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4-H Home Environment
Your Space for Living
Unit III, Capsule

CANDLEMAKING

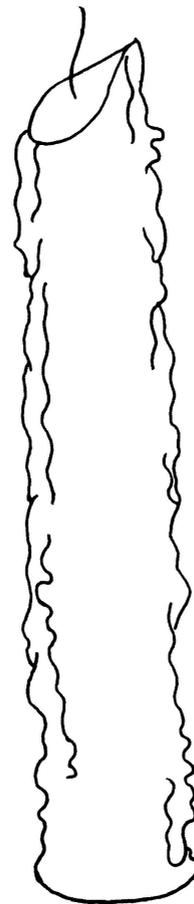
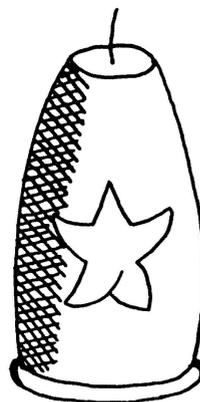
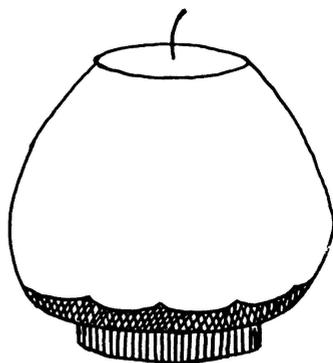
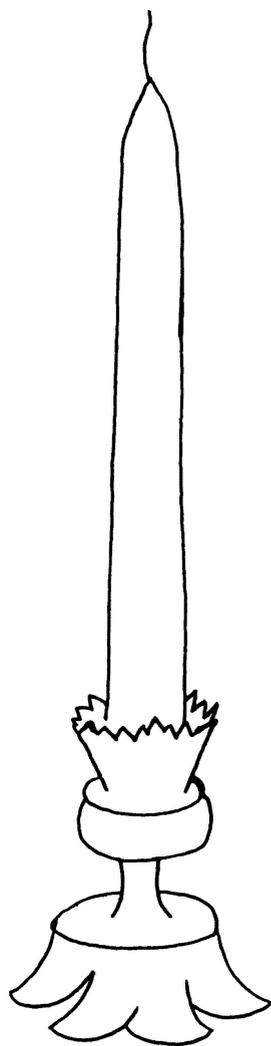
*From Katherine L. Habel
Extension Specialist, Home Furnishings*

Candlemaking has been an art practiced by man in earliest recorded history. The crude candles used during biblical times were fundamentally the same as they are today. Because candles were the common source of light during early days, better materials were developed. Tallow, beeswax and ozocerite were used for the body of the candle, and wicking was improved by using several woven strands.

Early Americans used tallow for candles, but it had an unpleasant odor. About the time of the Civil War, paraffin became available. This was very popular because it was odorless and gave more light.

It has been said that candles not only give much enjoyment with their soft, gentle glow, but also that the light holds an instinctive fascination for us.

Making your own candles need not be expensive. Perhaps you can collect some of the materials in advance from friends who are cleaning out odds and ends of candles.



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Getting Ready

Wear old washable clothes and a plastic or rubber apron as wax stains easily. Cover work area with newspaper. If the unmolded candle is to be handled on the work surface, cover the newspaper with a layer of wax paper, paper towels or opened-up shopping bags because the newspaper print might transfer to the candle. Never wash wax-covered articles in the sink because wax is harmful to sink drains.

Materials and Tools Needed

Wax --- Candle wax, old candles, or paraffin. Candle wax with a melting point of 140° to 150° is available from hobby and craft supply stores. It is superior to household paraffin. Candles of paraffin melt rapidly and are difficult to remove from molds because of its low melting point. Danger of fire is present when working with paraffin.

Coloring materials --- Candle coloring rosettes and chips* produce clear colors with no residue; other coloring materials are old candles, wax crayons, and powdered fabric dye.

Molds --- Metal candle molds*, jelly molds, glass tumblers, plastic containers of all types, glass, metal, and earthenware bowls, pans, funnels, plastic bottles, milk cartons, paper cartons and mailing tubes.

Vegetable oil or shortening

Wicking --- Commercial wicking *, Use the flat or square braided for molded candles. Use the metal core wicking for glass container candles. Chalk line or soft white string, salt, and borax; or old or cheap candles.

Masking tape --- and/or mold sealer.

Waxpaper

Plastic pail or wastebasket or similar container for water bath.

Long knitting needle or stick.

Sticks and small weights, such as pebbles.

Double boiler or pan with coffee can.

Stick or old wooden spoon for stirring.

Rotary egg beater or fork (for frothy wax covering)

Paring knife

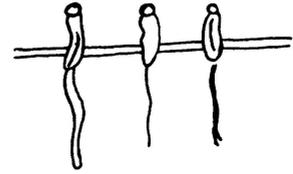
Optional Tools --- Hammer, shears, ice pick or awl, holders, thermometer.



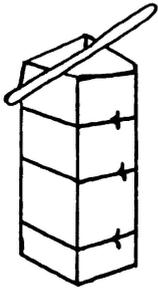
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Wicking

While commercial wicking is easily available and inexpensive, you can prepare your own wicking. Do it at least one day ahead of time. Cut chalk line or soft white string into six yard lengths. Dissolve two tablespoons borax and one tablespoon salt in one cup water. Soak string in this solution for 2-12 hours. Dry. This prevents too rapid burning. To finish the wick, cut a piece 2 inches longer than needed for the candle. Dip this length into melted wax twice and then hang up to dry. Don't drape it over a line or it will bend. The larger candle the heavier the wick should be to prevent excessive dripping. Two or more lengths of string may be twisted together to produce a heavier wick.



Preparing Molds



A wax container such as a milk carton need not be greased. Glass and other molds must be greased evenly and thoroughly with vegetable oil or shortening. Metal candle molds should not be greased--follow the instructions which come with each mold.

When using milk cartons, tie in three places with twine to prevent bursting of the carton when the wax is poured into it.

Inserting Wick

When paper containers such as milk cartons and orange juice cans are used, pierce the bottom and pass the wick through the hole. Close the hole carefully with masking tape or mold sealer so no hot wax can seep through. Tie the top to a stick placed across the top of the container.

When other molds are used, tie a small weight, such as a pebble, to the bottom end of the wick. Then tie the top end to a stick placed across the top of the mold.

When using a small mold, such as a gelatin mold, dip the wick in wax, allow to harden. Insert into wax mold after wax begins to harden.

When a cheap or used candle is used for the wick, simply insert that candle into the center of the new candle after the wax has partially cooled. Make sure that the wick is long enough to appear above the poured wax.

When using a mailing tube, close one end carefully with masking tape, insert wick, then close that hole with additional masking tape.

Preparing the Wax

Wax is extremely flammable. Use the double boiler method. Place the wax in the top of a double boiler. Or put the wax into a coffee can, shortening can or metal pitcher, and place in a pan containing water.

Place on the burner. Heat the wax until it is melted.



When using candle wax with a melting point of 140° to 150°, heat until the wax is 180°F to 230°F before pouring. When using milk cartons for molds, heat the wax only to 180°-185° to prevent melting the wax on the cartons.

If using paraffin, heat only until melted, then let stand until skim forms on top, place back over hot water and stir until all of the skim has melted.

After melting down old candles, strain through cheese cloth or a piece of old nylon hose to remove short lengths of wick and other impurities.

To Color

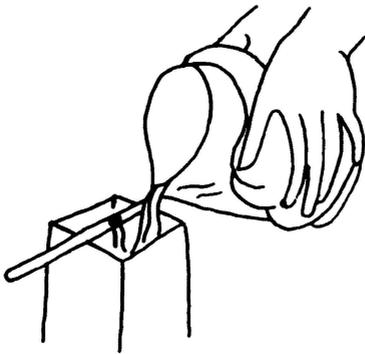
The easiest and most successful way to color candle wax is with candle coloring rosettes or chips. With a paring knife shave off pieces of the coloring rosette into the hot wax, then stir well after the chips dissolve. To create an interesting and different effect, pour uncolored wax into the mold, shave a bit of one color into the wax, then another color.

Wax crayons may be used for coloring but may cause the wick to smoke, sputter, and die. One wax crayon will color about 2-1/2 pounds of wax which is about 1 quart in bulk. Two crayons will give a stronger color. Black requires 3 black crayons, white requires 3 white crayons, pastels 2 white crayons and 1/3 of a colored crayon. Add crayon to wax by shaving it in with a paring knife. Stir well and frequently to maintain an even blending of colors.

To color wax with powdered fabric dye, add powdered dye gradually to melted wax stirring until desired depth of color is reached. Because this dye does not completely dissolve, let the wax set for a few minutes before pouring into the mold. The residue in the bottom must be thrown away.

Molding

If using a coffee can, squeeze the top to form a pouring spout. Hold the pouring can down to within 1 inch of the mold and pour with the mold tilted so the wax runs down one side, lessening the likelihood of bubble formation.



Let the air out as the candle hardens. To release air, insert a stick (or large knitting needle) down through the candle 2 or 3 times, beside the wick. Fill the hole carefully with melted wax. With metal molds and milk cartons, wait 45 minutes, then repeat once or twice at 45 minute intervals.

With small molds, such as frozen orange juice cans wait 20 to 35 minutes. Repeat once after 30 to 40 minutes.

Water bath--for smooth, glossy candles, use a water bath for cooling. Two minutes after pouring the candle, place it in a container of warm water, with the water at the level of the top of the candle. If necessary to add more water, *remove* the candle, add water, then return the candle to the water bath to prevent bubbles. If necessary, place a weight on top of the mold. Leave the candle in the water bath for one to two hours depending on the size of the candle.

Unmolding

After removing the candle (in the mold) from the water bath, cool out of drafts for at least 8 hours. To hasten cooling, put in the refrigerator for one to two hours, turning 3 or 4 times. To unmold remove masking tape (or mold sealer) from the bottom of the mold to release the wick. Turn mold over and tap firmly and squarely on a flat surface. Candle should drop from mold if it is cold enough. Tapping on the mold may cause colored candles to whiten. Be careful and patient. Paper cartons may be gently torn off the candle.

After unmolding the surface may be polished with old nylon hose. To make a candle stand up straight, trim off the bottom with a knife, or melt off the irregularities in a pie tin placed over low heat.

Decorating the Candles

Stars, crescents, triangles and similar shapes may be cut from thin sheets of wax, formed with the fingers, and then fastened to the candle with a hot knife. To do this, cover a cookie sheet with wax paper or foil. Pour a thin layer of melted, but cooled wax into it. Cut shapes when the wax has jelled but is still pliable. Remove shapes from the surface with a knife or spatula. Do any shaping with fingers.

Whipped wax is made by allowing wax to cool until a thin skim forms on the surface. Then beat with an egg beater or fork. Fork this fluffy material onto the candle for a snowy decoration. Do not touch the whipped mixture with your hands as the oil in your skin will make the frosting lose its snowy look.



Storing Candles

Store candles in clean boxes without touching each other. Keep in a cool dry place.

Clean-up



Cool the utensils. Scrape off as much wax as possible. Heat utensils and wipe with old rags or paper towels. Then wash utensils in soapy water. If there are any spots of wax on your clothes, take them to a professional drycleaner. Be sure to tell the drycleaner that the spots are wax. If the clothing is washable, pick off as much as possible when the wax is cool. Place the cloth between paper towels and press with a cool iron. The garment may have to be washed several times before all stain is removed.

Roll up all waxy newspapers and old clothes. Put them outdoors in the incinerator or garbage can. Do not leave in a wastebasket in the house.

Where to Get Further Information

Your local library may have books on candlemaking. Many commercial companies have books on candlemaking which you can order at little or no cost.

Candles may also be made by rolling up sheets of beeswax. These sheets of beeswax, wicking, and simple directions may be obtained from hobby shops and departments.

Evaluation and Record

Ask these questions to evaluate your work. Remember, while practice may not make perfect, it does improve your work.

Do I like the candle?

Will it serve the purpose for which I want to use it?

If I plan to use it, does the color, shape and texture go with the room, the furniture, and other things with which I plan to use it? If it is for a gift, will the color, shape and texture fit in with the recipient's home, furniture and other things with which she will use it?

Is the material used to show off its natural beauty?

Is it decorated to suit the basic shape?

Are the colors suitable and pleasing?

Is the surface rough where it should be, smooth where it should be, and free of cracks and unintended irregularities?

