



Small Shop - Big Results
Grand Action Reconstruction – Part 2
(Installation of Repetitions)
By Chuck Behm
Central Iowa Chapter

When the sample kit of wippens, hammer shanks and flanges, etc. arrived from WNG (see last month's segment), I wasted no time in spreading the assortment of available items out on a bench to find the best matches for the old Weber parts.



Photo 1: And then there was one.

In comparing the original wippens with the eleven variations in the kit, I first eliminated six which came without an attached hammer rest felt. The old wippens had an attached rest felt, and I certainly didn't want to improvise a hammer rest felt rail that wasn't there to begin with. The five remaining candidates were all very close in dimension and construction. Two of the wippens, I noticed, came equipped with a single strut supporting the stop for the jack regulating button. The other three had a double V-shaped strut. It seemed to me that if I were to need to make adjustments on the butterfly spring, the single strut would be less in the way. I pushed the three wippens with the double V strut to one side and looked more closely at the two finalists.

The only significant difference between the two remaining wippens was in the profile of the jack – in particular the extension of the toe. Although neither one lined up exactly with the original, one was a bit closer than the other. Holding the original wippen up side-by-side with my choice for replacement (Photo 1), I felt very optimistic about this working out. With a bit of modification work here and there, I was sure this would result in a huge improvement for the action of the piano.

The wippen heels came unattached as a separate item, and in a range of available sizes. Measuring the distance traversed by the old rocker arm / sticker assembly of the original set-up, I decided that the very tallest heel was necessary. Even with that, I knew that to span the distance between the top of the keystick and the underside of the wippen, more than just a tall heel and long capstan (which would be a WNG part as well) would be necessary. Modification to the keystick itself in the form of risers built onto the back of the keys would be necessary.

Finally, I needed to choose replacement parts for the hammer shank / flange assemblies. Here, I felt the choice was easy, in that one of the available choices came with a flange which was nearly a perfect match to the original flanges (Photo 2). Since the knuckles, like the wippen heels, came unattached, the exact location of the knuckle on the old shank was not crucial. The new assembly could be modified as needed on site.

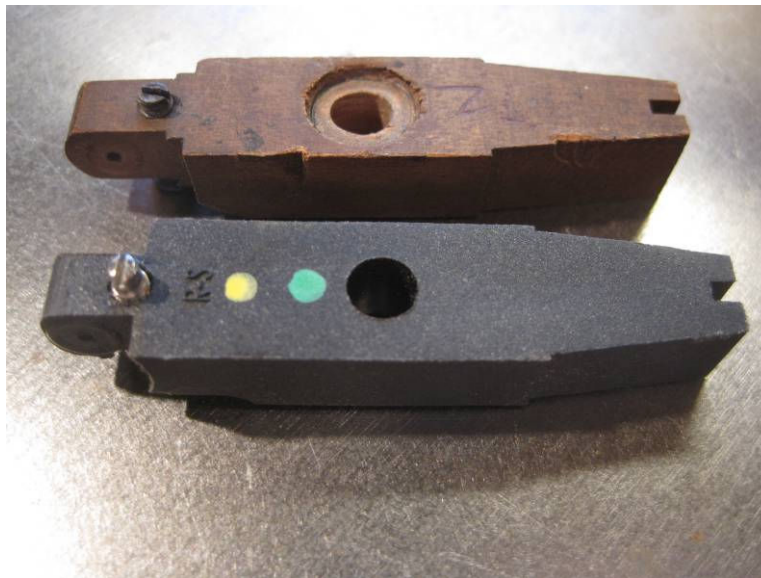


Photo 2: In golf, this would be a gimme.

All in all, I felt very pleased with the obvious quality of the sample parts, and having made what I felt were well-thought out choices for the exact parts to use, I called in my order. With the parts on their way, I set to work removing the parts slated to be replaced from their respective rails, and beginning work on the modification which I knew would need to be done. In particular, having read over the literature concerning the WNG wippens, I was aware of the fact because of the enhanced profile of the underside of the wippen, the dimensions of the wippen rail would need to be altered.



Photo 3: Modifications in order.

With an old wippen and the new sample wippen in place side by side on the existing rail, the top of the repetition rail of the new wippen proved to be far too high (Photo 3). To allow for this amount of difference, more than just a bit chamfering would be necessary.



Photo 4: Lining things up.

To calculate the appropriate amount of material to be removed from the rail to allow for adequate clearance, I attached an original wippen in the #1 spot on the left, then held up the wippen I had selected from the sample kit along side of it. With the top of the repetition lever of the WNG wippen in line with the top of the original lever, I made a pencil line underneath the wippen to mark where the saw blade would cut (Photo 4).



Photo 5: Making the first cut.

The cut was made on the table saw with the blade set at an angle to match the pencil line (Photo 5). I actually made the cut several times, the first time with the blade inside the line to allow for error. I ran a check of the alignment of the wippens, then cut again twice more until the results were exactly what I wanted. As with shortening pants, it's much easier to take off a bit more, than to try to put back on what you've taken off.



Photo 6: Much better alignment after trimming the rail.

After trimming the wippen rail, the new wippen lined up much more satisfactorily with the old. In my mind's eye, I'm already seeing the new, improved action going together.

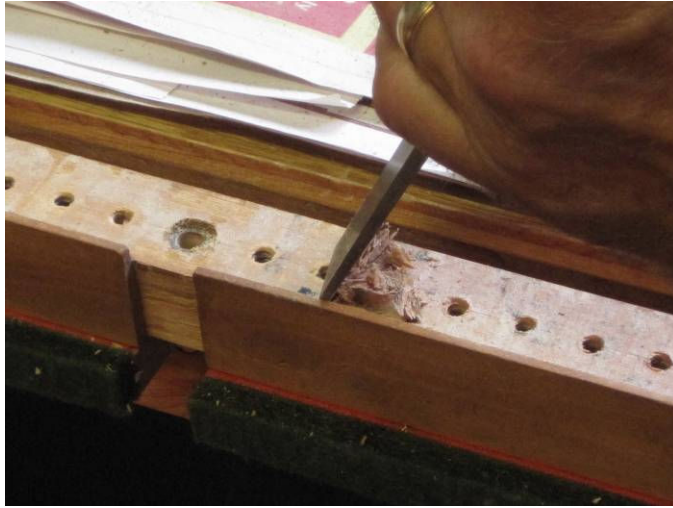


Photo 7: Scraping the rail clean of adhesive.

Another step I could accomplish while waiting for the new parts was to remove the old sandpaper covering the rail where the wippen flanges were screwed down. The old paper peeled right off, and just needed a bit of scraping with a sharp chisel to get down to bare wood (Photo 7).



Photo 8: New rail covering.

I chose 150 grit paper for the new covering, cut it into strips with an old paper cutter, sprayed the back with 3M adhesive, pressed it into place and punched the holes for the screws.

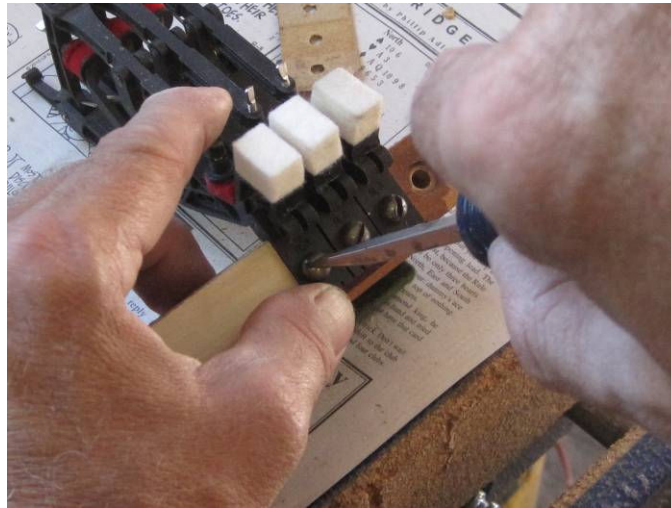


Photo 9: First wippens being installed.

When the shipment of parts from WNG arrived at my home, I was ready to begin installation. My first order of business was to install the set of wippens on the newly prepared rail. I used a square to align the flanges (these had a flat profile in contact with the rail), and eyeballed them as I went along to space them evenly.



Photo 10: New line of wippens – looking good.

From nothing more than an appearance perspective, this project was already making a huge difference. To appreciate the difference, compare the set of wippens shown in Photo 10 above, to those in Photo 2 of last month's installment.

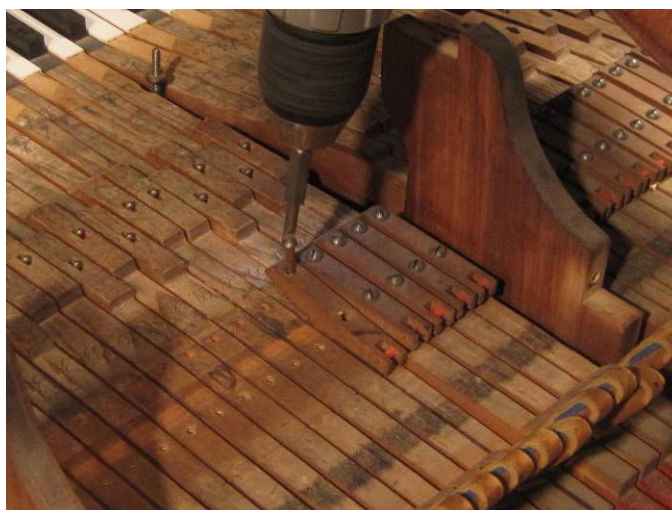


Photo 11: Off with the old.

With the new wippens installed, attention will turn next to the replacement of the old rocker / sticker assemblies (Photo 11). The heels will need to be positioned and glued in place on the underside of the wippens. Next, the risers at the back of the keysticks will be fabricated. Finally, the new capstans will be installed.

As always, feel free to stop for a visit when you're in the area. The coffee pot's on.

Chuck Behm is the owner of River City Piano Restorations in Boone, Iowa. He can be contacted at behmpiano@gmail.com.