

Building a Common Press: Or, My Excellent Sabbatical Adventure

--By Jeff Groves--

Report 4 (June 2012), in which the press, having reached an appropriate level of maturity, leaves home.

The replica common press that I've been building since December 2011 is no longer in my garage. Two weeks ago, it moved into the far more upscale surroundings of the Special Collections Reading Room at Honnold Library—which, among other happy outcomes, means that our Prius doesn't have to park in the driveway anymore. Now, the fact that the press has flown the coop doesn't mean that it is operable; in fact, I have a number of small, complex pieces to finish before that will be the case. But with the exception of the stone (which I haven't yet ordered), the bar catch, the tympan hinges, and the frisket, all of the remaining pieces are already in various stages of construction. The bar is bent, fitted to the spindle, and ready for the wooden handle. The hose (which keeps the platen square), the till (which keeps the hose square), the brass oil cup (in which the toe of the spindle turns), and the platen are all roughed out. The coffin and corner irons are almost ready to be fitted together, although I have a bit more welding to do on the irons. As for the tympan, inner tympan, and gallows...



The Arizona Connection

The cowboy woodworker in the photo above is my father, Ray Groves, who lives in Tucson with his wife Sharon, his dog Barney, and his excellent but nameless table saw. I went out to visit Dad in late April, and I just happened to carry a supply of vintage oak in the trunk. That wood kept us busy for a couple of

days as we built the tympan (in Dad's left hand), the inner tympan (in his right), and the gallows (visible on the workbench through the arms of the tympan).



The Winter

With the basic frame of the press in place—a state I described in my last report—the next task was to construct the winter, which is a large piece of elm with dovetail tenons at both ends, tenons that must fit quite precisely into the dovetail mortises of the cheeks. I had been worrying about this bit of carving since the beginning of my project, but it turned out to be relatively straightforward. Having cut the inner depth of the tenon with a circular saw, I then used a chisel to carve the tenon sides, carrying the winter over to the press frequently to try the fit. After only about two hours, the winter dropped snugly into the mortises, and it is now ready to support the carriage assembly, to resist the force of the spindle when the press is being pulled, and, with its large dovetail joints, to make the cheeks less likely to twist when the press is in operation.



Pegging

With the winter stabilizing the cheeks of the press, the hindrail assembly keeping the cheeks standing at level, and two large bar clamps holding everything in square, it was time to drill and peg the cheeks and hindrail posts into the feet. I had drilled the pilot holes in each foot before joining the feet together, and so I used those holes to bore the cheeks and hindrail-post tenons. Having cut oak pegs of the appropriate lengths, I coated them with melted paraffin and drove them into place. Quite satisfying, I must admit. As I'd hoped it would, the addition of the pegs made the whole assembly much more rigid.

The Head



The head is a complicated piece. Like the winter, it must fit snugly into two dovetail joints, but it also holds the heavy nut in which the spindle turns, two catch-bolts to secure the nut in place, and two head bolts that extend all the way through the cap. The connection of cap and head with the head bolts allows the operator to adjust the height of the impression mechanism in relation to the type and further stabilizes the frame of the press by tightening the fit of the cap to the cheeks.



I used the same technique for fitting the dovetails joints as I did with the winter. For the bolts, I threaded round stock with a die and then welded the heads on to the rods. With the catch-bolts, I had to do a fair amount of hand filing to get the catch to sit flush on the two-part lip of the nut. I roughed out the socket for the nut on the drill press and chiseled the hole to its final size. In the right-hand photo just above, you can see the head from the "hind" or back side of the press, with the spindle inserted in the nut and the bar inserted in the spindle.

The Carriage and Plank



While the carriage is stationary in the press, it carries (hence the name) the plank back and forth. The plank is currently unfinished, but sometime soon the coffin, a stout wooden frame, will be mounted on the plank, and the resulting box will hold the stone on which the type will stand. The plank, which has steel sliders called “cramps” on its bottom, fits closely within the guideboards, which in the top-left photo above are the two taller pieces making up both of the long sides. The ribs of the carriage support two steel rails, and the cramps slide along the oiled, greased, or waxed rails, with the guideboards keeping the plank square to the carriage.

In the top-right and bottom-right photos, you can see the rounce assembly, which attaches beneath the carriage. The rounce barrel is fixed to an axle, called the “spit,” and on the operator’s side, the spit connects to a crescent arm and handle that is used to turn the barrel. When the arm is turned, leather straps running in two directions pull the plank in for printing or out for inking. Over time, this repeated action will wear down both the guideboards and the sides of the plank. When the wear begins to make the movement of the plank sloppy, the assembly can be taken apart and shimmed to bring the operation back into something like its original state.



Leaving Home



About six weeks ago, I decided that, with my sabbatical rapidly expiring, I would move those parts of the press that were finished to Honnold Library on June 1st. Carrie Marsh, our Librarian of Special Collections, arranged for a truck and two Claremont University Consortium workers, David Dempsey (left, in the bottom right photo) and Brian Turner (right), to help me, so there was no turning back once we were on the calendar. Before taking the press to the library, I needed to take it apart, do a final sanding of all the pieces that would go, put on them a protective coat of tung oil and light varnish, and prime and paint the base. Rather a lot of work, actually. Five days before the move, then, I put aside my other tools and used a hammer and punch to drive out the pegs I had so satisfyingly driven in just a few weeks before.

And in doing so, I learned something important about the common press. These machines can be disassembled very quickly. Granted, my press was not yet complete, I didn't have to bore out any pegs that had become otherwise unmovable 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 press and lay out its constituent pieces on my garage floor. Those who know the history of the Isaiah Thomas press, the original of my replica, will appreciate the rapidity with which the press comes apart, because one of the most famous stories about Thomas and his press involves such disassembly in 1775, at the beginning 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. (*Old “No. 1”*, [13]).

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 press, it strikes me that it was probably more time consuming for Thomas, 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.

At any rate, Carrie, David, and Brian showed up with a stake-bed truck on June 1st, and while we didn’t have a river to cross and we weren’t working in the dark, like Thomas we managed to get this press out of the neighborhood very quickly. The next day—well, the photo below tells that story. The folks in the photo are, from left to right, my nephew Alex Morgan, who helped me set up the press; me; my wife, Teresa Shaw, smiling from behind the press; Carrie Marsh; and Dan Petersen, a colleague from Harvey Mudd who shot a large number of beautiful photos of the assembly process.



Don’t know about you, but I think the press looks pretty good in its new home. Once finished, it will serve as both a display and a demonstration press in relation to our rare book and broadside collections. Over the next two months, I’ll work on the remaining pieces, with the goal of having a functioning machine by the end of August. Keep those fingers crossed.

Sources

Old “No. 1”: The Story of Isaiah Thomas & His Printing Press (Worcester, MA: American Antiquarian Society, 1989).