

Small Shop - Big Results



Installing Pinblock Panels in an Upright Piano – part 3

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In last month's Journal, we cut our new pinblock panels to fit in the routed out portions of the old pinblock, and we concluded with drilling the new pin holes in those panels. This month we will finish the job. In the course of the article, I'll pose a couple of questions for you to respond to.

With the pin holes drilled, the panels are returned to the piano, shimmed (if necessary) on the top side, glued and screwed into place (Photo 1). I use Gorilla Glue, and find it very effective. If you are trying this glue for the first time, wet the sides of either the panels or the mortises, then spread a **thin** layer of glue on the other surface. (Use rubber gloves, or the glue will react with your skin, and remain through repeated cleanings.) The glue will bubble up over the next hour or so, and fill in any voids. You'll need to scrape any dried excess off of the top of the pinblock before putting the plate back into the piano for the final time.

I do need to admit at this point that I've never been exactly certain how to figure the exact direction of the slant of the pins. I've always drilled so that the slant is perpendicular to a line parallel to the floor (thus the green lines drawn on the panels). I've been told, however, that the slant for each pin needs to be in line with the string attached, which will vary in orientation from one side of each set of strings to the other. Thoughts on this?



Photo 1: Pinblock panels glued into place

At this point the plate, which has been stored all this time between two uprights, or in another secure spot, is brought out for reconditioning. On non-descript plates with no artwork, the surface of the plate is scrubbed with steel wool (we use #3 grit), sanded in rough spots with

emery cloth, vacuumed and sprayed with Piano Gold lacquer (Photo 2). On plates with a lot of ornamental ink work, I tend to opt for a gentle cleaning (Photo 3).



Photo 2: Relacquered plate



Photo 3: Plate ready for cleaning

If you decide to relacquer the plate, the Piano Gold (Behlen's Master Metallic Lacquer #B102-0250) in cans really works very well. Twenty years ago, when I was much smarter than I am now, I would mix a gold leaf powder with clear lacquer, and spray it on the plate with a compressed air spray outfit. I more or less turned my nose up at the idea of using what I thought of as a can of spray paint. However, upon buying some tools and supplies from a retiring technician, I acquired several cans of the Behlen product, and tried it. It worked great and I've

used it ever since. Make sure that you are close enough when you spray, that the lacquer seems wet. If you spray from too great a distance, it will actually begin to dry before it hits the surface, and your plate will have a grainy feel to it. Do overdo it the other way, either, and apply so much that it runs. The plate, once cleaned or relacquered, is finally put back into the piano for good. The plate bolts and screws, having been replated or wire brushed, are replaced (Photo 4). New felt is installed and the repinning and restringing is begun. With an upright, I prefer to string the piano while it is on the piano tilter, with me seated at the top. For this job, with 1 ¼ inch pinblock material, I use 2 ¼ inch pins.

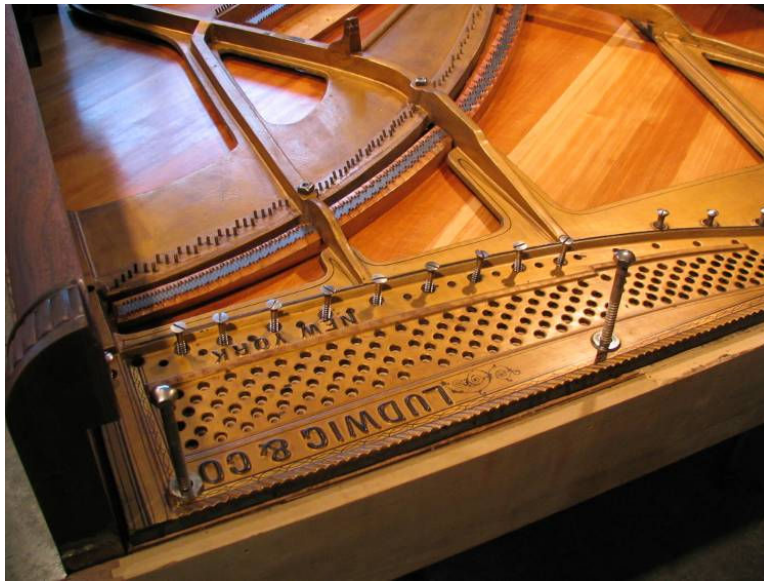


Photo 4: Bolts and screws back in place

From here on out, the job becomes more of a routine repinning / restringing. Tony Geers in his website recommends doing the drilling of the pinblock and the stringing all in the same day to avoid excessive swelling of the pinblock material, and thus overly tight pins. I'm sure this would be ideal, but I don't personally have the endurance to accomplish this all in one day. However, we do try to have the pinning done without any unnecessary delay. Within 2 or at the most 3 days, the job is complete.

I do have one final topic that I would like input on, concerning the topic of becket placement. What I know about stringing pianos I learned primarily from my dad back in the 1970's, and from reading I've done over the years. When restringing the treble of a piano, I start by putting the coil on the first pin, so that there are 2 ½ turns of wire on the pin. In other words, the becket is one half of a turn from where I want it to end up. I then drive that pin in, and adjust it slightly if needed to make sure that the becket is exactly 180 degrees, or a half turn from where I want it to end up.

I then pull the wire down over the bridge pins, and on past the hitchpin. With the wire taut and held by my left hand, I use a pair of round nose pliers to hold on to the wire at the point that it intersects with the hitchpin. I put the bend in the wire and hook it to the pin. Next, I attach the other side of the wire to the bridge pins, and pull the wire up past the tuning pin. Holding the wire and a metal rule in my right hand, I pull the wire tight so that it is line with the ruler, and cut the wire at exactly 3 and 1/16 inches past the center of the pin. I then thread the wire under the pressure bar, put the coil on, attach the wire to the other pin, and tighten it up. When tightening, I

alternate between the two pins, to make sure that the bend that I put at the hitchpin doesn't get pulled to one side.

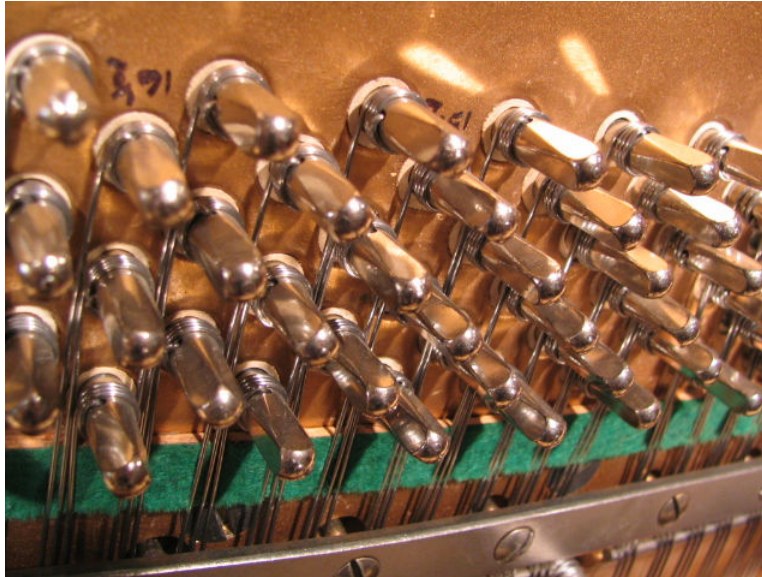


Photo 5: Repinned and ready to go

Now for my question. Try as I may, I cannot seem to perfect the angle of the becket through the pin, so that every becket is exactly the same on every pin. They are close, but they might be off by as much as a quarter turn. (In Photo 5, notice the two pins on either side of the 16 $\frac{1}{2}$ mark on the plate – they are correct. Look then at the pin directly under the 16 $\frac{1}{2}$. It's off by about $\frac{1}{8}$ th of a turn. I know that even pianos from the factory can have a little variation, and I'm would imagine they cut the wires for each unison to an exact size (never having worked in a factory, however, I'm only guessing). What bothers me is that there is a player piano up in Osage, Iowa that was rebuilt by an area technician, (who is now deceased) that was restrung and repinned. The becketts are all **perfect**. I want to know, how did he do it? Does anyone with more experience/knowledge than me have thoughts on this they could share?

In conclusion, I think it's safe to say that this particular job is not one that anyone would want to rush into without carefully considering the alternatives, and the risks. It easily makes for an extra several days of work, when compared to a more routine repinning job. It also is more risky, in that the tension on the plate is taken off, then put back on. Just lifting the plate in and out of the piano, and having it stored in the shop while the pinblock is being worked on is an added risk. If repinning the piano without a new pinblock would accomplish the goal of a more stable tuning, I would say that enough is enough. If, however, the pinblock is trash because of excessive treatment in the past, new pinblock panels are, in my mind anyway, an option worth considering.

I would advise that anyone considering trying upright pinblock replacement to buy or acquire a piano to practice on first. Anne Beetem Acker, in her excellent article "Piano Restoration Reconsidered," (Journal, October 2007) really hit the nail on the head when she commented, "You can't expect your client to pay you for your learning curve." Would you want to go in for brain surgery, and upon asking the doctor how many of these procedures he had done, have him smile at you and say, "Actually, you're my first! Now, close your eyes and go to sleep!"?

All this being said, don't be afraid to try a new procedure on a piano, especially if the only other option is the landfill. The two pianos pictured in this article both were basket cases

with no hope of a future without drastic measures. The Ludwig upright featured (Photo 6) in many of the photos came within one phone call of being hauled to the dump. Had the owner not gotten my name and contacted me, it would now be buried under tons of rotting debris. An ignoble end for a 120 year old, quality instrument. Fortunately, it didn't happen that way.



Photo 6: History worth saving, at least in my opinion

As always, I would enjoy hearing from other people interested in restoration, especially small shop owners with similar concerns and challenges. If you're coming through the Midwest, give us a call or stop by. There's Dew in the fridge.



Outside the shop on a lovely Iowa summer day

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