January 17, 2005

The Quester International Headquarters
210 South Quince Street
Philadelphia PA 19107-5534

Dear Study Paper Committee:

Enclosed are two copies of two study guide papers for review. They are entitled, *Goffering and Calamistrating is Enough to Curl Your Hair - The History of Curling Irons* and *Wish You Were Here: The History of Postcards.*

Thank you very much!

Sincerely,

Cheryl Miller
Marie Lafitte #1427
1640 Independence Rd.
Fort Collins, CO 80526
Home Phone: (970) 221-2447
Work Phone: (970) 491-1442
Email: cheryl.miller@colostate.edu

Enclosures (2)

Goffering and Calamistrating[1] is Enough to Curl Your Hair! The History of Curling Irons

Cheryl Miller, Marie LaFitte Questers #1427
1640 Independence Rd.
Fort Collins CO 80526

"Their faces were as the faces of men;
and they had hair as the hair of women."
- Nicholas Noyes, An Essay Against Periwigs

The Industrial Revolution created a dizzying array of patented crimpers, pinchers, irons, and frizzers that turned stick-straight tresses into curly locks quickly; using heat. These irons have become quite collectible and have a very unique, and early, history. If you look at the history of this calamistrate, you'll learn that it did not have its beginning with the Industrial Revolution – it was far earlier than that!

Figure 1. Curling iron from 1771 (author unknown, http://independence.nyhistory.org/cgi-bin, p. 1)

The Assyrians (1500 B.C. – inhabiting the area that is Northern Iraq) were the first true hair stylists. Their skills at cutting, curling, layering, and dyeing hair were known throughout the Middle East. Kings, warriors, and noblewomen had their abundant, flowing hair curled by slaves, using a fire-heated iron bar, the first curling iron (Panati, p. 231). Babylonian and Assyrian men dyed their long hair black and crimped and curled it with curling irons. Persian nobles also used the iron to curl their locks. In Classical Greece, the upper class women's long hair was drawn back into a chignon and curled with a curling iron. Romans in the reign of Emperor Titus, A.D. 79 to 81, used little hollow tubes filled with boiling water; presumably, the first curling irons.

Fig. 2. The Assyrians (1500 B.C.) http://www.keyway.ca/htm2002/ancassy.htm, p. 1)

---

[1] Goffer – to press ridges or narrow pleats into. Calamistrate – a rare verb, meaning "to curl the hair." This word comes from the Latin word for "curling iron." (Mckean, 16).

Even the term used to describe the curling device has ancient beginnings. *Calamistrum* is an ancient term used to describe an instrument made of iron and hollow like a reed (calamus), used for curling the hair. The iron was heated and the person who performed the curling duties heated it in wood-ashes (cinis). This use of heated irons was adopted very early among the Romans and became as common among them as it has been in modern times. In the age of Cicero, who frequently alludes to it, the Roman youths, as well as the matrons, often appeared with their hair curled in this manner. We see the results in many antique statues and busts (Smith, William, p. 7).

Under a coronet, his flowing hair in
curls on either cheek played.
- Milton

EARLY HISTORY

The greatest ornament to the human form divine is unquestionably a fine, luxuriant, and healthy growth of hair. The Victorian woman's hair was her crowning glory, although in reality, it was in all likelihood, in terrible condition. The use of irons was relentless, and the hair became seriously damaged, singed, and wool-like. Women never cut their hair except in the case of serious illness, but it must have come out in handfuls and quite often smelled scorched.

Gody's Lady's Book wrote in 1867, "It is to beauty of woman, the chief auxiliary, and to manhood the warrant of strength and dignity." Throughout history, the hair has been scorched, doused, and tortured in endless ways – all in the name of vanity and to keep every hair in place.

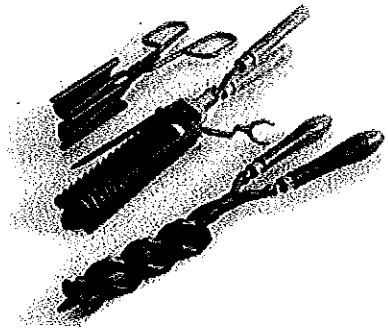


Figure 3. A collection of curling irons (Melville, http://www.skidmore.edu/scope/spring2004/features/hair.html, p. 3)

Choices of cutting, coiling, or frizzing the hair were symptomatic of the new technology that, not only provided electric light for the home, put changed personal habits as well. During 1872, an important invention in hairstyling was invented: crimping. Crimping allowed for a "turned up hairstyle" in which hair was pulled over a hot iron, resulting in an attractive wave. The Marcel wave was a new style created by the hot iron and consisted of loose waves arranged around the head.

Curls, crimping, and the natural-looking Marcel wave were achieved by the use of heated irons, including the waving iron invented by French hairdresser Marcel Grateau in the 1870's (http:www.queensnewyork.com/history/hair.html, p. 5 and 6). In the 1880's, the front hair formed a crimped fringe. In the 1890's the pompadour of the Gibson Girl was combed over a pad making a high wide frame for the face, and swept up behind.

If we actually cared about art, we should begin by
pulling to pieces the hideous mysteries known as French coiffures.
- Scribner's Monthly, 1873

Getting straight hair to curl between the years 1890 to 1914 was dependent upon rags, tongs, or a Moore's Hot-Air Chamber. In addition, keeping it in place was up to a battery of ironware. Women had often used decorative combs and pins to lend charm and emphasis to hair-do's, but the actual fixing was done by an array of metal pins and snapping steel grips.

Figure 4. The Lee Bob with a curling iron (Doyle, p. 89).

In the 1970's, the craze for nostalgia found its way into hair products. Crimping was a consistent feature of 1970's hair because it was perfectly in keeping with the Pre-Raphaelite clothes in ethereal and painted chiffons with floating ruffles that straddled the hippie and high-fashion images of the day.

INVENTIONS AND PATENTS

Curling irons are a technology that was originated or improved upon by women. Many women, particularly black women, were not properly acknowledged for their inventions. Some did not apply for a patent and let their ideas be claimed by another person. Others allowed their work to be patented under a man's name. The list of men and women early curling iron inventors is plentiful.

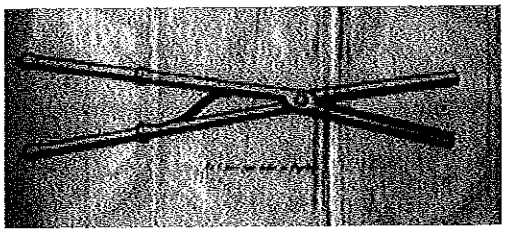


Figure 5. Curling Iron from the Smithsonian Institute Museum (http://www.sil.si.edu/libraries/chm-nl.htm, p. 1)

In the mid-1880's, there was an advertisement for "Dr. Scott's Electric Curler for 50 cents. The ad read, "by its aid, the hair, beard or moustache can be curled any desired style in one to two minutes. For ladies it produces the 'Langly Style,' the 'Patti Bang,' the 'Montague Curl,' and any other form desired by ladies wearing their hair in the fashionable loose and fluffy mode." Gentlemen's moustaches and beards curled for the day in a few seconds. It was an attractive item with an appealing handle of rosewood and was partially nickel-plated.

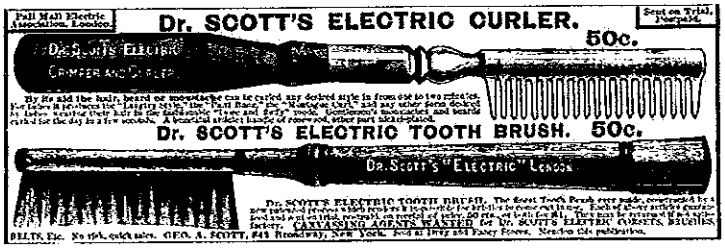


Figure 6. Dr. Scott's Electric Curler (1885-1890) (DeVries, p. 17).

Sir Hiram Maxim – (Born 1840, died 1916) Sir Hiram (Stevens) Maxim was a prolific American-born inventor who had a penchant for all things mechanical even as a child. He was best known for the Maxim machine gun. However, his first patent (1866) was for a curling iron, followed by a device for generating illuminating gas and a locomotive headlight. Among his

hundreds of other patents in the U.S. and Great Britain are a mousetrap, an automatic sprinkling system, vacuum pumps, and gas motors.

Figure 7. Sir Hiram Maxim with one of his many inventions (http://www.todayinsci.com, p. 2).

Walter H. Sammons of Philadelphia, Pennsylvania received U.S. patent #1,362,823 on December 21, 1920 for an improved comb that straightened hair. According to Walter Sammon's patent, he invented a heated comb that removed kinks from the hair.

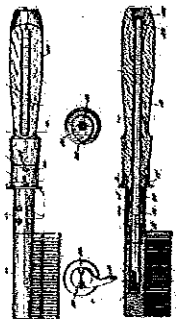


Figure 8. Walter Sammon's hair straightening comb
(http://www.inventors.about.com/library/inventors, p.1)

Jessie T. Pope of Detroit was a noteworthy black woman inventor during the 1940's. She invented the thermostatically controlled curling iron, patented it with help from Eleanor Roosevelt (1946), and founded a company to manufacture it (1958). Eleanor considered Pope's electric curling iron important enough to help her secure both U.S. and Canadian patents (1946). This iron, perhaps the first to incorporate a thermostat, produced a steady, even heat-curling hair of any texture in only 15 minutes.

A beautician by trade, Mrs. Pope at first manufactured the irons by hand herself, but found she could only fill 10 percent of her orders. *Hue Magazine* took note of her when, 12 years after obtaining her patents, she finally found financial backing for mass production at a factory in River Rouge, Michigan.

Theora Stephen's pressing/curling iron was patented on October 21, 1980 (Stanley, p. 405).

Bessie S. Owen and Beulah Fay Meek of Cleveland, Ohio, patented a weaving machine in 1940. Later that year, Beulah would patent another important invention – a hair curling device (Stanley, p. 405).

The first electric haircutter, which was closely aligned with the curling iron, was used in 1903. It was a comb with a fine platinum wire connected to the electric lighting system. The wire was heated to incandescence, and as the comb was run through the hair, the ends were burnt off (www.hairarchives.com, 1). These were later forbidden by law because of their inflammability. There were also many incidents of severe burns (Meyer, p. 210).

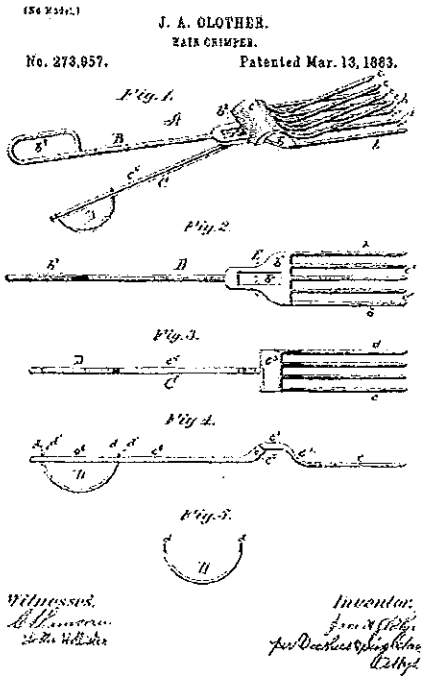


Figure 9. Patent for Hair Crimper, March 13, 1883 – (http://staff.lib.muohio.edu/~shocker/FemInv, p.1)

E. S. ORNE.
Heater for Curling-Irons.
218,827. Patented Aug. 26, 1879.

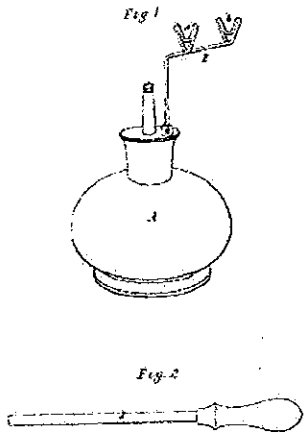


Figure 10. Patent for heater for curling iron, August 26, 1879 (http://staff.lib.muohio.edu/~shocker/FemInv, p.2)

CURLING IRON TYPES

Women wanting to style their hair in ringlets or other types of curls had to undergo the ordeal of curling tongs. Heated over an open flame, the tongs, a separate pair for each specific type of curl, gave shape to locks of hair. They were used until the end of the second World War in French country beauty salons. Another type of tongs was used on individual curls wrapped in paper. Once the curl was heated, the paper was removed and the curl was then formed around a wooden curling rod (Feder, p. 84).

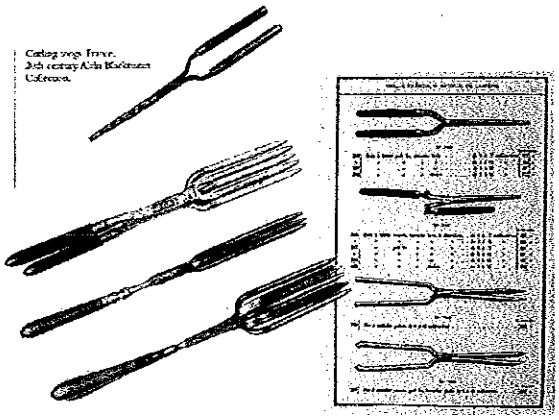


Figure 11. Catalog of hair salon supplies, Gelle Freres, Paris, circa, 1900 (Feder, p. 85).

Crimping Irons – although the alternative nomenclature 'waving' irons is used, the iron consists of a pair of tongs in which the operating parts were two interlocking corrugated plates. These are virtually identical to the French 'fers a'onduler'. However, there is one implement specifically labeled **waving iron**, in which the corrugations run longitudinally down the legs instead of transversely as on the crimping iron.

The **pinching iron** (French – 'fers a papilloter') figured prominently in French catalogues. They were principally used for making extra large curls in the hair. *Diderot's Encyclopedie* illustrates the method of using this iron, showing how the hair had to first be twisted and wrapped in tissue paper before being ironed. The curling implements were also used for other purposes by tailors, milliners, and florists.

The **fluting rod iron** has two fixed prongs. They were used by inserting and using a rotary movement. This was a very difficult rod to use, and, judging by their scarcity, these irons could not have been very popular.

Figure 12. Fluting iron (St. John, p. 43)

There were also multiple rod type irons. Some had fixed tines, like a clumsy tuning-fork; but the most common were the goffering tongs, with two, three, or more tines. French catalogs between 1880 and 1915 list a wide variety of tongs, with working diameters with about 2 square cross-sections instead of the typically round tongs. It is sometimes suggested that the difference between goffering tongs and curling tongs for hair is that the former have square cut ends, while the latter pair is pointed.

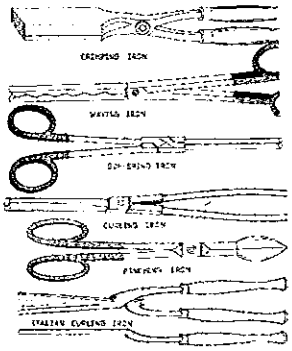
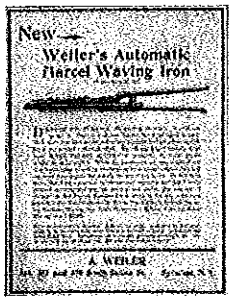


Figure 13. Various types of Curling Irons (St. John, p. 45).

Figure 14. An ad for a Star-Rite curling iron (The American Woman Magazine, October 1920).

THE MARCEL



The two most influential devices that drastically changed grooming habits of women in the late 19th century were the creation of the Marcel Wave and the hot-blast hair dryer, known today as the blow dryer.

Figure 15. Marcel Waving Iron (http://www.hairarchives.com, p. 1)

In 1872, Marcel Grateau, ran a small hairdressing establishment in Montmarte. He was unable to try out or develop his new waving technique until he offered to provide the service free of charge. Even then, there were few women who were interested in the undulations. Over the years, the style gradually became better known. Popularized by word-of-mouth recommendations, Marcel began to charge clients for the innovative style. His new style was achieved by applying hot tongs to produce a curl rather than a crimp done at intervals over the head. The hair would assume the look of moiré, or watered silk. It proved immensely popular, and the look was current in various guises right up to the late 1930's (Mulvey and Richards, p. 18).

The technique was particularly successful on shorter hair of the 1920's, but Marcelling went out of fashion in the 1930s with the American invention of the permanent wave by Charles Nessler. A spiral method of perming hair was first introduced in the United States in 1906. Charles Nessler, hair guru and inventor or the permanent wave machine, warned that if women kept cutting their hair they would weaken the scalp muscles and eventually begin to bald like men.

Figure 16. From a hairdressing instructional booklet – The Marcel Wave, 1908 (Doyle, p. 69).

In the latter part of the 1930's, the Marcel wave made a fashionable comeback. Its effect was easily achievable and also the alternatives for permanent waving were increased by several different methods. These methods included using steam and vapor with Pelleray irons, water waving, pin curls, permanent waves using the Eugene steaming method, and the nestle vapor (Mulvey and Richards, p. 91). Cold wave perm became popular in 1947.

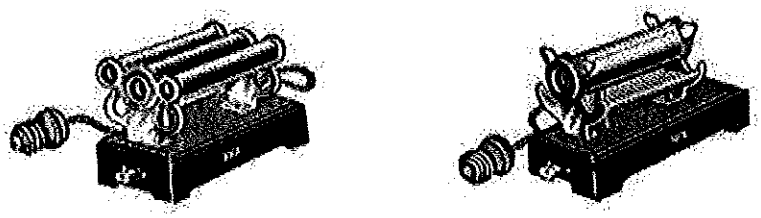


Figure 17. (L to R) Duo Marcel Iron Heater and Single Marcel Iron Heater (Meyer, p. 217)

Marcel waving was considered the loveliest and most satisfactory of all the temporary waves. It was considered difficult to learn and required care, patience, and continual practice. It was accomplished by the use of the comb and the Marcel iron. The iron consisted of two long prongs, one being round while the other was a thin concave surface that clamped over the round prong. Prior to its use, the iron needed to be well tempered so that it would hold an even heat. Skilled operators used two irons; while using one, the other was heated over the very low flame of the gas Marcel stove, or in an electrically heated oven.

The operator lifted the top layer of the hair in the comb, which was held in her left hand, parallel to the part. Holding the Marcel iron in her right hand, parallel with the comb, the prongs were separated and the hair slipped between them. As she closed the iron over the layer of hair, she shaped the hair with the comb and held it close to the iron. Then followed the clipping under, sliding, rolling over, and replacing and repeating, with the iron, while drawing the hair firmly either into the forward or backward wave with the comb, at the same time holding the hair close to the iron. This was repeated down the entire length of the hair.

Figure 18. Marcelling (Meyer, p. 218)

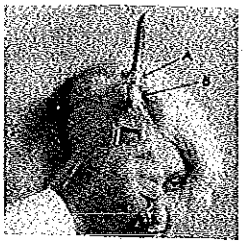
It is universally agreed that hair lying in soft waves about a woman's face enhances her beauty. It was also alleged that curly hair was meant to indicate a sweet temperament, while straight-haired girls were considered diffident or even awkward. Thus, many women looked to their beauticians to create curly hair. Additional methods used for making straight hair curly are the following: Comb Waving, Roller Curling, Pin Curling, Finger Waving, Round Curling, Paper Curling, Steam Marcelling, Croquignole Marcelling, and Permanent Waving

Round curling was the more popular method for curling hair. The round curling could be given on a Marcel iron, but was best given on a special iron made for round curling. It is a small rod on which, after it is heated, a small strand of hair was tightly wound in a full twist, held for a few seconds and then released. The hair was divided into small even strands (Meyer, p. 215).

Paper curling was also quite popular at this time for use with short hair. The hair was divided into small strands, dampened slightly and formed in a ringlet, then encased in the paper specially prepared for that purpose. It was then pressed in the heated pressing iron. The pressing iron used in paper curling was somewhat similar to, and heated in the same manner as, the Marcel iron. The pressing irons themselves, however, were two round, flat surfaces. The paper enclosed curl was pressed between these hot irons for a few seconds and then released. This made a strong, long-lasting curl. (Meyer, p. 216).

The operator had to handle her iron with quickness and dexterity in order to keep from burning or scorching the hair. With practice, she could tell the temperature of the iron by rubbing it quickly across her palm or by holding it close to her face. If she could not do this, she had to test the heat of the iron each time with a piece of tissue paper. If the iron did not scorch the paper, it would not scorch the hair… usually!

Croquignole Marcelling – This was popular in some parts of the country and was considered by many to be more beautiful and more lasting than the round curl, or the Marcel.



Though the method of producing this curl was very different from either of those waves, it could be given with the Marcel iron. However, it was easier to produce with the regular Croquignole iron, especially built for this purpose.

Figure 19. Showing process of Croquignole Marcelling (Meyer, p. 220)

The iron was similar in style to our present-day irons but had a strong coil spring built into it where the handles join the prongs. This spring made it easier for the operator to force the prongs slightly apart while the hair was wrapped around them, thus stretching and heating the hair at one and the same time. These curls had to be combed through again and again (Meyer, p. 219-220).

CURLING IRON USEAGE AND DIRECTION

Since a metal curling iron is totally ineffectual without heat, it is interesting to evaluate the different kinds of heating units used over the years for the purpose of warming the common curling tool.

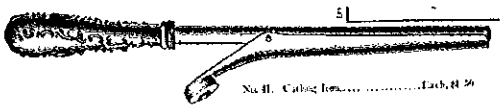


Figure 20. Curling iron from Marshall Field & Co. Catalog, 1896, p. 260

Iron tongs were employed by tonsorial artists centuries ago to curl the hair of their clients, often royalty or persons of wealth. It may be assumed that curling irons in those faraway days were heated directly in the embers of a fireplace or perhaps in small portable stoves invented by the barbers themselves.

Advancing to the 18th and 19th century, curling irons were heated in wood-burning stoves, open fireplaces, glass chimneys of kerosene lamps, oil burners, and alcohol stoves. Fuel for supplying heat in the different types of little stoves included kerosene, gas, alcohol, Sterno (as used in chafing dishes), and finally, electricity. The embers from burning wood in fireplaces were mentioned as a place for heating curling irons, and this was most likely still popular into the early part of the 1800's. The flame from a candle, too, may have been a source of heat in early days. Candles in pretty candlesticks, together with the inevitable match holder, were part of bureau appurtances and handy for a quick curl during the day or in the evening hours.

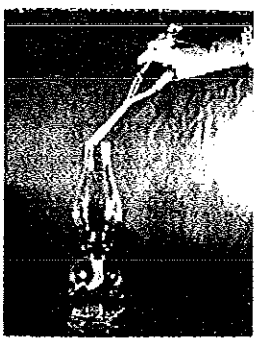


Figure 21. The "curling iron" lamp especially made for heating curling irons, ca. 1900 (Warp, p. 228).

When kerosene lamps came into common use, they also found a place on milady's bureau. In addition to affording light, the lamp soon became adaptable as a heater for metal curling irons. The glass chimney of the kerosene lamp carried heat from the burning wick to the top where an iron could be heated without becoming perilously "red" hot. Ladies soon found that a folding curling iron could be attached to the chimney top with the wooden handle suspended outside the heating zone, thus eliminating the effort of holding a straight iron over the lamp while it warmed.

NOT GOOD FOR HAIR

Hair is at once the most delicate and lasting of
our materials, and survives us like love.
- Godey's Lady's Book

Figure 22. Bernarr MacFadden,
author of *Hair Culture* (introduction)

Bernarr MacFadden, author of the 1924 book *Hair Culture: Rational Methods for Growing the Hair and for Developing its Strength and Beauty* referred to curling the hair with curling irons as 'singeing.' He admonished, 'Singeing the hair is a practice that has no reason for existence, unless it may be to make money for beauty specialists and barbers. Anyone who ever saw hair under the microscope knows that it is not a hollow tube, full of oil – or a tube through which the oil flows as sap in a tree. So, when the barber says 'Singe?' to you, tell him 'No.' For the singe is merely a scheme for obtaining money under false pretenses, and may work actual injury to the hair – possibly making it brittle and destroying the flexibility. Irrespective as to what any enthusiastic person may say, or what any hairdresser may claim to the contrary, any curling of the hair in which the action of heat is the chief curling agent must necessarily be harmful.'

'Of course, the same objection does not attach to the little curl-papers and curling kids. These are harmless enough, and if they make a pretty girl any prettier than Nature made her, they are entitled to three hearty cheers' (MacFadden, p. 165-169).

Figure 23. According to MacFadden's *Hair Culture*, "The only perfectly safe way of making straight hair wavy or curly is by such means as kid curler or curl papers (MacFadden, p. 167).

According to the 1905 *Guide to Hygiene, Tocology and Pediatrics,* curling the hair is not objectionable if it is not done with too much vigor. Curl papers are not likely to do much harm if they are not put on so tightly as to pull out the roots of the hair. The incessant use of the curling iron, however, has a tendency to make hair unnaturally dry and probably spoils the ends (Solis-Cohen, p. 50).

Collecting Curling Irons

The curiosity for these often scorched and frequently rusted irons has captured the heart of collectors world-wide. Old metal curling irons to crimp, wave, and curl a lady's hair have been described and illustrated in various short articles and books on the subject. Curling irons even appear in a popular nursery rhyme.

There was a little girl
Who had a little curl
Right in the middle of her forehead;
And when she was good,
She was very, very good.
But when she was bad she was horrid

The above poem was the creation of American poet, Henry Wadsworth Longfellow. He composed it one day when his daughter Edith refused to submit her hair to a curling iron. For many years afterward, Longfellow, the author of such works as *Evangeline* and *Paul Revere's Ride*, denied having written the verse. When pressed by his friends, he owned up, albeit somewhat crossly. "When I recall my juvenile poems and prose sketches, I wish that they were forgotten entirely. They however cling to one's skirt with a terrible grasp." (author unknown, www.indianchild.com/histgory_origins_nursery_rhymes.htm, p. 1)

The curling irons themselves form the basis of many collections that may include related accessories such as fancy combs, bone and wire hairpins, and brushes, as well. It has been interesting to note the evolution of these beauty aids over the years. Luckily, curling irons have evolved into easy-to-use and safe devices that no longer burn, singe, frizz, or destroy our hair.

Had such improvements not been made to these goffering tongs, we just might turn out to be like the little girl referred to in Longfellow's poem!

REFERENCES

And once again, I see that brow,
no bridal wreath is there.
A ring of curl – papers conceals
what's left of her scant hair.
She sits on one side of the hearth;
her spouse, poor man, sits near.
And wonders how that scarecrow thing
could once to him be dear.
- Anonymous
(Marks, p. 150)

American Woman Magazine, Ad for a Stare-Rite Curling Iron, Augusta, Maine, October 1920.

Author Unknown, *Ancient Empires: Assyria*, http://www.keyway.ca/htm2002/ancassy.htm, 11/3/04.

Author Unknown, *A Brief History of Hairstyles*, http://www.erasofelegance.com/hairstyles.html, 11/3/04.

Author Unknown, *Early 20th Century Hair Facts*, http://www.hairarchives.com/private/facts.htm, 10/22/04.

Author Unknown, *Inventors*, http://www.inventors.about.com/library/inventors, 2/4/04.

Author Unknown, *History of Hair from 3000 B.C. to Present Day*, http://www.hairdressers.com/history.asp, 11/3/04.

Author Unknown, *Today in Science History*, http://www.todayinsci.com, 11/4/04.

Author Unknown, *Patents*, (http://staff.lib.muohio.edu/~shocker/FemInv, 2/6/04.

DeVries, Leonard and Van Amstel, Ilonka. The Wonderful World of American Advertisements, 1865-1900, Follett Publishing Co., Chicago, IL, 1972, p. 17.

Doyle, Marian I. An Illustrated History of Hairstyles, 1830-1930, Schiffer Publications, PA, 2003

Early 20th Century Hair Facts, 10/22/04, http:www.hairarchives.com/private/facts.htm, 2 pages.

Feder, Soraya. *Divine Beauty: The Art of Collectibles*, L'Aventurine, Paris, 2001.

Hawthorne, Rosemary, Chinstraps, Nose Moulds and Corsets: A Shopper's Guide to Feminine Beauty 1800s-1930s, Michael O'Mara Books, Ltd.,1999.

History of Nursery Rhymes, Origins of Nursery Rhymes, Kids Songs, www.indianchild.com/histgoryorigins_nursery_rhymes.htm, author unknown, 11/1/04.

MacFadden, Bernarr. Hair Culture: Rational Methods for Growing the Hair and for Developing its Strength of Beauty, MacFadden Publications, 1924.

Marks, Patricia. Bicycles, Bangs, and Bloomers: The New Woman in the Popular Press, University Press of Kentucky, 1990.

Figure 24. What's next? The Permanent Wave! (Trasko, p. 105)

Marshall Field & Co. Illustrated Catalogue, Chicago IL, 1896.

McKean, Erin. Weird, Wonderful Words, Oxford University Press, 2002.

Melville, Barbara A. *Hair There and Everywhere,* http://www.skidmore.edu/scope/spring2004/features/hair.html, 11/4/04

Meyer, William and Blood, Ida Hitchcock, The Cosmetiste: A Textbook on Cosmetology with Special Reference to the Employment of Electrocity in the Care of the Hair, Scalp, Face, and Hands, The William Meyer Co., Chicago, IL, 1936.

Mulvey, Kate and Richards, Melissa. Decades of Beauty: The Changing Image of Women, 1890s-1990s. Checkmark Books, 1998. NY.

Panati, Charles. Panati's Extra Ordinary Origins of Everyday Things, Harper and Row Publishers, NY, 1987.

Simon, Diane. Hair: Public, Political, Extremely Personal, St. Martins Press, NY, 1992.

Smith, William. A Dictionary of Greek and Roman Antiquities, John Murray, London, 1875.

Solis-Cohen, Myer, M.D. Woman: Girlhood-Wifehood-Motherhood: Her Responsibilities and Her Duties at All Periods of Life, Library of Congress, Washington, D.C., 1905.

Stanley, Autumn. Mothers and Daughters of Invention: Notes for a Revised History of Technology, Rutgers University Press, NJ, 1995 (p. 382 and 405)

St. John, Oliver. *A Gallimaufry of Goffering,* A self-published study guide paper, France, 1982.

Trasko, Mary. Daring Do's: A History of Extraordinary Hair, Flammarion, Paris, 1994.

Warp, Harold, History of Man's Progress: From 1830 to the Present, The Harold Warp, Pioneer Village, Minden NE, 1967.