

Massachusetts Horn Smiths: A Century of Combmaking, 1775-1875

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In the colonial period, Boston newspapers regularly carried advertisements offering horn and ivory combs for sale. Since these imported combs were rather costly, a few home businesses of "horn breaking and comb making" appeared sporadically in the colonies by the mid-eighteenth century. Among these early establishments was that of Enoch Noyes, a farmer living in Old Newbury in Essex County. Evidence suggests that the shop he set up in his house was the beginning of the American combmaking industry (Fig. 1). A hundred years after Noyes's modest beginning, the "manufactures" of Essex and Worcester Counties in Massachusetts were producing more than half the combs made in the United States.

Enoch Noyes (1743-1808), a direct descendant of James Noyes, one of Old Newbury's first settlers, was considered by some members of his community as a genius and an innovator, by others as "a great oddity." He experimented with imported European stock for his orchard of pear, peach, and apple trees, and raised special varieties of fish in his farm pond. He was also known to run a couple of miles across the fields to a neighbor's at midday, barefoot and hair streaming behind him, "jest to take a nooning."¹

By the 1760s Noyes was peddling buttons and plain combs that he had made from cattle horn collected in his neighborhood. His tools were simple. He used a hatchet to trim off the ends of a horn and to split it. After soaking the horn in hot oil, he opened it with tongs and laid it between heavy flat

stones to cool. Then with a saw or jackknife he cut out the proper shape, notched in the teeth, smoothed off the sides of the comb, and polished it with a handful of wet ashes. Sometimes, instead of horn, Noyes was able to get the more highly-prized tortoise shell for his raw material.

Sarah Anna Emery, a relative of Noyes's, recalled that when she and her aunt Sarah Smith were making straw bonnets for a store in Haverhill, they found that a fashion change required these bonnets to be plaited from split straw instead of whole straw. They called on their cousin Enoch for assistance: ". . .he entered into the business with characteristic zest, and in a short time we were supplied with half a dozen different-sized straw splitters."²

During the Revolution, a German combmaker named William Cleland came to Noyes's shop. He had come to America as a Hessian soldier serving in General Burgoyne's army. He was possibly a deserter, possibly one of the ten prisoners brought to Newbury by Major Moses Little

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FIG. 1. ENOCH NOYES'S HOUSE, 127 Main Street, West Newbury. (Photograph by the author.)

after the Battle of Bennington. To Enoch Noyes's shop he brought not only his experience in combmaking, but also his tools which were a substantial improvement over the ones Noyes had been using. Together, the two men began to produce combs of finer workmanship, notably a "case comb" that snapped shut like a jackknife.³

The success of Enoch Noyes's horn comb business encouraged other Newbury residents to follow his example. Though some stayed in Newbury, others migrated fifty miles southwest to Worcester County. Among these emigrants was Smith Hills, who moved his family to Leominster in 1774 and settled them in a salt-box house on Pleasant Street. There his son Obadiah began making horn combs in the family kitchen. Obadiah's two younger brothers,

Silas and Smith, joined him in the business.⁴

Before long, three other Newburyites—Joseph Tenney, John Chase, and Edward Lowe—moved to Leominster and set up comb shops. "John Chase manufactures and has constantly for sale at his new comb shop . . . all kinds of the best of horn combs, which he will sell by the gross, dozen, or single, cheap for cash or country produce."⁵ Obadiah Hills, though rightly credited with pioneering the comb industry in Worcester County, returned to the Newbury area while still in his thirties, leaving his brothers to carry on the work in Leominster.

Most early American combs were plain dressing combs, used to comb and arrange the hair, in contrast to ornamental ones that were intended for decoration. Usually they



FIG. 2. SELECTION OF HORN COMBS from the collection of the SPNEA. (Photograph by J. David Bohl, SPNEA Archives.)

had fine teeth on one side and coarse ones on the other, not like today's combs with fine and coarse teeth lined up on the same side. Around 1800 an increased demand for the ornamental type brought a shift of emphasis to fancy puff combs (which fluffed out the hair around the face), side combs, and back combs. The more ornate ones had designs of openwork or carving, and were often set with rhinestones. Since each coiffure required not just one, but up to half a dozen combs, this change brought a great expansion of the market.

Some of the shops produced hair pins and bonnet pins as well as combs. Bonnets were apt to slip off the head unless anchored with these horn pins made with a

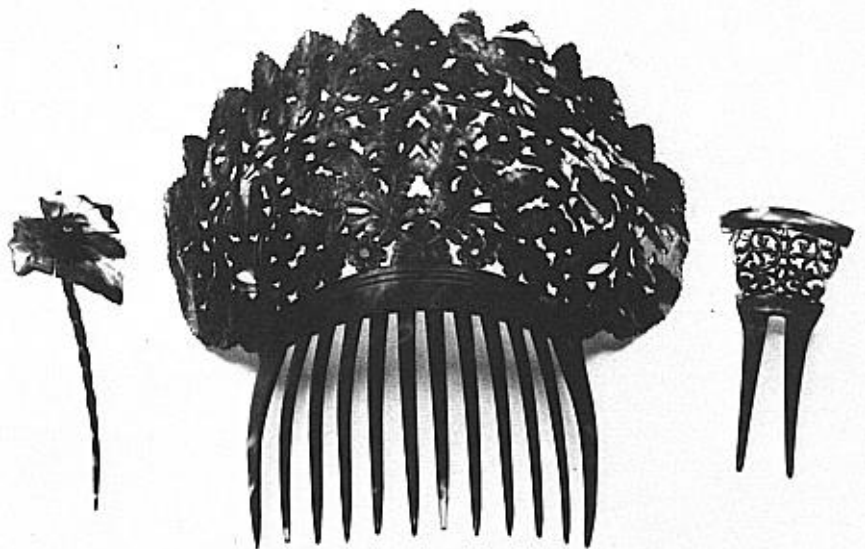


FIG. 3. SELECTION OF HORN COMBS from the collection of the SPNEA. (Photograph by J. David Bohl, SPNEA Archives.)

sharp point and a twisted center. Later on, horn jewelry also came into great favor, particularly in the post-Civil War period, when watch chains of horn, running to four or five feet long, were extremely fashionable.

In the early days, combmaking was often a one-man or one-family affair, requiring little capital investment. A man could ride his horse out to farms and tanneries and buy horn "for a trifle." Often the buttons and knife handles he made from just the trimmings might pay for all his raw material. "My father, who was brother of Obadiah," said Oliver Vose Hills, "has often told me that he has bought many lots of stock which the tips would pay for. As carriages were not much in use in those times, he said he had taken his horse, a saw, and some bags, been to Worcester, cut up what he could bring home, pack[ed] them into his bags, load[ed] his horse and return[ed] home."⁶ Leominster combmakers frequently rode the fifteen miles to Worcester for their supply of horn. On the same trip, they carried finished combs for sale to the town's merchants and shop owners.

The use of cattle horn did have certain disadvantages. A resident of South Amherst reminisced about raw horn being carted from there to West Newbury: "But the smell! That wasn't carted off until the last horn had gone . . . over the Rock Bridge."⁹ Moreover, rats infested piles of horn stacked beside the comb factories. Apparently such unpleasant side-effects were accepted as a matter of course.

While the early Worcester County combmakers generally used horn, readily available from the many tanneries in the area, those in Essex County shops worked in both horn and tortoise shell. When the latter was scarce, they turned out simulated shell. A paste of lime, saleratus, and litharge, skillfully applied with a brush or feather to a piece of horn, transformed it



FIG. 4. "A Comb Maker" from the *Book of Trades or the Library of the Useful Arts*, Part II, 1st American Edition, facing p. 27.

into something closely resembling genuine tortoise shell.⁷ Another development was the clarification of horn. In this process, the horn was lifted out of the hot oil and pressed between hot, not cold, iron plates, giving it a semi-transparent look that was far more attractive than the raw product.⁸ Although a few of the Massachusetts combmakers worked in ivory at times, most of the ivory work was done in the neighboring state of Connecticut.

As the comb shops expanded in size, their owners needed more apprentices to sign on for the three-year (or longer) training period. "Wanted—A Good Boy, about 18 years old, to learn the Comb Trade.

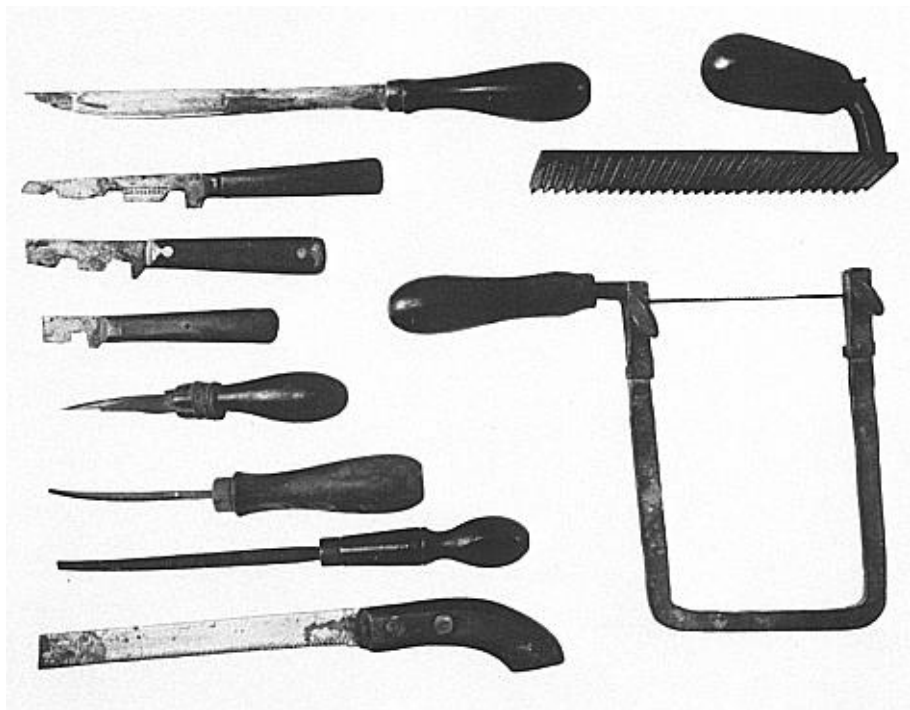


FIG. 5. SELECTION OF COMBMAKING TOOLS showing scraping knife, ridders, gravers, quarnet, pointer, and saws. (Photograph courtesy of the Leominster Historical Society.)

None other need apply."¹⁰ Also, the growth of the shops brought a demand for better techniques. For many years all the work continued to be done by hand, but tools steadily improved. An early invention for flattening out horn was the wedge press—a thick log with two iron plates inserted in its center. The workman placed the hot oil-soaked pieces of horn between the iron plates and drove a wedge into one end of the log to tighten it up until the horn had cooled. The wedge press had its hazards: George Cook, one of Leominster's prominent combmakers, was killed by a flying wedge. In time this device was replaced by the screw press, where the workman applied pressure by means of a

lever attached to a large screw.

Some of the commonly-used small tools were a trowel-shaped metal "quarnet" for smoothing off rough edges, a beveled "carlet" and a "topper" to cut off and finish the points of the teeth (which were sawed out individually), and a "bottomer" to round out the roots. Another smoothing tool, a "graille," finished off the sides of the comb.

Hand work was slow and it limited the output. To reduce the tedious job of hand rubbing, Jonas Colburn devised a cotton buff polisher operated by foot power. A circular saw run by a foot lathe supplanted the hand saw for cutting teeth. David Noyes (Enoch's grandson) and others in-



FIG. 6. SELECTION OF COMBMAKING TOOLS AND PATTERNS showing vidder and engraving tools. (Photograph courtesy of the Leominster Historical Society.)

vented cutting machines called "twinners" because they could cut out two complete combs in one operation, teeth and all.¹¹

Foot power was superseded by horse power. A few houses beyond the old Hills place on Pleasant Street stood the horsepower shop of Deacon Charles Hills, Obadiah's nephew. Horsepower shops became quite common in the late 1830s. "I well remember how we children used to go in to see the horse make the wheels go round as we had to pass there on our way to school."¹² Such shops usually had a lower floor where the horse walked on a circular platform attached to a large spindle that extended through an opening into a room above. In this room machines were con-

nected to the rotating spindle. Sometimes a boy stood beside the opening dangling a stick from a string. With the stick he flicked the horse from time to time to speed up the machines.¹³

Because water power was often cheaper and more efficient than horse power, many shops were set on the bank of a stream. If the flow was too slack, owners constructed dams before erecting their workshops. By at least the early 1850s, steam power began to replace both horse and water power.¹⁴

News of improved techniques moved readily back and forth between Essex and Worcester Counties, to the advantage of combmakers in both places. At one time West Newbury alone had more than thirty

establishments making combs. However, by the mid-1800s the Leominster shops (producing both horn and shell combs at this time) grew rapidly and eventually accounted for most of the production in Massachusetts.¹⁵ The city's tool-makers and machinists worked hand in hand with the combmakers to provide up-to-date equipment (Fig. 7). An eight-inch gong installed on the building of the Union Comb Company symbolized the dominant position of the industry in the town. Announcing this acquisition, the *Leominster Enterprise* commented: "We do not know as this is any particular news to anyone living within five miles, for unless they were uncommonly hard of hearing, they must have been very sensibly aware of it before this time."¹⁶

While the Noyes family in Newbury and the Hills family in Leominster maintained prominence in combmaking for over a century, they had no monopoly on the industry. Other important producers in Essex County were Carr, Brown, Chase, Bailey, and Emery. From West Newbury, comb manufacturing spread to Newburyport, Haverhill, and Salisbury. Some of Leominster's early combmakers fanned out to other parts of Worcester County; for example, the Lowes and Burdetts settled in the South Village of Lancaster (now Clinton). Bolton and Northborough also had comb shops, and small ones appeared in other towns throughout the country.

Elsewhere in the Commonwealth, Boston and some of its neighboring communities supported combmaking establishments. Scattered small businesses also sprang up at various times and places west of the Connecticut River. At first the most common markets for finished combs were Worcester and Boston, but later more distant cities like New York and Philadelphia absorbed much of the output.¹⁷

Beset by the vagaries of fashion, by vary-



FIG. 7. COVER OF THE FIRST CATALOGUE ISSUED BY F. H. COOK & CO., LEOMINSTER, 1894. (Photograph courtesy of the Leominster Historical Society.)



FIG. 8. BOX FOR A COMB WITH LABEL OF BATES & JORDAN, BOSTON, from the collection of the SPNEA. (Photograph by J. David Bohl, SPNEA Archives.)



FIG. 9. CENTENNIAL DISPLAY OF THE UNION COMB CO., LEOMINSTER, 1876. (Photograph courtesy of the Leominster Historical Society.)

ing economic conditions, and by fires (which destroyed many shops), the horn smiths of Massachusetts experienced ups and downs over the years. However, they consistently maintained the lead in nationwide production. According to the United States census returns of 1860, half of the sixty-six establishments in the country at that time were located in Essex and Worcester Counties, eight in Essex and twenty-five in Worcester. Together, they produced \$663,604 worth of combs, more than half the national total.¹⁸ Such was the reputation of the Leominster combmakers that in 1876 the sponsors of the Philadelphia Centennial Exhibition, preparing to celebrate the country's first hundred years, asked for an exhibit of their work (Figs. 9 and 10).

However, signs of a possible decline had already appeared. As the practice of de-

horning young cattle became widespread, domestic horn was hard to find. For an adequate supply the manufacturers had to look far away to the open ranges of South America. Hard rubber combs produced by Charles Goodyear's new vulcanizing process were on the verge of becoming competitive, and then in 1870 came a revolutionary event—the invention of celluloid. In Albany, New York, a printer named John Hyatt used his knowledge of chemistry to create a new product by immersing cellulose in sulphuric and nitric acids. Known as celluloid, it had so many useful qualities that could be used for hundreds of items, including combs.¹⁹

Thirty-four years later, the venerable S.C. Noyes & Company plant in West Newbury closed down. With the folding of the W.H. Noyes Company in Newburyport in 1931, combmaking in what was once Old

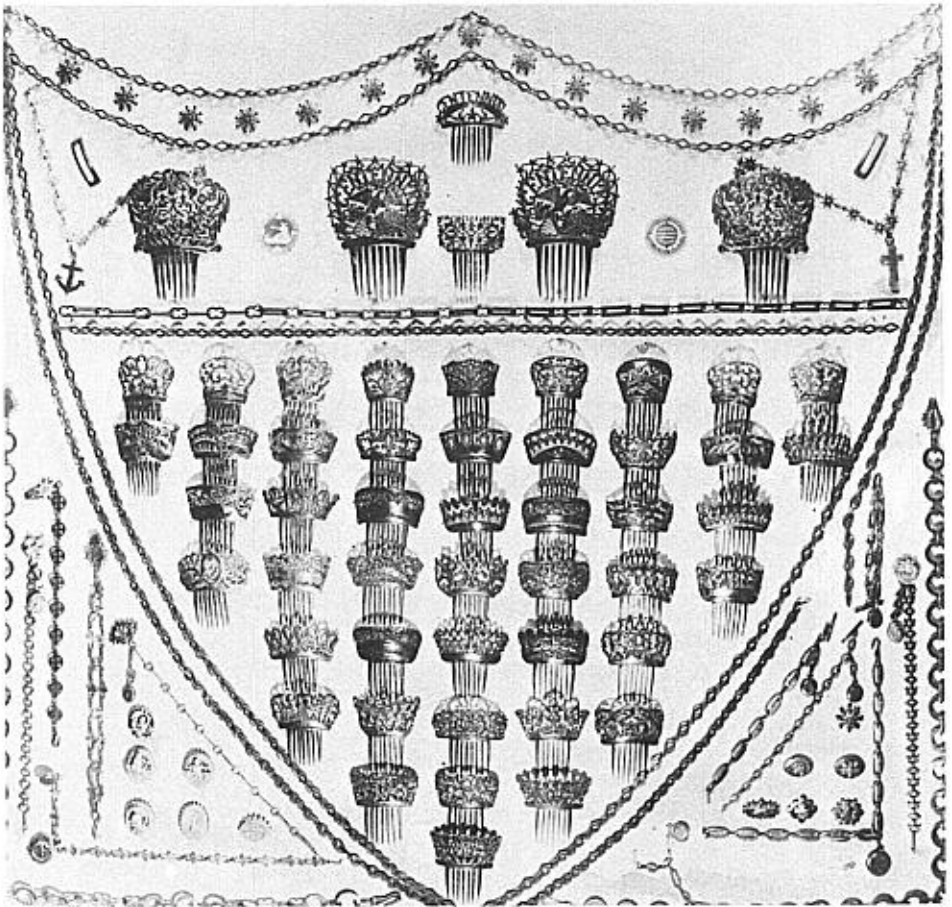


FIG. 10. CENTENNIAL DISPLAY OF HORN COMBS, 1876. (Photograph courtesy of the Leominster Historical Society.)

Newbury disappeared.

In Worcester County, some horn comb manufacturers went out of business, but others, mostly in Leominster, took advantage of celluloid and expanded their operations. Later, they made the transition from celluloid to the petro-chemical product now in use. Today the city still has nearly a dozen places that specifically indicate they are turning out combs, and many others that simply list their output as “miscel-

laneous plastic products.”²⁰

Although the large comb factories of West Newbury are gone, near the Groveland town line one can see the house where Enoch Noyes began making his dressing combs, and at 320 Pleasant Street in Leominster, the 1759 “half-house” with its Duxbury jog still marks the place where Obadiah Hills started the town on its way to becoming the country’s combmaking “capital.”

NOTES

¹ Sarah Anna Emery, *Reminiscences of a Nonagenarian* (Newburyport: William H. Huse & Co., 1879), p. 71.

² *Ibid.*

³ Information about Cleland is based on local tradition. His German name was anglicized (some sources identify him as Cloud); Leonard Woodman Smith, "West Newbury Combs," in the *Haverhill Evening Gazette*, 4 January 1919, p. 10.

⁴ Perry Walton, *Comb Making in America* (Boston: private printing, 1925), p. 78.

⁵ *New Hampshire Sentinel* (Keene), 23 March 1799, quoted in the *Leominster Enterprise*, 17 May 1905.

⁶ Oliver Vose Hills (1799-1871), "History of Comb Making in America" (n.p., n.d.), reprinted in the *Leominster Enterprise*, 20 April 1895.

⁷ Smith, *op. cit.*

⁸ Walton, *op. cit.*, p. 48.

⁹ Wilbur E. Rowell, "The Merrimac River," *Essex Institute Historical Collections*, vol. 82, no. 1 (January, 1946), p. 17.

¹⁰ *Lancaster Gazette*, 29 April 1828.

¹¹ Walton, *op. cit.*, pp. 19, 32, 48, 55, 63.

¹² Andrew Kendall (1834-1926), untitled manuscript in the library of the Leominster Historical Society.

¹³ Walton, *op. cit.*, p. 60.

¹⁴ David Wilder, *The History of Leominster from June 26, 1701, to July 4, 1852* (Fitchburg, Mass.: Printed at the Reveille Office, 1853), p. 133. The author cites the use of steam power at that time; *The Fitchburg Sentinel*, 18 April 1854, records

that the G. & A. Morse firm of Leominster was using steam power; Walton, *op. cit.*, p. 62, says that horse power "was superseded by steam power in the 1840s," but does not cite any sources.

¹⁵ Caleb C. Field, *Statistics of Combmaking in Leominster* (1852; reprint ed., Worcester: Franklin P. Rice, 1893), pp. 8, 9.

¹⁶ *Leominster Enterprise*, 11 June 1873.

¹⁷ A partial list of Leominster combmakers includes: Lincoln, Gibson, Carter, Earl, Look, Tilton, Morse, Kendall, Merriam, and Smith. In Worcester County places now known as Berlin, Boylston, and Sterling had comb shops. Attleborough, Boxborough, Charleston, and Holliston had one or two each. West of the Connecticut River shops appeared in Gill, Tyringham, Pittsfield, and Conway. See John P. Bigelow, *Statistical Tables . . . for the year ending April 1, 1837* (Boston, 1838); Andrew E. Ford, *History of the Origin of the Town of Clinton, Massachusetts, 1653-1865* (Clinton: W. J. Coulter, 1896), pp. 164-76; Josiah Coleman Kent, *Northborough History* (Newton: Garden City Press, 1921), pp. 167, 168; *Towns of the Nashaway Plantation* (Hudson, Mass.: Lancaster League of Historical Societies, 1976), Appendix II, "Tables of Industries."

¹⁸ *Manufacturers of the United States in 1860; Compiled from the Original Returns of the Eighth Census* (Washington, D. C.: Government Printing Office, 1865), pp. 235, 248, 735.

¹⁹ Walton, *op. cit.*, p. 150.

²⁰ *Directory of New England Manufacturers* (Boston: George D. Hall Co., 1975), pp. 312-14.