

Small Shop - Big Results

The Outdoor Piano as a Chapter Project – part 1

By Chuck Behm

Central Iowa Chapter

Insert Mug.

It was lovely morning in the shop when inspiration struck for a great chapter project. I was doing some spring housecleaning, and I had decided that the Wurlitzer console which I had been shoving around the shop for several years with no intentions to fix (it was a trade in that was taken in for the convenience of the nursing home that I sold a piano to) had to go. It was just taking up valuable space.

I actually had the little piano on a 4-wheel dolly, and had rolled it to the open garage door, ready to push it the final few steps to the garbage (my trash collection company will take practically anything!), when remorse set in. This went against my nature – wasn't there anything that could be done with this piano besides sending it off to the landfill?

At that point my brain connected a couple of dots. Just the evening before I had been visiting with fellow chapter member on the phone. The topic of my annual fall chapter meeting I hosted came up – he wondered if I had decided on a topic for the technical. No, I had told him, I hadn't. I had been kicking around a couple of ideas but nothing really fun had come to mind. Then, this very morning, I had been reading the Des Moines Register and had read an article about a plan to put some outdoor pianos around the city for the summer. I had heard about such a thing before, and noticed that every time the concept was explained it was made clear that a cover of some sort would be provided for inclement weather. I always had to laugh when I thought about that, because here in Iowa at least, inclement weather can happen in a heartbeat. It can be sunny and warm one minute, and within the span of the time it takes to walk into a convenience store to pay for a tank of gas, a cool wind can blow through and it can suddenly be pouring outside. What good is a cover going to do in those circumstances?

Standing there on the threshold of my garage door, balancing the hapless console on the 4-wheeler, my brain clicked, and I knew what the technical session would encompass and I felt a surge of relief that I wouldn't be sending this little piano to the landfill. We would make it into a truly all-weather piano – one that could withstand all that Mother Nature could send her way, without a special cover to protect it, and still come up ticking. With a smile on my face I brought the little Wurly back into the comfort of the shop, and went back to my cleaning with a full heart and a feeling of excitement about the upcoming meeting. This would truly be fun!

In the intervening weeks leading up to the meeting at my shop, I mulled over the steps that could be taken to make a piano weather-proof, and by the time I emailed the invitations, I felt that I had come up with enough ideas to keep everyone occupied and having fun during the course of the technical. The response I got back from chapter members about the concept was generally favorable, although (in the interest of full disclosure) there were several who questioned the relevance of the idea to their own personal business. My feeling was that it would be their loss. Too bad for them.

The day of the meeting arrived a fair number showed up (my shop is a goodly distance for some to drive, and not everyone attends even under the best of circumstances). After our business meeting on the patio, and our lunch at Jimmy's (a local smokehouse serving a great lunch) we were ready to go.

To expedite the process I had the various benches in my shop (7 total) prepared with tools and materials for the specific processes that we would be undertaking. I gave a short explanation of the concept, walked everyone around the shop to explain what would be done where, and basically turned everyone loose to do what they thought sounded like the most fun.



Photo 1: Busy hands.



Photo 2: Harold Marling stands guard.

It was gratifying to me how quickly folks got busy and picked up a tool. Within mere minutes case parts had come off for painting, the action and keys had been removed for special treatment and the key frame and felts were on their way out as well (Photo 1). For just a few minutes Harold (Marling) had thoughts of guarding the donuts and coffee pot, but when I looked back a few minutes later, I noticed he had picked up a tool and was happily at work as well.

The first course of action (after things were disassembled) was to take steps to prevent water from accumulating inside the piano in the event of a sudden downpour. To that end, we began by providing a means for water flowing over the keys to escape plus a way for air to flow through the interior of the piano to dry things out. With the keyframe out of the piano, Harold drilled a series of $\frac{1}{2}$ " holes in the keybed (Photo 3). Once the drainage holes in the keybed were drilled, chapter member Dan Shere drilled large hole in either side of the case to allow for cross-ventilation (Photo 4).



Photo 3: Harold Marling drills drainage holes.



Photo 4: Dan Shere does ventilation holes.



Photo 5: Dan tips the piano on its back.



Photo 6: Steve Haag applies C.A. treatment to the pins.

With this done, Dan tipped on its back (Photo 5) for the next phase of the treatment. Steve Haag volunteered to treat the tuning pins (which were loose) with an application of C.A. glue (Photo 6). Then, while Steve took a short break, Roger Todd pitched in by chamfering the holes with a beveled 1 ¼" router bit chucked up in a hand-held drill (Photo 7), to create a better channel for water to escape. All the holes, by the way, were drilled in the spaces between where the key frame would lie – the type of thing that typically I wouldn't think about myself until I put the key frame back in place only to discover it covered some of the holes. It helps to have several people involved in the thinking process!



Photo 7: Roger Todd bevels the drainage holes.

In addition to ridding the piano of a sudden influx water, the other logical step seemed to me to be the replacement of felt parts that would be the most affected by a flow of rain water through the keyset. Specifically, the front rail and balance rail felt punchings, and the key bushings themselves needed to be removed and replaced with something less susceptible to swelling and loosening.



Photo 8: Dan Shere removes old punchings.



Photo 9: Dan Winchester cuts new punchings.

Dan Shere found that sucking the old felts up with a Shop Vac (Photo 8) to be the quickest way to rid the keyframe of unwanted felt. All the front rail and balance rail punchings were quickly removed in this way. At the table saw on the other side of the shop, Don Winchester made new front rail punchings from insulating foam. The foam was first cut to the correct thickness, then punched into discs the size of standard felt punchings. The ballpeen hammer was not needed for the job, as it turned out, in that a quick swivel motion with the punch was all that was needed to cut the foam (Photo 9). (Use of this foam, by the way, is strictly experimental – as are many of the other things we are trying out. Whether or not a specific material or method proves to be a useful when the piano is actually put into use remains to be seen – and will be reported on at a later date.)

As regards to the key bushings, my thought was that the best course of action would be to get rid of the normal felt key bushings and replace them with the plastic type of bushings meant for on-the-spot repairs. I had a few of these in my repair case, and although I had never actually used one (my dad had purchased them), I thought they looked like just the thing for the job. In preparation for the meeting, I had ordered 200 of them and had a bench ready to go for their installation.



Photo 10: Harold Marling at work on the keys.

Harold took this job on and made considerable headway during the afternoon (Photo 10). Felt wedges cut from old hammers were saturated with a water / vinegar mix and inserted into the mortises to soften the old bushing felt. Once that was done, Harold inserted the new plastic bushings. (As things were to turn out, the use of these plastic

bushings was not quite that simple – more work was needed at a later stage for them to be a useful substitute for the original felt bushings.)

While Harold worked at one bench on keys, batches were shuttled back and forth between his bench and a bench in the other room where Bev Ohm and John Chapmen were kept busy working on the keys themselves. Bev first used sandpaper to scuff the tops up slightly (Photo 11), then John followed up by coating the keysticks and keytops with lacquer (Photo 12).



Photo 11: Bev Ohm roughs the surface.



Photo 12: John Chapman coats the keys.

This treatment was to serve two purposes. First, I hoped that by coating the keystick itself, moisture and humidity would be less likely to cause warping when things got wet. Secondly, the roughing up and coating of the keytop would hopefully help hold the paint which we intended to use to make the keyset more colorful.

The case parts and body of the piano were also to be provided protection from the elements. John rough sanded the case parts with 60 grit paper (Photo 13), and Roger applied a primer coat (Photo 14).



Photo 13: John roughs up the case parts.



Photo 14: Roger applies the primer coat.

Like everything else, by the end of the meeting the work was partially done, but not finished. I knew in advance that a lot of work would remain to be done at the end of the day – it would be unrealistic to expect to complete a project of this scope in a single session. What I found to be exciting about the afternoon was that everyone seemed to be engaged and enjoying themselves.



Photo 15: Colors of the rainbow.

In that I wanted everyone to see the direction in which the project was heading, I asked Bev Ohm to paint the keys of one octave using the colors of a rainbow – which will be the artistic theme for the piano. Don Winchester installed the front rail punchings and we put things back together enough before we broke up so we could begin to see the results of our labors.

Before breaking up the meeting the chapter members decided (without any prompting from me) to hold the following meeting at my shop as well, to try to finish the job we started. This made me feel that the afternoon was a success, and I think everyone looked forwards to getting back to work on the project when we met again.

If you happen to be traveling through Central Iowa, be sure to stop by for a visit. The coffee pot's always on!

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