

Some Horological Geniuses, Some Old and New Brand Names: The 26th Annual Ward Francillon Time Symposium

by Jeanne Schinto

As much as dealers may wish it otherwise, historians and scholars working in archives, not pickers rummaging in attics, are more often the ones who make the discoveries that may affect the market most. Those with laptops and index cards are the ones who can say whether something is truly rare because they've gone to the trouble of counting the known examples. They are the ones who figure out whether the romantic stories and family lore attached to objects can be believed. No wonder they aren't always popular.

It doesn't have to be so. Judging from what we learned from the ten speakers who addressed the 26th annual Ward Francillon Time Symposium in Houston, Texas, October 27-29, 2005, there are new names to be recognized and new facts to be fashioned into narratives that are just as exciting as the old, discreditable ones.

The symposium's sponsoring organization, the National Association of Watch and Clock Collectors (NAWCC), chose the inventive mind as the topic of this symposium. American horological inventors and inventions were the collective focus of the nearly 100 participants. The slide lectures of most speakers were illustrated with vintage pen-and-ink line drawings from the earliest days of the U.S. Patent Office. There were lengthy discussions of such details as spring governors and DeLong escapements. But the theme that unified all the conversations of the weekend was not technological. It can perhaps best be summed up as a psychological dichotomy: hands versus head. Which of these men were more primarily mechanical geniuses, and which were more gifted with extraordinary business acumen? Which were the better mechanics, and which better understood economics? Which ones wanted merely to make a living, and which were aiming to make a fortune?

Those cog counters and bean counters are mirrored in the two general types of people who belong to NAWCC. We think it's safe to say that today most of them are more interested in marts than research. Why else would only a fraction of the association's current 27,500 membership have come to Houston? Which is not to say that the symposium-goers don't buy, sell, and trade with the best of them. Jim Cipra of Long Beach, California, for one, bought a four-pendulum eight-day boxed chronometer made by Hezekiah Conant (1827-1902) of Pawtucket, Rhode Island, at the Time Museum sale at Sotheby's, October 13-15, 2004, for \$54,000.

But 26 years ago, Ward Francillon, the now deceased former NAWCC president for whom this annual event is named, pushed to establish a meeting that would be commerce free, when no one need worry about being at his table selling or at other tables trying to buy. In the same way that the superb little restaurant on the corner isn't for everyone, while McDonald's theoretically is, these symposia never did expect to attract large crowds. They serve a select group with a taste for pure history whose findings can and do have implications for more market-minded people.

Robert C. Cheney, a third-generation clockmaker, conservator, and dealer from Brimfield, Massachusetts, spoke at the first symposium in King of Prussia, Pennsylvania. It was 1980, and he was 27 years old. In 2005 he spoke in Houston on a topic he has been presenting to groups here and abroad ever since he published an article about it in the April 2000 issue of *The Magazine Antiques* (pp. 606-615). For some readers, it may be old news, but it bears repeating because it's still an unorthodox thesis and, for that reason, continues to meet some resistance. For this symposium, he titled it "Willard Eight-Day Clocks: Innovation in Manufacture or Business as Usual?"

We've all been taught to believe that the Willard family of Grafton, Roxbury, and Boston, Massachusetts, worked as traditional clockmakers, "tap-tap-tapping" (Cheney's sound effects) at their workbenches, making entire clock movements one by one from scratch. But that romantic story, based on the 1911 memoir of John Ware Willard, Simon's great-grandson, is "largely inaccurate," he said. Rather than being "blue-collar craftsmen," the Willards were "early captains of industry" who introduced a "new methodology" to clockmaking in early America. Using evidence from advertising labels, trade catalogs, sales records, and receipt books in libraries and archives here and abroad, he has concluded that "these horological superstars" need to have their history revised.

Rather than fabricating on their own "the most complicated mechanical device known in the eighteenth century," they instead helped invent the period's "most complicated and complex business structure." That structure, which produced and sold so-called American-made clocks, depended on British suppliers of clock parts shipping to Boston via Liverpool, at the time England's second-largest port after London and a worldwide center of trade. Documented Willard clock movements have stamped or scratched inscriptions that include "Roskell, Liverpool," "JB," "Alvin Lawrence," and "Movement Made by Andrew Steele."

Who are they? Dennis Moore of the Prescott Museum in Prescott, Merseyside, has discovered more than 20,000 clock- and watchmakers working within a 20-mile radius of Liverpool between 1700 and 1870. The work of other scholars, said Cheney, could quantify and document finished English movements coming to Boston and clarify the American contributions. There's enough to keep generations of Winterthur students busy, he noted. His own research was conducted independently and "on [his] own nickel."

The Willard model, as interpreted by Cheney, contrasts with that of Daniel Burnap (1759-1838), who was making clocks the old-fashioned way in East Windsor, Connecticut, with an apprentice or two by his side, from 1780 to 1790. Burnap had learned from Thomas Hatland (1735-1807), who had in turn learned the trade in his native England. Burnap's output was necessarily small. The sales of 49 clocks are reported in his account book (see *Shop Records of Daniel Burnap, Clockmaker* (1958) by Penrose R. Hoopes). It's a typical traditional clockmaker's output. But production numbers "take a meteoric rise" with Willard's eight-day clocks (tall clock not being the word that Willard would have used), said Cheney, who has recorded what he believes to be sequentially numbered examples up to 1588.

Perhaps the most startling remark Cheney made in Houston was an extrapolation. "I'm going to let you in on a little secret," he said. "Few urban clockmakers were traditional clockmakers." Furthermore, his Willard research "throws into question" much of our accepted wisdom about other early American decorative arts producers. The names of brass makers on candlesticks may be those who merely put them together and sold them, he said.

Simon Willard (1753-1848) was the inventive one in the family, it is agreed. The other Willards were more business oriented. In the question-and-answer period, Cheney was asked about the most famous invention of Simon, the patent timepiece (known colloquially as the banjo clock). "The verdict's still out on whether the Willards made their patent timepieces from scratch," he said. "My guess is that they used a vast journeyman network in Roxbury rather than in the Liverpool area."

The order of the other speakers' topics followed chronologically from the Willards onward into the present. They ranged from Joseph Ives all the way to Henry Ellis Warren, "the father of electric horology," since electric timekeepers have become a collectible category, especially among newer NAWCC members.

Ives (1782-1862), the subject of Snowden Taylor's talk, was a contemporary of Aaron Willard Jr. (1783-1864), who abandoned 18th-century tall-clockmaking practices in favor of mass-marketing shelf clocks with interchangeable parts. His mentor, Eli Terry (1772-1852), had already developed the revolutionary 30-hour wooden-works shelf clock. Ives was the first to make a mass-produced metal-works shelf clock. "It was a brave thing to do," said Taylor. And it was an inauspicious one, since he ended up bankrupt and in debtors' prison as a result. He would go bankrupt twice in his lifetime but also be awarded numerous patents, with rolling lantern pinions, wagon springs, and a strap movement in brass being his three most important innovations.

By the time he was awarded the patent for the pinions, in 1833, Ives had already been using the friction-reducing invention for 20 years, Taylor said. If Ives was a bad businessman, those who bailed him out of his financial troubles and went into partnership with him were not. As Taylor explained it, entrepreneurs wanted to be able to use the word "patented" in their advertisements. That, he said, was a central reason for seeking patents at the time, since the temporary monopolies often didn't really protect those early inventors from competitors. Many patents were "poorly drawn and indefensible" anyway. The well-drawn, valuable ones got copied "within the year." Lawsuits, however, were generally not pursued. "Principals were working alongside the men in their shop," said Taylor. "They couldn't afford to take time to go to court and couldn't afford to hire a stable of lawyers to dash into court" in their stead. "It was a different world."

While some of Ives's inventions were the products of genuine genius, they proved too expensive to produce. They exist today, if at all, in very small numbers. The extant models, being rare, are the costliest ones on the market, providing a good example of a common phenomenon in the trade.

While Ives didn't get rich on them, some dealers have done very well by them, selling to the knowledgeable collectors who covet them. Those who want to study Ives would do well to get a copy of the book that Taylor acknowledged as the major source for his talk. It is *The Contributions of Joseph Ives to Connecticut Clock Technology 1810-1862* by Kenneth D. Roberts (1970).

John Hubby mentioned Ives in his talk on torsion pendulum technology, Ives having been the first American known to have used the torsion principle for the regulation of a clock in 1812-15. Hubby, who has a major collection of 400-day clocks, admitted straightaway that many horologists put torsion clocks in the same category as cuckoos—they hate them. "Collecting torsion clocks is like collecting bricks," Hubby said Robert Cheney once remarked to him. "So why bother?" Hubby answered his rhetorical question by making a persuasive case that these clocks are well worth the attention of serious collectors, especially those who like American clocks, since significant contributions were made to the technology by Americans.

One of them, Aaron Dodd Crane (1804-1860), received the first known patent for a torsion pendulum clock in 1841. Well known to horologists, Crane was the subject of a 1987 NAWCC monograph, *Aaron Dodd Crane: An American Original*, by Frederick Shelley. An extremely rare (half a dozen extant) Crane astronomical timepiece-a 12-month or year clock, wound just once a year-sold at an April 26 and 27, 2003, R.O. Schmitt sale in Manchester, New Hampshire, for \$84,000. Everyone in this august audience already knew and revered Crane.

Another inventor, John H. Hile, by contrast, was unfamiliar to many, even though his torsion century clock, so-called because it was designed to run for 100 years on a single winding, made the news when it was exhibited at the Centennial in Philadelphia. Standing 9'7" tall, it had a 250-pound solid-lead weight that reportedly dropped just ¾" per year. What sort of winch was required to raise such a formidable load? Hubby could not find the answer, and the clock has lately been seen only in pictures, its whereabouts unknown.

For artists, there's an obvious division between those who work in two dimensions (paintings) and those who work in three (sculpture). For writers, the split is poetry versus prose. The NAWCC naturally cleaves between clocks and watches—"clock guys" and "watch guys." Craig Risch was one of those who addressed the latter, in a talk on Charles Vander Woerd (1821-1888).

Woerd was awarded 13 patents for watches between 1876 and 1886 and another dozen for machinery. His most important invention was an automatic screw-making machine that could produce 60,000 screws of any size per day. Screw making had previously been accomplished by hand. Screws were made one by one on small, manually operated bench lathes. Factories were desperate for a way to automate this process. Woerd invented the first way, in 1871, and the fully automated watch factory soon followed. Risch, an electrical engineer with a longtime interest in watches and mechanical antiques, said: "Woerd's screw-making technology lasted into the 1980's."

Diana De Lucca, editor of the NAWCC Bulletin, was at the meeting, hoping to get written transcripts for future publication from all ten speakers. For more information, contact NAWCC headquarters in Columbia, Pennsylvania, by phone at (717) 684-8261 or see its Web site (www.nawcc.org).