

Colonial Candle Making Project

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2018

Colonial Candle Making



Hannah McGill's 40 hr. project - 2018

Candle making was a necessary household skill in colonial America. Since electricity had not yet been invented, candles were the primary source of light for colonists after sundown.



Beeswax was used by wealthier colonists for making candles. Ordinary colonists used tallow, foul-smelling animal fat, carefully collected throughout the year from their farm animals. Later, a type of berry called a bayberry was used for sweeter-smelling candles.



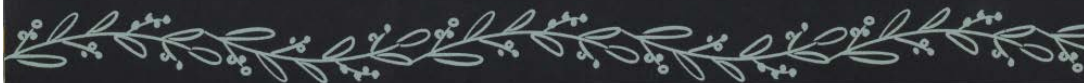
The beeswax must be cut into smaller chunks and melted in a melting pot. Colonists would have used a large cauldron over a fire to melt their beeswax or tallow.



If the beeswax becomes hotter than 160 degrees, then the wax will not stick to the wick. If the wax becomes cooler than 140 degrees, then it will become clumpy and hard. Colonists, of course, did not have digital thermometers, but they continually removed their pot of wax from the fire when it became too hot and replaced it when it became too cool.



Cut wicking to the desired length. For seven inch taper candles, cut the wicking to about 17 inches. One wick should make two candles, one on each end.





After cutting the wick to the desired length, hold the middle of the wick and slowly dip both ends into the melted wax. Next, dip the candle into a bucket of cool water to help it harden.

Hang candles on a rod to cool for an average of 30 seconds in between dips.



Modern candles can have weights tied to the ends of the wick to keep them straight while dipping into the wax. The weights can be cut off and thrown away after the candle becomes heavy enough to dip straight into the melted wax on its own.



Continue to dip and cool the candles until they reach the desired width. Then mold any lumps out of the wax while it is still warm.

Colonists would tie wicks to a long stick and dip them into the wax all at once. This way they could make hundreds of candles in one day. These candles would then last them for the rest of the year while they collected more tallow.



Allow finished taper candles to cool for around 30 minutes before use.





One taper candle can be flattened with a rolling pin and then twisted while it is still warm for a similar modern look.





Another form of a more modern candle is the balloon candle. Fill a balloon completely with water and repeatedly dip it about 3/4 of the way into melted wax, allowing it to cool for around 30 seconds between dips. Continue to dip until the desired thickness is acquired. A thinner candle is preferred, especially if it is to be kept hollow.



After desired thickness is acquired, pop the balloon and pull any remaining pieces out of the candle.

Place a tea light on the inside and light it, allowing the light to shine through.





To use up any remaining wax, fill some balloon candles with wax rather than leaving them hollow. Pour a thin layer of wax into the bottom of a completely hardened candle, and place a wick in the center before the layer of wax has time to harden. Once the wax has hardened around the wick, continue to pour thin layers of wax into the candle, allowing the wax to cool before pouring another layer.

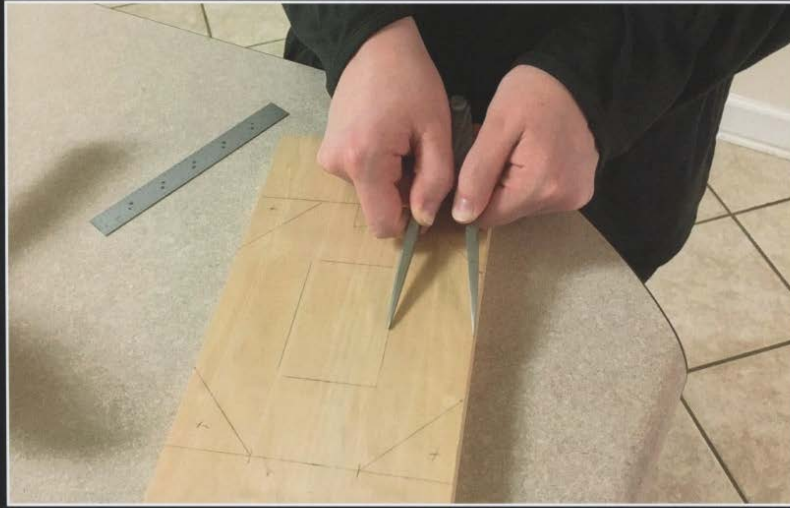


Candle Holder



For the transport of candles in colonial times, they would build a holder in which they placed a taper candle to comfortably carry it to wherever light was needed. My grandfather whose hobby is woodworking helped me to design and build a candle holder similar to what was used by colonials. We created the holder using basswood because it is easy to work with. The three parts of the holder are the base or boat, the taper candle holder, and a hand grip. These three parts were glued together for the final product. We avoided using exact measurements and just tried to make things look balanced to the eye in order to make it more authentic. Also, we did not use modern tools. Many of the tools we used were common as far back as ancient Greece or Egypt.

Step 1:



For the layout of the base, I used dividers to get proportions. Dividers date all the way back to ancient Greece.

Step 2:



After drawing the measurements, I used a marking knife, held against a square, to strike the lines that would be sawed. A marking knife makes a very precise line that is easy to follow for the kerf of the saw. The square keeps the line made by the marking knife straight and dates all the way back to ancient Egypt.

Step 3:



We sawed off the rectangular taper candle holder with the Pax gentleman's saw.

We attempted to use a bowsaw, but due to problems holding the wood clamped still, we failed miserably and switched to a small backsaw.



Step 4:



Next, I drilled a hole in the center of the candle holder piece using a bit and brace drill.



Step 5:



I used a hand-stitched rasp to smooth the inside of the hole.

the final product of the first of three pieces



Step 6:



Next, I sawed out the base of the holder, cutting out a notch on the side for the handle. Before sawing I used mutton tallow to lubricate the blade.

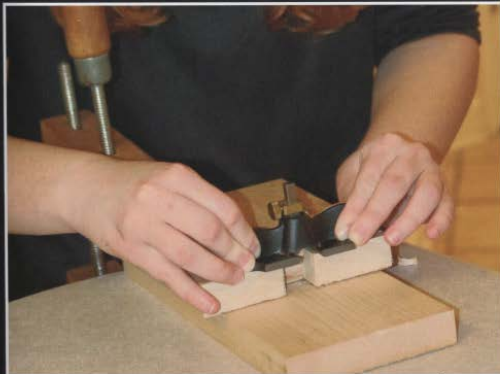


Step 7:



After sawing the two sides of the notch, the rest of the wood was removed by a chisel. First the back edge of the notch was chiseled with chop cuts, and the bench chisel was struck with a mallet. Then a paring cut was made from the front to the back of the notch.

Step 8:



A second inset was a shallow rebate that was made using bench chisels and a router plane.



Step 9:



Next, I sloped the sides of the base with a carving tool so that melted wax from the candle would not drip off the edges.



Step 10:

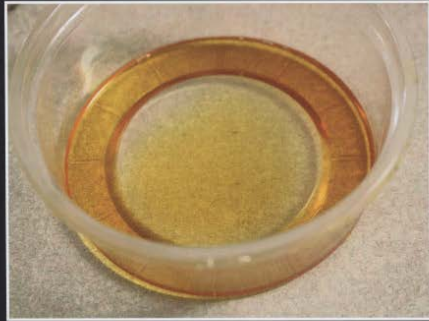


I cut out the handle and rounded its edges with a Auriou hand stitched rasp.

The rest of the candle holder was sanded with a cork block and grits of 150x, 320x, and 400x to smooth any tool marks or rough edges.

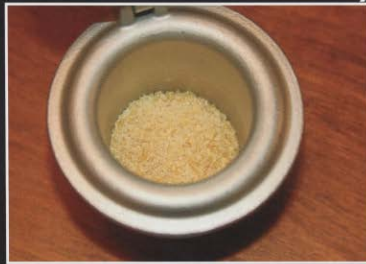


Step 11:



Next, I applied one layer of homemade shellac before gluing. The shellac was made from the secretions of the Lac beetle from India mixed with 190 proof alcohol.

Step 12:



I made hot hide glue by taking crystals, soaking them over night, and heating them in a replica hot glue pot the next morning. I then applied the glue with a brush, clamped the pieces together, and let it dry for one hour.

Step 13:



After the glue dried, I applied two more coats of shellac.



Step 14:



The candle holder is now ready for use!

