



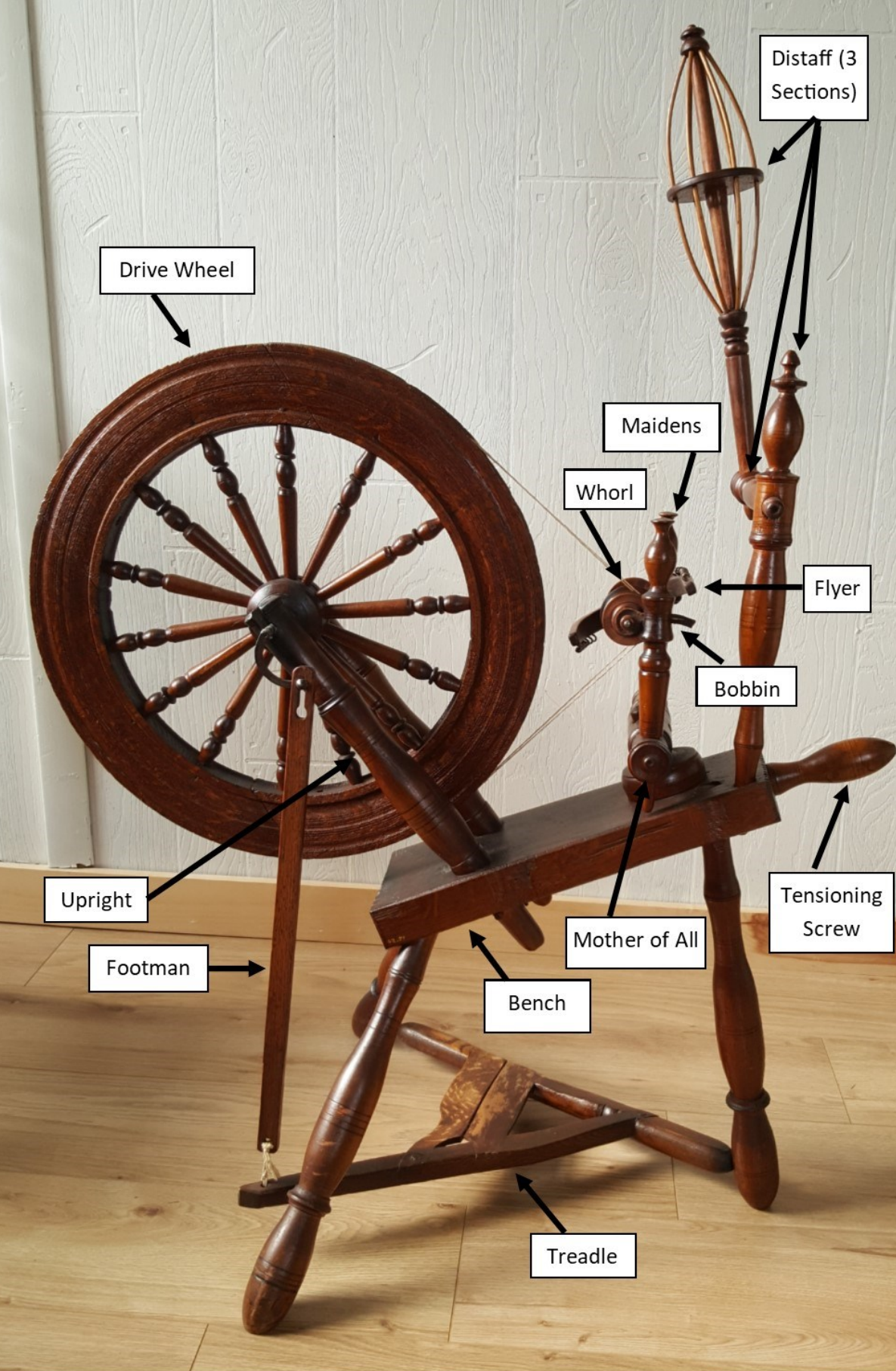
Liberty's Daughters:



Flax into Homespun Linen



In the Era of the American Revolution (1763-1783), thread and cloth were made by hand. Until the invention of the cotton gin by Eli Whitney, Catharine Littlefield Greene, and others in 1793, cotton — like silk — was an expensive luxury fabric. Far less expensive were linen (made from flax), wool, and hemp, all of which were produced on Connecticut farms. The chart above illustrates the complicated processes of making linen cloth from flax. (Sometimes linen and wool threads were combined to make cloth that was a mixture of the two, known as linsey-woolsey.) Making thread, yarn, and cloth by hand was laborious and complex. Skilled spinners and weavers utilized an array of intricate, mostly wooden, handmade, preindustrial devices and machines. Making linen by hand required a great deal of skill, knowledge, and experience. True, the male carpenters who built the wheels, looms, and other devices understood how they worked, and even affluent Patriot leaders like John and Samuel Adams, John Hancock, Samuel Huntington, Jonathan Trumbull, Israel Putnam, and Nathaniel Greene grasped the basic principles involved. But the skill required to actually use the machines required many hours of practice. By the time of the Revolution, few Connecticut men had the skills necessary to spin or weave, but many women did. As you look at the flax wheels and other machines in the exhibit, think about how complex they are. Could the boycotts of British manufactured textiles have succeeded without the knowledge, skill, and support of the thousands of Patriot women who produced the homespun that replaced the imports?



Flax Wheels

Linen is made from a plant called flax, which was grown in colonial Connecticut. The fibers in flax are in the stems of the plant. After the flax has been harvested, retted (soaked), and then dried, the stems are put in a flax break, to break open the stems and begin the process of separating the fibers from the rest of the stems. After breaking the flax, the next step would be to scrape off the fibers from the stems' woody cores by scraping with a scutching board and wooden knife. Once the fibers were separated from the rest of the stems, they would be pulled through the tines (iron or steel spikes) of hetchels. Depending on the fineness desired, the fibers could be pulled through a succession of hetchels, with ever smaller, finer tines.

The wheels for spinning flax were treadle wheels, smaller and more intricate than the great wheels used to spin wool. Spinners sat on stools and used their feet to operate the treadles and made the wheels spin. Although invented more recently than great wheels, treadle wheels were in common use in Europe at the time that Europeans migrated to Connecticut in the 1600s.

"Probate records ... show the gradual development of household production in southern New England. Before 1649, only 15 percent of estates listed spinning wheels. By 1660 that had risen to 40 percent. ... Treadle wheels were so convenient that one wonders why they didn't replace walking wheels. The reason is that different fibers required different handling. Although wool for home production was spun much finer than the bulky yarn used today in craft-weaving, it was generally spun thicker than flax. More important, the long drawing out that was characteristic of the walking wheel helped compensate for the short fibers and natural curliness of wool. Conversely, fuzzy wool might clog a bobbin. Combed flax, on the other hand, was straight and stiff."

—Laurel Thatcher Ulrich, *The Age of Homespun*

