layer of readily soluble dye upon the lower surface of the buoyant member so as to readily color the body of liquid upon which it floats additionally adds to the aesthetic capabilities of the invention.

Also in accordance with the preferred method and manner of manufacturing and merchandising a plurality of the buoyant members, it is possible at no increase in cost to provide an assortment of different peripheral shapes or outlines of such buoyant members arranged in a single card or sheet of the material from which the members are formed by stamping or the like, thereby additionally adding to the aesthetic possibilities of the invention when in use.

While the invention has been described and illustrated in its several preferred embodiments, it should be understood that the invention is not to be limited to the precise details herein illustrated and described since the same may be carried out in other ways falling within the scope of the invention as claimed.

I claim:

1. An aesthetic buoyant illuminating device comprising a support adapted to float upon the surface of a body of liquid in a light-transmitting waterproof container, said support comprising a relatively flat buoyant member formed from a sheet of lightweight cellular waterproof material of limited yieldability and having a hole positioned substantially coaxially with the center of gravity thereof, in combination with a relatively short candle of less height than the transverse dimension of said support and the diameter of said hole being slightly less than the diameter of said candle, said limited yieldability of said material of said support permitting said candle to compress the periphery of said hole in said support when inserted therein and thereby provide firm frictional engagement between said support and candle, whereby said candle is supported by said support substantially vertically without tipping relative to the surface of liquid when floating thereon.

2. The buoyant illuminating device according to claim 1 in which said support is stamped from a sheet of cellular waterproof synthetic resin and sufficiently rigid to prevent bending in use.

3. The buoyant illuminating device according to claim 1 in which the peripheral outline of said buoyant support is irregular and comprises an aesthetic arrangement of similar members projecting radially from the periphery of said hole a distance at least as great as the diameter of said hole and spaced even distances apart around the periphery of said hole to facilitate the ability of said support to resist tilting when floating upon a body of liquid.

4. The buoyant candle support according to claim 1 further including a dried body of readily soluble dye carried by said buoyant member in a location engageable with a body of liquid in a container when said member is placed upon the surface thereof to float thereon, whereby said dye dissolves in said liquid and colors it aesthetically.

5. The buoyant candle support according to claim 4 in which said body of dye comprises a dried layer thereof disposed on the surface of said member engageable with a body of liquid when floating thereon and capable of readily dissolving and diffusing through said liquid rapidly.

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