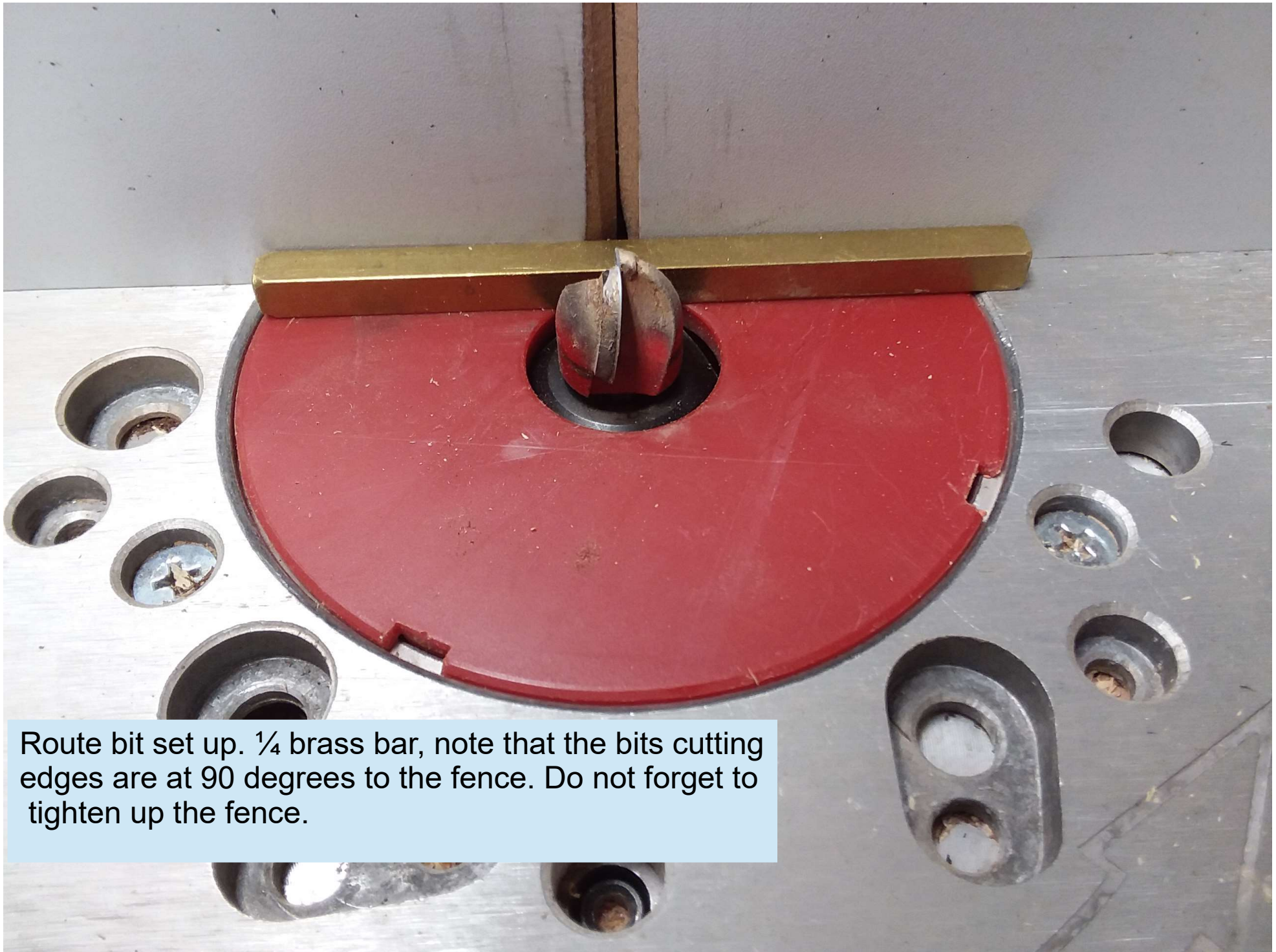
A photograph of a wooden board, likely a piece of plywood or a similar material, with several dark lines drawn across its surface. The lines form a grid-like pattern, dividing the board into sections. The text labels are placed within these sections. The board is light-colored with a visible wood grain. The background is dark and out of focus.

4 in slow air chamber


$\frac{3}{4}$ inch
plug

1 inch
mouth
piece

Two flutes marked up with
the router stop lines.

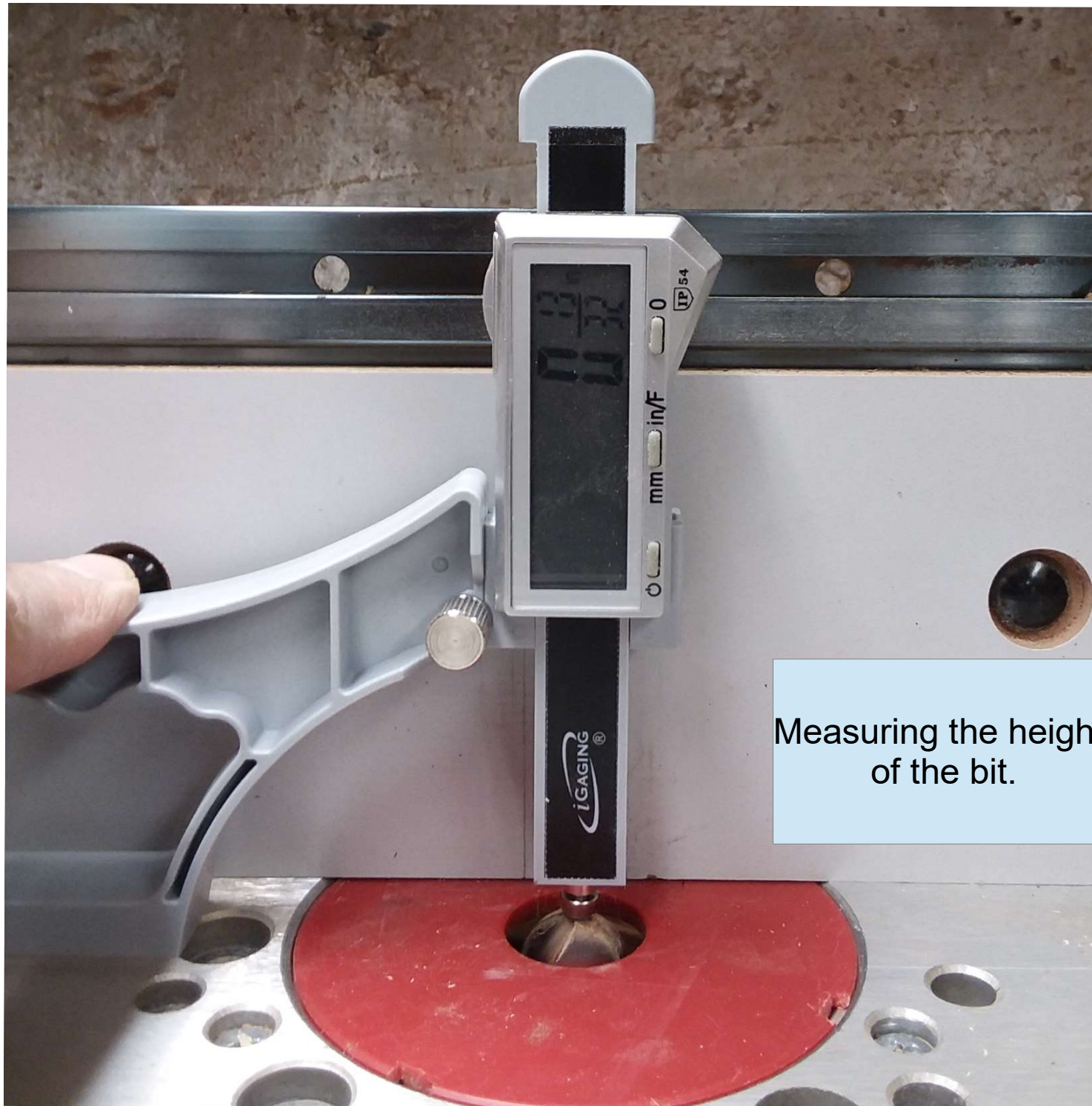


Route bit set up. $\frac{1}{4}$ brass bar, note that the bits cutting edges are at 90 degrees to the fence. Do not forget to tighten up the fence.



Use a square to
mark the edge of the
bits cutting edges on
the fence. Both
sides.

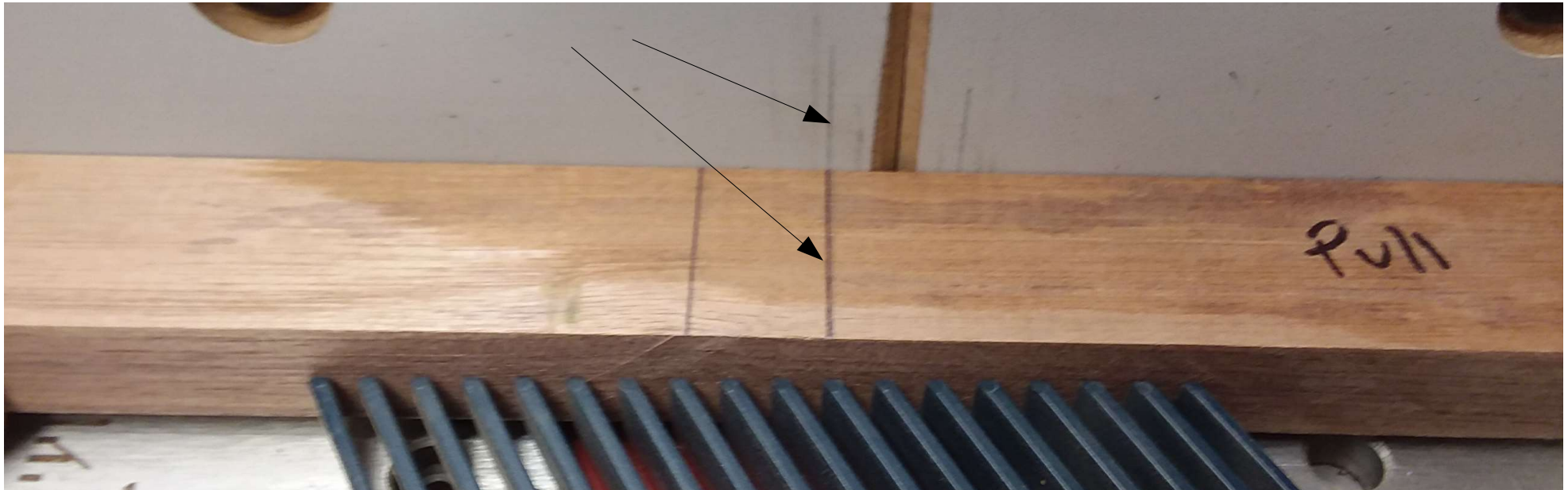




Measuring the height
of the bit.








Align the fence stop marks with the stop marks that you drew on the flute. Shown two places.





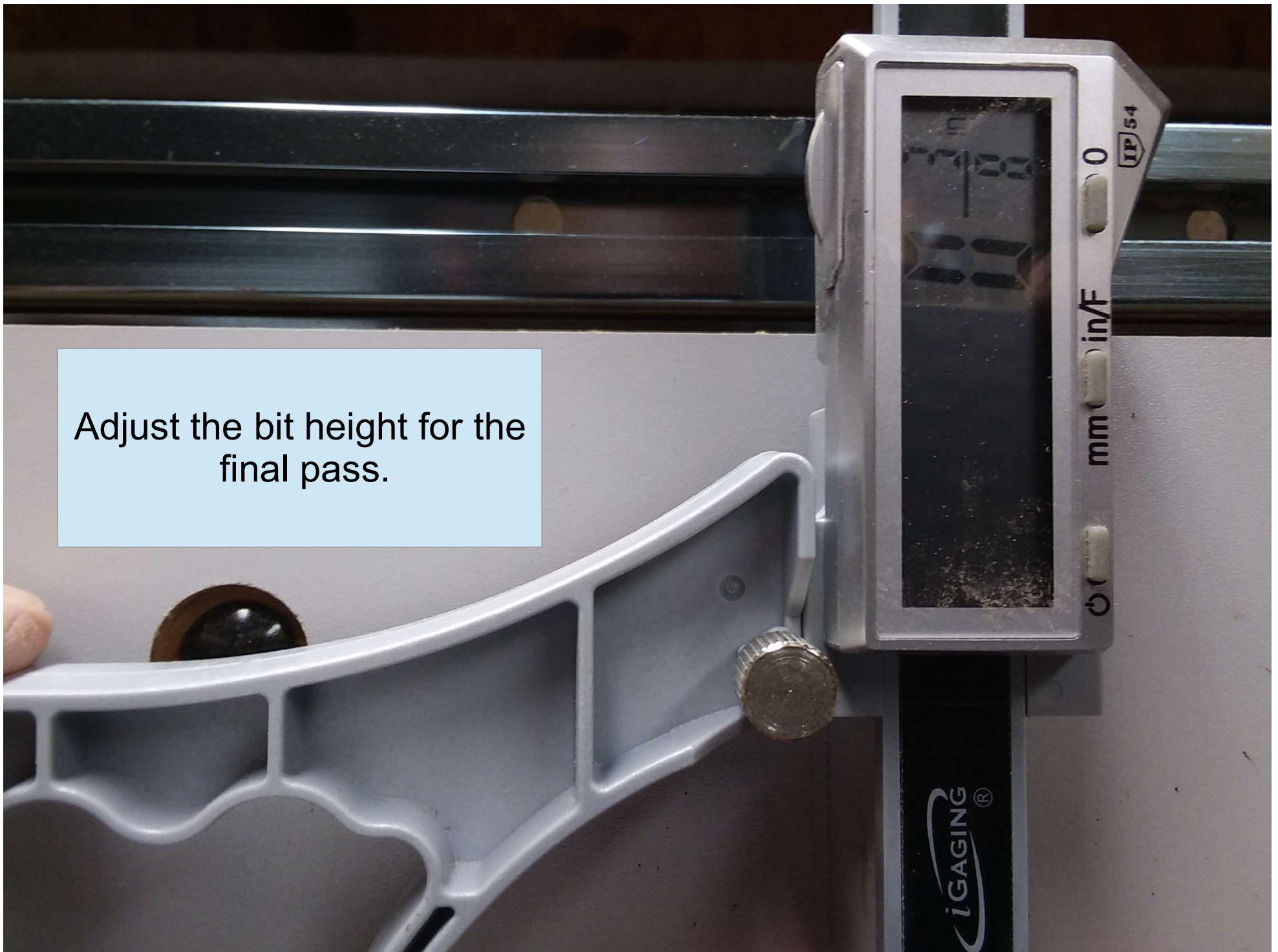
A little at a time.





Clean up before the final pass so it is as accurate as possible.

Adjust the bit height for the
final pass.

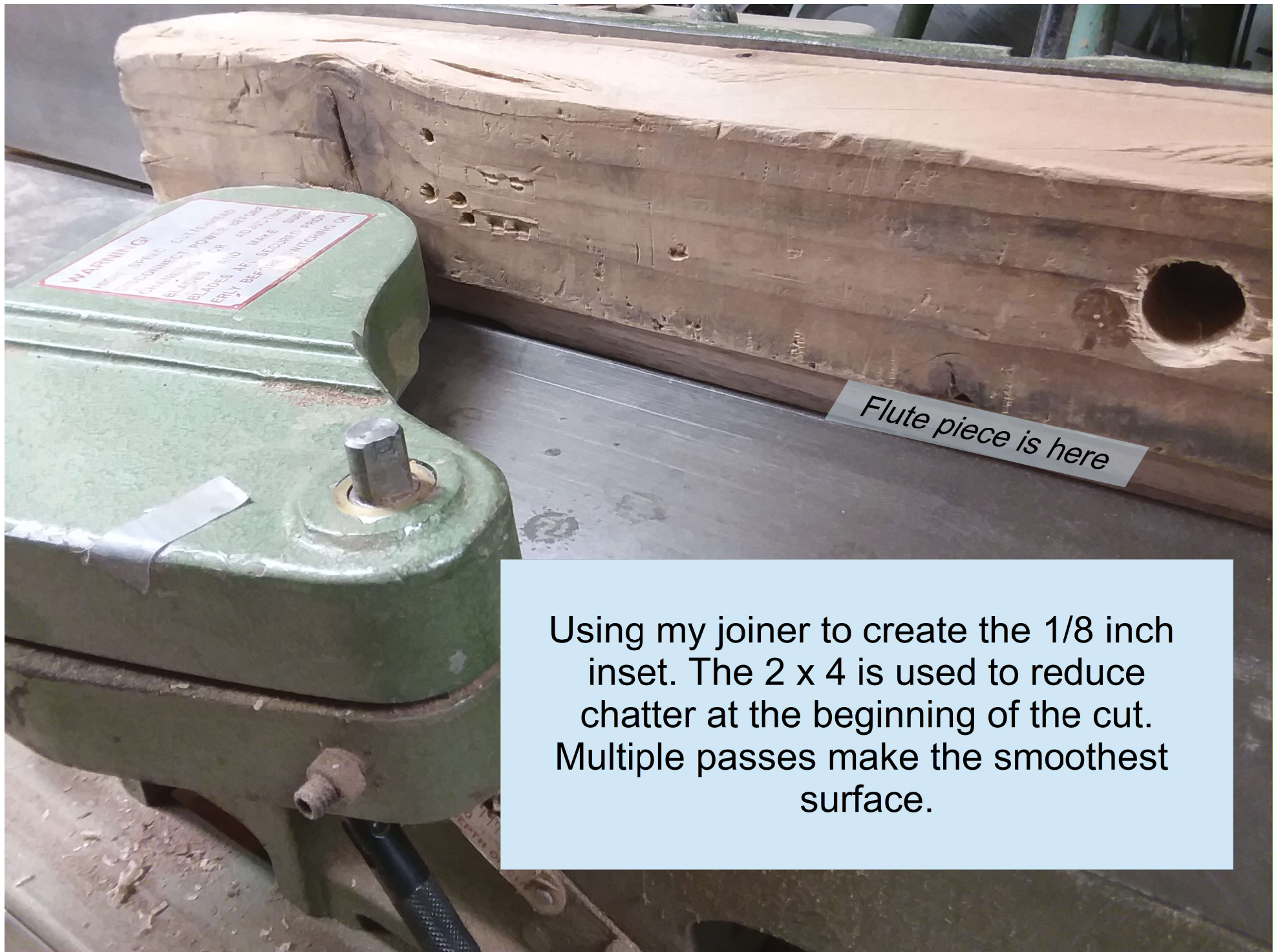




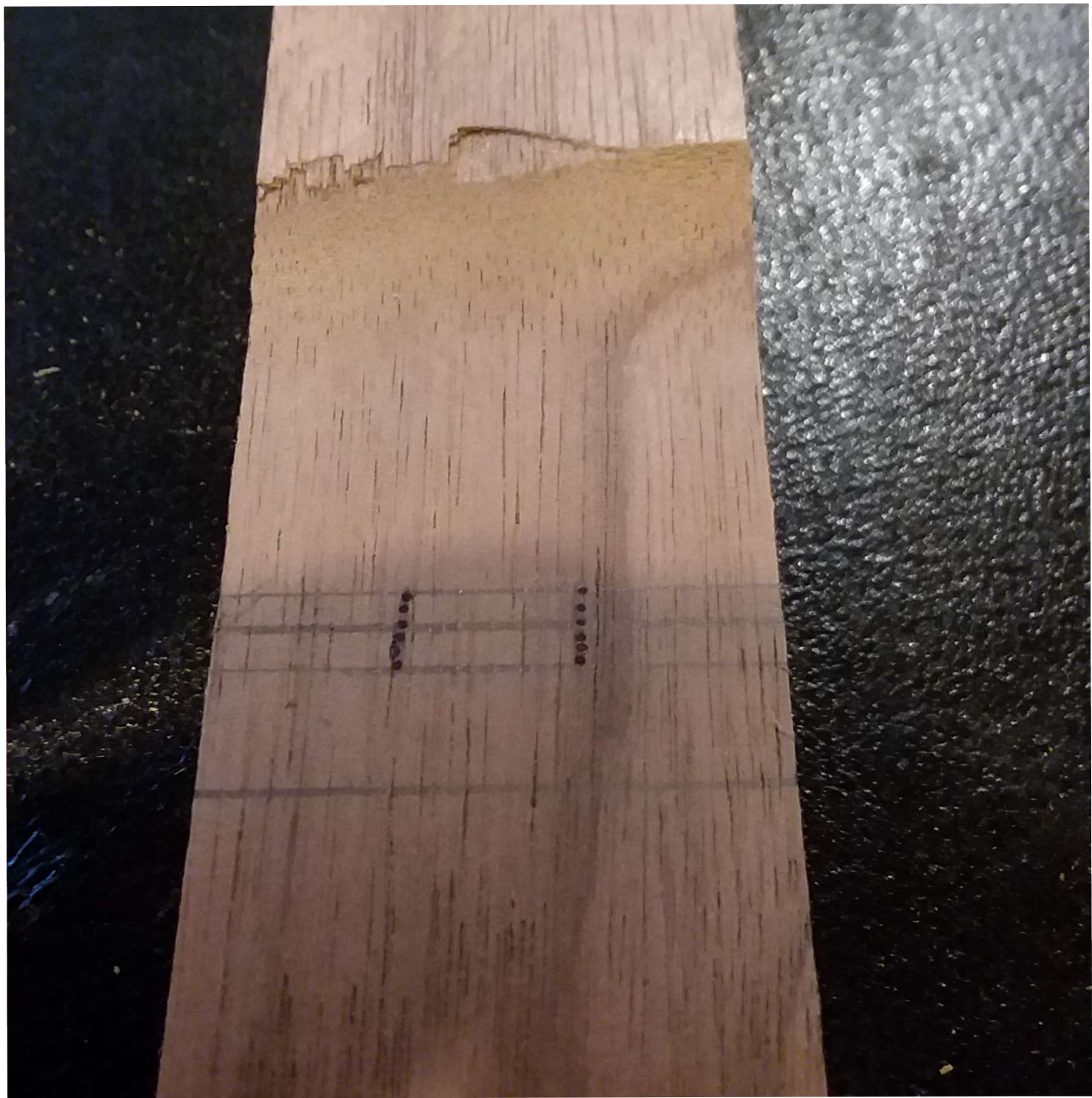
I still use my rule to
measure
the $\frac{3}{4}$ inch hole.



Measuring for the 3/8 inch
mouthpiece hole.

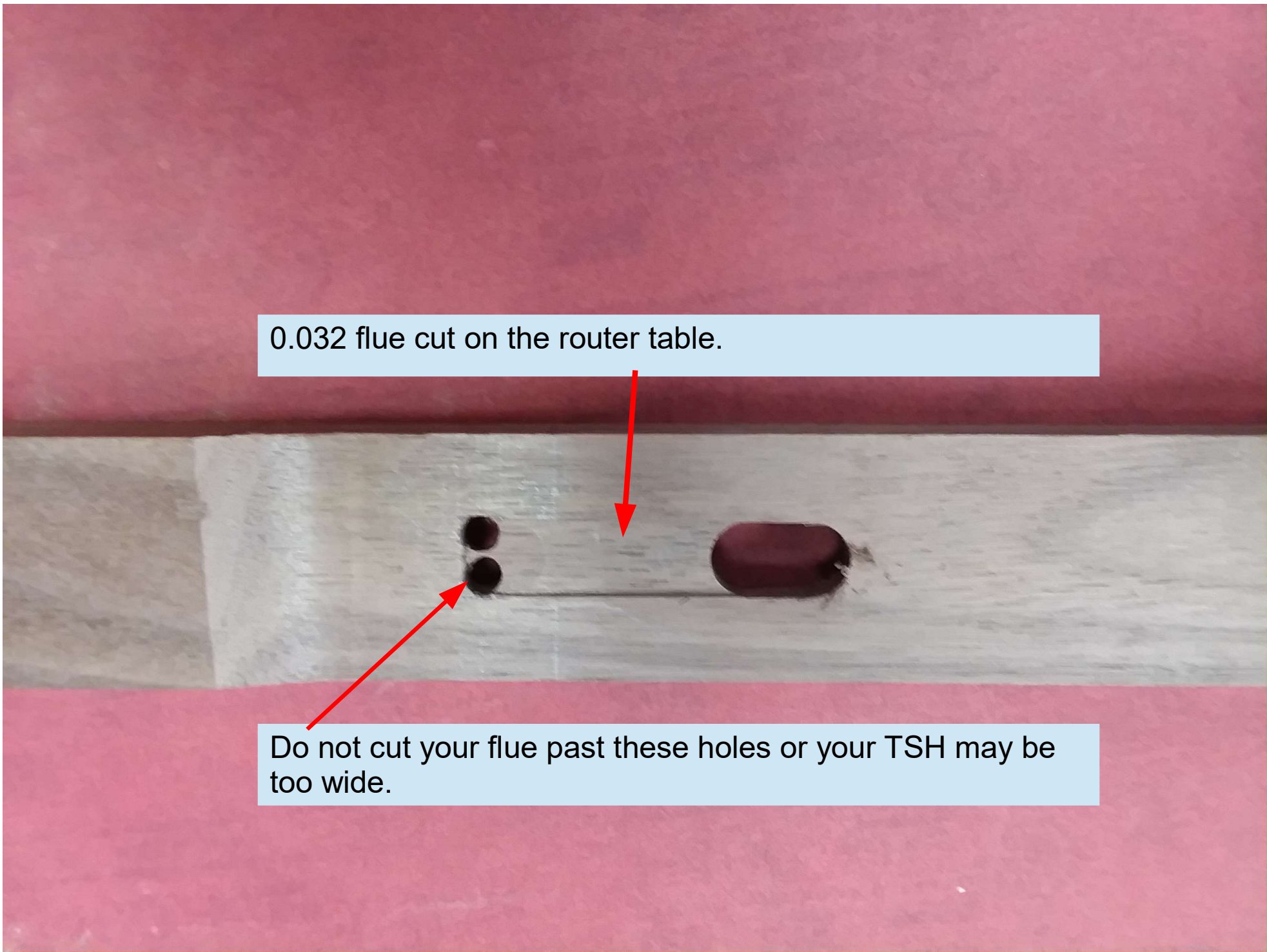


Using my joiner to create the 1/8 inch inset. The 2 x 4 is used to reduce chatter at the beginning of the cut. Multiple passes make the smoothest surface.





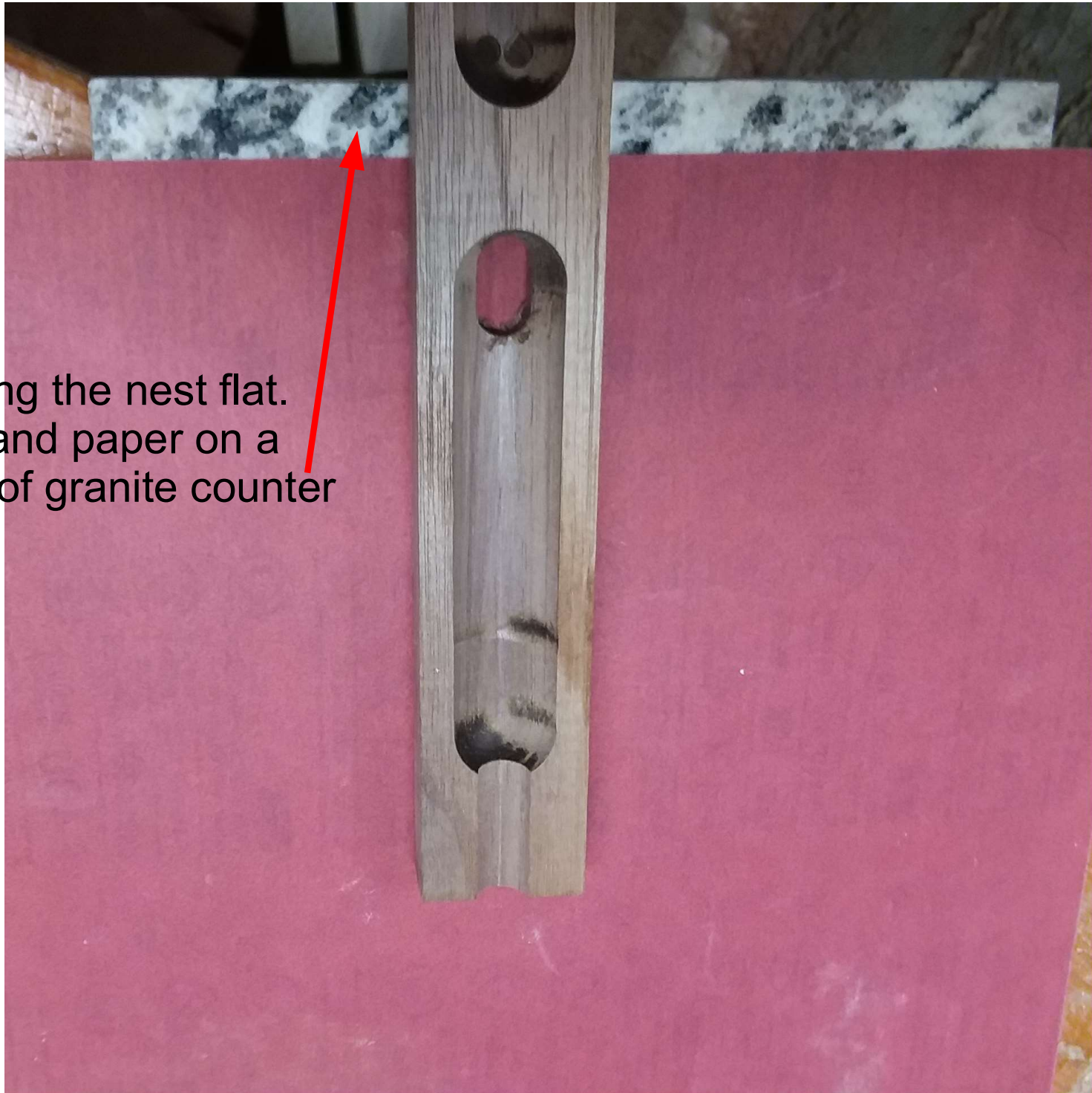




0.032 flue cut on the router table.

Do not cut your flue past these holes or your TSH may be too wide.

Sanding the nest flat.
220 sand paper on a
piece of granite counter
top.





Make sure the nest is flat. This mates with the bird, and you get less breath noise if there is a good seal.

I use of 220 sandpaper and a piece of counter top to flatten this area. You can put a light finish or pencil lines to see when you have flattened the nest.



HAND TOOL TIME

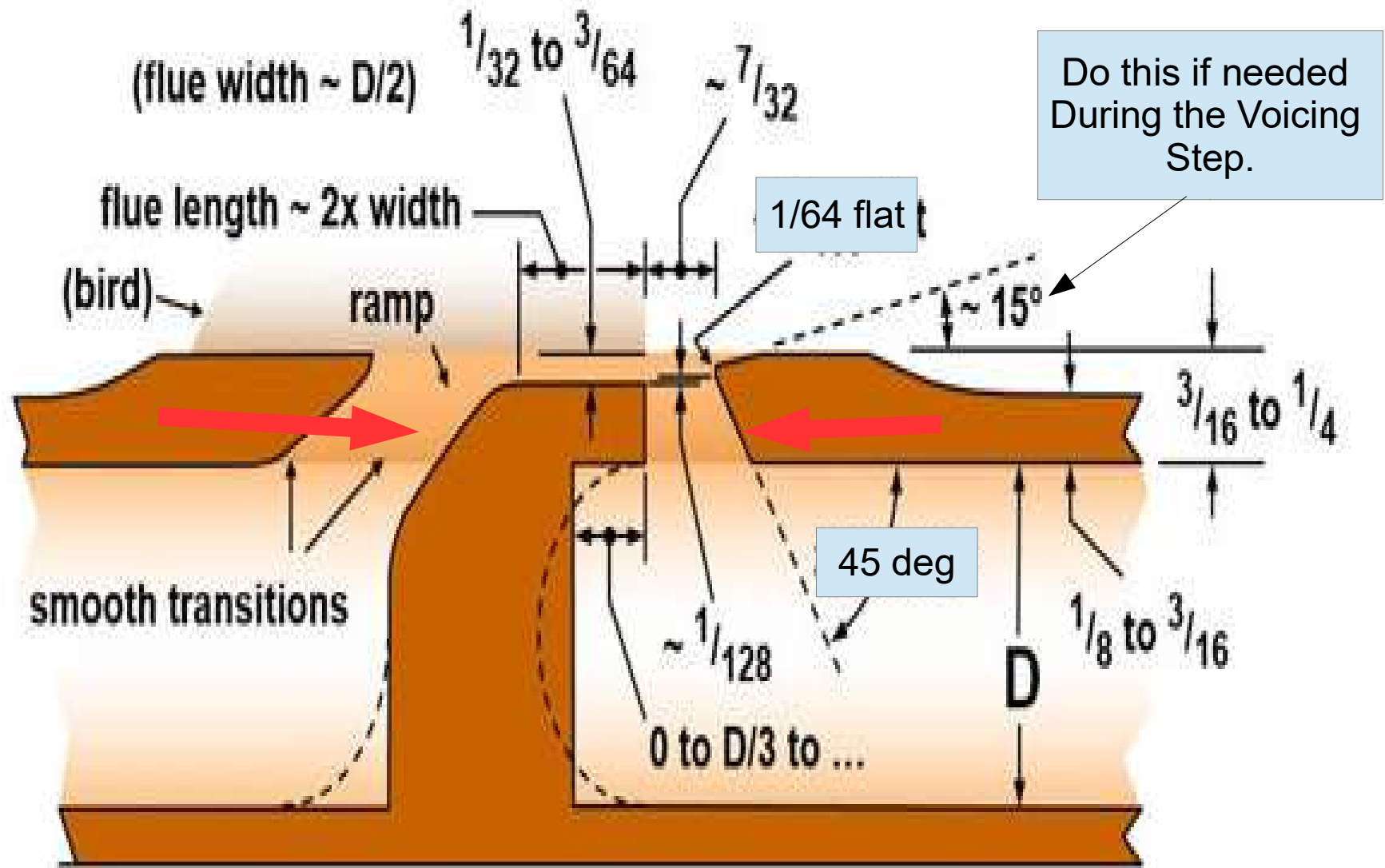
Rasp, files, maybe a wood chisel.



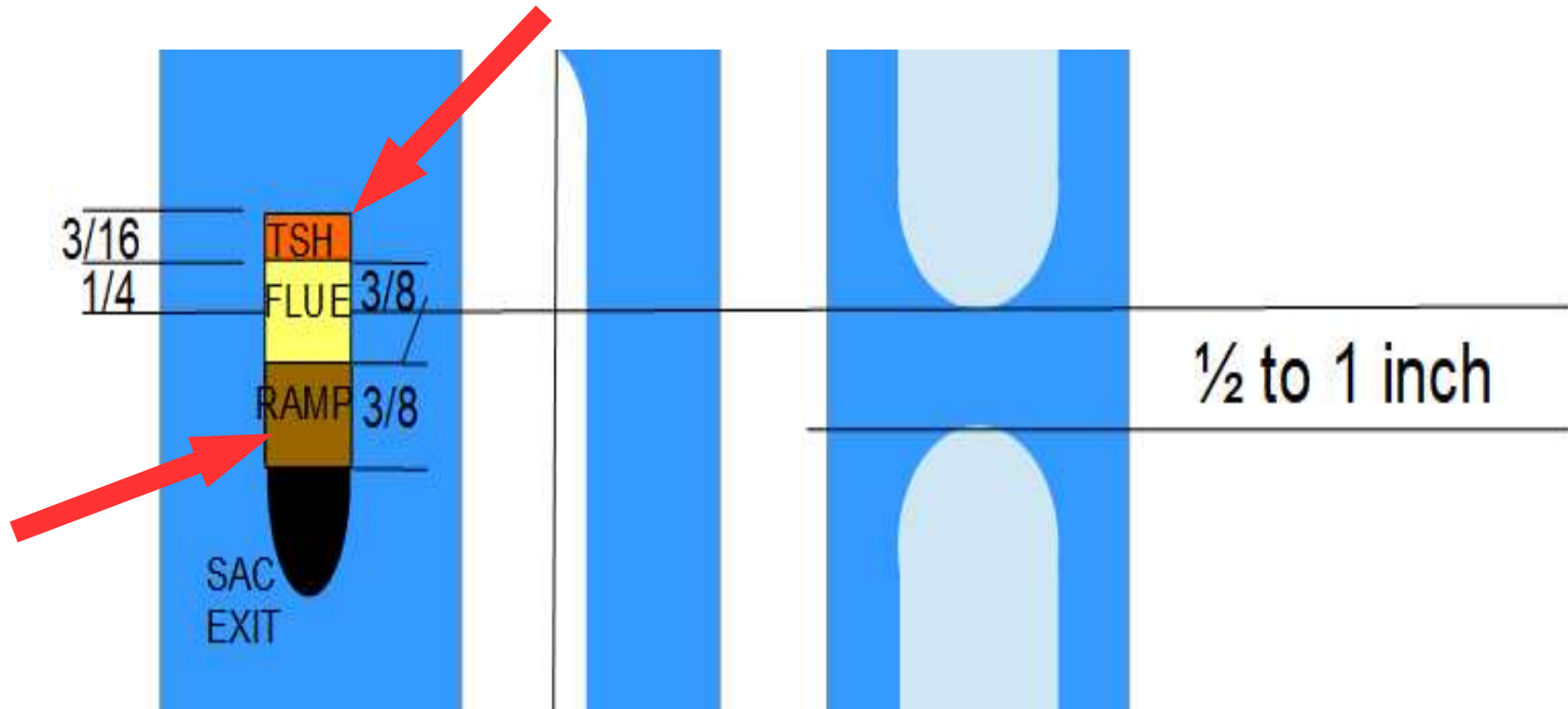
Favorite hand tools:

Auriou 14 grain needle wood rasp

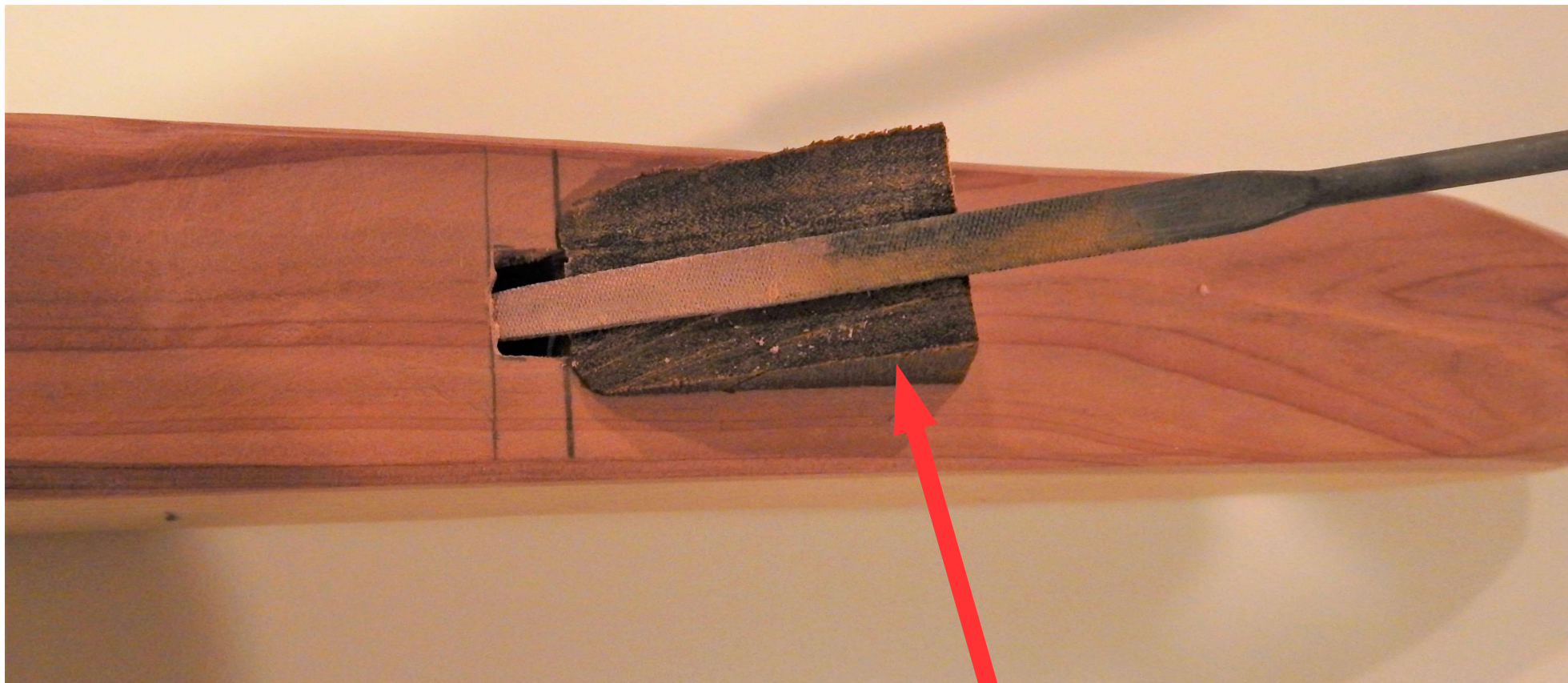
Nicholson fine file, B&C



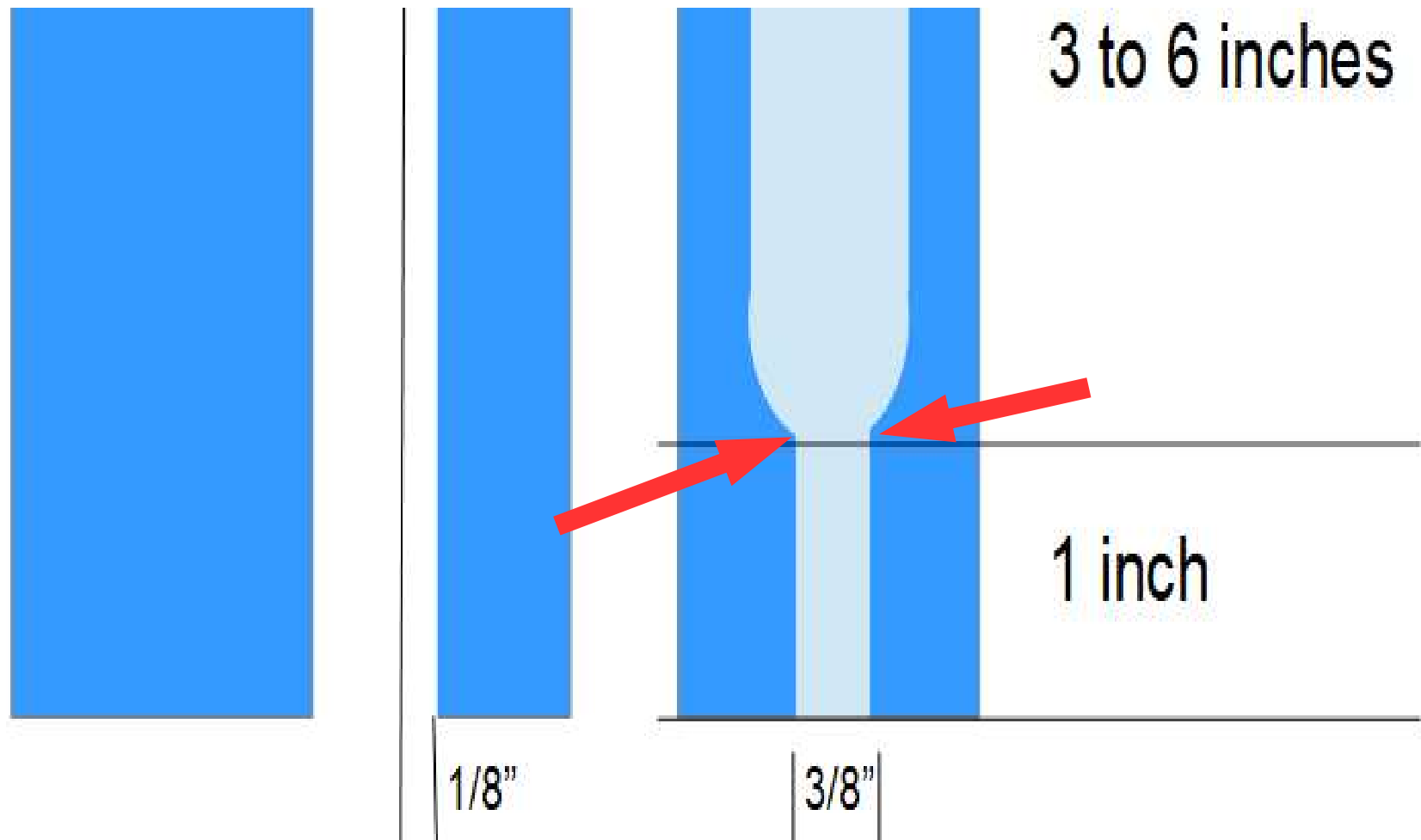
Using your hand tools shape the ramp, square up the TSH and make the 45 degree splitting edge. Everything should be symmetrical shaped and square. The smoother this area the smoother the sound of the flute will be.



Using your hand tools shape the ramp, square up the TSH and make the 45 degree splitting edge. Everything should be symmetrical shaped and square. The smoother this area is the smoother the sound of the flute will be.



45 deg block to guide
angle of splitting edge.
(old picture, I started out
with a 30 degree block)



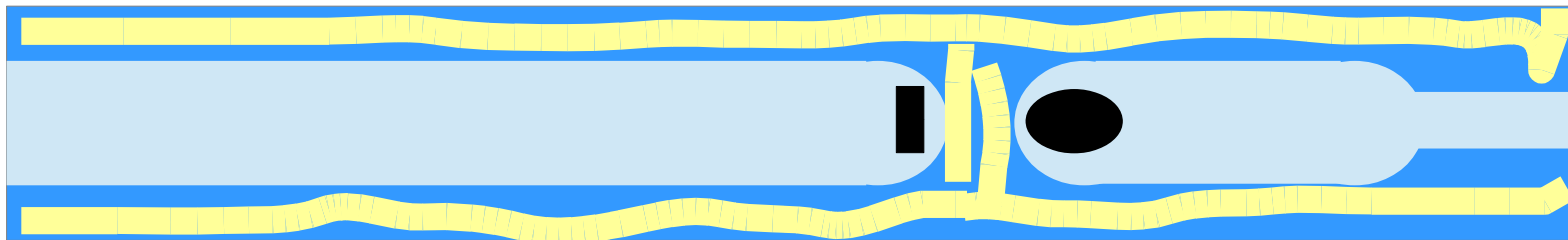
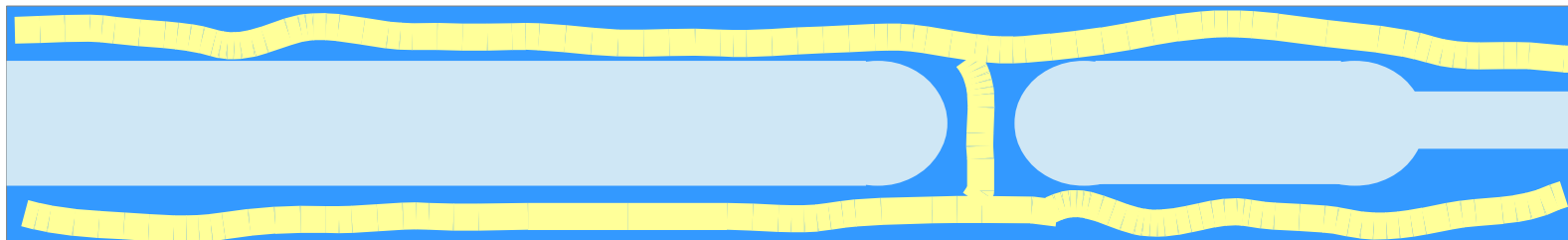
Round and smooth anything air may rush around.

On a flat surface rough up the glue surfaces with 220 sand paper.

Coat the light blue area with poly or lacquer. I use rub on poly. This allows for the removal of the glue.

Prepare clean up tools before gluing, see next slide.

I use Titebond III for glue. It is water proof. The SAC has to handle high moisture when the flute is being played.





Do not damage the flat nest with your clamps.
Use plastic or cover it with a board.
The Tool Shed for low cost clamps.

Still want to do a flute, but don't want to build it up this far?
How about Fluteblanks.com?
There are many other sites that will
provide flute blanks or flute kits.



Fluteblanks.com

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I use my router or table saw to create a hexagon on brittle or splintering wood and when I am trying out a new type of wood.



Barrel mount in the chuck.
And yes I made this on the lathe.

A close-up photograph of a wooden barrel mounted on the headstock of a lathe. The barrel is made of light-colored wood with a visible grain. It is secured to the metal headstock by a dark metal band. The background is dark and out of focus, showing some industrial equipment. A light blue rectangular box is overlaid at the bottom of the image, containing the text "Barrel mounted on the head stock." in black font.

Barrel mounted on the head stock.



Mouth piece fixture.
Yes, made on the lathe.

Mouth piece mounted on the tail stock.

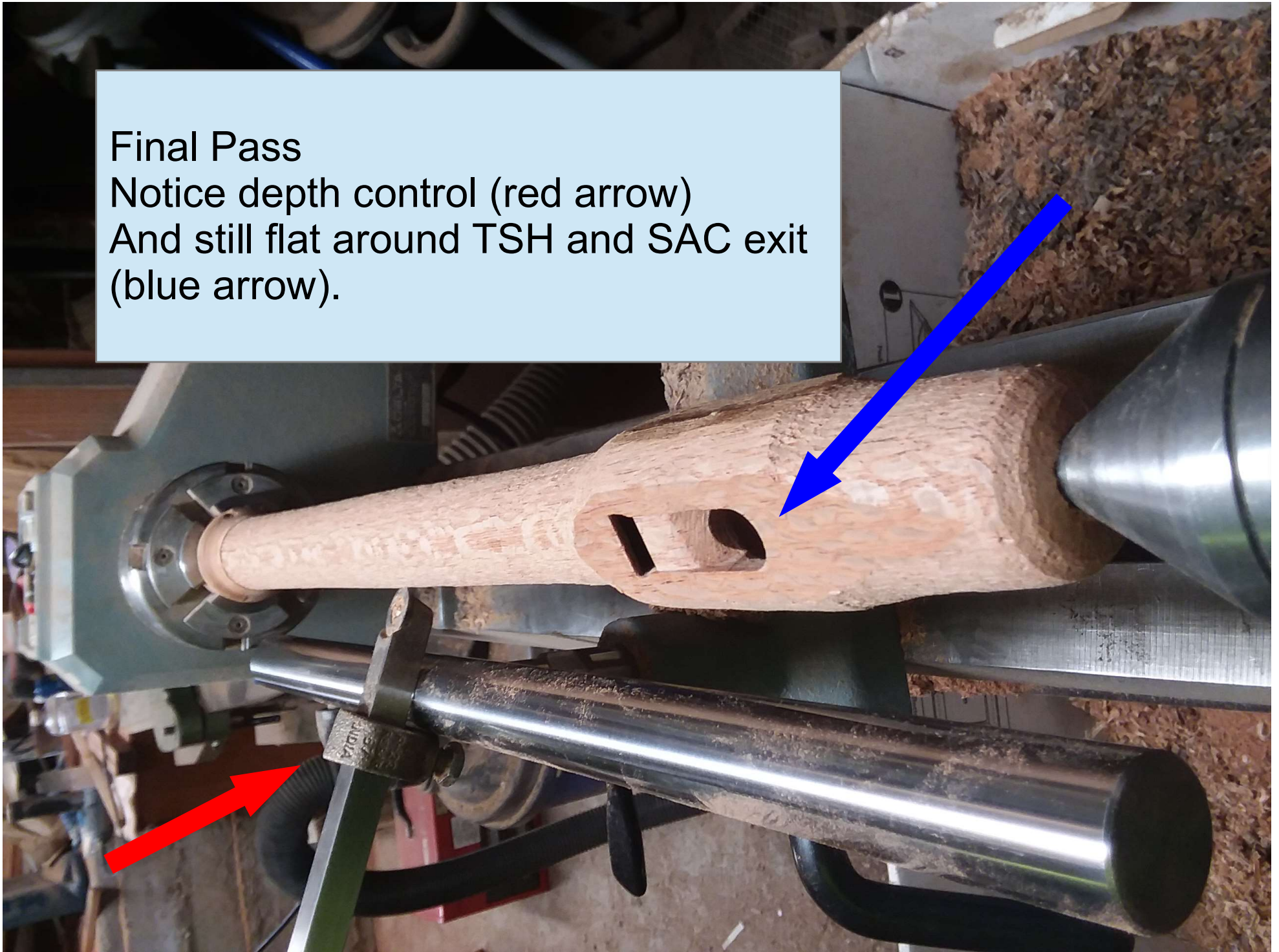


A photograph of a wooden barrel blank mounted on a lathe. The blank is a long, cylindrical piece of light-colored wood with a rectangular slot cut into its side. It is held in place by a metal chuck on the left and a tailstock on the right. A large pile of wood shavings is visible in the background, and a metal tool rest is positioned in front of the blank. The scene is set in a workshop with various tools and equipment visible.

Ready for turning.

If possible we would like the barrel thickness to be between $\frac{1}{4}$ and $\frac{3}{16}$ of an Inch.

Final Pass
Notice depth control (red arrow)
And still flat around TSH and SAC exit
(blue arrow).



Close-up of the TSH and the SAC exit.
Notice that I did not round off the nest area.



Sanded and first coat of Poly.

I use 100,220,320 and sometimes 400 grit sand paper.
I will sand with the lathe running and then sand
along the grain to remove any circular marks
using the same sand paper.



Flute is built
Ready for Voicing
Then finishing and Tuning.