

Small Shop - Big Results



Pinblock Panel Installation in Grands Using Paper Patterns – part 4

By Chuck Behm
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With the new pinblock panels fitted, drilled and installed, as described in last month's Journal, the only step remaining before the plate may be returned to the piano is to sheath the panels in maple veneer. Without this covering, the unsightly seam between the panels and the original pinblock material would be visible.



Photo 1: Making the 3rd set of patterns.

To prepare for cutting the veneer cover layer, I decided to make a new paper pattern of the pinblock panels glued in place with holes drilled (Photo 1) instead of reusing the original pattern on the off chance that the positioning of the holes after drilling might have been a shade different.

This part of the project, I think it should be mentioned, illustrates that with shop projects things don't always go right the first time, especially when one is trying something new. My first few attempts to cut veneer overlays ended badly, with me learning that you can't really drill holes in veneer, no matter how sharp the bit, without having the wood split and splinter. (In fact, just marking the position of the holes in the veneer with an awl can split the fragile wood.) Trying to cut the holes with a punch is an equally futile exercise. After a couple of frustrating hours of trial and error (mostly error) I ended closing up the shop early for the rest of the day to work on something totally unrelated to shop work. The idea of how the holes could be cut without damaging the veneer came to me in the middle of the night. Sometimes you just have to step back from a problem to see its solution.



Photo 2: Transfer of pattern markings to veneer.

With the pattern marked and cut, the outline of the overlay is drawn onto the veneer to be used and cut with an E-Acto knife. The pencil line on the pattern (Photo 2) indicates where the edge of the cast iron plate would come to. The pattern for the overlay is slightly bigger so that the resulting seam will be under the edge of the plate and out of sight.

To cut the veneer without splitting, I sandwiched the veneer in between two matching rectangles of plywood. Locating the veneer when contained within this plywood press was done with small positioning holes on the outer perimeter of the veneer, which were also marked on the pattern and transferred to the plywood (Photo 3). A 1/8th" hole drilled through the press allowed the use of finishing nails to position the veneer, so that the placement of the pattern on top of the press exactly matched the placement of the veneer within the press.



Photo 3: Marking the positioning holes on the press.



Photo 4: Completing the press

With the veneer in place, the press was screwed tightly together (Photo 4). The idea of the press is that the drill goes through the veneer as if it is part and parcel with the wood of the press. If there is any looseness between the two layers of the sandwich, the drill will splinter the veneer.



Photo 5: Marking the location of the tuning pin holes.

By using the positioning holes to locate the pattern, the field of pins is now marked on the top of the press (Photo 5). I prefer to use an awl, and locate the center of the pinhole by eye, but centering punches are available which take any guesswork out of the procedure.



Photo 6: Drilling through the press.

Once the field of pin holes was marked, the holes were drilled on the drill press using a bit intended for size 3 pins (Photo 6), to give the pins a slight amount of clearance.

The end result, with the top of the press removed after the drilling process, was that there was absolutely no splitting whatsoever (Photo 7). The holes were clean without ragged edges. Again, the point should be made that if one procedure to solve a problem doesn't work, that just means that another method should be tried. This happens so often in the shop that one becomes use to thinking through various possible approaches. Almost always, one will find a way.



Photo 7: Sweet deal!

With the pinblock overlays cut and lightly sanded, finish with a spray lacquer. Several coats, gently buffed in between coats with 0000 steel wool, will produce a very nice finish (Photo 8).



Photo 8: Lacquer coat drying.

Once the lacquer has dried, flip the panels over for an application of spray adhesive (Photo 9). Follow directions on the can for the product you have purchased. Look for a product, such as the 3M adhesive being used in the photo, that is labeled 'industrial strength' or 'heavy duty.'

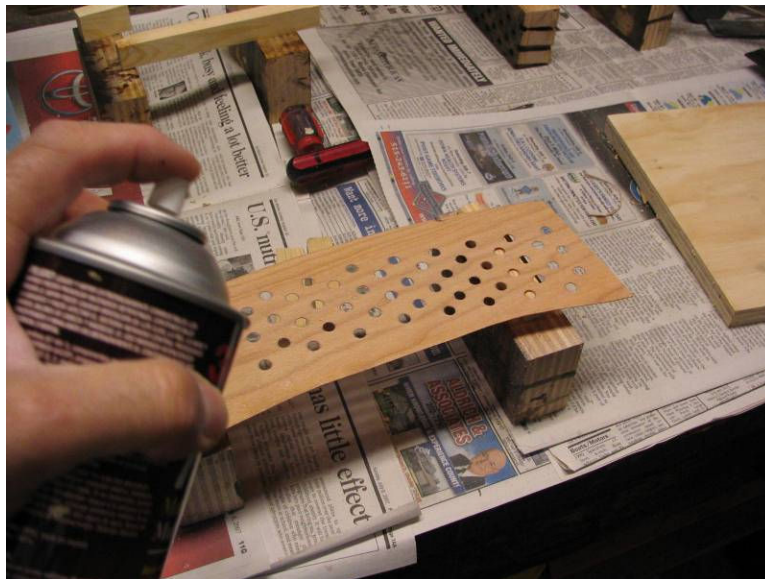


Photo 9: Applying adhesive to overlay.



Photo 10: Positioning the overlay

Carefully position each overlay over the correct area, and press into place with a scrap of pinblock material (Photo 10). A thin layer of felt applied to the side of the pinblock scrap which is being used to apply pressure would prevent scratching of the newly lacquered finish.



Photo 11: One more step accomplished.

The completed project, with only a few finishing touches remaining to explore in next month's Journal. Until then, the coffee pot's on.

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