## How Inventions Really Happen: The Sewing Machine Story in Five Acts

## By Paul C. Wilson (2017) Book Review by Eric Wilson, Executive Director, Rockbridge Historical Society

"The Threads of History." The phrase is a common figure for how we talk about historical change, continuity, and connection. Stitching together the broader ties of people, place, and phenomenon, the metaphor holds artful appeal because it is at once tangible, sinuous, deeply woven into our own desire to connect with the past.

Paul C. Wilson brings a new material dimension to the phrase, by focusing on a familiar tool: the sewing machine. His inventive study tracks early prototypes through a series of technical advances and commercial expansion through 19<sup>th</sup> century Europe, America and, in its notable final chapter, Rockbridge County. Yet well beyond that particular instrument and influential industrial era, his framework invites new comparisons to a range of technological innovations, and their cultural impact.

In a powerful, two-page preface, Wilson broadens our reflections from the manual labor and gears that drove the machine, to the very idea of singular genius; serial refinements of concept and craft; the efficiencies, frustrations, and failures that inventions ever face. Along with the technologies and techniques that can change our lives, changing cultural attitudes about progress, creativity, and imaginative insight also shape our understanding of what's remarkable in the past, and what becomes part of – as another well-woven saying goes – "the fabric of everyday life."

Wilson's tie to Rockbridge history centers on the inventive achievements of James Gibbs, who patented his revolutionary single-thread chain-stitch machine in 1857, becoming co-owner of Willcox & Gibbs, still a thriving company 150 years later. Gibbs and his family would move in and out of Rockbridge, as he struggled to find consistent work and markets to reward his skills as a carpenter, craftsman, and tinkerer (tellingly, the abiding struggle between engineering and commercial enterprise is a common thread in this book).

Whether a coincidence, or important influence, Gibbs came to live on a farm in northern Rockbridge, only a half mile from Walnut Grove. There, in the 1830s, Cyrus McCormick began his own early development of the mechanical reaper, revolutionizing fieldwork; only a few years later, Gibbs would begin re-shaping the capacities of domestic labor, and particularly women's work, with his own small, reliable machine. In lasting legacy to that vital breakthrough, Gibbs named the town of Raphine itself, from the Greek word *raphis*, for needle.

Fans of technology, engineering and mechanical systems will find many rewards in Wilson's research (complemented, he notes, by own long experience in tinkering with machines, antique cars). For Gibbs and his predecessors, Wilson both explains and illustrates the intricacies of design and subtleties of variation. He reproduces visual schematics and patent applications for the practical innovations that commanded the market, as well as many that failed. His central choice to focus on a 'single machine' is a shrewd one, even while anchoring more extensive histories of industrial and rural development, of individual and corporate production.

Paul Wilson also been helping RHS to repair one of its own early Gibbs machines. When restored, this 1866 treasure will stand as an arresting and representative artifact to feature and interpret in our displays. On Oct. 20, as part of RHS partnership in block-party festivities for Apple Day, a similar period machine used in live demonstrations by costumed interpreters. Stay tuned for more threads, ahead!