

Necessity is the mother of invention and early candles sometimes took rather bizarre forms to utilize available resources. The use of, and improvements to candles has paralleled mans ascent from the stone age. There is no historical record of the first candles used by man, however clay candle holders dating from the fourth century B.C. have been found in Egypt. Early Chinese and Japanese candles were made with wax derived from insects and seeds molded in paper tubes. Wax skimmed from boiling cinnamon was the basis of tapers for temple use in India. It is the Romans who are credited with developing the wick candle, using it to aid travelers at dark, and lighting homes and places of worship at night. The first known candle in America dates to the first century A.D. Native Americans burned oily fish (candlefish) wedged into a forked stick (YUCK!!!). Early missionaries in the southwestern United States boiled the bark of the Cerio tree and skimmed the wax. Settlers in New England used the same technique to obtain wax from Bayberries. To this day Bayberry candles are made the same way, although cost is prohibitive since it takes one and a half quarts of Bayberries to make an 8 inch taper candle. Tallow, made by rendering animal fat was another common candle making material. Because of its odor, beeswax was preferred although more expensive. The advent of paraffin in the 1800's made tallow obsolete, and it is rarely used in candles anymore.

Candle making as we know it began in the 13th. century when traveling chandlers went door to door making dipped tapers from their clients tallow or beeswax (wealthier clients). The first use of molds for candle making was in 15th. century Paris.

The Renaissance of candle crafting was during the 19th. century. Candle molding machines were developed in the first half of the century. In 1811 pioneer work lead to the development of stearin. The braided wick was introduced in 1825. This year also saw the manufacture of stearic acid (a candle additive used to harden and

opacify wax) begin. Paraffin development began in 1830. A continuous wicking machine was invented in 1834. Mordanting of wicks was a major breakthrough in 1834. Mordanting causes the burned end of the wick to curl outside of the flame zone where it turns to ash. Manufactured paraffin was introduced in 1850, providing an alternative to tallow. In 1854 paraffin and stearin were combined to create stronger candles, very similar to those we use today.

Chandlery has pretty much continued to this day with few changes, other than differences in styles. Mold technology has improved, new additives are available such as dyes, and scents. Most modern candles are made of Paraffin, although beeswax candles are undergoing a recent surge in popularity. Bayberry candles are still made, but rare.

The term candlepower is based on a measurement of the light produced by a pure spermaceti candle weighing one sixth of a pound, burning at a rate of 120 grams per hour. Spermaceti is found in the head of Sperm Whales, and once was used to make candles.

#### Making Hand Dipped Candles

##### Materials:

- \* Plain Paraffin Wax ( about 1/2 a pound) can be found at grocery stores & craft shops

- \* Double Boiler or you can use a large coffee can for melting wax in, inserted in a pot filled half full of water. (Never place the container of wax directly on the heat source as it poses a severe fire hazard.) I Use an old coffee pot from a thrift shop.

- \*Wooden Spoon for stirring

- \*Bowls: for cold water baths

\*Candle Thermometer. Also candy or meat thermometer works just as well.

\*Heat. Kitchen stove.

\*Wick: available in most craft and hobby stores in various sizes. The size of the wick is important. The sizes increase in 1/2 inch variations. Use this as a guide. 1/2" wick to 1/2" candle. A 1" wick is suitable for a 1" candle etc.

\*Color: you can get it in cakes, chips, powdered or liquid forms which is usually available in craft stores or you can also use crayons but it doesn't burn as well.

\*Scents: you can use fragrance oil or concentrated chips available at craft shops. The oil you use must be pure oil and have no water or alcohol base.

Directions for making hand dipped candles:

1. Begin by cutting up your wax in small pieces so it will melt quicker.
2. Next heat the water using a medium temperature, bring to a gentle boil. Place the wax in the double broiler or if you are using a coffee can place the can into the water.\* Don't use high heat, it may cause the wax to catch on fire.
3. Stir the wax until it is completely melted and it reaches a temperature of 160 F or 71 Celsius.(Test the temperature by placing the thermometer in the center of the melted liquid). Turn the heat down. Keep water warm enough to keep the wax melted.

4. Now its time to add your color. Add the crayons or color chips to the melted wax. Add a little at a time until you have reached the desired shade. Make note that the wax changes colors to a shade lighter when it cools. Test it by allowing a spoonful to dry on a plate. Once you have the shade you like, it would be a good idea to write down the amounts you have used so you can make it again.

5. You can now add the scent if you wanted scented candles. The more oil you use, the stronger the scent will be. Keep in mind that adding too much may affect the way the candle burns, moderation is the key to having nicely scented candles. Stir until well blended.

6. Make sure the wax stays melted. Check that the temperature of the wax is still 160F/71 C.

7. Now on to the next stage. Begin with cutting the wick to the desired length of candles plus a little extra to hold. Example: If you want 2 ten inch candles cut about 23 inches of wick. You will be making two at the same time. Double over the wick over your finger. Here's where the dipping starts. Dip the wick in the wax for a few seconds then lift back out. Allow the wax to cool between dippings about a minute or so. You may find it a little tricky to get started at first because the wick floats on top of the wax until it gets weighed down. Don't worry before long you'll get the hang of it. Just make sure the wet candles don't touch each other.

8. Continue the dipping and cooling process. After a few layers, although not necessary, you can speed up the cooling process by dipping the candles in cool water after each wax dip.

9. Repeat the process until the candles have reached the proper thickness. If lumps occur, roll warm candles on a smooth surface.

10. Increase the temperature until it reaches 182 F. Dip the pair

into the wax one more time for a few seconds. Lift out then let them cool.

11. Using a sharp knife trim the bottoms to remove excess wax and to create a straight edge bottom for you candles.

12. Hang your candles to dry. Once they are dried you can cut the wick. Time to enjoy your new creation!

#### Safety tips for candle making

1. Never leave children alone with melting or melted wax. Because it does not boil or steam, they may not realize how hot it is.

2. Never leave hot wax alone.

3. Never heat wax over 275° F, wax flashes from liquid to flame at 375° F.

4. Never let wax come in contact with flames. If you develop a wax fire, treat it as you would a grease fire. Do not throw water on it. Use a fire extinguisher (type ABC) or if it is contained in a pan, cover with a lid, extinguish any heat source and leave the lid in place until the area has cooled.

5. Use a temperature gauge and always know what the temperature is at all times.

6. Always use the water bath method of melting wax, never place your wax container directly on the heat source. Also, use a wire rack to keep the wax container from resting on the bottom of the water pan. Keep a close watch on the water level, it will evaporate quickly and must be replenished frequently. When done this way and properly supervised, you will eliminate any flash potential.

7. Don't pour wax down the drain, it will block them.

## Canning Jar Candles

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Canning jar candles are very easy to make, make great gifts, and are only limited by your imagination!

To start all you need are some old wide mouth canning jars, wire ribbon, potpourri, votive candles, small glass votive candle holders, and craft glue or a hot glue gun.

If you don't have any old canning jars, you can find some very inexpensively at thrift stores and yard sales. Wire ribbon can be a little expensive. Look for it at yard sales and at craft store clearance sales. The after-Christmas sales a great time to stock up. One roll of ribbon will make several canning jar candles. Potpourri you can make yourself or buy on sale. Votive candles are inexpensive at stores like Target or Walmart, and you can also find glass votive candle holders very inexpensively at Walmart. You want one that will set in the rim of the canning jar.

You can fill the canning jar with whatever you wish. Potpourri is one of the easiest fillers. I bought a nice autumn-scented potpourri and added some orange slices I'd dried in my food dehydrator. You can also add dried cranberries, apple slices, or cinnamon sticks.

After you fill the jar, you set the candle holder inside the mouth of the jar. The top of the candle holder should be even with the top of the jar.

You might have a little trial and error before you find just the right candle holder. Place the candle in the holder and then use the ribbon to tie a big bow around the neck of the jar. That's it! (You might want to use a little craft glue or your glue gun to tack the ribbon in place).

You can glue some dried fruit, flowers, or other decorations on the bow for a more decorative look. You can also put other things in the jar besides potpourri. I've seen one half filled with white sugar with a short white taper candle set down in the sugar. Very pretty! And that one doesn't require the candle holder.

At Christmas you can purchase small ornaments and place them in the jar instead of the potpourri.

Any small figurine would do--in the spring you could use little bunnies. Maybe fill a jar with marbles or layers of colored sand. Even pennies! Use your imagination. These candles make great gifts and are also fun to make for yourself. If you get tired of one just empty it out and start again!

Lehmans carries candlewax in both parafin and beeswax as well as tube candle molds.

<http://www.lehmans.com/shopping/product/detailmain.jsp?itemID=224&itemType=PRODUCT&iMainCat=669&iSubCat=686&iProductID=224>

(Sorry I didnt remember how to make a tiny uhl - maybe someone can help me there?)

Once you get the idea for making these candles you will know how to make a big block candle when you can find a mold big enough

Just so you are aware.. I do not recommend the synthetic scents in

candles and paraffin is a petroleum product which is a known carcinogen. Beware of wicks that have a metal lead center in them. Petroleum is processed into motor oil, gasoline, kerosene, diesel, heating oil and other fuels. One of the first items produced when "cracking" petroleum is paraffin. This is essentially a toxic waste product. In most industries, getting rid of toxic waste is very expensive. Because petroleum waste can be made into paraffin, plastic, etc., the oil industry profits handsomely from this waste material.

When it was first discovered that petroleum could be made into paraffin, there was no real awareness of the toxins and poisons. But now, though numerous toxins and carcinogenic agents have been identified and documented, companies continue to produce paraffin candles and sell this toxin-laden product to an unsuspecting public.

IF you can find soybean wax this is a OG alternative. Also contact your local beekeeper and ask about buying wax for candlemaking.

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