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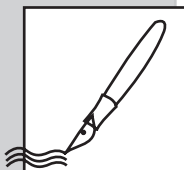
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Steps to a Quality Refinishing, Part 6: Assembly and Detailing

By Kevin E. Hancock
Washington, DC Chapter

At last, our piano is rubbed out and ready for assembly. The detailing in this final push will be time-consuming but rewarding. Once this phase is completed, we get to see the fruits of our labor. There is nothing more satisfying to me than to see a client in tears over the restoration of grandma's old piano and get paid for it!

Polish Hinges, Casters, and Pedals

I like to let the client decide if he/she wants the hardware restored in nickel or brass. While many pianos have all brass hardware, some have a combination of plated steel and brass. I think brass looks best with the rubbed satin finish on a restored older piano. Remove tarnish and verdigris with either a buffer, a synthetic abrasive pad like maroon ScotchBrite™, or metal cleaner. Use either gray Scotch-Brite (my preference) or fine steel wool (0000) for a final polishing. Once the surface is smooth and clean, wipe it with paper towels and immediately spray a coat of tarnish-resistant metal lacquer (see Photo 1). I use Century Brass Lacquer™ made by G.J. Nikolas. Wood lacquer will not adequately protect the brass.

There are a few timesavers in this process. If you have casters that are solid brass, you can oil the axle and hold the wheel to the buffer to send it spinning. While spinning, hold sandpaper or maroon ScotchBrite to the moving part and the brass will clean up nicely (see Photo 2).

If the screws are solid brass, make up a board with holes with which to place the screws. Polish the screws with maroon and gray ScotchBrite, wipe them clean, and spray a coat of metal lacquer (see Photos 3 and 4).

Steel hardware needs to be contracted out to a hardware plater to be re-plated in nickel or brass. Many of the old Steinway pianos had plating over solid brass. If the client prefers brass, have the old nickel plating removed and polish and lacquer the solid brass as described above.

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Photo 1 (RIGHT FROM TOP) – Spraying metal parts with lacquer helps prevent tarnishing. Photo 2 – Casters can be cleaned as they spin against a buffing wheel. Photos 3 & 4 – Brass screws, inserted into a custom-made board, are polished, wiped clean, and sprayed.



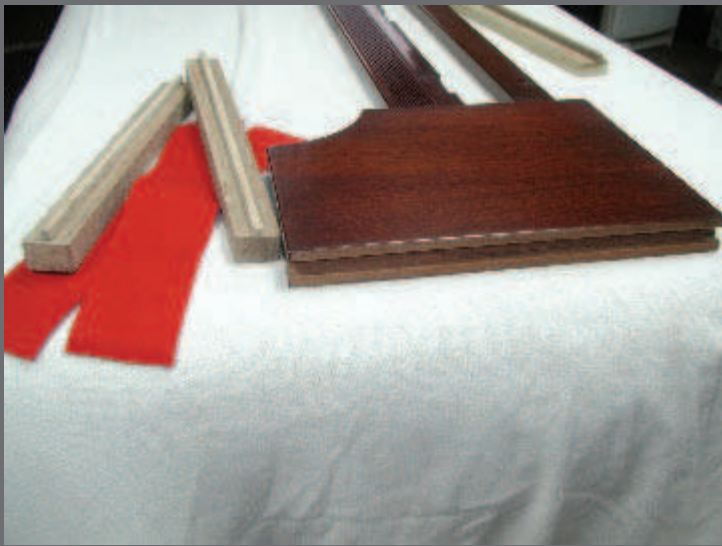


Photo 5 – Custom-made cauls will help to glue cloth into the tracks on the music desk.



Photo 6 – After gluing the cloth, hold cauls in place with clamps.



Photo 7 – Trimming excess cloth.

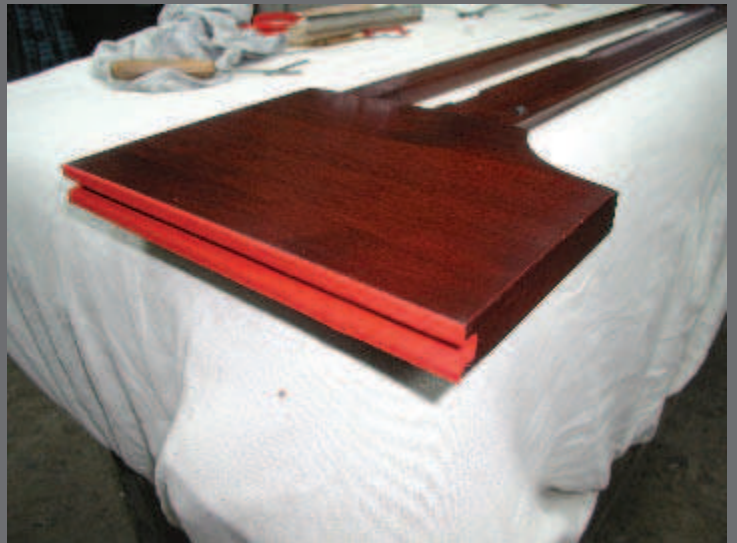


Photo 8 – The finished job is secure and neat.



Photo 9 – Felting the lid support board.



Photo 10 – Bellyman felt.



Photos 11 (LEFT) & 12 (RIGHT) – Pedals should be cleaned and sprayed with extra lacquer.



Photos 13 (LEFT) & 14 (RIGHT) – The pedal rod guide is rebushed.

Steps to Quality Refinishing

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Fallboard, Music Desk, and Bellyman Felt

Wherever two parts are attached to each other, apply a strip of felt. This looks nice and is in keeping with the original design assembly. The fallboard also needs a strip of felt applied to the bottom front edge just above the keys.

The track on which the music desk travels should be covered in bushing cloth, which holds up better than felt in this high-friction area. Make up cauls to hold the cloth in place (see Photos 5–8).

Don't forget to replace the bellyman felt between the plate and the stretcher (the stretcher is sometimes referred to as the bellyman).

Lyre and Pedals

Take apart the pedal assembly to clean and lacquer the hardware. Apply an extra coat of hardware lacquer on the pedals for additional protection (see Photos 11 and 12).

Re-bush the pedals and pedal-rod guide as they origi-

nally were bushed. Clean out the holes, fit the bushing cloth to the hole, and then apply glue and install the cloth (see Photos 13 and 14).

Wood and Leather Buttons and Caster Cups

One of the nicest cabinetmaking features on many older pianos was the attention that was given to areas where boards contact one other. While most modern pianos use rubber buttons at these contact points, we all know that the rubber dries out and crumbles over time. Leather, on the other hand, seems to last forever, so I like to replicate the leather button on the underside of the lid, the support board on the small section of the lid, and the leather on the cheek blocks.

Back when we were preparing to apply the finish (see the December 2006 *Journal*), we taped over the holes where

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Photo 15 – Cleaning the area on the lid to receive the button.



Photo 16 – Using brass circle cutters to cut two pieces of leather: one slightly larger than the hole and one slightly smaller.



Photo 17 – The leather is cut and ready to be glued into place.



Photo 18 – Gluing the leather.



Photo 19 – With a carving gouge, tuck the button into position.



Photo 20 – Clean up the excess glue.



Photo 21 – Chuck wooden buttons for the lid in a hand drill, sand with 120 grit paper and then apply dye.



Photo 22 – Mount the buttons on a block of wood to spray the lacquer.



Photo 23 – Once finished, rub the buttons to match the final sheen of the lid.



Photo 24 – The finish on the caster cups can be applied to match the piano's finish.

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these buttons were to get replaced. With circle cutters, cut two pieces of leather, one just larger than the hole and the other just a bit smaller. Apply glue in the hole and insert the smaller piece of leather. With the glue spread, apply the top layer of leather and tuck the corners with your fingernail or a small carving gouge (see Photos 15-20).

If you have a piano that never had leather buttons, it is easy to add them instead of using rubber. In this case, before the finish is applied, mark the locations and drill a flat bottom hole about 9/16" wide and about 1/16" deep, using a Forstner bit. Then apply the leather as described above.

Wood buttons on the lid should be finished to match the rest of the lid. It is a nice touch to finish wood caster cups to match the piano, and clients appreciate the little extra attention (see Photos 21-24).

Paint Case Underside/Finish Back Sides of Parts

Quite often, the first thing the client sees when the restored piano is delivered is the bottom of the piano. Make sure it is clean and either painted or coated with shellac. If the rim and beams are clean and will look nice with a clear finish, a quick brushed coat of shellac will seal and protect this area. If the area just will not look good with a clear coat, apply a coat of satin latex paint in dark brown or black.

The other areas that will not be seen but do need attention are the back sides of the music desk, key slip, cheek blocks, and the inside and underside of the bench. While these areas do not need a perfect hand-rubbed finish, they do need to be properly sealed and coated to keep out moisture. It is great to see a nice finish restoration but even nicer to see that there is not dried stripper on the back side of the music desk or key slip board. The little extra effort does not take a lot of time and impression is immeasurable (see Photo 25).

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Steps to Quality Refinishing

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Finishing Touches

In protecting the plate and soundboard during the finishing process, there will likely be a few spots that did not get completely finished. With a little pigment powder and lacquer, brush these areas to cover any minor flaws.

As you assemble the piano, ensure that all screws are the correct size and fit firmly in their holes. If a screw does not snug tight, shim the hole with a little wood glue and a toothpick. This is almost always a better choice than larger screws. Clean the area where hinges are mortised into the boards so the hinges fit properly.

With a quality cleaner/polish, wipe down the entire piano to remove all rubbing residue. Be sure to remove all the polish with a clean cloth. I prefer to stay away from polishes that contain silicone oils. Guardsman makes a good polish, and it does not leave behind residue. I do not use waxes on my finishes, though I understand that many folks love them.

A checklist of final steps can be helpful in preparing the piano for delivery:

- With an air gun, remove all dust in and around the piano.
- Polish the entire piano with a good cleaner/polish.
- Make sure all contact areas have proper buttons and felts.
- Make sure the pedal lyre works properly or is ready for the piano technician to make final adjustments.
- The fallboard should function smoothly, and the felt should not interfere with the keys when it is opened.
- The music desk should glide smoothly in its track.
- Leg locks should be checked for secure positioning. If they are cracked or loose, replace them.

Finish Care Instructions

When the piano is delivered to the client, instruct the client in how to care for the new finish. While there are many opinions on the topic, there are a few aspects of finish care on which everyone can agree:

- Keep the sun and bright light off the finish.
- Try to maintain a stable temperature and humidity level.
- Prevent heated or cooled air from blowing directly on the piano.
- Do not place heavy objects on the piano.
- Only hire experienced movers to deliver the piano.
- Dust or clean with a slightly dampened cloth, and try to rub in the direction of the wood grain as much as possible. Go over your dusting with a clean, dry cloth if any moisture is left behind.

Series Recap

This series began with a discussion on tearing down and protecting the piano before refinishing. From there, we carefully removed the old finish and cleaned the wood thoroughly of the old finish (December 2005 *Journal*).

In the second installment, we discussed cabinet and veneer



Photo 25 – The reverse sides of case parts need a coat of clear lacquer to keep out moisture.

repair (February 2006).

Colorants used before finishing and between coats were the topic of installment three (July 2006).

Installment four covered the application of the finish, sanding between coats, and proper drying time (December 2006).

Portions of the Rochester presentation (at the 2006 PTG Institute) were reviewed in part five. The finish was rubbed to a beautiful satin or semi-gloss sheen (February 2007).

Finally, this installment has been geared toward cleaning hardware, detailing, and assembly.

Final Thoughts

This series began with a conversation I had with Bob Hohf, RPT, a couple of years ago. The original idea was for a single article on the topic of piano cabinet restoration and refinishing. As we began work on it, we realized that it would take multiple issues to cover most of the steps involved in this process. From the beginning, I have hoped that some of this information will make it into the hands of the many fine furniture refinishers that are scared to death of pianos. With a little help and guidance from a piano rebuilder or technician, a good furniture refinisher can learn to refinish pianos.

I'm sure many folks who have followed this series noticed that a number of different pianos were in the photos. Not all restoration and refinishing jobs will need the same steps, so it was difficult to complete the series using just one piano. An example of this quandary is on the piano with the white wood inlay (see February 2006). This piano could not be dyed as it would ruin the beautiful contrast between the light and dark woods. The finish on this piano needed a little warmth and depth, so glazing was appropriate. Conversely, if a piano is dyed for color adjustment or enhancement, it would likely not be glazed.

With the end of the series in sight, I'm aware of the many topics that I have not covered, from black lacquer, leg and lyre re-gluing, removing black water stains, and blending bad sun damage. These and other common finishing anomalies may be discussed in a future article. If anyone has a question about a finishing challenge or mystery, please feel free to contact me through the *Journal* Editor. ☒