Pressing Matters: An experiential study of the Isaiah Thomas printing press at the American Antiquarian Society

In 1756, Isaiah Thomas—newspaper chronicler of the American Revolution, eminent publisher, historian of American printing, and founder of the American Antiquarian Society—began a unique, nearly lifelong relationship with a printing press. Thomas's mother had been impoverished when her husband left Boston to improve the family's fortunes and instead died in North Carolina. When Thomas was six, she placed her son in the household of a printer, Zechariah Fowle, to whom Isaiah was formally indentured as an apprentice when he was only seven. Fowle's modest Boston printing establishment depended on a single wooden printing press built in London in 1747 (fig. 1). It was not an unusual machine in its construction or design; it looked very much like other English "common presses" of the period. Thomas began his mechanical relationship by inking the press while standing on a box. Later, he learned to pull the press himself, and he seems to have quickly exceeded the abilities of his master. Some years after his apprenticeship ended, Thomas acquired the press from Fowle, and it was a mainstay in his establishment in the following

decades. In 1796 he compiled an inventory of his by-then large shop, and in that document he referred to the press as “No. 1.” Notably, he also listed it as “old,” which may imply that the press was little used or even retired. In 1812, Thomas founded the American Antiquarian Society in Worcester, Massachusetts, and in 1830 he wrote a codicil to his will that left his then disassembled press to the Society. Thomas died in 1831.

Fig. 1. The Isaiah Thomas printing press, built in London in 1747, restored to its present condition in 1977, and now resident at the American Antiquarian Society, Worcester, Massachusetts. Photograph courtesy of the author.

The decades between Thomas’s apprenticeship and the revision of his will are changeful ones for the history of the hand press in North America. During those seventy-four years, the American importation of English common presses dwindled and native production became the rule; the design of wooden presses was subtly or more substantially improved by increasingly specialized press makers; and yet in spite of such improvements, by 1830 the wooden press was being pushed aside by the iron hand press. These developments, of course, took place within the larger transition of materials and processes that we traditionally designate as the industrial revolution. Thomas’s machine, which today presides over the reading room of the American Antiquarian Society from the second-floor balcony, helps us to glimpse these technological developments. As I describe below, having examined the press and its history closely, and having “embodied” that examination in the creation of a replica, I feel better able to speculate in an experientially informed way about the context for press innovation during this period.

Let me begin by recounting my own relationship to the Thomas press. Since 2007, I’ve been developing a letterpress studio and workshop associated with Special

Collections in the Claremont Colleges Library. Students at the Claremont Colleges who take the workshop can learn to print on one of several iron hand presses. Working with these beautiful machines over the last few years, I became interested in how iron presses quickly replaced the wooden common press in the United States between 1814 (when George Clymer began to market his iron Columbian press) and 1840. In talking to my letterpress students about this technological transition, however, I found myself stumbling occasionally when speculating about why iron presses made wooden ones obsolete. I'd never worked with a common press, and I didn't know enough about them to offer a very convincing narrative of their decline. With a year-long sabbatical leave in view, I decided to address my lack of direct knowledge about common presses in a somewhat unusual way: I prepared to build one, and "learn by doing" became my motto. Studying the press "by hand," I thought, would help me to understand the technology and better construct my replica. I had long admired the Thomas press, one of a small number of remaining eighteenth-century common presses in the United States, and so I chose it as my original. While I'm not quite finished building my replica as I write this article, I'm close enough to draw a few conclusions about what I've learned through this experiential study. This is the point at which I should note that while I had a little experience with carpentry and metal work prior to this project, I had never tried anything remotely as large and complicated.

I began my project in fall 2011 by spending a month at the American Antiquarian Society studying the mechanism, history, and historical context of the Thomas press. When not examining printed and unpublished sources in the reading room, I could generally be seen by other readers on the balcony above them leaning over or crawling under the press, tape measure and calipers in hand. I spent many of my evenings and weekends drawing a set of plans from measurements and rough sketches, constantly comparing my drawings to the diagrams and descriptions in Joseph Moxon's *Mechanick Exercises on the Whole Art of Printing* and Elizabeth Harris and Clinton Sisson's *The Common Press*. I also consulted a number of early nineteenth-century printing manuals to make sure that I was correctly understanding and accurately representing the many pieces of the press. (The curators reasonably restricted my examination of the press by not allowing me to disassemble the spindle, nut, and hose, so for the dimensions of these pieces I relied on Harris and Sisson, who documented a very similar press at the Smithsonian Institution.)

One of the first things I noticed, something that would be obvious to even the most casual of observers, was that this machine had been well used. Ink covers much of the wood work, various parts have been gouged by nails or other sharp tools, the bar handle has been smoothed by the hands of many journeymen printers, and overall the press has the worn but proud look of an old veteran. On closer examination, however, I could see clearly what the more careful eyes of curators and conservators had previously noted: that this veteran is not completely original. Many parts have been repaired substantially, and a few of them have been replaced. Frustratingly, these alterations often don't tell us much about when they were made or by whom, although there are clues that allow

for some educated guessing.

Because some of these changes to the press as originally built seem dedicated to keeping it in working order, it is tempting to speculate that they date from Thomas's lifetime. For instance, a wooden frame called the coffin was stabilized by driving nails into some of the joints and repaired by laying in new pieces (fig. 4). The coffin is an essential part of the machine: it holds a planed stone on top of which the type stands during printing. Wrought-iron flanges are nailed into the corners of the coffin, and the chase, the iron frame that holds the type in place on the stone, is wedged against these pieces. Over time, this wedging probably loosened and perhaps broke some of the wood in the coffin, necessitating the repairs that are now evident. This and some other repairs would have been worth making while the press was still in use; it seems unlikely that they would have been made later for the purpose of displaying the press.

Other alterations, though, are certainly more recent. Some may date from immediately after Thomas's death. In the codicil to his will, Thomas instructed his grandson Isaiah Thomas Simmons to reassemble No. 1 and ensure that it was "well fixed" by Simmons himself or by "some Printer experienced in the construction of old-fashioned Printing Presses." What exactly needed fixing and whether Simmons actually followed his grandfather's instruction is unknown. The press was certainly altered later in the nineteenth century, but the extent of the changes is similarly hard to determine. In 1876 the press was loaned to Andrew C. Campbell, who owned the Campbell Printing Press and Manufacturing Company, for a display at the Centennial Exhibition in Philadelphia. Corresponding with Samuel Foster Haven, the librarian of the Society, Campbell noted that "there was a part of it [the press] gone." To which particular part or parts Campbell referred is unclear. That he didn't really know much about the Thomas press—he identified it as having been built by Willem Janzoon Blaeu around 1680 in Germany—didn't stop him from renovating the machine. He almost certainly replaced the hind-rail assembly and the forestay. Because he intended to print with the press while it was on display, he seems to have added a bolt and a new cross member to stabilize the foot assembly and to have repaired the damaged platen by cutting it down to its present size. (In 1977 a sliver of wood from the platen was sent to a laboratory which identified it as a species of maple, possibly as American sugar maple; the platen modified by Campbell, then, may itself be a replacement built after the press arrived in Boston around 1750.) The press that Campbell returned to the Society was thus a significantly altered machine from the one that left it.

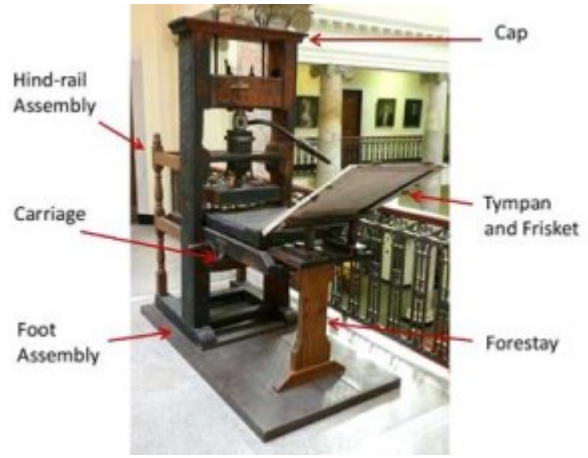

Fig. 2. Selected parts of the Thomas press. Photograph courtesy of the author.

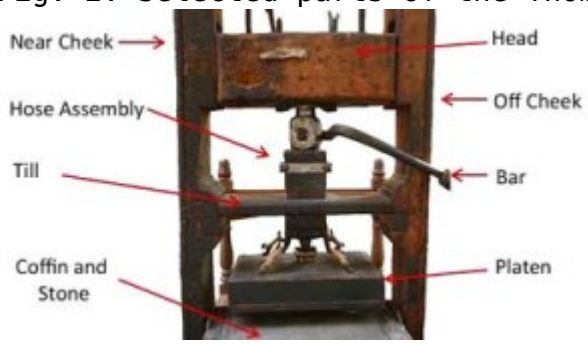

Fig. 3. Selected parts of the hose assembly. Photograph courtesy of the author.

Other repairs we can be more certain about, because they happened relatively recently and are well documented. In 1972, planning began at the American Antiquarian Society for a renovation of the press that would ultimately play out in three stages over six years and that involved consultants from Old Sturbridge Village, the Smithsonian Institution, and the University of Virginia. In 1973, some modest changes were made to the press: blocks that had at some point been attached to the feet were removed and a replacement was built for the missing half of the till. Two years later, the press went through a more significant restoration that included disassembly, a thorough cleaning and fumigation of many of the pieces, and chemical analysis of a limited number of pieces that suggested that the press was built primarily of elm and white oak. The forestay was once again replaced, the tympan and frisket were covered with cloth and paper respectively, and new frisket hinges were forged to replace a set that seemed to date from the twentieth century. For the purposes of display, two new ink-ball racks were hung on the press, and four short pieces of wood were nailed to the cap to represent the way in which the press would probably have been stabilized in its original installation by bracing it to the ceiling or rafters. The hind-rail assembly, the forestay, the ink-ball racks, and the cap braces were painted a flat brown to indicate that they were not original. The stone had gone missing after Campbell’s use of the press in 1876, and it was replaced. The initial plan in this phase was “to restore the press to operating condition” in anticipation of the 200th anniversary of Thomas’s first printing in Worcester. As the librarians and consultants studied the press, however, it became clear that the wood in some parts was too weak to

allow extensive use. Accordingly, just two proofs were pulled at two different times in 1975—one read “ISAIAH THOMAS,” the other was a specimen sheet of type—and the press was then effectively retired.

With the realization of the press’s somewhat frail condition, another phase of restoration, focusing on conservation, began in 1977, and during this phase the press was again dismantled. Several pieces were taken to the Smithsonian Institution’s preservation laboratories where they were analyzed, cleaned, and treated with appropriate preservatives. The off cheek, which had extensive and vitiating insect damage where it met the foot assembly, was impregnated with a hardening agent. The forestay and the hind-rail assembly were replaced with new replicas based on a very similar eighteenth-century press. The press was reassembled for display late in the year. In 1989, the press was taken apart and moved once more for an exhibit at the New York Public Library about the relationship of printing to the French Revolution, but that last ramble for Thomas’s press did not involve the fabrication of new pieces or the restoration of old ones.

This long history of repair and restoration posed some interesting questions for me as I planned my replica. Consider the forestay—in addition to the one currently installed on the press, there were two earlier and quite different designs, and we can’t say with certainty that any of these three replacements resembles the forestay that Thomas would have known. Eventually I designed a forestay different from any of these models, but one that I thought fit the simple aesthetic of the press. I applied a similar design to the hind-rail assembly, although with that part of the press I must confess that I sacrificed close imitation for better functionality. The hind-rail assembly is structurally important to the press in two ways. Once the carriage is installed, it fits snugly against the lower hind rail, an arrangement that helps to keep the carriage from moving when the bed is rolled in and out of the press. The hind-rail assembly also stiffens the framework of the press so that it resists the rotation of the spindle when the press is in operation. In an eighteenth-century installation, however, that motion would usually have been more potently resisted by two other practices: nailing the feet of the press to the floor and using long boards to connect the cap of the press to the rafters of the shop. Secured in such a way, the building that contained the press became part of the press’s structure and helped to stabilize the machine during operation. Understandably, the staff at the Claremont Colleges Library, where my replica will reside, was not wildly enthusiastic about the idea of nailing the press into the ceiling of the Special Collections Reading Room. The hind-rail assembly on my replica, then, had to provide substantial resistance to the rotation of the spindle, and I tried to achieve this by using brass bolts and threaded inserts rather than wooden pegs.

These design decisions were still in the future, of course, during my month with the press in Worcester. After returning home with my set of plans and hundreds of photographs, I organized my garage into a small workshop and gathered my tools—chisels, mallets, saws, planes, rasps and files, and other

needed implements. While I did not set out to be true to eighteenth-century joinery practices in my use of tools (in fact, I regularly utilized a number of electric tools), I did do a great deal of the wood work on the replica with hand tools that would have been available to a London joiner in 1747. If I'd had back-to-back sabbaticals, I would have set up a forge and tried my arm at the anvil, but instead I used an arc welder and an oxygen-acetylene torch for my iron work. Additionally, the machinist at my college cut the spindle, nut, and a few other metal pieces that were simply beyond my abilities. With my shop set up, I then began to look for vintage wood to use in the construction. Common presses were typically constructed out of a mix of hardwoods, and some hardwoods have the unfortunate tendency to twist and check as they dry. For this reason, Moxon strongly advises press builders to use "Well-season'd *Oak*." After some searching, I found a vintage-wood dealer who had appropriately sized timbers of oak and elm, and I supplemented those with a few pieces of relatively new but nonetheless dry and stable wood. My "well-season'd" lumber had come out of old barns and other structures; most of the pieces had tenons or mortises cut into them that I had to work around or incorporate.

Fig. 4. A closeup, from above, of one corner of the coffin on the Thomas press. A repair has been made by setting and nailing a small piece of wood, visible just above the corner iron, into the coffin frame. Photograph courtesy of the author.

With the wood replacing the car in my garage (fig. 5), I began to fashion my replica. When I purchased my lumber, I was delighted to find that much of it was close in size to the finished dimensions I would need before I could start carving—three-quarters of an inch thicker here, two inches wider there. This closeness encouraged me to believe that, rather than taking all of the wood to a lumber yard to be milled at considerable expense, I could save money and get a better feel for my wood by cutting the lumber down to finished size in my own garage. This decision cost me a huge amount of time, and were I to build a press again, I would have at least some of the pieces milled. But the time I spent sizing my lumber also afforded me the opportunity to learn more about my materials and helped me to a better understanding of some of the repairs I've already noted in the Thomas press.

In many ways, wood is an excellent material for mechanical applications. It can be very hard but at the same time shapeable and joinable. It's a plentiful resource. Worn or damaged pieces can often be refashioned and reused. But in a machine like a common press, in which wood and iron are both used and the wooden joinery is constantly stressed by the rotation of the spindle and the expansive pressure when the impression is made, wooden pieces and joints tend to wear out, loosen, or break over time. When I was carving paired pieces for my press—the feet, say, or the cheeks—making the second piece was always easier, not because I had become a substantially better woodworker by carving the first, but because for the second I had a model. In the eighteenth-century, a joiner, a cooper, or a carpenter—probably any worker whose medium was wood—would have been able to supply a functional replacement if the right wood were available and the original served as a model. Such woodworkers were usually well represented in provincial communities. The repair of metal parts would have demanded more specialized skills.

Any repair on a press would have necessitated some disassembly. Replacing something like a frisket would have been a simple process, but a more structural repair, such as building a new winter (the piece that supports the rail assembly and bed), would require substantial dismantling. Wooden presses were often moved, so they were designed to break down into their constituent parts. Prior to building a replica press, though, I had no real sense of what would be involved in disassembling a wooden press. But having built most of my replica in my garage, and facing the impending conclusion of my sabbatical, a time came when I needed to break it down and move it to its permanent home in the library. What I learned from this experience was that these machines can be disassembled very quickly. Granted, my press was not yet finished when I disassembled it, I didn't have to bore out any pegs that had become stuck over time, and I didn't have to pull out the nails that would have typically connected the press to the floor and ceiling. Even so, working alone it took only half an hour to dismantle the entire frame and carriage assembly and lay out the pieces on my garage floor (fig. 6).

The rapidity with which my press came apart illuminates a famous adventure in the relationship between Isaiah Thomas and No. 1 that occurred in April 1775 at the start of the American Revolution: "As an armed clash seemed more imminent, one of the first acts of the British authorities was likely to be the seizure of the presses. Isaiah consulted with John Hancock and other members of the Provincial Congress, who advised him to move his press to some country town where it would be safe and would be available to do their printing. On the night of April 16, he dismantled his press 'No. 1' and packed up the rest of his equipment and with the aid of two friends got his press and types into a wagon and across the Charles River on the ferry to Charlestown." The press made its way to Worcester, where it was set up and used throughout the Revolutionary War and throughout Thomas's long career. As I think about that initial and hurried transport in the light of my experience knocking down my replica, it strikes me that it was probably more time consuming for Thomas and his friends, on that stressful April night, to prepare the type to move than it was to ready

the press. The type, after all, would be subject to mixing while being jostled in a wagon on rough roads, and so it probably had to be packed in such a way that the different pieces of type were secured within their own compartment in the type case. The press itself would have packed into a relatively compact grouping in the wagon.

Repairing, disassembling, and reassembling a press, then, were relatively straightforward endeavors. Building a press from scratch, however, was a different matter, and the complexities of coordinating supply and craftwork was a significant barrier to native production until after the Revolutionary War, even though the demand for presses was growing. As with the Thomas press, colonial printers had generally imported their machines from England, and as Milton W. Hamilton notes, presses “made in America did not become common until the non-importation agreements of the struggle over taxation gave an impetus to colonial manufacturing.” Evidence of native production prior to the war is scarce. In his *History of Printing in America*, Isaiah Thomas dates the earliest press construction in North America to 1750, when Christopher Sower Jr. of Germantown had several presses made for his own use. In 1769, a New Haven clock maker ventured beyond his usual scope of business to build a printing press for an American printer. Around the beginning of the war, press production seems to have developed in Philadelphia, Hartford, and perhaps a few other places. By the 1790s, native press makers were supplying a large part of the market and advertising their manufactures widely. Of the twelve presses listed in Isaiah Thomas’s 1796 inventory, four were made in Hartford.

Fig. 5. Vintage wood in my garage: the raw material for my replica. Photograph courtesy of the author.

Fig. 6. The parts of the replica spread out on the bed of a truck, waiting to be hauled to the library for assembly. Photograph courtesy of the author.

By 1800, numerous newspaper advertisements demonstrate that being a “printers’ joiner” or “printing-press maker” had become a small but specialized American trade. A press maker from Elizabethtown, New Jersey, offers a sense of the growing market for native presses in an informative advertisement in the *New Jersey Journal* in 1796:

JOHN HAMILTON, PRINTING-PRESS MAKER, INFORMS the PRINTERS in this and the neighboring states, that they may be supplied with PRESSES, made on an improved plan, after the best manner, and at three weeks notice. He has made presses for most of the printers in this state, New-York, and elsewhere; and has the happiness to find that his endeavors to give satisfaction, have met their approbation.—His price is SEVENTY-FIVE DOLLARS, which, considering the manner in which he finishes his presses, he flatters himself will be considered as a moderate compensation.

I must confess to some feelings of inadequacy in relation to this advertisement, because as I write this article, it’s taken me eight months to *almost* complete a press. Of course, I can comfort myself by imagining that Hamilton’s three weeks was the ideal case—this is an advertisement, after all—and in knowing that he and his workers had experience building other presses. Still, taking Hamilton’s claim at face value, and considering it through my experience building a replica, it’s tempting to speculate on the necessary conditions for press making to become a specialized trade.

First, a division of labor and concomitant sense of entrepreneurship was required. A press maker in 1747 London or 1796 New Jersey would need a reliable source for the iron work of the press, since he would not be constructing those complicated parts himself. The spindle and nut (fig. 7) would be the most time consuming to build from scratch, but the rails, rounce spit, and tympan hinges would all present their own difficulties. As a time index for certain kinds of iron work, I hand filed one end of the “spit,” an axle that when turned moves the carriage in and out from under the platen. I worked just two inches of the spit, going from square, to smaller round, to yet smaller square; doing so cost me eight hours and two painfully cramped hands. Given Hamilton’s “improved

plan," perhaps he had a very specific set of instructions that he could give to the iron worker; if the iron worker had supplied Hamilton in the past, then maybe the smith also had a series of patterns and jigs that would speed the job. Perhaps demand was such that Hamilton planned ahead and had one or more sets of iron parts ready and waiting for the next order. In considering the press maker's needs, two Philadelphia newspaper advertisements from the beginning of the nineteenth century suggest the working relationship and division of labor that specialization demanded. In 1804, Joseph Eagleson, a smith who advertised that his shop could produce "all kinds of PRINTING PRESS WORK," indicated that orders could be left in the shop of Adam Ramage, the Philadelphia printer's joiner who famously improved the common press and supplied the American market extensively for several decades. The relationship between two artisanal establishments suggested in that advertisement is strongly reinforced in another notice from 1810, in which Ramage himself advertised his manufacture of printing presses and noted that he had "Smiths and Joiners employed in these branches only." In building printing presses, specialization demanded the predictable integration of multiple crafts.

Second, just as there was a market for used presses, so too iron parts from old presses may have found new life in new woodwork. Consider the Thomas press—while the wood in places is fragile enough to warrant the press's retirement, the spindle thread still turns smoothly and tightly in the nut, and the rest of the original iron work is in generally good condition. In cases where the iron had outlasted its original wooden framework, certainly pieces like the spindle and nut must have been re-used. It is clear from the advertising record that used presses changed hands fairly often; it seems likely that there was also a market for used iron parts.

Third, a press maker contemplating the production of multiple presses for the same design would have made patterns and jigs for the wooden portion of the press. David Pye's well-known distinction between the "workmanship of risk" and the "workmanship of certainty" is useful here. Rather than a process in which the result of the wood carving was not predetermined and thus open to risk, the press maker would have taken steps to regulate production, to make the results of the woodworking more certain. Philip D. Zimmerman adapts Pye's distinction in writing about eighteenth-century furniture production, and his point seems applicable to press production as well: "The use of templates … and other patterning tools on a shop-wide basis resulted in the workmanship of certainty. They also represented a dual cost savings. First, the owner spent time laying out the design only once, no matter how many times that design was used. Second, a relatively unskilled worker could use the templates without loss of quality in the piece of work, and the shopowner could assign more highly skilled and highly paid workers to other tasks." Even though I was building a single press, I nonetheless created jigs for facing the inside of the cheeks and for cutting the dovetail mortises and tenons, and I made patterns for cutting the various mortises in the feet (fig. 8). These guides made the carving easier and, in Pye's sense, the results more certain.

Fig. 7. The spindle and nut cut by my college machinist for the replica press. Note the three-start thread visible on the nut and the plans from Harris and Sisson’s The Common Press in the background. Photograph courtesy of the author.

Fig. 8. The cheeks of the replica press locked up in jigs to keep the inner faces of the cheeks parallel to one another as I fitted pieces such as the head, till, and foot assembly. Photograph courtesy of the author.

Fourth, our printing-press maker would need a reliable source of hardwood that was adequately seasoned and sized when it arrived at the shop. The needs of a press maker in this respect would have varied from those of, say, a cabinet maker, as the dimensions of the wood for a cabinet and a press are very different. At the same time, the wood would have to be of higher quality than the timbers that might be used to frame a building, where knots, checks, and blemishes would be less difficult to work around. Such supply was not always forthcoming in the late eighteenth century; in 1792 Isaiah Thomas ordered presses from Hartford, “and when the manufacturers were unable to find good wood for them, he hunted it up in Boston.” Some of this lumber may have been used rather than new. If so, the press maker would have to work around or

incorporate pre-existing mortises, tenons, peg holes, angled cuts, and sawn sizes dating from the wood's earlier use. For my replica, I was able to take advantage of two large tenons in each of the pieces I worked for the cheeks, cutting down and reshaping the tenons slightly so that they fit into the mortises I had carved in the feet. The Thomas press suggests that printers' joiners also worked with what they had: the off cheek in that press is noticeably crooked near the top. It seems likely that the lumber was imperfect to begin with and the joiner made do with it.

Hamilton's "improved plan" reminds us that the technology represented by the Thomas press was in flux; joiners, smiths, and printers themselves had sought to make the traditional common press more efficient by improving certain parts of the machine. Consider the hose mechanism. The Thomas press, like most English presses of its period, has a square wooden hose through which the spindle passes and from which the platen hangs. The two-part till, cut to fit the hose fairly precisely, fastens around the hose to keep it from rotating with the spindle, and that control allows the platen to come down squarely, which in turn minimizes the slurring of the inked type on the paper. Many presses of the period, however, were built with "steel hoses," an innovation originally utilized by Willem Janzoon Blaeu and later popularized through Moxon's seventeenth-century championing of this style in *Mechanick Exercises*. In Thomas's 1796 inventory, three of his twelve presses had steel hoses, including one built in Hartford. The overall framework of the press was a stable design, but printers, concerned constantly with making their jobs faster, more predictable, and thus more profitable, may have provided ready customers for innovative press makers. Beyond such minor innovations, more substantial reinventions of the wooden common press were occasionally attempted, including the successful design of the so-called Ramage press around 1807 and various experiments, inspired by the invention of the first successful iron hand press in 1800, to use compound levers to turn the spindle. By the first decade of the nineteenth century, such motivation led many inventors to experiment with iron as a new material for framing a press.

In my replica, there are certainly some examples that suggest the process of small-scale innovation. The machinist who cut my spindle made it cylindrical rather than tapered so that it would fit more precisely in the hose. I designed a way of connecting the "girts," the leather straps that help to slide the carriage in and out of the press, to the carriage assembly without nailing them to it, the technique used for the Thomas press.

That wooden presses were often advertised as "improved" suggests widespread dissatisfaction with traditional press technology and the limitations of wood construction among late eighteenth- and early nineteenth-century printers and press makers. This feeling was expressed repeatedly in newspaper articles when the newly invented, cast-iron Columbian press was promoted through American newspaper exchanges between 1814 and 1816. Commenting on the mechanical and practical superiority of this American invention, one writer held: "It has long been a desideratum among printers, to obtain a press for letter press printing,

which should be worked with less manual labour than that now in use, whilst the simplicity of its construction, and the certainty of the result, should leave but little, or nothing to the judgment of the pressmen.” Another compared the materials head to head: “Being composed entirely of iron it is far less liable to get out of repair, and obviously more durable than the common Presses, and the impressions which it gives are more uniform and distinct.” Some writers were more harsh, such as the printer William Fry who wrote in a published letter about “the frequent and vexatious derangements to which other [wooden] presses are liable,” or an anonymous writer who seems to have had direct experience pulling a wooden press: “The defects of the common press are so numerous, that it is impossible to provide a remedy for every evil. Perhaps there never was a machine invented to effect any purpose that leaves so much to depend on the skill and attention of the workman; and the judgment and experience of the most acute often prove inadequate to provide a remedy for these irregularities or defects which militate against the neatness or beauty of the printing.” Iron presses like the Columbian were more expensive at first than wooden ones, but by the 1830s the cost had come down and their clear mechanical superiority to wooden presses made them worth the money invested in them. Along with being easier to operate, a key aspect of their design was the stiffness of their frame—they didn’t have to be nailed into the rafters in order to remain stable during use. In this respect, I can certainly feel the difference between my replica and any one of the iron presses in my studio. There is a solidity to the iron machines that is simply not possible to achieve with a wooden frame, especially since the latter, meant to be easily taken apart, does not feature glued or nailed joints.

Fig. 9. The replica press in the Special Collections Reading Room, the Claremont Colleges Library, with the author standing next to it. Photograph courtesy of Dan Petersen.

Building a replica of the Thomas press (fig. 9) has allowed me to practically and imaginatively conceive of the nature of the machine in a way that would not have been possible had I only examined it. My finished replica will further this process as I learn to print on it. Will my press exhibit "frequent and vexatious derangements" of the sort the Thomas press was prone to? I suspect so. But as I compare its functionality with the iron hand presses in my studio, understanding the limitations of the wooden common press experientially will help me to better understand the historical transition between wooden and iron presses in early nineteenth-century America.

Further Reading

For general information on the common press in North America and the transition to the iron hand press, see volumes 1, 2, and 3 of *A History of the Book in America* (Chapel Hill, 2010); Milton W. Hamilton, *The Country Printer: New York State, 1785-1830* (New York, 1936), who discusses importation and colonial manufacturing; Rollo G. Silver, *The American Printer, 1787-1825* (Charlottesville, 1967); and Lawrence C. Wroth, *The Colonial Printer* (Portland, Maine, 1938). Regarding the mechanism of the common press, Joseph Moxon, *Mechanick Exercises on the Whole Art of Printing*(London, 1962) and Elizabeth Harris and Clinton Sisson, *The Common Press* (Boston, 1978) are essential. Milton W. Hamilton, *Adam Ramage and His Presses* (Portland, Maine, 1942), discusses Ramage's early nineteenth-century improvements to the wooden press. On the "workmanship of certainty," see David Pye, *The Nature and Art of Workmanship* (Cambridge, revised edition 1995) and Philip D. Zimmerman, "Workmanship as Evidence: A Model for Object Study," *Winterthur Portfolio* 16 (Winter 1981): 283-307. Quoted newspaper advertisements and articles about common presses come respectively from the *New Jersey Journal* (July 20, 1796); the *Aurora General Advertiser* (February 9, 1804); the *Democratic Press* (September 10, 1810); the *Repertory* (June 1, 1814); the *Connecticut Courant* (February 13, 1816); the *Delaware Gazette and Peninsula Advertiser* (April 26, 1814); and the *American & Commercial Daily Advertiser* (April 29, 1814).

The history of the Thomas press is summarized in *Old "No. 1": The Story of Isaiah Thomas & His Printing Press* (Worcester, 1989); the quotation about Thomas moving the press from Boston to Worcester is from this source. The 1970s restoration of the Thomas press is fully documented in a box of materials in the manuscripts collection at the American Antiquarian Society labeled *Isaiah Thomas Press 1975-1978*. This collection is supplemented by a correspondence file between the Society and Clinton Sisson, one of the conservators who worked on the press. A letter in this file from Associate Librarian of the Society Frederick E. Bauer Jr. contains an extensive summary of what is known about the press, including information about Thomas's will and Campbell's 1876 renovation.

Biographical details for Isaiah Thomas come from Thomas's *A History of Printing in America* (New York, 1970); Clifford K. Shipton, *Isaiah Thomas: Printer,*

Patriot and Philanthropist, 1749-1831 (Rochester, New York, 1948); and *Three Autobiographical Fragments of Isaiah Thomas* (Worcester, 1962).

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