

“Almost” Foolproof Celtic Knots

By Bob Goulding

Woodturned Celtic Knots are formed by gluing 4 inserts of contrasting wood, at crossing angles, into a block of wood, creating intersecting rings, when turned.

The tricky part is getting the rings to cross at exactly the correct place. My technique uses a lathe, a table saw and a band saw.

Instead of trying to make crossing cuts intersect correctly, I set up a jig and make 4 cuts, from the same direction, one on each of the 4 sides.

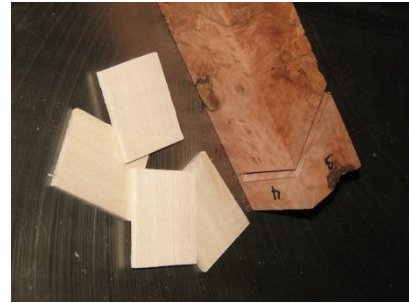
Also, to assure registration, I do not cut my block all the way through. That ensures that the inserts cross in exactly the right place.

To begin, select a block of wood for your basic piece. It must be slightly thicker than the desired final diameter of your piece.

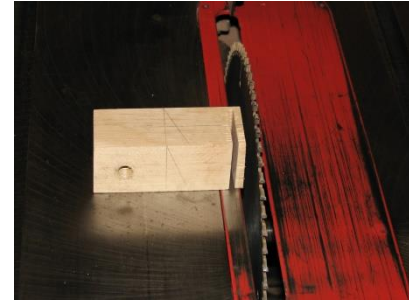
Trim it as square as possible, side to side and on the ends.



Select a piece of wood for the ring inserts. It should be of a highly contrasting color to the base wood.



The ring inserts will fit into slots the thickness of your table saw blade. Make a "gauge block" by cutting a slot into a piece of scrap, on your table saw.



Set up a re-saw fence on our band saw, to saw the inserts. Adjust the fence until you can cut slices that just fit into your "gauge block".



When your fence is properly set, cut enough slices, of your insert wood, for four rings. Each slice must be larger than the cross-section of your base.



Set up a miter gauge on your table saw to the desired angle of your rings. 10 to 30 degrees work well. You do not need a fancy Incra miter gauge for this project.

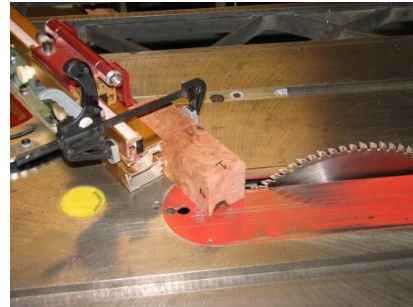


Set the table saw blade to cut almost through the base block. Leave about 1/8" of wood.



Attach or set a stop block to the miter gauge, so that all the cuts will be in same place on the base block.

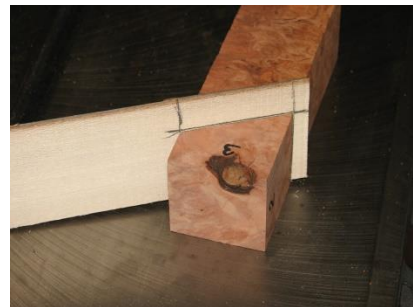
Clearly number each of the 4 sides.



Clamp the base block to the miter gauge and the stop block, with #1 side up. Make the first cut.



Slide a piece of the insert material into the slot and mark it to be cut to size. Cut it slightly smaller than the block. Cut all 4 inserts to this size.



An easily made "L" shaped clamping table assists in the gluing process.



Spread wood glue on the insert and in the slot.



Slide an insert into the slot.



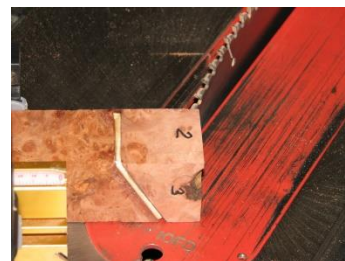
Clamp the block together, top, sides and ends. Let it dry at least several hours.



Cross out the #1. This is important in maintaining orientation.



Turn side #2 up. Clamp it to the miter gauge and stop. Make another cut.



Glue an insert in place and clamp, as before.



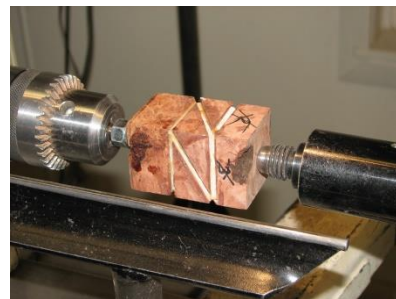
Cross out #2. Turn side #3 up. Cut, glue and clamp, as before.



Repeat for side #4



When side #4 is dry, fit block into lathe.



Turn the piece to the desired shape and the Celtic Knot will appear!



It's not hard and it's really fun. Give it a try!

Bob