

# Straighter Strips in 30 Days

Article and photos by Bob Maulucci

I find myself making a lot of quads nowadays, and I will be the first one to say they are a pain to get straight, since they are all twice as thick across the flats as a hex rod would be. For example, let's say a normal quad butt is .320+ across the flats. That is a big strip to straighten. Heat is not always a viable solution.

I got some great ideas from Chris Bogart and Max Satoh during their demonstrations at Grayrock. When I returned home, I wanted to have some time to put these ideas to work. I was looking on my bench, and I saw some square balsa wood dowels that I had lying around from a school science project I helped the kids on. We designed a bridge. I thought, wouldn't it be nice to have perfect bamboo square strips before trying to plane a rod out of them? I went out and bought a thickness planer and some wood.

Anyway...

1. I split out 8 strips for the butts and 16 for tips using the 8 way Hida splitter I have. For the tips, I use a froe and Bob Nunley's hand held splitting technique. Could I get more strips? Sure. But I have decided that it is easier for me to try to work with bigger strips than to hope my strips are big enough after the following procedure. Cane is cheaper than any part of my building process.

2. I sand off the nodes, and I run the strips through the thickness planer to get the pith side flat.

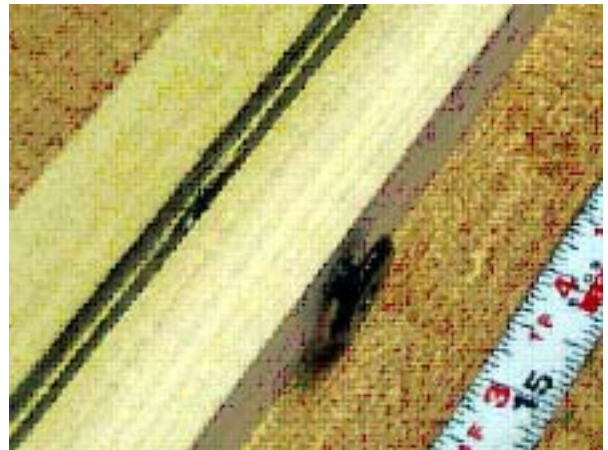
3. I made a 5' form with 4 adjustable screws. They are a 1.5 by 1.5" piece of maple cut into two pieces. Looks like a wooden form with no groove. Very much like Max's "Slash" jig, but with no angle, just a straight cut between the two sides. The screws are 1/4" #20 and fit into little metal inserts that fit in one side of the form. I ran the form through the thickness planer to get it so that there was about 3/8" from the screws to the top of the form. I slip a piece of cane between the two sides of the form so that the strip rests on the screws. I tighten the screws so the strip is rather flush to the sides. The strip protrudes out of the top just a bit. I then run the strips in the form through my thickness planer, but you could use a bench plane or block plane as well.

After a few passes, you get a strip that is a nice 90° to the enamel side all the way down the strip. You are



Photos (from top to bottom):

Delta 12.5" planer; 5' long poplar forms for squaring the initial strips edges; bolt, insert, and support lip on inside of forms.

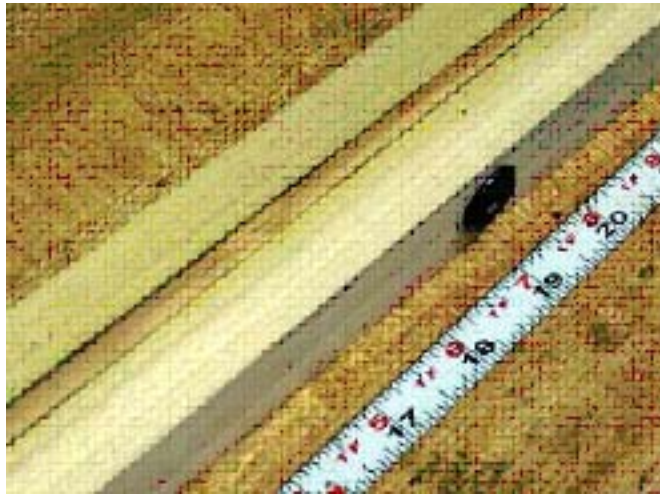


not going to cut across many fibers; the strip is still pretty crooked because it pushes down into the form as it passes through the planer. 4. Then I run the strip through my JW Beveller (essentially the same as Al Medved's wonderful design) using the squaring block. I cut the other side of the strip down closer towards final dimensions. I stop at about .040" over sized (from the butt end dimensions) just to have room for error.

5. Now, I have 8 or 16 perfectly square strips. Because I have taken passes over the node edges, they straighten out a bit. I have hardly had to straighten the strips at the nodes since doing the above procedure. I heat the bends and twists and use Max's tamegi straightener to get the kinks out. It works super. I also use John Long's recreation of the Bill Waara node press for tough kinks at the nodes. You should make a tamegi and buy a Waar press. They are well worth the investment of time and money.

6. I bought some 4' long 1/2 by 1/2" steel angle stock from Home Depot. I bind the strips firmly to the angle stock and heat treat for 8 minutes at 375 degrees. The strips are now very straight, and I run them through the Medved beveller to put the rough angles in. (If I am doing a hex rod, I use Spavinaw Rod Company's wonderful straightening fixture after the 60\* are in the strips.) I would like to build a Smithwick design binder to do the strips in the fixture or angle stock. I will make it with a big through hole to accommodate the fixture. This will eliminate having to do it by hand. So what does this do? I get straighter strips. I have perfectly squared strips before putting any angles into the strip. I am not throwing the apex around planing down the strips because they are pretty close to the right width when they are square. The strips sit better in the beveller when I am roughing them out. The nodes need little or no straightening. The strips are big enough and a workable size, so that I can use a fixture to help get them straighter. I am not killing myself trying to get more strips out of a culm than I need.

Yes, there are some who will cry that there is some slight areas where run out occurs. See George Barnes upcoming new book to see what he says about this. Run out will happen no matter what you do to try to avoid it. It is really making better strips for me.



**Planed strip in form; squaring form for JW Beveller; "untouched" straight node; tamegi; waara node press.**

