

Making A Single Twist by Hand

By Jerry Markowitz

The techniques described in this article, which were demonstrated at last month's meeting, are largely derived from Stuart Mortimer's excellent book "Techniques of Spiral Work – A Practical Guide to the Craft of Making Twist by Hand". **Please refer to Stuart's book for a very detailed step by step description of making not only the single twist but all types of twist and for a very good explanation of all the terms related to marking out the twist.**

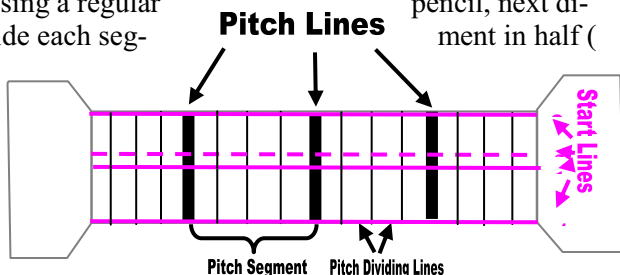
The steps below are used to make a 9" *single right hand twist with a 1 1/2" pitch*. The 9" refers to the length of the area to be twisted, right hand refers to the fact that the twist will spiral around the finished piece in a clockwise fashion. A 1 1/2" pitch is the distance between the top of one bead (or bine) to the next.

To facilitate the cutting of the twist the first step is to mark out your workpiece. Starting with a 16" long by 1 3/4" piece of wood, turn the middle 10" to a 1 1/2" cylinder, leaving the ends square.

Using the square ends as a guide, mark a line from each square end from the headstock to the tailstock. You now have divided the piece into four equal horizontal sections. Number these lines, on the tailstock end from 1 to 4 in a clockwise direction. These are known as **Start Lines**.

Using a black colored pencil mark out the middle 9" part of the wood as follows: divide into equal 3" sections, divide each section in half making equal 1 1/2" sections – know as **Pitch Lines**.

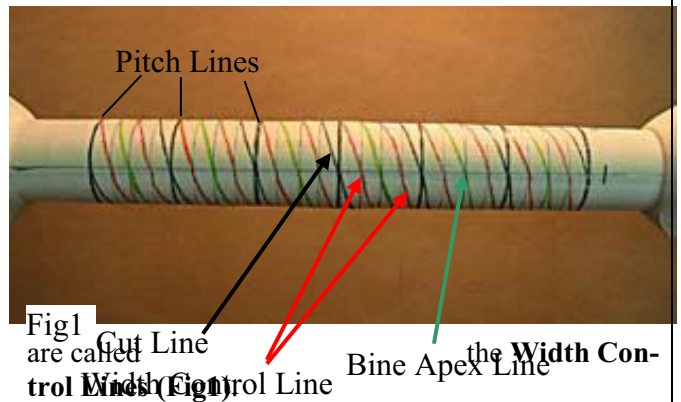
Using a regular pencil, next divide each segment in half (3/4"), then in half again (3/8"). You will now have 24 equal sections, know as Pitch Dividing Lines. These lines will guide you in making out the Cut, Bine Apex, and Width Control Lines discussed next.



Using a heavy black colored pencil, begin at Start Line 1 (tailstock end) and mark the segment diagonally from right to left clockwise around the blank towards the line 2, then 3, then 4 along the full length of blank. This line is known as the **Cut Line** and will be where the cove or hollow part of the twist will be formed.

Beginning at Start Line 3 with a green colored pencil mark in the same manner as you did the Cut Line. This line is known as the **Bine Apex Line** and represents the "bead" of twist.

Repeat the marking process, starting at Start Line 2 then 4 with a red colored pencil. These lines show you the width of the bine and hollow of the twist and



You have now fully marked out the twist. Using a tenon saw, marked with a piece of tape at a cut depth



Fig2 1/4"- beginning at the **Cut Line** on the tailstock end, saw to the depth of the tape. Proceed along the **Cut Line** holding the saw in your right hand while slowly rocking and turning the wood with your left hand – cutting one pitch segment at a time until you have gone along the entire twist (Fig2)



Fig3

Next using a “twisting gouge” held with the flute at about a 45 degree. angle and with the tool rest below center , starting just to the left of your sawed cut, slowly turn the workpiece with your left hand and “feed” the gouge into the work. You should be able to get a nice 1/8” shaving. Proceed all the way around to the headstock end. Repeat process again taking a



Fig4

cut just to left of the previous cut and slightly deeper.

Repeat again until you have cut a roughly 3/8” half cove from the **Width Control Line** (red line) down

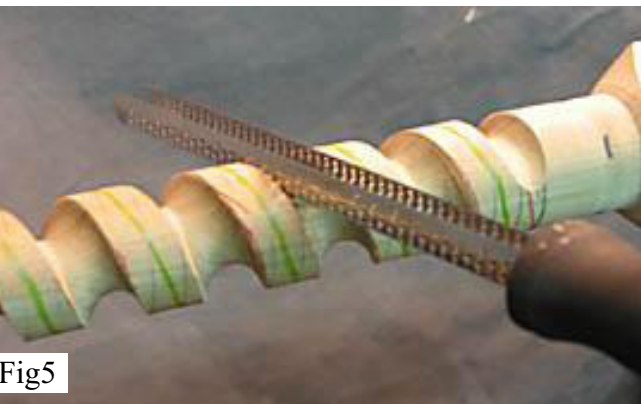


Fig5

to your sawed line. Flip your workpiece end for end

and repeat the process cutting the other half of the hollow. Your piece should now look like figure 4 .



Fig6

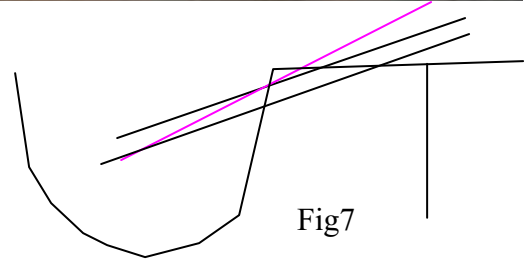


Fig7

To clean up the hollow a ½” half-round Microplane file is used (Fig 5). Take care not to go past the red Width Control Lines.

To round the Bines a 3” block plane is used. Start on the left side of the squared edged bine and using a similar rocking motions as used with the tenon saw proceed to round the bine to the headstock end. (see Fig 6). Take three passes to round the bine (Fig 7) . Do not take off the green **Bine Apex Line**.

With a flat microplane or rasp refine the shape of the bine.

Wrap a piece of sandpaper (60-80 grit) around a dowel or ½ piece of wood that has been round over and smooth out the hollow being careful not to ruin the shape of the rounded bine. Next with a 4” x 4” piece of sandpaper held between your index finger and pinky and shaped to conform to the bine and hollow of you workpiece slowly turn on the lathe and sand along the entire twist. Finally with a 4 x 1 ½ “ piece of sandpaper finish round out the bine. Repeat the sanding with the require grits to 320 – 400.

Happy Twisting!!!