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Bolinger

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[54] **WICK HOLDING ATTACHMENT FOR CANDLE MOLDS**

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[52] **U.S. Cl.** **249/93,** 249/120, 249/121, 425/803

[51] **Int. Cl.**.....**C11c 5/00**

[58] **Field of Search** .....18/1 K, 5.5, 26 R, 27, 28, 18/39, 40, DIG. 32; 249/83, 91, 93, 117, 119, 120, 94, 97, 139; 425/803

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[57] **ABSTRACT**

An assemblage for use in conjunction with a candle mold of the type including a plurality of upstanding downwardly tapering mold tubes having their lower ends secured through a lower plate provided with peripheral downturned flanges and their upper ends secured through an upper plate. The attachment includes a fluid sealing resilient pad receivable within the confines of the downturned flanges carried by the lower plate of the mold and against which the lower ends of the mold tubes are end edge engaged for sealing the lower ends of the tubes against the flow of molten wax therefrom and for clamping the lower ends of wick strings projecting out of the lower ends of the mold tubes, the lower ends of the wick strings being clamped between the end edges of the mold tubes and the resilient pad. The attachment further includes structure supported from the upper plate and removably positionable in registry with the centerlines of the tubes and above the latter and to which the upper ends of wick strings extending through the tube may be secured so as to ensure that the upper and lower ends of the wick strings will be suitably anchored as well as centered relative to the tubes.

2 Claims, 16 Drawing Figures

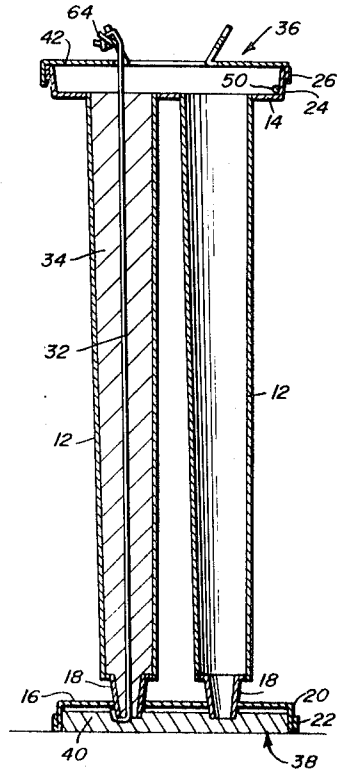


Fig. 1

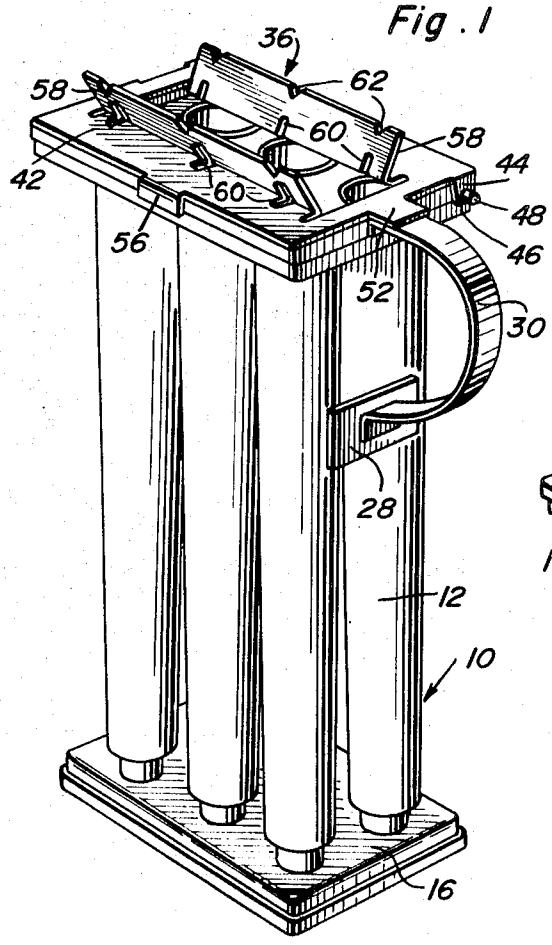


Fig. 2

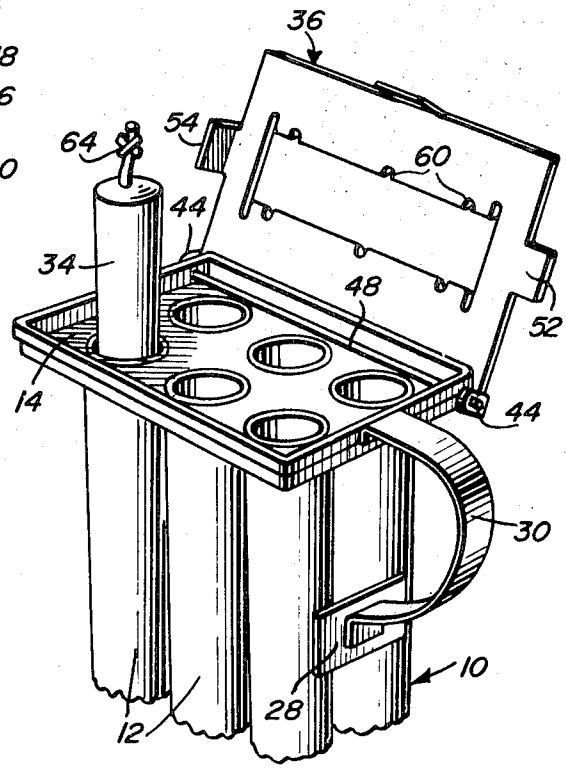


Fig. 8

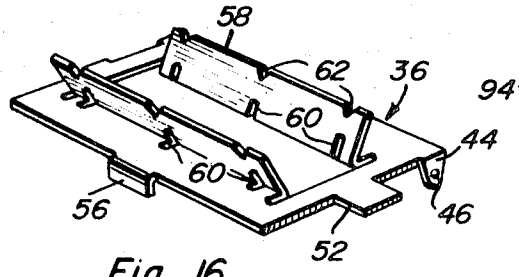


Fig. 9

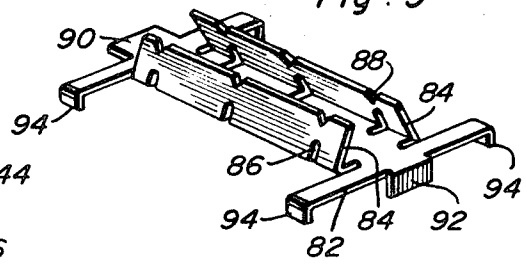
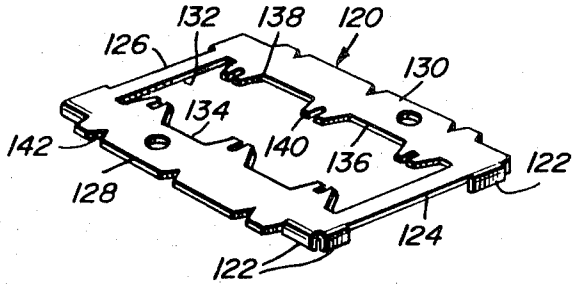


Fig. 16



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Fig . 3

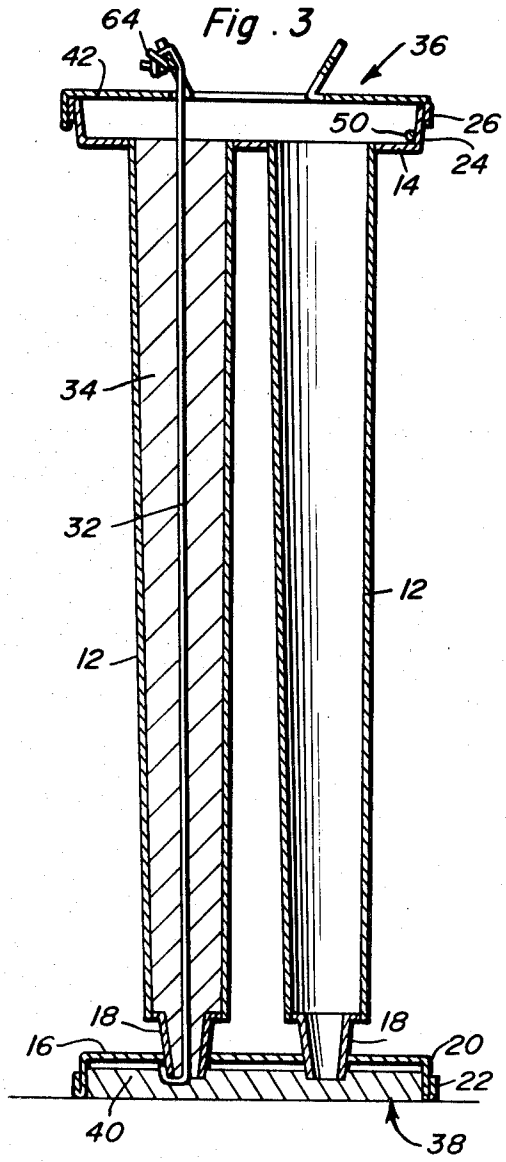


Fig . 4

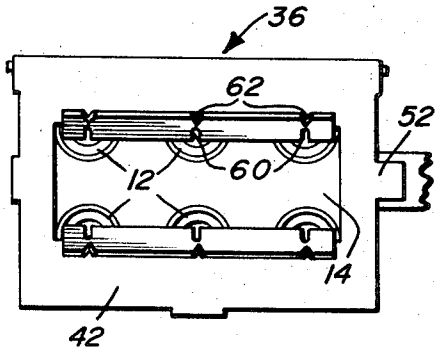


Fig . 5

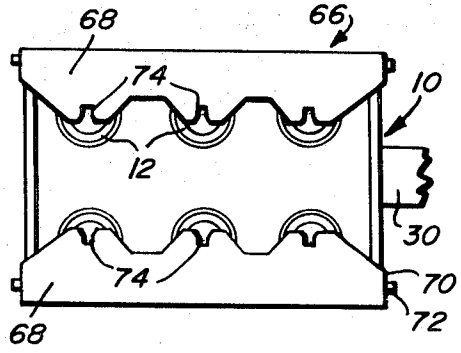


Fig . 6

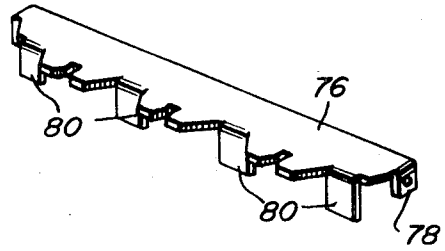
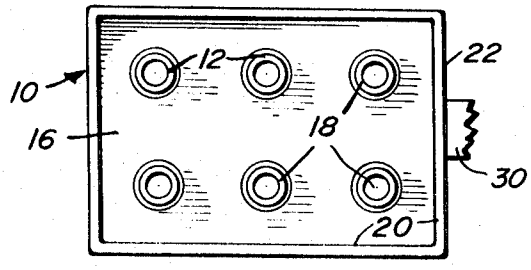


Fig . 7



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Fig. 10

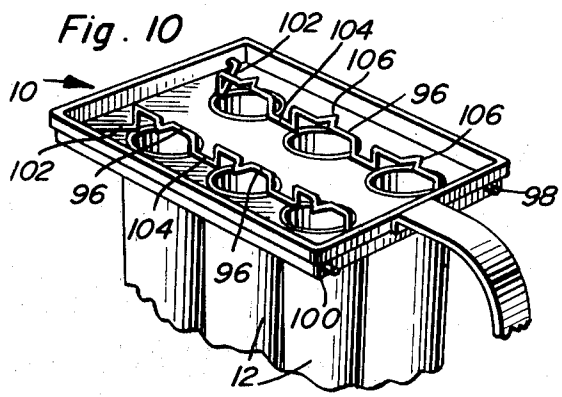


Fig. 11

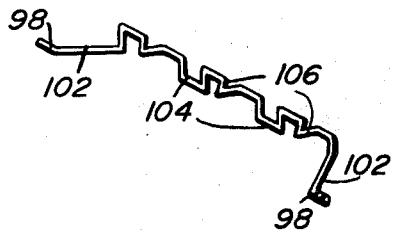


Fig. 12

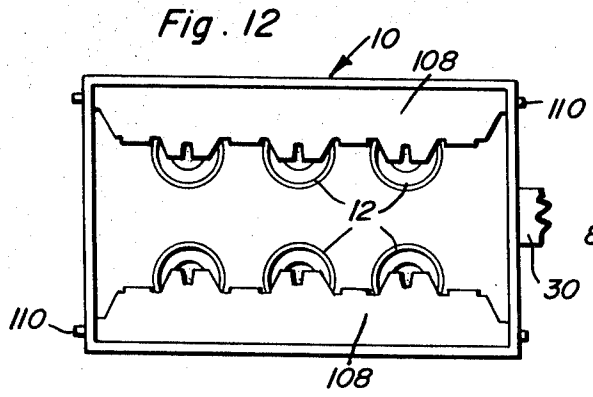


Fig. 13

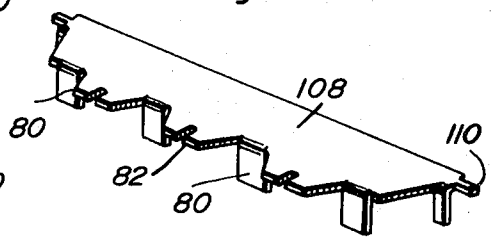


Fig. 14

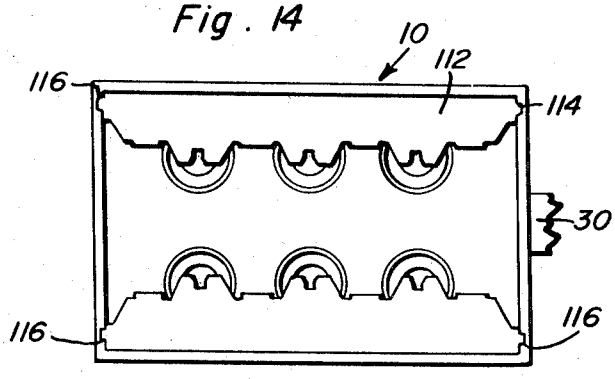
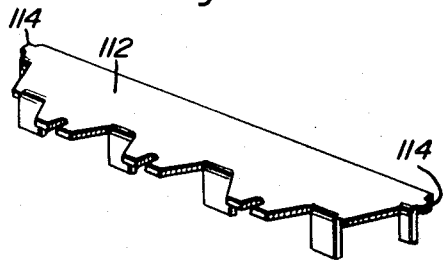


Fig. 15



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WICK HOLDING ATTACHMENT FOR CANDLE MOLDS

While most persons purchase candles from retail candle outlets, increasing numbers of persons are returning to making their own candles, not only as a hobby, but also to enable these persons who are making their own candles to produce candles of the exact color shades they desire. Also, homemade candles may have extra decorations added thereto and a person who makes his own candles may remake candles from partially burned candles with very little additional cost.

Persons desiring to make their own candles at home find the old candle molds convenient to use and the increased activity in making candles at home has resulted in a shortage of antique candle molds. Accordingly, it is proposed that new candle molds be manufactured patterned after the antique candle molds which have been used in the past and include a plurality of upstanding downwardly tapering mold tubes interconnected at their upper and lower ends by means of upper and lower horizontal plates through which the upper and lower ends of the tubes are secured.

However, these simple candle molds do not include means by which the lower ends of the tubes may be sealed against the flowing of molten wax therefrom and the upper and lower ends of the tubes are devoid of means for both securely anchoring and maintaining the wick strings in proper centered positions relative to the centerlines of the tubes.

It is accordingly the main object of this invention to provide a wick holding attachment for candle molds of the aforementioned type not only including means whereby the upper and lower ends of the wick strings used in the molds may be anchored in proper centered positions relative to the centerlines of the mold tubes but also means whereby the lower ends of the mold tubes may be effectively sealed against the discharge of molten wax therefrom.

A further object of this invention, in accordance with the immediately preceding object, is to provide a wick holding attachment which may be utilized both in conjunction with old candle molds of the type above set forth as well as newly manufactured candle molds patterned after the old molds.

Still another object of this invention is to provide an attachment assembly for candle molds establishing readily usable and efficient means for anchoring the upper and lower ends of wick strings in a candle mold with the strings properly centered relative to the centerlines of the mold tubes.

A final object of this invention to be specifically enumerated herein is to provide a candle mold attachment which will conform to conventional forms of manufacture, be of simple construction and easy to use so as to provide a device that will be economically feasible, long lasting and relatively trouble-free in operation.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a perspective view of a conventional form of six tube candle mold to which a first form of wick holding attachment of the instant invention has been secured;

FIG. 2 is a fragmentary perspective view of the upper portion of the assemblage illustrated in FIG. 1 and with the wick holding attachment in a partially open position;

FIG. 3 is an enlarged vertical sectional view taken substantially upon a plane passing through the centers of one pair of corresponding mold tubes of the assemblage illustrated in FIG. 1 and with a completed candle illustrated in one of the mold tubes;

FIG. 4 is a fragmentary top plan view of the assemblage illustrated in FIG. 3 and on somewhat of a reduced scale;

FIG. 5 is a top plan view similar to FIG. 4 but illustrating a second form of wick holding attachment wherein a pair of wick holding plates are supported from opposite sides of the top of the mold;

FIG. 6 is a perspective view of one of the plates illustrated in FIG. 5;

FIG. 7 is a fragmentary bottom plan view of the candle mold illustrated in FIGS. 1–3;

FIG. 8 is a perspective view of the first form of wick holding plate illustrated in FIGS. 1–4;

FIG. 9 is a perspective view of a wick holding plate similar to that illustrated in FIGS. 1–4 and FIG. 8 but constructed so as to merely telescope downwardly over the upper end of the associated candle mold;

FIG. 10 is a fragmentary perspective view of the upper portion of a candle mold having a pair of pivoted wick holding members supported therefrom constituting a fifth form of wick holder;

FIG. 11 is a perspective view of one of the wick holding members illustrated in FIG. 10;

FIG. 12 is a fragmentary top plan view of the candle mold illustrating a sixth form of wick holding attachment similar to that illustrated in FIG. 5 but utilizing a tab-type hinge and including stop flanges such as those illustrated in FIG. 6;

FIG. 13 is a perspective view of one of the wick holding plates illustrated in FIG. 12;

FIG. 14 is a top plan view similar to FIG. 12 but illustrating a seventh form of wick holding attachment similar to that illustrated in FIG. 12 but utilizing a dimple-type hinge;

FIG. 15 is a perspective view of one of the wick holding plates illustrated in FIG. 14; and

FIG. 16 is a perspective view of an eighth form of wick holding attachment which combines some of the features of the attachments illustrated in FIGS. 8 and 9.

Referring now more specifically to the drawings, the numeral 10 generally designates a conventional form of candle mold including six upright parallel downwardly tapering mold tubes 12 interconnected at their upper and lower ends by means of upper and lower plates 14 and 16 through which the upper and lower ends of the tubes 12 are secured. The tubes are downwardly tapered and include reduced and downwardly tapered lower end portions 18 which are secured through the bottom plate 16. The bottom plate or base panel 16 includes downturned peripheral flange or skirt portions 20 which terminate downwardly in upturned flanges 22 so as to define a rolled bead extending about the lower extremities of the flange portions 20. Further, the upper or top plate 14 includes upwardly directed peripheral flange portions 24 which terminate upwardly in down-turned flange portions 26 forming a rolled bead about the upper marginal portions of the flange portions 24.

The tubes 12 at one end of the mold 10 are interconnected by means of a bracing plate 28, see FIG. 1, and a semi-cylindrical handle 30 is secured between the bracing plate 28 and the adjacent flange portion 24.

The foregoing comprises a description of a conventional six tube candle mold which was commonly used in the past by housewives to make candles. In using the mold 10, a wick string such as string 32 was inserted downwardly through the inverted tubes 12 and knotted at its upper end to prevent passage through the small diameter end of the end portions 18. Thereafter, the mold 10 would be inverted so as to again be positioned upright and the wick strings 32 were held at their upper ends in centered position relative to the tubes 12 while molten wax was poured into the tubes 12 to form a candle such as candle 34, see FIG. 3. However, no means was provided for preventing some molten wax from seeping out of the lower ends of the tubes 12 and there was no efficient means for supporting the upper ends of the wick strings 32.

The wick holding attachment of the instant invention includes both an upper assembly referred to in general by the reference numeral 36 and a lower assembly referred to in general by the reference numeral 38. The lower assembly 38 merely comprises a pad 40 of any suitable resilient material which is receivable within the confines of the flange portions 20 and is of a thickness to be engaged and slightly downwardly depressed in the areas of the lower ends of the end portions 18 when the mold 10 is disposed over the pad 40 on a suitable support surface upon which the pad also rests. The end edgewise downward engagement of the lower end portions 18 with the pad 40 provides a means for sealing the lower ends of the tubes 12 and the lower ends of the wick strings 32 are clamped between the lower end edges of the end portions 18 and the pad 40 so as to properly anchor the strings 32 at the bottom of the mold 10.

The upper assembly or section of the wick holding attachment includes a plate 42 having opposite end downturned ears 44 at one side thereof. The ears 44 are apertured as at 46 and a wire hinge pin 48 is passed through the apertures 46 and corresponding apertures 50 formed in the end flange portions 24.

The plate 42 overlies the upper marginal edge portions of the flange portions 24 and includes an outwardly projecting end extension 52 which overlies the upper end of the handle 30, an opposite end downturned flange 54 which embracingly engages the outer surface of the flange portion 24 remote from the handle 30, and a downturned side flange 56 which overlies the outer surface of the flange portion 24 remote from the hinge pin 48 when the plate or panel 42 is in the closed position illustrated in FIGS. 1 and 3 of the drawings.

The plate 42 includes longitudinally extending upwardly struck and divergent flange portions 58 and the flange portions as well as the adjacent portions of the plate 42 are provided with vertically extending slots 60 and the upper end free edge portions of the flange portions 58 are provided with notches 62.

From FIG. 3 of the drawings it may be seen that the slots 60 have their inner extremities aligned with the centerlines of the corresponding tubes 12 and it may also be observed that the upper end portion of each wick string 32, after being positioned in the corresponding slot 60, may be knotted as at 64 and stretched over and engaged behind the corresponding notch 62. In this manner, each of the wick strings 32 is supported in at least a slightly tensioned condition and with each wick string 32 extending along the centerline of the corresponding tube 12.

With attention now invited more specifically to FIG. 5 of the drawings there may be seen a modified upper wick holding assembly referred to in general by the reference numeral 66 including a pair of substantially identical plates 68. The plates 68 include downturned ears 70 similar to ears 44 and receive therethrough the opposite ends of a hinge pin 72 similar to the hinge pin 48. The plates 68 overlie the remote side flange portions 24 of the mold 10 and the opposite end portions of the end flange portions 24 of the mold 10. Further, the adjacent edge portions of the plates 68 are notched as at 74 for the reception of the upper ends of the wick strings 32 therein, the wick strings 32 being knotted above the plates 68. Of course, the inner ends of the notches 74 are also registered with the centerlines of the tubes 12 and accordingly, the plates 68 are also operative to properly support the upper ends of the wick strings 32.

With attention now invited more specifically to FIG. 6 of the drawings there may be seen a modified form of wick holding plate 76 which is similar to the plates 68 in that it includes opposite end apertured ears 78 which may be secured to the upper end of the mold 10 by means of a hinge pin (not shown) similar to hinge pins 48 and 72. However, the plate 76 includes downturned abutment flanges 80 for abuttingly engaging the upper surface of the plate 14 intermediate the upper ends of the tubes 12.

With attention now invited to FIG. 9 of the drawings there may be seen a plate 82 which is similar to the plate 42 except that the flange portions 84 thereof corresponding to the flange portions 58 are upwardly convergent and the slots 86 corresponding to the slots 60 open outwardly as opposed to inwardly. Of course, the flange portions 84 include notches 88 corresponding to the notches 62 and the plate 82 includes an extension 90 corresponding to the extension 52 as well as a flange 92 corresponding to the flange 54. In addition, instead of the plate 82 being pivotally supported from the corresponding candle mold 10, the plate 82 is provided with opposite end pairs of opposite side downturned flange portions 94 for telescoping over the upper end of the mold 10.

With attention now invited more specifically to FIG. 10 of the drawings there will be seen a pair of identical wire wick string holding members 96 including opposite end axle pin defining portions 98 oscillatably received through apertures 100 corresponding to the apertures 50. The wick holding members 96 include abutment portions 102 and 103 disposed for engagement with the upper plate 14 and notch defining portions 106 registered with the centerlines of the tubes 12 and with which the upper ends of the wick strings 32 may be engaged.

With attention now invited more specifically to FIGS. 12 and 13 of the drawings, there may be seen a pair of wick holding plates 108 which are similar to the plates 76 except that the opposite ends thereof are provided with integral tab portions 110 for oscillation in

the apertures **50**. Otherwise, the plates **108** are similar to the plates **76** in that they include abutment flanges **80** as well as notches **82** corresponding to the notches **74**.

With attention now invited more specifically to FIGS. **14** and **15** of the drawings, there will be seen still another pair of wick holding plates **112** which are substantially identical to the plates **108** except that the opposite ends of the plates **112** include detents **114** seatable in recesses **116** formed in the opposite end flange portions **24**. The detents **114** and recesses **116** of course serve to oscillatably support the plates **112** which are otherwise substantially identical to the plates **108** from the upper end of the cancel mold **10**.

With final attention now invited to FIG. **16** of the drawings, there will be seen a final form of wick holding plate **120** to be specifically described herein. The plate **120** is generally rectangular in configuration and therefore similar to the plate **36**. However each edge portion of the plate **36** includes integral downturned tabs **122** at its opposite ends. Accordingly, each of the side edges **124** and **126** of the wick holding plate **120** includes a pair of downturned tabs **122** and each of the front and rear edge portions **128** and **130** includes a pair of downturned tabs **122**.

The central portion of the plate **120** is cutaway to form a generally rectangular opening **132** including front and rear edge portions **134** and **136**. The front and rear edge portions **134** and **136** of the opening **132** each include three longitudinally spaced inwardly projecting extensions **138** and the free end portion of each extension **138** is slotted as at **140**. In addition, the front and rear edge portions **128** and **130** of the plate **120** are provided with V-shaped notches **142** in front to rear registry with the corresponding slots **140**.

In operation, the wick holding plate **120** is telescoped downwardly over the upper edge portions of the flange portions **24** carried by the top plate **14** of the candle mold **10**. The tabs **122** snugly embrace the corner portions defined by adjacent peripheral flange portions **24** and the front and rear edge portions **128** and **130** intermediate the corresponding tabs **132** project horizontally outwardly from the adjacent peripheral flange portions **24**. Also, the inner ends of the slots **140** formed in the extensions **138** are centered over the upper ends of the tubes **12** and accordingly, the upper ends of the wick strings **32** are seated in the inner ends of the slots **140**, directed outwardly of the corresponding edge portion of the plate **122**, and then directed downwardly so as to be received within the corresponding notch **142**. In this manner, with the lower end of the wick strings **132** lightly frictionally retained in position by means of the pad **40**, the upper ends of the wick strings **32** may be held in position without knotting the strings **32**. Further, engagement of the upper end of each string **32** with the corresponding slot **140** and notch **142** may be completed very quickly and with little effort.

It is to be appreciated that any of the aforementioned wick holding devices may be utilized in conjunction with a conventional candle mold. However, certain procedural steps should be followed when making candles, Initially, a suitable protective covering may be placed over a work surface and the desired number of wick strands may be cut to the proper length. Then, the strands of wick are dipped into melted wax until they are coated and then removed from the wax and held in vertical position until the excess wax drips therefrom. Then, the wicks may be placed in spaced horizontal position on the protective covering over the work surface and allowed to cool while the wick strands are in a straight condition. This process is called pre-waxing and it makes the wick easy to thread into the mold and assists in enabling the candle to burn uniformly.

After the wicks have hardened, in about five minutes, a point is cut on the end of each pre-waxed wick to facilitate insertion of that end through the small opening at the bottom of each tube **12**. The wick strings are then dropped one at a time downwardly through the mold tubes **12** with their pointed ends disposed lowermost so that the latter will project through the lower ends of the tubes **12**. One-eighth of an inch of each wick string will project through the bottom of each tube **12** and that one-eighth inch projection can be grasped and pulled by hand in order to increase the extension of the wick string to approximately three-quarters of an inch, which increased extension is then bent back up alongside the portion of the tube **12** projecting below the plate **16**. The pad **40** is then placed in position so as to frictionally retain the extended ends of the wick strings in position. Thereafter, with the candle mold resting on the protective covering over the work surface, one of the wick holding plates such as wick holding plate **120** may be placed over the upper end of the mold **10** with the upper ends of the wick strings **32** projecting through the opening **132**. Thereafter, downward pressure is exerted on the mold so as to tightly grip the lower extended end of the wick strings with the pad **40** and the upper ends of the wick strings are pulled lightly upwardly and into seated positions in the slots **140** and then outwardly and downwardly into seated positions in the notches **142**. Thereafter, liquid wax can be poured into the mold until each tube is full. Any of the wick strings may be retightened as desired and the mold allowed to set for 5 minutes after which further wax may be poured into the tubes where shrinkage has occurred. Then, the mold is set aside and allowed to cool at room temperature.

After tubes **12** are cooled to the touch, the pad **40** is removed and the lower extended ends of the wick strings **32** are straightened. Thereafter, the mold is held under a running hot water faucet with the water being allowed to run over the outside of the tube. Of course, by this time the wick holding plate **120** has been removed and the upper ends of the wick strings **32** may be pulled gently to slide the completed candles from the tubes **12** after which the candles are allowed to again reharden.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. In combination with a candle mold of the type including a lower horizontal base panel and at least one upstanding mold tube having a reduced diameter lower

end secured in and through said lower horizontal base panel, a resilient fluid sealing pad removably disposed beneath said base panel with the lower end of said tube abutted thereagainst to close said lower end against the discharge of molten wax therefrom, the lower end of said tube projecting downwardly through and slightly beneath said base panel for end edge engagement of said tube reduced diameter lower end with said pad, said base panel including peripheral downwardly directed supporting skirt portions whose lower edges are adapted to abut a suitable supporting surface, said pad being disposed within the confines of said skirt portions and of a height, in relation to the height os said skirt portions, to enable the reduced diameter lower end of said tube to rest upon and slightly downwardly deflect the engaged portion of said pad when said pad and skirt portions are resting upon a horizontal plane surface, an upper horizontal support plate through which the upper end of said mold tube is secured, a wick string supporting structure portion shiftable into and out of position supported from said upper plate with said portion spaced above said tube and registered with the centerline thereof, said supporting structure portion including means operative to engage the upper end portion of a wick string projecting upwardly out of said tube and to support said string upper end portion in position aligned with the centerline of said tube, said supporting structure portion comprising a portion of a mounting plate removably engaged with said upper support plate, said mounting plate including one outer periphery portion which overlies the said upper horizontal support plate, said mounting plate including an opening formed therethrough registered with the upper end of said tube and an extension projecting inwardly of said opening and extending past the center line of said tube, a slot formed in said extension whose inner end is registered with said center line, the said one outer peripheral portion of said mounting plate disposed on a radius of said tube extending generally centrally through said extension projecting horizontally outwardly of the corresponding peripheral portion of said support plate and having an outwardly opening notch formed therein, said slot and notch being adapted to frictionally engage longitudinally spaced portions of the upper end of a wick string extending through the center of said tube.

2. The combination of claim 1 wherein said mounting plate includes outer peripheral portions spaced thereabout turned downwardly and removably embracingly receiving corresponding portion of the outer periphery of said upper support plate therebetween to prevent lateral shifting of said mounting plate relative to said upper support plate.

* * * * *