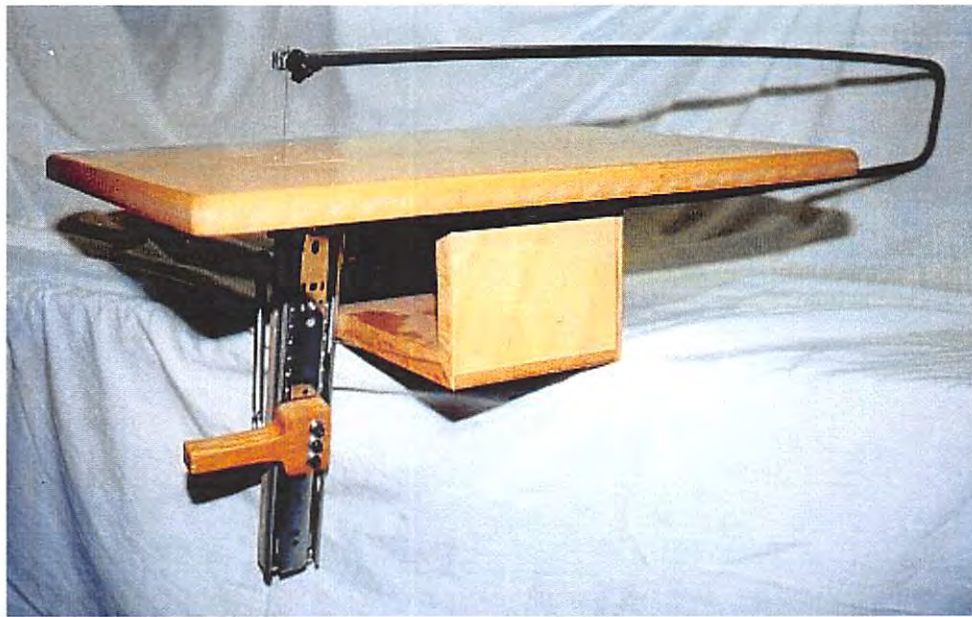


BUILD YOUR OWN HAND OPERATED SCROLL SAW

HAND OPERATED FOR FINE CONTROL



John Eifler - author
Dave Bilger - illustrations

GENERAL

POINTERS ABOUT THE SCROLL SAW.

CAUTION-----This table saw is meant to be clamped or otherwise fastened to a flat surface. If this is not done, the saw will more than likely lose balance and fall to the floor.

After securing the saw, install a blade in the following manner:

The hinge on the rear of the support arm under the table is placed to keep the saw in the up position so the blade can be easily installed. **Swing the hinge so that it is positioned under the saw frame.** I have made a great many pictures with a saw such as this and I will show you my methods which work very well for me.

Always tighten the blade in the bottom holder first and do not at any time remove it until it breaks or is replaced for a different blade. When the blade is loosened for insertion into a drilled hole, always work only on the top of the table and loosen the blade only at the top. I have excellent results with jeweler's blades as thin as 8/0 and use very brittle 6/0 blades with minimal breakage. If you use thicker blades, breakage is very rare with normal, proper methods. The blade is installed in the following manner:

1.- On the bottom, the blade is placed **between the metal washer and the flattened tubing frame** and it is positioned right **against the screw threads** and nearest to you.

2.- On the bottom, the blade should extend about to the bottom of the washer. When I install the blade, I put my finger at the washer bottom and let the blade hit it.

3.- The blade teeth must point downward and, believe me, should be on the rear for the best sawing results.

4.- The blade should be as perpendicular as possible from front to rear. From side to side it is set to the optimum 12 degrees from perpendicular which I find best for angle cutting most commercial veneers. You can change this angle by making a new guide for the rear of the blade, but the predetermined angle really does a good job. This saw has the capability of being changed to a perpendicular cut should you desire to do so.

5.- When you tighten the blade in the top fastener, you may want to learn how to adjust the tension by observing how far the blade end sticks out the top. Remember that too loose a blade will not make as true a cut and too much tightness can cause breakage. Of course the blade is once again **placed between the metal washer and the flattened tubing frame.**

I have found that 8/0 blades are rarely needed. I use one for only the most delicate cuts. Almost all work can be done very nicely with 6/0 blades unless one has a problem using a blade that thin. I had one classroom member who had to use 4/0 blades because of poor eyesight. He struggled while breaking 6/0 blades until he finally gave up in frustration and successfully used 4/0 blades. His was a unique case.

It is almost impossible for me to tell you what kind of sawing action you should use. On a very fine cut, you might use very short, delicate strokes and feed the workpiece in very gently. On a rough cut — like an overcut, you might work fast while using the full blade length. I think that for typical, careful cutting it is best to use about 2 or 3 strokes, maybe an inch long, per second. Remember that you do not push as hard on the workpiece as you would with a

motorized saw. Another thing that takes a little getting used to is the avoidance of pressure to either side. It is a good idea to occasionally quickly release your work and see if it snaps one way or the other.

I feel I do best when I sit a little to one side of the saw. I am including a photo to show how I position myself. Note the lamp above the saw - a great eye saver.



Hi! See how easy it is! Mount the saw on a table that is only a little above your knees.

A little lubrication on the bearings from time to time is recommended. A little waxing attention performed occasionally to the table top will help protect the surface and make cutting a little easier due to the workpiece sliding more freely. Use your favorite paste wax.

As I have already said, I have made a great many pictures with a saw such as this one. I conduct a Marquetry classroom that has been meeting twice every month since 1993 and this type of saw has been used by dozens of members. Happy sawing and I know with some practice you will have good results. Thank you.

John Angus Eifler.