

Text of Lecture Re: Willard Museum 30th Anniversary ©

Written from outline used for the lecture

Introduction: *I had the great honor to be asked to give an address at ceremonies recognizing the thirtieth anniversary of the opening of Willard House and Clock Museum. That was in June of 2001. In July of 2009 Dr. Roger Robinson celebrated his 100th birthday. He and his late wife Imogene (1901–2004) founded the museum. Both Dr. and Mrs. Robinson attended the ceremonies, and Dr. Robinson gave a fascinating and witty recount of events leading to the opening of the museum.*

In honor of Dr. Robinson's centennial the staff of Willard House decided to publish the remarks below. I have written the text from the outline I used at the ceremonies. It fairly closely follows the original remarks as I remember them. I have added some personal footnotes where I think they might add to the text.

*John C. Losch
August, 2009*

Good afternoon, Ladies and Gentlemen. This is a wonderful gathering, and it is encouraging to see so many people interested in both the existence and history of the Willard Museum. I think it is appropriate to ask why we are celebrating the *Willard* Museum. Why not the Smith, or the Robinson Museum? The simple answer is that the Willards were, and remain, the most prominent clockmaking family in the history of American clockmaking.

During a period of over 100 years there were numerous Willard family clockmakers. Here are a few reasons why the family has remained prominent for so long. Almost every Willard clockmaker made very fine clocks from a mechanical point of view. The Willards had excellent artistic sense, as time and continually changing taste have proven. They were innovative. Simon invented the “banjo clock,” which he called his “patent timepiece,” the Massachusetts shelf clock, and the “Lighthouse Clock.” Simon, Aaron Jr., and Benjamin each made tower clocks of advanced design, and Benjamin Franklin Willard, Simon's son, invented, patented and built a lighthouse mechanism for the United States Government. There are additional inventions and patents.

Further, Willards supplied several clocks important for their use and location. Most well known nationally is Simon's Franzoni Clock in Statuary Hall of the U.S. Capitol, named after the artist who sculpted the case. Aaron Jr. constructed the precision clock used at the Harvard College Observatory, and which became the source of correct time for the railroads operating out of Boston until late in the 19th Century.¹

¹ That clock stood in my living room for several years during an organizational transition that occurred during my long association with the Harvard Collection of Historical Scientific Instruments.

Some members of the Willard family had a very good business sense --- some did not. Not all prospered, but all of the clockmakers were well known for their work. The family passed their high standards on to apprentices, of whom there were many, and some of whom married into the family. Aaron and Aaron Willard Jr. had a manufacturing operation for the volume production of clocks begun well in advance of Eli Terry's 1808 factory in Connecticut. This takes nothing away from the ingenuity of Terry because the techniques of the Willards and of Terry were entirely different.

Finally, Willard Clocks have generally endured as the intrinsically most valuable clocks to survive the handcraft and transition eras of American clockmaking. Simply put, they are worth a lot of money. There are special exceptions such as the David Rittenhouse Clock at Drexel University, or the Joseph Ellicott Clock now displayed at the Smithsonian, for example, but these go right off the value scale. Both are unique and are beyond routine appraisal. Good and genuine Willard Clocks are rare, occasionally available, and in demand at the top prices to be paid for any American-made clocks.

To begin to appreciate the information above we need to look at the circumstances that lead to this family's clockmaking prominence. Not all of the twelve children of the first clockmaking generation born in this house between 1740 and 1766 were clockmakers, but four were. There were three girls and nine boys born to Sarah and Benjamin Willard. Because of the twenty-six year time span between the first and the last of the children's births, it is reasonable to assume that there were rarely if ever fourteen people all living in this small house at the same time. The clockmakers were Benjamin, Simon, Ephriam, and Aaron. Of the remaining males, one was a tanner, another a last-maker, and, of some significance, Joshua was a blacksmith.

Joseph Willard, the eldest child, was more widely known than his younger brothers during the 18th Century. He was minister of the Congregational Church in nearby Mendon, Mass., he was sought after as an inspiring preacher to soldiers preparing for battle during the American Revolution, and he preached against the concept of instant salvation for soldiers killed in battle, a controversial issue in 1781. Clearly, he was more theologian than politician.

There is considerable speculation about the origins of the Willard clockmaking training based on gleanings from historical notes within the family, but no certain evidence exists. There are repeated romances about self-taught clockmakers. Upon examination of the evidence from the period, there is a lot to indicate a number of inadequately taught clockmakers were at work in America, but few proven signs of clockmakers endowed from birth with knowledge of established trade practices. All clockmakers whose work has survived seem to have had some level of formal training in the trade. Scant evidence points to Benjamin Willard having been taught the trade from an itinerant English clockmaker recorded only as a "Mr. Morris."²

² In recent times there has arisen the possibility that Benjamin Willard was apprenticed to the Cheney Family.

Simon Willard was ten years younger than Benjamin, and he most likely learned his trade from Benjamin. It is impractical to think that Simon learned simultaneously with his brother, or that Mr. Morris was still around when Simon was ready for training. Ephriam and Aaron were two years younger respectively, so they probably did learn the trade from Simon, perhaps vicariously at first, just from observing their older brother.

Equally uncertain is when clockmaker brothers began leaving home. Benjamin is thought to have left home first to set up a shop in Lexington, Mass. He may even have worked periodically at both this and the Lexington location for a while. Simon is believed to have left Grafton for Roxbury between 1778 and 1780, thereby pioneering an entirely different life as a clockmaker from the daily life he knew in Grafton. Soon after, perhaps with Simon's encouragement, Aaron followed Simon to Roxbury to seek his own fortune.

Before continuing with an outline of Willard Family clockmaking pursuits, I would like to recite a little history lesson. Don't be afraid. Once anyone gets past who fought what war and when, history can be every bit as fascinating as any novel, and real history is true! Think of life for a rural family whether some members were clockmakers or not. Family life had to be something to remember if fourteen people were all living here at once. The span of ages of the twelve Willard children suggests that they did not all live at home at the same time. The house was still pretty crowded. The only privacy most in such a household enjoyed was with their personal thoughts. This is one explanation of the traditional laconic nature of many New Englanders.

Life for any individual in rural America in 1765 was closer to the life of a "free peasant" or a serf in Europe during the Middle Ages and the beginning reign of Charlemagne a thousand years before.³ Slavery was being phased out for economic reasons in Europe, and was reaching its high point in the rural colonial south. In Grafton, the threat of Indian massacres such as occurred in Deerfield forty years before had abated, but there were places where that was a continuing danger.

Sanitation was primitive and secondary. Medicine was closer to superstition than a remedy to ailment; surgery was a brutal, and an often failed alternative to death. Epidemics were a constant threat. Heat was poor and sporadic, food was seasonal, sometimes contaminated, and had no variety. Sufficient water often depended on weather. Drought dried wells and streams, and sustained extreme low temperatures when there was no snow cover meant that groundwater could freeze at the same time there was no snow to melt.

Chronic bad breath and body odor were simply a part of life, and a bath was an event. Birth control was virtually unknown, was unacceptable, and largely ineffective. It was rejected because of the high level of infant and child mortality. Large families were

³ See Chapters 13 & 14 of John Bowle's very readable *A History of Europe*, Seeker and Warburg, Ltd, London, 1979.

desirable partly as a form of old-age insurance for parents. Childbirth was the major cause of death among women.

Women were responsible for the care and raising of small children, household duties such as cooking, cleaning and laundry, preservation of food for winter, any degree of domestic decoration, and making clothing from the materials men provided them for the purpose. Their routine included daily care of the ill, aged, and dying family members, tending fires while men were away at work, growing herb and domestic vegetable gardens, and generally providing a place for men to come home to.

Men were charged with managing a rural property. This included clearing and maintaining land, planting and tending crops, gathering firewood, erecting and repairing fences, and tending large farm animals, but women kept the chickens⁴. Men repaired and built shelter for people, animals, and stores of feed and grain, the latter meaning a constant battle with rats and mice. Harvesting crops and negotiating any business or financial transactions were handled by men, sometimes with the assistance of a literate wife or child.

The principal difference between rural living in 765 medieval Europe and 1765 colonial America was that there was a less hostile, more communal social attitude among people. The church was still the center of social and community (governmental) life. There was a shared spirit of optimism among the rural population of New England. Education and literacy were still limited, much confined to the clergy, and most of the refinements of life were reserved for the wealthy. Here, at least, wealth could be attained without respect to proffered title or station at birth. A peasant could make it, as the Willards found out.

Let us examine the work of a rural clockmaker in 1765. We have to begin by asking why there would even be a clockmaker in agrarian rural Grafton at that time. As austere as life was in that community, there certainly was not much call for the skills of a clockmaker. As a matter of fact, life in the country was changing. Early in the eighteenth century, the Boston city fathers became concerned with the need to assure a food supply for a growing population. They reasoned that if some of the amenities of life in the city could be brought to the rural farming population there would be more reason especially for immigrants seeking independence to choose a farming life. To accomplish this, artisans were induced to become farmer-craftsmen in exchange for land grants.⁵

Mr. Morris, who introduced the Willards to this trade, must have been an itinerant clockmaker providing his services in exchange for lodging, meals, and probably a place to operate a temporary workshop. While he would have normally repaired clocks in the clock owner's home, he would need a place to set up shop if he were making clocks.

⁴ If there were enough eggs to sell some, farm wives were often allowed to keep the "egg money."

⁵ I have a photocopy of a page from a book on the life of Benj. Franklin which cites this information, and supports it with this footnote: "For further examples, see Robert E. Brown, *Middle-Class Democracy and the revolution in Massachusetts 1691-1780* (Ithaca, 1955), Chap. 1 passim."

The specific shop at this museum is the original Willard shop. It was undoubtedly built by Benjamin primarily as a clock shop, and there is evidence that the area contained a stove for heat at one time. After Mr. Morris had sufficiently taught Benjamin his trade and moved on, Benjamin practiced his skills here, later passing them on to Simon, and Ephraim. Aaron was probably the last to apprentice and practice in this shop.

The collection of tools assembled in this shop is a very good representation of the equipment usual to a clockmaker of the latter half of the eighteenth century. One thing, however, is missing, and it would be essential to an independent workman: a forge. Consequently, it is significant that Joshua, Simon's senior by two years, was a blacksmith. If we can assume that he plied his trade at the Grafton location, he would reasonably have been the source of the forgings needed by the Willard clockmakers.

A forge, even, possibly, combined with a means to melt and cast brass, would be a dangerous building to locate near the house, shop and barn. Both operations require intense heat, pose the threat of fire, and common sense dictates that such a facility would be located a safe distance from the home and other outbuildings.

Benjamin determined to migrate to Lexington early in the history of his clockmaking generation. No doubt he was trying to increase the market for clocks he made. There could not have been any steady demand for new "tall case" clocks among the majority of Grafton's population. All of the "at home" Willard clockmakers had to supplement their income with other services they could provide to their neighbors; those services being within the range of their skills. They probably repaired household items, farm tools, and may have done some jewelry and watch repair, but the latter is unlikely considering their training. Joshua was probably a farrier, shoeing horses.

We can speculate that at almost any time, more than one Willard was working in this shop. They pioneered the idea of making clocks in anticipation of orders. Most clockmakers only produced clocks on order, especially where clockmaking was an ancillary business. Simon, at least, was certainly thinking in terms of making an affordable product for a broader market when he developed the Grafton "Primitives." They were simpler and easier to produce than any tall case movement.

John Ware Willard hints at the idea that Benjamin went to Lexington with the idea of finding a market for his and possibly his brothers' clocks. His choice of Lexington could have been influenced by the fact that his family originated there, and there were relatives to welcome and introduce him. Whether or not that is true, other clockmakers, especially Samuel Mullikin, were prospering in Lexington.

It is hard to imagine the conditions under which the Willard clockmakers practiced their skills. Until winter, most of their time, as farmer-clockmakers, had to be spent tending to the land and the farm. After the harvest, especially if there were enough hands to share the eternal chores, there would be time to dedicate to clockmaking.

Even for young men, light was essential to doing good work, and artificial light was almost totally inadequate. Clockmaking, like nearly all delicate work, had to be performed in daylight. However, clockmaking could begin only after daily chores, which included tending animals, firewood and fires, water, and other priorities fundamental to life, were completed. Life, then, was regulated by the sun, a fact which also placed little importance on owning a clock, especially in rural areas.

Once the time of day arrived when clockmaking tasks could begin, any of the Willard brothers began with the basic raw materials of their craft: brass and iron or steel. Each part of the clock movements they made was “made from scratch.” That statement has become unfairly controversial. Simply put, rural clockmakers made everything even including some of their tools.⁶ It is true that as the eighteenth century drew to a close, urban clockmakers relied more and more upon material largely imported from England as a supply for clockmaking requirements. This was true of urban clockmakers, but not of rural clockmakers such as the Willards.

At the period when the Willards were developing their skills in Grafton they worked independent of most foreign resources. They probably relied on the help, or at least the instruction of their blacksmith brother Joshua for the forged parts included in their clocks, and he probably was able to provide the means for making brass castings. To detail the procedures required to make a clock movement here would distract from the purpose of this occasion. It should be noted, even so, that the Willards, like their farmer-craftsman contemporaries, accepted scrap brass and iron as a form of payment for their services. While there were brass and iron sources within difficult reach, scrap metal was a more practical resource.

By 1780 the Willards had largely left Grafton for Roxbury, a suburb of Boston. It is certain that by 1786 no more clockmaking took place at the Willard homestead. The brothers had gone forth to seek their fortunes, and, without detailing the chronology of that migration, they were generally successful. Specific dates and details prove but do not improve the salient facts. They are: Benjamin may have opened the territory of the Boston/ Roxbury enterprises, but Simon made the first significant mark when he developed the patented timepiece, known to us as “the banjo clock.”

Aaron followed Simon and established a workshop complex legitimately described as a factory. It was a compound of buildings, including his home, where numerous craftsmen plied their specialized skills to produce complete clocks. Among those trained and employed in his enterprise were Edward Howard and David P. Davis. The two later became business partners, and are significant developers of the mid to late 19th C. Boston and Northern New England clock manufacturing industry.

⁶ See Hoopes, Penrose R., *Shop Records of Daniel Burnap Clockmaker*, Connecticut Historical Society, 1958. These are the handwritten notes left by Burnap, an 18th C. clockmaker. According to Mr. Hoopes, who “deciphered” them, the notes were one long unpunctuated sentence. They contain some of the most valuable information about rural clockmaking of the last third of 18th C. in existence. The book is used a reference in both the United States, and Great Britain.

Both Simon and Aaron had children, each had a “Jr.,” and each of them followed his father into the trade. Simon had other clockmaker sons noted for their own unique work. Aaron and Aaron Jr. employed numerous clockmakers, many of whom they or Simon trained, including Elnathan Tabor. They all made clocks under the Willard name. The subject of who was trained by whom, and for whom they worked is convoluted. It is somewhat clarified by Paul Foley in his book, *Willard's Patent Timepieces*.⁷

As the eighteenth century drew to a close, fabrication of clocks as a strictly “one-off” or one-at-a-time procedure was being replaced by more repetitive techniques. Wheels were cut in quantity, and formed cutters were being adopted in place of filing the shapes of teeth by hand. Casting and preparation of parts was done in batches. Some parts may have been imported from England. Clockmaking still involved a tremendous amount of hand work done by skilled craftsmen, but mass production was coming to life. This was the contribution of the Willards as much as were the enduring clock designs they developed. Simon, Aaron, and Aaron Jr. continued to train apprentices in the traditional art of clockmaking, however, as did many of their former apprentices.

The legacy and significance of Willard House and Clock Museum has many dimensions. That this house was begun in 1726 and still stands so well preserved gives us a living shrine to the significant work the Willards contributed to American clockmaking.

The collections this museum houses includes many of the finest surviving examples of the clocks made by a highly productive family.⁸ In addition, there are numerous and varied artifacts associated with several generations of Willards ranging from a letter from Thomas Jefferson to personal possessions of several Willards. There are several important paintings of Willard men and women. Many mementos belonged to later generations of Willards noted for their own contributions to history and society.

Most important, this place is the founding home of an idea that contributed significantly to the development of what became the American industrial revolution. The work of the Willard clockmakers led to manufacturing concepts that have ultimately shaped the world economy. Whether that is good or bad remains to be seen, but it is still a highly debated subject with opinions as diverse as those of Karl Marx and Henry Ford.

I first met Imogene Robinson when I gave a lecture on clocks at the Sudbury, Mass. Wayside Inn in 1960. I was twenty-eight years old, and very full of myself. Mrs. Robinson showed much interest in what I had to say, and was generously kind in

⁷ Paul J. Foley, *Willard's Patent Timepieces*, Roxbury Village Publishing Co., Norwell, MA, 2002

⁸ In May, 2009, the Willard House clock collection was named the *Roger and Imogene Robinson Clock Collection* in recognition of their generosity to the museum, including many of the clocks on display at the museum.

response to a rather pompous presentation. She and Dr. Robinson had begun their enthusiastic pursuit of Willard clocks.

I also remember that shortly before 1960 NAWCC had proposed to restore the Willard clock shop as an association project. There were even plans to move the shop to another as yet undetermined location. There was neither enough agreement nor interest so, mercifully, the project was dropped.

It was through tremendously good fortune that the Robinsons picked up the task of preserving this site. Dr. Robinson has described the early struggles that preceded the opening of the house and museum. He can tell you about the generosity of friends who helped with restoration of the house, provided items for the collections, assisted with restoration of clocks, and more. He is the first to tell you there would be no museum without their help. He will be the last to tell you much about his and Mrs. Robinson's unending dedication to Willard House and Clock Museum. For more than thirty years they have supplied energy and time, clocks, and money to make this museum the treasure it is today.

I am not embarrassed to say that the nation is in their debt. Theirs is a monumental gift to our country's history. We thank you for over thirty years of tireless effort.