FEATHER BOARD For Resawing

I have bought many dozens of feather boards, plastic, metal, some of wood and probably made more than I have bought.
This is the best one I have ever used and this one is handmade.

Here I am resawing some 3/8" AB plywood (the piece in the saw is just for show, I resaw 8' rips) to use for some radial work that I am doing. AB 3/8" (.375) plywood is actual .345" and I take out of the center (the cross grained layer) .130" with a 12" blade and leaves two pieces .105 thick. I wet this and it will easily for building radial handrails and all kinds of radial and bending jobs.

This is a lot easier on you and your table saw than trying to resaw a piece of solid wood 1/8"x3¼" out of a 2x4 with a table saw or bandsaw, which for me has proven over the years to be close to impossible, much safer too.

Two factors here,

1. Finding a flatsawn 2x to get this piece is almost impossible, (quartersawn and angle grain will split and cup) and on top of that the plywood factory has already done the job for you, they found the wood and did the work. The factory rotary skins a knot free log to get a perfect 1/8" skin for the A side and it is there waiting for you on your plywood.
2. When you try to resaw solid lumber, your blade will heat up and start wobbling and you will get a resawn piece of 3¼" junk 3/16" at the top and 1/16" at the bottom, or at least I do.

Ripping out the center of 3/8" plywood you are only cutting the cross grained layer of wood out and there is no pitch tension in plywood as solid wood is usually full of it, still though you need to take it slow and easy.

This is the procedure I will use to get the bending wood for the 1/5 scale open stringer, spiral, Loretto Staircase (Santa Fe NM Mystery Staircase) that I am going to build, the one that some say cannot be built by today's carpenters, but has been built many times, 3 times by me.
Although I am going to do something that I have been told

by several of the nation's top stairbuilders can't be done and that is to build a spiral staircase and have the spiral stringers blend into a 6 step straight stair that completes the climb and both stringers come out even at the top landing. Two of them have already figured out how I calculated and designed the stringers to do this by the emails we send each other. The carpenter that built the Loretto Stair didn't do this, but he should have. He definitely had the knowledge.

Now back to the featherboard.

I used an old miter gage that I had and placed the featherboard against the fence (at 60°) where I to the farthest point in I wanted it to go and drilled a 4¼/16th (17/64) hole through the fence of the gage and the 2x4. I then backed it up and drilled another hole the farthest point out I wanted it to go.

I used a screw in the miter fence guide bar (¾x3/8" bar) to hold it in place when using it as a featherboard clamp. The 1/8" hole won't hurt your table.

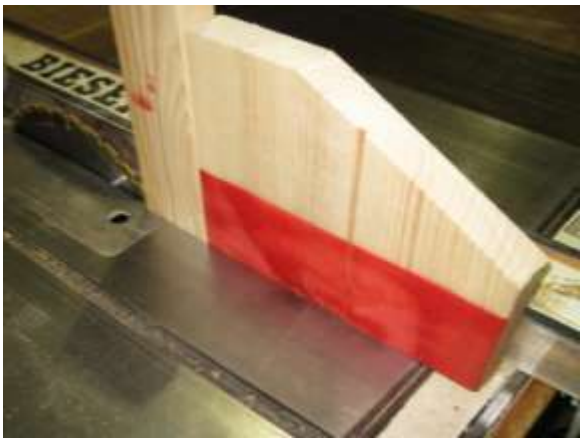
Then I took a jigsaw and made a 2½" slot in the featherboard.

I then, slowly cut the end of the featherboard at 30° on the miter saw and attached it with a ¼" bolt and handle out of a cordless hammer drill handle of which I had never used anyway.

This made a perfect clamp for the featherboard. I had to make a 1" plywood washer for the bolt was 1" to long but the washer gives me something to hold the glued bolt/washer with.

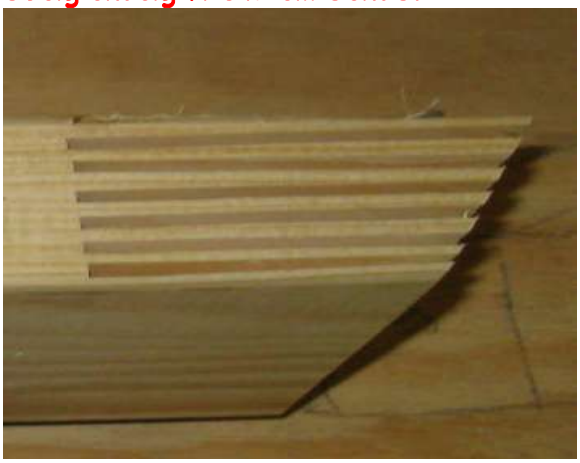
Now for something I need to show some of you, not all of you.

If you look close at the featherboard the kerfs I sawed, they are sawn straight through and not at an angle as they would be if I sawed them with the 2x4 laid down.



This is a push block made out of a 2x12x1'. I just sawed a 30° angle on one corner so it would be easier to grip. The red paint is how high this 12" blade will go, 3 7/8". **Use the blade lock.**
Keep your fingers out of the red area.

This is how we saw straight 1/8" dados in the end of a 2x4 to make 1/8"x4" wood feathers for a featherboard.
You can push a 2x4 through without a 2x12 pushblock but more than likely you will only try it once especially if you lose a couple of fingers doing it.
I am not a preacher of safety but I am one of the most avid carpenters you have ever met that preach proper procedure for using saws and this pushblock is one of them. **Teaching safety is nothing but teaching the proper procedure, but we do have some selected individuals that teach some poor and dangerous procedures and then call it a safety class. The table saw blade guard is one of them. If you have to have a table saw blade guard to protect you, stay away from all saws.**



This is what you will get if you saw your feathers correctly. Also you will get this procedure done and still have all your fingers and teeth.
In table saw procedures I tell of a carpenter trying to saw a ½x1½" dado in a 2x4 with a wobble dado blade, the blade threw the 2x4 10' through a double sheetrock wall. That is how much power a 3hp saw has. It would have more than likely killed him if it had hit him.
Never even buy a wobble dado let alone use one, it's not worth it. They are deadly dangerous. Flat blade dados are dangerous enough.

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