Feb. 6, 1968 I. L. KOENIG 3,367,322

DEVICE FOR HEATING WAX BASE MATERIALS

Filed April 25, 1966

Fig. 1

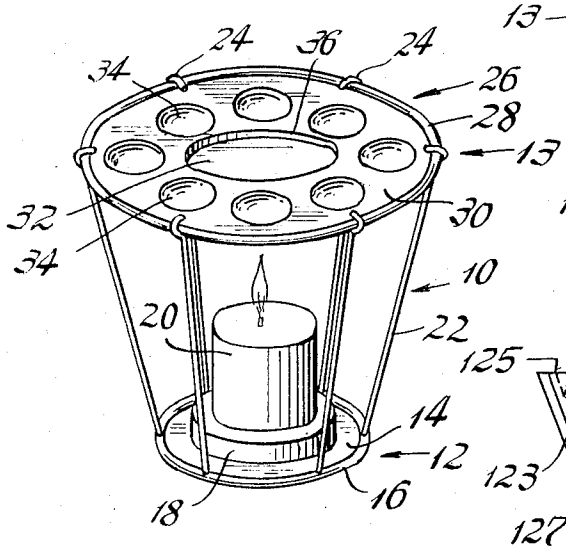


Fig. 2

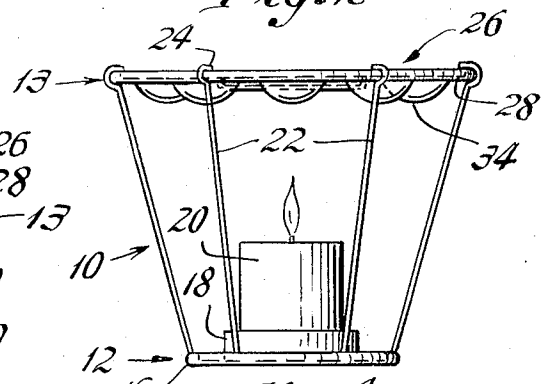


Fig. 3

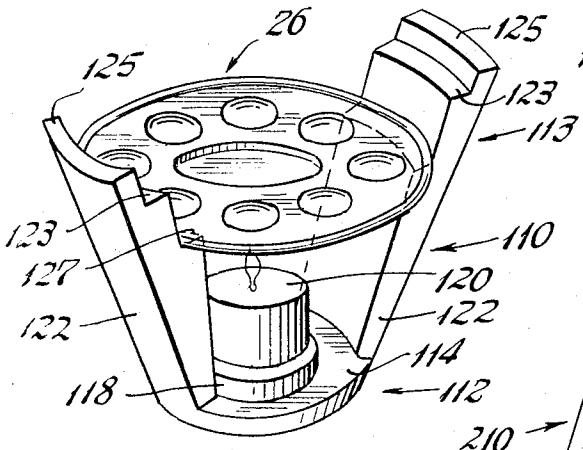


Fig. 4

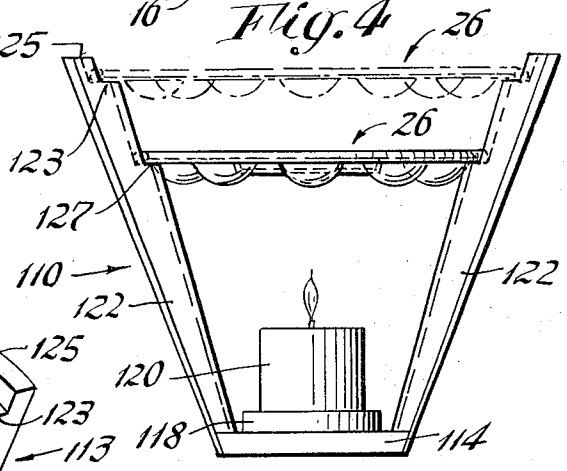


Fig. 5

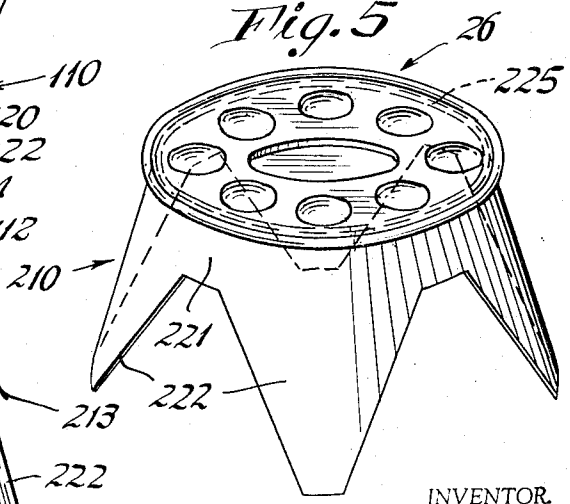
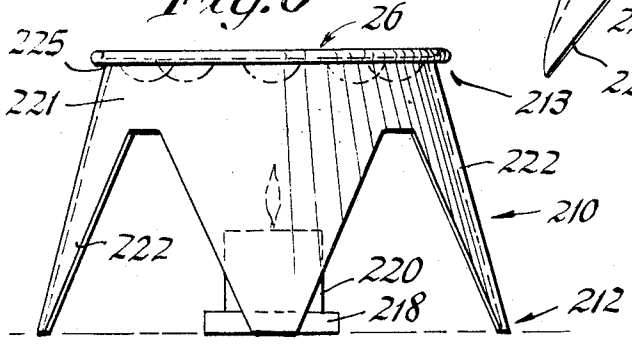


Fig. 6



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DEVICE FOR HEATING WAX BASE MATERIALS

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This invention relates generally to painting accessories, and more particularly to devices for heating and maintaining in a liquid state wax base painting or coloring materials.

Wax base painting or coloring materials, of which an ordinary child's crayon is a typical example, are frequently used by artists, hobbyists and children as the coloring media for a wide variety of decorative creations. For example, paintings and pictures are drawn on paper or other suitable surface utilizing different colored melted crayons with which the user can effect various textures such as blobs, streaks, training lines and curl effects, to create an almost infinite variety of original and esthetically pleasing designs.

In addition, colorless melted wax is used in a variety of so-colled crayon resist methods, such as batiking, in which colorless wax is applied in a design pattern to a piece of cloth, after which the cloth is immersed in a coloring die which is not accepted by the ornamented part of the cloth. After removing the wax by boiling or otherwise, the designs stand out against the colored background.

Heretofore, a common method of applying the liquid wax to paper or cloth for the above or other purposes has been to melt the end of a crayon over a candle, allow the liquid wax to drop on the coloring surface and quickly spread the wax using the unmelted portion of the crayon or other suitable instrument before the wax hardens. The difficulties of such a procedure in the manipulation of a lighted candle and the necessity of continuously melting the crayon to obtain the requisite quantity of liquid wax are readily apparent. This procedure also entails a significant safety hazard in the handling of an open flame in close proximity to paper or cloth, particularly where the user is a young or inexperienced person.

Some prior art devices have been proposed in which a plurality of electrically heated cartridges or receptacles are mounted on a hand held base, with mechanical means to control the flow of liquid wax from a dispensing end of the cartridges. These devices are frequently large and heavy due to the electrical and mechanical parts and are therefore cumbersome and difficult to manipulate, particularly in connection with painting or decorating intricate or fine designs and patters. In addition, these devices are relatively expensive, and their utility is consequently usually limited to professional artists, and hobbyists and and children must resort to the above mentioned candle method. Still further, these devices have no provision for mixing basic colors in liquid form to produce a mixture of a secondary color.

There is, therefore, a need in the art to which this invention pertains for a relatively simple, inexpensive and portable wax heating accessory which avoids the disadvantages of the procedures mentioned above, as well as others, and which eliminates problems in this art not heretofore satisfactorily solved.

To this end, the present invention, in its broader aspects, provides for a device for heating and maintaining in a liquid state a plurality of discrete quantities of wax base material, and comprises generally an upright stand having a base or lower portion and an uppermost supporting means, means located substantially centrally of the stand for holding a quantity of combustible material, such as a short stub candle or small can of other combustible material, and a palette supported in upwardly spaced relationship to the combustible material. The palette is formed of a heat conducting material, is preferably circular, and has a central heat receiving portion and an annular wax base material holding portion surrounding the heat receiving portion.

The latter portion is provided with a plurality of depressions formed therein each adapted to hold a quantity of the wax base material of a different color. The construction and arrangement of parts and selection of materials is such that lumps of colored wax placed in the depressions are heated to a liquified state by the flame from the combustible material and maintained in that state during a period of use, the heat being conducted through the palette from the central heat receiving portion to the depressions in the annular portion.

Having briefly described the present invention, it is a principal object thereof to provide a device of the character described to serve as a convenient accessory in the art of painting or coloring with liquid wax as the coloring media.

It is another object of the present invention to provide a device of the character described which melts and maintains in liquid form a plurality of different colored discrete quantities of wax base material to facilitate immediate selection of various colors by the user.

It is still another object of the present invention to provide a device of the character described in which a palette both holds several individual supplies of liquid wax and also has provision for mixing two or more of such supplies together, which mixture is maintained in liquid form from a single source of heat.

A feature of the present invention is the provision of means in the stand for accommodating palettes of different size or diameter and therefore different numbers of wax holding depressions.

Yet another object of the present invention is to provide a device of the character described in which the palette in which the wax is melted is also utilized as a storage facility for the wax when the device is not being used for painting or coloring.

It is still a further object of the present invention to provide a device of the character described which is highly portable, extremely simple and completely safe to use, and which is economical to manufacture and applicable for commercial distribution both as an article of commerce and is an accessory in a variety of painting sets or toys.

These and other objects and features of the present invention will be more apparent from an understanding of the following description thereof when considered in conjunction with the accompanying drawings in which:

FIGURES 1, 3 and 5 are perspective views of three different embodiments of the present invention; and

FIGURES 2, 4 and 6 are side views respectively of the embodiments of FIGS. 1, 3 and 5.

Referring now to the drawings and particularly to FIGS. 1 and 2 thereof, one embodiment of the invention comprises an upright stand **10** which has a base portion **12** and an uppermost supporting means **13**. The base portion **12** is preferably in the form of a generally flat base member or plate **14** having a bead or rolled edge **16**. Centrally located on the plate **14** is a cup **18** or other suitable receptacle for holding a quantity of combustible material, which preferably is an ordinary relatively short stub candle **20**. It is contemplated, however, that other forms of fuel may be utilized, such as combustable jellied compositions generally known as canned heat. The cup or receptacle **18** may either be removable from the plate **14** or it may be suitably secured thereto or formed integrally therewith.

Suitably secured to the plate **14** adjacent to or on the bead **16**, such as by brazing or soldering, are a plurality of relatively rigid yet slightly flexible supporting members or legs **22** which are disposed around the periphery of the plate **14**. While six such legs are shown, it is apparent that any number of at least three or more may be provided.

The legs **22** terminate upwardly in hook shaped portions **24** which open radially inwardly and which are adapted to securely but removably hold a heating palette generally indicated by the numeral **26**.

The heating palette **26** comprises a generally flat plate, preferably circular in plan, having a peripheral bead or rolled edge **28** which is adapted to have a removable snap fit with the hook shaped portions **24** of the legs **22**, an annular flat portion **30** and a central flat heat receiving portion **32**. The annular portion **30** is provided with a plurality of wax base material holding depressions or well **34** in which different colored quantities of wax are melted. The central portion **32** is flat, or may be very slightly concave, and it is slightly depressed below the surface of the annular portion **30** so as to be connected thereto by a raised rim **36** to prevent the flow of liquid wax away from the central portion when two or more different colored waxes are mixed together in this portion to make a quantity of wax of a secondary color or mixed shade.

The palette **26** may be of any suitable diameter and may have any desired number of wells **34**. It is contemplated that the legs **22** shall have sufficient resilience to permit them to be bent outwardly to accommodate and hold at least two different sizes of palettes. The legs **22** are, therefore, normally biased radially inwardly to a position which is slightly less than the diameter of the smallest palette contemplated.

The palette may be fabricated from a variety of heat conducting materials. Aluminum is preferred not only because of its high heat conductivity, but also because of its low degree of heat retention, whereby when the source of heat is removed, the entire palette cools quickly and may be handled safely, and the liquid wax solidifies more rapidly than with metals having a higher degree of heat retention.

It is apparent from the above that in use, when the candle or other fuel is ignited, heat is conducted from the central portion **32** to the wells **34** to melt lumps of colored wax or crayon in the wells. The construction and arrangement of the parts is such that enough heat is supplied to keep the wax in a completely liquid state without unnecessarily overheating the wax material.

The central portion **32** is used for mixing wax materials of different color together to create any color or shade desired, the mixture being maintained in a liquid state during the period of use and being confined to the central portion by the rim **36**.

Referring now to FIGS. 3 and 4, there is shown another embodiment of the invention which comprises an upright stand **110** which has a base portion **112** and an uppermost supporting means **113**. The base portion **112** is preferably in the form of a flat circular disc or plate **114** and is preferably formed of a suitable heat resistant synthetic or plastic material. Centrally located on the disc **114** is a cup **118** for holding a candle **120** or other suitable combustible material, the cup **118** being preferably molded with the disc **114**.

The stand **110** further comprises a pair of oppositely disposed arcuately extending supporting members or legs **122** which are molded integrally with the plate or disc **114**; thus the entire stand **110** is a one-piece molded article. While two such legs have been shown, it is apparent that three or four may be provided, in which case they are equi-angularly spaced and not necessarily opposite. Each leg **122** is provided with an upwardly facing substantially horizontal ledge **123** for supporting a palette **26** thereon, each leg **122** terminating upwardly in an upstanding lip **125** for maintaining the palette in position on the ledges **123**.

It will be noted that the legs **122** diverge upwardly from the base portion **112**, and that there is a lower ledge **127** formed on each leg in vertically spaced relation to the ledges **123**. The stand thus accommodates palettes of different diameter. It has been found that the difference in the amount of heat received from the flame at the different heights of the palettes is insufficient to effect efficient operation of the device in melting the wax base material and in maintaining it in a proper liquified state.

The palette **26** is identical in construction and function to that described above and therefore is not further described.

It should be noted that, in addition to the economy of manufacture of the stand **110** over that described above, since the stand of this embodiment is a one-piece molding, it has the added advantage that a palette, whether of small or large diameter, may be substituted on the base for a different palette with a minimum of difficulty and with the need of using only one hand, whereby palettes having different color combinations may be readily changed in the middle of a painting without the user having to otherwise disrupt his concentration.

Referring now to FIGS. 5 and 6, there is illustrated still another embodiment of the invention, which is at present preferred. In this embodiment, an upright stand **210** is formed as a unitary member and is provided with a base portion **212** and an uppermost supporting means **213**. The base portion is constituted merely by the bottom edge of each of a plurality of supporting members or legs **222** which are integral with an annular portion **221** disposed adjacent the upper portion of the stand. Any suitable receptacle **218** for holding a candle **220** is centrally placed within the legs **222** but it is not connected thereto for a purpose to be made clear hereafter.

The supporting means of this embodiment of the invention is constituted merely by the uppermost edge **225** of the annular portion **221**. It is therefore apparent that the annular portion **221** has a cross-sectional configuration corresponding to the peripheral shape of the palette **26**, at least at the upper edge **225**.

It will be noted that the legs **222** diverge downwardly toward the base portion **212** in such a manner that the bottom edges of each leg define a supporting means having a cross-sectional configuration coresponding to the peripheral shape of a palette which is larger than the palette illustrated which is supported by the edge **225**. It is thus contemplated that the stand **210** accommodates two different sizes of palettes by being invertible from the position shown in FIGS. 5 and 6 to a position where the stand rests on the edge **225** and the end edges of the legs **222** support the palette.

It will be apparent that this embodiment of the invention is very simple and economical to manufacture, and has the added advantages of being easy to manipulate and also of maintaining the same relative position between the flame and the palette regardless of the size of the palette.

It will be apparent from the foregoing description that there is provided a device for heating wax base coloring materials which achieves the abovementioned objectives in a highly efficient yet economical and commercially attractive manner. It is to be understood that the invention is not limited to the specific embodiments described above and illustrated in the accompanying drawings, which are merely illustrative of the best modes presently contemplated for carrying out the principles of the invention, but rather it is intended to encompass all such modifications and variations thereof as may be deemed to be within the scope of the claims appended hereto.

What I claim is:

1. A device for heating and maintaining in a liquid state a plurality of discrete quantities of wax base material comprising in combination an upright stand having a base portion and an uppermost supporting means, means located substantially centrally of said stand for holding a quantity of combustible material, and a palette supported in upwardly spaced relationship to said combustible ma-

terial by said uppermost supporting means, said palette being formed of heat conducting material and having a central heat receiving portion and an annular wax base material holding portion surrounding said heat receiving portion, said annular holding portion having a plurality of depressions formed therein each adapted to hold a quantity of said wax base material of a different color whereby heat from said combustible material is conducted through said palette from said central portion to said depressions to melt the wax base material therein and maintain the latter in a liquid state.

2. A device according to claim 1 wherein said central heat receiving portion of said palette is depressed relative to said annular portion and is connected thereto by an upwardly extending wall portion whereby quantities of different colored wax base material may be mixed and retained in said central portion.

3. A device according to claim 1 wherein said stand further includes means for accommodating palettes of different diameter having a greater or lesser number of depressions whereby a greater or lesser number of different colored quantities of wax base material may be simultaneously maintained in a liquid state.

4. A device according to claim 1 wherein said stand comprises a substantially flat base member supporting said combustible material holding means, and a plurality of relatively rigid supporting legs secured to the periphery of said base member, said legs terminating upwardly in substantially hook shaped portions opening radially inwardly and adapted to be removably engaged with the peripheral edge of said palette, said palette having a peripheral bead with which said hook shaped portions of said legs have a snap fit.

5. A device as set forth in claim 4 wherein said legs are resiliently biased to engage and hold a palette of predetermined diameter and are sufficiently flexible to be bent radially outwardly to support a palette of predetermined larger diameter.

6. A device as set forth in claim 1 wherein said stand comprises a substantially flat base member supporting said combustible material holding means, and at least a pair of angularly spaced arcuately extending supporting members formed integrally with the periphery of said base

member, said supporting members each having an upwardly facing substantially horizontal ledge for supporting said palette in said spaced relationship to said combustible material, said supporting members each terminating upwardly in an upstanding lip continguous with said ledge for maintaining said palette in position on said ledges.

7. A device according to claim 6 wherein said supporting members are inclined to the vertical and diverge upwardly, and there are a plurality of said ledges disposed in vertically spaced relationship on each supporting member whereby said supporting members may accommodate palettes of different diameter.

8. A device according to claim 1 wherein said stand comprises a unitary member having a cross-sectional configuration at at least one end thereof corresponding to the peripheral shape of said palette, an annular portion adjacent one end of said member and a plurality of spaced apart legs extending from said annular portion toward the other end, and wherein said supporting means is constituted by the outermost edge of the end of said stand having the cross-sectional configuration corresponding to the peripheral shape of said palette.

9. A device according to claim 8 wherein said stand has a cross-sectional configuration at both ends corresponding to the peripheral shape of said palette, and said supporting members diverge from said annular portion toward said other end whereby said stand is invertible and may support palettes of different sizes depending upon whether said stand is resting upon said one end or said other end.

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