



*Photo 321: With the keybed sealed with two coats of shellac, and a top coat of polyurethane, it is now sweet-smelling and ready for the keyframe to be reinstalled.*



*Photo 322: The six pounds of baking soda that have covered the keyframe for more than a month are vacuumed off, taking the mouse odor with it. All I can say is thank goodness for baking soda. It works wonders in this type of situation.*



*Photo 323: Examination of the balance rail pins reveals corrosion too deep to simply polish out. Removal of the old pins and replacement with new is necessary.*



*Photo 324: With the balance rail removed from the key frame, the corroded pins are punched out using a roofing nail with the point clipped off.*



*Photo 325: The 4 X 4 block holds the balance rail far enough off of the surface of the bench that the pins are free to drop out below once they are punched through.*



*Photo 326: With all the pins removed, the balance rail itself needs attention to remove stains and odors.*





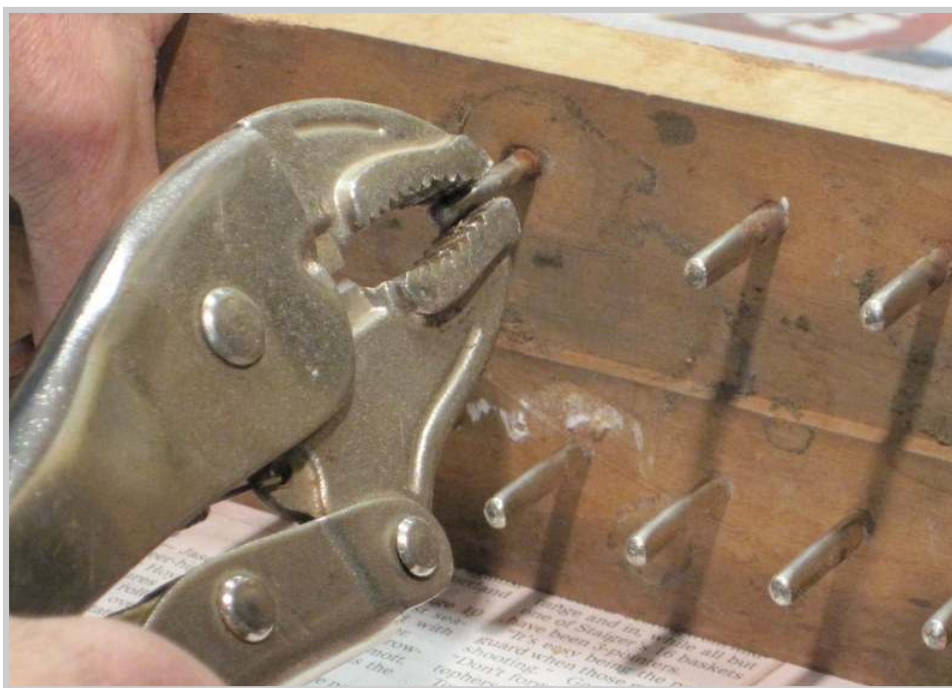
*Photo 327: The sanding out process involves a once over with 100 grit paper, followed with 150 and 220. Being a harder wood (maple) than the keybed itself, the staining had not soaked far into the fibers of the wood, and was much easier to remove.*



*Photo 328: The balance rail, looking much better than before.*



*Photo 329: The front rail pins are unfortunately in no better condition than the balance rail pins, and must be replaced as well.*



*Photo 330: Removal of the front rail pins involves grasping the pin tightly with a pair of vise grip pliers, and pivoting clockwise and counter-clockwise while pulling out. Care is taken not to exert any side-to-side pressure which could distort the shape of the hole.*





*Photo 331: The rest of the keyframe, with pins removed from the front rail.*



*Photo 332: The front to back members of the keyframe, as well as the back rail, have severe damage courtesy of the factory mice. These parts, being of a softer wood than the front and balance rails, suffered from much more abuse. Replacement of these parts of the keyframe, at this stage of the project, seems desirable. If there's one thing I hate, is to finish a job and wish I had done this or done that. "Do it right the first time," was my dad's motto. I've tried to make it mine as well.*



*Photo 333: From the lumber rack, a piece of maple is chosen to make new frame parts.*

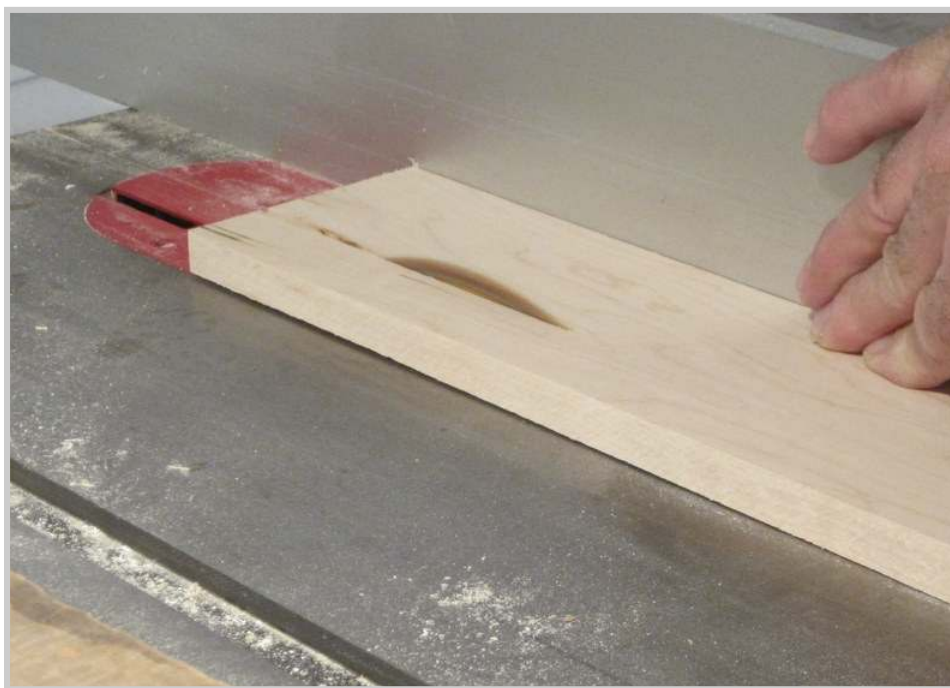


*Photo 334: The band saw is set for the thickness of the old stock.*



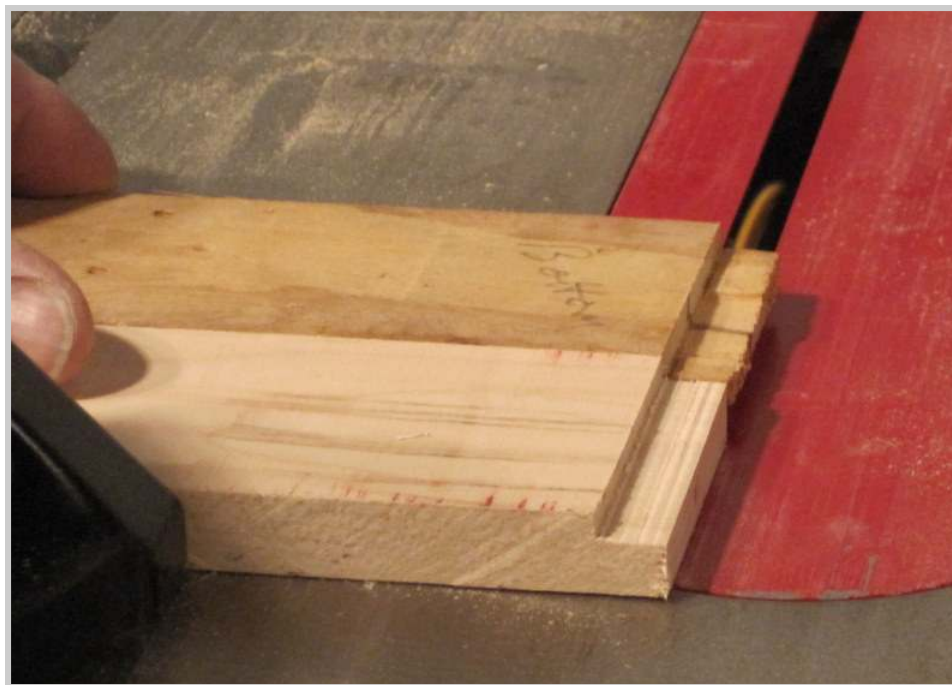


*Photo 335: An eight footer and a six footer are resawn on the band saw to provide adequate material to work with.*

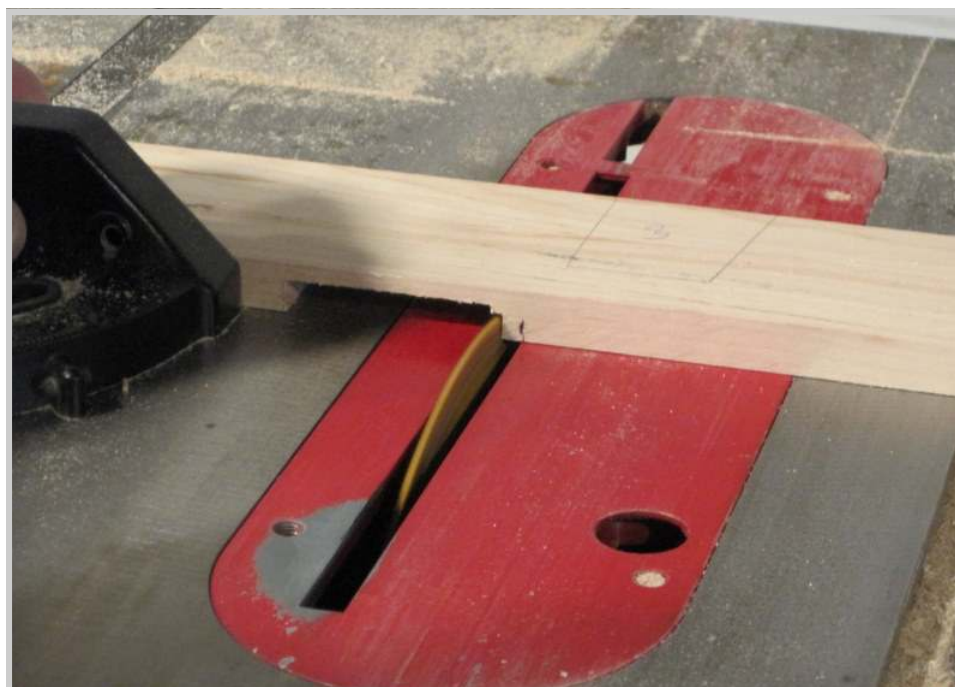


*Photo 336: The five replacement boards are first cut to length on the miter saw, then cut to width on the table saw.*

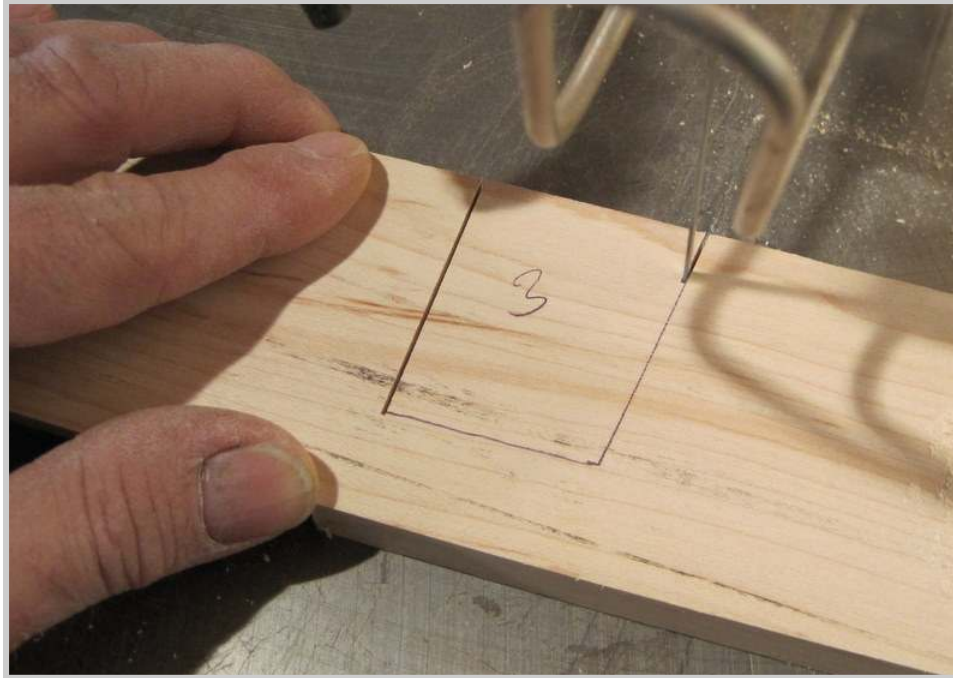




*Photo 337: The middle two front-to-back boards have mortise and tenon joints on the front end. Tenons matching the old are cut for these two pieces.*



*Photo 338: The back rail has dado joints, here being cut into the new rail.*



*Photo 339: Cut-outs in the back rail give clearance around the action posts.*



*Photo 340: Titebond is applied to the tenons before insertion.*

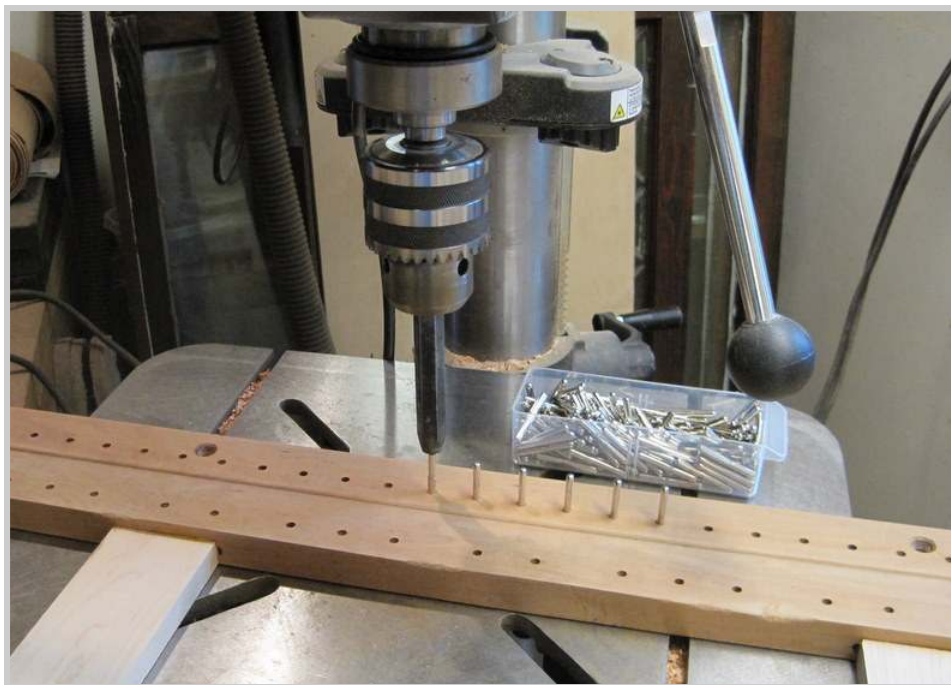




*Photo 341: With all the joints fitted and glued, the keyframe is clamped together and allowed to dry overnight.*



*Photo 342: The rejuvenated keyframe with clamps removed the next morning.*



*Photo 343: Using the 'press' feature of the drill press, the correct size of front rail pins are pushed into place using the depth setting on the tool. A pin punch is the tool in the chuck of the drill press. The concave tip fits over the end of the pin without marring it in the process.*

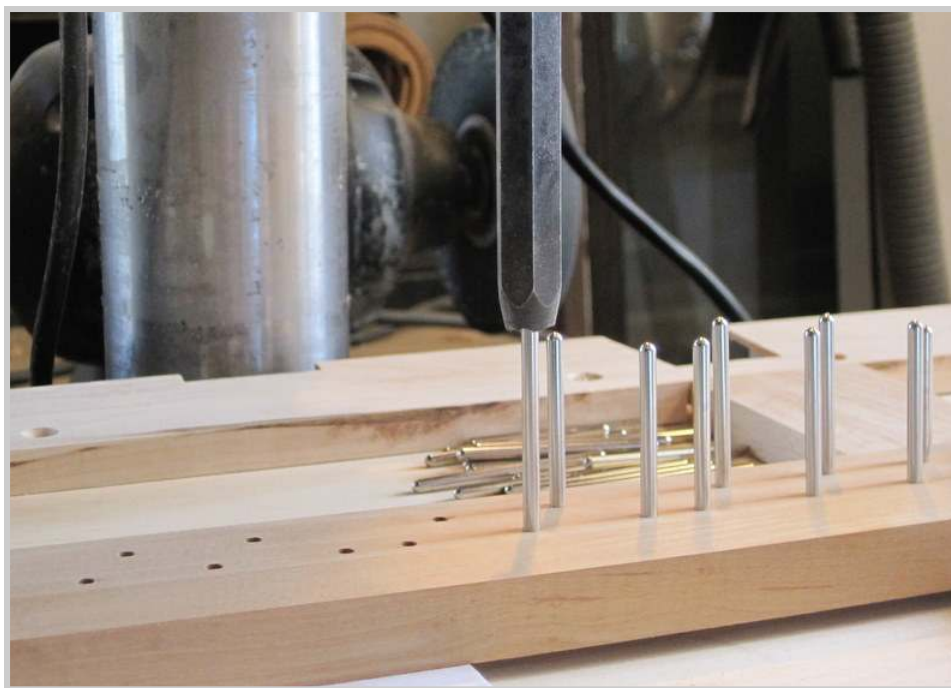


*Photo 344: The keyframe with front rail pins all in place, and the balance rail glued and clamped into position.*





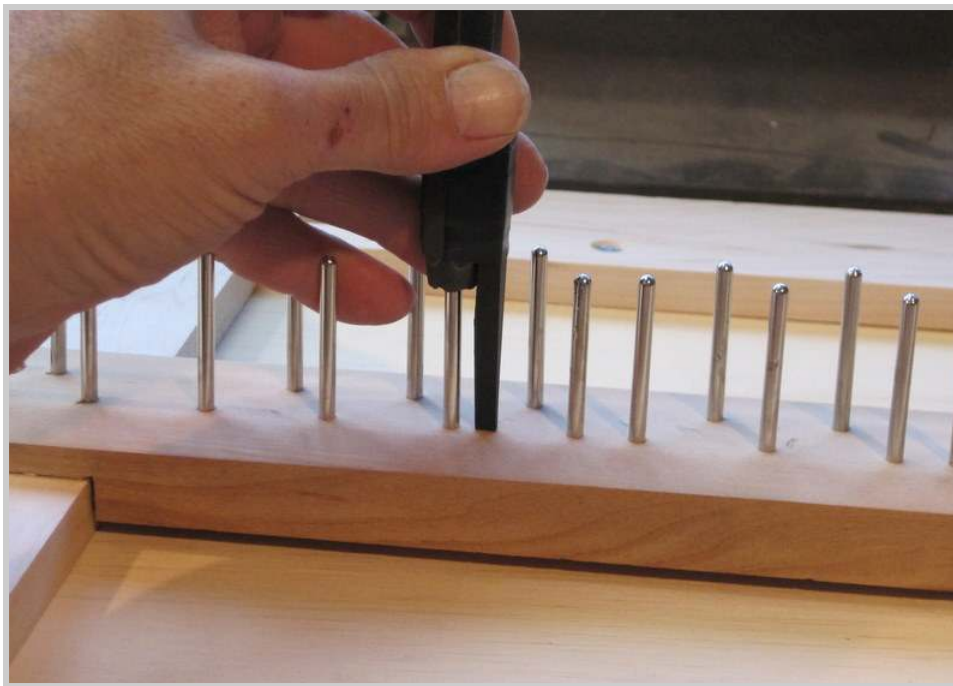
*Photo 345: Important measurements, such as this one concerning the height of the balance rail pins, are best recorded in a spot such as this on the bottom of the balance rail itself, where it won't be lost*



*Photo 346: The balance rail pins are pushed part way into the rail. Because of the flex of this rail, the final adjustment is not made on the drill press.*



*Photo 347: A depth gauge, much like the one used for pounding tuning pins, is made from a piece of rubber wedge attached to the pin punch with electrical tape.*

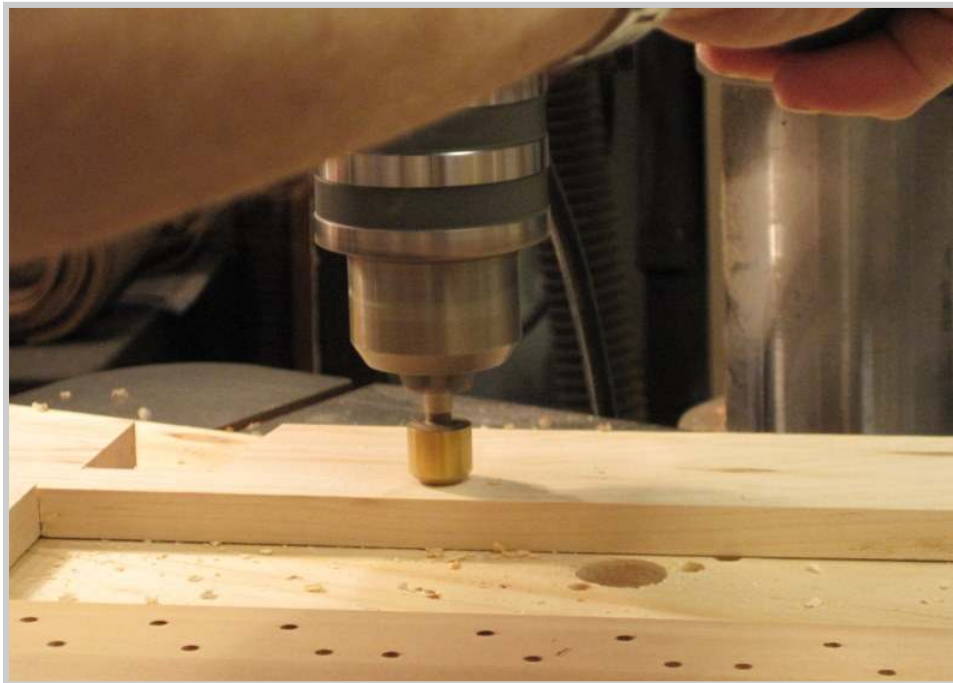


*Photo 348: Each pin is tapped in the final bit with a small ball peen hammer and the pin punch. Again, this method works to set the height of the pin without marring its surface.*





*Photo 349: The location for the screws holding the back rail to the keybed are marked using the old back rail as a template.*



*Photo 350: The screw holes in the back rail are drilled, then countersunk on the drill press.*



*Photo 351: The refelting of the keyframe begins by cutting the three sections of back rail cloth to size.*



*Photo 352: Each piece of felt is flipped upside down and a bead of glue is applied to the back half of each strip.*





*Photo 353: The glue is spread onto the back half of each strip. When the felt is flipped back over, the glue will be on the front half of each strip only. The back half (where the bottom of the keys make the heaviest contact) is left loose in order to reduce the amount of noise transmitted to the body of the piano from the keys falling onto the felt.*



*Photo 354: Balance rail punchings are put in place . . .*



*Photo 355: . . . followed by the front rail punchings.*

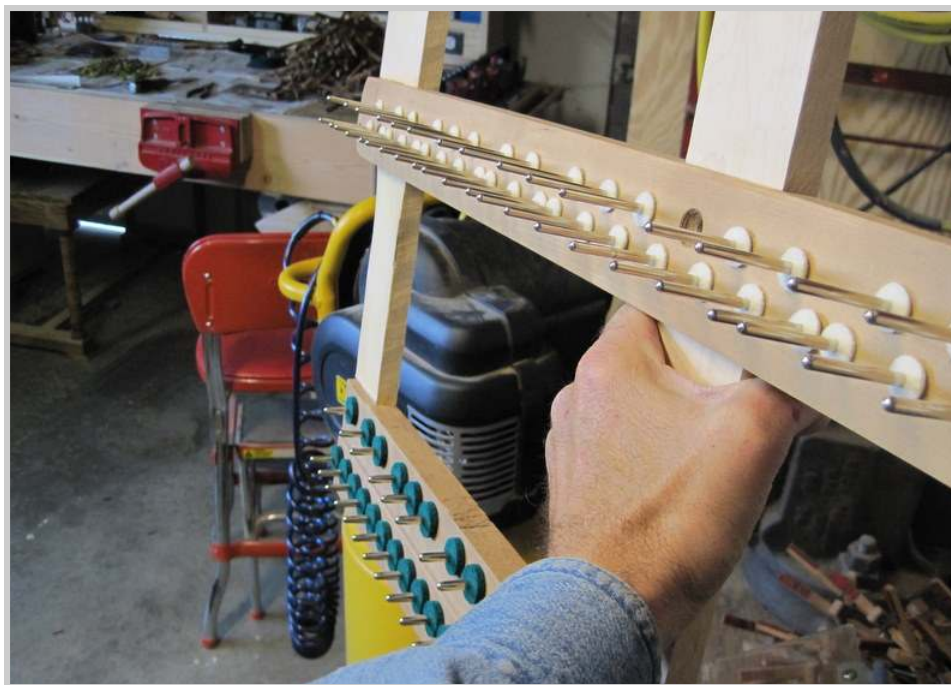


*Photo 356: The refelted keyframe, ready for reinstallation.*

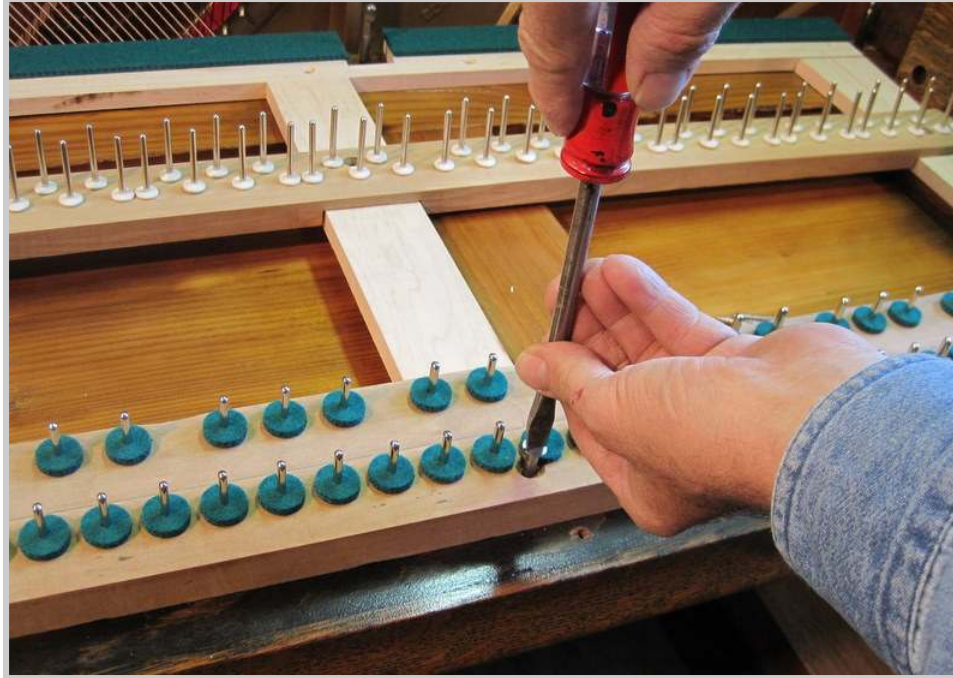




*Photo 357: The front rail pins stand like soldiers in a parade line.*



*Photo 358: The completed keyframe on its way back to the assembly room, where the piano is being put back together. This is where the project starts to be more fun than work.*



*Photo 359: The frame is secured with screws in the all three rails.*



*Photo 360: Polished screw heads set the work off.*





*Photo 361: This picture reminds me of standing on a bridge over the Seine River in Paris, looking downriver at all the bridges. I don't know why I bring that up, but I just think its an interesting shot.*



*Photo 362: The quality of the construction of these older instruments is apparent once they are restored and you're not looking at mouse debris anymore, but on the original workmanship. Compare this construction to that of a 1970's or 1980's P.S.O., and you'll see what I mean.*



*All is well once again.*

Next up: Attention is turned once again to the action of the piano. As promised at the end of the previous installment, new hammers will be hung, new hammer butt springs will be installed, the whippens will be refelted and be treated to new jack springs. New dampers will complete the action rebuild.

Although much has been done, much remains to do. Key rebushing and keytop replacement have not been begun at this point. The deadline for completion has been set. A scant eighteen days remain to finish the job, so the midnight oil will definitely come into play.

I'm off to the shop to make good on promises made. Take care.