

# Making Hinkley Hinges with a Preac<sup>TM</sup> table saw

## Before starting:

✍✍ Select straight bamboo sticks.

✍✍ Cut several (I make 15-20) tenon blanks approx. 5.0-6.0 inches long.

- It is much easier to handle longer sticks and cut them off after, than it is to use finished length pieces.

✍✍ Use a blade thickness that is  $\frac{1}{3}$  the diameter of the Mast's.

✍✍ Round all the blank bamboo stock to the exact same diameter.

- This is extremely important when cutting the tenons.
- Failure to do this will not produce consistent thickness tenons.

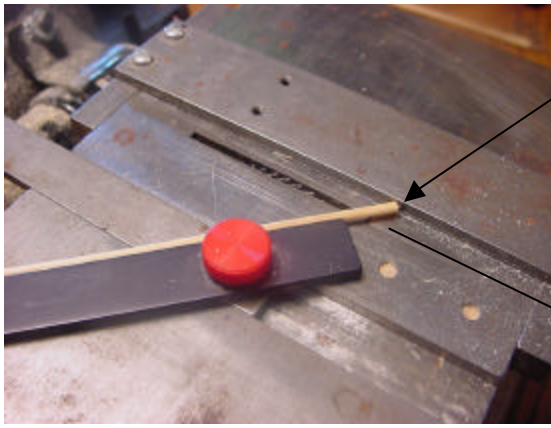
✍✍ Setting the “blade depth” and “fence stop” are trial and error.

- Several sacrificial pieces are required before they are right.

✍✍ It takes practice so don't get discouraged.

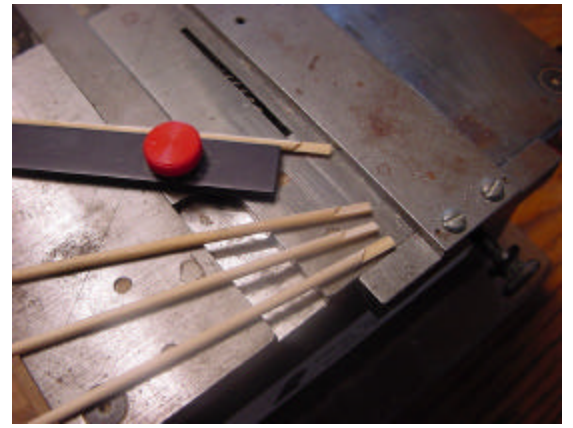
- I used to trash about 50% of my blanks when I started.
- Now I can make 20 good hinges in about 2 hours.

✍✍ Good luck and have fun.



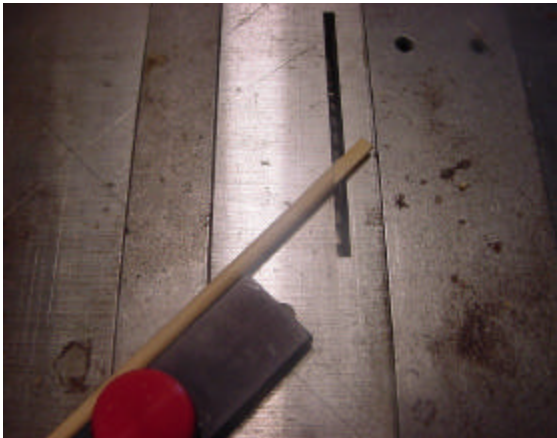
Run the mast blank through the blade several times (nibbling the bamboo off) until you have touched the fence.

0.30

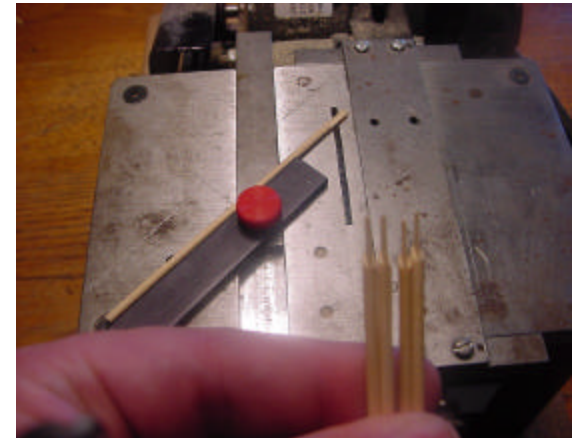


1. Set the depth of the blade so that it is 1/3 of the diameter of the mast. Set the "T" to 45°. Set the fence to approx. 0.30 inches from the blade.

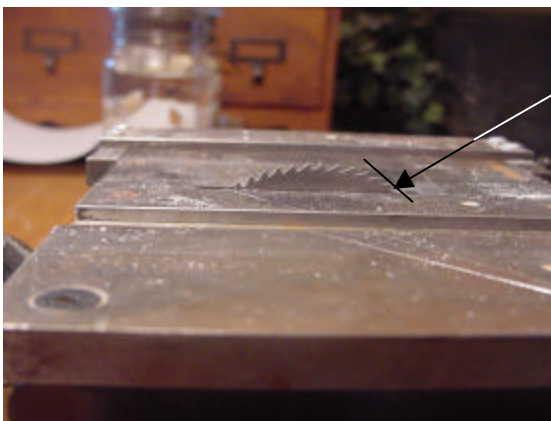
2. Repeat for all the mast blanks as shown



3. Change the angle of the "T" to -45°. Cut the other side of the tenon in the same manner as in steps 1 & 2.

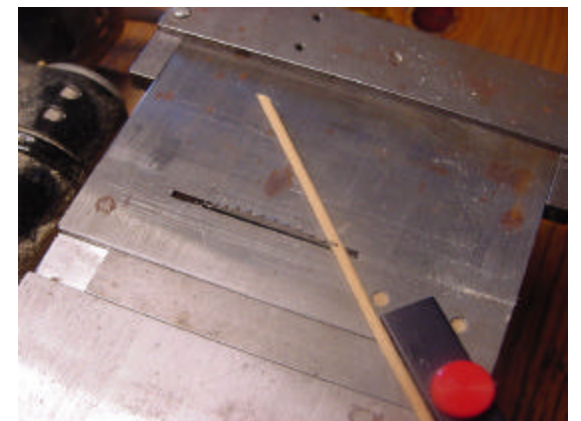


4. It is very important to keep the mast blanks from rotating while you are nibbling. If it rotates the tenon will not be parallel.

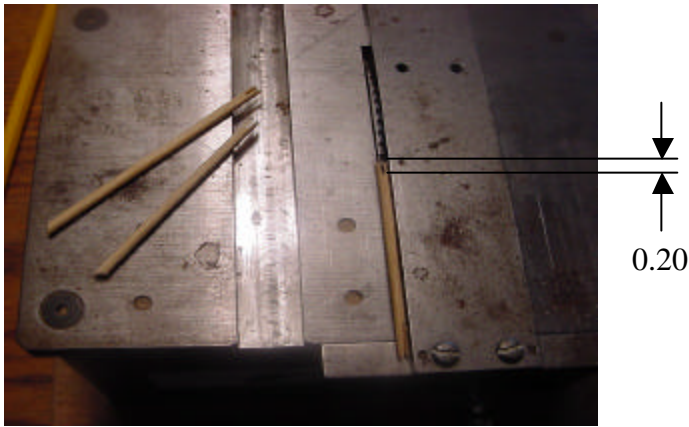


The blade curvature will cut an angle of approx. 45° for the groove in step 7.

5. Set the blade as high as it will go.



6. Cut several groove blanks at 45°. Cut as many blanks as you have tenon pieces.



7. Set the fence to exactly cut down the middle of the blanks. Cut the groove with the 45° pointing up. Stop at approx. 0.20. I put a pencil line on the fence at that distance.



8. Cut the tenon, a little long, at 45° as shown.



9. Fit the two pieces together to see how much you need to trim. Trim the tenon until you get a good tight joint.

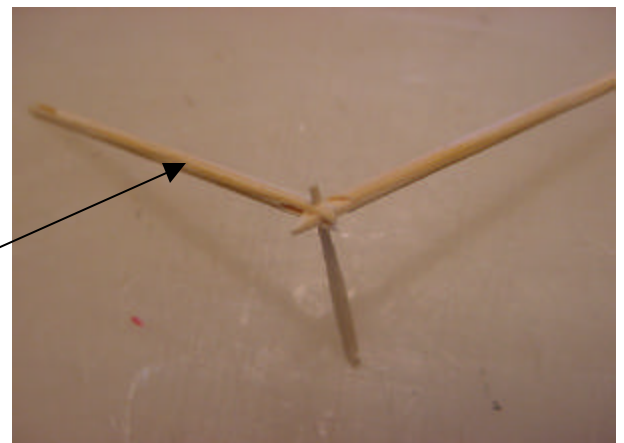


10. Hold the two pieces as tightly as you can while drilling a hole for the pivot pin. The diameter of the hole should be approx. 1/3 that of the masts' diameter.



11. Carve the end of a piece of bamboo so it is round and the same diameter as the hole.

Excess to be trimmed in step 15.



12. Open the hinge to see if the pin is too loose. The pin should fit snugly so carve another if it fits loosely.

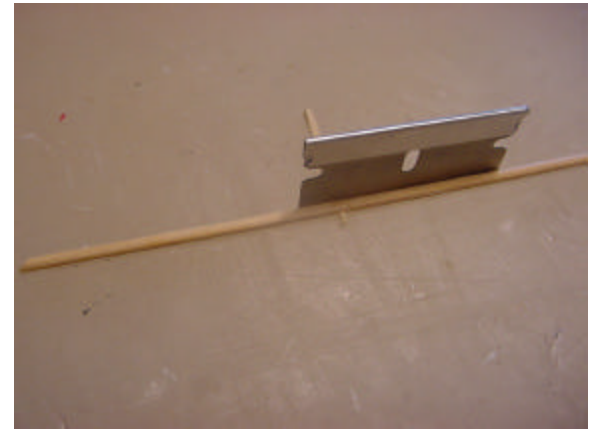


Needle with a small amount of super glue.

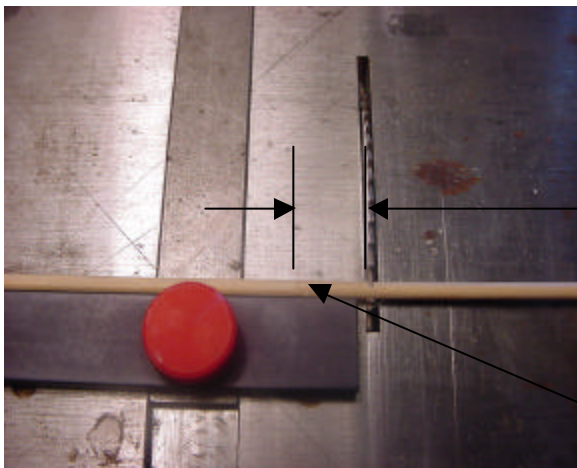
Dip the needle in a couple of drops of super glue on the cutting board.

13. Apply a small amount of super glue to the Pivot pin using a needle as an applicator.

**Important: Keep opening and closing the hinge until all the super glue dries!**



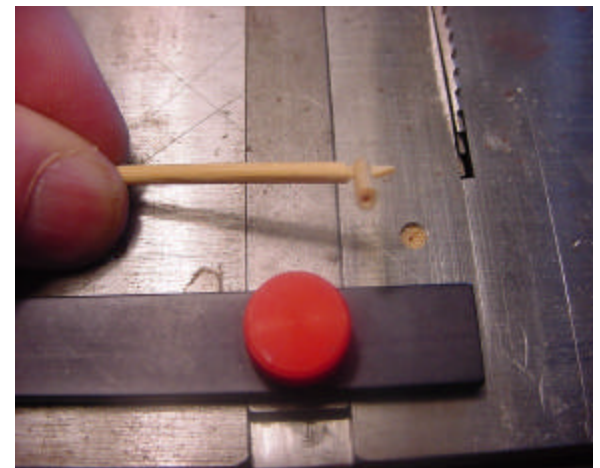
14. Cut the excess pivot pin off with a razor blade. Sand smooth



Approx. 0.38

Pivot pin

15. Cut the mast off approx. 0.38 from the pivot pin. Cut the other side to length per the plans.



16. Drill a hole in the bottom of the mast. Be careful not to drill through into the tenon.



17. Taper the mast using a Dremel and fine grit (220) sandpaper.



18. Finished Hinkley hinge masts.