History of Candle Making

The candle has a distinguished position in human history. It is one of mankind's earliest inventions. Candle making has quite the past. Candles have been used for more than 5,000 years, yet little is known about their beginning. Candles really are a simple concept. The candle uses wax as fuel to make light. Once the wick of a candle is lighted, the heat from the flame burns the surrounding wax, which flows into the wick by capillary action. This reaction has deemed candles the rulers of the night for thousands of years.

Candles have been developed independently in many various countries across the globe. They were used for many different reasons and occasions. Today, the candle is no longer the single source of artificial light, its major function years ago, but rather is used in religious services as well as in celebrations, holidays, and for home decors.

The earliest known candle creations involved the Egyptians. It is often noted that the first candles developed by the Ancient Egyptians were rushlights (aka torches). These were made by soaking the pithy core of reeds in melted animal fat. However, it is commonly perceived that since the rushlights had no wick, they were not considered to be a true candle. It was not until 3000 BC that the Egyptians formed a true candle that was made out of beeswax. The Egyptians are also accredited with one of the earliest candle holders; which is dated back to 400 BC, and was made of clay.

The Chinese on the other hand created candles from whale fat as early as 221 BC. In the countries of China and Japan, tapers were made with wax derived from insects and seeds. This wax was then wrapped in paper and burned.

In India, the candle making process involved the boiling of fruit from cinnamon trees. This then rendered a wax that was used for temple candles.

During the first century AD, indigenous people of the Pacific Northwest fused oil from the eulachon, or "candlefish", for their lighting source. Hence, a very simple candle could be made by sticking the dried fish on a forked piece of wood and then lighting it.

The Roman Empire was the first to provide a candle that resembles the candle we know and use today, as well as generally credited with developing the concept of a wicked candle. In Rome, they used tallow, to make their candles. Tallow is the fat from cows or sheep. This became the standard material used in candles in Europe. Although the tallow was extremely smoky, the smoke was forgiven for light and used for prayer. The unpleasant smell of tallow candles is due to the glycerin they contain. The smell of the manufacturing process was so unpleasant that it was banned by ordinance in several cities. For churches and royal events, candles from beeswax were used, as the smell was usually less unpleasant. By 1415, tallow candles were used in street lighting.
Beeswax candles were made much like the Romans made their candles with tallow. Unlike animal-based tallow, beeswax burned pure and cleanly, without producing a smoky flame. It also gave off a pleasant sweet smell rather than the foul odor of tallow. Beeswax was a huge improvement from the tallow, but only limited quantities were available. This made it expensive. With the exception of clergy and the upper class, very few homes could afford to burn them. Therefore, tallow candles were the common household candle for Europeans, and by the 13th century, candle making had become a guild craft in England and France. The candle makers went from house to house making candles from the kitchen fats saved for that purpose, or made and sold their own candles from small candle shops.

The practice of using molds to make candles began in the 15th century in France. The wax was poured into hollow open-ended cylinders. These cylinders had a cap with a small hole in the center for wicking. The wick was then placed in the mold and held in place by small wires. Once the mold was filled the wicks were pulled tight and the wax left to cool. Once cooled the wires were taken out. A true candle maker would then bleach his candles by hanging them outside. Although he would protect the candles from the sun and the elements, the process would take 8 to 10 days.

Colonial women offered America's first contribution to candle making when they discovered that they were able to obtain a very nice wax by boiling the grayish-green berries from the bay-berry shrub. This wax created a very sweet smelling and clean burning candle. However, the process of extracting the wax from the bayberries was extremely tedious and tiresome. Some fifteen pounds of boiled bayberries would provide only one pound of wax. This resulted in the downfall of bayberry candles.

The growth of the whaling industry in the late 18th century brought the first major change in candle making since the Middle Ages. In 1750, Spermaceti, a wax obtained by crystallizing sperm whale oil, was used to provide very expensive candles. Spermaceti wax was used as a replacement for tallow, beeswax, and bayberry wax. Similar to beeswax, the spermaceti wax did not give off a foul odor when burned, but also produced a brighter flame. It's consistency also is harder than either tallow or beeswax, so it wouldn't soften or bend in the summer heat. Historians note that the first "standard candles" were made from spermaceti wax.

The 19th century was a defining time for the candles and contemporary candle making. The first patented candle making machines were introduced. This breakthrough allowed candles to reach the homes of all classes. In 1834, inventor Joseph Morgan helped to industrialize the modern-day candle industry by developing a machine that allowed for continuous production of molded candles. He did this by using a cylinder with a movable piston to eject candles as they solidified. Morgan was able to produce 1,500 candles per hour. With the introduction of mechanized production, candles became an easily affordable commodity for the masses. It was also right around this same time that a chemist named Michael Eugene Chevreul identified for the first time that tallow consisted of various fatty acids. One of the fatty acids he identified was stearine (stearic acid). In 1825, Chevreul and another chemist Joseph Gay Lussac patented a process for candle making from crude stearic, resulting in stearin wax. A wax which was hard, durable and burned cleanly. This process drastically improved the quality of candles. Stearin candles still remain popular in Europe to this day.
The braided wick was also invented in the 19th century. Wicks before this time were made simply of twisted strands of cotton, which burned very poorly and needed constant maintenance. The braided wick was tightly plaited and a portion of the wick curled over and enabled it to be completely consumed.

Not until 1850 did paraffin become commercially viable, when James Young filed a patent to efficiently separate the naturally occurring waxy substance from petroleum and refine it. Paraffin could be used to make inexpensive candles of high quality. Odorless and bluish-white in color, paraffin was a boom to candle making because it burned cleanly, consistently and was more economical to produce than any other candle fuel. Its only disadvantage was a low melting point. This was soon overcome by adding the harder stearic acid, which had become widely available. This created a superior and cheaper candle.

Despite advances in candle making, the candle industry was devastated soon after by the distillation of kerosene and the introduction of the light bulb by Thomas Edison in 1879. At this point, candle making began to decline, and candles became more of a decorative item. Today the candle market offers candle lovers a wide variety of candles produced from a many different waxes. These candles are offered in a vast amount of colors, shapes, designs and fragrances. Candles may no longer be the sole source of light, but they symbolize celebration, mark romance, soothe the senses, define ceremony and accent homes around the world.

www.naturesgardencandles.com