THE VILLAGE WOODWORKER

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Calendar of Events

June 7	General Meeting	Yacht Club	7:15 PM	Spring Challenge
June 23	Board Meeting	Sloan's Hardware	8:15 AM	All Members Welcome
July 8	Golf Outing	Tanasi Golf Course	3:00 PM Shotgun	

Board Meeting Highlights – 6/02/2018

The TVWC Board met on June 2, 2018. Twenty-three members were present. The following items were discussed and, as appropriate, acted upon.

Treasurers' Report Current balances are: Club Operations - $3197.60; Wood Operations - ($493.98); Kiln Amortization Fund - $4050.06; Toys for Tots - $255. Total Ending Balance: $7008.68.

Membership Report Chris Campbell reported current paid membership of 157. Thirteen members have not paid their dues based on past email list and have been contacted.

Future Programs Ned Miller reported that the June meeting program will be the Spring Challenge. An additional award was added for a total of 5 with separate awards for best box and best bowl. The July program will be a "How To" on the club's Leigh Dovetail Jig by Bill McKeel and Lloyd Donnelly. A future field trip is being investigated.

Club Kiln Bruce Barbre reported that painting of the outside of the kiln is complete, and $300 was allocated for painting the interior when no wood drying is taking place. The oak and hickory in the kiln is at 20% moisture. There are 14 oak and 5 hickory logs in storage for cutting and drying but have not been scheduled for processing.

Dick Hoffman updated the status of remote kiln monitoring. The POA has installed a new router dedicated for the kiln and the computer club has donated a computer for communications. A temperature sensor and control unit for temperature control for the computer has been identified with an approximate cost of $200. A donation of $75 was also approved to the computer club.

Toys for Tots We have as yet had a volunteer to co-chair Toys for Tots this year. A member with 2-3 years' experience would be an ideal candidate. If

you have an interest or know of a candidate, please contact Don Schmid.

Tool Sales Bill McKeel will now have the responsibility for handling tool sales for the club. Charlie Anderson was commended for his work in the area in the past.

Golf Outing Due to inclement weather, the club golf outing has been rescheduled for July 8.

Club Tools The club planer and joiner will be housed by Bruce Barbre and Bob Brown, respectively, in the near future.

Wheelchair Lifts In some situations, ramps are not practical due to slope requirements where the height to the threshold is high. Bob Brown will be meeting with David Smith who builds and installs lifts to gain an understanding how this might be offered to TV residents.

Newsletter Tom Ringenbach is giving up his post as newsletter editor. We thank Tom for his 4 years of providing news to the club.

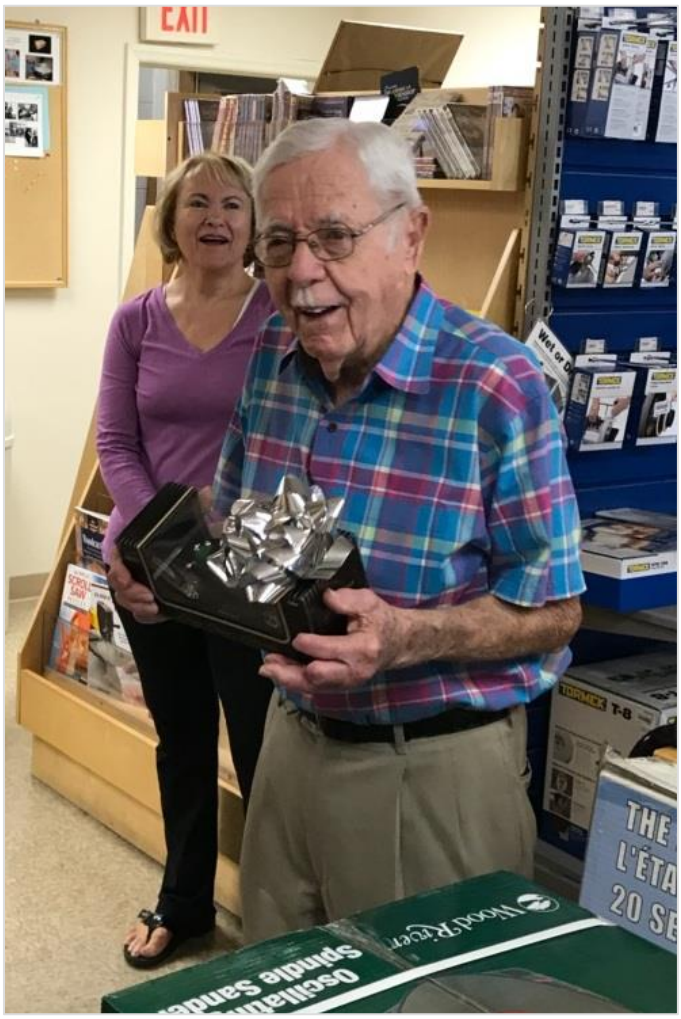
Tool Swap (by Charlie Anderson)

65 members were present at the May general meeting, the Programs Committee put together a woodworker's edition of Let's Make a Deal! At Tugaloo Pavilion there were over a hundred tools and accessories ready to be adopted for a fraction of their original value. Items were laid out on long tables with the owner's name and asking price. Over 4 chop saws, 11 drills of varying types, 7 routers and 4 Skil saws were among the items for sale. There was also and assortment of free tool, hardware and accessories donated by club members.

There were many a smiling face walking out to their cars with the deal of the evening. Tom Borloglou and Ron Cirincione did a great job auctioning off the items that did not initially sell.

Don't be disappointed if you missed out. There will be another opportunity to make your special deal next year.

A Special Happy Birthday



Longtime friend of the TVWC and master woodworker, Al Hudson, recently celebrated his 99th birthday with a party at the Knoxville Woodcraft store. Readers may recall that Al was our speaker at the February general meeting on the subject of veneers. Congratulations to Al and a Very Happy Birthday!!

Tools and Tips (contributed by Dick Hoffman for his banding inlay mentoring class)

Objectives:

1. To learn how to make decorative edge banding
2. To learn multiple methods of inlaying the banding

Review of Style of Banding

1. Banding can be very simple to complex
2. Shop made banding is generally simple patterns
3. Some easy to make styles are shown here

Types of Banding

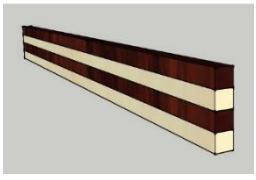
1. Simple solid wood, edge or inset banding
2. Pattern wood banding
3. Double line banding
4. Knots or corner loops
5. Brass glued in with epoxy, (CA or Wood Glue does not hold)
6. PVC pipe cut into thin strips (can be worked like wood but must be glued with CA or epoxy)
7. Resin with stone, colored sawdust or other material.

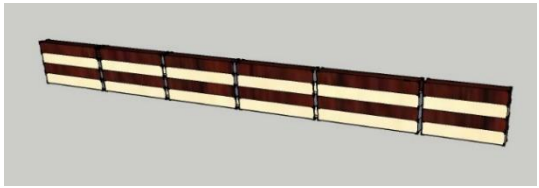
Making Decorative Wood Banding

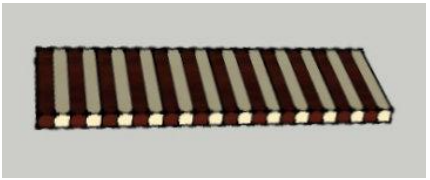
1. Decide banding thickness that matches standard router bit diameters (1/4", 3/8", ½", Etc.).
2. Generally banding is made up of 3 layers, two thin strips separated by an third internal patterned strip.

3. Some banding can have as many as 5 layers, two thin strips on both edges and a single or even multiple internal layers

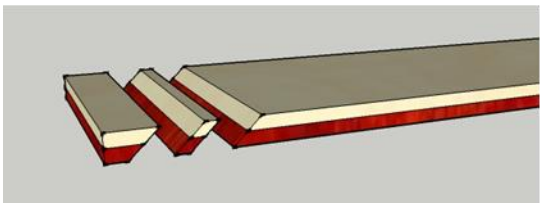
4. Use 1/32" or 1/16" veneer for edging. The edging dimension determine the thickness of the internal section.
5. The middle is generally made by gluing up a long stack of wood that is cut into shorter sections and glued together to create a repeating vertical pattern that is sandwiched between two edge veneers.

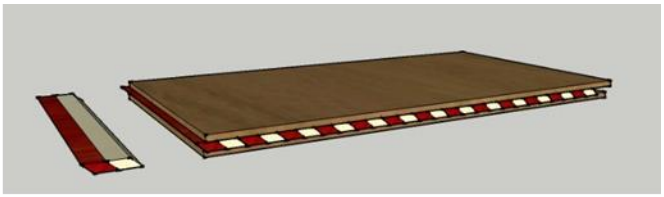






6. A simple stack of 2 different colored woods can be cut at 45 degree pieces. These pieces are rotated and laid side by side to produce a barber pool pattern





In the above example and other patterns where small sections are laid side by side and glued together, not clamping pressure is need to get a good glue-up. Use a rub joint to lock the pieces to the veneer they are placed on and the prior section.

1. Once the sandwiched assembled and the glue dry, cut a 1/16" to 1/8" thick section off the sandwich.
2. There is no need to sand the cut band. One side will be embedded below the surface of the receiving wood, and the other should be slight proud of the surface which will be sanded flush to the surface.

Methods of Inserting the Banding

Inlay that touches the outside of the board receiving the inlay

a. Best done using a router to but a shallow rabbit (1/16' to 1/8") into the edge of the board.
b. Cut 45 degree miters and glue in edge banding
c. Sand, scrape or plane the inlay edge and top surface to bring it flush with the board receiving the inlay.
d. If staining the board, inlay and bring surface flush then remove the inlay and stain the receiving board. Glue inlay once stain has dried.

Banding offset from the board edge

Method #1: Hand Held Router with Edge Guide

a. Process:
    i. Set the edge guide for the distance the inlay will be from the edge.
    ii. Mark the surface, showing where the router bit must stop without overshooting the adjacent edge grove.
    iii. Square corners with a chisel, if desired.
b. Pros
    i. Easy router set up
c. Cons
    i. Must mark where inlay goes with high accuracy.
    ii. Not efficient for multiple inlays
    iii. Easy to overshoot where the adjacent inlay groves meet

Method #2: Router Templet Used With a Router Collar

d. Process:
    i. Build a template that the router collar can follow. The template's inside edge may have to be made smaller to accommodate the offset from the router bit and the collar's diameter. Example: to inlay 1" from the edge using a ½" router collar and a ¼" router bit, you need to add 7/8" to the templates inside edge. The delta for the ½" collar and ¼" inch router bit, is 1/8". This plus the 7/8" equal a 1" offset.
    ii. Once the template is attached to the surface, the router, with collar follows the template's edge.
    iii. Square corners with a chisel, if desired.
e. Pros
    i. Very repeatable

i. Very accurate, can't overshoot
ii. Easy to make double banding by changing collar sizes.

b. Cons
i. Must make a templet
ii. Chance of error by not correctly accounting for collar offset
iii. Sometimes difficult to attach the template to the work piece if using double sided tape. Its often better to build a box around the board to recievie the inlay and attach the template to it.

Method #3: Use of a Router Table with Stop Blocks

c. Process
i. Set the router table fence to match the distance the inlay will be from the edge.
ii. Set the work piece on the router table and line up the router bit edge with the surface edge.
iii. Place a stop at the other edge of the work piece.
iv. Repeat for the other side.
v. Secure a block that is as thick as the distance the inlay is from the edge to the inside edge of each stop block.
vi. Add a second block that is ½" the thickness as the router bit being used (example add a 1/8" thick block for a ¼" router bit.) This insures there is no overshoot of the routed line if your setup is slightly off.
vii. Route both edges that are the same.
viii. Repeat for the other edges.
ix. Square corners with a chisel, if desired.

d. Pros
i. Very repeatable for production
ii. Very accurate, can't overshoot
iii. No problem attaching a templet

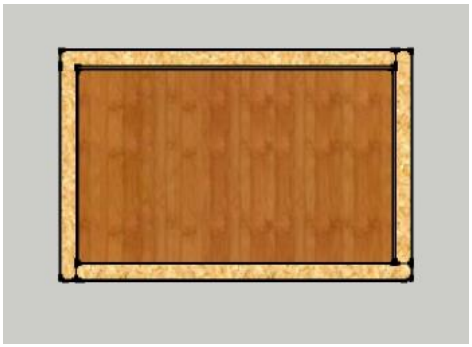
e. Cons
i. Requires a multistep set up

Inlaying Knots: (Full size patterns are at the end of this document)

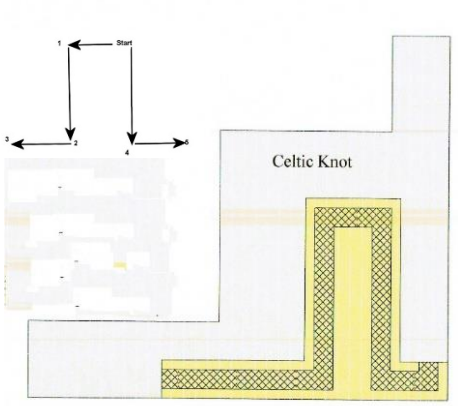
A Celtic Knot

a. A Celtic Knot can add interest to any box or table but is difficult because of the complex layout and the possibility of ruining the work by running past the stop points when routing.
b. This method uses simple to make jig to insure 4 perfect knots. The key jig, shown below, can be made on a bandsaw and filed smooth and flat.
c. Items Needed:
i. A plunge router
ii. A ½" outside diameter router collar.
iii. A ¼" router bit
iv. Board for inlay
v. Wood for jigs (a ½" thick 6" x6" board and 1 ¼" tall x ½"-3/4" wide and 3-4' long)
d. Steps:
i. Prepare the board for inlay.
ii. Build a box around the board that extends about ½" above the board.
iii. Decide how far from the edge to insert the inlay. In this example, the inlay will be 1" from the edge.

i. Because we are using a ½" collar and a ¼" bit (for a ¼" wide inlay), a 7/8" extension must be added to the inside of the box. This plus the 1/8" difference between the collar and the router bit, adds to a 1" offset from the edge of the board.



ii. Build the jig shown here out of a ½" thick board. The jig will be used twice for each corner knot. First the jig is clamped into the corner using spring boards (these are thin strips that sit below the surface of the jig and flex so they can be wedged into the corners of the box and corners of the jig). With the ½" collar, route along the outside edge of the jig. The flip the jig over and place it on the adjacent edge and again route along the outside jig edge. When routing, it's critical to follow the following pattern, keeping the collar firmly against the outside edge of the jig cutout:

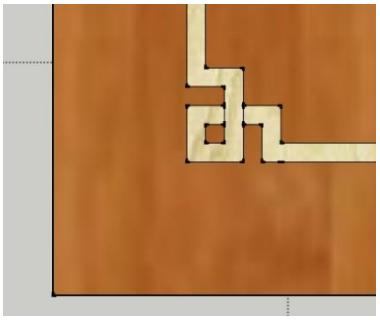


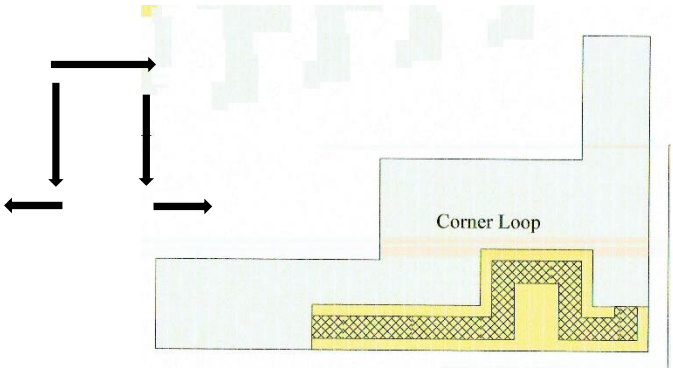
iii. This will leave a knot in each corner of the board. To connect the corners, simply use the ½" collar and route the lines between the corners.

iv. Square corners with a chisel, if desired.

Corner Loop

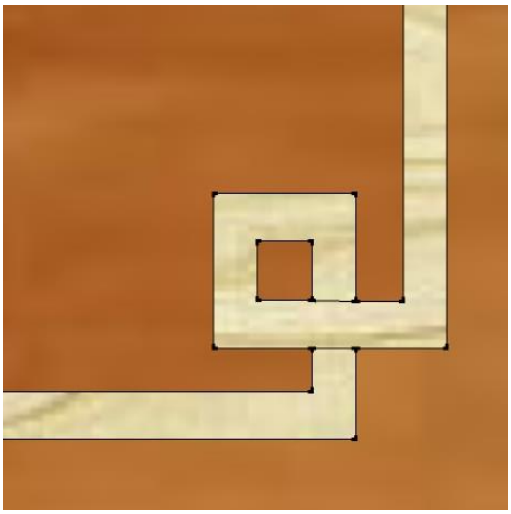
a. This loop is made identical to the Celtic Knot but uses the following jig.
b. Again, start routing in one of the inside corners of the cutout, keeping the collar firmly against the outside edge of the jig cutout.

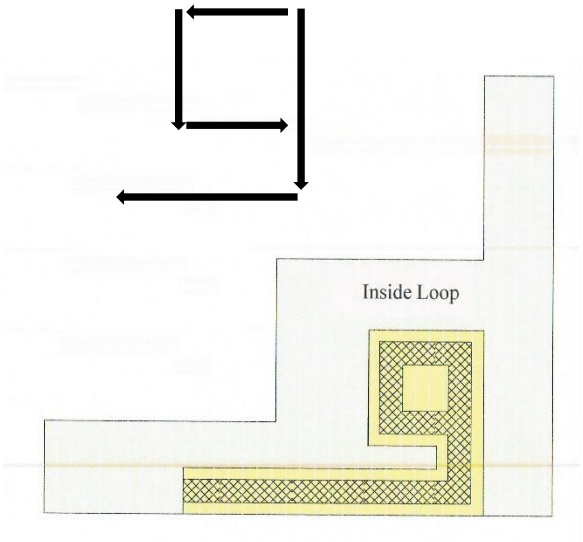




Inside Loop

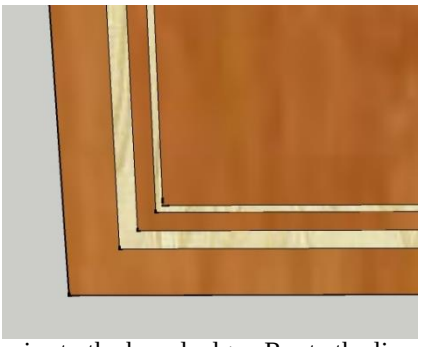
c. This loop is made identical to the Celtic Knot but uses the following jig.
d. Again, start routing in one of the inside corners of the cutout, keeping the collar firmly against the outside edge of the jig cutout.





Double Line

a. Method #1
   i. Use an insert in the basic box jig to move the routed inlay line interior to the board edge. Route the line using a router collar with a router bit that fits into the collar.
   ii. Add an additional insert to move the second routed inlay line further away from the board edge.
   iii. If desired change the router bit diameter to add interest.
   iv. Square corners with a chisel, if desired.

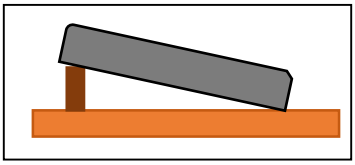


b. Method #2
   i. Use an insert in the basic box jig to move the routed inlay line interior to the board edge. Route the line using a router collar with a router bit that fits into the collar.
   ii. Add a larger collar size to move the second routed line further away from the board edge.
   iii. Again, the router bit size can be changed (provided the new bit does not overlap with the first line.)
   iv. Square corners with a chisel, if desired.

c. Method #3 (double 1/16" lines)
   i. This method only works using a 1/16" router bit.
   ii. Use a router inlay kit (sold by most woodworking tool companies). This kit has a two part collar (a base collar and a slide on ring that expands the collar by 1/8") and a 1/8" bit.
   iii. Home Depot sells a 1/16" grout bit with a 1/8" shaft that can be mounter in a standard router using a 1/8" to ¼" conversion sleeve sold by Rockler and others.
   iv. Because the bit is so thin, make sure to route slowly and set the depth at 1/16". For more depth, make multiple passes.
   v. Route the first line, using just the base collar.
   vi. Add the slide on ring and route a new line. This line will be offset from the first line by 1/8".

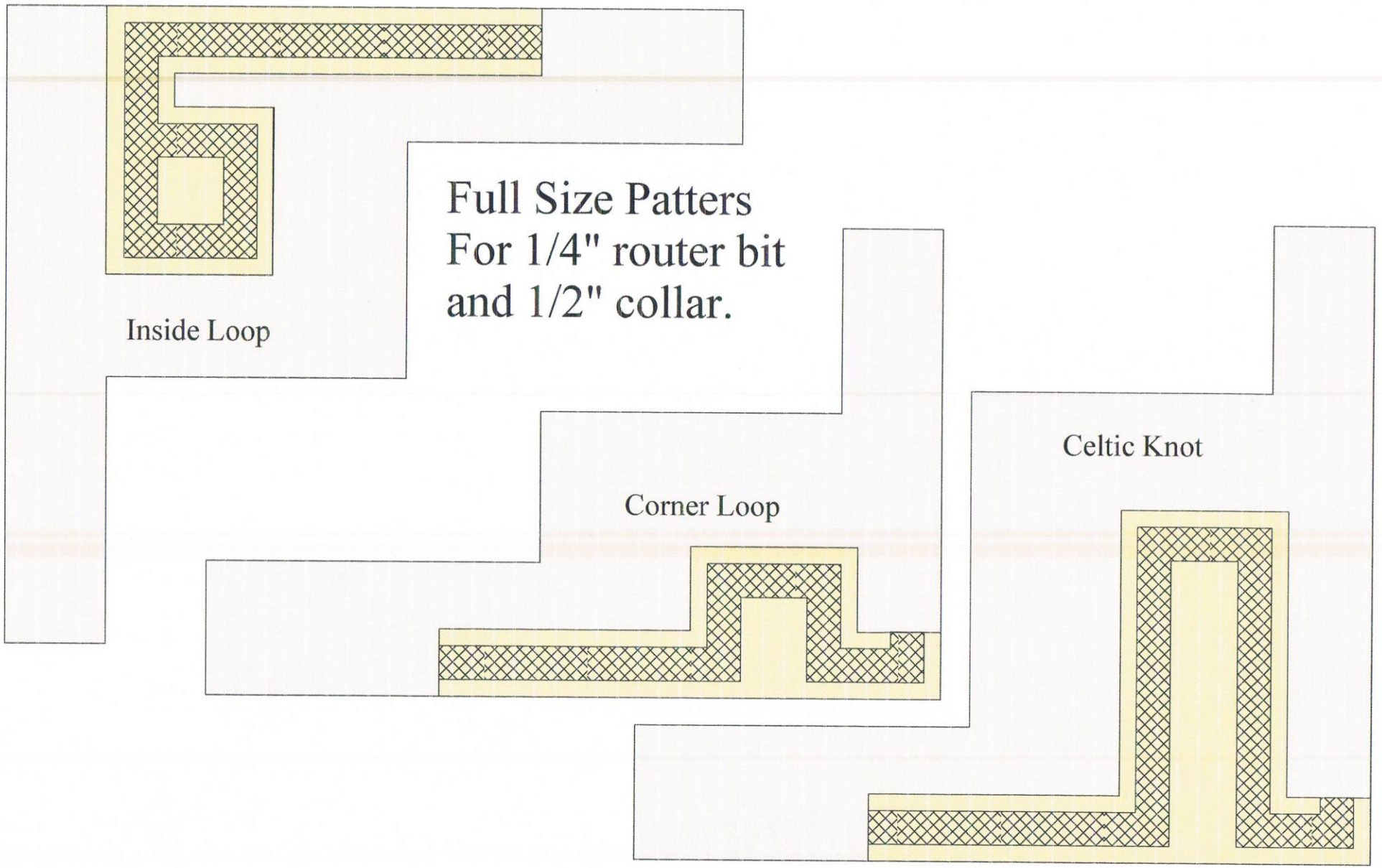
Actual process of inlaying the banding

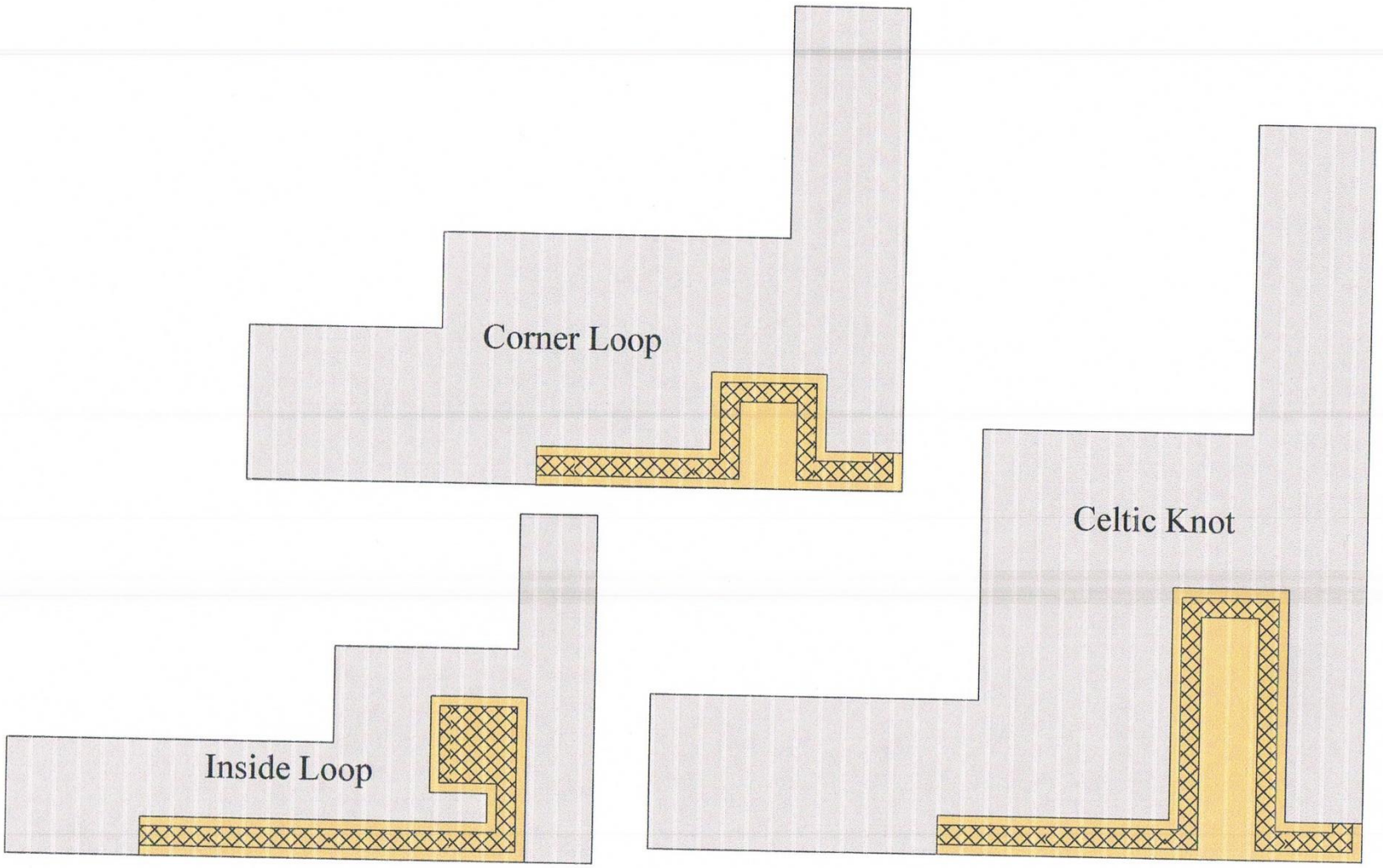
1. The banding should fit tight side to side. In order to fit it into the routed slot, the sides need to be slightly tapered inward, being slightly narrower at the bottom vs the top edge. The simple way to do this is sanding at an angle. Place the edging vertical on a flat surface. Using a sanding block with one edge resting on the flat surface and the other resting on the banding, sand lightly. All you are trying to do is to knock of the sharp edge at the bottom of the banding.



2. The length of the banding should be slightly longer than the routed slot. After tapering the banding, when both ends are placed in the slot, the banding show bow up slightly above the surface. When glued and pressure is applied, the banding should seat snugly against both ends of the routed slot.
3. If you are planning to use a miter joint for the banding. Cut the banding slightly oversized and use a 45 degree shooting board to trim it to length.
4. One option that doesn't use a miter joint is to put squares of a contrasting wood in each corner. This means all banding cuts are made at 90 degrees vs the mitered 45 degrees.
5. Be careful that the banding patterned is centered in each slot so the two adjacent bands meat in the corner at the same spot in the pattern. Also make sure the banding pattern is mirrored on the opposite edge.
6. The banding should be dry fitted first and then glued once everything fits perfectly.
7. The banding should be slightly proud of the surface. Bing is flush using a card scraper or by sanding.

Any small gaps should be fill with the appropriate wood or wood filler and sanded flush.


Full Size Patters
For 1/4" router bit
and 1/2" collar.
Inside Loop
Corner Loop
Celtic Knot


Corner Loop
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