The Great Rocking Chair Adventure

June 2016

One of the advantages of living next to a posh neighborhood is finding great roadside treasures. You never know what is lurking around the next bend. One morning as I returned from grocery shopping, I spied a pair of porch rockers which had seen a little weather. Tires squealed as I sped home to dump vegetables and milk; I knew these gems would not last long. Fortunately I got back in a flash and was able to claim them. As I was loading, my neighbor arrived with two more! What luck! These were in even better condition. I thanked her for her generosity and her yard helper stood guard while I ferried them home in pairs.

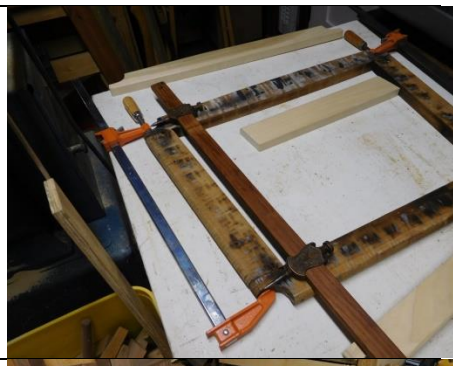
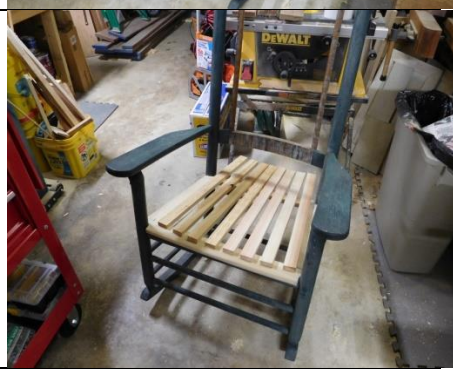
So our chair adventure begins with this motley crew of weathered rockers. The canework appears perished and one has a broken post. Otherwise they feel solid. All are oak and have been exposed to the north Florida sun and moisture.

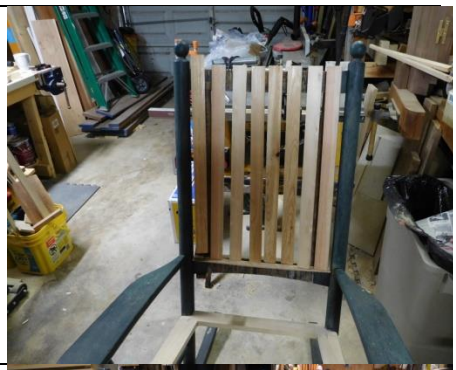
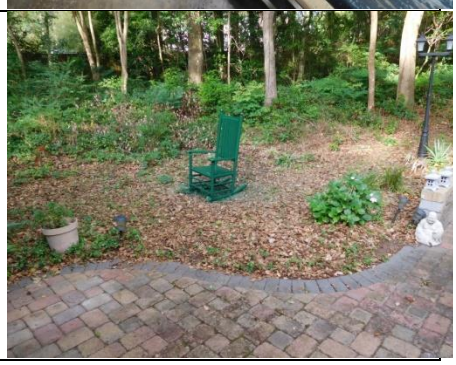
As luck would have it, there was a home for one of the chairs. My daughter and her family had just moved and needed a porch rocker. Time for some magic in Poppie's workshop. Old tools (and old fools) like nothing better than a good project. And these chairs were perfect projects. They were not too big, they had good bones, and they did not seem to have insurmountable problems. I can fix them up at my own pace and can document the process for my on line woodworking buddies. Summer fun at its best.

The first candidate for a makeover is the chair that is in the roughest shape. One of the rear posts crumbled and detached from the rocker. This chair is the perfect candidate for documentation. I can use it to explain the tools and the processes of rocker rehab.	
The rear post presents a good example of a bad construction decision. The posts were inserted into snug, but not tight, holes. This practice allows for some wood swelling and that keeps the rocker from cracking under stress. Unfortunately, they were then pinned using galvanized nails. Over time, one of these nails corroded and rotted the bottom of the post. Here is what is left of "stumpy." He needs replacing. All other posts are solid.	
The first step of this repair is to cut the tenon flush and bore out a deep mortice for a spline tenon. This is a common repair for a rocker. One big advantage is that it does not require a lot of disassembly. A disadvantage is that the correct dowel stock is not that easy to find. Most commercial dowels are made of birch and that is fine for most projects. This project, however, requires a stronger wood. In this case, I like hickory because it is tough and resists force exceptionally well. Axe handles are made of hickory for good reasons.	
This short dowel would be easy enough to make on the lathe, but I have a quicker solution since I am lucky enough to have a Stanley #77 dowel machine. This machine, offered by Stanley from 1911 until 1969, makes various sized wooden dowels of infinite length by spinning a cutter on a hollow tube. It is hand powered and the dowels cut as fast as you or your assistant can turn the crank. The original leg tenon diameter was 5/8" and I happen to have a 5/8" cutter for the #77.	

Not only is the #77 quick, it is fun to operate. It works kinda like a big pencil sharpener. Turn the crank and flaky chips just fly. I found a suitable piece of stout hickory, ripped it square, and chamfered the corners to make cutting easier on the machine (and the operator). A 5/8” dowel is pretty big and the hickory is tough. I got to cranking and easily knocked out about 8 inches of suitable round stock.	
Then I glued the whole thing into the newly created mortice.	
Here is a picture of the rod cut down. Notice the rags. The dowel fit loosely in the hole. I was afraid that it might swell and crack the leg, so I made the hole a bit oversized. Then I adjusted the slack when gluing by using a strip of old cotton tee shirt to snug it up.	
Here is the new tenon after trimming. The excess height has been removed as well as the excess tee shirt. It looks as good as new.	

The next chore was to strip the perished cane. It was quite messy and the cane did not give up easily. When I inspected the chair seat, I found some hidden damage. The four seat pieces were assembled with steel corrugated fasteners and the fasteners had corroded away. There was much rotted wood where the fasteners were used. Even if I patched the wood with Dutchmen, it would not hold up much longer. I elected to make a new seat frame, using the original pieces as patterns. The original seat was poplar and I stuck with that choice. The wood is tough but less likely to crack than the oak that is used elsewhere on the chair.	
The original seat frame has a rounded edge where the cane sits because sharp corners would damage the cane. The new seat pieces needed to be rounded over also. For this task, I selected my H&R plane set. Hollow and round planes were used to make profiles before the advent of powered shapers and routers. My set of graduated hollow and round planes consists of 18 planes, or nine pairs. Each cuts a radius that is approximately 1/6 of a circle. Round planes cut a cove and hollow planes cut a rounded edge. As you can see, the #8 hollow plane radius matched our seat roundover.	
This set of H&R planes was probably made about 150 years ago. Once I sharpened the blade, the plane made nice curly shavings just like in days of yore. These H&R planes are really pretty simple to use. You just push the H&R plane until it quits cutting. At that point, the profile is made and your workbench is covered in pretty shavings. All four pieces needed rounded over edges.	
Next I measured the seat frame using my beam compass, or trammel set. It is a vintage version of a very old tool which has points which adjust along a stick. Trammels are very handy and are often used to transfer measurements precisely.	

Here is a picture of the trammel on the clamped up original seat frame. New pieces are on the table beside it. The new seat needed a bit of trimming to hit the mark.	
I used wooden biscuits to join the chair seat pieces. No metal fasteners were necessary. This new seat should survive weather cycles much better than the original. My 50+ years of antique furniture repair experience has taught me to re-engineer whenever necessary. Cost pressures often drive furniture makers to cut corners. There is no need to perpetuate a bad decision when a clever repair can make something better than original.	
And thanks to careful measuring with the trammel, the new seat frame fit perfectly. It is held in place with two screws from the underside. I replaced the original screws with stainless steel deck screws that I found in my screw stash. No weather problems from these guys.	
It would have been nice to replace the cane with cane, but that would add time and expense to the project. My alternative was to use cedar strips for the seat. The wood is durable and will hold up to moisture. It also smells good when being worked and is available at my local home center.	

I like to make prototypes and mock up projects when I am doing something new. It is easier to make changes using that process. Here is the original mock up of the back slats. This version looked too busy, so I did not install slats next to the posts.	
With the back slats installed, the chair is ready for paint prep. I was at last able to do a test seating and it went fine. This rocker is very comfortable. Maybe I will fix up one for my workshop.	
Painting, as we know, is all in the prep. I sanded the old finish and removed loose paint. The left arm had weather damage so I used my #212 scraper plane to make it comfortable. This scraper plane was made for careful final finish on tricky grained figured woods, but it did not complain. No job is too small.	
I prepped the old paint and the new wood with primer after a thorough cleaning. At last, a nice day arrived and I was able to take the chair into my spray booth.	

Two coats later and it was looking brand new. Surprisingly enough, it took two and a half rattlecans to complete the project. It took a while for the paint to dry because of humidity. When the surface lost its tack, I brought the chair indoors to finish drying.	
The home center store even had a seat pad that matched.	
And on a hot summer day, I delivered the chair to my daughter and her happy family. This is the best shot I could get of a camera shy teenager.	

Conclusion

The rehabilitation of chair #1 was a complete success. I was able to finish and deliver it before the oppressive July heat of Tallahassee. It looks good in its new home and the only problem is deciding where it looks the best. Even the kitties are pleased with the new seating.