Cyanoacrylate Glue and Boiled Linseed Oil Pen Finishing
By Fred Munday

This article describes the procedure I use to finish pens and other turnings using Cyanoacrylate Glue (CA) and Boiled Linseed Oil (BLO). I know of at least two other oil based finishes that will work but do not seem to give results that are as good as using BLO. Danish Oil and Tung Oil will both work, as I suspect will any other oil used as a wood finish, such as Walnut Oil. I arrived at this procedure based on the brief procedures outlined in the last paragraph of an article by finishing expert Michael Dresdner, located at:

http://www.michaeldresdner.com/dres10.shtml

The procedure in Dresdner's article is basically the same as mine with a few variations to make it work for me. I believe I first found a reference to this process in an article written by Russ Fairfield (http://www.woodturner-russ.com/). I recommend you take a look at Russ's Web Site.

The changes that I've made to Dresdner's process are to accommodate my lack of a variable speed lathe, to achieve a faster finish time and to reduce the "CA Sling" that can accompany this procedure. I was also looking for a method that would allow me to bypass the sanding sealer step. I have had mixed results with various sanding sealer methods on turnings and find it to be, for me, little more than an exercise in futility. That being said, I do use the sanding sealer step when dealing with soft unstabilized wood such as Box Elder or Buckeye Burl. It reduces the tear out and provides a more stable surface to finish.

I do not address sanding/polishing with other than Micro Mesh. Some people use it and some do not. I am a fan of it because of the polishing results that I get. If you use something different such as 400, 600, 1,000, 1,200 and 2,000 grit Wet/Dry sandpaper, you are going out to the equivalent of Micro Mesh 4,000 anyway. I also use a medium viscosity CA for this finish procedure. Thick works nearly as well but requires a bit more attention to the CA application. Thin will work but it cures too quickly and can cause an uneven coating of the surface.

A certain amount of preparation is required before starting this procedure. You should have both your BLO and CA handy. Prepare a couple of application pads before starting and have a pair of scissors or other cutting instrument close at hand as well. Though not necessary,

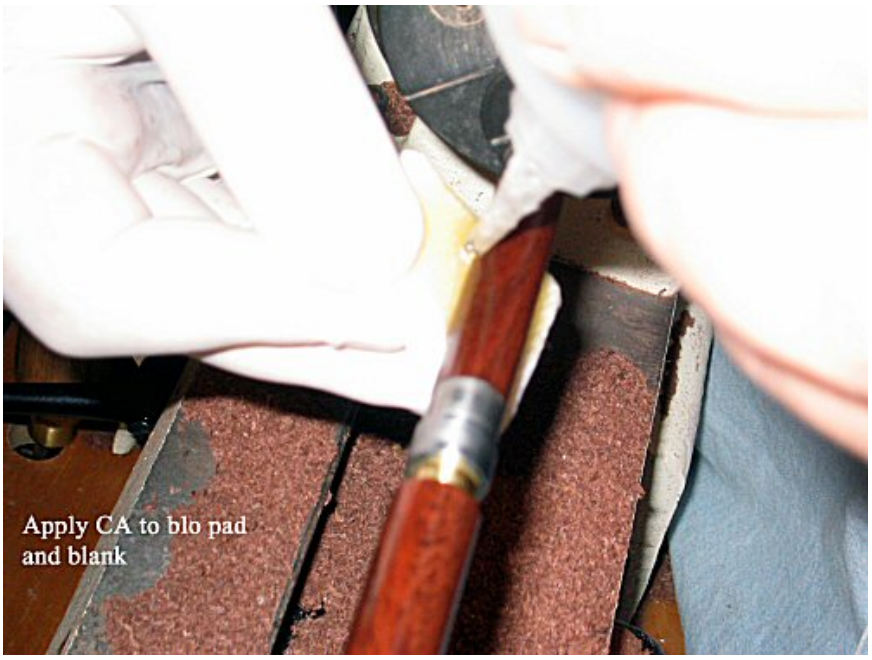
I would recommend wearing a rubber or surgical glove during the CA application phase. It's easier to take off a rubber glove and throw it away than to clean CA from your hands. Here is how to prepare the application pads. Fold a paper towel in half and fold it in half again the other way. Keep folding in half (in the same direction) until you have a pad of paper towel approx. 6" long and 1" or so wide. The end of this pad will be your BLO applicator. It is handy to make up a couple of these pads prior to starting. Have a separate paper towel available for wipe down between applications to remove excess BLO. Follow all standard safety procedures for handling CA and working with a lathe and start with sharp tools.

Now with the above stuff out of the way, I'll outline the step-by-step procedures:

1. Turn your blanks as you normally would but do not use the sanding sealer steps, as it should not be necessary with this procedure unless you are turning soft plucky wood.
2. After turning sand to the final dimensions and then sand/polish with successively finer grits to obtain the smoothest finish possible. Follow through to M-M 12,000 grit. The blanks should have a very high gloss before applying the BLO/CA finish.
3. When satisfied with the sanding/polishing put on surgical gloves, remove the lid to the BLO container and saturate the end of one of the application pads with BLO.

4. With the lathe at turning speed, apply BLO to the surface of one of the blanks and completely cover it with BLO. This will bring out the grain of the wood and prepare the surface for CA application.

5. With the application pad still in contact with the blank and moving steadily from end to end of the blank, start applying CA to the junction between the applicator pad and the blank. Continue movement back and forth on the blank while applying the CA.



6. Apply CA in a steady flow through 2 or 3 end to end passes on the blank maintaining full contact with the BLO applicator pad.
7. Continue the end-to-end passes with the pad until no more "BLO/CA ripples" are observed on the blank.
8. Remove the pad from the blank, cut off the used end of the pad, saturate a new section of the pad and repeat steps 4 through 7 on the other blank.
9. Use a paper towel to burnish both blanks and remove any excess BLO.
10. Re polish both blanks with M-M from 4,000 to 12,000 grit.
11. Examine the blanks and then make a second BLO/CA application by repeating steps 4 through 10.
12. When completely satisfied with the results, add a coat or two of Lacquer and/or wax of your choice and then allow the blanks to "rest" on the lathe for a few minutes before removing the mandrel.

Application of Qualasole® Padding Finish (Lacquer). Used as a friction polish.

13. Allow the blanks to cool and harden for an hour or so before removing from the mandrel and then allow them to harden over night before assembly.

This procedure is not as daunting as it looks. A single application can be completed (including polishing) in less than 5 minutes. On harder, less porous woods only 1 or 2 applications is usually necessary. On softer or more porous woods, as many as 4 or 5 applications may be required to completely fill the pores and result in a physically flat glass like high gloss finish. The high gloss finish is there after the first

application but there may still be visibly open pores that need additional attention.

It may seem unnecessary to polish to M-M 12,000 grit but the final finish is only as good as the polishing that took place before the finish was applied. A good finish can make a so-so pen look great but a so-so finish will make even a great pen look unappealing. Surface preparation is the key to a good-looking pen or any other wood project whether it is a turning project or a flat wood project.

Acknowledgements

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