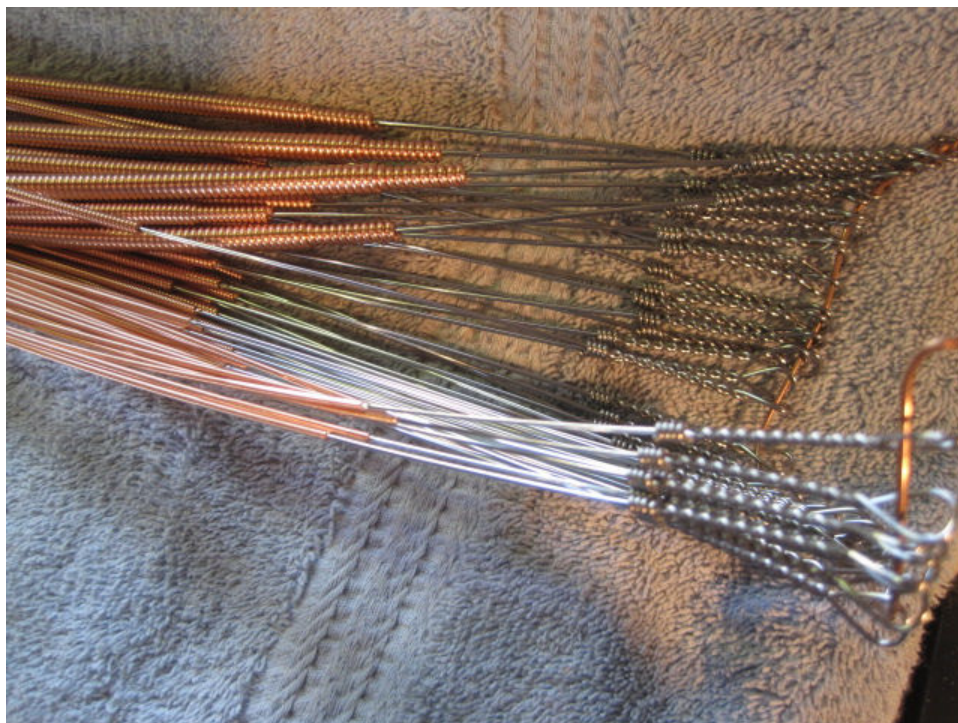
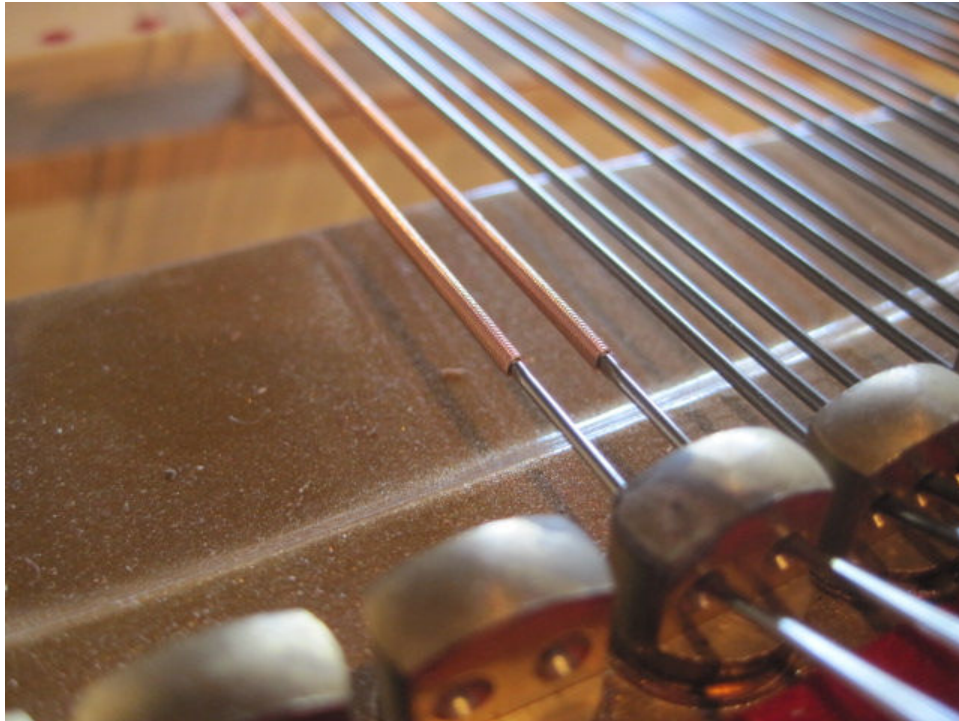




*Photo 109: The new set of duplicated bass strings arrives from Mapes the day after the treble stringing is completed*



*Photo 110: The strings have been threaded in order on a copper wire. I will be taking them off as they are installed into the piano, working from the uppermost bass string (smallest) on down to the lowest.*



*Photo 111: The first set of copper wound strings are installed. The copper winding adds mass to the string, slowing the vibration rate down, without adding additional the unwanted stiffness that a thicker steel string would produce.*



*Photo 112: I check the initial torque on the pins in the bass. Readings have been consistently in the 180 – 200 inch pound range, where you want it with new pins.*





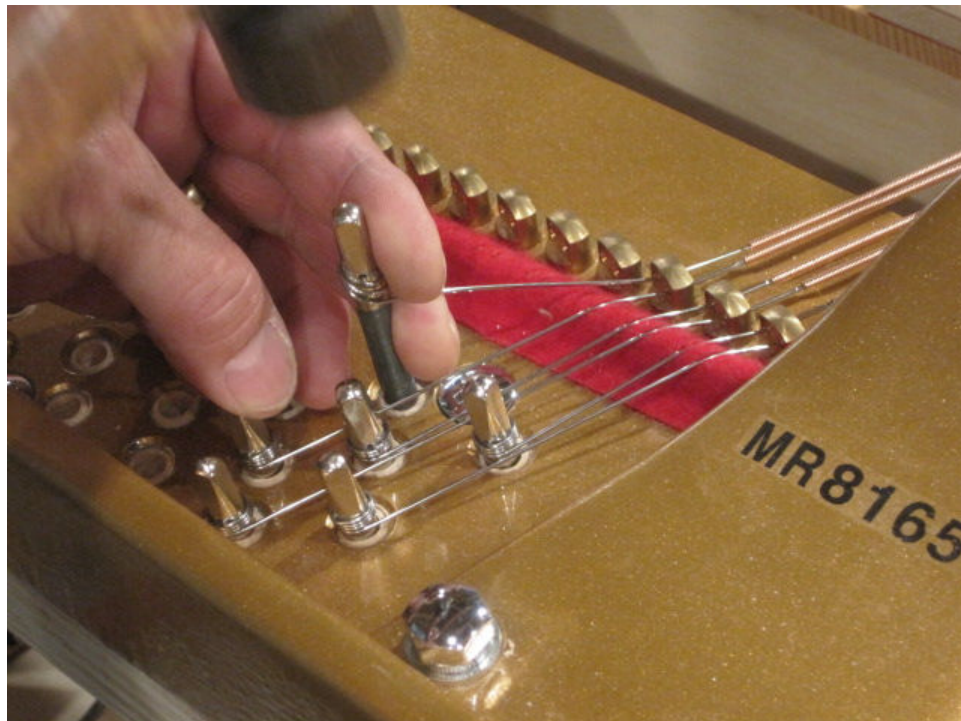
*Photo 113: Each bass string is first attached to its own hitchpin at the back of the piano, then pulled through the hole in the agraffe meant for it. These agraffes have 2 holes each instead of 3 as in the treble section. Further down still, the agraffes for the lowest notes will have a single hole each.*



*Photo 114: The end of the ruler is held exactly above the center of the pin hole. The leader on the string is cut at 3 1/8" .*

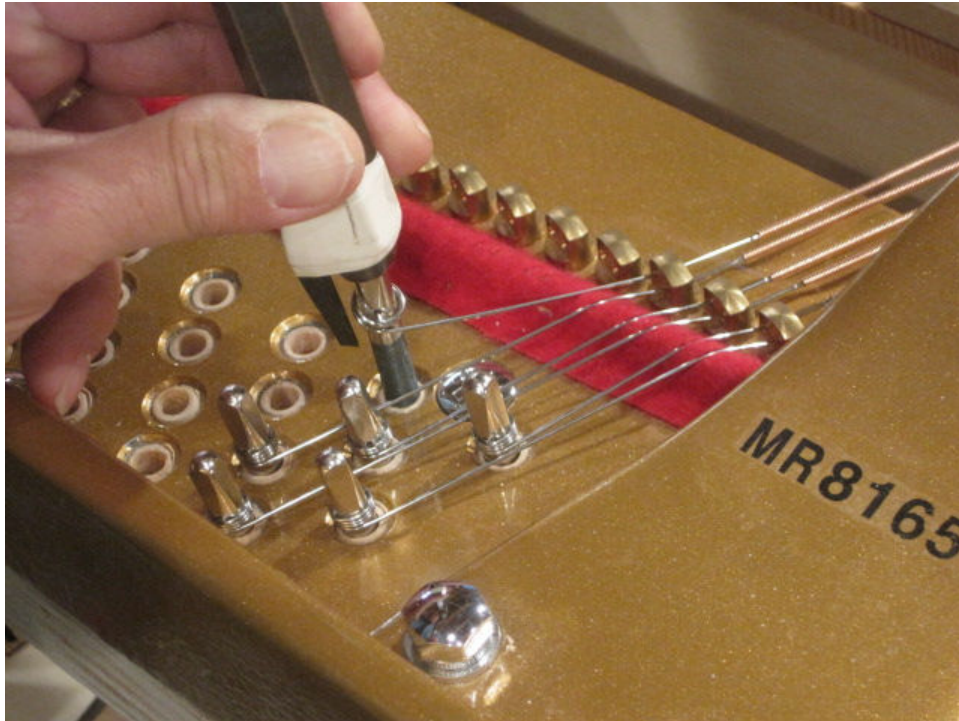


*Photo 115: Using a string crank, the coil is formed on the end of the string.*



*Photo 116: The string is turned once in the direction of the copper winding, then held over the pinhole while being given an initial tap-in to get it started.*





*Photo 117: A pin punch with a rubber depth gauge is used to drive the pin in to the correct depth*



*Photo 118: The string is pulled up with a string hook while tension is put on with the tuning hammer.*



*Photo 119: Bass stringing project complete.*

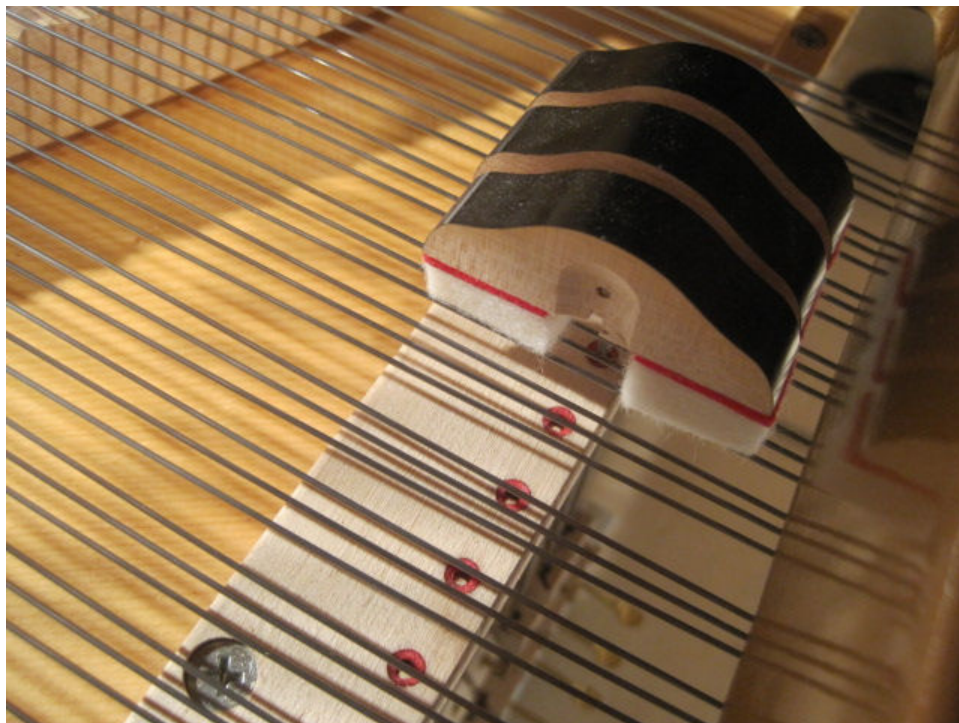


*Photo 120: The piano is chipped up to approximate pitch.*





*Photo 121: With the tension on the strings, the dampers are now brought out of storage for installation.*



*Photo 122: Each damper wire has a specified hole in the damper guide rail.*



*Photo 123: Damper wires are connected to the back action in the cavity where the action of the piano goes. Careful adjustment from side-to-side, and up-and-down is necessary for each damper.*



*Photo 124: All dampers reinstalled.*





*Photo 125: The initial tuning is begun. New piano string stretches, so the first several tuning will not be particularly stable.*



*Photo 126: By the fourth time through, the tuning has stabilized nicely.*



*Ready for delivery – time in shop / 6 weeks.*