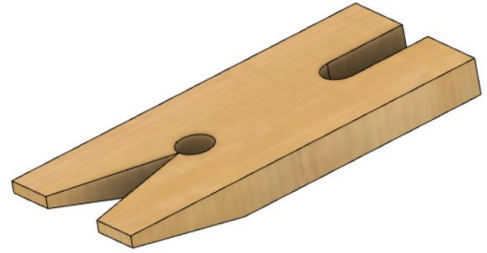


Making a Jewelry Maker's Bench Pin

What? Why?

A 'bench pin' is a commonly used tool in jewelry making. Generally used to support a workpiece when sawing, these invaluable tools can be purchased from many suppliers at various price points. Thankfully this tool can also be made both cheaply and easily. The following procedure will walk you through the steps required to make your own.

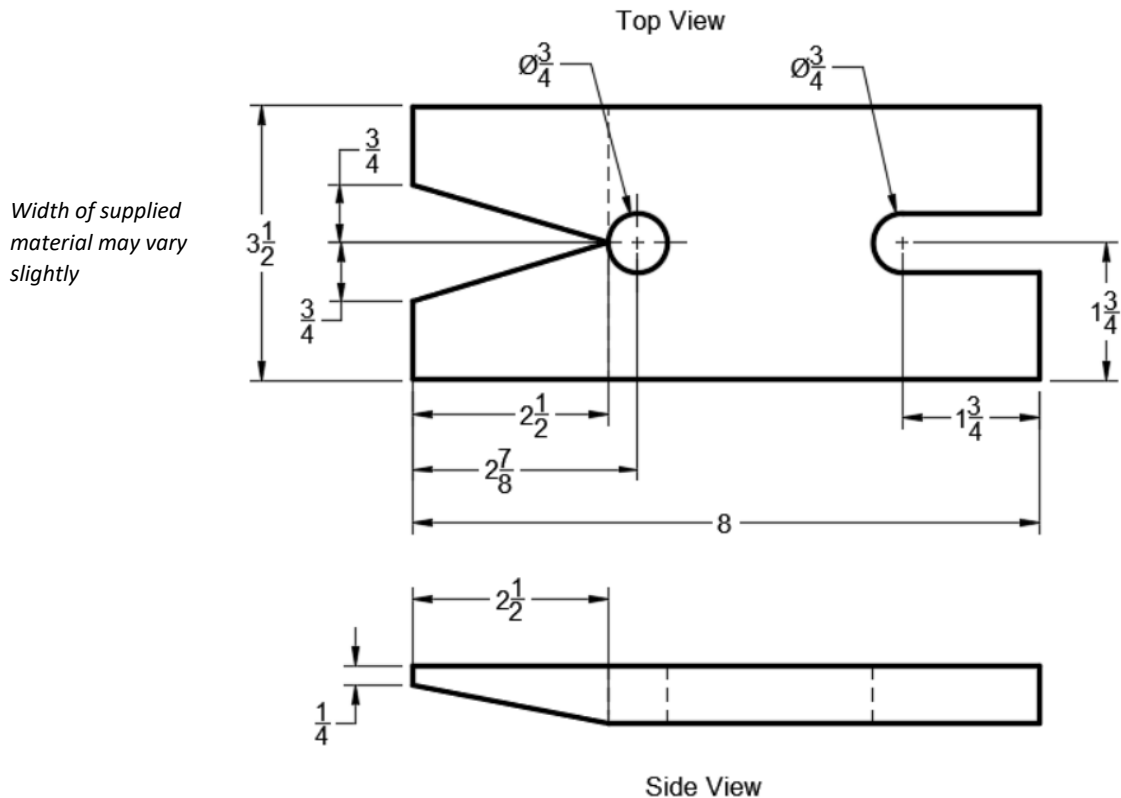



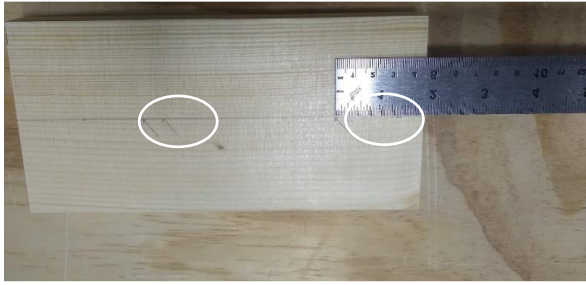

Grading

This is a graded activity and it will not only produce a useful product but will also present the opportunity to work to a degree of accuracy and care necessary to produce a high-quality product, developing skills that will extend to all things made in this course!

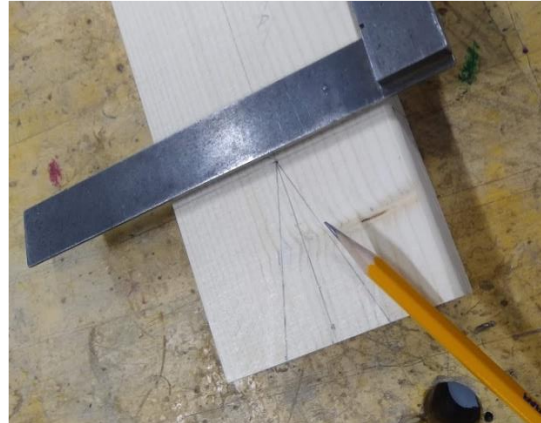
Procedure

1. Obtain a precut length of material from your teacher
2. Refer to this drawing by when completing the steps that follow



<p>3. Create a centre line:</p> <ul style="list-style-type: none">• At one end of the board, use a steel scale to measure from the edge and mark the centre. <p>Confirm centre by measuring to this line from the other edge of the board.</p> <ul style="list-style-type: none">• Repeat at the other end• Use the two marks and the steel scale to create a centre line on the face of the board.	
<p>4. Mark locations:</p> <ul style="list-style-type: none">• Use the provided diagram and a steel scale to mark 3 points along the centre line at the distances specified	
<p>5. Create V-notch lines:</p> <ul style="list-style-type: none">• At one end of the workpiece, measure from the centre line toward the board's edge the distance specified• Repeat toward opposite edge• Use a steel scale to connect marks made with the appropriate centre line mark	

6. Use a 'try square' to create a line across the face of the board at the $2\frac{1}{2}$ " mark you made in step #3. Then 'square this line down the edge of the board.



7. On the edge of the board, make a mark at the end that the $2\frac{1}{2}$ " mark in step #3 was measured from, $\frac{1}{4}$ " down from the layout side of the board.



8. Connect the marks made in steps #6 and #7 to form the angled line seen in the original drawing.



9. Have your teacher approve your layout **BEFORE** proceeding

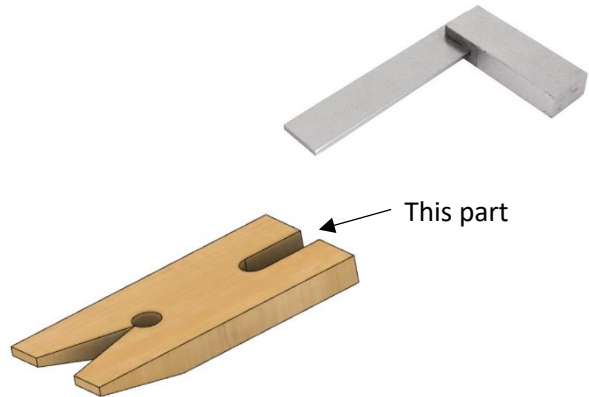


10. Drilling:

- At the **drill press**, use the correct size 'Forstner' drilling bit to both holes indicated on the drawing. Use a sacrificial backer board and clamp to prevent 'tear out' on the backside of the cut



11. Use a **try square** to 'square' lines from then end of the board tangent to the drilled hole that will form the notch.



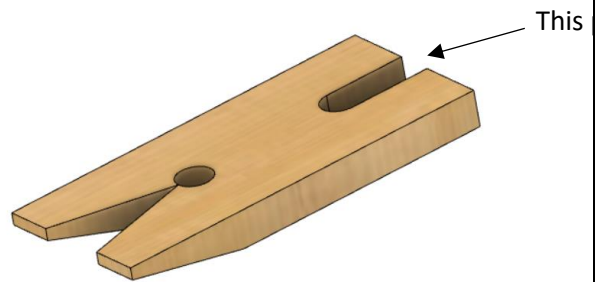
12. At the band saw cut the two lines that form the v-notch. Be sure to leave half of the line (do your best at least)



13. At the **band saw**, using a wooden parallel clamp to ensure your hands remain clear, cut the angled face.



14. At the **band saw**, cut the lines that form the notch (end opposite the v-notch)



15. At the **down draft table** Block sand all surface smooth/flat, first with 80 grit paper, then 120. Be sure to remove all machining marks.



Use the **laser engraver** to engrave your name on your bench pin