

Small Shop - Big Results



Preparation for a Beautiful Brushed-on Varnish Finish – part 6

By Chuck Behm
Central Iowa Chapter

There's a point in any major project where you see the light at the end of the tunnel. I always feel that I've reached that point in a refinishing job once the veneer work and lacquer stick work is accomplished and the final sanding is begun. With this step the character of the veneers begins to show through, and the application of stain and top coats will heighten that beauty.

Final sanding:

The motto for this step should be “first and foremost, do no harm.” Overzealous sanding can do more harm than good. The veneers that encase the piano are thin, and require a gentle hand. While we sometimes use a smaller, hand-held orbital sander with the finer grits on the wide open flat areas such as the sides and kneeboard of an upright, or the lid of a grand, we stick to using a rubber sanding block (Photo 1) or just a folded piece of sandpaper for the smaller pieces or and piece with any curvature or special detail, or with pianos having especially thin veneer, as is sometimes the case.



Photo 1: Hand sanding is a real calorie-burner

For the final sanding of the case, we start with 100 grit (done by hand), followed by 150 grit and finished with 220 grit. The purpose is to remove excess coloration of the original stain, revealing the raw wood and opening up possibilities as the color of the

final product. Many customers wish to have a **more** natural stain applied to show off the grain of the wood more than was done originally.

Again, as you sand the case, be vigilant in watching for spots where you are cutting through the veneer to the underlayment (cross-banding). If you notice a spot where it looks as if the grain is running in the wrong direction, stop sanding immediately – you are through the veneer. Further sanding will only worsen the problem.

Once the entire case and all individual pieces have been fine sanded with 220 grit paper, vacuum with a brush attachment on a shop-vac. Do a final inspection of the case and each piece, looking for any voids or chips that have not yet been filled. It's easy to miss minor damage when you initially are looking things over with an eye for the major problem areas. Do any last minute lacquer-sticking or veneer patching, sand and re-vacuum the affected areas.

Having done all this, you are now ready to stain.

Staining:

The application of stain to the project piano is a special moment in the refinishing process. As the rich color of the stain is applied to the raw wood (Photo 2), the true beauty of the veneer is revealed. With some veneers, details of grain which have gone unnoticed for decades under a nearly opaque finish suddenly stand out in bold relief.



Photo #2: Stain is applied

Choosing the desired color requires consultation with the owners of the piano, preferably done on-site, using sample stains to find the most desirable shading. Typically, we have the owner come in to the shop a day or two before we are ready to stain, while we are yet in the sanding stage. I'll already have visited with the client as to their general preferences – whether they desire a dark or lighter shade, what woods they have in their home already that they wish to match, etc. With these factors in mind, I'll select a half dozen or so potential stains for the customer to choose from and have those out when they arrive.

Also, before the owner arrives at the shop, we will stain the endblocks with six potential colors, one on each side of the two blocks, then label the underside of the blocks with the colors used as in Photo 3. That way, the owner can see the stains applied to the actual veneer of their piano, not just on a similar veneer. (When the selection process is finished, a light sanding with 220 paper will remove enough of the sample stains so that the chosen color may be used throughout).



Photo #3: Using labels to keep sample colors straight

A trip to a woodworking store, or a perusal of a catalog devoted to woodworking supplies will reveal that there are several popular brands and types of stains. We have always used Minwax oil stains in our shop, with very good results. Of the different shades available, Red Mahogany seems to be the favorite of our customers, followed by Special Walnut. The Red Mahogany works very well not only on mahogany veneer, but on walnut veneer as well, giving it a rich reddish-brown hue.

Sometimes customers desire a shade that is in between two different available colors. Using a $\frac{1}{4}$ cup measuring cup, I'll experiment with mixing the two shades until we reach a satisfactory result. Then, using that ratio (for example: 1 part Red Mahogany to 2 parts Special Walnut), I'll mix enough to do the entire piano.

Apply the stain to the case or case part with an old dishrag or a wadded up paper towel. Be generous in your application, covering the surface of one part or to one defined area of the case with a circular motion. As soon as you have finished staining a part, tear off two or three sheets of paper towel to go back over the part and wipe off the excess.

Frequently, you will encounter a piano that has a mixture of species of wood, with the flat areas sheathed in hardwood veneer, most typically walnut or mahogany, and smaller parts, such as the legs or up-stop rail, made of a solid wood, often gum (watch for a telltale greenish cast when sanding). If you try staining both the veneered areas and solid parts with the same stain, you'll probably find that the solid wood parts take less stain and therefore turn out lighter in shade than the veneered portions of the case.

There are two remedies for this situation, one that you take during the staining process and the other during the application of the final coats of finish. The staining

solution is quite simple. When using a can of stain, whatever the shade, make it a practice to stop when there is an inch or less of stain in the bottom of the can. Set the can on the shelf, preferably open, for a few days and you will find that a layer of pigmentation will settle at the bottom of the can (Photo 4). When you have a sufficient buildup of sludge at the bottom of the can (scrape a wide, flat-bladed screwdriver along the bottom, and see what you come up with), put the lid on with a piece of masking tape labeled “sludge can – do not stir.” You’ll find this layer of sludge-like material at the bottom of even a full can of stain – if it’s sat unstirred for long enough.



Photo # 4: Sludge

Apply this goop to whatever part is not taking the stain as well, and you’ll see it darken considerably. Again, you must wipe the excess off. If the part is still too light, it can be fixed, just not with stain.

Once the entire case and all the parts are stained and put on a parts rack to dry, you are almost ready to put on the final coats of finish. At this point it’s a very good idea to do a thorough cleaning of your shop, vacuuming up dust off of floors, benches and shelves. I would allow the stain to dry for at least 48 hours. Having cleaned your shop, button it up for a day or two, so that when you come back, you’ll be ready to apply the final finish.

Until next month, then, enjoy the process of bringing back the beauty of a treasure from the past.

Chuck Behm
River City Restorations
410 Monona Street
Boone, Iowa 50036
behmpiano@gmail.com