Small Shop - Big Results

Preparation for a Beautiful Brushed-on Varnish Finish – part 3

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In the November issue of the Journal, stripping the old finish from your project piano was the focus. This month we will continue forward from that point and will begin the job of repairing any damaged or missing veneer that your piano might have.

III. Veneer work:

With the old finish completely removed from the body and case pieces of the piano, you are ready to tackle any necessary veneer work. Once the veneer work is completed, you will be ready for lacquer sticking any minor gouges and the final sanding of the body and all case parts in preparation for staining and applying varnish.

Veneer repair ranges from the very simple tasks such as reattachment of loose veneer chips or regluing of loose veneer to the patching in of large areas where blending in the grain and color of the new veneer to the old for an "invisible" repair makes for a very challenging project.

Photo 1: Fitting a new veneer patch in place

Photo 1 illustrates the difficulty of such a repair. Though a new piece of veneer has been cut and fitted, the job is obviously far from complete. The flamboyant grain of the teak veneer used on the case of this piano necessitates further work in shading and staining to blend the new piece in with the old before any clear coating is applied.

As you did before stripping the finish from the case, you will again need to gather some necessary supplies (Photo 2). Stocking up at this time for both the veneer repair projects at hand (including lacquer sticking) and the sanding work to follow would make sense.

Photo 2: Supplies needed for veneer work and final sanding

Items necessary to continue work on project piano:

- ✓ Selection of veneer
- ✓ Old iron
- ✓ New single edge razor blades
- ✓ X-Acto knife
- ✓ Sharp chisels
- ✓ Ruler with metal edge
- ✓ Tape measure
- ✓ Combination square
- ✓ Wax paper
- ✓ Masking tape
- ✓ Glue pot
- ✓ Animal hide glue granules
- ✓ Water
- ✓ Brushes for glue
- ✓ Small bottle contact cement
- ✓ CA glue
- ✓ Titebond glue
- ✓ Rags
- ✓ Aluminum foil
- ✓ Wooden block
- ✓ Paper towels
- ✓ Assortment lacquer sticks
- ✓ Burn-in knife
- ✓ Voltage regulator
- ✓ Supply of sandpaper (100, 150, 220 grits)
- ✓ Sanding blocks
- ✓ Palm sanders (optional)
- ✓ Assorted weights and clamp

The best place to begin with your project piano would be with the easiest problems to fix, and from there progress to the more challenging repairs. With that idea in mind, we'll begin.

The three most common areas for the case of an upright to be damaged are the bottom and back edge of the sides of the piano, the front end and sides of the toeblocks, and the front edge of the keybed. These are the areas most exposed to damage when a piano is being moved in and out of houses, through doorways and up and down

stairways. It's a rare upright piano that has escaped being banged about at some point in its century or so of existence.

Damage to the sides of the case, if extensive, can be a real challenge to repair, since ordinarily one would preserve the veneer that was undamaged, and would fit a precisely cut veneer patches to replace the damaged areas. Many times it is not only the top layer of veneer that is damaged, but also the wood underneath. The front of the keybed many times is not veneered at all, but solid wood and requires special treatment. The front and sides of the toeblocks, on the other hand, are veneered and often present a straight-forward repair situation that is an easy place to begin (Photo 3). Since the front (and the sides and the top, for that matter) of the toeblock comprises a small area, if there is serious damage, many times the most practical thing to do is to remove what's left of the old veneer and to cut new pieces altogether.

Photo 3: Front of toeblock with typical veneer damage

Replacement of an individual veneer piece:

If the piano is on its back, it's a simple matter to remove the damaged veneer. Moisten a rag in water, wring it out and drape it over the end of the toeblock. Heat your iron, then place it on the dampened rag, letting it steam for five- ten seconds. Using a narrow putty knife, pry off the loosened veneer. (Save any veneer you remove for use in repairing other damaged areas.) If possible, try not to disturb the layer of veneer which lie between the upper layer of veneer and the core lumber. If this secondary layer must be removed, it should be replaced as well. Also use care when removing the veneer near the top of the toeblock, as the top piece of veneer some times laps over the front piece. Use a sharp chisel to remove the veneer immediately underneath this top lip of veneer to avoid compounding the problem. Sometimes the sides of the toeblocks are badly damaged as well. In some cases it is advisable to rewrap the entire toeblock in new veneer.

Prepare the bed for the new veneer piece by rough sanding the underlying wood with 60 or 100 grit sandpaper. Fill any chipped areas with filler, or rout out and replace with oak stock if there is excessive damage to the core lumber.

Whether you are replacing just the front piece, or also the sides and the top piece, select veneer that matches as much as possible the figure (grain pattern) of the wood, and the hue of the raw wood. Measure the area to be recovered and cut your veneer. I use a single edge razor to cut veneer, placing the veneer stock on a piece of MDF board and using a combination square (not a ruler), to guide the razor. Hold the ruled edge of the square solidly against the veneer with your left hand and cut with your right. Change blades frequently if you have a lot of veneer to cut, as the blades become dull quickly.

Although you may cut your piece to the exact dimensions of the area to be recovered, I prefer to cut a bit too big, and then sand the edges down flush after gluing. With an exact cut, it's too easy to miscalculate when placing the veneer, and having it a bit too short on one side, and long on the other. An extra 1/8" on either side, and top and bottom as well, will prevent this from being a problem.

Several glues work well for this type of veneer replacement. Hot animal hide glue is preferable, in that it is quick to set up, and is correctable if a mistake is made. Heat your glue crystals in a glue pot, brush on the heated glue to the veneer, allow to cool, then position on the surface to be covered and heat wood with a old flat iron. As soon as a bubbling froth shows on the sides of the piece, remove your iron and flatten the veneer out with a block of wood, rubbing it out smooth in the direction of the grain. As soon as the veneer is cooled, the edges may be sanded flush (or trimmed with a your combination ruler and sharp razor). If you sand, use a sanding block with 100 grit paper, going only in the direction of the side of the toeblock. Do not draw the sandpaper back towards you, or you will likely chip the new veneer.

Contact cement is an alternative adhesive that will work as well. The advantage over hot hide glue is that it may be applied straight from the bottle without advance preparation. With contact cement, apply glue to both the back of the veneer, and to the front of the toe block. Allow the glue to dry until it is just tacky, then carefully position the veneer and apply. If the top veneer piece of the toeblock hangs over in a lip, position the new piece of veneer up into that corner, and then fold down onto the front of the toeblock. Use a veneer roller or a wood block to firmly set the piece in place. Again, sand the edges down flush with the sides.

Cold glue (such as Titebond) works, but requires clamping. On the front of the toeblock, it's difficult to find a way to solidly clamp the piece down for drying. However, if the piano is on its back, using weights in place of clamps is effective. When using a cold glue, check the repair after several minutes to make sure that the piece is still positioned where you want it, since there is a chance that the veneer will slide one way or the other before the glue is set.

Dealing with loose veneer:

Loose veneer is often a problem with old uprights – situations where a part of a section of veneer has come unglued, but other places on the same piece may be firmly attached.

For very small chipped pieces of veneer that are either partly attached, or have come free altogether, a superglue such as LocTite is an easy fix. Apply a small amount and apply pressure (not with a finger) for a minute, and then lightly sand.

For larger areas, if the loose veneer may be bent back, brushing in a thin application of hot animal hide glue can be effective, since the residue of the old glue still

remains and will combine with the new glue upon remoistening and heating. After applying the new hot glue, run a flat iron covered with foil (set on a medium heat setting to avoid scorching the wood) over the area to heat the veneer and the underlying wood to insure adhesion. Smooth out with a block of wood (a scrap of pinblock material is ideal for this), and clean off any excess glue that squeezes out.

In many cases, the loose veneer may not be pried back far enough to allow for brushing on hot glue. In these cases, using either liquid hide glue, Titebond or a similar carpenter's glue makes the most sense. To apply cold glue underneath loose veneer, use a piece of scrap veneer long enough to reach back to the full depth of the affected area as your delivery device. Coat one side of the veneer scrap with glue and lift the edge of the loose veneer slightly to slide the scrap piece underneath, as in Photo 4. With the scrap veneer piece in position, press down on the loose veneer, and slide the scrap piece back out, leaving behind a coating of glue. Repeat as often as necessary to insure even coverage in between the loose veneer and the underlying core. (If you don't have scraps of veneer lying about, an index card will work for an application or two, but will quickly become limp and useless.)

Photo 4: Application of Titebond to loose veneer.

If a large area, such as a portion of the top of the piano, or the side of the case, is affected, use a fairly wide scrap of veneer to apply the glue. Spread the glue onto the scrap evenly using the blade of a putty knife.

The test of whether enough glue has been applied is to see if beads of glue squeeze out when the veneer is clamped down. If no squeeze-out is seen, apply more glue.

To clamp, use a pressure board (a block of wood for small areas or a large flat piece of MDF board for larger areas work well) in between the clamps and the affected veneer to evenly spread out the pressure to insure a smooth result. A variety of clamps are often needed for these types of jobs. Simple c-clamps will work in some cases, but more often than not bar clamps are necessary. Whatever type of clamp is used, be mindful of not damaging the opposite surface that the clamp is secured against. A small

block of wood should be used to prevent damage to case parts in situations where a clamp is tightened on both sides of an area, especially if c-clamps are being employed.

Occasionally, there is no effective way to use clamps to apply pressure to a work piece. In these situations, simple weights often work well. Place the weights on top of the pressure board evenly. In our shop, we have a collection of large, flat, rectangular weights recycled from an exercise machine that prove very useful in many situations. If you have an exercise equipment shop in your neighborhood, you might ask if they could be on the lookout for a machine that could be scrapped for the weights.

Photo 5: Clamping of a small repair site

Whichever method of clamping or applying pressure is used, place several layers of paper towels between the pressure board and the affected area to soak up any glue which works its way out, as in Photo 5. When everything is taken apart after drying, the paper towels will stick to the veneer where glue squeezed out. It's an easy matter to sand the paper off the veneer, but quite another matter to unglue a pressure board that has become inadvertently affixed to the work piece.

In next month's issue of the Journal, the focus will be on patching in. This is, in my opinion, the most challenging of veneer projects, in that you're trying to blend a small, irregular patch into a large area of veneer. A truly "invisible" patch, you'll find, is very hard to achieve.

Until next month, best of luck in trying out the techniques for refinishing discussed so far. If you find yourself in our area, be sure to stop in for a visit.

Time to start planning a cruise

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